

*NOTAM SUPERPONERE STUDUI*  
**The use of technical signs in the early  
Middle Ages**

*NOTAM SUPERPONERE STUDUI*  
**Het gebruik van technische tekens in de  
vroege Middeleeuwen**

(met een samenvatting in het Nederlands)

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יהי ביתך בית ועד לחכמים, והוי מתאבק בעפר רגליהם, והוי שותה בצמא את  
דבריהם

Let thy house be a meeting-house for the wise; and powder thyself in the dust of their  
feet; and drink their words with thirstiness.

Pirkei Avot 1:4



# TABLE OF CONTENTS

<i>Acknowledgements</i>	ix
<i>Abbreviations</i>	xii
<b>Introduction</b>	<b>1</b>
The subject of this dissertation: technical signs	4
Technical signs in context	7
Phenomena not studied by this dissertation	10
Sources for the study of technical signs	12
The chronological, spatial and language scope of this dissertation	14
The structure of this dissertation	16
<b>1. The use of technical signs in Antiquity</b>	<b>19</b>
The use of technical signs by scribes in the Graeco-Roman world	21
The scholarly use of signs in the Graeco-Roman world	26
Other communities of sign users in Antiquity	36
Rise of a Christian sign use: Origen, Jerome and Epiphanius of Salamis	39
Before the Middle Ages: use of the technical signs in the sixth century	46
Conclusion: ancient sign use as a source of <i>doxa</i> and <i>praxis</i> in the early medieval West	54
<b>2. The 21-sign treatise: inherited Classical <i>doxa</i> in the Latin West</b>	<b>59</b>
The 21-sign treatise before the Carolingian period	61
<i>The early medieval witnesses of the 21-sign treatise</i>	61
<i>The origin of the 21-sign treatise</i>	68
<i>The transmission of the 21-sign treatise before the Carolingian times</i>	75
The Carolingian and post-Carolingian descendants of the 21-sign treatise	80
<i>Carolingian variants of the sign treatise in the Liber Glossarum</i>	82
<i>Abbreviated sign treatises</i>	83
<i>Sign treatises preserved in England</i>	88
<i>Derivative sign treatises as a group</i>	92
Conclusion	94
<b>3. Transmission of other <i>doxa</i> with ancient roots in the Early Middle Ages</b>	<b>97</b>
Anonymous transmission of Patristic sign treatises in the Latin West	98
Anonymous sign treatises from the Beneventan area	102
Greek sign treatises	109
Conclusion: anonymization, abbreviation and list-like arrangement as a trend	114
<b>4. The emergence of new, medieval <i>doxa</i> and the revival of scholarly sign use in the Carolingian period</b>	<b>121</b>

Carolingian textual criticism of the Old Testament	122
Textual criticism applied to other texts	132
Critical assessment of doctrine in theological texts	139
Other evidence for the revival of sign use in the Carolingian period	145
Conclusion	148
<b>5. Instruction on technical signs in the Early Middle Ages: the case of <i>De notis sententiarum</i></b>	<b>153</b>
The evidence of the manuscripts containing <i>De notis sententiarum</i>	154
<i>The set of manuscripts examined</i>	155
<i>The separate transmission of book one of the Etymologiae</i>	157
<i>Paratextual additions to DNS</i>	160
<i>Innovations of the layout of DNS</i>	171
<i>'Minor' innovations to DNS</i>	174
<i>The innovations to DNS in perspective</i>	176
The place of technical signs in the teaching of grammar	179
<i>Technical signs in the ancient artes grammaticae</i>	180
<i>Technical signs and grammatica from Late Antiquity to Isidore of Seville</i>	182
<i>Technical signs in the Ars Isidori</i>	185
<i>Technical signs in Alcuin's De grammatica</i>	188
Conclusion	190
<b>6. Scribal sign use in the Latin West: from Late Antiquity until the end of the ninth century</b>	<b>195</b>
Scribal sign use in the Latin West from Late Antiquity to 800	197
<i>Omission signs</i>	198
<i>Quotation signs</i>	200
<i>Correction signs</i>	206
<i>Attention signs</i>	211
<i>Text-structuring and excerption signs</i>	214
<i>Conclusion</i>	217
Scribal sign use in pre-Carolingian and Carolingian Bavaria	221
<i>Dataset and methodology</i>	222
<i>Bavarian scribal culture in the eighth and the ninth centuries</i>	225
<i>Qualitative analysis of my dataset</i>	229
<i>Quantitative analysis of my dataset</i>	236
Conclusion: early medieval scribal <i>praxis</i> in perspective	251
<b>Conclusion</b>	<b>257</b>
<b>Appendices</b>	<b>265</b>

Appendix I: Overview of the most important technical signs	265
Appendix II: Overview of the testimonies concerning the technical signs	293
Appendix III: Sign treatises produced from the 1 <sup>st</sup> to the 15 <sup>th</sup> century	316
Appendix IV: Overview of manuscripts containing <i>De notis sententiarum</i>	353
Appendix V: Glosses and annotations to <i>De notis</i> in the manuscripts of the <i>Etymologiae</i>	380
Appendix VI: The distribution of technical signs in the early medieval manuscripts from Bavaria	387
Appendix VII: Samples of different technical signs from manuscripts in the Bayerische Staatsbibliothek	391
<i>Bibliography</i>	417
<i>Index of manuscripts</i>	455
<i>Nederlandse samenvatting</i>	465
<i>Curriculum vitae</i>	475



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## Abbreviations

BA	Biblioteca Ambrosiana
BAV	Biblioteca Apostolica Vaticana
Bib. Cas.	Biblioteca Casanatense
Bib. Naz.	Biblioteca Nazionale
BL	The British Library
BM	Bibliothèque municipale
BnF	Bibliothèque nationale de France
BSB	Bayersiche Staatsbibliothek
CCC	Corpus Christi College
CCCM	Corpus Christianorum. Continuatio medievalis
CCSL	Corpus Christianorum. Series latina
CSCO	Corpus Scriptorum Christianorum Orientalium
CSEL	Corpus Scriptorum Ecclesiasticorum Latinorum
HAB	Herzog August Bibliothek
MGH	Monumenta Germaniae Historica
ÖNB	Österreichische Nationalbibliothek
PG	Patrologia Graeca
PL	Patrologia Latina
PSI	Papiri della Società Italiana
UB	Universitätsbibliothek

## Introduction

My journey into the subject of this dissertation began in the margins of **Munich, BSB, Clm 6253**. This codex contains the first volume of Cassiodorus's *Expositio psalmorum* and was produced at Freising in the second quarter of the ninth century.<sup>1</sup> Like other exemplars of Cassiodorus's commentary on the Psalms, it includes as one of its prologues a list of thirteen indexing symbols referred to by Cassiodorus as *notae*.<sup>2</sup>

*Diversas notas more maiorum certis locis estimavimus affigendas. Has cum explanationibus suis subter adiunximus. Ut quidquid lector voluerit inquirere per similitudines earum sine aliqua difficultate debeat invenire.*<sup>3</sup>

Following the old custom, I decided to attach various signs to certain passages. I present them, together with their meanings, below, so that whatever [material] the reader would like to seek out, he shall find it with no difficulty thanks to their graphic form.

These distinct graphic signs can be, indeed, found in the margins of Clm 6253 and guide the eye of the user from topic to topic - dogmatic matters, rhetoric and dialectic, arithmetic, music, or astronomy. Cassiodorus never gave names to his *notae*. Rather, they have for the most part the form of sigla: they point to particular concepts by the virtue of being composed of the first letters of the Latin word for that concept. ET, for example, is used as a *nota* for *etymologiae*.

In the majority of the manuscripts of the *Expositio*, Cassiodorus's *notae* were duly copied by the main hands, sometimes carelessly, so that the *notae* seem to be missing or misplaced. However, Clm 6253 is different. Its Carolingian user made two marginal notes on folio 10r in order to comment on Cassiodorus's use of *notae*.<sup>4</sup> The first of these annotations is placed under a sign that looks like a combination of the Roman letters X and P, or the Greek Chi and Rho (Ϡ) and reads:

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<sup>1</sup> Bischoff, *Katalog I*, n. 3008; Bischoff, *Die süddeutschen Schreibschulen*, 1:108–9. Most recently, this manuscript was discussed in Bierbrauer, *Die vorkarolingischen und karolingischen Handschriften*, n. 56 and 57. The manuscript is digitized at: [http://daten.digital-sammlungen.de/bsb00047196/image\\_1](http://daten.digital-sammlungen.de/bsb00047196/image_1).

<sup>2</sup> See Adriaen, *Expositio Psalmorum*, 2.

<sup>3</sup> This prologue is discussed in greater detail in chapter 1 (see p. 47) and its full text can be found in Appendix III, item 7. Throughout this dissertation, I will not include the key Latin texts into the main body of the chapters, but direct my readers to the appendices.

<sup>4</sup> This manuscript page is digitized at: [http://daten.digital-sammlungen.de/bsb00047196/image\\_21](http://daten.digital-sammlungen.de/bsb00047196/image_21). I have discussed these and other annotations found in **Clm 6253** in a blog post, Steinová, 'Carolingian Critters III'; available at: <http://mittelalter.hypotheses.org/1316>.

*Crisimon. Haec sola ex voluntate uniuscuiusque ad aliquod notandum ponitur.*

Crisimon. This [sign] is placed solely on the basis of one's choice next to something of interest.<sup>5</sup>

Below, a different sign that resembles the Roman O and P, or the Greek Phi and Rho (ϕ), is annotated as:

*Biatro, id est frontis. Hec ubi aliquod obscuritatis est ob sollicitudinem ponitur.*

Biatro, that is φροντις. This [sign] is placed out of concern where there is something obscure.<sup>6</sup>

Interestingly, the two short glosses are not Cassiodorus's own definitions, even though these can be found only a few folia earlier in the same manuscript:

⌘	<i>hoc in dogmatibus ualde necessariis</i>
ϕ	<i>hoc in definitionibus</i>
⌘	this [symbol] for very important doctrines
ϕ	this [symbol] for definitions

The annotations attached to the two *notae* come from another important Latin text concerned with these signs – the *Etymologiae* of Isidore of Seville, a section known as *De notis sententiarum* ('On the signs of judgment', *Etym.* 1.21), in which twenty-six *notae* are depicted, named and described.<sup>7</sup> Even though the two sets of graphic signs – the first of Cassiodorus, the second of Isidore – are in both cases called *notae*, they have little in common in terms of function, origin and presentation. Yet, our anonymous Carolingian annotator conflated these texts on account of the appearance of the same graphic symbols, ⌘ and ϕ, in both of them. The graphic form of these signs, although it has no connection to the meanings allotted to them by Cassiodorus and Isidore, triggered an impulse towards identifying the two texts as referring to a single tradition and therefore suitable for blending.

Such syncretism of different traditions facilitated by cross-reading and by the omnipresent interaction with memory is one of the common, if not defining, traits of medieval intellectual culture. However, we may expect to see it happen in exegesis or in

<sup>5</sup> Compare with Barney, *Etymologiae*, 51.

<sup>6</sup> Compare with *Ibid.*

<sup>7</sup> See *Etym.* 1.21 in Lindsay, *Etymologiae*. The translation of this section is provided in Barney, *Etymologiae*, 50–51.

learned marginal commentaries rather than activated by a subject seemingly as marginal and pragmatic in character as these *notae*. We are not triggered by the same *notae* to associate them with an external cultural reference. Instead we tend to perceive them as isolated, trivial, *ad hoc* and unanchored in the wider intellectual environment, often overlooking them altogether when encountered in the manuscript margins, because they are absent from our own intellectual register and do not speak to us.<sup>8</sup> However, activities of the annotator of Clm 6253 reveal that in the Early Middle Ages *notae* evoked thought and discourse, be it only in the form of marginal annotations in this case.

These annotations served as a gateway to the world of Latin texts that discussed *notae*. Cassiodorus's prologue to the *Expositio psalmorum*, Isidore's *De notis sententiarum*, Augustine's and Jerome's many exegetical writings and letters referring to the textual criticism of the Old Testament, and many more. It also became clear to me that, just as in the case of many other subjects, early medieval readers and thinkers could, and did, use these *auctoritates* as a pool of material that could be brought together in marginal annotations, excerption and compilation, florilegia and topical compendia, in quotations and paraphrases. They also used older texts about *notae* as a model for their own writing on the subject and as a source of new, medieval practices of using *notae*. Moreover, behind this pool of written evidence lurked the larger and less well-explored pool of technical signs that can be found in the margins of the early medieval manuscripts.

Despite the richness of material, I was not able to find a single scholarly study on the use of these *notae* in the Early Middle Ages. The standard literature on the subject was written by scholars of Antiquity and, because of their chronological and generic focus, they suggested that *notae* were used only in Antiquity and only for Classical authors. Clearly, what I saw in manuscripts such as Clm 6253 contradicted this image and implied that *notae* continued to play a role in the intellectual culture of the Early Middle Ages. Thus, what started with two marginal notes in Clm 6253 led to a full-fledged examination of the early medieval Western practices of the use of, the discourse of and writing about what early medieval writers called *notae*, and what I shall refer to as technical signs.

In the following six chapters of this dissertation, I will combine various strains of evidence that suggest that technical signs not only continued to be used in the Latin West after the end of Antiquity, but that a revival of their use took place during the Carolingian

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<sup>8</sup> The above-mentioned list of *notae* and the marginal indexing symbols were omitted from Migne's edition of the *Expositio psalmorum*; see PL 70. While both the list and the indexing symbols are included in the more recent edition of Adriaen, they have been, once again, omitted from the digital version provided by the Brepols' Library of Latin Texts online database; see Adriaen, *Expositio Psalmorum*, 2. The Brepols' database is available at: <http://www.brepols.net/>.

period. Before that, however, I outline some general theoretical and methodological aspects of my study in this introductory chapter. In the first section of this introduction, I define technical signs as a category and examine their general properties. In the second section, I focus on the Latin term *nota* used to refer to technical signs, but also for several other phenomena, by the sources. Since I treat only technical signs in this dissertation, I explain how technical signs differ from these other *notae* and on which grounds I see them as a distinct class of objects. As technical signs are nevertheless a rather large category to examine systematically in a single dissertation, in section three of this introduction, I further specify which categories of technical signs I will deal with and why. In the fourth section, I discuss the types of sources we have for the technical signs, their limits and peculiarities and the methods of their analysis. In the fifth section, I describe the chronological and geographical scope of my dissertation, and finally, in section six, I outline the structure of my dissertation.

### **The subject of this dissertation: technical signs**

The term ‘technical sign’ is my modern rendering of one of the meanings of the Latin word *nota* (and its Greek counterpart *σημεῖον*). In the most general terms, technical signs can be defined as discrete, atextual, graphic symbols that are inserted next to the manuscript text to convey meta-information about this text.<sup>9</sup> The graphic symbols used may range from sigla, as in the case of Cassiodorus, schematized images of known objects, such as in the case of *asteriscus* (✱) resembling a star and *obelus* (†) resembling a dagger, or graphic symbols as simple as dots, crosses, slashes and swirls of all sizes and combinations. The meta-information provided by technical signs could concern anything from the state of the text, its language and style to its content, meaning and interpretation. The signs may be indexing signs, such as those used by Cassiodorus, *asterisci* and *obeli* that were devised by Origen in order to discern the passages of the Bible found only in certain manuscripts and not in others, or for that matter characteristic S-shaped flourishes that indicate the presence of quotations from the Bible in Carolingian manuscripts. Usually, annotators placed these signs in the margin, but they may alternate between the margin and the text area, or be placed consistently in the main text area.<sup>10</sup> Nevertheless, technical signs are not part of the

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<sup>9</sup> Compare with the definition of Isidore of Seville in *Etym.* 1.21.1: *Nota est figura propria in litterae modum posita, ad demonstrandam unamquamque verbi sententiarumque ac versuum rationem.*

<sup>10</sup> See for example Weber, ‘Le lettre grecque K’. When technical signs are inserted in the main text they are often highlighted by rubrication or other means, as, for example, in the revised Ambrosian Psalter discussed in chapter 4 (see p. 122).

text, but rather the paratext.<sup>11</sup> Even in cases where technical signs were intended as a part of the work, as in the case of Cassiodorus, the signs tend to have a less stable transmission history than the text.<sup>12</sup> They may be omitted or misplaced, but this does not decrease the readability of the text itself, although certain types of use facilitated by the signs may be lost as a result.

In their capacity as paratext, technical signs may be compared to glosses and diagrams; however, while glosses encode information by means of a text, and diagrams by means of an image, technical signs are symbols.<sup>13</sup> Even very simple graphic shapes, such as a set of dots or a cross, may convey complex, abstract information. The symbolic character of technical signs implies that their meaning cannot be deduced from their shape,<sup>14</sup> but is governed by convention shared by a certain community, be it a single individual, who may have used a particular sign only on one occasion or in an *ad hoc* manner, or a large, geographically wide-spread group that follows a particular tradition of sign use for many generations. The study of technical signs can never lead to the identification of a particular fixed meaning behind a particular graphic sign because such stable meanings do not exist. The only subject of study can be the conventions and the communities of users who stick to them.<sup>15</sup> Thus, meanings attached to particular graphic signs must be always grounded in a context provided by a particular convention or set of conventions and a community of sign users. As technical signs are symbols and as such require to be learned, their study also entails the study of patterns of dissemination of conventions and the forms of instruction that sustain them within communities.

From a theoretical perspective, technical signs behave like a spectrum. On the bottom end of this spectrum, they are an emergent phenomenon, that is, a cognitive task that is trivial enough to be independently thought of and executed by a number of agents without a shared cultural framework. Today, we, too, use technical signs in our daily tasks in the same manner, without possessing a specific culturally prescribed pattern of their use or written instructions. It is reasonable to assume that the majority of conventions of sign

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<sup>11</sup> The essential reading on the concept of paratext, or else all features that surround and interact with the text, is Genette, *Paratexts*.

<sup>12</sup> Jocelyn, 'The Annotations of M. Valerius Probus (II)', 153; Jocelyn, 'The Annotations of M. Valerius Probus, III', 466.

<sup>13</sup> I use this word in the standard semiotic sense, that is as a part of the triad icon-index-symbol devised by Charles S. Peirce; see Atkin, 'Peirce's Theory of Signs'.

<sup>14</sup> From the perspective of semiotics, Cassiodorus's *notae* are not symbols, but rather indices, because they are sigla. However, most of the *notae* that will be discussed in this dissertation are not siglaic and behave as symbols: the relationship between their graphic form and the meaning they convey is only governed by convention.

<sup>15</sup> Compare with Ildar Garipzanov's discussion of graphicacy; Garipzanov, 'The Rise of Graphicacy', 3.

use came into being as emergent phenomena.<sup>16</sup> The beginnings of the sign use are therefore obscure, certainly more than in the case of texts, for which an archetype can be often postulated and at least hypothetically situated with respect to time, space, and agents. In the case of many technical signs, it may prove futile to look for such archetypal conventions, but rather we should consider the likelihood that stable structures, such as can be discerned in the evidence, condensed from older practices.

Once a certain level of condensation of the practice is reached, we may speak of a communal convention, that is a convention perhaps originally devised by a single individual (or not) that was communicated to others, who accepted it. The extent to which such communal conventions thrived depended on the size of the community of users, their status as a community, and the medium they chose to communicate it (e.g. oral or written). We will see many examples of these mechanisms in the following chapters, in particular in chapters 1 and 6. As with the emergent practices, such a process of condensation into communal conventions happened multiple times independently and is often not tangible in the written or the manuscript evidence, albeit the very existence of this evidence presupposes that it had taken place.

Many conventions of sign use never developed beyond the stage of shared communal conventions. They were sustained by a particular community, which may have oscillated in size and importance, by means of pragmatic communication stimulated by the immediate needs. However, in many cases, such pragmatic communication developed into systematic instruction and this, in turn, may have developed further into a tradition, a discourse about technical signs that saw the past as relevant to the present conventions and as a yardstick to measure the identity of the community of its users. We will see this in particular in chapter 4 about the Carolingian revival of sign use in accordance with Patristic models. Some of the factors that may have pushed communities towards establishing traditions may have been the identity-formation of such communities (in cases when a particular convention helped to define a particular group), the need for systematization of instruction, for example because of the growth of a community, and the external pressure of extant oral and written traditions of other communities.

In some cases, discourses about signs eventually crystallize into text. Such written narratives can be positioned on the opposite side of the spectrum described here: they are the most sophisticated and articulate traces of sign use we possess, often involving elaborate discourse on the nature of technical signs, etymology of their names, or their

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<sup>16</sup> Compare with McNamee, *Sigla and Select Marginalia*, 7.

history. Frequently, they provide the most tangible clues to sign use, more accessible to analysis than the products of the other stages of the development of sign use, usually only patterns of sign use in the manuscript margins. Because of this, written traditions are ideal as an access point into the spectrum, as they presuppose the existence of the preceding stages of development which may be reconstructed with their aid.

The four stages that I described above – in this case they outline the development of the technical sign, but may be applicable also to other, similar practice-based phenomena – should provide only the basic theoretical framework for their understanding. Crucially, when using the term development, I do not mean to convey the notion that the stages in question are consecutive, are part of a linear or measurable progression, or that the development is teleological. The process did not cease at any time, but rather continues even today to generate new idiosyncratic conventions of sign use, some of which may eventually condense into more stable forms and then generate narratives about this use. Conventions that gain a certain momentum, moreover, tend to interact. Individuals may belong to several communities of users and engage in convention-switching or convention-blending, as will be shown in the following chapters. Such interaction in itself may provide the stimulus towards further condensation or towards the change of the medium of discourse, e.g. from oral to written.

The essential trait that determines where on the spectrum a particular convention should be placed is the degree of its stability. Stability is also the key to the study of technical signs, as only the most stable conventions are accessible by standard methodology – because they leave behind recurrent patterns in numbers that suffice to establish them as conventions, because written texts represent them as conventions, and because both patterns and texts allow us to situate these conventions geographically and chronologically, to ascribe them to certain agents and their culture. For these reasons, this dissertation will be concerned only with the most stable conventions of sign use that can be identified on the basis of the surviving evidence, although we should be aware that all of the evidence presupposes the existence of preceding stages of development, which cannot be effectively studied or described.

### **Technical signs in context**

As I mentioned at the beginning of the previous section, the sources I refer to in this dissertation uses the Latin term *nota* (or its Greek counterpart *σημεῖον*) to refer to what I termed ‘technical sign’. Although this word refers, indeed, in one of its restricted senses to

the technical signs as I define them, it was not used exclusively for them. It also denoted several related phenomena with similar traits, with which technical signs are related by virtue of this term. Likewise, it was used as a term for the general category of ‘graphic sign’, i.e. as a hypernym of ‘technical sign’, and even as a generic lexeme for ‘sign’.<sup>17</sup> I want to make several remarks about this terminology here because it helps to clarify what technical signs are and what they are not.

Ancient and medieval texts use the term *notae* to refer to a multitude of phenomena of the written culture: graphic symbols for letters<sup>18</sup> and numbers,<sup>19</sup> accents,<sup>20</sup> tachygraphy,<sup>21</sup> word abbreviations,<sup>22</sup> cryptography,<sup>23</sup> mnemotechnic cues,<sup>24</sup> and for musical notation.<sup>25</sup> In

<sup>17</sup> This is also the meaning of the only contemporary definition of the word *nota*, surviving in the eight-century epitome of a second-century work of Sextus Pompeius Festus, *De verborum significatu* (itself an epitome of the first-century lexicographic work of the same name by Verrius Flaccus): *Nota alias significat signum; ut in pecoribus, tabulis, libris, litterae singulae aut binae, alias ignominiam*; Müller, *Festi De verborum significatione*, 174. It may be compared with a definition from the other side of the chronological scale of Latin lexicography, the *Lexicon totius Latinitatis* of Egidio Forcellini published originally in 1768: *Itaque nota est signum, quod alicui rei apponitur, vel per se inest, dignoscendi causa, insigne, vestigium, indicium, χαρακτήρ, σύμβολον, σημεῖον, στίγμα* (It. *segno, contrassegno, bollo, marchio, marco, segnale*; Fr. *signe, marque, indice, indication*; Hisp. *signo, señal, índice, nota*; Germ. *das Merkmal, Kennzeichen*; Angl. *a mark, sign, note*); Forcellini, *Lexicon totius latinitatis*, 390–91. See also the definition of the verb *adnotare* provided by *De differentiis* 528: *Notare et adnotare. Notat vel locum quis vel personam vel noxiam, adnotat qui notae quid adicit*; Barwick, *Ars grammatica*, 399.

<sup>18</sup> Priscian, *Institutiones grammaticae* 1: *Hoc ergo interest inter elementa et literas, quod elementa proprie dicuntur ipsae pronuntiationes, notae autem earum literae*; Keil, ‘Priscian. Institutiones grammaticae’, 6. Similarly Gregory of Tours, *In gloria confessorum* 39: *Nam recolo gestum in infantia, cum pater meus ab infirmitate humoris podagrīci laboraret, et ardore febrim ac doloribus multis adtenuatus, lectulo decubaret, vidisse me in visu noctis personam dicentem mihi: "Legisti", ait, "librum Hiesu Navae?" Cui ego: "Nihil aliud litterarum praeter notas agnovi, in quorum nunc studio constrictus adfligor. Nam hic liber prorsus si sit ignoro"*; MGH SS *Rer. Merov.* 1.2, 322.

<sup>19</sup> Bede, *De temporum ratione* 1: *Sed haec Graecorum computo literisque facilius disci simul atque agi possunt, qui non, ut Latini, paucis iisdemque geminatis suis numeros solent exprimere litteris, verum toto alphabeti sui characterē in numerorum figuras expenso, tres qui plus sunt numeros notis singulis depingunt*; Jones, *De temporum ratione*, 2:272. This passage was taken over by Hrabanus Maurus, *De computo* 1.7: *Discipulus. Quid de Graecorum computo ais, quis ut audiri numeros propriis litteris denotant? Magister. Verum ut asseris ita est: cum toto alphabeti sui characterē in numerorum figuras expenso (tres qui plus sunt) numeros notis singulis depingunt*; Stevens, *Liber de computo*, 213.

<sup>20</sup> Donatus, *Ars maior* 5: *Acutus accentus est nota per obliquum ascendens in dexteram partem, gravis nota a summo in dexteram partem descendens, circumflexus nota de acuto et gravi facta*. Keil, ‘Donati Ars grammatica’, 371.

<sup>21</sup> Isidore, *Etymologiae* 1.22.1: *Vulgares notas Ennius primus mille et centum invenit. Notarum usus erat ut, quidquid pronuntiatione aut [in] iudiciis diceretur, librarii scriberent complures simul astantes, divisim inter se partibus, quot quisque verba et quo ordine exciperet*; Lindsay, *Etymologiae*. Similarly, Rimbart, *Vita Anskarii* 35: *Porro ad devotionem sibi in Dei amore acuendam quam studiosus fuerit, testantur codices magni apud nos, quos ipse propria manu per notas conscripsit*; MGH SS *rer. Germ.* 55, 67. See also Teitler, *Notarii and Exceptores*.

<sup>22</sup> Isidore, *Etymologiae* 1.23.1-2: *Quaedam autem litterae in libris iuris verborum suorum notae sunt, quo scriptio celeris breviorque fiat ... Has iuris notas notarii imperatores a codicibus legum abolendas sanxerunt, quia multos per haec callidi ingenio ignorantes decipiebant*; Lindsay, *Etymologiae*. Isidore may have taken his information from a text similar to the list of *notae iuris* preserved under the name of Valerius Probus: *Est etiam circa perscribendas vel panicioribus litteris notandas voces studium necessarium ... Ad quas notationes publicas accedit etiam studiosorum voluntas; et unusquisque familiares sibi notas pro voluntate signaret, quas comprehendere infinitum est*; Mommsen, ‘Notarum laterculi’, 271.

<sup>23</sup> Isidore, *Etymologiae* 1.25.1: *Notas etiam litterarum inter se veteres faciebant, ut quidquid occulte invicem per scripturas significare vellent, mutue scriberent*; Lindsay, *Etymologiae*. Many cryptographic notices in manuscripts use the word *nota* to describe the secret scripts and codes; see their overview in Bischoff, ‘Übersicht über Die Geheimschriften’.

<sup>24</sup> Quintilian, *Institutio oratoria* 11.2.28: *Non est inutile his, quae difficiliter haereant, aliquas adponere notas, quarum recordatio commoneat et quasi excitet memoriam*; Radermacher and Buchheit, *M. Fabi Quintiliani Institutionis oratoriae*, 2:320. Similarly in Martianus Capella, *De nuptiis Mercurii et Philologiae* 5: *Sed, ut diximus, magnam exercitationem res laborem que conquirunt, in qua illud observari compertum est solere, ut scribamus ipsi quae facile volumus retinere; deinde ut, si*

the early medieval Latin West, two other types of graphic signs were particularly closely linked with technical signs (almost exclusively called only *notae*) – Tironian shorthand (*notae Tironianae* but also just *notae*) and legal abbreviations (*notae Probianae*, *notae Iulii Caesaris*, *notae iuris* but also just *notae*). In Isidore's *Etymologiae*, they are discussed side by side in the same *capitulum* entitled *De notis*.<sup>26</sup> All three categories of *notae*, moreover, were a subject of a specialized technical literature that had a form of lists of signs with their explanations.<sup>27</sup> These lists and similar texts about various *notae* were frequently transmitted together.<sup>28</sup> When early medieval texts refer to *notae*, it is sometimes unclear, which of the three they mean, or whether they refer to all three phenomena as a single group or, perhaps, use the general sense of 'graphic signs'.<sup>29</sup> In other cases, a graphic sign for one type of *nota* was used in the function of another, because they seem to be frequently associated by their medieval users. For example, we will see that some of the Tironian notes were used as technical signs, no longer functioning as shorthand writing, but rather attaining an abstract meaning that was no longer related to their original function.

Technical signs are therefore not necessarily defined by their graphic form, but rather by their function. For example, even though the letter R and a correction sign known as *require* (which is discussed in greater detail in p. 206) may have the same graphic form (namely R), they do not have the same function. Interestingly, many phenomena denoted by the term *notae* represent a sound or may be rendered as written language (including Tironian notes and legal abbreviations), but not technical signs, which usually do not

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*longiora fuerint, quae sunt ediscenda, divisa per partes facilius inhaerescant; tum apponere notas rebus singulis oportebit his, quae volumus maxime retinere;* Willis, *Martianus Capella*, 190.

<sup>25</sup> Quintilian, *Institutio oratoria* 1.12.14: *Nam nec ego consumi studentem in his artibus volo: nec moduletur aut musicis notis cantica excipiat, nec utique ad minutissima usque geometriae opera descendat*, Radermacher and Buchheit, *M. Fabi Quintiliani Institutionis oratoriae libri XII*, 1:69. See also Bautier-Regnier, 'Notes de Lexicographie Musicale'; and Bower, 'Sonus, Vox, Chorda, Nota'.

<sup>26</sup> If we follow the modern division of Lindsay, *De notis sententiarum* is section 21 (technical signs), *De notis vulgaribus* section 22 (tachygraphy) and *De notis iuridicis* section 23 (legal abbreviations). Three other sections are also included in this *capitulum*: *De notis militaribus* (24, technical signs used in military rosters), *De notis litterarum* (25, cryptography), and *De notis digitorum* (26, sign language). I discuss this chapter and its role in the Early Middle Ages in chapter 5.

<sup>27</sup> In the case of Tironian notes, these were the *Commentarii notarum Tironianum*, which are discussed in Ganz, 'On the History of Tironian Notes'. A manuscript of the *Commentarii*, **Paris, BnF, Lat. 8779** (9<sup>th</sup> century, 3/4, Reims), can be seen at: <http://gallica.bnf.fr/ark:/12148/brv1b84267924/f16.item>. The *Commentarii* have been used as a basis for Ulrich Kopp's *Lexicon Tironianum*; Kopp, *Lexicon Tironianum*. In the case of legal and other abbreviation symbols, the specialized technical literature had the form of lists of *notae iuris*, which have been edited by Theodor Mommsen as Mommsen, 'Notarum laterculi'. An example of such a list can be found in **Paris, BnF, Lat. 7530** (779-799, Monte Cassino), digitized at: <http://gallica.bnf.fr/ark:/12148/brv1b84900617/f292.item>. Technical signs have their own, distinct lists which are analyzed in chapters 2 and 3, and presented in Appendix III.

<sup>28</sup> I discuss this phenomenon in particular in chapter 3, when I describe the Monte Cassino sign florilegium, the most extensive medieval collection about *notae* (see p. 100).

<sup>29</sup> The most obvious and tricky text in this respect is the *Admonitio generalis* (789). I discuss the use of *notae* in section 70 (olim 72) of the *Admonitio* in my article; Steinová, 'Psalmos, Notas, Cantus'.

correspond to sound, word, phrase or statement, but often serve as abstract operators. Sometimes, the graphic form of a technical sign informs us about its origin or history. At least some technical signs that have a siglaic form, i.e. their graphic forms are letters or combinations of letters, originated from words that were first abbreviated and only later became sigla.<sup>30</sup> In their most reduced form, sigla no longer sustain their link with the words they were derived from, but rather have the properties of symbols, because those who used them were no longer aware of their original reference, or because it did not play a role in their particular usage.<sup>31</sup>

### Phenomena not studied by this dissertation

Technical signs are not the only paratextual feature that can be observed in medieval manuscripts and involves *notae* in their broad medieval meaning. The same text that accommodates technical signs may also contain accents and punctuation, may be divided by means of chapter headings and numbers, may be equipped with source marks that identify quotations from the Bible and Church Fathers, or by signs that divide it into a dialogue between a *magister* and a *discipulus*.<sup>32</sup> It may likewise include *lectio* marks indicating which sections were utilized in the liturgy, scansion marks for reading poetry, construe marks for clarifying the grammar and syntax, etc. These other signs have a similar relationship to the text as technical signs – they operate on a principle of symbolic reference, can be removed without damaging the integrity of the text, enhance its usability in some way or another; and are defined by conventions and communities of users. However, I will not discuss these phenomena in my dissertation, even though at least some may be considered a type of technical signs (e.g. source and *lectio* marks).<sup>33</sup> My primary reasons are pragmatic: my dissertation is already thick and my time is up, the subject is too complex, and I needed a stronger focus, to wit a smaller set of more specific signs. My

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<sup>30</sup> An excellent example is the Greek term ὠραῖον ('well-put, good point'), which appears in ancient papyri first as a complete word, then as an abbreviation ὠρ and later as a technical sign Ϝ or ϝ. I discuss this sign in chapter 1 (see p. 35).

<sup>31</sup> A good example of this development is the technical sign χρῆσιμον (Gr. 'useful', rendered into Latin as *chresimon*), which had the form of a chi-rho siglum (Ϟ). It was used in the Latin West with no indication that its users knew Greek or had awareness it is a Greek siglum. I discuss this sign in chapters 1 and 6 (see pp. 22 and 201).

<sup>32</sup> For the latter, see Traube, *Einleitung in die lateinische Philologie*, 99–100.

<sup>33</sup> At least some of these phenomena were already studied. Malcolm Parkes has written a monograph on accents (*accentus*), punctuation (*positurae*) and other text features that facilitate reading and/or performance and are collectively known as reading aids; Parkes, *Pause and Effect*. Parkes also treats technical signs, albeit only casually. Source marks, as used by Bede, have been studied by Max Laistner and Michael Gorman; Laistner, 'Source-Marks in Bede Manuscripts'; and Gorman, 'Source Marks'. Signs dividing text into a dialogue have been briefly treated in Berschin, *Griechisch-Lateinisch Mittelalter*, 125. Some information about early medieval manuscripts containing *lectio* signs can be found in Ganz, 'Carolingian Bibles', 326–37.

guiding principle as to which technical signs I will treat systematically in this dissertation was their presence in the most important written sources devoted to technical signs, such as the list of *notae sententiarum* contained in the *Etymologiae*.

Isidore's twenty-six *notae* described in *De notis sententiarum* (*Etym.* 1.21.2-27) can be classified into several functional categories: a) **critical signs**, i.e. technical signs used for textual criticism (e.g. *obelus*, *Etym.* 1.21.3); b) signs that were used in the process of the emendation of text and that I will refer to as **correction signs** (e.g. *cryphia*, *Etym.* 1.21.10); c) **attention signs** that indicate passages of interest (e.g. *chresimon*, *Etym.* 1.21.22); d) **quotation signs** that indicate presence of quoted material (e.g. *diple*, *Etym.* 1.21.13); e) **omission signs** that indicate where something is missing (and sometimes where the missing words or passage can be found, e.g. *asteriscus*, *Etym.* 1.21.2); f) **text-structuring signs** that divide a longer section into smaller units or indicate important structural elements such as beginnings and ends (e.g. *coronis*, *Etym.* 1.21.26); and g) **excerption signs** that indicate which passage or passages should be extracted from the text (e.g. *paragraphus* and *positura*, *Etym.* 1.21.8-9). These seven categories feature prominently not only in Isidore but also in other texts about technical signs, as will be shown in chapters 2 and 3. Likewise, these categories encompass the most frequently occurring technical signs that appear in the early medieval manuscripts evidence and that are analyzed in chapter 6. Thus, there are good grounds to consider the seven functional categories of technical signs encompassed by Isidore of Seville as governing. Throughout my dissertation, I will refer to them with names I have given them here. I will also pay attention to **indexing signs** as an eighth functional category because we possess important written sources referring to them, for example the *Expositio psalmorum* of Cassiodorus, which I referred to above. I will not treat accent marks and punctuation, nor source marks, signs for dividing the text into a dialogic format and *lectio* marks, although I may refer to them occasionally.

Only one type of *notae* that can be connected with technical signs has not been mentioned so far: *signes de renvoi* or tie-marks. Isidore includes them in *De notis sententiarum* (*Etym.* 1.21.28); however, they differ from technical signs and other *notae* mentioned so far, as their graphic shape itself does not convey a message. Their purpose is to connect two places on the page – one in the main text window and the other in the margin – by means of having a particular shape, not because this shape has a meaning. This is best evident from the fact that *signes de renvoi* often take the form of other *notae* – letters of various alphabets, runes, musical notation, Tironian notes and technical signs – without taking over

their meaning.<sup>34</sup> While some technical signs occur more frequently as *signes de renvoi* than others, especially omission and correction signs which are naturally adapt for such use given their role in the *emendatio*, in their capacity as *signes de renvoi* these technical signs lose their meaning. Even though it could be argued that their referencing function itself makes them a kind of technical signs, I will leave them aside in this dissertation.

### Sources for the study of technical signs

We possess principally two types of sources that inform us about technical signs. The first of these are what I will term **written evidence**, that is texts that describe, depict and discuss technical signs, and that reflect pragmatic communication, instruction and narrative traditions concerning them. Such sources are essential for understanding the discourse pertaining to this subject, or what I will term *doxa*. They provide the key for identifying individual signs, informing us not only about their meanings but also about their names. In some cases, written sources also inform us about the origin of signs, the context of their use, which genres or texts they were used in, or about notable historical users.

The second, more substantial type of evidence are manuscripts that contain technical signs in their margins or text window and that I will refer to as **manuscript evidence**. Such manuscripts are an essential evidence for how technical signs were used, or what I will refer to as *praxis*. Manuscript evidence informs us about when and where particular signs were common, whether differences existed between regions, periods, and communities, or between genres, authors, and texts. They also provide us with the data that can be compared with the written sources. In the ideal situation, the two would complement each other and provide us with a single, coherent picture of the phenomenon.

In reality, however, *doxa* and *praxis* do not necessarily refer one to another and do not add up to a single image. In the first place, this has to do with the fact that these two activities, discourse and practice, do not necessarily belong to the same stages of development of sign use. Some conventions, for example, never left a trace in the written evidence. Moreover, discourse and practice tended to leave behind distinct traces: the use of signs results in manuscript annotations, while discourse about them leads to a text. These two types of evidence have inherent limits and characteristics. Manuscript annotations do not tell us how particular signs were called, who put them in, for which

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<sup>34</sup> See specifically Humphrey, *De institutione arithmetica*, 6 and 232–37; Shiel, ‘A Set of Reference Signs’, 335. To my knowledge, no other study of the early medieval *signes de renvoi* has been produced so far, although *signes de renvoi* are likewise governed by communal conventions and, thus, could shed light on the cultural context in which manuscripts were produced and annotated.

reason, and with which function. We can attempt to discern these from the patterns of their use, but this is not always possible, and the danger of over-interpretation is lurking large. Written evidence, by contrast, may be incomplete, corrupted and elliptic. In some cases, texts about technical signs offer clues about the texts and contexts in which *notae* were used; however, more often, they are silent on these matters. They do not even tell us whether certain *notae* were particular to a single user or used by many, not to mention that many texts about technical signs are compilations drawing on older material, mixing information from various sources without any explicit indication of the fact. As a result, some texts list the same graphic symbol several times with different descriptions, or contain different symbols described as having the same function.

There are more reasons for the fact that the two types of evidence are not always complementary. In chapters 2 and 3, for example, I will show that a substantial part of texts about *notae* are transmitted in encyclopedias, miscellanies, and excerpt collections without a direct link to *praxis*. It is difficult to see what purpose they served or, indeed, had served before they were included in these depositories of inherited knowledge. Furthermore, as will be shown several times throughout my dissertation, some of the most well-known and wide-spread texts about *notae* describe technical signs which were not used, which could not be used as they were described, or which clearly resulted from an error or misunderstanding. Anyone who would be familiar with their actual use would quickly realize the inaccuracy of these texts, but it seems that those who copied them were oblivious to it, as if they had little knowledge of *praxis*. Similarly, many of the commonly used technical signs known from the manuscript evidence do not feature at all in the written evidence. As will be shown in the following chapters, it seems that those who were responsible for writing down the *doxa* and for realizing the *praxis* were not the same communities of sign users and their ideas about what technical signs were and how to engage with them were different.

Because of their different character, the two categories of evidence need to be handled by different methodologies. Written evidence (i.e., text) is best analyzed with philological methods; manuscripts evidence (i.e., signs), being atextual, with the methods of paleography and codicology. This creates another disparity in our understanding of the evidence, as each of these methodologies carries its own interpretative framework and these are not necessarily compatible. Those who have studied what I classify as written evidence tended to present the history of technical signs as a narrative, since the sources themselves are narratives, too. They frequently sought to reconstruct the past by telling a

story that has a recognizable pattern with beginning, end, plot, actors and a setting. Even if they have paid some attention to the manuscript evidence, this often meant that they hand-picked particular manuscripts that exemplified what had been stated by the written sources.

Examination of what I termed manuscript evidence does not necessarily support a narrative perspective. Manuscript evidence may obscure by its patterned character the invention of or breaks in a particular convention, especially if these should be credited to individuals. Even though all manuscripts were made by individuals working in particular locations and at particular moments and reflect specific contexts of production, the examination of their annotations seldom reveals these particularities. Rather, it tends to present us with more general patterns, such as regional and temporal trends, or activities of many anonymous agents. Manuscript evidence in general is an excellent source to establish features that are recurrent and shared, rather than those that are particular and unique, and. When those who examined marginalia in manuscripts turned to written evidence, it was usually to seek a key to interpret these patterns, not always with a good understanding of the nature of the written evidence and its relationship to *praxis*.

I will treat this issue in greater detail in chapter 1 (see p. 19), in which I discuss previous scholarship on technical signs. Here I only want to mention that for several reasons, and in particular due to disciplinary training, the studies that modern scholars have produced about technical signs usually adopt one or the other perspective: they have either focused on *doxa* or on *praxis*. This is, naturally, a legitimate manner of examining technical signs, but it must always be accompanied by the acknowledgment that it is based on only one type of evidence and that it is, therefore, incomplete. I, too, could have written a dissertation focusing only on the written or on the manuscript evidence. Alternatively, I could write two studies, one for each type of evidence, which could be then laid side by side on a desk, and would have little in common, or even propose contradictory hypotheses about the same material. Precisely for this reason, I chose to incorporate both categories of evidence into my research. One of the goals of my dissertation is to harmonize both perspectives.

### **The chronological, spatial and language scope of this dissertation**

The phenomenon of using symbols, rather than texts or images, for the annotation of a written text has not been restricted to only one historical period, geographical area or cultural context. However, as my field of expertise is the Latin Early Middle Ages, and specifically the Carolingian period, my dissertation will be concerned primarily with the

developments that took place between the seventh and the first half of the eleventh century in the environment of Latin literary culture in Western Europe. Because these developments did not happen in isolation from parallel developments in neighbouring language cultures and geographical regions, and were not disconnected from developments before this period and after, I will also pay attention to these other contexts of sign use, but only as far as they relate to the early medieval situation. For these reasons, too, chapter 1 is devoted entirely to the use of technical signs in Classical and Late Antiquity, as the early medieval *doxa* and *praxis* were heavily indebted to the older discourse and practices. This chapter embraces developments in both Greek- and Latin-speaking worlds from roughly the fifth century BCE to the end of the sixth century. The delineating points are on the one hand the lifetime of Cassiodorus (d. after 580), the last author writing about technical signs whom I classify as late antique, and on the other the lifetime of Isidore of Seville (d. 636), the first author writing about technical signs whom I consider medieval.

From chapter 2 onwards, I focus on the developments of *doxa* and *praxis* in the Early Middle Ages proper from the lifetime of Isidore of Seville up to the lifetime of Papias (fl. 1040s-60s). The choice to set the chronological end point of my study into the mid-eleventh century rather than to the more commonly used threshold at the end of the tenth century is that, as will be demonstrated in several of my chapters, the particular conventions and trends in sign use that have been established in the Early Middle Ages, and specifically in the Carolingian period, can be traced in both categories of evidence until this point. Just as Isidore is an ideal protagonist to start my investigation, Papias is an excellent person to end with, because he heralds the changes in Latin intellectual culture that marked a departure from earlier traditions towards what is known as the Renaissance of the twelfth century. I am aware of the fact that technical signs did not cease to be used after Papias. My chief reasons not to discuss them are practical: I lack expertise and need to limit my dissertation chronologically. I will, nevertheless, refer to the development in the Latin culture after the mid-eleventh century in my conclusion.

Within my early medieval scope, this dissertation is concerned mostly with the Carolingian context, by which I mean not only a particular period from roughly the second half of the eighth century to the end of the ninth, but also a particular area of Europe that was under Carolingian intellectual influence and in which a particular script, the Caroline minuscule, was used. Although I will mention developments in several other cultural settings, such as in Ireland, Anglo-Saxon England, Visigothic Spain, Beneventan Italy, and

also in the Byzantine East, these will be discussed only to exemplify particular trends and in connection with the Carolingian developments, rather than in a systematic manner.

Lastly, I need to add that the written sources that I examined are primarily in Latin, and the manuscripts I examined are almost entirely also in Latin. To a lesser extent, I also attempted to account for Greek written evidence, in particular for the pre-medieval period, as it had a direct bearing on the early medieval Latin *doxa*. Among the written evidence discussed in this dissertation are also texts composed in Syriac, Armenian, Anglo-Saxon and Old Irish, and one document that was produced in the Gothic language environment. Again, they are invoked only when they relate to the developments in the Latin language environment.

### **The structure of this dissertation**

My dissertation is divided into an introduction, six chapters, and a conclusion. Three of these chapters, numbers two to four, are concerned specifically with written evidence, and with the manuscript evidence that can be directly linked with this written evidence. Written evidence is also discussed in chapter one, but in this chapter I also devote extensive attention to manuscript evidence. Chapter six is entirely devoted to manuscripts evidence, in particular to that evidence that is not reflected in written evidence of the same period. It, thus, provides a useful complement to chapters two to four which cover roughly the same period. Chapter five is different because it does not discuss either written or manuscript evidence directly, but rather investigates the transmission history and possible uses of the main medieval source for knowledge of the signs.

In the first chapter, I examine the use of technical signs in Classical and Late Antiquity. To provide an overview of sign use in this period, especially one helpful for understanding the medieval development, I will describe the ancient professional groups that engaged in the use of technical signs. As I will show, two of these groups can be identified as scholarly sign users responsible for the emergence of the oldest written traditions about technical signs. I will discuss the situation in the sixth century in greater detail to assess to what extent professional groups that came into being already in the Hellenistic period and the two groups engaged in the production of written *doxa* were still active in that century, which marks the end of Antiquity and the beginning of the Middle Ages.

Chapter two serves as a bridge between Antiquity and the Early Middle Ages. It is devoted to the fate of *doxa* that came into being in Antiquity, specifically to a technical list

of signs whose origins go back to the first centuries of the common era, which crystallized in its surviving form in Late Antiquity, and which eventually gained prominence among Carolingian thinkers in the ninth century. This technical list left more traces in the early medieval Latin written evidence than any other piece of *doxa* with ancient roots. As such, it provides a good case to study the transmission of ideas about technical signs between Antiquity and the Early Middle Ages, and about the impact these ideas had on the discourse in Carolingian times.

Chapter three is devoted to other texts about technical signs of ancient origin that were circulating in the Early Middle Ages, not only those that were known in the Carolingian area, but also those that were locally transmitted in other regions, such as in the Greek-speaking environment of Byzantium or in southern Italy. In this chapter, I also discuss the changes that affected the *doxa* with the roots in Antiquity in the course of the Early Middle Ages and their significance for understanding and interpreting this *doxa*.

In chapter four, I treat the ‘new’, Carolingian *doxa* that came into being in the course of the late eighth and the ninth centuries. Unlike the ‘old’ *doxa*, which cannot be directly linked with medieval *praxis*, this *doxa* commonly survives in technical prologues to Carolingian manuscripts that contain technical signs. Just like the ‘old’ *doxa*, the ‘new’ *doxa* reflects the activities of a professional group that can be described as scholars. As will be shown, the appearance of these new written traditions can be anchored in the new intellectual trends of the Carolingian Renaissance.

Since it will be shown in chapters two and four that *De notis sententiarum*, the list of technical signs included by Isidore of Seville in his encyclopedia, was one of the most important sources of information about technical signs in the Carolingian period, chapter five is devoted to the study of the reception of this text. It will be evident from this examination that, for the first time in their history, technical signs were studied in the Carolingian classrooms.

Chapter six is devoted to the early medieval *praxis*. It is divided into two sections. The first scans the manuscript evidence up to 800 in order to connect the manuscript evidence described in chapter one with the second section of chapter six. In the second, I present the results of my examination of over 150 early medieval manuscripts from Bavaria preserved in the Bayerische Staatsbibliothek that may be considered as examples of the Carolingian *praxis*. The picture they present allows for comparison with the ancient *praxis* discussed in chapter one, with the *doxa* presented in chapters two to four, and also with the conclusions of chapter five about the study of technical signs in the classroom.



# Chapter 1

## The use of technical signs in Antiquity

The study of the use of technical signs in the early medieval West must begin with the use of technical signs in Antiquity. The chief reason for this is because the early medieval practice and discourse did not emerge spontaneously, but, like many other aspects of medieval written culture, were a continuation of practices and discourses that began in Antiquity. Moreover, we will see that the medieval sign users resemble their ancient predecessors and that they operate in book cultures with certain similar features. Observations about the one are thus potentially useful for filling the gaps in our understanding of the other. Last but not least, the study of medieval technical signs must start from the study of ancient technical signs simply because most of the modern research on the subject of technical signs has been concerned with Antiquity. It is impossible to account for previous scholarship without taking into account that on Antiquity.

Technical signs in Antiquity have been the domain of scholars from two disciplines with different approaches and objectives: Classicists and papyrologists. Classical scholars took written text as their main point of departure, i.e., they focused primarily on what I termed *doxa*. Following ancient scholia to Homer, Classicists looked for traces of *praxis* that would correspond to this *doxa*.<sup>35</sup> With each new discovery of papyri, the list of manuscripts that supported this view has been growing; however, it also became clear that they represent only a small segment of the manuscript evidence. Because this perspective departed from *doxa*, which had been produced by and for only the highest literate classes such as scholars and upper-class learned readers, Classicists were keen to stress the scholarly character of the signs and their coherence with written *doxa*. With this, however, they overlooked or even suppressed evidence of non-scholarly sign users and of the *praxis*. As a result, the findings of the Classicists cannot be applied to the majority of the manuscripts from the period, nor do they accurately reflect the general situation in Antiquity.<sup>36</sup>

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<sup>35</sup> If not the first then certainly the most important stimulus for such a quest to find technical signs in Homer was the publication of editions of Homeric scholia by Dindorf and Maass; see Dindorf, *Scholia Graeca in Homeri Odysseam*; and Dindorf and Maass, *Scholia Graeca in Homeri Iliadem*. In the twentieth century, further scholia containing information about signs present in Homer have been edited by Hartmut Erbse; Erbse, *Scholia Graeca in Homeri Iliadem (scholia vetera)*.

<sup>36</sup> This Classicists' viewpoint is enshrined in both entries on 'critical signs' in *Panly* and *Neue Panly*; Gudeman, 'Kritische Zeichen'; and more recently Montanari, 'Kritische Zeichen'. It is also rather characteristic of major monographs on ancient scholarship such as Pfeiffer, *History of Classical Scholarship*. and Dickey, *Ancient Greek Scholarship*.

On the other hand, papyrologists have examined signs present in manuscript margins in the process of describing and analyzing the features of the ancient book, i.e., they focused on what I termed *praxis*. They paid attention to those signs which were used frequently, regularly, which had a clear function, and which could be tied to aspects of manuscript production such as copying and correction. There was, however, little that they could say about signs that were used in a non-standard fashion, appeared only in a single manuscript, or that were absent altogether from the manuscript evidence and known via *doxa* only. As a result, their studies have focused on the work of ancient scribes and general trends in the development of the ancient book. Their viewpoint stressed the patterns that can help us understand the written culture in Antiquity at large rather than treating individuals, whose impact on this culture may have been limited or which did not leave a trace in the extant manuscript evidence.<sup>37</sup>

In this chapter, I will aim at bringing these two perspectives together. I will examine the evidence gathered by both Classicists and papyrologists in order to distinguish and describe various communities of sign users in Antiquity. Earlier scholarship has already been concerned with two communities that I will term – for the sake of simplicity – scholars and scribes, but several other groups represented less prominently by the evidence will also be taken into account. All these communities share one feature, namely that their stable core was constituted by professional practitioners, i.e., those who used technical signs for tasks particular to their profession and for tasks that arose from a particular, professional engagement with the written text. Some of these professional groups are poorly attested in ancient papyri, but their activities can be substantiated on the basis of written evidence. Others left behind no description of their practices and can be identified only on the basis of the traces they left in the manuscript margins. Thus, my examination pays attention both to the evidence of *doxa* and of *praxis*.

In the first two sections of this chapter, I will discuss the use of technical signs by professional scribes and scholars respectively. In section three, I will identify two other professional groups of signs users and discuss the traces they left behind in the written and manuscript evidence: students of law and philosophy. In section four, I discuss the rise of Christian sign users as a professional community in the third century. In section five, finally, I will take stock of the situation in the sixth century, which may be considered either the last century of Antiquity or the first century of the Middle Ages. I will examine how the

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<sup>37</sup> The papyrologists' viewpoint is best exemplified by Eric Turner, for example in Turner, *Greek Papyri*; Turner, *Greek Manuscripts of the Ancient World*. It is also rather characteristic of various paleographic handbooks such as Gardthausen, *Griechische Palaeographie*. and Lindsay, *Palaeographia Latina*.

different ancient professional groups of sign users fared and how their fortunes may have affected which kinds of *doxa* and *praxis* were formative for the Early Middle Ages in the Latin West. Throughout this chapter, I refer to two appendices: Appendix II and Appendix III.

### The use of technical signs by scribes in the Graeco-Roman world

As I explained in the introduction, the earliest use of technical signs was rooted in the pragmatic needs of those who produced and used written text, and was originally not normative or regulated, but rather idiosyncratic or governed by loose cultural conventions (see p. 5).<sup>38</sup> Scholars who have examined large corpora of manuscript material from Antiquity emphasize that the majority of signs that can be found in them are of this kind – they can be recorded and described, but not analyzed.<sup>39</sup> Luckily, for other signs we possess keys that allow us to identify conventions and study communities of their users. These are the technical signs I will discuss in this chapter section.

The emergence of technical signs is not a feature limited to the Graeco-Latin written culture or Antiquity. Already Old Babylonian cuneiform tablets (1900-1500 BCE) contain some technical signs, such as ten-marks that indicated every tenth line on a tablet,<sup>40</sup> and the use of technical signs is also known from non-Western regions such as southeast Asia.<sup>41</sup> As far as we can tell from the evidence transmitted to us, the oldest technical signs used in the Graeco-Roman world were diverse text-structuring signs.<sup>42</sup> They appear concurrently in Aramaic and Greek texts from the fifth century BCE.<sup>43</sup> Other categories of technical signs emerged by the third century BCE and can be found in papyri starting from this period onwards.<sup>44</sup> Next to text-structuring signs,<sup>45</sup> these include correction signs,<sup>46</sup> attention signs,<sup>47</sup> and a few other sign types the function of which cannot be easily identified.<sup>48</sup> In the

<sup>38</sup> Much in the same fashion as we today may use emoticons in our communication or *ad hoc* symbols for correction of term papers. The symbolic character of technical signs was understood already in Antiquity. See the testimony of the sixth-century Neo-Platonist Simplicius in Appendix II, item 23.

<sup>39</sup> Tov, *Scribal Practices*, 167; McNamee, *Sigla and Select Marginalia*, 7.

<sup>40</sup> Tinney, 'Tablets of Schools and Scholars', 587.

<sup>41</sup> See the special issue of *Dossier HEL* devoted to glossing of Classical Chinese texts in Japan; Whitman and Cinato, *Lecture vernaculaire des textes classiques chinois*.

<sup>42</sup> Text-structuring signs are one of the eight categories of technical signs that I decided to treat in this dissertation. For the definition of this and other categories of signs discussed in this chapter, see the introduction, p. 10.

<sup>43</sup> Tov, *Scribal Practices*, 172 and 174.

<sup>44</sup> See overview of Greek papyri containing signs in McNamee, *Sigla and Select Marginalia*.

<sup>45</sup> Signs resembling / and – in **P. Heid. 4.2** (P. Hib. 1.22, 3<sup>rd</sup> century BCE, Hibeh); sign resembling ~ in **P. Ryl. 3.531** (3<sup>rd</sup>/2<sup>nd</sup> century BCE).

<sup>46</sup> Sign resembling / in **P. Heid. N.F. 2.188** (3<sup>rd</sup> century BCE, Hibeh); • in **P. Berol. inv. 9781** (3<sup>rd</sup> century BCE, Hermupolis Magna).

<sup>47</sup> A *chresimon*-like sign (✱) in **P. Sorb. inv. 2328** (3<sup>rd</sup> century BCE, Faiyum).

following centuries, we also encounter quotation signs,<sup>49</sup> excerpction signs,<sup>50</sup> omission signs,<sup>51</sup> and query sign ζῆται (Gr. imp. ‘look up, query’).<sup>52</sup>

These signs do not reflect a sophisticated intellectual activity, but rather the working-practice of ordinary copyists and correctors who manned commercial book workshops and copied book rolls in private households or in institutional settings.<sup>53</sup> Alternatively, they can be classified as literate individuals who made corrections and additions to their privately owned book copies. Most of the signs described here served operations that belong to the realm of διορθωσις (Gr. “correction”), which was one of the tasks of professional book-copyists, performed in the book workshop as a part of their trade.<sup>54</sup> I will focus for now on those who can be described as professional copyists and correctors working in the ancient book workshops, even though we should keep the option open that at least some of those who adhered to scribal conventions were not professional scribes, but rather amateurs (I discuss them below, see p. 25).<sup>55</sup>

The evidence of papyri, ranging from the third century BCE to the sixth century, allows us to make several observations about the character of the use of technical signs by professional scribes in Antiquity.<sup>56</sup> First, the total number of graphic forms and operations

<sup>48</sup> X̄ in **P. Lille 73+76+111c** (3<sup>rd</sup> century BCE, Magdola); sign resembling / in **P. Hib. 1.3** (3<sup>rd</sup> century BCE, Hibeh).

<sup>49</sup> For example *diple* (>) in **P. Berol. inv. 9782** (2<sup>nd</sup> century, Eshnumen). For the use of quotation signs in Antiquity, see Wildberg, ‘Simplicius und das Zitat’.

<sup>50</sup> For example a *chresimon*-like sign (⌘) in **P. Oxy. 8.1086** (1<sup>st</sup> century BCE, Oxyrhynchus).

<sup>51</sup> For example in **P. Oxy. 13.1619** (1<sup>st</sup>/2<sup>nd</sup> century, Oxyrhynchus). Other papyri containing omission signs are listed in McNamee, *Sigla and Select Marginalia*, 30–31.

<sup>52</sup> For example in **P. Oxy. 9.1174** (2<sup>nd</sup> century, Oxyrhynchus) and **P. Oxy. 53.3711** (2<sup>nd</sup> century, Oxyrhynchus); see Turner, *Greek Manuscripts of the Ancient World*, 66; McNamee, *Annotations in Greek and Latin Texts from Egypt*, 157. While in the later periods, ζῆται effectively became a correction sign (see chapter 6, p. 194), in the ancient evidence it does not seem to have had only this function. In **P. Laur. 3.71** (1<sup>st</sup> century), a list of tenants, for example, some of the names are marked with a **Z** to indicate that their payment is overdue; see Clark, *The Acts of the Apostles*, 371.

<sup>53</sup> The essential classic about the ancient book production remains Kenyon, *Books and Readers in Ancient Greece and Rome*. For commercial workshops and book trade, see also William Allen Johnson, *Bookrolls and Scribes in Oxyrhynchus* (Toronto: University of Toronto Press, 2004); and White, ‘Ancient Literacies’. For ancient libraries, public and private, as one of the settings of book-copying, see Casson, *Libraries in the Ancient World*. and Houston, *Inside Roman Libraries*, 217–53. For early Christian communities as another increasingly institutionalized setting of book-production, see Gamble, *Books and Readers in the Early Church*.

<sup>54</sup> Turner, *Greek Manuscripts of the Ancient World*, 15; Montanari, ‘Zenodotus, Aristarchus and the Ekthesis of Homer’, 7.

<sup>55</sup> The most common Latin term for this professional group is *librarii*, see Arns, *La technique du livre*, 62–63. They can be compared to other artisan-like professionals, who engaged with the text, the *notarii*, to whose profession belonged two other types of *notae* discussed in relationship to technical signs in the introduction – *notae Tironianae* (shorthand) and *notae iuris* (abbreviations).

<sup>56</sup> I base myself mostly on the overview of signs present in Egyptian papyri produced by McNamee; see McNamee, *Sigla and Select Marginalia*, 28–48. and McNamee, *Annotations in Greek and Latin Texts from Egypt*, 513–29. Other ancient corpora that were examined systematically with respect to the presence of signs include the Dead Sea Scrolls and papyri from Herculaneum; see Tov, *Scribal Practices*; Cavallo, *Libri scrittura scribi a Ercolano*. I am not considering Tov’s study here, as his material is written in Hebrew and Aramaic rather than in Greek or Latin.

that they represent seems to be restricted. From relatively early on the use of signs seems to have been standardized. In the first place, this was caused by the need to perform routine operations, such as marking errors or structuring text. However, this standardization also reveals a high degree of conservatism among the scribes, who over the course of centuries continued to use the same signs: fourth- and sixth-century scribes used the same signs as their predecessors in the second century BCE. For example, the *chi-rho* siglum (Ϡ, probably for *χρηστόν*, Gr. “good”, or *χρήσιμον*, Gr. “useful”<sup>57</sup>) appears as a mark that draws attention to a particular interesting passage already in papyri from the first century BCE<sup>58</sup> (and possibly as early as the third century BCE<sup>59</sup>). It is also found in papyri from the second and the third centuries<sup>60</sup> and in one papyrus dated to the beginning of the sixth century.<sup>61</sup> As we will see in chapter 6, it continued to be used in this function in the Early Middle Ages (see p. 212).

Second, the manuscript evidence does not testify to major regional differences in the scribal *praxis*. This is partially due to the state of the material, namely that most of the surviving papyri come from Egypt. However, if we compare the Greek papyri from Egypt with the Greek papyri from Herculaneum in Italy, we see that there are only minor differences between these sets.<sup>62</sup> Both contain roughly the same set of text-structuring signs: *παράγραφος* (—), *διπλή ὀβολισμένη* / ‘forked’ *παράγραφος* (⤵), and *ἀστερίσκος* (✱).<sup>63</sup> In both, a slash-like sign (/) is used for corrections and two slashes (//) to mark a quotation.<sup>64</sup> In both, a *zeta*-shaped siglum standing for *ζήτει* (Ζ) has the function of a query sign,<sup>65</sup> and an arrow-shaped sign known as *anchora* (↑ and ↓) indicates where a passage is missing from the main text and added in the lower or the upper margin respectively.<sup>66</sup> Although it is unlikely that the scribal practices were entirely homogeneous in Antiquity,

<sup>57</sup> See also McNamee, who considers the option *χρησις* (Gr. “passage”); McNamee, *Sigla and Select Marginalia*, 21. Throughout this dissertation, I will refer to this siglum with its Latin name *chresimon*.

<sup>58</sup> **P. Oxy. 8.1086** (1<sup>st</sup> century BCE, Oxyrhynchus).

<sup>59</sup> The form of the sign in **P. Sorb. inv. 2328** (3<sup>rd</sup> century BCE, Faiyum) is unclear, but may be a *chresimon*.

<sup>60</sup> **P. Oxy. 53.3711** (2<sup>nd</sup> century, Oxyrhynchus), **P. Oxy. 44.3151** (2<sup>nd</sup>/3<sup>rd</sup> century, Oxyrhynchus), **P. Oxy. 13.1611** (3<sup>rd</sup> century, Oxyrhynchus).

<sup>61</sup> **PSI 11.1182** (5<sup>th</sup>/6<sup>th</sup> century, Antinoopolis). Kathleen McNamee dates this papyrus to the turn of the fifth century; McNamee, *Sigla and Select Marginalia*, 48.

<sup>62</sup> *Ibid.*, 24–25.

<sup>63</sup> The basic study on text-structuring signs in papyri, focusing on papyri of hexametric poetry, is Schironi, ‘Book-Ends’. See also Roberta Barbis, who discusses the ‘forked’ *παράγραφος*; Barbis, ‘La *diple obelismene*’. The only two ancient text-structuring signs missing from the papyri from Herculaneum are *κορώνις* used for marking the end of a text and *κεφαλαίον*-shaped *κεφάλαιον*/*κεφαλή* for the beginning of a new section. For more information on *κορώνις*, see Stephen, ‘The Coronis’. The oldest example of *κεφάλαιον*/*κεφαλή* can be found in **Giessen, P. Iandana 90** (1<sup>st</sup> century BCE/1<sup>st</sup> century CE, Italy). See also Parkes, *Pause and Effect*, 262–63.

<sup>64</sup> For the use of quotation signs in Antiquity, see Wildberg, ‘Simplicius und das Zitat’.

<sup>65</sup> See also Clark, *The Acts of the Apostles*, 371–73; Turner, *Greek Manuscripts of the Ancient World*, 16.

<sup>66</sup> Compare with Lowe, ‘The Oldest Omission Signs’. See also Turner, *Greek Manuscripts of the Ancient World*, 16.

they were certainly more uniform than the scribal practices in the early medieval West, where we see rather large regional differences in sign use as will be shown in chapter 6 (see p. 218).

Third, the manuscript evidence nevertheless testifies to differences in sign use depending on genre. For example, the attention sign *chresimon* (✱) features predominantly in papyri of poetry or commentaries to poetry, while law texts and commentaries to law texts were rather marked by the attention sign ὠραῖον (⏚ or ⚡, Gr. “well-put, good point”).<sup>67</sup> At least some of these differences reflect the activities of sign users other than professional scribes or of scribes under the influences of conventions other than original to their professional group.<sup>68</sup>

Fourth, it should be noted that while the evidence of papyri and early codices indicates that scribes used signs frequently for the purpose of διόρθωσις and that they did this with a great degree of continuity and consistency, we do not possess a single written description that can be related to this *praxis*. Nevertheless, a *doxa* governing this sign use must have existed once. Otherwise, it is difficult to explain the remarkable degree of its stability, which presupposes some form of communication between individual scribes and between centers of their activity. The most logical explanation for the absence of any written record is that the *doxa* governing the scribal use of signs was oral, or primarily oral, as many other forms of instruction in Antiquity.<sup>69</sup> We could imagine that master scribes instructed their apprentices in how to use technical signs and that these, once they had learned their trade, instructed their own apprentices in turn. Learning could also have been mimetic, i.e. scribes acquired the knowledge of what individual signs meant and how they were to be used by observing their peers at work or by working with already annotated manuscripts and analyzing the patterns of sign use in the fashion of modern scholars. A similar mode of instruction can be presupposed and also substantiated for early medieval scribes, as will be shown in chapter 6 (see p. 220).

<sup>67</sup> McNamee, *Sigla and Select Marginalia*, 21.

<sup>68</sup> Other examples of genre-specific use of technical signs are text-structuring signs. According to Turner, the παραγράφος (→) marks the change of speakers in comedies, tragedies and in Platonic dialogues, but in the hexametric poetry, it marks end of a section, and in lyric poetry division into stanzas or other lesser units of the poetic work; Turner, *Greek Manuscripts of the Ancient World*, 8. We know that several scribes working in Oxyrhynchus copied books containing scholarly annotations for clients with scholarly inclinations; McNamee, *Annotations in Greek and Latin Texts from Egypt*, 45. We could imagine that scribes may have been asked to insert scholarly or other signs into a book roll on demand or to copy them from one book roll into another.

<sup>69</sup> For example those connected with teaching music or medicine; see Marrou, *Histoire de l'éducation dans l'antiquité*, 188–89; Volk et al., ‘Music’; and Nutton, ‘Training (medical)’. Even grammatical instruction was primarily oral/aural until the Middle Ages; see Law, ‘Memory and the Structure of Grammar’.

Finally, it should be noted that papyri that contain technical signs also contain other vestiges of *δὲρθωσις*, such as expunction marks, corrections and insertions of omitted passages.<sup>70</sup> As will be shown, traces of sign use by other professionals, in particular by scholarly sign users, correlate with different physical traits of the book, such as annotations or commentary.

Individuals who employed technical signs for corrective purposes were the largest community of sign users in Antiquity. This category includes in the first place professional scribes, i.e. specialized craftsmen for whom the copying and correction of manuscripts was a profession. However, *δὲρθωσις* could be and was also performed by non-professionals, such as book owners who corrected their book rolls on their own.<sup>71</sup> These ‘lay’ sign users adopted conventions from the professional workshop scribes who originally developed them for their own use and who sustained them by oral instruction (and mimetic learning) in the workshop environment. The amateur correctors acted as the periphery of the community and acquired their conventions through contacts with the center, for example as the clientele of professional scribes. The importance of this periphery should not be underestimated, as it may be credited with the proliferation of scribal practices outside the strictly professional milieu. Moreover, these ‘lay’ users could belong to other professional groups discussed in this chapter and thus engage in the blending of conventions or simultaneous use of conventions stemming from various professional environments.

Although the signs that can be associated with professional scribes do not reflect a high degree of intellectual involvement with the text, this does not mean that their use did not require some basic expertise. Scribes probably acquired this expertise in the workshop, as a part of their training, rather than, say, in a classroom or via formal education. Moreover, it seems that not all scribes used technical signs at all times and perhaps the use of signs required some degree of seniority or qualification. Overall, this professional group was rather conservative in its practices, and there were few additions or changes to the conventions observed by its members. Some of the changes may be attributed to influences from other professional groups, such as scholarly sign users, or the cooperation between workshop copyists and their clients.

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<sup>70</sup> See McNamee, *Annotations in Greek and Latin Texts from Egypt*, 23–24.

<sup>71</sup> See Haines-Eitzen, *Guardians of Letters*, 34–35. The chapter on private versus professional book production in Johnson’s *Bookrolls and scribes in Oxyrhynchus* is also illuminating in this respect, although it discusses specifically only the evidence for copying of book rolls; see Johnson, *Bookrolls and Scribes in Oxyrhynchus*, 157–60. See also the section on professionally and privately written notes in papyri from Egypt in McNamee, *Annotations in Greek and Latin Texts from Egypt*, 23–28. Unfortunately, McNamee does not talk about the professional versus private sign use in her *Sigla and Select Marginalia*.

I will show in chapter 6 that professional scribes continued to use technical signs until the end of Antiquity (and beyond); although over the course of centuries the context of their work must have changed. In Classical Antiquity, professional scribes were craftsmen copying, correcting and repairing books by Classical authors that their clients brought or requested from them. They may have been employed by a commercial workshop, private individuals, and institutions to answer their demand. However, with the rise of Christianity, the texts scribes copied and corrected as well as their employers changed while this did not necessitate the change of their scribal practice. In Late Antiquity, eventually, commercial book-copying was in decline, but the scribal profession was taken over by Christian institutions that gave rise to the monastic and cathedral scriptoria.<sup>72</sup>

### The scholarly use of signs in the Graeco-Roman world

The earliest signs used did not serve the pursuit of learning, nor could their use be connected to the intellectual elite. Modern scholarship talks about the scholarly use of signs only with the emergence of a specific category of technical signs, the so-called critical signs, in the third century BCE in Hellenistic Alexandria.<sup>73</sup> *Der Neue Pauly* even defines critical signs as “an invention of Alexandrian philology, used for philological and exegetical work”.<sup>74</sup> Although it could be debated what defines certain marginal signs (or annotations) as scholarly,<sup>75</sup> and whether only the Alexandrian scholars deserve the credit for coining and using critical signs (and whether only textual criticism and exegesis count as a scholarly use),<sup>76</sup> I will accept this definition and discuss those signs that can be shown to be critical, i.e. to serve textual criticism, exegesis or some other form of assessment of the text, and that stem from Alexandrian scholarship.<sup>77</sup> Although Alexandrian critical signs probably do

<sup>72</sup> Brown, ‘The Triumph of the Codex’, 180. See also Harris, *Ancient Literacy*, 285–322; and Haines-Eitzen, *Guardians of Letters*, 21–40.

<sup>73</sup> The two authoritative works on the intellectual life in Hellenistic Alexandria are Pfeiffer, *History of Classical Scholarship*; Fraser, *Ptolemaic Alexandria*, 1972. Other important studies of the scholarly culture in Classical Antiquity that I will refer to in this chapter section are Reynolds, *Scribes and Scholars*; West, *Studies in the Text and Transmission of the Iliad*; Schironi, ‘The Ambiguity of Signs’. The authoritative work on the Classical use of critical and other signs is McNamee, *Sigla and Select Marginalia*, which will be also frequently referred to in this chapter section.

<sup>74</sup> Montanari, ‘Kritische Zeichen’. See also the older definition as Gudeman, ‘Kritische Zeichen’.

<sup>75</sup> Criteria for the assessment of scholarly textual annotation in papyri were postulated by Eric Turner; see McNamee, *Annotations in Greek and Latin Texts from Egypt*, 37. Similar criteria for the scholarly technical signs were so far not articulate, but Turner’s first criterion – that the annotations must reflect a particular tenor, which goes beyond the basic classroom instruction and interests – applies also to technical signs.

<sup>76</sup> See Turner, *Greek Papyri*, 184.

<sup>77</sup> Apart from Alexandria, the other large intellectual center of the Mediterranean world in Hellenistic period and Alexandria’s chief rival was Pergamum. However, we possess little textual material that can be identified as stemming from this school and therefore it is difficult to assess what kind of critical activity may have been

not give us the whole picture, the rise and fall of Alexandrian critical signs is illustrative of ancient intellectual trends.

Classical scholars connect the appearance of critical signs with the foundation of the library of Alexandria (and of the scholarly college, the Museion, attached to it).<sup>78</sup> A massive influx of written texts into the library was an important stimulus for the innovations that emerged in this period:<sup>79</sup> new methods of book management, library organization and also new types of scholarship that were made possible by accumulation of different versions of the same text.<sup>80</sup> Already the first head of the library, Zenodotus of Ephesus (f. 280 BCE), employed a particular technical sign, ὀβελός (—, Gr. “javelin, spear point”) in works of Homer, marking those verses that he deemed spurious or problematic.<sup>81</sup> Zenodotus’s successors, Aristophanes of Byzantium (c. 265/7 – c. 190/80 BCE) and Aristarchus of Samothrace (d. 144 BCE) added new signs to Zenodotus’s ὀβελός in order to encode more complex forms of judgment.<sup>82</sup> With Aristarchus, the most important Homeric scholar of Antiquity, Alexandrian critical signs developed into a full-fledged system.<sup>83</sup> Beside ὀβελός (—) for spurious verses, it included ἀστερίσκος (✱, Gr. ‘star-shaped’) for verses which were genuine but appeared also misplaced at a different place, ἀστερίσκος μετὰ ὀβελοῦ (✱— or —✱, Gr. ‘asteriscus with obelus’) for lines which were misplaced where they appeared and belonged to a place marked with ἀστερίσκος, διπλή (>, Gr. ‘twice, double’) for a verse noteworthy because of features such as language or mythological theme (which was discussed in a commentary), διπλή περιεστιγμένη (≧, Gr. ‘dotted *diplē*’) for verses which Aristarchus considered genuine, but Zenodotus marked as spurious, ἀντίσιγμα (⊃, Gr.

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taking place there and whether local scholars would have used critical signs as those of Alexandria; see McNamee, *Annotations in Greek and Latin Texts from Egypt*, 34. For a general description of the Alexandrian and Pergamese schools, see Conte, *Latin Literature*, 124.

<sup>78</sup> A useful overview of the current scholarship on the library of Alexandria can be found in MacLeod, *The Library of Alexandria*.

<sup>79</sup> Pfeiffer, *History of Classical Scholarship*, 1:96–99; Schironi, ‘The Ambiguity of Signs’, 87–89. Contrary to what is sometimes believed, this was not the first time when the accumulation of written material stimulated new forms of scholarship, see Casson, *Libraries in the Ancient World*, 2–35.

<sup>80</sup> This theme is explored in detail in Blair, *Too Much to Know*. Blair discusses the library of Alexandria specifically in 16–17.

<sup>81</sup> Reynolds, *Scribes and Scholars*, 10; Pfeiffer, *History of Classical Scholarship*, 1:92; Fraser, *Ptolemaic Alexandria*, 1972, 1:450. and Fraser, *Ptolemaic Alexandria: Notes*, 2:651. and Schironi, ‘The Ambiguity of Signs’, 89. He also divided the *Iliad* and the *Odyssey* into twenty-four standardized books and devised the earliest known systematically ordered lexicon to Homer; Fraser, *Ptolemaic Alexandria*, 1972, 1:450; Casson, *Libraries in the Ancient World*, 43; Pfeiffer, *History of Classical Scholarship*, 1:115.

<sup>82</sup> According to Pfeiffer and Schironi, Aristophanes added ἀστερίσκος (✱), σίγμα (⊃) and ἀντίσιγμα (⊃); Pfeiffer, *History of Classical Scholarship*, 1:178; and Schironi, ‘The Ambiguity of Signs’, 89–91. Fraser credits him in addition with inventing περιώνιον (⋈); Fraser, *Ptolemaic Alexandria*, 1972, 1:459. According to Gudeman, he may also be associated with the sign of chi (⋈); Gudeman, ‘Kritische Zeichen’, 1925. Aristarchus removed some of the signs and added his own.

<sup>83</sup> See the overview of his signs in Reynolds, *Scribes and Scholars*, 10–11; and McNamee, *Sigla and Select Marginalia*, 8. Most recently, the system was illustrated on one of the most important annotated manuscripts of Homer in Bird, ‘Critical Signs’.

‘reversed *sigma*’) for verses that required transposition, and ἀντίσιγμα περιεσιγμένον (Ξ, Gr. ‘dotted reversed *sigma*’) for repetitive, and thus redundant, verses.<sup>84</sup> While originally designed for Homer, the system seems to have been appropriated for other canonical authors studied in Alexandria.<sup>85</sup> Alexandrian scholars also used some of the scribal signs, such as the text-structuring παράγραφος and κορωνίς.<sup>86</sup>

As Franco Montanari stresses, Alexandrian scholars should not be credited with the invention of the particular signs they employed – these were used by professional scribes before and after – but with their innovative application to scholarly tasks.<sup>87</sup> Another professional group that may have influenced Zenodotus in particular were performers who would adapt a particular text to the needs of their recital.<sup>88</sup> It is important to note that the signs used by both professional groups, the scribes and the performers, were pragmatic, temporary and anonymous. By contrast, the exemplar that contained Zenodotus’s signs was recognized as his particular authoritative text version, an ἔκδοσις (Gr. “edition”), that was kept in the Alexandrian library after his death. Although Zenodotus was working as an individual and his ἔκδοσις was his personal copy of Homer, probably a book roll that he brought from his native Ephesus,<sup>89</sup> his ὀβελοί were a permanent feature of this version. They were meant to be copied together with the text.

<sup>84</sup> Homeric scholia also refer to στίγμα (•, Gr. “dot”) attached to some verses by Aristarchus, possibly as a weaker form of *obelus*; Bird, ‘Critical Signs’, 94.

<sup>85</sup> The extent to which Alexandrian scholars used critical signs on other authors is disputed. Hesiod was supposedly obelized already by Apollonius of Rhodes (3<sup>rd</sup> century BCE); Fraser, *Ptolemaic Alexandria*, 1972, 1:452. See also the description of **P. Oxy. 17.2075** (3<sup>rd</sup> century, Oxyrhynchus) in Turner, *Greek Manuscripts of the Ancient World*, 34. Galen also reports an unusual scholarly dispute that broke out in the 2<sup>nd</sup> century BCE and concerned the signs (χαρακτῆρες) found in the *Epidemics* of Hippocrates kept at the library of Alexandria (Appendix II, item 1). Among other authors that modern scholars consider to have been annotated by Alexandrian scholars are poets such as Pindar, Alcaeus and Alcman, and dramatists such as Aristophanes, Euripides and Sophocles; see Gudeman, ‘Kritische Zeichen’, 1916; and Jocelyn, ‘The Annotations of M. Valerius Probus, III’, 466. According to Francesca Schironi, Alexandrian scholars may have worked also on prose authors, in particular on Plato; Schironi, ‘Plato at Alexandria’. Fraser thinks that Aristarchus made also an ἔκδοσις of and ὑπομνήματα to Herodotus; Fraser, *Ptolemaic Alexandria*, 1972, 1:462. For the presence of critical signs in ancient papyri other than that of Homer, see Fowler, ‘Reconstructing the Cologne Alcaeus’.

<sup>86</sup> See Schironi, ‘Book-Ends’. Both signs are also mentioned in later accounts of the Alexandrian *praxis* from the early medieval period, *paragraphus* in the 21-sign treatise discussed in chapter 2 (see p. 63), and *κορωνίς* in some of the Greek sign treatises discussed in chapter 3 (see p. 105).

<sup>87</sup> Montanari, ‘Zenodotus, Aristarchus and the Ekdoxis of Homer’, 6–7; Montanari, ‘Correcting a Copy, Editing a Text’, 3.

<sup>88</sup> West shows that Zenodotus’s obelization seems to follow the patterns set by rhapsodists, the professional singers of Homeric epic; see West, *Studies in the Text and Transmission of the Iliad*, 41–42. Similarly, signs and marginal notes may have been used by dramatists and actors to make performance-related changes to the script; Montana, ‘The Making of Greek Scholiastic Corpora’, 135.

<sup>89</sup> West, *Studies in the Text and Transmission of the Iliad*, 43. In older scholarship, the Alexandrian ἔκδοσις has been described as the result of manuscript collation, but this view has been largely abandoned; see Montanari, ‘Zenodotus, Aristarchus and the Ekdoxis of Homer’; and Montanari, ‘Correcting a Copy, Editing a Text’.

While Aristophanes likewise annotated only his personal copy of Homer, Aristarchus produced two *ἐκδόσεις*<sup>90</sup> and a commentary on Homer (*ὑπομνήματα*, Gr. “notes”).<sup>91</sup> Yet, none of the Alexandrian scholars produced a written record of how the signs were to be used, what they were called or how many there actually were. The knowledge of the Alexandrian method was sustained by oral instruction in the Museion and restricted to a small circle of pupils, who might also have had access to the annotated copies in the library.<sup>92</sup> Beyond this elite milieu, the Alexandrian critical method had a limited impact.<sup>93</sup> This view is supported by the manuscript evidence. Only thirty-two of over 1500 surviving papyri of Homer contain Alexandrian critical signs,<sup>94</sup> and of these only seven contain critical signs other than the common *διπλαῖ* and *ὄβελοί*.<sup>95</sup> The impression is that the Alexandrian scholars represented a small community of practitioners whose method was known only in a restricted geographical area and only to a restricted audience.<sup>96</sup>

Alexandrian grammatical scholarship, and with it the critical signs, spread beyond this restricted milieu after 145 BCE. In this year, Ptolemy VIII Physcon expelled the scholars from Alexandria after they sided with his brother, a rival claimant to the throne in a dynastic power struggle.<sup>97</sup> This expulsion propelled Alexandrian scholarship into the orbit of the Roman world. We can trace two lines of transmission of Alexandrian scholarly *doxa*

<sup>90</sup> We know about this from his successor, Ammonius, who wrote a treatise ‘That there were not more than two editions of Iliad by Aristarchus’; see Fraser, *Ptolemaic Alexandria*, 1972, 1:464.

<sup>91</sup> West, *Studies in the Text and Transmission of the Iliad*, 74–75; Schironi, ‘The Ambiguity of Signs’, 92. According to Pfeiffer, critical signs in Aristarchus’s *ἐκδόσεις* also served as tie marks, connecting the *ἐκδόσεις* and the *ὑπομνήματα*; Pfeiffer, *History of Classical Scholarship*, 1:185, also in Fraser, *Ptolemaic Alexandria*, 1972, 1:447; and Schironi, ‘The Ambiguity of Signs’, 92–93. However, we lack manuscript evidence for such a direct connection and it is more likely that the two entities were autonomous and could be used either together or apart. The only surviving papyrus fragment of critically annotated *ὑπομνήματα* to Homer, **P. Oxy. 8.1086** (1st century BCE, Oxyrhynchus) does not reflect Aristarchus’s scholarly work; *Ibid.*, 95. This papyrus is described in Turner, *Greek Manuscripts of the Ancient World*, 98.

<sup>92</sup> Hall, *A Companion to Classical Texts*, 38; Fraser, *Ptolemaic Alexandria*, 1972, 1:478; McNamee, *Sigla and Select Marginalia*, 11–12; Montanari, ‘Zenodotus, Aristarchus and the Ekdoxis of Homer’, 9.

<sup>93</sup> Jocelyn, ‘The Annotations of M. Valerius Probus (V)’, 471. The limited reach of Alexandrian scholarship outside Alexandria is also visible on the corpus of annotated papyri from Egypt studied by Kathleen McNamee. See in particular her comment about scholarly manuscripts in Oxyrhynchus and their ties to the Museion; McNamee, *Annotations in Greek and Latin Texts from Egypt*, 46.

<sup>94</sup> By contrast, over seventy manuscripts of Homer contain other technical signs (some of which may reflect scholarly activities and others working of scribes). Both categories of manuscripts of Homer are listed and treated in detail in McNamee, *Sigla and Select Marginalia*, 28–48. The surviving papyri of Homer are listed in West, *Studies in the Text and Transmission of the Iliad*, 86–138. For the discussion of surviving evidence and its limits, see Montana, ‘The Making of Greek Scholastic Corpora’, 111–12.

<sup>95</sup> According to McNamee’s overview, these are: **P. Tebt. 1.4** (2nd century BCE, Tebtun), **P. BL inv.128** (1st century), **PSI 1.8** (1st century, Oxyrhynchus), **P. Oxy. 3.445** (2nd–3rd century, Oxyrhynchus), **P. Lit. Pisa 2** (2nd–3rd century), **P. Oxy. 15.1818** (5th/6th century, Oxyrhynchus), and **P. Mich. inv. 6653v** (Roman). Schironi mentions only five papyri in Schironi, ‘The Ambiguity of Signs’, 96–97.

<sup>96</sup> See Fraser, *Ptolemaic Alexandria*, 1972, 1:478. For the general portrait of the kind of education given at the Museion and its limits, see Marrou, *Histoire de l’éducation dans l’antiquité*, 261–63.

<sup>97</sup> Fraser, *Ptolemaic Alexandria*, 1972, 1:467. Aristarchus himself escaped to Cyprus and died there the year after the expulsion. He was believed to have had a prodigious number of forty students, an unusually high number for the period.

and *praxis* from Alexandria to Rome. The first goes back to Aristarchus's star-pupil, Dionysius Thrax (170-90 BCE), who settled at Rhodes and opened a famous school there.<sup>98</sup> One of his pupils was a certain Lucius Aelius Stilo Praeconinus (fl. 100 BCE).<sup>99</sup> He is recognized as the first philologist of the Roman republic and a founder of his own scholarly circle in Rome.<sup>100</sup> His pupils included his son-in-law Servius Clodius (first century BCE), later remembered as an illustrious grammarian,<sup>101</sup> and another famous Republican scholar, Marcus Terentius Varro (116 BCE-27 BCE).<sup>102</sup> A third student of Stilo, Cicero (106-43 BCE), must have familiarized himself with the Alexandrian critical method in these circles, since he displays a great familiarity with it in his writings.<sup>103</sup> Just as Aristarchus and his pupils engaged in textual criticism of works belonging to the Greek canon, Stilo and his pupils transferred these methods to Latin Republican authors.<sup>104</sup>

The second line of transmission of Alexandrian scholarly ideas into the Roman environment leads us to the Ἀριστοαρχοί, Greek grammarians of Alexandrian training active in Rome in the first century BCE.<sup>105</sup> These 'Aristarchians' were the first to compose sign

<sup>98</sup> See Della Corte, *La filologia latina*, 102–4; Conte, *Latin Literature*, 124–25.

<sup>99</sup> Della Corte, *La filologia latina*, 100–101; Reynolds, *Scribes and Scholars*, 21.

<sup>100</sup> It is unclear what the format of his teaching would have been. We should probably not think in terms of a school similar to that directed by Dionysius Thrax, but rather imagine an intellectual salon intended for like-minded scholars.

<sup>101</sup> Suetonius, *De grammaticis* 3.

<sup>102</sup> This link between Dionysius Thrax and Republican Roman philology was proposed on the basis of a prologue to a late antique text that will be discussed in the following chapter as the 21-sign treatise. The notice, which is reproduced in Appendix III, item 11, is corrupted and thus of the three Republican scholars it mentions, only Stilo can be identified with certainty. In my identification, I follow the opinion of Bonner; see Bonner, 'Anecdota Parisinum', 360. Della Corte identifies the two scholars mentioned by the notice rather as Vargunteius (2<sup>nd</sup> century BCE, instead of Varro) and Pompeius Lenaeus (1<sup>st</sup> century BCE, instead of Servius Clodius); see Della Corte, *La filologia latina*, 113–14.

<sup>103</sup> He used the *diple* for noteworthy passages, just as the Alexandrian scholars, in *Ad Atticum* VIII 2.4; see Appendix II, item 3. In *Ad familiares* IX 10.1, he refers to Aristarchus's obelization of Homer and in two other works (*Ad familiares* III 11.5 and *In Pisonem* 73), he refers to Aristarchus's textual criticism of Homer; see Appendix II, items 2a-c. Cicero is, incidentally, our earliest Latin witness for technical signs. Publius Valerius Cato, who was a leader of a circle of Roman neoteric poets in the first century BCE, should perhaps also be linked with Stilo's philological circle. A Latin epigram famously credits him with being 'the only one to select and make poets' (*Qui solus legit ac facit poetas*); see Suetonius, *De grammaticis* 11. In another epigram, he was likened to Zenodotus of Ephesus and Crates of Mallus and in yet another credited with critical work on Lucilius; see Appendix II, item 4.

<sup>104</sup> The same prologue mentions that they worked on the epic poet Ennius, satirist Lucilius and dramatists (*in adnotationibus Henni, Lucii et historicorum*). Indeed, we know that Stilo was interested in the works of Plautus, as were his pupils Servius Clodius and Varro, the latter of whom was the author of the famous list of the authentic Plautine comedies; Della Corte, *La filologia latina dalle origini a Varrone*, 112; and Bonner, 'Anecdota Parisinum', 360.

<sup>105</sup> Their careers are discussed in West, *Studies in the Text and Transmission of the Iliad*, 47–48. See also Fraser, *Ptolemaic Alexandria*, 1972, 1:463. Although the works of these 'Aristarchians' represent the Alexandrian tradition, it is impossible to trace a direct line of descent between them and Aristarchus as can be done for Aelius Stilo. It is questionable to which extent their claim to Aristarchus's scholarship was authentic and to what extent it was a part of clever marketing. In the first century BCE, Rome was a hub of economic, social and intellectual life and the 'Aristarchians' were certainly not the only scholars-grammarians seeking employment there. To attach one's brand to Aristarchus's name would have been a useful strategy in this competitive environment. See West, *Studies in the Text and Transmission of the Iliad*, 46.

treatises, i.e. short technical pamphlets concerned with the explanation of Alexandrian critical signs,<sup>106</sup> setting the tradition that was previously chiefly oral to writing.<sup>107</sup> It is probable that the ‘Aristarchians’ imprinted some of their own notions on this tradition in the process, for example by including some signs into their account and leaving others out.<sup>108</sup> As Martin West has shown, it is unlikely that they could have had access to the authentic Aristarchian material that had probably perished in one of the library fires in Alexandria.<sup>109</sup> Instead, they relied on what passed through their hands, not necessarily distinguishing the original learning of the great Alexandrian scholar from material ascribed to him or from their own conjectures and observations. The ‘Aristarchians’ were not only transmitting the tradition by writing it down, but also transforming it, or even constructing a new one. The *doxa* stemming from these oldest sign treatises (we will encounter its descendants in the following two chapters), therefore, should not be understood as a faithful rendering of the Alexandrian *praxis*, but rather as the beginning of a new written tradition that influenced both the younger *doxa*<sup>110</sup> and because of the authority of this tradition, also the *praxis*.<sup>111</sup>

Despite the enthusiasm that the Alexandrian scholarship generated in the time of the ‘Aristarchians’, this interest does not seem to have lasted long. Manuscript evidence suggests a rapid decline in the scholarly annotation practice in Egypt after the third century.<sup>112</sup> Of the thirty-two Egyptian papyri of Homer annotated with Alexandrian critical

<sup>106</sup> The tenth-century Byzantine encyclopedia *Suda* ascribes authorship of such sign treatises to two ‘Aristarchians’, Aristonicus (1<sup>st</sup> century BCE/1<sup>st</sup> century CE) and Philoxenus (1<sup>st</sup> century BCE); see *Suda* α 3924 and φ 394. A third Greek grammarian active in Rome, Seleucus ‘the Homeric’ (see *Suda* σ 200) is known to have written a sign treatise from a different source; see Müller, *De Seleuco Homericis*. Unfortunately, of these three works only a fragment of Aristonicus’s work survives in a tenth-century manuscript of Homer. It is discussed in chapter 4 among Byzantine sign treatises (see p. 105) and transcribed and translated in Appendix III, item 17.

<sup>107</sup> In addition to these sign treatises, the ‘Aristarchians’ produced another important source of information about critical signs: their commentaries on Homer compiled from older material, including Aristonicus’s *ὑπομνήματα* and annotated papyri. The two most important commentators were Aristonicus and Didymus ‘the Brazen Guts’ (1<sup>st</sup> century BCE/1<sup>st</sup> century CE), who was active in Alexandria. These commentaries survive in a late antique reworking as scholia in Byzantine copies of Homer and provide us with additional information about the presence of critical signs in the papyri of Homer and their function; see Fraser, *Ptolemaic Alexandria*, 1972, 1:463. and Dickey, *Ancient Greek Scholarship*, 18–19.

<sup>108</sup> See West, *Studies in the Text and Transmission of the Iliad*, 65. Essentially, older signs used by Aristophanes, which were not used by Aristarchus are absent, as are some of the signs used by Aristarchus, such as the *στιγμή* (•, Gr. ‘dot’) mentioned by scholia.

<sup>109</sup> *Ibid.*, 66–67. See also Fraser, *Ptolemaic Alexandria*, 1972, 1:476.

<sup>110</sup> A number of Latin authors from the first century onwards seems to be familiar with Aristarchus and critical signs, although it is questionable to what extent these authors were themselves practitioners; see the overview in Appendix II, item 2.

<sup>111</sup> The best example of this influence of *doxa* on *praxis* is the tenth-century **Venice, Biblioteca Marciana, Gr. 822 (olim 454)**, famously equipped with the critical signs. It is difficult to say to what extent these signs may be copied from an older exemplar annotated with signs, but it is certainly possible that the signs were inserted into the manuscript margin on the basis of the *scholia* also present in these margins.

<sup>112</sup> McNamee, *Annotations in Greek and Latin Texts from Egypt*, 47.

signs, too, twenty-seven can be dated between the first century BCE and the third century CE, but only four date after the third century.<sup>113</sup> A change can be also detected on the level of *doxa*. Eight sign treatises have been composed between the first century BCE and the third century CE. These include five sign treatises attributed to the ‘Aristarchians’ composed between the first century BCE and CE and now lost, the *Περὶ σημείων* (‘On signs’) of the second-century Alexandrian metrist Hephaestion<sup>114</sup> (see Appendix III, item 1), a now-lost sign treatise produced by Suetonius in the third century,<sup>115</sup> and a sign treatise describing signs used for Plato incorporated by Diogenes Laertius into his *Φιλοσόφων βίων καὶ δογμάτων συναγωγή*<sup>116</sup> (‘Lives and teaching of the philosophers’, see Appendix III, item 3). Only one sign treatise was produced after the third century: a now-lost *Περὶ σημείων* attributed to one Diogenianus of Cyzicus (4<sup>th</sup>/5<sup>th</sup> century).<sup>117</sup> The fact that only two of the ancient sign treatises survive (those included in the writings of Hephaestion and Diogenes Laertius) may suggest that already in Antiquity the interest in the subject of critical signs was in decline. In addition to this evidence, it can be noted that the majority of the Latin authors who refer to Alexandrian critical signs or made use of them lived in the first three centuries of the Common Era. Dioscorides, working in the first century in Rome, obelized spurious passages in the works of Hippocrates (Appendix II, item 6), and Quintilian refers to the practice of obelization in his *Institutiones* (Appendix II, item 8). Both Horace and Seneca explicitly refer to Aristarchus’s critical assessment of Homer in their works (Appendix II, items 2d and 2g). Aristarchus’s use of signs was also discussed by two original Latin scholiasts of the second and third centuries, (pseudo-)Helenius Acro and Pomponius Porphyrio (Appendix II, items 2e and 2f). Finally, Pliny the Younger talks about critical signs attached by his friend to one of his letters (Appendix II, item 10).<sup>118</sup>

<sup>113</sup> These are **P. Strassb. inv. Gr. 2675** (4<sup>th</sup> century), **PSI 2.113** (5<sup>th</sup> century), **P. Oxy. 15.1818** (5<sup>th</sup>/6<sup>th</sup> century, Oxyrhynchus), and **P. Lips. inv. 338** (5<sup>th</sup>/6<sup>th</sup> century). A fifth papyrus, **P. Mich. inv. 6653v** is dated only as ‘Roman’. Importantly, each of these five papyri contains only one type of critical sign, while the papyri from the earlier period are regularly annotated by two or three sign types.

<sup>114</sup> For a summary of what we know about this author and his oeuvre, see Ophuijsen, *Hephaestion on Metre*, 3–5.

<sup>115</sup> Our only source of reference to this lost sign treatise is *Suda* (τ 895).

<sup>116</sup> For a summary of what we know about this author and his work, see Diogenes Laertius, *Lives of Eminent Philosophers*, 1:ix–xvii.

<sup>117</sup> Again, our only source of reference for this information is *Suda* (δ 1146). This Diogenianus is otherwise unknown.

<sup>118</sup> To this lot should be added also epigrammatist Martial, who referred to two non-Aristarchian technical signs, *coronis* and *theta* (discussed in p. 32), in his epigrams (Appendix II, item 9). Two other references can be added, although it should be noted that it is not certain that they refer to the use of technical signs or to the addition of textual comments in the margin, as the meaning of the Latin words *adnotatio*/*adnotare* in various periods changed. Pliny the Younger mentions in one of his letters that his uncle, Pliny the Elder, engaged in the *adnotatio* of books that he read (Appendix II, item 7). Cornelius Fronto mentions in one of his letters that he personally annotated a copy of Cicero that was requested from him (Appendix II, item 11). According to Jocelyn, the oldest text to use the word in the meaning of ‘add marginal commentary, gloss’ is the *Digest* in the

The reasons for this decline are not clear. Kathleen McNamee points out that the production of papyri annotated with both texts and signs coincides with the peak of teaching *γραμματική* along the Alexandrian models.<sup>119</sup> Indeed, from the third century onwards, the character of grammatical education in the Graeco-Roman world changed, shifting towards a standardized learning by rote and away from the scholarly philology of the Alexandrian type.<sup>120</sup> After Suetonius in the second century, we no longer hear of sign users that can be classified as scholars-philologists.<sup>121</sup>

However, already before this date critical signs began to be employed by another, affiliated group of users – gentlemen scholars who pursued their intellectual interests during *otium* and did not depend on their expertise to earn a living. Some of these gentlemanly scholars were aristocrats, who saw their activities as a part of their upper-class ethos, and others may have been grammarians, who supervised classroom education and had interest in the higher forms of the *τέχνη γραμματική*. There was not necessarily a strict division between the ‘professional’ and ‘leisurely’ scholars,<sup>122</sup> as is evidenced by Aelius Stilo, a gentleman who had his own students and acquired a reputation as a philologist, and by Valerius Probus, a gentleman scholar who annotated several Latin authors in the first century and made it even into Suetonius’s *De grammaticis*.<sup>123</sup>

Leisurely scholars played a crucial role in the survival of Alexandrian *doxa* and *praxis* in the late Roman Empire, just as they played a key role in the survival of other parts of Classical learning in Late Antiquity. Already in Classical Antiquity, they formed one of the audiences for the works of scholars-philologists and should be credited with their copying when the interest in Alexandrian philology declined. Moreover, testimonies coming from their pen indicate that scholarly *praxis* was maintained in this environment until fairly late.

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sixth century; see Jocelyn, ‘The Annotations of M. Valerius Probus (I)’, 468–69. Before Late Antiquity, he opts to interpret the word as ‘equip with (critical) signs’; *Ibid.*, 470. Compare with the varying opinion on the meaning of the subscription found in **P. Oxy. 2.221** (2<sup>nd</sup> century, Oxyrhynchus): Ἀμμώνιος Ἀμμωνίου γραμματικὸς ἐσημειωσάμην (Appendix II, item 12), in Cameron, *The Last Pagans of Rome*, 471–72. Contra McNamee, *Annotations in Greek and Latin Texts from Egypt*, 286.

<sup>119</sup> McNamee, *Annotations in Greek and Latin Texts from Egypt*, 31.

<sup>120</sup> Kaster, *Guardians of Language*, 196–97; and especially Conte, *Latin Literature*, 579.

<sup>121</sup> In the early fifth century, Servius mentioned signs attached to Virgil several times and connected them with the critical activities of Valerius Probus (see Appendix II, item 5b), but he no longer actively engaged in the use of signs himself.

<sup>122</sup> Kaster, *Guardians of Language*, 205. Compare with McNamee’s observations about the status of the annotators of ancient papyri; McNamee, *Annotations in Greek and Latin Texts from Egypt*, 46.

<sup>123</sup> Suetonius, *De grammaticis* 24. See also Kaster, *Guardians of Language*, 54. Suetonius speaks of this Valerius Probus with contempt befitting an amateur. We know of Probus’s activities thanks to Suetonius, Servius and the 21-sign treatise (the same passage in which also Stilo is mentioned); see Appendix II, item 5, and also Appendix III, item 11. Probus later acquired reputation as a skilled grammarian, but the works that were attributed to him by Late Antiquity should be seen as pseudepigrapha; see Jocelyn, ‘The Annotations of M. Valerius Probus (I)’.

Ausonius in the fourth century refers to Aristarchus and obelization in his poems (Appendix II, items 2h and 14a). Although Ausonius was a grammarian, he should rather be seen as a 'leisurely' scholar in this case. He is a good representative of the Roman intellectuals of the later Empire, who referred to the scholarship of the previous age in order to showcase a particular learned culture shared by fellow intellectuals.<sup>124</sup> His reference to *obeli* occurs in a request to his friend Drepanius to correct his verse. Writing at around the same time, two patricians, Olybrius and Campanianus, exchanged verses in which Campanianus asks Olybrius to correct his verse by means of critical signs (Appendix II, item 15), and in the fifth century, Sidonius Apollinaris similarly asked his friend Probus to annotate his verse with a critical *theta* (Appendix II, item 20).<sup>125</sup>

These requests can be situated in the same intellectual milieu that was described by Alan Cameron in his *Last Pagans of Rome* and which he connected with subscriptions found in many late antique and early medieval copies of Classical authors. As Cameron stresses, the learned elite which was responsible for these subscriptions and for the emendation of Classical works and their survival into the Middle Ages was a Christian aristocracy, which still cultivated a Classical literary culture as a part of an elite ethos.<sup>126</sup> Members of this elite exchanged learned poetry, read Classical authors and pursued scholarly interests, be it not with the same vigour as the Alexandrian scholars, nor with the same competence.<sup>127</sup> Importantly, subscriptions examined by Cameron provide additional testimony to a continued use of critical signs. The subscription to Persius made by Tryphonianus Sabinus in 402, for example, refers not only to *emendatio* (correction of errors) and *distinctio* (addition of punctuation), but also to *adnotatio* (attachment of critical signs).<sup>128</sup> Another subscription, found in the Medicean Virgil (Florence, Biblioteca Medicea Laurenziana, Plut. 39.1, before 494, Rome), even contains two instances of *theta* (⊕).<sup>129</sup> Overall, however, the

<sup>124</sup> See also Kaster about the changing social status of the *grammatici* in Late Antiquity; Kaster, *Guardians of Language*, 109–11.

<sup>125</sup> This sign was originally not a critical sign, but a technical sign used in military rosters and in epigraphy. It can be found in several papyri with names of soldiers, where it seems to stand for θήματα; see Watson, 'Theta Nigrum'. In funerary inscription, *theta* seems to stand for *obit*; see Mednikarova, 'The Use of ⊕ in Latin Funerary Inscriptions'. *theta* seems to have been used in a scholarly context in a fashion similar to *obelus* since Late Antiquity.

<sup>126</sup> Cameron, *The Last Pagans of Rome*, 422–24.

<sup>127</sup> Ibid., 432 and 444. See also Zetzl, *Latin Textual Criticism in Antiquity*, 230.

<sup>128</sup> Cameron, *The Last Pagans of Rome*, 489–90; Zetzl, *Latin Textual Criticism in Antiquity*, 214; Clausen, 'Sabinus' MS of Persius'. This is also how Suetonius refers to Probus's critical work: *emendare, distinguere, adnotare*. See also footnote 118 for the discussion of the Latin term *adnotatio/adnotare*.

<sup>129</sup> This subscription made by one Turcius Rufius Apronianus Asterius in 494 refers only to *lectio, emendatio* and *distinctio*. It is described in Zetzl, *Latin Textual Criticism in Antiquity*, 217–18. The manuscript is described in CLA III 296 and digitized at: <http://teca.bmlonline.it/ImageViewer/servlet/ImageViewer?idr=TECA0000481080#page/48/mode/1up> (the subscription is visible on fol. 18v).

ambitions of these late antique gentlemanly scholars were modest, and their activity resembles more a scribal διόρθωσις than the making of an ἔκδοσις. Their knowledge of the Alexandrian *doxa* must have been limited and conflated with other traditions.<sup>130</sup>

The fortunes of the Alexandrian critical signs follow the fortunes of the Alexandrian school and illustrate how fragile the existence of particular scholarly innovation was, often not sustained beyond a particular period of economic and political stability and related intellectual flourishing. The first, formative stage of the Alexandrian tradition can be associated with the apogee of the Alexandrian library from the third to the second century BCE. In this stage, critical signs were used in the Museion, and the *doxa* pertaining to them was transmitted orally from teacher to pupil, in the same way as scribes were instructed to use signs in a workshop setting. In the second stage, between the first century BCE and the third century CE, critical signs spread beyond Alexandria and became known and used in the Latin world. The oldest written tradition referring to the Alexandrian *praxis* emerged in the Roman environment in a period known as the Golden Age of Latin literary culture.<sup>131</sup> This written tradition provided a model for writing about technical signs, both critical and others, for future generations, in particular for Christian authors of Late Antiquity.

The use of critical signs can be associated with two groups of users: first, professional philologists, who were engaged in the production of learned commentaries and annotated key texts and who had students; and second, amateur scholars, who cultivated scholarly interests in their free time as a part of a particular cultural ideal. These two groups can be compared to the two groups of scribal sign users – professional book-copyists and ‘lay’ sign users imitating their *praxis*. The ‘lay’ scholarly users proved to be essential for the continued use of critical signs in Late Antiquity as well as for the survival of the written tradition in the Latin West after the decline of Alexandrian philological scholarship. It is important to note that although the written tradition stemming from scholarly sign users suggests that the signs used for scholarly annotation were a fixed set (and an effort may have been made towards their standardization), in reality the

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<sup>130</sup> This is the image provided by early medieval sign treatises, which are dependent on late antique models (I discuss these texts in chapters 2 and 3). In these texts, we find critical signs and scribal corrections signs, omission signs and quotation signs side by side without distinction.

<sup>131</sup> As West remarks: ‘It is curious that these three Alexandrians who went to Rome, Aristonicus, Philoxenus, and Seleucus, all wrote works about Aristarchus’s critical signs’; West, *Studies in the Text and Transmission of the Iliad*, 48, n. 8. I agree that it is unusual that the genre of sign treatise, which was composed in Greek, was born in a Latin-speaking environment, while scholarly grammarians of the same generation active outside Rome, such as Didymus, never composed similar explanatory pamphlets, even though he did engage with Aristarchus’s commentaries on Homer. Scholars from Stilo’s circle, too, did not produce any account of the signs. Perhaps then, the sign treatises were intended for Roman audiences or somehow fitted into mechanisms of patronage. Perhaps, they reflect one of the strategies of the Alexandrian scholars active in Rome to acquire students in a competitive environment.

Alexandrian tradition was never closed to external influences. Signs that were devised by other professional groups were used by scholarly practitioners both for scholarly and non-scholarly operations, particularly as some of them may have been trained as members of other professional groups of sign users. By Late Antiquity, Alexandrian scholarly conventions were significantly diluted by other conventions used by amateur scholars, e.g. when *theta* was used for problematic passages instead of *obelus*. The conflated state of material – both of manuscript annotations reflecting *praxis* and the written tradition reflecting *doxa* – is crucial for our understanding of the early medieval transmission of ancient scholarly traditions and on medieval efforts to emulate them. Although I decided to use the term critical sign in this chapter section to refer to the Alexandrian scholarly conventions only, for material produced after Classical Antiquity, the term critical sign should be applied to technical signs on the basis of the character of the annotation they were employed in, rather than because they correspond to a set of critical signs used by Aristarchus. I will also use this term in this manner below (see p. 39).

### **Other communities of sign users in Antiquity**

Scribes and scholars left behind such an amount of evidence that we can easily identify them today as ancient sign users, but they were not the only professionals making use of technical signs in Antiquity. In this section, I discuss the evidence for two additional communities of sign users in Antiquity – law students and philosophers.

The most prominent category of grammatical students were future lawyers; yet, the reason why they studied Homer and Virgil was not in order to cultivate scholarship. Rather, it was a necessary educational stage in their careers, which allowed them to continue to the study of rhetoric and law and then to attain a position in the imperial administration. Until the sixth century, law was practiced in Latin in both the Eastern and the Western part of the Empire.<sup>132</sup> It was, thus, one of the few disciplines that required Greek-speakers from the Eastern parts of the Empire to learn this language. This language pressure together with the general need of law students to grasp legal texts seems to have stimulated a range of innovations, particularly in Beirut, the largest and most important law school in the Greek-speaking parts of the Empire.<sup>133</sup> From the fifth century on, Greek students could use the ῥδιξ, a translation of the Latin text into Greek that served as an

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<sup>132</sup> McNamee, ‘Another Chapter’, 273.

<sup>133</sup> See McNamee, ‘Another Chapter’. and more recently McNamee, ‘Missing Links’. Law was taught in Beirut at least from the second century, but the golden age of this law school lasted from the fourth to the sixth century. After an earthquake in 551 the school began to decline.

introductory reading, and *παραγραφαί*, a commentary akin to the *ὑπομνήματα* to Homer that would guide them through the Latin text.<sup>134</sup> Kathleen McNamee points out that from the fourth century on law books that can be associated with Beirut increased in size so as to accommodate spacious margins that provided room for marginal commentary to the Latin text (often Greek explanations of the difficult Latin passages).<sup>135</sup> This novel tradition of marginal annotations included also two technical signs: *σημείωσαι* (Ⓒ, Gr. “note”) and *ὠραῖον* (Ⓔ, Gr. “well-put, good point”), both attention signs with a function similar to *chresimon* (Ⓕ) in literary texts.<sup>136</sup> *ὠραῖον*, in particular, can be found consistently used in legal manuscripts<sup>137</sup> and seems to have spread from this context into wider use in Late Antiquity.<sup>138</sup> *Σημείωσαι*, too, although original to the law context, can be found outside the legal context, often side by side with *ὠραῖον*.<sup>139</sup> The two technical signs supplanted *chresimon* as the universal attention sign by the sixth century, which may be taken as an indicator of the influence of the bureaucratic culture on the wider literary culture in this period. It also leads to the important observation that sign users increasingly may have had an administrative background rather than the older, grammatical one.

The evidence for philosophers or students of philosophy using technical signs is slighter than in the case of law students. It consists of two inter-related pieces of *doxa* – a sign treatise preserved in Diogenes Laertius’s *Lives of the Eminent Philosophers* mentioned above (see p. 32) that describes a set of nine signs used in the annotation of Plato (see

<sup>134</sup> See McNamee, ‘Another Chapter’, 273.

<sup>135</sup> McNamee considers these chains of legal notes an important precursor of Byzantine scholia; see McNamee, ‘Missing Links’, 406.

<sup>136</sup> McNamee, *Annotations in Greek and Latin Texts from Egypt*, 123. These two signs possibly originated in oral instruction at law schools, as is suggested by the *Scholia Sinaitica*. This pre-Justinian commentary on Ulpian reflects oral lessons and contains both expressions, not as technical signs, but as exclamations in the text of the commentary; *Ibid.*, 20. The same phrases also occur as abbreviations *σημ* and *ωρ* as a part of marginal annotations in several legal papyri, for example in **P. Ant. 1.22** (4<sup>th</sup> century, Antinoopolis), **PSI 14.1449** (4<sup>th</sup>/5<sup>th</sup> century, perhaps Beirut), **P. Ryl. 3.475** (5<sup>th</sup> century, perhaps Thebaid), **PSI 11.1182** (5<sup>th</sup>/6<sup>th</sup> century, Antinoopolis), **P. Ant. 3.153** (5<sup>th</sup>/6<sup>th</sup> century, Antinoopolis), and **P. Heid. Lat. 4** (6<sup>th</sup>/7<sup>th</sup> century, Egypt). For annotations in these papyri see *Ibid.*, 493–512.

<sup>137</sup> *ὠραῖον* can be found in the following manuscripts of law: **PSI 11.1182** (5<sup>th</sup>/6<sup>th</sup> century, Antinoopolis), **Vatican, BAV, Reg. Lat. 886** (6<sup>th</sup> century, France, probably Lyon), and **P. Berol. inv. 6758** (6<sup>th</sup> century, Egypt or Byzantium). A sign that could be either a *chresimon* or a *ὠραῖον* (Ⓕ) is found in **P. Berol. inv. 11866A-B** (5<sup>th</sup>/6<sup>th</sup> century), a law commentary from Egypt; see McNamee, *Annotations in Greek and Latin Texts from Egypt*, 493–512.

<sup>138</sup> See Swete, *An Introduction to the Old Testament in Greek*, 365. *ὠραῖον* was also used in two important sets of Patristic annotations from the sixth century that are discussed in this chapter, and can be found in **Paris, BnF, n.a.l. 1592** (6<sup>th</sup> century, southern Italy), an exemplar of Hilary of Poitiers’s *De trinitate*. It features also in early medieval Byzantine manuscripts, for example in a dossier of philosophical texts, **Vienna, ÖNB, Gr. 314** (c. 925).

<sup>139</sup> *Ibid.* *Σημείωσαι* was also used by the sixth-century annotator of Gregory of Nazianzus discussed in this chapter and it is one of the more common signs in the early medieval Byzantine manuscripts, for example in **Vienna, ÖNB, Gr. 314** (c. 925).

Appendix III, item 3),<sup>140</sup> and a papyrus fragment **PSI 1488** (2<sup>nd</sup> century)<sup>141</sup> that seems to describe the same signs in a different order and slightly different words (see Appendix III, item 2).<sup>142</sup> The two texts reflect the same tradition that makes use of the Alexandrian signs διπλή (>) for doctrines characteristic of Plato, διπλή περιεστιγμένη (≧) for editorial corrections, ὄβελός (−) for spurious passages, dotted ὄβελός (+) for passages marked as spurious erroneously, ἀστερισκος (✱) for ‘agreement of doctrine’, and ἀντισιγμα περιεστιγμένον (⊖) for repetition or transposition, but also of the non-Alexandrian *chi* (X) for Plato’s idiom or figures of speech, dotted *chi* (⊗) for notable style, and κερώνιον (T) for the ‘philosophical school’. As is clear from this overview, some signs have a function similar to that attributed to them by Aristarchus (ὄβελός and ἀντισιγμα περιεστιγμένον), but the majority has a different meaning. Also, while Alexandrian signs were designed specifically for philological assessment, Platonic signs pay attention to ideas present in the text, in particular to those that are relevant to philosophy (διπλή, ἀστερισκος, *chi*, dotted *chi*, and κερώνιον).<sup>143</sup> Thus, although Francesca Schironi considered these two sign treatises as corroboratory evidence of Alexandrian scholars engaging with Plato and annotating it with signs,<sup>144</sup> it is more likely that they reflect activities of someone interested in philosophy, rather than philology, although he or she was familiar with the Alexandrian critical method.<sup>145</sup> Unfortunately, little more can be said about the context of this annotation and unlike in the case of the technical signs used by scholars and law students this tradition of annotation cannot be associated with a particular institution.<sup>146</sup>

<sup>140</sup> Although Classical in origin, all witnesses of this sign treatise are very recent. The oldest manuscript containing it is the late twelfth-century **Naples, Bib. Naz., III.B.29**, in which it appears copied in the margin (fol. 65v); see Dorandi, *Laertiana*, 60.

<sup>141</sup> See Bartoletti, ‘Diogene Laerzio III 65-66’; Carlini, ‘PSI 1488’, 613–15.

<sup>142</sup> Both sign treatises can be, moreover, related to a third, Latin medieval sign treatise *De oboelis et asteriscis platonicis* that is discussed in chapter 3 (see p. 101).

<sup>143</sup> Another indication that the set was not devised in Alexandria, but was at best inspired by the Alexandrian scholarly tradition, is suggested by the fact that while critical signs made use of the opposition of ὄβελός and διπλή περιεστιγμένη (for spurious passages, and passages marked as spurious erroneously by Zenodotus, respectively), the same opposition is expressed in the Platonic set by *obelus* and its dotted variant.

<sup>144</sup> Schironi, ‘Plato at Alexandria’, 430–31.

<sup>145</sup> It has been suggested that this annotation had to do with the production of an ἔκδοσις of Plato akin to the Alexandrian ἔκδοσις of Homer, but there are no good grounds to believe that the annotator had such an intention. In light of evidence, it seems unlikely; see Mansfeld, *Prolegomena*, 198–99.

<sup>146</sup> It can be speculated that the institution in question could be the Academy in Athens, which had at different times in Antiquity a similar prominent position with respect to teaching and exegesis of Plato’s texts as Alexandria had with respect to Homer and other poets and Beirut with respect to law; see Solmsen, ‘The Academic and the Alexandrian Editions of Plato’s Works’, 102. For a general overview of the history of the Athenian Academy, see Slezák, ‘Akademeia’.

### Rise of a Christian sign use: Origen, Jerome and Epiphanius of Salamis

While from a certain point in time onwards, it is logical to assume that at least some of the professionals belonging to the groups described here were Christian or used scribal signs for the διόρθωσις of Christian texts,<sup>147</sup> only from the third century on can we discern a professional sign use by Christian annotators, i.e. a use that reflects concerns particular to Christianity. To distinguish these users from members of other professional groups who were Christians, I will term them Patristic sign users. Just as the Alexandrian critical signs can be associated with well-known historical personages and localized precisely, the origins of Patristic sign use can be traced back to a particular Christian scholar, Origen (185 – 254), and its early history can be connected with a close-knit community of Christian intellectuals who played a similar role in the transmission of this tradition as Aristonicus and Varro had with respect to Aristarchus. In fact, the Alexandrian and Patristic sign users share other similarities stemming from their scholarly and therefore elitist character.

Origen was educated in both Classical and Christian traditions of learning in Alexandria. Like others before him, he was troubled by the existence of many different text versions of the biblical books. Origen realized that there existed significant differences between different Greek text versions of the Old Testament, notably between the Septuagint and text versions that followed the Hebrew more closely (those of Theodotion, Aquila, and Symmachus). In a desire to ‘heal the dissonance’ of the Scriptures, as he described his enterprise (see Appendix II, items 13a-b), he produced the Hexapla, a six-column comparative ἔκδοσις of the four above-mentioned text versions, including also the Hebrew texts and Hebrew texts transliterated in Greek letters. There is no scholarly consensus about the precise goal of this undertaking, its form, the number of ἔκδοσεις Origen produced, or the precise position of critical signs in them.<sup>148</sup> That at least one of Origen’s ἔκδοσεις contained signs is evidenced by Origen himself: he claimed that he used ἀστερίσκος (✱) and ὀβελός (—)<sup>149</sup> to mark passages of the Old Testament that were absent

<sup>147</sup> Two notable examples of the use of scribal signs in Christian texts in Antiquity are **P. BL inv. 729** (c. 577, Alexandria), a letter of the patriarch of Alexandria, and **P. Cologne Theol. 1** (6<sup>th</sup> century, perhaps Alexandria), an exemplar of the commentary on Psalms which may have been written by Didymus the Blind. They contain the typical scribal signs such as διπλῆ for quotations, ζῆται for corrective query signs and χορῶνις to mark end of a longer passage; see Wildberg, ‘Simplicius und das Zitat’, 192–93; Kehl, *Der Psalmenkommentar von Tura*. The Cologne papyrus is digitized at: <http://www.uni-koeln.de/phil-fak/ifa/NRWakademie/papyrologie/Turapap/psalmenkomm.html>.

<sup>148</sup> For the most recent contributions to the debate, see Brock, ‘Origen’s Aims as a Textual Critic of the Old Testament’; Dines, *The Septuagint*, 100–2; Grafton and Williams, *Christianity and the Transformation of the Book*, 88–119; Law, ‘Origen’s Parallel Bible’; Schironi, ‘The Ambiguity of Signs’; and especially Clements, ‘Origen’s Hexapla and the Christian–Jewish Encounter’.

<sup>149</sup> A third sign, *metobelus* (⊛) which serves as a closing parenthesis for passages marked by both *asteriscus* and *obelus*, is not mentioned in Origen’s account, but can be seen in Greek Hexaplaric manuscripts. It was later also employed by Jerome who calls it *duo puncta*. It was not used consistently for all passages highlighted by

from the Septuagint but present in the Hebrew (that is, the three versions closely following the Hebrew), or absent from the Hebrew version and present only in the Septuagint, respectively.<sup>150</sup>

It has been universally accepted that his convention of sign use stems from the older, scholarly *praxis* of the Alexandrian scholars;<sup>151</sup> however, this is not altogether clear and certainly not necessary. Both signs were, as was shown above, familiar to the scribal sign users<sup>152</sup> and Origen's use does not suggest any direct link with the Alexandrian convention.<sup>153</sup> Whether his use was inspired by the earlier scholarly or scribal conventions, Origen used ἀστερίσκος and ὀβελός in an innovative manner distinct from the scribal, and especially scholarly use. First, although his method of working was essentially philological, his objectives were not. In his letter to Julius Africanus, he clearly voices his concerns about the falsification of the Scriptures by Jews and a desire to prevent the use of corrupted exemplars of the Old Testament by Christians (Appendix II, item 13a), i.e. motives decisively Christian.<sup>154</sup> Second, Origen's predecessors worked with only a single exemplar of text, at best comparing it mentally with other exemplars and expressing their

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critical signs, but only in cases when the critical sign marked individual words or short phrases and was therefore inserted into the line of the text (rather than in the margin next to the line when it marked a longer passage). Origen also combined *asteriscus* and *obelus* together to indicate that the order of a passage was at fault; see Swete, *An Introduction to the Old Testament in Greek*, 70–71.

<sup>150</sup> This description suggests that the signs were not entered in the six-column Hexapla, where the three Hebrew versions were separated, but rather that they were applied to a different ἔκδοσις that contained only one block of text, based on a mixed 'Hebrew' text (drawn from Theodotion, Aquila as well as Symmachus) and the Septuagint. Existence of such an ἔκδοσις is suggested by the later testimonies of Jerome as well as by the manuscript evidence, since virtually all manuscripts of the Septuagint have this form, see for example **Oxford, Bodleian Library, Gr. bibl. d. 4** (3<sup>rd</sup>/4<sup>th</sup> century, Faiyum), **Leiden, UB, Voss. Gr. Q 8** ('Codex Sarravianus', 5<sup>th</sup> century, perhaps Egypt), and **Vatican, BAV, Vat. Gr. 2125** ('Codex Marchalianus', 6<sup>th</sup> century). The Leiden manuscript is digitized at: [https://socrates.leidenuniv.nl/R/?func=dbin-jump-full&object\\_id=677936](https://socrates.leidenuniv.nl/R/?func=dbin-jump-full&object_id=677936). See also the arguments for and against the presence of critical signs directly in the six-column Hexapla by Swete; *Ibid.*, 500–502.

<sup>151</sup> Field, *Origenis Hexapla*, lii; Reynolds, *Scribes and Scholars*, 49; Wilson, *Scholars of Byzantium*, 9; Parkes, *Pause and Effect*, 14; Schironi, 'The Ambiguity of Signs', 100.

<sup>152</sup> As mentioned earlier, ἀστερίσκος (✱) was used as a text-structuring sign. It was used in particular in poetry; see for example McNamee, *Signa and Select Marginalia in Greek Literary Papyri*, 25, and Turner, *Greek Manuscripts of the Ancient World*, 12. This is suggested also by the sign treatise of Hephæstion (Appendix III, item 1). The ὀβελός (— or ➔) was used for the cancellation of lines by correctors before Zenodotus, see Field, *Origenis Hexapla*, lii; Montanari, 'Zenodotus, Aristarchus and the Ekthesis of Homer', 7; Turner, *Greek Manuscripts of the Ancient World*, 34.

<sup>153</sup> Schironi claims that Origen himself traced his sign use to the Alexandrian scholars in his letter to Julius Africanus, the only description of his method coming from his pen; see Schironi, 'The Ambiguity of Signs', 100. However, Origen simply stated in this letter that he used a sign 'the Greeks call ὀβελός' (see Appendix II, item 13a). Rather than being inspired by Aristarchus and others, Origen may have ascribed meanings to his ἀστερίσκος and ὀβελός on the basis of their symbolic character. Origen used ἀστερίσκος, the stellar sign that was used to mark beginnings, with a positive, affirmative connotation perhaps because of its association with light, while ὀβελός, which symbolized a dagger cutting-out the text, had a negative connotation already before his times. Early medieval users of these and other critical signs invoked a similar symbolism, see chapter 4, p. 134.

<sup>154</sup> See in particular Clements, 'Origen's Hexapla and the Christian–Jewish Encounter', 321–28.

own assessment stemming from the comparison.<sup>155</sup> Origen, on the other hand, used signs to compare different text versions and to visualize the differences between them. In the process, he did not avoid judgment, but expressed it by his particular choice of signs.<sup>156</sup> Finally, scholarly sign users before Origen worked on their private copies of relevant texts and if at all, their ἔκδοσις became authoritative only after their death, as a result of their reputation and the status ascribed to them by their disciples. Although it is questionable to what extent Origen's undertaking was or wasn't a private project,<sup>157</sup> the very fact that he described his use of signs in writing, something done by no earlier ἔκδοσις-producing scholar, suggests that he had an audience for his work in mind.

Just as the fortunes of Aristarchus's critical method depended on his pupils, Origen's method and his Hexapla was preserved for posterity by Pamphilus (240 – 310) and Eusebius (c. 260 – 337/40), who used the contents of Origen's book collection as the basis of the library of Caesarea and who also took care of disseminating his works.<sup>158</sup> However, Origen's most devoted 'disciple' was Jerome (c. 347 - 419).<sup>159</sup> Origen may be credited with transferring the scholarly use of critical signs to a Christian context and with a range of innovations in use, but it was thanks to Jerome that the knowledge of these signs was made available in the Latin West. This happened via Jerome's own use of *asterisci* and *obeli* in his Hexaplaric revision of the Latin Bible, and also via his writings in which he described the Origenian critical method several times.

The revision of the Latin Bible according to Origen's Hexapla was sparked by Jerome's visit to the library of Caesarea and his discovery of Origen's writings there in late 380s. It was the second out of the three revisions of the Latin Bible by Jerome that

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<sup>155</sup> This perspective was endorsed in particular by Martin West, who rejected the older idea that the Alexandrian ἔκδοσεις were based on the collation of multiple manuscripts; see West, *Studies in the Text and Transmission of the Iliad*, 34–35. Franco Montanari, on the contrary, argues that the Alexandrian scholars engaged both in internal assessment of the text and its collation; Montanari, 'Zenodotus, Aristarchus and the Ekdoxis of Homer', 1–2.

<sup>156</sup> Schironi, 'The Ambiguity of Signs', 102–3.

<sup>157</sup> See Kamesar, *Jerome, Greek Scholarship, and the Hebrew Bible*, 9; and Grafton and Williams, *Christianity and the Transformation of the Book*, 22–85.

<sup>158</sup> Although Origen seems to have begun his work on the Hexapla already in his native Alexandria, he resettled to Caesarea in c. 233 and brought with him both his writings and his private library. The central role of Pamphilus and Eusebius in copying the Hexaplaric text and in preserving the signs in it is attested by subscriptions in Syro-Hexaplaric manuscripts which mention them as copyists. A similar subscription that refers to a copying from and collation against the autograph of Origen (which may be associated with Eusebius and Pamphilus) can be found in two manuscripts of *Contra Celsum*; Cameron, *The Last Pagans of Rome*, 427–28. Eusebius and Pamphilus may also have been responsible for the addition of a marginal commentary from Origen's works that survives in some copies. See Field, *Origenis Hexapla*, xcvi–c; and especially Grafton and Williams, *Christianity and the Transformation of the Book*.

<sup>159</sup> For a reflection on Jerome's attitude to Origen and to the Hexapla, see Williams, *The Monk and the Book*, 63–96; and Vessey, 'The Forging of Orthodoxy', 509–13.

provided most of the corpus known as the Vulgate.<sup>160</sup> It is unclear what was the extent of this second revision, since it seems to have been abandoned within several years for the revision *inxta Hebraeos* (Jerome's third revision), which in the end supplied most of the Old Testament books of the Vulgate.<sup>161</sup> We know that Jerome certainly made the Hexaplaric revision of Chronicles, Job, Psalms and the books of Solomon, for which original prefaces composed by Jerome and referring to the Origenian signs survive (see Appendix II, items 17c-f). In addition, *obeli* are found in Ester and Daniel revised *inxta Hebraeos*.<sup>162</sup>

With the exception of the revision of the Psalms, Jerome's Hexaplaric revision of the Latin Bible seems to have enjoyed a limited circulation in the Latin West.<sup>163</sup> Nevertheless, where this Hexaplaric revision of the Psalter, known as the *Psalterium Gallicanum* to distinguish it from Jerome's first revision of the Psalms, *Psalterium Romanum*, and his third revision, *Psalterium inxta Hebraeos*, spread, it provided an important platform for an encounter with the Origenian critical method. Monastic communities that endorsed the Gallican Psalter in particular were confronted with *asterisci* and *obeli* in the text and either turned to *doxa* about technical signs, such as Jerome's writings, in order to comprehend their function, or neutralized the text by removing the signs (as also happened frequently). Preference for the *Gallicanum* in particular areas may have, furthermore, created the need to hand down some basic *doxa* about the critical signs contained therein, since it was necessary for the correct use of this text version. Importantly, the Gallican Psalter, as its name suggests, gained early popularity in Gallia, where it later served as a basis for the Carolingian liturgical reforms. As we will see in chapter 4, this late antique diffusion proved an important precondition for the revival of Origenian textual criticism in the Carolingian period (see p. 123).

Jerome played a key role not only in the transmission of Origenian *praxis* in the Latin West, but also as a source of *doxa* about Origen's critical signs. Of all the authorities to

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<sup>160</sup> Prior to his voyage to the East, which would last until his death in 419, Jerome had already worked on an earlier revision of the Latin Bible including only Gospels and Psalms that he completed at the request of pope Damasus during his stay in Rome in 382-5. In the course of his stay in Bethlehem, he produced a third series of revised books of the Old Testament based on Hebrew and Aramaic, including those books that he revised earlier on the basis of the Hexapla. For the chronology of the three revisions, see Williams, *The Monk and the Book*, 281–301.

<sup>161</sup> For a concise overview of Jerome's Hexaplaric revision, its chronology and relationship to other revisions, especially to the third one, see Kamesar, 'Jerome', 660–64.

<sup>162</sup> They can be seen in the Carolingian Bibles, such as on fol. 178r (Daniel) of **Paris, BnF, Lat. 3** (825-35, Tours), digitized at: <http://gallica.bnf.fr/ark:/12148/btv1b8426789n/f361.item>; or on fol. 209r (Ester) of **Paris, BnF, Lat. 9380** (9<sup>th</sup> century, ¼, Orléans or Fleury), digitized at: <http://gallica.bnf.fr/ark:/12148/btv1b8452776m/f423.item>. It is unclear what the source of the *obeli* was. It may have been either Jerome's own application of Origenian method to a non-Hexaplaric text, or they may have been taken from the Hexapla, but not acknowledged as a borrowing by Jerome; compare Williams, *The Monk and the Book*, 80.

<sup>163</sup> Kamesar, 'Jerome', 660.

discuss the subject of technical signs, he was the most prolific. He describes the function of *asterisci* and *obeli* in five of his Bible prefaces (Joshua, Chronicles, Job, Psalms, preface to *Libri Solomonis*),<sup>164</sup> refers to them in five of his biblical commentaries (to Isaiah, Jeremiah, Ezekiel, Daniel and the minor prophets), and discusses them in several of his letters and other writings (e.g. in his *Apologia contra Rufinum*, an overview of these testimonies is presented in Appendix II, item 17). The most telling testimony is letter 106 addressed to Sunnia and Fretela (c. 393 – 401), two Gothic priests, who asked Jerome to explain to them discrepancies between his Gallican Psalter and the text version of Psalms they used in Constantinople.<sup>165</sup> It is the most thorough overview of the *asterisci* and *obeli* in the *Gallicanum* that could be used for their study and emendation.

Two other Latin Church Fathers, both contemporaries and friends of Jerome, refer to Origen's critical signs. Rufinus discusses *asterisci* and *obeli* in his *Apologia* addressed to Jerome (see Appendix II, item 18).<sup>166</sup> Augustine was the addressee of a letter from Jerome in which the latter discussed the signs and he himself wrote a letter to Jerome on the subject (see Appendix II, item 19b). He also mentioned the critical signs in the Bible in his later works, *De civitate Dei* (see Appendix II, items 19a) and *Quaestiones in Heptateuchum* (see Appendix II, item 19e). In his *Enarationes in Psalmos*, he discusses readings that are marked with *asterisci* (to Ps 67.16 and 89.17, see Appendix II, items 19c and 19d) twice, revealing that he had access to the *Gallicanum*. Together with Jerome, Rufinus's and Augustine's references formed the essential *biblioteca* of information about the Origenian critical method, which could be consulted by those who encountered *asterisci* and *obeli* in their biblical codices, but also for those who were simply eager students of their writings and exegetical methods.<sup>167</sup>

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<sup>164</sup> A sixth preface discussing *asterisci* and *obeli*, to the Pentateuch, is not originally Jerome's, but rather an adaptation of a section from his *Apologia contra Rufinum*.

<sup>165</sup> Because of its length, I decided not to include this letter in my appendix. It was edited and translated into French in Labourt, *Saint Jérôme. Lettres*, 5:104–44.

<sup>166</sup> Rufinus mentions also several other types of *notae*. He likened Origen's use of *obeli* to the use of *theta* in military rosters, providing thus information about this military convention. In a different passage of the *Apologia*, he mentions *notae simplices* and *duplices* that he used to mark passages cited from his work and from the work of his opponent, Jerome; see Houston, *Shady Characters*, 194. C. P. Hammond connected the single and double quotation signs in **Lyon BM 483** (5<sup>th</sup>/6<sup>th</sup> century, Italy), a copy of Rufinus's translation of Origen's commentary on the Romans, with the latter passage; see CLA VI 779, and Hammond, 'A Product of a Fifth-Century Scriptorium', 377–78. This manuscript is digitized at: [http://numelyo.bm-lyon.fr/manuscripts/list.php?order=by=Relevance&cat=quick\\_filter&search\\_keys\[core\\_8\]\[0\]=%24collection\\_pid&recherche=483](http://numelyo.bm-lyon.fr/manuscripts/list.php?order=by=Relevance&cat=quick_filter&search_keys[core_8][0]=%24collection_pid&recherche=483).

<sup>167</sup> One of the most influential writers to draw information about technical signs from these Patristic writers was Isidore of Seville, whose sign treatise, *De notis sententiarum*, had a profound influence on the sign use in the Carolingian period. The compilation of Isidore's sign treatise is discussed extensively in chapter 5.

Jerome was a close friend of a third contemporary Christian writer who described Origen's method, Epiphanius of Salamis (c. 310/20 – 402/3).<sup>168</sup> Once again in analogy to the Alexandrians, Epiphanius did for Origen what Aristonicus and the other Ἀρισταρχοί did for Aristarchus – he built a foundation for the written tradition about Origenian signs in Greek by producing the first concise text devoted specifically to them, a Christian sign treatise. This text which bears the title Περί ἀστερίσκου καὶ ὀβελοῦ καὶ λιμνίσκου καὶ ὑπολιμνίσκου ἤρουν τῶν ἐν ταῖς θείαις γραφαῖς σημείων ('Concerning the *asteriscus*, the *obelus*, the *lemniscus*, and the *hypolemniscus*, that is, the signs that are in the divine Scriptures') is found in Epiphanius's Περί μέτρων καὶ σταθμῶν (commonly known as *De mensuris et ponderibus*, 'On weights and measures'), a compendium on various topics related to the Old Testament, which Epiphanius completed while staying in Constantinople in 392.<sup>169</sup> It survives only fragmentarily in Greek,<sup>170</sup> in its entirety in Syriac,<sup>171</sup> and as a reworking in Armenian,<sup>172</sup> the three versions – as far as one can see - being slightly different.<sup>173</sup> Unlike the medieval sign treatises which are discussed in chapters 2 and 3 and have the form of

<sup>168</sup> Jerome and Epiphanius probably met personally in Antioch in 370s, during Jerome's first visit to the East. They remained friends until Epiphanius's death in 403 and shared sides in the Origenist controversy of 390s. Jerome also translated several letters of Epiphanius into Latin and the two exchanged correspondence; see Williams, *The Monk and the Book*, especially 28 and 275.

<sup>169</sup> According to Moutsoulas, Epiphanius did so on the basis of older, pre-extant notes. This explains its miscellaneous character and also may suggest that the sign treatise was originally a self-standing textual entity, just as other ancient sign treatises; see Moutsoulas, 'L'oeuvre d'Épiphane de Salamine *de mensuris et ponderibus*'.

<sup>170</sup> The Greek version of *De mensuris et ponderibus* is edited in PG 43, cols. 237-93. The section devoted to the critical signs in the Old Testament survives in its entirety and can be found in cols. 237-50 of the Migne edition. A more recent edition was made by Elias Moutsoulas and is available via the *Thesaurus Linguae Graece*, Moutsoulas, 'Το Περί μέτρων καὶ σταθμῶν'. I transcribe the relevant parts of the text on the basis of the latter edition in Appendix III, item 5. The most important manuscript of the Greek text is **Vatican, BAV, Vat. Gr. 1142** (13<sup>th</sup> century).

<sup>171</sup> It was edited by James Dean, Dean, *Epiphanius' Treatise on Weights and Measures*. The two oldest and most important manuscripts of the Syriac version of *De mensuris et ponderibus* are **London, BL, Add. 17148** (c. 650-60) and **London, BL, Add. 14620** (9<sup>th</sup>-10<sup>th</sup> century). I present the English translation from Syriac by Dean in Appendix III, item 5.

<sup>172</sup> The Armenian text of the sign treatise survives as an introduction to the *Commentary on Psalms* of Vardan Arewelc'i (d. 1271). Its edition with English translation is provided by Stone and Ervine, *The Armenian Texts of Epiphanius of Salamis De Mensuris et Ponderibus*, 66-67 and 89-90. The two oldest manuscript of Vardan's work, **Yerevan, Matenadaran, MSS 4954** and **4066**, both date to the thirteenth century. I presented the English translation from Armenian by Stone and Ervine in Appendix III, item 26.

<sup>173</sup> For example, the position of the sign treatise in the three language versions is different. The Greek and Syriac versions place it after another sign treatise 'to the prophetic writings' (see below) and a short account on the punctuation used in the Bible, which, in fact, may be considered another text about *notae*. In the Armenian version, the sign treatise is found at the very end of the work, after the accounts of the punctuation in the Bible and of a versified version of the Old Testament made by the two Apollinarii, a father and a son, during the reign of Julian the Apostate (360 – 363).

short, itemized lists of signs, the text had the form of a lengthy prose narrative,<sup>174</sup> following the model typical for sign treatises in Antiquity.<sup>175</sup>

Epiphanius's sign treatise seems to be the oldest (but perhaps not original) source to mention that Origen did not use two, but rather four signs for his annotation of the Old Testament. He describes a *λημνίσκος* (✚, Gr. 'ribbon') for passages that have the same meaning but a different wording in different text versions of the Old Testament, and *ὑπολημνίσκος* (⊕) for passages that have different meanings in different text versions (see Appendix III, item 5). These two additional signs do not appear in the manuscript evidence, nor are they mentioned by either Origen or Jerome. They may be an error or a willful alteration of Origen's original convention.<sup>176</sup> They are perhaps the best example of sub-invention<sup>177</sup> that could affect *doxa* and that could attain a life of its own, detached from *praxis*, but sustained by copying and study. The error of Epiphanius, as we will see in chapters 2 and 3, left an impression on the early medieval *doxa* (see p. 99).

The Greek and Syriac versions of *De mensuris et ponderibus* preserve also a second sign treatise that seems to go back to Epiphanius: a list of eight technical signs that precedes the account of four Origenian critical signs and which is intended for 'prophetic writings'. Signs in this list have a clearly exegetical colouring (e.g. 'for the rejection of the ancient people', 'for the calling of Gentiles' and 'for foreknowledge of things going to take place', see Appendix III, item 4). It is unclear, however, which text(s) may have been annotated in this manner, by whom, and in which context. The sign treatise is our only piece of evidence for this particular set of technical signs. Interestingly, one of them, 'for obscure passages in the Scriptures' has the form of the ancient query sign ζῆται.

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<sup>174</sup> In Moutsoulas's edition, it is over 200 lines long. In the Migne two-column Graeco-Latin edition, it covers six and half pages. In the facsimiles of one of the Syriac manuscripts printed by Dean, it covers four folia; see Dean, *Epiphanius' Treatise on Weights and Measures*, 87–91. In fact, it is the longest sign treatise I have seen, and provides an idea, perhaps, about the length of earlier sign treatises that did not survive.

<sup>175</sup> Two other ancient sign treatises that did survive confirm this impression. The *Περὶ σημείων* of Hephaestion discussed earlier is also an account in a narrative prose (see Appendix III, item 1), and the fragment of the sign treatise of Aristonicus preserved in the tenth-century **Venice, Biblioteca Marciana, Gr. 822** has this form (it is discussed in chapter 3, p. 105; see also the text in Appendix III, item 17). I discuss the significance of this formatting for understanding the early medieval sign treatises and their relationship to their ancient models in chapter 3, p. 110.

<sup>176</sup> Field, *Origenis Hexapla*, lix; Swete, *An Introduction to the Old Testament in Greek*, 71–72.

<sup>177</sup> By sub-invention I mean introduction of new material into a particular tradition (in this case two new critical signs added to two genuine critical signs used by Origen) not on purpose, but by an incorrect or free interpretation of a particular tradition.

### Before the Middle Ages: use of the technical signs in the sixth century

In the previous sections of this chapter, I have identified five professional groups that employed technical signs in Antiquity: the professional workshop scribes (and non-professional annotators inspired by them) who used technical signs for διόρθωσις; scholars-philologists (and their lay emulators) who used technical signs to express their critical opinion about important literary texts; bilingual students of law who used signs to find their way through legal text written in a second language; students of philosophy who seem to have annotated Plato because of his ideas; and Christian thinkers who marked the discrepancies between different text versions of the Old Testament. In this section, I will scan a period of hundred years, from 500 to 600, in order to see how four of these five groups (excluding the scribal sign users who are treated separately in chapter 6) fared at the very end of Late Antiquity. Such an examination will help us to understand which of these cultures of annotation may have had a direct influence on the early medieval Latin West, which had an influence only indirectly, and which media and texts may have been essential for mitigating this influence. I will first provide an overview of the written evidence from the sixth century and then relate it to the four professional groups of sign users mentioned above: scholars-philologists, jurists, philosophers and Patristic sign users.

While the activities of sign users that could be described as amateur scholars may have continued in the sixth century, they left behind no testimonies similar to those of Ausonius and Sidonius Apollinaris, nor am I aware of any manuscript evidence, for example in the form of annotated late antique manuscripts of canonical Latin authors, that could be connected with this group.<sup>178</sup> The most important contribution of this group seems to have been the transmission of the written *doxa* that came into being in the scholarly environment, either in the form of entire sign treatises that, however, did not survive (but may have been available in the Early Middle Ages), or in the forms of notes

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<sup>178</sup> Several scholars made claims about the presence of critical signs in medieval copies of Classical authors, which could be taken to reflect a process of critical annotation that took place in Late Antiquity or earlier, see for example Mülke, *Der Autor und sein Text*, 210–16. However, as far as I could check such manuscripts, I found these claims to be unsubstantiated. For example, Jocelyn claims on the authority of Friedrich Schoell, the Teubner editor of Plautus, that **Vatican, BAV, Pal. Lat. 1615** (11<sup>th</sup> century, southern Germany) contains critical signs, but I haven't found them when I examined this manuscript in person in the Vatican Library in May 2015; see also Deufert, *Textgeschichte und Rezeption der plantinischen Komödien im Altertum*, 58. Jocelyn mentions critical signs likewise in **Munich, BSB, Clm 816a**, a fifteenth-century exemplar of Lucretius, now digitized at: [http://daten.digital-sammlungen.de/bsb00033079/image\\_1](http://daten.digital-sammlungen.de/bsb00033079/image_1). My examination of these digital facsimiles did not reveal the presence of critical signs in this manuscript. See Jocelyn, 'The Annotations of M. Valerius Probus (II)', 151, n. 80. Traube believed that critical *obelii* can be found in the poem *De sodoma* of Cyprianus Gallus preserved in **Laon BM 279** (9<sup>th</sup> century, 1/2, probably western Germany), but I was unable to find them; see Traube, *Textgeschichte der Regula S. Benedicti*, 127. David Ganz kindly informed me about the presence of marginal symbols that may be critical signs in the fragment of Virgil, **Verona, Biblioteca Capitolare, MS XL (38)** (5<sup>th</sup> century, probably Gaul).

based on these sign treatises. Such notes, as will be shown in chapters 2 and 3, lie behind several early medieval sign treatises.

The scholarly use of signs for manuscript annotation, nevertheless, did not cease altogether, as is testified by three subscriptions from the sixth century. However, it is important to observe that all three are subscriptions to Christian texts, and two were made by clergymen. One *Cyprianus famulus* who can be identified as bishop Cyprian of Toulon (c. 476 – 546), a pupil of Caesarius of Arles, corrected, and provided Josephus's *De bello iudaico* with punctuation and with technical signs (*correxi ut valui, distinguendoque notavi*) (see Appendix II, item 25).<sup>179</sup> Cyprian's hexametric subscription mentions *obeli* employed for spurious passages.<sup>180</sup> A second subscription was made by Rusticus the Deacon (fl. 547–566), the nephew of pope Vigilius, in his *Synodicon*, a translation of the Acts of Ephesus and of Chalcedon equipped with additional material that Rusticus prepared in defense of the Three Chapters.<sup>181</sup> Rusticus's subscription contains the unambiguous triad of vocabulary for correction, punctuation and technical signs (*contuli, annotavi, distinxī*, see Appendix II, item 26).<sup>182</sup> Surviving early medieval copies of *Synodicon* such as **Paris, BnF, Lat. 11611** (mid-9<sup>th</sup> century, Corbie) contain Rusticus's technical signs that mark passages found in one of his sources, but not in another, having thus a similar function as Origen's *asterisci* and *obeli*.<sup>183</sup> Their graphic symbols are unique to the *Synodicon* and almost always equipped with a textual note that explains their purpose and directs the reader to the related signs. Finally, the subscription of one Dulcitus of Aquino can be found in **Vienna, ÖNB, Lat. 2160**, a sixth-century copy of Hilary's *De trinitate*.<sup>184</sup> Dulcitus's hand is responsible for several textual annotations in this manuscript as well as for the technical signs that include διπλή quotation signs, ζήτει query signs, and *nota* attention signs (for more information on this attention sign and its late antique origin see chapter 6, p. 211).<sup>185</sup>

<sup>179</sup> This subscription survives in **St. Gallen, Stiftsbibliothek, MS 626** (9<sup>th</sup> century, 1/3, St. Gall), p. 312, digitized at: <http://www.e-codices.unifr.ch/en/csg/0626/312>.

<sup>180</sup> No *obeli* survive in this copy of Josephus or in any other manuscript of Josephus known to me.

<sup>181</sup> Rusticus's career is discussed in Schwartz, *Collectio Casinensis*, viii–x. and in Grillmeier, 'Vorbereitung des Mittelalters', 816–22.

<sup>182</sup> The vocabulary of his subscription is discussed by Alan Cameron, Cameron, *The Last Pagans of Rome*, 484. Compare with Zetzel, *Latin Textual Criticism in Antiquity*, 42.

<sup>183</sup> For example in **Paris, BnF, Lat. 11611**, fol. 24r: *in graeco non est in pagina ad signum (sign)*; or 151r: ✘ *qui inter haec suo signa similia hic leguntur in grecis duobus quodcibus non sunt*. In other cases, however, signs mark interjections of material that was not original to the main source used, e.g. on fol. 27r: (sign 1) *quae ephesi acta sunt*; and a few lines below (sign 2) *quae chalcedona acta sunt. hic ratio sufficientur(?) redditus loci superioris ad signum hoc* (sign 3).

<sup>184</sup> The facsimiles of this manuscript with a commentary was printed in Beer, *Monumenta palaeographica rindobonensia*. We don't know much about this Dulcitus, who may be identical with the Dulcitus mentioned in the papal correspondence of Pelagius I; *Ibid.*, 1:12.

<sup>185</sup> Another Christian author that may have been critically annotated is Juvenecus. According to Markus Mülke, **Cambridge, CCC, MS 304** (7<sup>th</sup> century, 1/2, Italy), an exemplar of Juvenecus, contains traces of critical signs;

Another important strain of written evidence is provided by two sign treatises composed in the sixth century, not as accounts of pre-extant traditions, but as prefaces to Patristic works equipped with signs. The first of these is a list of four signs used for the annotation of the *Orationes* of Gregory of Nazianzus that is found in the family *n* of the manuscripts of this work (see Appendix III, item 6). Although the oldest surviving manuscripts of this family come from the ninth century,<sup>186</sup> the signs, prefatory sign treatise, as well as the marginal commentary contained in them (the so-called *Scholia Alexandrina*) go back to a sixth-century scholiast.<sup>187</sup> Gregory was a popular school author in this period, not only as a theologian but also as a model of a Christian orator.<sup>188</sup> The layer of annotations reflects these two aspects of his personage, but it is not necessarily a classroom tool. One of the signs in the *Orationes*, ὠραῖον (⚡ or ⚡), which we met earlier in the context of law, marks the excellence of Gregory's oratory. Ἀστερισκος (✳) is used for passages concerned with the Incarnation, and ἡλιακόν (☀, Gr. 'solar, sun-like') for 'theological questions'.<sup>189</sup> As Mossay shows, the latter sign is associated with Trinitarian doctrine, in the defense of which Gregory played a famous role.<sup>190</sup> The fourth sign used in the *Orationes*, σημειῶσαι (⚡), was also taken over from the context of law and serves as a universal attention sign. Interestingly, the oldest manuscripts of this manuscript family contain not only the four signs described by the sign treatise, but also several additional technical signs that probably stem from the same late antique environment and form a single layer of annotation.<sup>191</sup>

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Mülke, *Der Autor und sein Text*, 216. This manuscript is digitized at: [https://parker.stanford.edu/parker/actions/page\\_turner.do?ms\\_no=304](https://parker.stanford.edu/parker/actions/page_turner.do?ms_no=304).

<sup>186</sup> These are **Paris, BnF, Gr. 510**, produced between 879 and 883 for the patriarch Photius in Constantinople, digitized at: <http://gallica.bnf.fr/ark:/12148/btv1b84522082>; and **Milan, BA, E 49-50 inf.**, a ninth-century two-volume copy probably produced in Byzantine Italy. Other manuscripts of the *Orationes* containing the sign treatise date to the tenth (5 exemplars), the eleventh (2 exemplars), the twelfth (1 exemplar) and the fifteenth centuries (1 exemplar); see the overview in Astruc, 'Remarques sur les signes marginaux', 292–93. See also Brubaker, *Vision and Meaning in Ninth-Century Byzantium*, 13–15.

<sup>187</sup> Astruc, 'Remarques sur les signes marginaux', 290. This position is accepted also by Leslie Brubaker; see Brubaker, *Vision and Meaning in Ninth-Century Byzantium*, 4.

<sup>188</sup> Wilson, *Scholars of Byzantium*, 23.

<sup>189</sup> Ἡλιακόν is otherwise unattested. The annotator may have chosen it because of its association with the sun, which is referenced also in the sign treatise, just as the ἀστερισκος was chosen for its stellar association.

<sup>190</sup> See Mossay, 'Le signe heliaque', 278–79.

<sup>191</sup> These are διπλή (>) to mark quotations from the Bible (just as it was used by Dulcitus of Aquino) and ὀβελός (—) for passages of dubious authenticity (just as it was used by Ausonius and Cyprian of Toulon). I was able to find both in **Milan E 49 inf.** and **Paris Gr. 510**. Descriptions of these signs are added to the sign treatise attached to the *Orationes* in some of the manuscripts, such as in **Vatican, BAV, Pal. Gr. 402** (11<sup>th</sup> century). The sign treatise added by a fourteenth- or a fifteenth-century hand on fol. 374r of **Paris, BnF, Coislin 242** (10<sup>th</sup> century) contains also a third additional sign called περιεστιγμένη καὶ διεστραμμένη μακρὰ ('dotted wavy [*obelus*]'). It marks the passages recording the opinion of Gregory's theological opponents, i.e. those that contained heretical thought.

The second sixth-century sign treatise is found in Cassiodorus's *Expositio psalmsorum*.<sup>192</sup> Cassiodorus (c. 485- c. 585) envisaged his commentary as a textbook of Christian Liberal Arts, using references in the Psalms to digress on various subjects. This intention was realized already in his first version, completed around 548 in Constantinople. In the 560s, at Vivarium, Cassiodorus produced a second version of this text, equipping it with thirteen topical indexing signs and a sign treatise providing a key to these signs as a preface.<sup>193</sup> Four of the indexing signs indicated when Cassiodorus's used Psalms to discuss disciplines of the quadrivium (*arithmetica, geometrica, musica, and astronomia*), six indicated topics falling into the trivium (*schemata, etymologiae, interpretatio nominum, rhetorica, topica and syllogismi*), one sign was designed for 'very important doctrines' (*in dogmatibus ualde necessariis*), one for 'definitions' (*in definitionibus*), and one for 'biblical idiom' (*in idiomatis, id est propriis locutionibus legis diuinae*; see Appendix III, item 7).<sup>194</sup> Most of the graphic symbols Cassiodorus used are sigla rather than symbols, e.g. ET for etymologies. They cannot be found outside the *Expositio*. The exception is PP, the siglum for biblical idiom (for *proprium?*), which Cassiodorus also mentions in his *Institutiones* 1.26 (*De notis affigendis*). Here, he provides a list of nine indexing signs for the scriptural canon (e.g. AAA for the Acts and the Apocalypse) that he used to annotate some of the Patristic authors present in the Vivarian library. This list includes also the siglum PP for the biblical idiom (see Appendix II, item 21).<sup>195</sup> Since an important part of the *Institutiones* was completed in the 560s,<sup>196</sup> Cassiodorus may have had the idea of a universal indexing system that could be used across the collection of Vivarium at this time.

Three of the signs used by Cassiodorus are not sigla, but rather technical signs known from other sources. It is particularly interesting that Cassiodorus employed *chresimon* (⌘) and ὠροῶν (drawn as ⌘ or ⌘ in the *Expositio*), signs we have seen earlier, the former as an attention sign used in literary texts by scribes, the latter as an attention sign used in law

<sup>192</sup> For more information on this work, see Stoppacci, 'Cassiodorus Senator. *Expositio Psalmsorum*'; Stoppacci, 'Stadi redazionali nella tradizione manoscritta dell' *Expositio psalmsorum* di Cassiodoro'. Two other important studies on this work include O'Donnell, *Cassiodorus*, 131–76; Heydemann, 'Biblical Israel and the Christian Gentes'.

<sup>193</sup> The only article devoted to this sign treatise is Halporn, 'Methods of Reference in Cassiodorus'. Halporn stresses that the *Expositio psalmsorum* was a book intended 'for the eye, not the ear; for the individual reader, not for oral presentation in the classroom', and the addition of indexing technical signs seem to have been part of this design supporting visual reading; *Ibid.*, 73.

<sup>194</sup> Ann Astell studied the passages marked with RT for *rhetorica*; Astell, 'Cassiodorus's Commentary on the Psalms as an *Ars Rhetorica*'.

<sup>195</sup> I chose not to classify this text as a sign treatise because it lacks the degree of autonomy characteristic of the sign treatises, specifically since it was both designed and transmitted only as a part of the first book of the *Institutiones*.

<sup>196</sup> The exact date of completion of the two books of the *Institutiones* and the process by which the current two-book version came into being are a matter of debate. I have here used the date suggested by Mark Vessey; Vessey, 'Introduction', 39–42.

texts. However, Cassiodorus's usage deviates from these two conventions. In the first place, he does not employ these two signs in the function of general attention signs, but rather as indexing signs. Second, both signs were genre-specific – *chresimon* was used for literary texts and ὄραϊον for law texts, but Cassiodorus used them for exegetical text, and in combination. Third, the two signs come from the East.<sup>197</sup> Cassiodorus probably is the oldest witness of their use in the Western part of the former Empire.<sup>198</sup> Perhaps he simply drew inspiration from external traditions that were familiar to him or that he came into contact with without having a good grasp of them. Perhaps Constantinople, where he spent fourteen years during his exile, was the place where he familiarized himself with these signs.<sup>199</sup>

Cassiodorus was not only interested in using technical signs for topical indexing (*Expositio psalorum*) and for cross-referencing Patristic works to the Bible (*Inst.* 1.26). Two passages from the *Institutiones* mention technical signs used for the assessment of the level of orthodoxy of particular authors.<sup>200</sup> In *Inst.* 1.1.8, Cassiodorus states that he inserted a sign he calls *achresimon* (clearly an opposite of *chresimon*, the sign of 'usefulness') into the Vivarian volume of Origen's homilies on the Octateuch to mark passages that 'contradict the statement of the Fathers' (see Appendix II, item 22a). Similarly, in *Inst.* 1.9.3, he mentions a commentary by Donatist Tyconius on the Acts and the Apocalypse present at Vivarium that he similarly sanitized by a positive *chresimon* and a negative *achriston* (probably identical with *achresimon* he used for Origen, see Appendix II, item 22b). No signs that agree with Cassiodorus's description survive in the manuscript of Origen,<sup>201</sup> however, the

<sup>197</sup> ὄραϊον features rarely in manuscripts produced in the West. The only two manuscripts known to me are **Vatican, BAV, Reg. Lat. 886** (6<sup>th</sup> century, France, probably Lyon), but this was copied by a Greek scribe (see CLA I 110), and **Paris, BnF, n.a.l. 1592** (6<sup>th</sup> century, southern Italy), an exemplar of Hilary's *De trinitate*. *Chresimon* could be expected in the Herculaneum corpus, but it is absent, perhaps because this dataset is relatively small. I am unaware of its presence in any surviving Western manuscripts prior to the Early Middle Ages.

<sup>198</sup> The only Western description of this sign that could be older appears in the 21-sign treatise, an anonymous Latin sign treatise that is the subject of the following chapter. In fact, both *chresimon* and ὄραϊον feature as a pair in this sign treatise that may have been compiled during the lifetime of Cassiodorus. It is peculiar that the two instances of sign use, especially as they reflect orally transmitted *doxa*, appear roughly at the same time and in the same language environment (see chapter 3, p. 75). See also Troncarelli, 'Reginense latino 2077', 91.

<sup>199</sup> The third non-siglaic sign is *asteriscus* (✱). Cassiodorus employed it as a sign representing astronomy because of its star-like shape rather than because of the function it had in the contemporary *praxis*. He may have learned about this sign from the works of Jerome present in the Vivarian library. These included Jerome's Greek translation of Job (*Inst.* 1.6.1), and his commentaries on Isaiah (*Inst.* 1.3.2), Jeremiah (*Inst.* 1.3.3), Ezekiel and Daniel (*Inst.* 1.3.4), and Minor Prophets (*Inst.* 1.3.5), all containing a reference to the Origenian set of critical signs, which included *asteriscus*.

<sup>200</sup> My colleague Irene van Renswoude and I discussed this practice in our forthcoming article; van Renswoude and Steinová, 'The Annotated Gottschalk'.

<sup>201</sup> No manuscript of Tyconius's commentary survives. Its most substantial witness is Cassiodorus's abbreviated commentary based on Tyconius, *Complexiones in epistulis apostolorum et Actibus apostolorum et Apocalypsi*; see Gryson, *Variorum auctorum Commentaria minora in Apocalypsin*, 50–55. Interestingly, this

designation of *chresima* and *achresima* fits a series of horizontal (⚡) and vertical (⚡) dotted *obelī* present in three early medieval manuscripts of Prosper's *Pro praedicatoribus gratiae Dei contra librum Cassiani*.<sup>202</sup> A copy of this polemical treatise was present in the Vivarian library, as is evident from *Inst.* 1.29.2, and although Cassiodorus does not explicitly mention *chresima* and *achresima* in this section, he issues a warning against a careless reading of Cassian's teaching on the free will, a subject obelized in Prosper, 'because he has gone beyond the mark in such matters' (see Appendix II, item 22c). In his dissertation, Jérémy Delmulle showed that these three manuscripts descend from the Vivarian exemplar.<sup>203</sup> Another manuscript that may have been copied at Vivarium and contains *obelī* for unorthodox passages is **St. Petersburg, Public Library, Q.v.I.6-10** (6<sup>th</sup> century), a sole surviving exemplar of Pelagius's *De fide* (attributed to Rufinus).<sup>204</sup>

This use of technical signs for what may be termed doctrinal criticism, i.e. the critical assessment of a text undertaken not with regards to its authenticity, accuracy, or literary quality, but with regards to its orthodoxy, was not Cassiodorus's invention. We have evidence that critical signs were used in this manner in certain Christian circles in Late Antiquity,<sup>205</sup> and that Cassiodorus was just one of the Christian scholars following this

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commentary contains a prefatory note by Cassiodorus that refers to the sanitization of Tyconius's text by the removal of offensive material, PL 70, col. 1382a: *Difficile opus obscure dicta brevius velle perstringere; cum sint latius dicenda, quae volumus explanare: sed quoniam hunc librum Tyconius Donatista subtiliter et diligenter exposuit, providente Deo, qui salutē nostrae antidotum conficit ex venenis; propter brevitatis propositae necessitate aliqui novi perversi dogmatis sensus praetererandi noscuntur, ut lectorem nostrum non tam satiare quam introducere videamus; quando sine damno intelligentiae suae in illo reperit quod orthodoxus et diligens lector inquirat.* The only surviving manuscript of this text is **Verona, Biblioteca Capitolare, MS XXXIX (37)** (6<sup>th</sup> century, ex./7<sup>th</sup> century, in., Italy, perhaps northern), but no marginal signs are mentioned in CLA; CLA IV 496. The three oldest manuscript of Origen's homilies all belong to the same late sixth- or early seventh-century generation and according to the editor of this text, it is very likely that they descend from the Vivarian exemplar; Origenes, *Homilien zum Hexateuch in Rufins Übersetzung. Teil 1*, xliii. Neither **Paris, BnF, Lat. 1625** (Corbie, digitized at: <http://gallica.bnf.fr/ark:/12148/btv1b90781714>), nor **Lyon BM 443** (area of Lyon, available via: <http://numelyo.bm-lyon.fr/manuscripts/list.php>) contains any technical signs. No technical signs are recorded by CLA to be present in the third manuscript, **St. Petersburg, Public Library, Q.v.I.2** (France); CLA XI 1612.

<sup>202</sup> These are: **Vienna, ÖNB, Lat. 397** (9<sup>th</sup> century, 1/2; Reichenau), in which *obelī*-like signs are found on fols. 123r-150v; **Einsiedeln, Stiftsbibliothek, MS 148** (10<sup>th</sup> century); and **Paris, BnF, Lat. 12098** (mid-9<sup>th</sup> century, Corbie), in which the signs are present on fols. 90r-120r. The Viennese manuscript is digitized at: [http://aleph.onb.ac.at/F/?func=find-b&find\\_code=IDN&request=AL00171288&local\\_base=ONB06&adjacent=N](http://aleph.onb.ac.at/F/?func=find-b&find_code=IDN&request=AL00171288&local_base=ONB06&adjacent=N). The Parisian manuscript is digitized at: <http://gallica.bnf.fr/ark:/12148/btv1b9068399m>. For the information about *chresima* and *achresima* in the manuscripts of Prosper, I am indebted to Jérémy Delmulle, who has prepared a critical edition of this text as a part of his dissertation; see Delmulle, 'Prosper d'Aquitaine contre Jean Cassien'.

<sup>203</sup> *Ibid.*, 430–40 and 463–75.

<sup>204</sup> A description of this manuscript is provided in Dobiash-Rozhdestvenskaia, 'Le Codex Q.v.I. 6–10'; and in CLA XI 1614. Besides critical signs, it contains also textual annotations warning readers against the Pelagian contents, including one that has been ascribed to Cassiodorus himself.

<sup>205</sup> A predecessor of texts and manuscripts annotated with signs of doctrinal criticism is perhaps **P. Bodmer III**, a fourth-century Coptic manuscript of the Gospel of John, which contains διπλή ὀβελισμένη (>) attached to dialogic passages depending on their character; see Kasser, 'La diplé obélisméné dramatique du P. Bodmer III'.

convention of sign use.<sup>206</sup> In **Verona, Biblioteca Capitolare, MS LIII (51)** (6<sup>th</sup> century, 2/2, Italy, probably Verona) dotted *obeli* and textual annotations were attached to passages of Facundus of Hermiana's *In defensione trium capitulorum*.<sup>207</sup> In **Vatican, BAV, Archivio di S. Pietro D 182** (6<sup>th</sup> century, in., southern Italy, Cagliari), a copy of Hilary's *De trinitate* once possessed by Fulgentius of Ruspe, dotted *obeli* and textual annotations were attached to the statements of Hilary's theological opponents.<sup>208</sup> In the annotations to Gregory of Nazianzus mentioned above, a variant of this sign was used similarly for the statements of Gregory's Arian opponents (see footnote 191). Furthermore, reference to obelization of problematic passages in the acts of the Second Council of Constantinople (553) is found in the acts of the Third Council of the Constantinople (680/81, see Appendix II, item 28).<sup>209</sup>

At least one document attests to the use of technical signs in the Gothic literary milieu in Italy.<sup>210</sup> It is a notice on a slip of parchment inserted in the *Codex Brixianus* (**Brescia, Biblioteca Queriniana, s.n.**, 6<sup>th</sup> 1/2, perhaps northern Italy) that refers to a comparison of the Latin and the Greek texts of the Bible by means of *vulthres* (Got. wulþrs, 'important', see Appendix II, item 24).<sup>211</sup> We have no evidence for this *vulthres* in surviving manuscripts, but a recently discovered palimpsest of a Gothic sermon, **Bologna, Archivio**

<sup>206</sup> Signs were not the only means to express positive or negative judgment about a particular theological text. We possess several late antique codices that contain textual critical textual notes referring to heterodox content; see Pez , 'Le virus de l'erreur', 586–87.

<sup>207</sup> I have examined parts of the microfilm of this manuscript in the Biblioteca Nazionale Centrale in Rome in May 2015 and found obelized sections on fols. 32r, 50r, 62r, 218r, 220r and 224v. On fol. 50r, passage marked in this manner is designated as *ex dictis damnatorum*, and on fol. 62r as *ex libro incusantium*. In all cases, obelized passages reproduce the words of those who condemned the Three Chapters, i.e. Facundus's opponents. The running title of the manuscript refers to him as *sanctus Facundus*, although he was never beatified, and his party, to which the making of this manuscript and its annotation should be credited, was considered schismatic. See also the description of this manuscripts in CLA IV 506; and Cl ment and Vander Plaetse, *Facundi Episcopi Ecclesiae Hermianensis Opera omnia*, xiii–xiv.

<sup>208</sup> They can be found on fols. 303v accompanying a marginal note *exemplum hereticorum* and on fol. 304r next to two exclamatory notes, *male* and *peissima*. This manuscript is digitized at [http://digi.vatlib.it/view/MSS\\_Arch.Cap.S.Pietro.D.182](http://digi.vatlib.it/view/MSS_Arch.Cap.S.Pietro.D.182). Textual annotations and signs inserted in this manuscript have been examined in Troncarelli, 'L'odissea di un'odissea'.

<sup>209</sup> It concerned two letters of sixth-century figures, St. Mennas, the patriarch of Constantinople (536–552), and pope Vigilius (d. 555), which Macarius of Antioch invoked in support of his monotheistic position. It is unclear, whether these letters were authentic or, indeed, forgeries, as claimed by Macarius's opponents; see Cameron, 'Texts as Weapons', especially 208–9. See the forthcoming article van Renswoude and Steinov , 'The Annotated Gottschalk'.

<sup>210</sup> I would like to kindly thank to my colleague Peter Alexander Kerkhof for introducing me to these materials.

<sup>211</sup> See Stutz, *Gotische Literaturdenkm ler*, 39–43. Given that the notice explicitly refers to placing the variant readings in the *vulthres*, it has been translated as 'a marginal gloss', but perhaps *vulthres* should be rather understood a kind of parenthetical technical sign akin to the *asterisci* and the *obeli* of Origen and Jerome. Note that the last sentence on the slip uses the verb *ponere* in order to discuss *vulthres*. This vocabulary is similar to the vocabulary Jerome and others use for *asterisci*, *obeli* and other technical signs that are *praepositi* or *appositi* to various passages in the Bible (see Appendix II, items 17e, 19c, and 29). Isidore of Seville, who is discussed in the following chapter, even explicitly states: *Nota est figura propria in litterae modum posita...* (see Appendix III, item 8).

della Basilica di San Petronio, Cart. 353, no. 3 (6<sup>th</sup> century, northern Italy) contains partially visible technical signs that have the form of Gothic runes.<sup>212</sup>

This overview of the sixth-century evidence, to which I can add several sixth-century law manuscripts containing *σημείωσαι* and *ὄραϊον* signs,<sup>213</sup> invites some general observations. In the first place, the absolute majority of the manuscripts and texts mentioned here came into being in a Christian setting and reflect not only activities of annotators that were Christians, but also a concern for themes specific to Christianity. This is a major shift from the situation in the third and the fourth centuries, where Patristic annotators were but one of several professional groups engaged in using signs, and moreover a group which was not necessarily very large. In the sixth century, we notice a broadening of focus beyond the textual criticism of the Bible that was practiced by Origen and Jerome. Technical signs were used for what I termed doctrinal criticism, for topical indexing, scholarly annotation of a key Patristic author, and for the emendation of Patristic texts. Conventions used for these purposes were not only drawn from the older Christian professional tradition, but also adopted from other professional groups. For example, the influence from the area of the study of law is evident in both the annotations of the *Orationes* of Gregory of Nazianzus and in Cassiodorus's *Expositio psalorum*. The Christian subscriptions clearly stand in the tradition of older subscriptions found in Classical texts.

Second, it can be noted that although Christian annotators adopted the *praxis* of older professional groups, they did not do so uniformly and to the same degree. Notably, the Alexandrian scholarly *praxis*, albeit ideally suited for the critical assessment of Christian texts, is absent from the record. I assume that this was due to the fact that the oral *doxa* supporting it was discontinued at a very early date, before the rise of a Christian intelligentsia. This development confirms that oral instruction, as opposed to the written record, such as the sign treatises, was essential for the survival of conventions. In fact, the conventions of sign use stemming from the law schools reflect a similar situation. Despite the fact that they had more time to get adopted by Christian sign users, they do not appear in the Western evidence after the sixth century, while in the Byzantine East they successfully became integrated into the Christian scholarly tradition and continued to appear in the manuscript evidence of the Early Middle Ages. Most likely, this disparity is the reflection of the geographical context in which these conventions came into being

<sup>212</sup> The signs is the rune for *th* (Ψ). I was able to inspect the palimpsest thanks to my colleague Peter Alexander Kerkhof. More information on this manuscript and its contents can be found in Finazzi and Tornaghi, 'Gothica Bononiensia'. and Kerkhof, 'Retracing the Lines'.

<sup>213</sup> See footnotes 136 and 137, and especially 197.

(Greek-speakers trying to comprehend Latin text), and it also suggests that the signs connected with the law professionals had never been widespread in the West.

In contrast to the commonly held opinion that technical signs ceased to be used as a result of the decline of the Classical grammatical culture centered around the canonical text of Greek and Roman literature, we can conclude that the sixth century was still a vibrant environment of sign use. In principle, it is correct to state that a decline in sign use occurred in Late Antiquity, but only as far as it concerns the tradition of sign use inaugurated by scholars of Alexandria. However, there are no reasons, other than a particular disciplinary focus, to assign preeminence to this particular tradition. As I hope to have shown in this chapter, it was just one of several sets of conventions that developed in Classical Antiquity and, moreover, it had only limited, indirect impact on the formation of the Christian scholarly sign use in Late Antiquity. Because of the inclusion of technical signs into *doctrina Christiana*, the knowledge of and practices tied to technical signs survived into the Early Middle Ages and could be revived during the Carolingian period, not on the basis of Classical, but rather on the basis of Patristic models. In this respect, a more significant break occurred between Classical and Late Antiquity than between Late Antiquity and the Early Middle Ages. Many of the trends that will be described in the following chapters can be recognized as a continuation of ideas and practices that started in Late Antiquity.

### **Conclusion: ancient sign use as a source of *doxa* and *praxis* in the early medieval West**

In this chapter, I examined the practices and knowledge of sign use in Antiquity by focusing on communities of sign users rather than on the geographic area or a particular class of evidence. Although this chapter may to some extent simplify the differences between these communities, the relationship between them and the fuzziness and incompleteness of the evidence on which it is based, I hope to have provided a good general insight into the ancient state of affairs. In essence, it is fair to conclude that a defining trait of Antiquity was a differentiation between sign users based on membership in particular professional groups. This professional group determined the type of training the member received and therefore patterns of use that we see in the manuscript and written evidence. We can picture the relationship between various ancient communities of sign users along a horizontal axis. They co-existed side by side and individuals could belong to several of them because of the particular training they received (e.g. as both lawyers and

members of literate elite). If they moved from one group to another, e.g. because of a turn in their career, their movement was horizontal, too. As will be shown in particular in chapter 6, this community-based perspective can be applied equally to the later periods; however, the horizontal differentiation did not play the same central role in the Early Middle Ages, since sign users no longer belonged to distinct professional groups with diverse training tracks. There were no longer professional philosophers, jurists, or scholars who can be classified as philologists in the early medieval society. Instead, these functions were taken over by a single group: the literate intellectual elite that developed in the Christian environment, especially in the monasteries (see p. 255).<sup>214</sup>

The ancient professional groups, we should assume, were also diversified vertically, that is along the lines of hierarchy. I have speculated that not all of their members would engage in the use of technical signs in equal measure and that some may have been more proficient in sign use than others, or that they were authorized to perform particular tasks by their community. However, we have seen no evidence in this chapter of such hierarchical differences between community members in this respect, which can be taken to imply that the groups of professional users were relatively equal in terms of training and authority. In contrast, the vertical aspect of the communities of sign users became more prominent in the Early Middle Ages. In fact, it was the most important dimension of the early medieval communities, as all sign users followed the same training track and differed by how far they progressed along it. The more basic kind of training was a prerequisite for acquiring the higher level of skills. As will be shown in particular in chapters 4, 5 and 6, the two major horizontal professional groups of sign users in Antiquity – to whom I referred to as scribes and scholars – may be compared to the two major vertical professional groups of sign users in the Early Middle Ages – which I will continue to call scribes and scholars.

Several environments of sign use were mentioned in this chapter; however, school, and in particular what may be termed the grammatical classroom, was not one of them, even though, as Kathleen McNamee showed, this environment can be connected with textual annotations.<sup>215</sup> We may assume that some scholarly and scribal sign use entered the classroom in Classical Antiquity because of the relationship between τέχνη γραμματική and the kind of teaching that took place in the classroom, as well as on account of commercial

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<sup>214</sup> Riche, *Education and Culture in the Barbarian West*, 476–77.

<sup>215</sup> McNamee, *Annotations in Greek and Latin Texts from Egypt*, 12. She also showed that a handful of the annotated papyri from Egypt contain annotations that come from scholarly *hypomnemata*, thus indicating some, albeit limited, influence of the scholarly milieu on the classroom education; *Ibid.*, 49.

relationships between students, teachers and book-copyists.<sup>216</sup> Yet, the classroom was just a periphery in this respect, not a core, from which a particular set of conventions emanated. This situation does not seem to have changed significantly in Late Antiquity.<sup>217</sup> By the ninth century, however, classroom seems to have been one of the loci of sign use as well as training. The absence of *praxis* and in particular *doxa* from the ancient classroom and their presence in the medieval classroom, constitutes one of the crucial differences between Antiquity and the Early Middle Ages, and for this reason deserves a separate chapter, chapter 5.

Furthermore, despite the fact that a good amount of our knowledge of the ancient use of technical signs is based on the analysis of surviving written evidence, we should not forget that the absolute majority of *doxa* in Antiquity, as in the Early Middle Ages, was oral. Only in the sixth century do we see that texts equipped with technical signs are from the start also accompanied by an explanatory sign treatise, and this only in a particular learned context (we will see this phenomenon again in chapter 4). Before that, oral *doxa* seems to have always preceded the emergence of a written record, whether a sign treatise or a testimony, such as in the case of the Alexandrian critical signs that were used for the first two or three centuries without being written down. In all cases, the oldest sign treatises stem from an older oral *doxa*, and in the cases where we can compare them with *praxis*, we can see that they are not accurate records of this *praxis*. In the Early Middle Ages, this divide between the written *doxa*, especially the sign treatises, and the *praxis* will grow even wider. As I will argue in chapters 3 and 4, the writing about technical signs became increasingly detached from the reality of sign use to the extent that at the dawn of the Carolingian period they are, in fact, two distinct, unconnected traditions.

The primarily oral nature of *doxa* in Antiquity and the dependence of *praxis* on this oral transmission explain why the *praxis* of different professional groups met a different fate in the course of Late Antiquity. In the first two sections of this chapter, I introduced two models of instruction in sign use: in the case of scribal conventions, it was a master

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<sup>216</sup> Some scribes may have received a grammatical training before they professionalized. Nevertheless, classroom education was not a necessary prerequisite for their profession nor was education of a scribe one of the purposes of the classroom education. Rather, it was concerned with the exposition of canonical authors and not with the training in practical skills of the kind needed in a book workshop; for our knowledge about the training of scribes, see Johnson, 'Learning to Read and Write', 146–47.

<sup>217</sup> The only case that could be seriously considered as evidence of change is the annotations of Gregory of Nazianzus, because he was a late antique school author. However, it should be pointed that only a fraction of the large number of surviving manuscripts of Gregory's *Orationes* contains the signs (or the entire text of this work); see Brubaker, *Vision and Meaning in Ninth-Century Byzantium*, 13. Both ninth-century copies containing the signs are luxurious copies, not classroom books, and although this does not exclude the possibility that the sixth-century annotator worked in a classroom context, I believe it points rather to a scholarly setting.

instructing an apprentice in a workshop, and in the case of scholarly conventions, it was teacher instructing a circle of students. A similar model based on oral instruction should also be applied to other professional groups. When the chain of oral transmission was broken, particular conventions of sign use also started to vanish from the manuscript evidence. They may have been preserved in sign treatises, but this type of texts, at least by Late Antiquity, functioned as repositories of knowledge that did not directly influence the *praxis*. As a result, only two ancient professional groups had a direct influence on the sign use in the early medieval Latin West: the scribes, who were by this time overwhelmingly Christian and whose activities moved from the commercial to the institutional sphere, and Patristic sign users, who assimilated some of the conventions of the scholars and law students.

Because of this assimilation, but also because of the tendency of the late antique and early medieval sign treatises (which I will discuss in chapters 2 and 3) to jumble together signs from various sources, the early medieval sign users had conventions at their disposal that stemmed from all five ancient professional groups of sign users described in this chapter, but not the knowledge of these professional groups, nor of the original purpose of the signs. This caused a great degree of syncretism, but also left room for imagination and experiment, such as when the graphic form of a sign triggered an association that determined how it was interpreted or used,<sup>218</sup> or when signs were transmitted without a guiding interpretation and were freely reused for new conventions. In the following two chapters, we will look at several written traditions that reflect the ancient reality of sign use, but also display traits particular to the medieval period.

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<sup>218</sup> The best example is *chresimon* (✠), which, because of its external similarity to the Christogram, became re-interpreted in the early medieval times as a symbol for Christ or Christian doctrine.



## Chapter 2

### The 21-sign treatise: inherited Classical *doxa* in the Latin West

In my discussion of the ancient use of technical signs in the previous chapter, I introduced a specific category of texts concerned with this phenomenon: the sign treatises, or short technical treatises that were specifically concerned with describing technical signs. I have also mentioned several notable representatives of this category: the sign treatises devoted to Aristarchus's treatment of Homer composed by the 'Aristarchians' in the Augustan Era, Epiphanius's account of Origen's use of *asterisci* and *obeli* in the Hexapla from the end of the fourth century, the description of the signs used for the annotation of Plato inserted into the work of Diogenes Laertius, the treatise with the unassuming name Περὶ σημείων written in the second century by Hephaestion of Alexandria, and several others. Although these texts came into being in Antiquity, it needs to be emphasized that they survive only in medieval manuscripts, often as recent as from the thirteenth (Diogenes Laertius) or the fourteenth century (Hephaestion), and in some cases, we know about them only through references, which are also medieval (the 'Aristarchians'). We cannot be sure that when we are looking at their medieval witnesses, we are looking at the text as it was transmitted in Antiquity, or whether we are looking at a medieval reworking. The case of Epiphanius, whose *De mensuris et ponderibus* survives in several language versions, each slightly different from the other, teaches us how dynamic the process of text transmission can be, and how much the survival of a text depended on the tastes of late antique and early medieval copyists and on their access to material.

If it was only for these sign treatises, our knowledge of the ancient, and also medieval, *doxa* would be much poorer than it is. Fortunately, a number of early medieval codices contain anonymous sign treatises, the majority of which are compilations of earlier material and include elements that must go back to the known ancient sign treatises, but also those that are otherwise unknown to us. This and the following chapters are devoted to these anonymous, compiled sign treatises and their early medieval fate. In this chapter, specifically, I discuss one particular textual tradition of sign treatises that deserves special attention because of its prominence among the sign treatises, both ancient and medieval. Although it had enigmatic origins and may have been at times nothing more than an *ad hoc* compilation made for personal use, it gathered impressive momentum in the course of Late

Antiquity and the Early Middle Ages, so that by the end of the ninth century, we can find numerous descendants of this tradition in Carolingian manuscripts. Since this textual tradition is anonymous and was transmitted under a variety of names, I will refer to it as the 21-sign treatise, based on the number of technical signs it comprises.

Although anonymous, the 21-sign treatise is the longest and most exhaustive text about technical signs produced before the Early Middle Ages. Even the longest sign treatises produced in Antiquity – Cassiodorus’s sign treatise inserted into the *Expositio psalmorum* with thirteen and Epiphanius’s list in *De mensuris et ponderibus* with eight signs – are not nearly as rich and detailed. Those early medieval sign treatises that are richer than this text are all derivatives of the 21-sign treatise. This text provided the basis for the majority of sign treatises produced after 600 in the Latin West and captured the attention of early medieval scholars and masters to an extent that no other did. Since the discovery of the most important witness of this text, the *Anecdoton Parisinum*, in the 1840s,<sup>219</sup> scholars have universally recognized the great value of this treatise for understanding the pre-medieval (and less often medieval) intellectual life. The 21-sign treatise provides the thin red line that runs from Classical Antiquity through Late Antiquity into the Early Middle Ages (and even beyond). For this reason, it is an ideal case study for understanding the relationship between *doxa* in Antiquity and *doxa* in the early medieval period.

In the first section of this chapter, I reconstruct the history of the 21-sign treatise before the Carolingian period. In the second section, I will discuss the impact of the 21-sign treatise on early medieval Carolingian *doxa* by describing Carolingian derivatives of the 21-sign treatise. The texts of respective sign treatises discussed in this chapter are presented in Appendix III, which also features a chronological overview of their manuscript witnesses and a comparison of the most important sign treatises.

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<sup>219</sup> The discovery of this text by Theodor Mommsen is described in Bergk, *Kleine philologische Schriften*, 1:580–85.

### The 21-sign treatise before the Carolingian period

This section is divided into three subsections. I will first treat the surviving medieval witnesses of the 21-sign treatise; then analyze the text of the treatise in order to examine its origins in Antiquity; and finally, I will study its transmission history in the Early Middle Ages, before the emergence of the most important witnesses.

#### The early medieval witnesses of the 21-sign treatise

Before describing the witnesses of the 21-sign treatise, one aspect of this entity should be clarified: it is more suitable to consider the 21-sign treatise a text in flux than to see it is a fixed text.<sup>220</sup> Like other anonymously transmitted sign treatises to be discussed in chapter 3, it consists of items, which could be removed or shuffled, just as other items could be added or individual items could be expanded or shortened. By design, it was a utilitarian text, suited for constant molding and rewriting. Indeed, this happened multiple times both before and during the Early Middle Ages, so that none of the witnesses contains the ‘pure’ 21-sign treatise. In some of the witnesses, new items were added to the core of the twenty-one signs or their original order was disrupted. In other cases, a particular medieval sign treatise can be shown to include several items from the 21-sign treatise, which must have been consulted in the course of its compilation. The only way that a particular sequence of items in an early medieval sign treatise can be recognized as belonging to the tradition of the 21-sign treatise is: a) since there are twenty-one items present in the sign treatise; b) since these items are presented in a particular order that cannot be derived, e.g. by their alphabetical arrangement; or c) because of textual parallels with already identified witnesses of the 21-sign treatise.

The 21-sign treatise itself is a compilation of older material. As will be shown, this older material appears in it in layers. It is, thus, possible to discern shorter sign treatises that preceded the 21-sign treatise and from which it descended in the same fashion as more recent medieval sign treatises descended from the 21-sign treatise. Why, then, did I decide to focus on the 21-sign treatise? Why not, say, on a 16-sign treatise – one of the older entities which, as we will see, can be discerned behind the 21-sign treatise – or a 26-sign treatise – one of the early medieval compilations based on it, more widespread than the 21-sign treatise itself? My decision to single out the stage in the development of the textual tradition of the sign treatise in which it consisted of twenty-one signs, rather than sixteen

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<sup>220</sup> The fluidity of certain types of texts and the resulting problems in editing them has been most recently treated in Zetzel, *Marginal Scholarship*. Although Zetzel focuses on marginal commentaries and scholia to Classical authors, his conclusions are valid also for the 21-sign treatise and similar texts.

or twenty-six, is directly related to my overall focus on the early medieval period. If I were a Classicist trying to reconstruct some aspects of the Alexandrian scholarship discussed in the previous chapter, it would make more sense to emphasize the Classical layer of the tradition and consider all more recent stages as derivative. For the Early Middle Ages, however, the 21-sign treatise was the common basic unit that can be discerned in several witnesses. Moreover, although it was integrated into larger compilations, the 21-sign treatise continued to circulate in the early medieval West for several centuries before it was fully replaced by more recent compilations. We lack similar evidence for a long-term existence of the hypothetical sign treatises that survive as layers of the 21-sign treatise. The 21-sign treatise, thus, represents a stable stage of a particular textual tradition in flux and can be recognized as an entity because of this stability.

This dynamic aspect of the 21-sign treatise and other, similar texts should caution us against seeking a single archetype. Treatises with a known author, such as were discussed in the previous chapter, did have such an archetype, but the 21-sign treatise never had a single author, nor was there a single agent (translator, compiler, composer) involved in its making. Even when we assume that a text similar to the reconstruction that modern philological scholarship can obtain today actually may have existed in some late antique library, it still remains to be seen whether this text was the unique archetype. As will be shown below, the 21-sign treatise existed from early on in several versions that form branches of the tradition and which may have been different redactions based on the same material.

The 21-sign treatise survives in full or in part in at least four independent witnesses ranging in date from the early seventh to the mid-tenth centuries. Several of these textual witnesses survive in multiple manuscript copies and thus the total number of manuscript witnesses containing the text of the 21-sign treatise is higher. This is a significantly wider degree of distribution compared to the other anonymous sign treatises to be discussed in the following chapter, each of which survives in a small manuscript cluster and in some cases in a single manuscript. The number of witnesses is high also with respect to the sign treatises discussed in the previous chapter.

This relatively wide distribution alone may imply that the 21-sign treatise was once considered an important or valuable text. Perhaps the degree of dissemination is due to the prestige that the 21-sign treatise or one of its predecessors enjoyed at one time. Moreover, the 21-sign treatise seems to have had the good fortune to have been made or preserved in a place where it survived the upheaval of the earliest centuries of the Early Middle Ages in order to be rediscovered at a more suitable time, a center with a good connection to the

local knowledge network which would ensure its wide dissemination. The role this rediscovery and redistribution played was just as important in the history of the 21-sign treatise as its ancient origins. I will devote substantial space to the point of rediscovery and redistribution below (see p. 79).

The oldest witness of the 21-sign treatise is the *Etymologiae* of Isidore of Seville, which was put into circulation in Spain before 621.<sup>221</sup> Isidore used a version of the 21-sign treatise as the basis for his chapter *De notis sententiarum* ('On the signs of judgment', *Etym.* 1.21).<sup>222</sup> *De notis sententiarum* includes the entire sequence of twenty-one items/signs, but lacks the preface originally present in the 21-sign treatise (see p. 72), because Isidore substituted it with a preface of his own making. He also added five more signs to the list, effectively creating what may be considered a 26-sign treatise. He also made some changes to the individual items (the text is presented in Appendix III, item 8).

The only other witness that contains the 21-sign treatise in its entirety is a text that bears the title *Notae XXI quae versibus apponi consueverunt* ('The twenty-one technical signs which used to be placed beside verse', text in Appendix III, item 11).<sup>223</sup> It survives in two manuscripts from the Beneventan area: **Paris, BnF, Lat. 7530** (779-799, Monte Cassino<sup>224</sup>), and **Rome, Bib. Cas., MS 1086** (8<sup>th</sup> century, ex./9<sup>th</sup> century, 1/2, Benevento<sup>225</sup>). *Notae XXI* is transmitted in both these manuscripts as a part of a cluster consisting of three texts, among them the 15-sign treatise discussed in the following chapter (see p. 75 and 102). **Paris, BnF, Lat. 7530** is a compendium of Liberal Arts<sup>226</sup> and **Rome, Bib. Cas., MS 1086** a grammatical compendium containing the single exemplar of the *ars grammatica* of Ursus of Benevento.<sup>227</sup> The two manuscripts are affiliated by means of a common ancestor which supplied the sign treatise as well as several other texts to both of them<sup>228</sup> and also to

<sup>221</sup> This date is based on a presence of a dedication to king Sisebut (612-21) in the text; see Porzig, 'Die Rezensionen der *Etymologiae*', 165–66.

<sup>222</sup> Edited in Lindsay, *Etymologiae*, 1:(no page numbers). I discuss this inclusion of the 21-sign treatise in the *Etymologiae* in chapter 5, p. 172.

<sup>223</sup> The only edition based on both manuscripts of this text is in Funaioli, *Grammaticae romanae fragmenta*, 1:54–56. An older edition, made on the basis of only the Parisian manuscript, is in Keil, 'Notae XXI quae versibus apponi consueverunt', 533–36. Keil also summarizes the earlier editing history of this text.

<sup>224</sup> Ulrich Schindel dates the manuscripts to 785; Schindel, 'Neues zur Überlieferungsgeschichte', 14.

<sup>225</sup> This manuscript used to be dated to the mid-ninth century, but it was re-dated by Barbara Maria Tarquini in the most recent catalogue of grammatical manuscripts in the Beneventan script; Tarquini, *I codices grammaticali*, 80–81. The older date is in Brown, 'Where Have All the Grammars Gone?', 398. and in Morelli, 'I trattati di grammatica e retorica del cod. Casanatense 1086', 288.

<sup>226</sup> The manuscript is digitized at: <http://gallica.bnf.fr/ark:/12148/btv1b84900617/f69.item>. It has been studied by Charles H. Beeson and Louis Holtz; Beeson, 'Paris Lat. 7530'. and Holtz, 'Le Parisinus Latinus 7530'.

<sup>227</sup> It has been studied by Camillo Morelli; Morelli, 'I trattati di grammatica e retorica del cod. Casanatense 1086'.

<sup>228</sup> This was shown by Louis Holtz in his analysis of **Paris, BnF, Lat. 7530**; Holtz, 'Le Parisinus Latinus 7530', 139–41.

a third codex, **Monte Cassino, Archivio dell'Abbazia, MS 299** (9th century, ½, probably Monte Cassino).<sup>229</sup>

The 21-sign treatise was also used as one of the sources of the *Liber Glossarum*.<sup>230</sup> This alphabetically ordered glossary *cum* encyclopedia encompassing some 27,000 items<sup>231</sup> survives in more than seventy manuscript witnesses, mostly from France and northern Italy.<sup>232</sup> While it has been long believed that it is a Carolingian compilation that was produced in one of the large intellectual centers in northwestern France,<sup>233</sup> recent research of a team led by Anne Grondeux revealed that the Carolingian scribes only enhanced an older dossier of glossographic material that came from Visigothic Spain and was put together in Zaragoza before 714.<sup>234</sup> Grondeux also hypothesized that this dossier may have had its origins in Isidore's preparatory work for the *Etymologiae*. It was transferred to Zaragoza, possibly with other contents of Isidore's library, by Braulio of Zaragoza, who completed Isidore's encyclopedia after it was left unfinished at Isidore's death.<sup>235</sup> A list of twenty-seven technical signs can be found under the lemma *nota* in all of the oldest manuscripts of the *Liber Glossarum* (text in Appendix III, item 9). Two items in this list, which is for the most part based on Isidore's *De notis sententiarum* and is entitled, indeed, *De notis sententiarum* (in order to distinguish it from Isidore's *De notis sententiarum*, I will refer to it as the sign treatise in the *Liber Glossarum*), were taken *verbatim* from the 21-sign treatise, and several more items seem to have been rewritten with the aid of the 21-sign treatise. Very likely, what are we looking at in the *Liber Glossarum* is a compilation based on the *Etymologiae* and on the original source of Isidore's *De notis sententiarum* made in Zaragoza (I

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<sup>229</sup> This was shown by Anselmo Lentini in his analysis of **Monte Cassino 299**; Lentini, *Ilderico e la sua Ars grammatica*, 111–13.

<sup>230</sup> I am currently preparing an article with an edition of the sign treatise incorporated into the *Liber Glossarum*; Steinová, 'The List of *notae*'. A transcript of this sign treatise based on a single manuscript is also provided in Kettner, 'Kritische Bemerkungen zu Varro'.

<sup>231</sup> See Huglo, 'Les arts libéraux dans le *Liber Glossarum*'.

<sup>232</sup> The catalogue of the surviving manuscripts and manuscript fragments of the *Liber Glossarum* is currently being prepared by Franck Cinato as a part of the *Liber Glossarum* project, see project description at: <http://liber-glossarum.linguist.univ-paris-diderot.fr/>; and also Cinato, 'Prolégomène à un Catalogue'.

<sup>233</sup> This view was advanced particularly by Lindsay, *Glossarium Ansileubi*, 8; and T.A.M. Bishop in Bishop, 'The Prototype of *Liber Glossarum*'. See also Ganz, 'The *Liber Glossarum*', 129–30; and McKitterick, 'Glossaries and Other Innovations', 44–45.

<sup>234</sup> See especially Grondeux, 'Note sur la présence de l'Hypomnesticon'. The date is determined by the fall of Zaragoza to Muslim conquerors, as it seems that the oldest stage of the compilation of the *Liber Glossarum* took place here. Other publications of the project that deserve to be mentioned here include Grondeux, 'Le *Liber glossarum*'; Grondeux, 'Le rôle de Reichenau'; Cinato, 'Le "Goth Ansileubus"'. The project of Anne Grondeux is also planning to prepare a digital edition of the *Liber Glossarum*, the publication of which is scheduled for January 2016, see the project description at: <http://liber-glossarum.linguist.univ-paris-diderot.fr/>.

<sup>235</sup> Grondeux, 'Note sur la présence de l'Hypomnesticon', 71.

discuss the reworking of this sign treatise in the Carolingian epitomes of the *Liber Glossarum* in p. 82).

A group of related Spanish manuscripts of the *Etymologiae*, which will be discussed again in chapter 5 (see p. 172), contains an addition to *De notis sententiarum* in the form of a short text labeled *Item sicut alibi inventae sunt* ('Again as they [i.e. the technical signs] were found elsewhere').<sup>236</sup> This addition consists of a list of names and symbols of twenty-one signs in the order characteristic of the 21-sign treatise but lacks any descriptions of these signs (text in Appendix III, item 19). The two oldest manuscripts of this cluster are **Madrid, Real academia de la historia, MS 25** (c. 946, San Millan de la Cogolla) and **Madrid, Real academia de la historia, MS 76** (c. 954, San Pedro de Cardena) from northern Spain.<sup>237</sup> *Item sicut alibi* can be taken to indicate that the 21-sign treatise, which appears for the first time in Spain with Isidore and is attested decades later in the north of peninsula in the sign treatise from the *Liber Glossarum*, survived in this area until the mid-tenth century, although it is unclear where, how and why did it disappear afterwards.<sup>238</sup>

A potential fifth independent witness of the 21-sign treatise is **Paris, BnF, Lat. 4841** (mid-9<sup>th</sup> century, southern France).<sup>239</sup> It contains an anonymous sign treatise consisting of nine items (discussed in detail in p. 86, text in Appendix III, item 15). This treatise is a compilation drawing on Isidore's *De notis sententiarum*, but also contains features which betray that its compiler used either the 21-sign treatise or several of the other witnesses mentioned above. Since each of the elements of this text which cannot be traced back to *De notis sententiarum* can be explained as having been taken from one of the witnesses described above, it cannot be proven that the compiler of this list used the 21-sign treatise, but likewise it cannot be excluded.

As I already indicated, none of the witnesses of the 21-sign treatise preserves this textual entity in a pure, unaltered form. Both *De notis sententiarum* and *Notae XXI* preserve

<sup>236</sup> To my knowledge, this text was described only in López de Toro, *Abreviaturas hispanicas*, xxxv. This dissertation is the first analysis of this sign treatise.

<sup>237</sup> Other manuscripts include: **El Escorial P I 6** (10<sup>th</sup>/11<sup>th</sup> century, northern Spain), **El Escorial & I 3** (1047, northern Spain), **Paris n.a.l. 2169** (1072, Silos), and **Madrid, Biblioteca Nacional, MS 10008** (11<sup>th</sup> century, Castile). The text can be found also in several younger manuscripts from Spain and Italy which are descendants of this Spanish family.

<sup>238</sup> If Anne Grondeux is correct to assume that the Zaragoza dossier was taken to Septimania after the fall of Zaragoza and from there reached the Frankish territories lying to the north of it, it is probable that *Item sicut alibi*, too, followed this route, crossing from northern Spain to Septimania and then back. The manuscript family in which this text is found as an addition has probably likewise roots in Septimania (see chapter 5, p. 163).

<sup>239</sup> This dating and localization is taken from Bischoff, *Katalog III*, n. 4337. Gautier Dalché, who edited the text *De situ orbis terrae* from this manuscript, dates it to after the 840s and thinks it was produced in Septimania under Visigothic influences; Gautier Dalché, 'Situs orbis terre vel regionum', 156–57. For a description of the contents of the manuscript, see also Girard, *Un second manuscrit des extraits alphabétiques de Probus*.

all twenty-one items of the textual tradition, but differ from each other to a degree that suggests that both witnesses contain deliberate alterations.<sup>240</sup> A third witness, *Item sicut alibi*, seems to preserve some unaltered readings of the 21-sign treatise as well as the oldest order of the items (see Appendix III, section B), but since it is the most recent witness and, moreover, contains only a fragment of the text, it can be only of limited use for the assessment of the two oldest witnesses and for the reconstruction of the archetype. The last two witnesses are both compilations for which the 21-sign treatise was or might have been utilized and thus contain only parts of the 21-sign treatise. They can be used only as a complementary source for the reconstruction of the text of the 21-sign treatise.

While some of the textual differences between *De notis sententiarum* and *Notae XXI* can be explained as cases of rewriting of a single text, other instances of variation suggest that the two texts are representatives of two branches in the textual transmission of the 21-sign treatise. Differences between these two branches can be demonstrated on the names of items #4 and #17 of the 21-sign treatise (fig. 1).<sup>241</sup> If we, moreover, group them based on the geographic region of their origin – Visigothic Spain or Beneventan southern Italy (with **Paris, BnF, Lat. 4841** from Septimania or southern France as an outlier) – we will see that the two branches correspond to these two geographic areas. I will, therefore, refer to them as the Spanish branch and the Italian branch.

	Spanish branch			Italian branch	mixed?
sign	<i>De notis sententiarum</i>	<i>Liber Glossarum</i>	<i>Item sicut alibi inventae sunt</i>	<i>Notae XXI</i>	<b>Paris, BnF, Lat. 4841</b>
Γ(#4)	<i>paragraphus</i>	<i>paragraphus</i>	<i>paragrafus</i>	<i>simplex ductus</i>	<i>paragraphus simplex ductus</i>
⌘(#17)	<i>crisimon</i>	<i>crisimon</i>	<i>chi et ro</i> <X>PNΣIMON	<i>chi et ro</i>	<i>cresimon keir ro</i>

fig. 1: textual differences in the names of items #4 and #17 in various witnesses

As can be seen from fig. 1, all witnesses of the 21-sign treatises stemming from Spain call item #4 *paragraphus*, while *Notae XXI* from Italy names it *simplex ductus* (and **Paris, BnF, Lat. 4841** contains both names). Likewise, the two oldest Spanish witnesses call item #17 *crisimon* or *cresimon*, while the Italian witness refers to it as to *chi et ro* (**Paris, BnF, Lat.**

<sup>240</sup> I discuss the evidence that indicates that both, rather than only one of the texts, were altered partially in this chapter (for *Notae XXI*) and partially in chapter 5 (for *De notis sententiarum*, see p. 69).

<sup>241</sup> I will take the order of the twenty-one signs found in the first section of *Notae XXI* and *Item sicut alibi* as typical, as these seem to represent the original order of the 21-sign treatise. If I discuss the position of an item in a different witness of the 21-sign treatise (where this position differs from the two witnesses mentioned above), I will alert the reader to this.

4841 again contains both names, as does *Item sicut alibi*). Several conclusions can be drawn from this variation. First, the presence of both names for item #17 in *Item sicut alibi*, which otherwise reflects the unaltered order of the items in the 21-sign treatise, seems to suggest that this was the archaic reading of the 21-sign treatise and that one of the elements of the name disappeared in each branch.<sup>242</sup> Second, item #4 represents a technical sign known from Antiquity as *παράγραφος* (see p. 23), for which the correct Latin rendering is *paragraphus*, rather than *simplex ductus*, a phrase which is otherwise unattested<sup>243</sup> (I show that it is an interpolation characteristic of the Italian branch in p. 75). Finally, **Paris, BnF, Lat. 4841** seems to represent a hybrid between the Spanish and Italian branch, which may be explained by its relative recent date of production (mid-ninth century), as well as its place of origin (Septimania or southern France rather than southern Italy or Spain).<sup>244</sup> I also want to mention that the three witnesses from Spain seem to be related, not only because we can hypothesize that they attest to the long survival of the 21-sign treatise on the Iberian peninsula, but also on account of a particular textual variant. The sign treatise in the *Liber Glossarum* and *Item sicut alibi* both contain an alternative name *antila(m)nda* for item #5, *diple* (*aperistikton*), which is absent from all other witnesses and provides evidence for their close relationship (see Appendix III, section B).

The witnesses of the 21-sign treatise provide two further clues about the history of this textual tradition. First, Isidore's use of the 21-sign treatise provides the *terminus ante quem* for the compilation of the 21-sign treatise. Second, the 21-sign treatise was available in two geographical areas – in Spain by the early seventh century (*De notis sententiarum*, the sign treatise in the *Liber Glossarum*, and *Item sicut alibi*), and in southern Italy from at least the late eighth century (*Notae XXI*). **Paris, BnF, Lat. 4841** suggests that two branches produced a mixed offspring by the mid-ninth century, possibly in Septimania or southern France. This geographic area of dissemination is wider than is the case for other anonymous sign treatises, which are usually regional (see p. 97).

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<sup>242</sup> This is indicated also by the following item #18 (ϕ), which has the same format as item #17, cf. *Etym.* 1.21.23: *Phi et Ro, id est FRONTIS*. These are the only two items of the 21-sign treatise that have this format, employ siglaic symbols built from Greek letters, and seem to be related to each other (more on this relationship in p. 75).

<sup>243</sup> Jocelyn thought that *simplex ductus* may be considered a Latin translation of *παράγραφος* (from *παράγραφο*, 'to write at the side, subjoin'), but this does not seem to be correct; Jocelyn, 'The Annotations of M. Valerius Probus (II)', 156.

<sup>244</sup> The two sign names are not the only pieces of evidence that **Paris, BnF, Lat. 4841** contains a compilation based on texts both from the Spanish and the Italian branch. I provide a more detailed analysis of the sign treatise in **Paris, BnF, Lat. 4841** in p. 81.

### The origin of the 21-sign treatise

As I have already mentioned, the 21-sign treatise is a compilation made up out of discernible layers of text glued together into a single textual entity. Four such layers can be discerned in the 21-sign treatise, each reflecting a chronological stage in the growth of the 21-sign treatise, as new material was always added at the beginning or end of the preceding layer. These layers have been analyzed by several Classicists, and I will bring together their arguments here, adding my own observations and conclusions in the light of the medieval transmission history of the 21-sign treatise.<sup>245</sup> In this section, I will first examine the layers of the 21-sign treatise in a chronological order suggested by the material shared by all branches of this textual tradition. I will then discuss some additional clues to the development of the 21-sign treatise provided by the Italian branch.

The oldest layer of the 21-sign treatise corresponds to items #1-#8 (I will refer to it as to the 8-sign treatise).<sup>246</sup> These items refer to the Alexandrian Homeric scholarship, mention the names of known ancient scholars that we have already encountered in chapter 1 (Aristarchus, Zenodotus of Ephesus, etc.), and depict graphic symbols which have Greek rather than Latin names (e.g. *diple peristigmene*, #6). This oldest layer is the only one for which there exist extensive parallels in other sign treatises, namely in several early medieval Greek sign treatises treated in the following chapter (see p. 112).<sup>247</sup> Byzantinists have recognized that these Greek sign treatises derive from one or more of the now lost sign treatises associated with the first-century Alexandrian grammarians, discussed in chapter 1.<sup>248</sup> It is reasonable to assume that the text which supplied items #1-#8 was originally composed in Greek and was similar to the Greek sign treatises. However, it should be noted that this layer of the 21-sign treatise does not follow the order of signs characteristic of the Greek sign treatises and seems to have been interpolated (more on this in the following chapter, p. 113). Since the second layer of the 21-sign treatise can be dated to the

<sup>245</sup> The following analysis is based primarily on the works of the first editor of *Notae XXI*, Theodor Bergk and of the Classicists Paul Weber and H.D. Jocelyn; Bergk, *Kleine philologische Schriften*, 1:580–612; Weber, ‘Quaestionum Suetonianarum capita duo’; Jocelyn, ‘The Annotations of M. Valerivs Probus (I)’; Jocelyn, ‘The Annotations of M. Valerivs Probus (II)’; Jocelyn, ‘The Annotations of M. Valerivs Probus, III’. Others who wrote on either *De notis sententiarum*, *Notae XXI* or both include Aistermann, ‘De Valerii Probi vita et scriptis’, 10–14; Fontaine, *Isidore de Séville*, 74–84; Schmidt, ‘Suetons *Pratum* seit Wessner’; Deufert, *Textgeschichte und Rezeption der plautinischen Komödien im Altertum*, 50–53.

<sup>246</sup> Weber, ‘Quaestionum Suetonianarum capita duo’, 19–20. According to Weber, item #9, *coronis*, might have been, in fact, the last original item of this layer. He argues that *coronis* was the book-end sign and thus appropriate to be mentioned at the end of a treatise about signs, as was the case in *De notis sententiarum*; *Ibid.*, 20.

<sup>247</sup> Jocelyn sought a more direct relationship between the oldest layer of the 21-sign treatise and a text known as the *Anecdoton Romanum*; see Jocelyn, ‘The Annotations of M. Valerivs Probus (II)’, 155. It is noteworthy that the oldest Greek medieval sign treatise of this type dates to the second half of the ninth century, while the Latin 21-sign treatise is at least several centuries older.

<sup>248</sup> *Ibid.*, 151; and West, ‘The Textual Criticism and Editing of Homer’, 140.

first or second century CE, the source of items #1-#8 cannot be significantly older than the treatises written by Aristonicus, Philoxenus, and Seleucus. In fact, it may have been identical with one of these treatises or an early compilation based on them.

In the second stage, four more items were added to the oldest core of the 21-sign treatise to form a set of twelve signs (I will refer to it as to the 12-sign treatise).<sup>249</sup> These four signs refer to Alexandrian scholarship (#12),<sup>250</sup> but also include a quotation from Virgil (#11), indicating a Latin-speaking environment of compilation. The translation of the first eight items in the 21-sign treatise from Greek into Latin probably took place at this stage as well, as is suggested by short textual extensions made to the first eight items. These extensions added to items otherwise reflecting Greek scholarship refer to *antiqui nostri*, by which Latin writers are meant; and to one Valerius Probus, a Roman grammarian whose *floruit* is in the first century CE.<sup>251</sup> As Jocelyn pointed out, the distinction between the *antiqui nostri* and Valerius Probus would suggest that at the time of the composition of these tags, Probus was not considered an *antiquus*, but a *modernus*. Accordingly, this second layer can be dated to the first two centuries of the Common Era.<sup>252</sup>

In the third stage, items #13-#16 were added to the list of twelve signs (I will refer to this stage as to the 16-sign treatise). These items form a separate group, as they refer to technical signs used for Greek lyric poetry and drama. The material in this cluster resembles the treatise of the Alexandrian grammarian Hephaestion mentioned in the previous chapter (see p. 32), who is the only author known to have written on this subject.<sup>253</sup> Since items in this section describe essentially Greek phenomena (including dramatical features that were unknown to Latin dramatists), the signs have Greek names, and Greek terminology appears (*strofe*, *monade*, etc.), it seems that these were also translated from Greek.

Items #17-#21 form the last layer to the 21-sign treatise. They are more general than the other signs, since they are not mentioned in connection with a particular text or genre, and at the same time they refer to the contents of particular passages rather than to

<sup>249</sup> Weber, 'Quaestionum Suetonianarum capita duo', 21.

<sup>250</sup> The *obelus adpunctus/cum puncto* seems to refer to scholia to *Iliad* X 397-99, which indicate that Aristarchus first attached a sign called *στριγγή* to these verses and then added an *obelus* to each line as well; see Bird, 'Critical Signs', 94. The compiler of this layer, thus, must have been familiar with scholia to the *Iliad*.

<sup>251</sup> See for example item #3: *Asteriscus cum obelo propria nota est Aristarchi. utebantur autem ea in his versibus qui non suo loco positi erant. Item antiqui nostri et Probus*. These extensions are discussed in detail in Bergk, *Kleine philologische Schriften*, 1:592. and Jocelyn, 'The Annotations of M. Valerius Probus (II)', 155 and 158.

<sup>252</sup> Jocelyn, 'The Annotations of M. Valerius Probus (II)', 158-59.

<sup>253</sup> *Ibid.*, 156. The most obvious parallel between Hephaestion and this layer of the 21-sign treatise is that both mention existence of a variety of text-structuring *diploi*, rather than just a single *diple* used as an attention or quotation sign.

philology or structure.<sup>254</sup> Two of the items seem to be paraphrases of passages from Servius's commentary on the *Aeneid*: *anchora inferior* (#20) contains word-for-word parallels with Serv. *In Aen.* 8.731 (see Appendix II, item 16);<sup>255</sup> and *alogus* (#21) is clearly a reference to the *alogus* mentioned in Serv. *In Aen.* 10.444 (see Appendix II, item 5b).<sup>256</sup> Another hint that this layer of the text is relatively recent is that the names of the signs were Latinized (e.g. *anchora superior*, #19, as opposed to *diple periestigmene*, #6).<sup>257</sup> Moreover, this layer contains a remarkable error, describing the two *anchorae* (#19-#20) as signs used for assessing style, rather than as signs indicating omissions in the text. Their correct depiction and use of name but mistaken identification suggests that, although the author of these two items possessed knowledge of the existence of these two signs, he or she was not familiar with the practice of using the *anchorae* as omission signs.<sup>258</sup> This would place the compilation of this layer into the last centuries of Late Antiquity, when, indeed, *anchorae* ceased to be used correctly.<sup>259</sup> This indirect evidence for the dating of this layer fits well within the chronological boundaries provided by the reference to Servius on the one hand (early fifth century) and the use of the 21-sign treatise by Isidore of Seville on the other (early seventh century).

Most of the witnesses of the 21-sign treatise give the impression that their respective compilers or authors did not stick to the original format of the 21-sign treatise. The exception are the two Beneventan manuscripts – **Paris, BnF, Lat. 7530 (P)** and **Rome, Bib. Cas., MS 1086 (R)**. R is today, unfortunately, damaged, but enough of the text survives to suggest that both manuscripts faithfully followed their common ancestor (X) and that the layout of *Notae XXI* (as well as the short texts with which it is associated in these two manuscripts) was transmitted with little variation for some time.

*Notae XXI* survives as a part of a cluster of three textual elements:

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<sup>254</sup> The two *anchorae* (#19-#20), for example, should have been used, according to the 21-sign treatise, for passages notable for the loftiness or humbleness, while *chresimon* (#17) was meant for any noteworthy content.

<sup>255</sup> This parallel escaped the notice of most of those who studied one of the versions of the 21-sign treatise. It was noted only by Gudeman; Gudeman, 'Kritische Zeichen', col. 1926.

<sup>256</sup> Bergk, *Kleine philologische Schriften*, 1:593; and Jocelyn, 'The Annotations of M. Valerius Probus (II)', 150.

<sup>257</sup> For this line of argument, see Parkes, *Pause and Effect*, 22.

<sup>258</sup> See McNamee, *Sigla and Select Marginalia*, 11–13.

<sup>259</sup> I discuss the development of omission signs, which was studied by E.A. Lowe, in detail in chapter 6 (see p. 187). Here, it will suffice to say that the latest Latin manuscript known to contain *anchorae* used as omission signs is a copy of the *Digesta* of Justinian made in sixth-century Constantinople. In the Western part of the Roman Empire, *anchorae* are attested only until the fifth century. See Lowe, 'The Oldest Omission Signs', 47–48.

- a) a short notice on the staging of the play *Thyestes* by a certain Lucius Varius, probably taken from an *accessus* to the play<sup>260</sup> (P: fol. 28r, ll. 1-4; R: fol. 64vb, ll. 14-18): *INCIPIT THUESTES VARIJ Lucius Varius cognomento Rufus. Thyesten tragoediam magna cura absoluto post actiaca victoria angusto ludis eius in scaena edidit. pro qua fabula sestertium deciens accepit;*
- b) a sign treatise with the title *Notae XXI quae versibus apponi consuerunt* (P: fols. 28r, l. 4-28v, l. 35; R: fol. 64vb, ll. 18-37, breaks off in the middle of the first item of iii.) that consists of:
- i. a list of the names and symbols of twenty-one technical signs serving as a contents page to b-iii.;
  - ii. a short notice about the history of the signs that serves as a preface to b-iii.: *His solis in adnotationibus Hennii Lucii et historicorum usi sunt Varrus. Hennius. Haelius. aequae. et postremo Probus. qui illas in Virgilio et Horatio. et Lucretio apposuit ut Homero Aristarchus;*<sup>261</sup>
  - iii. a descriptive list of twenty signs (without *alogus*, #21) which makes up the main body of the sign treatise;
- c) a second sign treatise with the title *Notae simplices* consisting of fifteen signs (P: fols. 28v, l. 36-29r, l. 6) and a general explicit: *.F. De notis Probianis. EXPLICIUNT NOTAE;*

The presence of a general incipit before the notice about *Thyestes* (*INCIPIT THUESTES VARIJ*) and a general explicit after the second sign treatise in P (*EXPLICIUNT NOTAE*) indicate that the entire sequence of items constitutes a single entity.<sup>262</sup> Although both textual traditions employed for this compilation – the 21-sign treatise and the 15-sign treatise – and the notice about Lucius Varius are pre-medieval in origin, it is not clear when the five items were put together and whether an older compilation existed consisting of only some of the items.

Some clues about the nature of this compilation and its prehistory can be gleaned from the facts that the notice about *Thyestes* (section a), the list of twenty-one names and symbols of signs (section b-i.), the notice about the history of signs (section b-ii.), and the second sign treatise consisting of fifteen signs (section c) are absent from the other

<sup>260</sup> This short text was analyzed by Jocelyn in Jocelyn, ‘The Fate of Varius’ *Thyestes*’. See also Holtz, ‘Le Parisinus Latinus 7530’, 139. Both argue that the *accessus* was copied together with *Notae XXI* by mistake because it was found in this position in X; and that, via X, the *accessus* may go back to even earlier age.

<sup>261</sup> This notice is discussed in detail in Bonner, ‘Anecdoton Parisinum’. As I mentioned in the previous chapter, if this notice should be considered historically accurate, it refers to three known early Roman scholars – Aelius Stilo, Servius Clodius and Varro (see p. 28).

<sup>262</sup> Jocelyn, ‘The Annotations of M. Valerius Probus (II)’, 153.

witnesses of the 21-sign treatises. This could be taken to indicate that they are unique to the Italian branch of the transmission of this text. However, upon closer examination, it becomes clear that sections b-i. and b-ii. must have once been present also in the other branch of the 21-sign treatise, but were deliberately removed, rewritten or that they disappeared because of damage. These two sections make sense only when adjoined to the descriptive overview of the twenty-one signs (section b-iii.). Moreover, neither could have been created secondarily on the basis of the text of the 21-sign treatise as it survives in b-iii. The prefatory notice (b-ii.) contains details not mentioned in b-iii. Moreover, it seems to refer only to the first twelve items in the 21-sign treatise (the entity I have called the 12-sign treatise), specifically to Valerius Probus, whose name, as I noted earlier, was added in the extensions to the earlier 8-sign treatise in the second stage of the formation of the 21-sign treatise. It makes sense to conclude that this preface was added to the core of the 21-sign treatise at the same time, since its author was familiar with Aristarchus, Varro, Aelius Stilo and Valerius Probus.

The contents page of *Notae XXI* (b-i.), by contrast, records all twenty-one signs (including *alogus*, the last of the twenty-one signs, which is missing from b-iii.), albeit in an order distinct from b-iii. (see Appendix III, section B). It must have been added to the 21-sign treatise only after all twenty-one signs had been assembled. The 15-sign treatise (section c) was attached to the end of the 21-sign treatise (section b-iii.) only after the latter lost the last item, which is present in the Spanish branch of the 21-sign treatise (more on this addition of the 15-sign treatise in p. 75).

On the basis of P and R, the development of the 21-sign treatise can be reconstructed as follows: the 12-sign treatise included a short preface concerning the history of the signs and their famous users; when the 12-sign treatise was extended into the 21-sign treatise (via the 16-sign treatise) a list of the names and symbols of signs covered by this text was added at the beginning to act as a contents page; finally, the 15-sign treatise was added to the 21-sign treatise, but only after the latter lost the very last item. It cannot be said when the fragment of the *accessus* of *Thyestes* was also added to this compilation except that it was present already in X, the common ancestor of P and R.<sup>263</sup>

This reconstruction raises important questions, as it suggests that both the contents page of the 21-sign treatise and the prefatory notice about the history of the use of the first twelve signs were originally part of the textual tradition of the 21-sign treatise and, thus,

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<sup>263</sup> Holtz and Morelli both speculated about this common ancestor. Holtz argued that it was an Italian manuscript; Holtz, 'Le Parisinus Latinus 7530', 147. Morelli expressed the opinion that it was copied in eighth-century minuscule; Morelli, 'I trattati di grammatica e retorica del cod. Casanatense 1086', 326.

could be expected to be present in the witnesses of the Spanish branch, specifically in *De notis sententiarum*. Isidore may have composed his own preface because the original preface was lacking in his sources. However, textual parallels between his and this original preface show that it is more likely that he did have it, but changed it on purpose. For example, he refers to two categories of texts that were to be annotated (*notae ... carminibus et historiis adposuerunt*, see Appendix III, item 8), categories which are identical with those given by the prefatory note (*his solis in adnotationibus Hennii Lucii* [i.e., Ennius and Lucilius, two Republican poets<sup>264</sup>] *et historicorum*, see Appendix III, item 11). The main difference is the absence of the names of the annotators and of the respective pre-Christian texts they worked on. *De notis sententiarum* also lacks four of the six textual extensions added to the first eight signs, which belonged to the 12-sign treatise. The extensions to *diple periestigmene* (#6, Isidore's #14) and to *antisigma* (#7, Isidore's #10) are still found in *De notis sententiarum*, suggesting that all the extensions were once present in the prototype. As in the case of the preface, the tags that were left intact are those that do not contain references to any of the annotators by name, while those that named Probus were removed. The intention behind the rewriting, therefore, seems to have been to remove any mentions of pre-Christian Latin authors.<sup>265</sup> Perhaps the contents page of the 21-sign treatise, surviving in the Beneventan compilation as section b-i., was also available to Isidore, but he chose to remove it, since it did not fit the structure of his *Etymologiae*. *Item sicut alibi* seems to confirm its existence in the Spanish branch, as this text is the contents page transmitted separately from the other parts of the 21-sign treatise.

To sum up, the 21-sign treatise came into being in several stages, the earliest of which can be placed in the first centuries CE and the last of which took place between the early fifth and the early seventh centuries. The core around which the 21-sign treatise seems to have grown was a *Κατὰ τῶν σημείων* treatise similar to the treatises attributed to Aristicus and others. Given the chronology proposed for the translation into Latin, Suetonius, who was mentioned in the previous chapter (see p. 32), could be considered as a possible compiler of what I have called the 12-sign treatise. He was active in the second century, composed a sign treatise, and had first-hand information about Valerius Probus whom he mentions in his *De grammaticis* (see appendix II, item 5a). However, there is no direct evidence that Suetonius was this compiler, despite the long-lasting debate about his

<sup>264</sup> The names in the prefatory note are probably corrupted. The two poets, Ennius and Lucilius, were first suggested by Bergk; see Bergk, *Kleine philologische Schriften*, 1:595.

<sup>265</sup> This was noticed by the editor of *Notae XXI*, Theodore Bergk; *Ibid.*, 1:591–92.

role in the shaping of the 21-sign treatise.<sup>266</sup> The internal evidence reveals little about the identity of the final compiler of the 21-sign treatise. He or she lived before Isidore of Seville but after Servius, was acquainted with Servius's commentary on the *Aeneid*, and had access to manuscripts annotated with *anchorae*, although he or she was no longer familiar with their correct use (and as will be shown in p. 113, was a Christian familiar with Origenian textual criticism).<sup>267</sup>

The growth of the 21-sign treatise did not cease at the end of Late Antiquity. Quite the contrary: the 21-sign can be considered but a stage in the development of more recent, medieval texts about technical signs, a crucial substrate for the formation of a whole new set of sign treatises. The analysis of the Spanish or the Italian branches of the 21-sign treatise teaches us that with the 21-sign treatise the ancient tradition on signs survived into the Early Middle Ages significantly altered. Moreover, medieval copyists felt free to tailor it to their needs. Isidore added five more signs to the 21-sign treatise, removed some of its pre-Christian elements, such as the preface, reshuffled items and inserted references to the Bible and the Fathers here and there in order to create a sign treatise appealing to his Christian audience. In Italy, the 21-sign treatise was preserved in a more pristine form, but nevertheless merged with several other texts, such as a notice about *Thyestes* and the 15-sign treatise (with which it forms a composite of thirty-six signs). The compilers of the *Liber Glossarum* retained only bits and pieces of the 21-sign treatise, and by the mid-tenth century, only one of its sections may have survived in the north of the Iberian peninsula.

The 21-sign treatise is a text of many mysteries. On the one hand, it behaved as a standard pragmatic text: it grew by constant additions and rewriting. It seems to have been transmitted without the name of an author attached to it. Yet, at the same time, it is a text with a remarkably sophisticated structure; it is, in fact, the only sign treatise that was divided into a contents page, a preface, and a body. It contains some unique information,

<sup>266</sup> Suetonius was proposed as the source of Isidore's *De notis sententiarum* by Traube; Traube, *Die Geschichte der tironischen Noten bei Suetonius und Isidorus*, 6. After he proved that *De notis sententiarum* and *Notae XXI* had a common ancestor, Bergk postulated that it was the sign treatise of Suetonius; Bergk, *Kleine philologische Schriften*, 1:593. *Notae XXI* was edited as a work of Suetonius also by Reifferscheid; Reifferscheid, *C. Suetoni Tranquilli Praeter Caesarum libros reliquiae*, 137–41. The Suetonian thesis began to lose its appeal after it was seriously challenged by several scholars; see Brugnoli, *Sulla possibilità di una ricostruzione dei Prata*; Jocelyn, 'The Annotations of M. Valerius Probus (II)', 159; Fontaine, *Isidore de Séville*, 196–97; D'Anna, 'L'Anecdoteon Parisinum non è di Suetonio'. Nevertheless, Suetonius is still considered by some to be the author of the substrate of both sign treatises, which was identified as his encyclopedic work, *Prata*; see Schmidt, 'Suetons Pratum seit Wessner'; and Sallmann et al., *Die Literatur des Umbruchs*, 39–40. In my opinion, Weber got the closest to the truth when he suggested that some parts of what I call the 21-sign treatise do go back to Suetonius's work, but that this textual entity as it survives today is a more recent compilation; Weber, 'Quaestionum Suetonianarum capita duo', 22.

<sup>267</sup> While the interpretation of signs that were found in the manuscripts without their correct meanings seems to have taken place in the Early Middle Ages, Jocelyn argues that it began in Late Antiquity; Jocelyn, 'The Annotations of M. Valerius Probus (II)', 160.

such as references to Aelius Stilo, Varro, and Probus, and it seems to go back to a genuine Classical tradition connected to the Alexandrian grammarians active in Rome in the first centuries of the Imperial period. The 21-sign treatise is, in other words, a curious mix of sophisticated and rather humble knowledge. Yet, it survived into the Early Middle Ages, while other texts with authoritative names attached to them did not make it, even when they were intended from the onset for dissemination and thus had a higher chance of survival, such as *De mensuris et ponderibus* of Epiphanius of Salamis, the Latin version of which is lost.

### The transmission of the 21-sign treatise before the Carolingian times

As I have shown, the internal evidence of the 21-sign treatise reveals many clues about its origin, formation, and transmission before the Carolingian period. At this point, however, these clues may seem individual dots that do not add up to a complete picture. In the paragraphs that follow I will show that more pieces of the puzzle can be found by looking at what *De notis sententiarum* and *Notae XXI* can tell us about their immediate prehistory. I will, first, return to the interpolations in the Italian branch of the 21-sign treatise mentioned in the previous section. Then, I will discuss Isidore's source that supplied the 21-sign treatise. Finally, I will discuss the character of X, the common ancestor of the two Beneventan manuscripts transmitting *Notae XXI*. As will be shown, these lines of transmission lead back to a single place, the point from which the 21-sign treatise was disseminated in Late Antiquity and which I alluded to at the beginning of this chapter.

As I mentioned in the previous section, the Italian branch of the 21-sign treatise contains two interpolations that can be dated after it branched off from the Spanish branch: the substitution of the name *paragraphus* by *simplex ductus*, and the addition of the 15-sign treatise to the 21-sign treatise. The 15-sign treatise contains several highly specific references to the *Ars rhetorica* of Consultus Fortunatianus, a fourth- or a fifth-century Roman author of a manual of rhetoric.<sup>268</sup> The *Ars rhetorica* was a rather obscure work and

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<sup>268</sup> As far as I know, Fortunatianus is the only Latin author who discusses the otherwise obscure terms *metaphrasis* (#3-#4), *aprepes* (#5) and a type of error known as  $\pi\alpha\alpha'$   $\iota\sigma\tau\omicron\lambda\iota\alpha\nu$  (*contra historiam*, #6 in the 15-sign treatise). Fort. *Ars rhet.* 3.3: *Exercitatio verbis quid praestat? quod non quidem generat verba, sed alit ac tuetur. Quae igitur summa est exercitationis, id est quot partibus constat? quattuor. Quibus? ut Graeca in Latinum convertas, ut difficilia scribas, ut μετέφρασον facias, ut de tempore adsidue dicas*; Fort. *Ars rhet.* 1.5: *Quae est aprepes? cum aliquid personae incongruens invenitur, ut: 'vir fortis praemium accipiat: quidam fortiter fecit, petit praemii nomine nuptias filiae suae' ... Quae est  $\pi\alpha\alpha'$   $\iota\sigma\tau\omicron\lambda\iota\alpha\nu$ ? quando id in controversia invenimus, quod sit citra historiae fidem, ut: 'reus est Q. Hortensius, quod in consulatu suo supplicium de indemnatis civibus sumserit', cum sciamus non Hortensium fuisse, sed Tullium. Hic modus in persona tantum invenitur? immo in omnibus circumstantiis, et in re et in tempore et in loco et in causa et in modo et in materia, si aliquid ex his falsum ponatur et aliter quam in historiis invenimus. In the very same chapter, Fortunatianus also discusses the *alogos*, which may have been the reason that the interpolator conflated technical signs with rhetorical errors and*

our only early reference to it comes from Cassiodorus, who mentioned that a codex of Fortunatianus's *Ars rhetorica* was present in the library of Vivarium.<sup>269</sup> **Paris, BnF, Lat. 7530**, in which both *Notae XXI* and the 15-sign treatise can be found, is one of the oldest witnesses of this text.<sup>270</sup> Tellingly, the phrase *simplex ductus* can also be associated exclusively with Fortunatianus.<sup>271</sup> The two interpolations seem to have been added to the Italian branch at the same point, after the compilation of the 21-sign treatise and the splitting off of the Spanish branch, as is suggested by the position of the 15-sign treatise after the 21-sign treatise. Unfortunately, little more can be said about the context of this interpolation on the basis of the internal evidence.<sup>272</sup>

Isidore's models for book one of the *Etymologiae* have been well explored, especially by Jacques Fontaine.<sup>273</sup> He argued that, although the basis for this book was the *Ars Maior* of Donatus, Isidore also used several commentaries on Donatus and other texts to enrich his source text.<sup>274</sup> In his opinion, the source for some of these texts was a grammatical compendium in one or several volumes, which contained Donatus and various other grammatical texts attached to him. Fontaine suggested that this grammatical compendium had a profound impact on how Isidore organized his material in the first book. What, then, was this corpus, what other texts did it contain, and where did it come from?

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figures; *Ars rhet.* 1.5: *Quae alogos? quae sine ratione conponitur: quamvis omnis asystata alogos dici possit, si quidem nusquam in his ratio inveniri potest.*

<sup>269</sup> *Inst.* 2.2.10: *Fortunatianum vero, doctorem novellum, qui tribus voluminibus de hac re subtiliter minute que tractavit, in pugillari codice apte forsitan congruenter que redegit, ut et fastidium lectori tollat et quae sunt necessaria competenter insinuet. hunc legat qui brevitatis amator est; nam cum opus suum in multos libros non tetenderit, plurima tamen acutissima ratiocinatione disseruit.* Cassiodorus also mentions that he adjoined this little booklet to a larger corpus devoted to rhetoric consisting of 'Cicero's *Ars rhetorica*' (perhaps *De oratore*) and Quintilian's *Institutiones*.

<sup>270</sup> See Holtz, 'Le Parisinus Latinus 7530', 121; and Calboli Montefusco, *Consulti Fortunatiani Ars rhetorica*, 30. It is tempting to see a link between the codex from Vivarium and **Paris, BnF, Lat. 7530**, given that both have a south Italian origin, but I do not wish to go so far as to suggest that the Fortunatianus in the latter is a copy coming from the former.

<sup>271</sup> Fortunatianus is also the only Latin rhetorician that I know who discusses *simplex ductus*; Fort. *Ars rhet.* 1.6: *Quid interest inter ductum et modum? ductus est totius orationis, modus vero partis alicuius in oratione. Ductus quot sunt? quinque: simplex, subtilis, figuratus, oblicus, mixtus. Simplex qui est? cum simpliciter id agimus, ita ut in themate positum est ... Ductum unde invenimus? ex consilio. Quo modo? si verum fuerit consilium, simplex erit ductus: si non verum consilium, tunc non erit simplex ductus.* I cannot explain why the interpolator decided to change only the item *paragraphus*, when he or she left the other items in the 21-sign treatise intact. The graphic sign of the *paragraphus* can be certainly described as a *simplex ductus*, but otherwise, I cannot think of a reason to conflate a particular technical part of *grammatica* with *rhetorica*.

<sup>272</sup> It can be, however, added that the adjoining of sign treatises together to form larger super-lists of signs or compilations, as I argue in chapter 3 and 5, was typical for Italy. **Paris, BnF, Lat. 7530** contains material both of local provenance and from Spain as well as the Frankish lands, but this portion seems to belong to the first category. The Italian branch of the 21-sign treatise probably not only circulated in Italy, but also originated there.

<sup>273</sup> Fontaine, *Isidore de Séville*, 54–84 and 196–99. Others who have analyzed Isidore's sources and his use of them include Martin Irvine; Irvine, *The Making of Textual Culture*.

<sup>274</sup> Fontaine, *Isidore de Séville*, 196–99; and Irvine, *The Making of Textual Culture*, 61 and 121.

In addition to Donatus, the other major source Isidore used for the first book of the *Etymologiae* was the second book of Cassiodorus's *Institutiones*.<sup>275</sup> Isidore used it as a source for the first five chapters of book one, and his overview of the parts of *grammatica* in *Etym.* 1.5.4 is based on *Inst.* 2.1.2.<sup>276</sup> There is also a parallel reference to Cadmus as the inventor of Greek letters in *De litteris communibus* (1.3.6) and *Inst.* 2.1.1.<sup>277</sup> However, Isidore did not use the first book of the *Institutiones*, nor does he seem to be aware that he was using Cassiodorus. Rather, the version he used was an anonymous, separately transmitted book two of the *Institutiones*, as was analyzed by Louis Holtz.<sup>278</sup> According to Holtz, book two was produced by Cassiodorus before book one. This draft was never discarded, but rather used as a source for an anonymous treatise on secular learning which circulated in several versions in the Early Middle Ages. This anonymous treatise was not a direct work of Cassiodorus, but rather came from the monks of Vivarium after Cassiodorus's death and should be associated with practical compendia and miscellanies originating at Vivarium.<sup>279</sup> There was no direct link between Seville and Vivarium. Isidore remained oblivious to the majority of Cassiodorus's works, but he did get his hands on one (or more?) of these compendia.<sup>280</sup>

The Vivarian origin of Isidore's source is also suggested by other texts he used in book one of the *Etymologiae*. Most notably, Isidore employed Cassiodorus's *De orthographia*, the last work Cassiodorus composed before his death, perhaps in the 580s.<sup>281</sup> This puts some twenty years between the production of these works by Cassiodorus and Isidore's use of them.<sup>282</sup> We should, therefore, imagine just a single intermediary between Cassiodorus and Isidore – a book (or books) which resembled the Vivarian grammatical corpus

<sup>275</sup> See Fontaine, *Isidore de Séville*, 55; and Irvine, *The Making of Textual Culture*, 218.

<sup>276</sup> Compare *Etym.* 1.5.4: *Divisiones autem grammaticae artis a quibusdam triginta dinumerantur, id est, partes orationis octo: vox articulata, littera, syllaba, pedes, accentus, positurae, notae, orthographia, analogia, etymologia, glossae, differentiae, barbarismi, soloeicismi, vitia, metaplasmata, schemata, tropi, prosa, metra, fabulae, historiae*; with *Inst.* 2.1.2: *Donatus igitur in secunda parte ita discepat: de voce articulata - de littera - de syllaba - de pedibus - de accentibus - de posituris sive distinctionibus - et iterum de partibus orationis VIII - de schematibus - de etymologiis - de orthographia*; see Parkes, *Pause and Effect*, 22.

<sup>277</sup> Compare *Etym.* 1.3.6: *Cadmus Agenoris filius Graecas litteras a Phoenice in Graeciam decem et septem primus attulit*; with *Inst.* 2.1.1: *Quas [i.e. litteras] primus omnium Cadmus sedecim tantum legitur invenisse, eas Graecis studiosissimis tradens*.

<sup>278</sup> Holtz, 'Quelques aspects'. Holtz asserts that Isidore used this type of second book of the *Institutiones* at p. 289.

<sup>279</sup> *Ibid.*, 281–82.

<sup>280</sup> Fontaine, *Isidore de Séville*, 190. Fontaine speculates that the codex or codices which contained the anonymously transmitted book two of the *Institutiones* used by Isidore were brought to Spain by monks fleeing before the Lombards; *Ibid.*, 845.

<sup>281</sup> The chronology of Cassiodorus's life is uncertain, but it is assumed that his last works may have been written around this time; see O'Donnell, *Cassiodorus*.

<sup>282</sup> Fontaine proposes that Isidore knew the second book of the *Institutiones*, and thus had the Vivarian source corpus, only after 600, since he does not use them in his *Differentiae*; Fontaine, *Isidore de Séville*, 845.

discussed by Cassiodorus in *Inst.* 2.1.2.<sup>283</sup> Because this intermediary seems to have already contained the majority of works Isidore used in making the first book of the *Etymologiae*,<sup>284</sup> the 21-sign treatise was possibly also in this book.

**Paris, BnF, Lat. 7530** and **Rome, Bib. Cas., MS 1086**, too, provide clues that the 21-sign treatise may have been available once at Vivarium. Louis Holtz has shown that *Notae XXI* in these two codices does not appear as a self-standing entity, but belongs to a sequence of six technical texts already present in their common ancestor, which were transmitted as a cluster.<sup>285</sup> The texts in this cluster, and many other texts in the two manuscripts, fall into the same category as the 21-sign treatise: they are short, anonymous, pragmatic compilations that treat *grammatica* (or *rhetorica*). Moreover, most of them are poorly attested outside southern Italy.<sup>286</sup> They seem to represent locally manufactured material that survived in miscellanies because of the clustering.

One of the texts in this cluster is *Scemata dianoeas quae ad rhetores pertinent*, a compilation with a history similar to the 21-sign treatise: it, too, derived from a Classical treatise by a known author, the Περί σχημάτων of Caecilius of Calacte (1<sup>st</sup> century BCE/1<sup>st</sup> century CE); it was translated into Latin in Classical Antiquity; and then abbreviated and extended with material coming from other sources. Ulrich Schindel was able to show that this text, not mentioned by a single ancient or medieval source and poorly attested, was known to Cassiodorus, who used it in his *Expositio psalmsorum*.<sup>287</sup> It survives in the two Beneventan manuscripts as a reworking extended with material from the *Etymologiae*.

The similarities between *Scemata dianoeas* and the 21-sign treatise are suggestive, but cannot be alone taken as an evidence that the cluster of texts as a whole was transmitted from Vivarium. However, Schindel demonstrated that another short, anonymous text from **Paris, BnF, Lat. 7530**, *De philosophia et partibus eius*, also passed through Cassiodorus's hands.<sup>288</sup> This text, too, probably goes back to X, the common ancestor of **Paris, BnF, Lat. 7530** and **Rome, Bib. Cas., MS 1086**, even though the Casanatense manuscript does not contain it. X seems, thus, to have contained a number of similar short texts not attested

<sup>283</sup> *Inst.* 2.1.3: *Ceterum qui ea voluerit latius plenius que cognoscere, cum praefatione sua codicem legat, quem de grammatica feci arte conscribi, quatenus diligens lector invenire possit, quod illi proposito deputatum esse cognoscit.*

<sup>284</sup> The complete list of works that Isidore used and that point back to Vivarium is given in Fontaine, *Isidore de Séville*, 199. Even the Donatus seems to be of the Vivarian type and was thus probably part of the same codex or set of codices.

<sup>285</sup> Holtz, 'Le Parisinus Latinus 7530', 141.

<sup>286</sup> Cavallo, 'La trasmissione dei testi nell'area beneventano-cassinese', 365. There are several other, more notable texts that survived only in southern Italy: Varro's *De lingua latina*, parts of Tacitus's *Historiae* and *Annales*, Apuleius's *Metamorphoses* and *Florida*, Hyginus's *Fabulae*, Servius's *De metris Horatianis* and several others; see Lowe, *The Beneventan Script*, 16–17.

<sup>287</sup> Schindel, 'Textkritisches zu lateinischen Figurenlehren'.

<sup>288</sup> Schindel, 'Neues zur Überlieferungsgeschichte', 11–12.

elsewhere, some copied into both codices, others only one of the two codices, and others not copied on, of which a number came from Vivarium.

Pierre Courcelle was the first to propose that some of the books from Vivarium came to Monte Cassino via the Lateran in the eighth century when the abbey was re-founded by Petronax.<sup>289</sup> The findings of Louis Holtz and Ulrich Schindel seem to confirm that, indeed, Monte Cassino possessed some manuscripts that were copied from Vivarian exemplars.<sup>290</sup> Schindel even proposed that one such codex was taken by the monks from the Lateran to Monte Cassino in the eighth century and served as the prototype for both **Paris, BnF, Lat. 7530** and **Rome, Bib. Cas., MS 1086**.<sup>291</sup> Features of the two manuscripts suggest that this prototype was a book similar to the one used by Isidore of Seville: a grammatical compendium put together at Vivarium by its monks.

It is probable that the 21-sign treatise was present at Vivarium in the sixth century. There, it was copied into two different compendia, one ended up in Spain where Isidore of Seville used it, the other remained in southern Italy, where it provided the basis for several grammatical manuscripts in the late eighth and the ninth centuries. It is tempting to identify the final compiler of the 21-sign treatise as Cassiodorus. As I showed in chapter 1, he was interested in the subject of the technical signs more than most of his contemporaries (see p. 49). He also fits the few characteristics of the compiler of the treatise provided by the internal evidence: he lived in the period when the treatise was finalized and could have seen manuscripts annotated with *anchorae* without understanding the practice of using them. Moreover, Cassiodorus employed *chresimon* (⚡) and *frontis* (⚡) in his 560s revision of the *Expositio psalmsorum*. Cassiodorus and the 21-sign treatise are our only two sources for these two signs in the Latin West before the Carolingian period. Nevertheless, as in the case of Suetonius, the evidence for Cassiodorus's involvement in the compilation of the 21-sign treatise is inconclusive and cannot be taken for a proof that he was the compiler of this text.

Nevertheless, it seems safe to conclude that Vivarium served as a transit point for the treatise, just as it did for other texts that survived because the monks of Vivarium and

<sup>289</sup> See Schindel, *Zur spätantiken Wissenschaftsgeschichte*, 49–50. See also Troncarelli, *Vivarium*.

<sup>290</sup> Holtz entertained the idea that the anonymously transmitted second book of the *Institutiones* that was used by Paul the Deacon in the late eighth century at Monte Cassino was a locally circulated version, i.e., it came from Vivarium directly via a southern Italian transmission network; Holtz, 'Quelques aspects', 289. Schindel was more direct about seeing a link between the sixth-century library of Vivarium and the eighth-century library of Monte Cassino; Schindel, *Zur spätantiken Wissenschaftsgeschichte*, 49–50.

<sup>291</sup> Schindel, 'Neues zur Überlieferungsgeschichte', 14.

Cassiodorus found them interesting and relevant.<sup>292</sup> It may well be that it was in Vivarium where this short text was attached to other texts and thus avoided destruction, a fate which seems to have befallen many other short, anonymous texts. Some of the differences between what I have termed the Spanish and the Italian branch of the 21-sign treatise may also go back to Vivarium. The 21-sign treatise was bequeathed to the monks of Monte Cassino and to Isidore of Seville in two different grammatical miscellanies, which went back to the same pool of material, but which were not identical. Louis Holtz observed a similar variation in the case of the anonymously, separately transmitted book two of the *Institutiones*, which survives in several slightly different redactions. The chief reason for the variation was that the texts in question – both the 21-sign treatise and the second book of the *Institutiones* – were seen as anonymous and utilitarian texts. For the same reason, these texts were not mentioned by Cassiodorus in his *Institutiones* as present in the library of Vivarium. They were simply not on the same level as Cicero, Donatus or Fortunatianus. The 21-sign treatise may have owed its survival to Vivarium, but neither because of the renown of this foundation – which was in its days hardly as renowned as we view it today – , nor thanks to Cassiodorus’s genius or authority – he was not an *auctoritas* for many generations to come. Rather, it passed through the bottleneck of the first centuries of the Early Middle Ages because of two simple factors: first, that short and obscure texts are more likely to survive in clusters; and second, that the texts that survived were perceived as pragmatically useful by those who copied them.

### The Carolingian and post-Carolingian descendants of the 21-sign treatise

In this section, I will look at sign treatises that go back to the tradition of writing about the technical signs started by the 21-sign treatise, which were produced in the Carolingian period or later. For the most part, they are not direct descendants of the 21-sign treatise, but rather go back to witnesses mentioned earlier, in particular *De notis sententiarum*.

These more recent sign treatises, which I will refer to as derivative sign treatises, fall into three categories. The Carolingian derivatives of the sign treatise in the *Liber Glossarum* follow the trend set already by the 21-sign treatise, *De notis sententiarum* and the sign treatise in the *Liber Glossarum* itself. They accumulate information about the technical signs in order to create an even fuller and richer repository of *doxa*. In contrast, other sign treatises

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<sup>292</sup> The notable case is Pelagius’s *De fide* that survives in **St. Petersburg, Public Library, Q.v.I.6-10** (6<sup>th</sup> century, Italy, possibly Vivarium) and the *Complexiones* based on Tyconius’s commentaries to the Acts of the Apostles and the Apocalypse, which survive in only one manuscript, **Verona, Biblioteca Capitolare, MS XXXIX (37)** (6<sup>th</sup> century, ex./7<sup>th</sup> century, in., Italy, perhaps northern).

produced in the Carolingian period known from continental manuscripts are reductive in character. They select only some items from the tradition in order to create a simpler version. Both these types, one characterized by collection, the other by selection, reflect particular trends of early medieval knowledge culture which can be illustrated by other examples of technical literature from this period. On the one hand, early medieval scholars can be shown as obsessive hoarders of knowledge, producing ever more complex compilations that ensured that a particular type of material would always be at hand and that it could be found in a single book. This trend is perhaps best exemplified by the early medieval glossaries, including the *Liber Glossarum*, which grew ever larger and stimulated ever more sophisticated systematization as a result.<sup>293</sup> On the other hand, medieval readers could be pragmatic note-takers and unscrupulous excerptors, ever ready to borrow suitable bits of text and use them for teaching, personal study or for other reasons. The best example of this trend are various personal notebooks surviving from the Carolingian period, such as **St. Gallen, Stiftsbibliothek, MS 878**, the personal notebook of Walahfrid Strabo.<sup>294</sup> These two attitudes reflect different strategies of use and contexts of production, as will be argued in the conclusion to this chapter.

A third category of derivative sign treatises is represented by three texts preserved in English manuscripts that can be classified neither with the accumulative nor with the reductive sign treatises. Rather, they render Isidore's *De notis sententiarum* in several distinct fashions, often via an intermediary. They are the only offshoot of the derivative sign treatise that can be situated outside the Frankish lands. As will be shown, however, at least two of these texts have roots in Francia. They attest to the transfer of continental material to England and to the interest in sign treatises in the latter region.

In the following, I will discuss the accumulative sign treatise in the *Liber Glossarum*, then three abbreviated sign treatises, and finally three sign treatises surviving in English manuscripts. In the second sub-section, I will also discuss *Item sicut alibi inventae sunt*, since it can be also considered a special case of the selective trend visible in the Frankish manuscripts.

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<sup>293</sup> For the growth of early medieval glossaries, see Dionisotti, 'On the Nature and Transmission of Latin Glossaries'.

<sup>294</sup> It is described in Bischoff, 'Eine Sammelhandschrift Walahfrid Strabos'.

Carolingian variants of the sign treatise in the *Liber Glossarum*

The sign treatise in the *Liber Glossarum* is a perfect example of the early medieval predilection towards the collection of information about technical signs with the intention of producing an exhaustive overview. As I said above, its compilers used Isidore's *De notis sententiarum* as their main source and combined it with a version of the 21-sign treatise, which served as a secondary source (see p. 64). They added two items from the latter, a second *frontis* (#21 in this treatise, before Isidorian *frontis* as #22) and a second *anchora superior* (#23 in this treatise, before Isidorian *anchora superior* as #24), and removed one of signs added to *De notis sententiarum* by Isidore, *positura*, which was not found in the 21-sign treatise (see Appendix III, item 9). They also employed several other texts as a supplementary source for some of the items: Servius's commentary on the *Aeneid* seems to have been used to supply an alternative name *anfibolen* for *cryphia* (#8 in the treatise); and a source that described the Origenian method of textual criticism (the sign treatise of Epiphanius of Salamis discussed in p. 44, or one of the works of Jerome) was used for the item *asteriscus* (#1 in the treatise).<sup>295</sup> They also organized the contents of the treatise as an itemized list and placed it at the beginning of the entire encyclopedic insert devoted to *notae* based on *Etym.* 1.19-26.<sup>296</sup>

This version of the sign treatise with twenty-seven items can be found in the oldest manuscripts of the *Liber Glossarum*, such as **Paris, BnF, Lat. 11529-30** (late 8<sup>th</sup> century, area of Corbie).<sup>297</sup> However, later Carolingian manuscripts, especially epitomes of the *Liber Glossarum*, contain revised versions of this text characterized by two features. First, while the original compilers of this treatise wished to create a more comprehensive account of technical signs by diversifying *De notis sententiarum* with the aid of the 21-sign treatise and other texts, Carolingian compilers were interested in making this text more uniform by bringing it into accord with Isidore's sign treatise. In **London, BL, Harley 2735** (9<sup>th</sup> century, 1/2, Fleury), an epitome of the *Liber Glossarum* with notes made by Carolingian scholar Heiric of Auxerre,<sup>298</sup> Heiric added a *cryphia* and a *positura* from *De notis sententiarum*

<sup>295</sup> See my forthcoming article Steinová, 'The List of *notae*'.

<sup>296</sup> In the *Etymologiae*, the section on technical signs (*De notis sententiarum*, 1.21) is preceded by two other sections devoted to signs used for accents (*De figuris accentuum*, 1.19) and for punctuation (*De posituris* 1.20). The *Liber Glossarum* moved the section modeled on *Etym.* 1.21 before *De notis distinctionum* modeled on *Etym.* 1.20 and *De notis accentuum apud grammaticos* modeled on *Etym.* 1.19.

<sup>297</sup> This is a manuscript of a two-volume *Liber Glossarum* which forms a set with **Paris, BnF, Lat. 11529** containing letters A-E. The sign treatise should also be present in the partially preserved **Cambrai BM 693** (late 8<sup>th</sup>/early 9<sup>th</sup> century, area of Corbie, contains only letters M-Z), but I was unable to examine this manuscript.

<sup>298</sup> His annotations in this manuscripts have been studied by David Ganz; Ganz, '*Liber Glossarum* avec notes'; and Ganz, 'Heiric d'Auxerre'.

to the twenty-seven original items. Another Carolingian epitome, **St. Gallen, Stiftsbibliothek, MS 905** (c. 900) omitted that of the two *anchora superior* which was not found in *De notis sententiarum*. Finally, compilers of the epitome of the *Liber Glossarum* in **Munich, BSB, Clm 14429** (9<sup>th</sup> century, 2/2), not only adds *positura* from *De notis sententiarum* and removed *anchora superior* taken from the 21-sign treatise, but they also added the name *cryphia* to the item called in the original sign treatise *anfibolen* and removed a part of the item *diple* that cannot be found in the description of this sign in *De notis sententiarum*.<sup>299</sup> Single words and phrases were also rewritten, indicating that the compilers of this versions consulted *De notis sententiarum* carefully to adjust the sign treatise to Isidore's text.<sup>300</sup>

Second, despite this uniformization of the text, Carolingian versions of the sign treatises in the *Liber Glossarum* continue the trend of accumulation of knowledge. These sign treatises, in fact, were the most extensive texts about technical signs produced in the Early Middle Ages and represent the pinnacle of interest in *doxa* about technical signs in the region north of the Alps. They are the Frankish continuation of the accumulative tradition which began with the 8-sign treatise in Classical Antiquity, continued with the 12-, the 16- and the 21-sign treatises and culminated in Isidore's *De notis sententiarum* (the 26-sign treatise) and the sign treatise in the *Liber Glossarum* (the 27-sign treatise).

### Abbreviated sign treatises

In this section, I will analyze four selective sign treatises produced in the Carolingian area. A comparative overview of these sign treatises can be found in Appendix III, section B. The oldest of these selective sign treatises is an abbreviation of *De notis sententiarum* of Isidore of Seville found in a family of manuscripts of the *Etymologiae* from Germany. This family is characterized by the presence of *De natura rerum* before book five of the *Etymologiae*, as well as by an eccentric arrangement of the first book. It circulated between

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<sup>299</sup> These three cases of addition and removal of material seem to be independent as there are no strong textual links between the three manuscripts to suggest otherwise. Franck Cinato showed that the St. Gall epitome and the Munich epitome have a common ancestor, and as the former adjusts only the item *anchora superior*, it is likely that the other adjustments were made in the process of the compilation of **Munich, BSB, Clm 14429**; see Cinato, 'Le "Goth Ansileubus"', 54. These manuscripts therefore imply that adjustments bringing the text closer to the reading of *De notis sententiarum* were made independently more than once in the Frankish area.

<sup>300</sup> I describe these adjustments in greater detail in my forthcoming article Steinová, 'The List of *notae*'. I was, unfortunately, unable to examine other Carolingian manuscripts of the *Liber Glossarum* to see whether the harmonization of the text of the sign treatise in this glossary with Isidore's *De notis sententiarum* was a more substantial phenomenon.

the ninth and the twelfth centuries in Switzerland and the Rhineland.<sup>301</sup> The eccentric arrangement of the first book in this family goes back to the parent of this family – **Zofingen, Stadtbibliothek, Pa 32** (9<sup>th</sup> century, in., Germany, perhaps St. Gall, **Z**).<sup>302</sup> I treat this interesting manuscript in more detail in a forthcoming article.<sup>303</sup> Here I want to discuss it only as far as it is relevant for understanding the selective sign treatise of which it is the oldest witness.

Originally, the first book of the *Etymologiae* in **Z** had a peculiar form (**Z**<sup>1</sup>) that suggests that it was not copied from a manuscript of the *Etymologiae* but from a grammatical compendium, which transmitted book one separately (I discuss such compendia containing a separately transmitted book one in chapter 5, see p. 157). This prototype of **Z**<sup>1</sup> placed sections 5-14 of book one before sections 1-4 and abbreviated sections 17-26 significantly. This arrangement resembles the arrangement of the first book of the *Etymologiae* in two grammatical compendia connected with Fleury: **Bern, Burgerbibliothek, MS 207** (end of the 8<sup>th</sup> century, Fleury) and **Leiden, UB, Voss. Lat. Q 86** (mid-9<sup>th</sup> century, France, perhaps Fleury). In these two manuscripts, section 16 directly follows sections 1-4, and in the Bern manuscript, sections 5-14 appear at the beginning of the first book. **Bern, Burgerbibliothek, MS 207**, furthermore, transmits an incomplete selection of sections 1.21-26 (both manuscripts are described in Appendix IV, as items D2 and D5). Thus, it seems that the prototype of **Z**<sup>1</sup>, which was also the source of the sign treatise, was a separately transmitted book one similar to the two Fleury manuscripts.

This sign treatise contains only six out of the total of twenty-six signs discussed by Isidore (see Appendix III, item 13). This selection does not seem to be arbitrary. Of the signs present in this sign treatise, only the *ceraunium* does not seem to have been used in the Early Middle Ages. The *asteriscus*, *obelus*, *chresimon* and the two *anchorae* are among those signs going back to the 21-sign that were most frequently used in the early medieval period. This is an indication that the sign treatise was intended for practical use, such as the classroom

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<sup>301</sup> The following manuscripts belong to this family: **Zofingen, Stadtbibliothek, Pa 32** (9<sup>th</sup> century, in., Germany, perhaps St. Gall); **Einsiedeln, Stiftsbibliothek, MS 167** (970-90, Einsiedeln); **Wolfenbüttel, HAB, Weiss. 2** (11<sup>th</sup> century, perhaps Weissenburg); **London, BL, Harley 2660** (c. 1136, West Rhineland); **Leiden, UB, Per F 2** (12<sup>th</sup> century, 1/2); and **Einsiedeln, Stiftsbibliothek, MS 360** (1143-78, Engelberg). The sign treatise, however, appears only in four of them: **Zofingen, Stadtbibliothek, Pa 32**, **Wolfenbüttel, HAB, Weiss. 2**, **London, BL, Harley 2660** and **Leiden, UB, Per F 2**, which, on these grounds, form a sub-branch distinct from the two Einsiedeln manuscripts.

<sup>302</sup> The parenthood of the Zofingen can be established on the basis of its own peculiar arrangement of the sections of book one, which is the result of cooperation between two scribes and involves several interventions in the physical form of the codex (reshuffling of quires, removing of leafs, addition of new leaves, crossing out of whole pages etc.). Similar tangible traces of reworking are absent from the other manuscripts, which simply follow the final order of sections in the Zofingen manuscript.

<sup>303</sup> I am currently preparing an article on the early medieval transmission of the first book of the *Etymologiae* in which this manuscript and the manuscript family stemming from it are analyzed in greater detail.

instruction. In fact, the only other sign from this tradition that could be expected to be present in a selection from *De notis sententiarum* tailored for early medieval users is *frontis*, which is also found in early medieval manuscripts (see chapter 6, p. 209), but which is absent from this sign treatise. The very presence of a sign treatise in a grammatical compendium strengthens the impression that it was intended for classroom education, especially since in these compendia sections which were not considered useful for teaching were often removed.<sup>304</sup>

Another selective sign treatise is present in **Paris, BnF, Lat. 6810**. **Paris, BnF, Lat. 6810** is a tenth-century manuscript of Solinus produced in an unidentified scriptorium.<sup>305</sup> Besides Solinus's *Collectaneum rerum memorabilium* (fols. 1r-37v) and the *Libellus de vita et moribus imperatorum* of pseudo-Aurelius Victor (fols. 37v-48r), it contains a variety of shorter texts in the last folium (48rv): an epitaph for Boethius and his wife Helpis, a medical text bearing the title *De somatum onomatibus* and, as the very last item in the manuscript, a list of twelve technical signs (see Appendix III, item 18). Eleven of these signs were taken from *De notis sententiarum*. Only the last one, *coronis*, has a description unattested elsewhere: *Chronus dicitur brevis grece (!) et haec figura quia brevem habet iam terminum et ultra finem libri protendi non potest. Idcirco taliter adiungitur quasi manum refrenet scribentis. Vel chronos dicitur grece tempus ut legimus in chronica Hieronimi id est in libro de temporibus* ('*Chronus* means "short" in Greek and this graphic sign, since [the text] has an ending shortly and it is impossible to stretch it beyond the end of the book therefore it is attached in this fashion, as if to restrain the hand of the scribe, or *chronos* means "time" in Greek, as we read in the Chronicle of Jerome, that is in the book about time'). It seems to be a conflation of two distinct items, one a gloss on the Greek word *χρόνος* which perhaps read *Chronus vel chronos dicitur grece tempus* etc., and another a description of *coronis*, which read *Chronus (Coronis?) dicitur brevis grece et haec figura ... scribentis*.

Unfortunately, the manuscript does not provide many clues about the history of this sign treatise. Given its position in the manuscript, it was almost certainly added on an empty folio at the end and has no association with Solinus.<sup>306</sup> The third item in the list,

<sup>304</sup> I discuss the use of sign treatises and specifically of *De notis sententiarum* for teaching in chapter 5 (see p. 167) and I will return to this abbreviated *De notis sententiarum* there.

<sup>305</sup> The manuscript is described in von Büren, 'Une édition critique de Solin', 64–66.

<sup>306</sup> **Paris, BnF, Lat. 6810** is the only manuscript containing a sign treatise unrelated to the other contents of the manuscript. As will be clear from the overview of sign treatises in this and the following chapters, the majority of sign treatises survive in miscellanies and compendia. Also, the last item in the treatise is authentic, but goes back neither to the tradition represented by the 21-sign treatise, nor to any other tradition of *doxa* I am aware of. It suggests that perhaps as late as the tenth century, there may still have been additional tradition around that is lost to us.

*paragraphus*, contains a gloss similar to glosses found in several manuscripts of the *Etymologiae* from France (*in conexu .i. in copulatione partium*), where, as I argue in chapter 5, glossing of *De notis sententiarum* was wide-spread in the Carolingian period (see p. 170). This could suggest that the sign treatise also originated in this region and that it was taken from such a glossed manuscript of the *Etymologiae*. Perhaps the last item *coronis* was found in this manuscript as a marginal note.<sup>307</sup> The selection of signs in this abbreviated *De notis sententiarum* resembles the selection in the Zofingen manuscript and it also seems to correspond to contemporary Carolingian *praxis*.

A third selective early medieval sign treatise was already mentioned above as a potential independent witness of the 21-sign treatise (see p. 65). It can be found in the first of the three codicological units that were bound together to form **Paris, BnF, Lat. 4841**. This codicological unit, which encompasses folia 1r-69v of the current manuscript, contains rare texts such as the anonymous geographical composition *De situ orbis terrae* (fols. 1r-13v),<sup>308</sup> an anthology of epitaphs including those of Einhard and Alcuin (fols. 32v-34v), a poem of Agobard of Lyon (fols. 54v-55r), but also the *Chronicon* of Isidore of Seville (fols. 57v-69v).<sup>309</sup> Fols. 27v-31v contain two texts that concern different *notae*: a list of nine technical signs (fols. 27v-28r); and an incomplete list of *notae iuris* beginning with letter C (fols. 28v-31v).<sup>310</sup>

The sign treatise in **Paris, BnF, Lat. 4841** can be seen as a compilation based on three texts about technical signs (see Appendix III, item 15). Three of the items (*obelus*, *lemniscus*, and *crifia*) were taken entirely from Isidore's *De notis sententiarum*. Two (*anchora superior* and *anchora inferior*) do not come from *De notis sententiarum*, but from a version of the 21-sign treatise that was identical with or similar to *Notae XXI*. The first sentence of the first item *asteriscus* cannot go back either to *De notis sententiarum* or to *Notae XXI*, but was instead taken from the *Liber Glossarum*. The two remaining items, *paragraphus* and *chresimon*, blend information drawn from several texts (see p. 66).

<sup>307</sup> The gloss on *χρόνος* may have been derived from *Etym.* 5.28: *Chronica Graece dicitur quae Latine temporum series appellatur, qualem apud Graecos Eusebius Caesariensis episcopus edidit, et Hieronymus presbyter in Latinam linguam convertit. CHRONOS enim Graece, Latine tempus interpretatur.*

<sup>308</sup> The manuscript is described in Gautier Dalché, 'Situs orbis terre vel regionum', 151–56.

<sup>309</sup> According to Dalché, this codicological unit reflects both Visigothic and Carolingian influences and textual traditions. *Ibid.*, 156. The poem of Agobard connects this codicological unit with Lyon, while the epitaphs of Einhard and Alcuin point to a link with centers lying even further to the north. In contrast, *De situ orbis terrae* contains references to Narbonne in Septimania and is likely local, while the works of Isidore point to a Visigothic territory.

<sup>310</sup> The following page (fol. 32r), which was originally blank, now contains a tenth-century addition inspired by these two sections concerned with *notae*, an alphabet of medical terms.

While the abbreviated character of the sign treatise alone could be taken to indicate that it was intended to have a practical function, there is also an additional clue that suggests that the compiler of this sign treatise intended to provide instruction: he or she altered the grammatical tense of his source texts. While Isidore used the present tense in all nine items which were taken over by the sign treatise in **Paris, BnF, Lat. 4841**, the compiler of the sign treatise changed the tense of four of these items – *asteriscus*, *lemniscus*, *antigraphus* and *paragraphus* – to the past tense. The compiler perhaps wished to express that some signs were not used anymore while other signs were in continued use. The item *obelus* moreover contains the explicit wording *opponiturque nunc* suggesting a contemporary usage.

Analyzing the origin of this sign treatise, Paul Frédéric Girard showed that the list of *notae iuris*, which are attached to the sign treatise, links this codicological unit with **Einsiedeln, Stiftsbibliothek, MS 326** (9<sup>th</sup>/10<sup>th</sup> century<sup>311</sup>). The Einsiedeln manuscript contains an identical, cropped list of *notae* opening with the letter C.<sup>312</sup> Girard agreed with Mommsen's thesis that the common ancestor of these two manuscripts was a manuscript recorded twice in the library catalogues of Reichenau as containing both *notae Iulii Caesaris*, one of the names of *notae iuris*,<sup>313</sup> and *monogrammae diversae*.<sup>314</sup> He considered the latter description to refer to the sign treatise in the Parisian manuscript and thus came to the conclusion that the sign treatise was already present in the Reichenau manuscript.<sup>315</sup> However, there are several problems with this hypothesis. The word *monogramma* is never used for technical signs, for which the standard Latin term was *notae*.<sup>316</sup> Moreover,

<sup>311</sup> It is a composite manuscript in which the codicological unit containing the *notae iuris* has been dated to the tenth century; see the most recent manuscript description at: <http://www.e-codices.unifr.ch/en/description/sbc/0326/>.

<sup>312</sup> This list of *notae iuris*, incidentally, occurs also in **Paris, BnF, Lat. 7530**, but there seems to be no direct connection between this manuscript and **Paris, BnF, Lat. 4841** or the sign treatises in the two manuscripts. It has been recently studied by Carmen Codoñer in Codoñer, 'Posibles sistemas de compilación en las *notae iuris*'.

<sup>313</sup> This is also the title of the list of *notae* in **Einsiedeln, Stiftsbibliothek, MS 326**: *Incipiunt notae Iulii Caesar[is]*.

<sup>314</sup> Both printed in Becker, *Catalogi bibliothecarum antiqui*. Becker 6.394 (Reichenau catalogue of 821): *Item glossae in libros divinae historiae, et de canone et regula glossae et versus diversi et notae Iulii in codice uno*; Becker 10.6 (Reichenau catalogue of 842): *In VI libro comprehenduntur diversi versus et nonnullorum hymni sanctorum, et aliquorum epitapia sanctorum et martyrologium cum computo et cyclo, et versus de diebus et mensibus et XII signis, et diversae glossae super istoriam veteris ac novi testamenti et super alios quam plurimos libros et notae Iulii Caesaris et monogrammae diversae et liber Plinii Secundi de natura rerum*. A different description of the same codex can be found in a fragment described by Conrad Hofmann in 1863: *In hoc corpore continentur multa de quibus paucula nomina ... VIII. Postea de grecis litteris et notis Iulii, et monogrammis, et [...]*; Hofmann, 'Über Bruchstücke einer Handschrift mit althochdeutschen Glossen', 14.

<sup>315</sup> Girard, *Un second manuscrit des extraits alphabétiques de Probus*, 515. As Anne Grondeux showed, Reichenau played a crucial role in the early dissemination of the *Liber Glossarum* and also other texts of Visigothic origin; Grondeux, 'Le rôle de Reichenau'.

<sup>316</sup> The early medieval term *monogramma* denotes the kind of monograms that can be found in **St. Gallen, Stiftsbibliothek, MS 876**, p. 281 (8<sup>th</sup>/9<sup>th</sup> century), at: <http://www.e-codices.unifr.ch/en/csg/0876/281/0/Sequence-697>. Note that the incipit of this text explicitly calls them

according to the catalogue, these *monogrammae* should follow the *notae iuris*, not precede them, as is the case in **Paris, BnF, Lat. 4841**.

A fourth selective sign treatise survives in **Oxford, Bodleian Library, D'Orville 158** (11<sup>th</sup> century, 2/2, Meuse region).<sup>317</sup> This manuscript contains the works of Horace, but in several folia left empty, short texts pertaining to grammar and logic were added. On fol. 40v, this is a list of fifteen technical signs based on *De notis sententiarum* (see Appendix III, item 23). The first eleven signs follow the sequence of Isidore's sign treatise and also illustrate the pattern observed earlier, namely that those signs that had no immediate relevance to the early medieval Western users were removed, and those that can be found in the manuscripts from the period were retained. The four final signs break the sequence provided by *De notis sententiarum*, which seems to have been otherwise followed in other abbreviated sign treatises as well, and thus are possibly a secondary addition.

A fifth text that may be considered a selective sign treatise is *Item sicut alibi inventae sunt*. It, too, represents a selection from a longer text, in this case not *De notis sententiarum* but the 21-sign treatise (see Appendix III, item 19). This abbreviation, however, was probably not intended for active use, since the cropping of the descriptive part of the 21-sign treatise rendered it useless for understanding the function of the signs.<sup>318</sup> The only manner in which it could have been used was for a passive identification of signs. This, indeed, may have been its purpose, as is suggested by the fact that several symbols in this text do not have the shape reflecting the tradition of the 21-sign treatise, but rather were replaced by symbols of signs commonly used in the Early Middle Ages.<sup>319</sup>

### Sign treatises preserved in England

The oldest of the three English sign treatises, and the only sign treatise composed in Anglo-Saxon, is a list of twenty-one signs which can be found in the *Enchiridion* of

*monogrammae/monogrammata. Litterarum unum caracterem pictores facere soliti s[unt] quod monogramma dicitur, quorum signi s[un]t [...].*

<sup>317</sup> This manuscript is described in Madan and Craster, *A Summary Catalogue of Western Manuscripts in the Bodleian Library*, 4:76–77. I would like to thank Irene O'Daly with providing me with information about this manuscript.

<sup>318</sup> The only item which contains some remnants of a description is *paragrabus: Paragrabus qui inter versus ponitur figura hac*. Note that the phrase *inter versus* is absent from *De notis sententiarum* and present only in *Notae XXI* and the sign treatise in the *Liber Glossarum*.

<sup>319</sup> The graphic sign presented in *Item sicut alibi* for *coronis* is identical with the sign for ζῆτες, that for *ceraunium* with *kaput*, and that for *obelus superne adpunctus* with *cryphia* (all these signs are discussed in chapter 6). In some manuscripts, the graphic sign for *paragrabus* resembles *require*, e.g. in **Madrid, Biblioteca Nacional, MS 10008** (11<sup>th</sup> century, Castile). Unfortunately, I have not studied Visigothic manuscripts and I cannot tell which technical signs were current in these manuscripts in the period when the text came into being. The signs were certainly known in the Frankish lands and thus this substitution could suggest that *Item sicut alibi* was originally a Frankish text which was imported to northern Spain (see also footnote 640, in which I return to this hypothesis).

Byrhtferth of Ramsey (see Appendix III, item 22). Byrhtferth's sign treatise is based on the *Etymologiae* of Isidore and forms a part of a longer scientific manual in Anglo-Saxon, mostly of computus.<sup>320</sup> It is preserved in one complete manuscript, **Oxford, Bodleian Library, Ashmole 328** (mid-11<sup>th</sup> century, perhaps Canterbury),<sup>321</sup> and partially in two additional manuscripts, **Cambridge, University Library, Kk. v.32** (11<sup>th</sup> century) and **Cambridge, CCC, MS 421** (early 11<sup>th</sup> century).<sup>322</sup> The entire sign treatise probably reflects the lessons of Byrhtferth's teacher Abbo of Fleury, whose intellectual influence is visible throughout the *Enchiridion*.<sup>323</sup> It certainly shows parallels with the Frankish sign treatises, for example in its nature as an abbreviation of *De notis sententiarum* like the sign treatises from the Frankish lands mentioned in the previous paragraphs. In addition, the sign treatise contains several Latin glosses that belong to the same tradition as glosses found in ninth-century Frankish manuscripts of the *Etymologiae* (these glosses are analyzed in chapter 5, see p. 160). The English evidence is dated two hundred years later than similar treatises in Francia. It can be considered a late testimony of the interest in the Carolingian sign treatises on the other side of the Channel.

Another sign treatise that reflects a similar exchange of knowledge between France and England and attests to the study of technical signs belonging to the tradition of the 21-sign treatise in England can be found in **London, BL, Stowe 57** (12<sup>th</sup> century, England<sup>324</sup>). This manuscript is the singular exemplar of the works of one Geoffrey of Ufford.<sup>325</sup> This Geoffrey signed a charter in 1147 as a master scribe of Peterborough Abbey,<sup>326</sup> for which reason the sign treatise, as well as the manuscript itself, should be connected with Peterborough, not far from Ramsey.<sup>327</sup>

<sup>320</sup> The *Enchiridion* was edited by Lapidge and Baker, *Byrhtferth's Enchiridion*.

<sup>321</sup> Described Ibid., cxv–cxxi.

<sup>322</sup> Described Ibid., cxxi–cxxiv.

<sup>323</sup> Just the very fact that the main content of the *Enchiridion* is the Abbonian *computus* is suggestive. Cyril Hart even suggests that the *Enchiridion* is a collection of works that Abbo presented to Ramsey while he was teaching there; Hart, 'The Anglo-Saxon Chronicle of Ramsey', 65–66.

<sup>324</sup> The manuscript has been dated to both the twelfth and the thirteenth centuries. The *terminus post quem* for composition of the texts contained in it is provided by the chronicle, which ends with the coronation of Henry II. in 1154. See the manuscript description at: <http://www.bl.uk/onlinegallery/onlineex/illmanus/stowmanuocoll/a/011sto000000057u00136v00.html>.

<sup>325</sup> On a fly-leaf, the manuscript is called *Scutum Bede. Collectivus Gaufridi de Vfford*; see the manuscript description at: [http://searcharchives.bl.uk/primo\\_library/libweb/action/display.do?doc=IAMS040-001952838](http://searcharchives.bl.uk/primo_library/libweb/action/display.do?doc=IAMS040-001952838).

<sup>326</sup> I was able to find the only information about Geoffrey's signature on this charter on a now defunct blog post at: <http://www.villagetrubune.org.uk/local-history/robert-de-torpel-the-leper-lord> (accessed July 2014). See also Morris, 'Forging Links with the Past', 81.

<sup>327</sup> Ramsey and Peterborough were closely connected. In the second decade of the twelfth century, monks from Peterborough visited Ramsey Abbey in order to copy books kept there, including the *Enchiridion* of Byrhtferth. Only fragments of this copy survive as **London, BL, Harley 3667** (after 1122) and **London, BL, Cotton Tiberius C I, fols. 2-42** (after 1122), two parts of a single codicological unit which must have had once at least 168 folios, and probably contained a substantial part of Byrhtferth's *Enchiridion*; see Hart, 'The

The first of several items in the Stowe manuscript is a compendium of various grammatical and moralistic texts entitled *Scutum Bedae* (fols. 1v-5r).<sup>328</sup> It consists of two didactic poems (fols. 1v-2v), a table of various alphabets (fols. 3r-4r), a prose text about the pronunciation of letters (fol. 5r) and on fol. 4v a versified sign treatise based on *De notis sententiarum*.<sup>329</sup> The *Scutum Bedae* is a teaching compendium, as is evident from the presence of a verse exhortation to study letters on fols. 2r-2v. This exhortative poem opens with a paraphrase of the *Disticha Catonis*,<sup>330</sup> a school text used in elementary education, and admonishes the readers, who should be imagined as young boys, to study diligently rather than to leaf through the books in search of pictures.<sup>331</sup> The other four sections of the *Scutum Bedae* also reflect an elementary classroom education. They chart a progression in learning the letters: first the Latin alphabet, then Hebrew, Greek and other letters, technical signs and finally pronunciation. Most sections of this compendium contain glosses, which are an integral part of the text. They are explanatory, providing simpler, prose explanations for the complex meaning of the verse. They, too, were designed to help beginning readers to understand Latin.

The sign treatise in **London, BL, Stowe 57** is the only example of a treatise related to the 21-sign treatise that does not have the form of a list. It is composed in leonine hexameters (see Appendix III, item 25). It, thus, received a new, modernized format, in accordance with the trends in the teaching of grammar set by John of Beauvais (12<sup>th</sup> century) and later by Alexander of Villedieu (c. 1170-1250).<sup>332</sup> It is one of the few sign treatise that cannot be seen as a copy of an older, Carolingian prototype, despite the potential influence of Byrhtferth's work on Geoffrey.<sup>333</sup> Rather, Geoffrey's principal model

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Anglo-Saxon Chronicle of Ramsey', 66. This manuscript may explain the interest in the tradition of the 21-sign treatise at Peterborough. See also Lapidge, 'Byrhtferth of Ramsey (fl. c.986–c.1016)'.

<sup>328</sup> Other texts include a list of vices with reasons why they should be avoided (fol. 1r, probably added later); a chronicle of England up to 1154 (fols. 5v-144r); a *Libellus de virtutibus et vitiis* (fols. 145r-155v); a glossographic text *De natura iumentorum, bestiarum et cunctorum animalium* with additions in Anglo-Saxon and Norman (fols. 156r-166r); and a sequence of medical recipes entitled *Medicine quas probaverunt Ypocras, Aristotiles, Paulus, Plato, Cosmas et Damianus* (fol. 166v). All these works should be ascribed to Geoffrey.

<sup>329</sup> I discuss this grammatical treatise in greater detail in an article in preparation; Steinová. 'Scutum Bedae Gaufridi de Vjford'.

<sup>330</sup> Fol. 2r, ll. 1-3: *Noli mi fili, monitum mispendere vili/Cipus erit laudis, si quae pater edocet audis/Dicit enim Cato per verba patencia nato.*

<sup>331</sup> Fol. 2r, ll. 6-9: *Sunt quidam cupidi quales et ego bene vidi/Libros volvendi, mage quam studio relegendi/Cernere picturas, quam contemplare figuras/Vertendi folium, quam sensum discere dium.*

<sup>332</sup> Geoffrey is, thus, one of the pioneers of the genre of versified grammar. He belongs to the earliest generation of the users of this medium; see Hurlbut, 'A Forerunner of Alexander de Villa-Dei'; and Law, 'Why Write a Verse Grammar?'

<sup>333</sup> There are too many discrepancies between the sign treatise of Byrhtferth and of Geoffrey to see them as directly related. Byrhtferth's sign treatise consisted of twenty-one items and was composed in Anglo-Saxon, while Geoffrey wrote in Latin and refers to all twenty-six signs given by *De notis sententiarum*. Moreover, Byrhtferth's *Enchiridion* is certainly meant for more advanced students than the *Scutum Bedae*.

was *De grammatica* of Hugh of St. Victor.<sup>334</sup> Hugh's work is an *ars* based on Isidore's *Etymologiae* and contains *De notis sententiarum* as well as other sections on *notae* (see p. 263). It also lists various alphabets in an order akin to that of Geoffrey's *Scutum Bedae*. Moreover, Hugh's rendering of *De notis* contains an added remark that the technical signs are no longer used and that they are marginal to the study of grammar.<sup>335</sup> This remark is also reflected in Geoffrey's poetic version of *De notis sententiarum*.<sup>336</sup> Thus, although Geoffrey's sign treatise is not a descendant of the early medieval Frankish sign treatises, it nevertheless has a continental source. It is also an important piece of evidence that classroom education on the technical signs did not cease after the Early Middle Ages, at least not in England.

The third English sign treatise is preserved in **London, BL, Royal 13 C IV** (14<sup>th</sup> century, 1/2, England).<sup>337</sup> Although the manuscript itself is late, the treatise can be shown to be a copy of an early medieval sign treatise. It shows no traces of high medieval literary trends, such as we found reflected in the sign treatise of Geoffrey of Ufford. Moreover, it is part of a cluster of texts (fols. 199r-225v) that seems to be originally early medieval, as the most recent texts it includes are the commentaries of Remigius of Auxerre (c. 841 – 908).<sup>338</sup> This cluster is a homogeneous textual entity dealing with grammar and glossography, thematically distinct from other texts in the manuscript, which belong to the genres of historiography and exegesis and contain post-Carolingian authors.<sup>339</sup>

The sign treatise in **London, BL, Royal 13 C IV** is based on *De notis sententiarum*, but it is not a mere excerpt (see Appendix III, item 27). Its most important addition to Isidore's text is a micro-contents page, similar to that which can be found in *Notae XXI*, inserted between the preface taken from *Etym.* 1.21.1 and a body describing the twenty-six Isidorian

<sup>334</sup> Geoffrey's familiarity with his near contemporary Hugh (d. 1142) is evidenced by Geoffrey's use of Hugh's works in the glosses present in the manuscript; see the manuscript description at [http://searcharchives.bl.uk/primo\\_library/libweb/action/display.do?doc=IAMS040-001952838](http://searcharchives.bl.uk/primo_library/libweb/action/display.do?doc=IAMS040-001952838).

<sup>335</sup> Hugh of St. Victor, *De grammatica* 9: *Sed horum usum etas nostra non nouit et quia ad grammaticam parum spectare uidetur ne nesciantur solum hec enumerasse sufficiat.*

<sup>336</sup> See Appendix III, item 25, ll. 7-8: *Nunc aut nullus aut quam rarus, fruitor scolasticus/Hinc nec multum fore gnarus, Sudat quis didascalus.*

<sup>337</sup> The manuscript is described at [http://searcharchives.bl.uk/primo\\_library/libweb/action/display.do?doc=IAMS040-002106860](http://searcharchives.bl.uk/primo_library/libweb/action/display.do?doc=IAMS040-002106860).

<sup>338</sup> The entire contents of this cluster are: a selection from the commentary of Remigius of Auxerre on *De nuptiis Mercurii et Philologiae* (fols. 199r-211v); excerpts from Priscian (fols. 212r-212v); the sign treatise in question (fols. 212v-213r); several Greek-Latin glosses (fol. 213r); a short text corresponding to the entry *vox* in the *Liber Glossarum* (fols. 213r-213v); a glossary beginning with *Aurarii dicuntur adultores qui suis adulatoribus deaurant et dealbant hominem* (fols. 213v-215v); and the *Abanus* glossary (fols. 215v-225v). Only the sign treatise and the entry *vox* were edited in Benediktson, 'Pseudo-Suetoniana'. For the transmission of continental early medieval material in England, see also Lapidge, 'The Evidence of Latin Glosses', 124–26.

<sup>339</sup> These are the *Historia Romana* of Paul the Deacon (fols. 1r-45v), a series of historiographic excerpts from the works of Josephus, Jerome and Justin (fols. 46r-69v), a chronicle bearing the title *Hystoria de veteri testamento* (fols. 70r-82v), another chronicle entitled *Cronica a principio mundi* (fols. 83r-137v), a *Libellus de remediis animae* (fols. 138r-160v), a commentary on Jeremiah (fols. 161r-198v), pseudo-Jerome's *Commentary in Mark* (fols. 226r-250r), and several short excerpts from the works of Augustine and Anselm of Laon (fols. 250v-251v).

signs corresponding roughly to *Etym.* 1.21.2-26.<sup>340</sup> Sections of *De notis sententiarum* discussing *alogus* and tie-marks (*Etym.* 1.21.27-28) are absent and in several items the grammar is adapted.

#### Derivative sign treatises as a group

Analyzing the formation of new sign treatises falling into the tradition of the 21-sign treatise as a group, it is striking, to my mind, that they share three traits. First, although there certainly existed at least two texts that transmitted a larger part of the 21-sign treatise (*De notis sententiarum* and *Notae XXI*), and even though other similar texts may have existed in the Early Middle Ages, virtually all sign treatises related to the 21-sign treatise go back to a single text – Isidore’s *De notis sententiarum*. Only one derivative sign treatise drew on *Notae XXI* (**Paris, BnF, Lat. 4841**). This shows the crucial role of Isidore’s *Etymologiae* in the dissemination of the tradition of *doxa* embodied in the 21-sign treatise, at least in the area where these treatises came into being.<sup>341</sup>

Although some of the treatises mentioned in this section are entirely based on *De notis sententiarum* and make use of no other source, they should be distinguished from excerpts of *De notis sententiarum* (those are discussed separately in chapter 5, p. 159). All of the treatises discussed here make some important changes to this text. Often, these changes indicate that the sign treatises were intended for a different use than *De notis sententiarum* and are transmitted in a different context. With the exception of the sign treatise in **Paris, BnF, Lat. 6810**, which is attached to Solinus, and the two sign treatises transmitted in the manuscripts of the *Etymologiae*, the early medieval sign treatises derived from *De notis sententiarum* and other witnesses of the 21-sign treatise are transmitted in a thematic cluster, often together with other short, anonymous texts. They survive in a textual environment not dissimilar to that which safeguarded the survival of the 21-sign treatise.

Second, the two processes that governed the formation of the derived sign treatises – collection and selection – seem to reflect two different contexts of use and categories of users. The accumulative sign treatises, whether the Frankish derivatives of the sign treatise in the *Liber Glossarum*, the sign treatise in the *Liber Glossarum* itself, or the earlier *De notis sententiarum*, feature in encyclopedic works. Because of their scope and the wide array of

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<sup>340</sup> Several of the signs were omitted in the micro-contents page, probably as a result of an error. As a result only twenty-three signs are listed.

<sup>341</sup> Isidore’s prominence as a source of information about technical signs will be discussed again in the following chapter. Chapter 5 is entirely devoted to the reception of *De notis sententiarum* in the Early Middle Ages.

sources they draw on, they should be seen as a product of scholarly culture and intended for a scholarly study. For example, they pay extensive attention to the names of the signs and added new names to the old ones.<sup>342</sup>

The selective sign treatises, on the other hand, reflect an intention to apply the signs discussed by the tradition to an actual use. All three leave out items #10-#19 in Isidore's sign treatise (see the comparison of various sign treatises in Appendix III, section B), the segment that deals with the various *antisigmata* and *diploi* used in Greek epic and lyric poetry. At the same time, they hold on to a selection of items that refer to the Bible (#1-#5 in *De notis sententiarum*), and also signs from the last section of the 21-sign treatise (#21-#24 in *De notis sententiarum*), which can be used for all types of texts. Two of the sign treatises also retained *paragraphus* (#7 in *De notis sententiarum*) and *cryphia* (#9 in *De notis sententiarum*), two other signs applicable to all genres. If we looked at the early medieval manuscripts and then ticked off all the signs that feature in them and are also mentioned by Isidore, we would see that such a list corresponds to the selection common to the three selective sign treatises. After all, Greek lyric poetry and drama were marginal to Carolingian interests and were practically unknown in the West, while the Bible was central to Carolingian culture and identity (we will return to it in chapter 4). Moreover, several of the selective sign treatises can be connected with teaching and instruction. The sign treatise in **Zofingen, Stadtbibliothek, Pa 32** comes from a teaching compendium; Byrhtferth's sign treatise is indebted to lessons he received from his teacher, Abbo of Fleury, and the versified sign treatise in **London, BL, Stowe 57** was clearly intended for teaching young boys.

Finally, it is notable that most of the accumulative and selective sign treatises discussed in this section come from two geographical areas – the Frankish lands and England. The derivatives of the sign treatise in the *Liber Glossarum* were produced in the Carolingian area, the sign treatise in **Zofingen, Stadtbibliothek, Pa 32** seems to be connected with Fleury; the sign treatise in **Paris, BnF, Lat. 6810** seems to be Frankish, too, on account of a gloss integrated into its body; and **Paris, BnF, Lat. 4841** may have a link with a manuscript that was kept at Reichenau in the first half of the ninth century. As for the English sign treatises, which are markedly later, both Byrhtferth's sign treatise and the treatise of Geoffrey of Ufford may be seen as adaptations of material originally from France.

At the end of this section, I would like to add the caveat, however, that although I found only eight sign treatises that came into being in the Carolingian period or later and

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<sup>342</sup> They resemble the tradition of glossing *De notis sententiarum* described in chapter 5 (see p. 158).

belong to the tradition of the 21-sign treatise (nine, if *Item sicut alibi* is counted), it is quite likely that more derivative sign treatises survive in manuscripts that I was unable to examine or which no longer exist.<sup>343</sup> Traces of one of such treatises are perhaps visible in the sign treatise in **Paris, BnF, Lat. 4841**.<sup>344</sup>

## Conclusion

In this chapter, I have attempted to trace the development and reception of perhaps the single most important tradition of *doxa* about the technical signs that was known in the Latin West. This tradition has its origins in Classical Antiquity and goes back to the oldest treatises devoted to the technical signs, written by scholars of Alexandrian training. Via several intermediary stages that can be identified as layers in surviving early medieval texts belonging to this tradition, but which did not produce any surviving textual witness, by the end of Late Antiquity the tradition had reached the form of a sign treatise describing twenty-one technical signs. This entity, which may have been a single text, or several texts going back to a single pool of material, can be identified as the common ancestor of several early medieval texts which describe the same twenty-one signs and add additional elements to this core.

The early transmission history of this tradition, in particular the fact that Isidore of Seville seems to have received it together with several anonymously transmitted works of Cassiodorus very early after their composition, and that it was preserved in southern Italy as a part of a unique cluster of short, anonymous texts, some of which also passed through the hands of Cassiodorus, suggests that the 21-sign treatise was known at Vivarium. Vivarium may have played a crucial role in the survival of this anonymous late antique compilation and its further dissemination, especially given that other, not dissimilar traditions, some with greater authority, did not survive the demise of the Ancient world. However, the single most important turn of fortune in the history of the tradition represented by the 21-sign treatise was its inclusion in the *Etymologiae* of Isidore. This encyclopedia became popular in the following centuries and caused the material to be more

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<sup>343</sup> Few of these texts have been edited and their research therefore almost always requires the consultation of manuscripts. Several of the sign treatises presented in this chapter, such as the sign treatise in **Paris, BnF, Lat. 4841**, **Paris, BnF, Lat. 6810**, **Zofingen, Stadtbibliothek, Pa 32** and **London, BL, Stowe 57** have not been previously edited. I was unable to include at least one sign treatise that I am aware of, but had no access to. It is present in manuscript **Monte Cassino, Archivio dell'Abbazia, MS 439** (mid-10<sup>th</sup> century, Puglia), p. 194; see Tarquini, *I codices grammaticali*, 53.

<sup>344</sup> It seems to be the case that the collection and selection are two distinct processes reflecting distinct contexts of use; however, this sign treatise combined both. It is possible, perhaps even probable, that the direct predecessor of the sign treatise that survives in **Paris, BnF, Lat. 4841** was an older, now lost accumulative sign treatise from which the sign treatise in **Paris, BnF, Lat. 4841** is a selection.

widely available than it was ever before. Isidore's *Etymologiae* may have also reawakened the interest in *doxa* and stimulated a hunt for other, related accounts of technical signs, and thus may have had a positive effect on the survival of other texts reflecting the 21-sign treatise and of other traditions.

The 21-sign treatises provided the backbone for the most influential written tradition about technical signs in the early medieval Latin West. Between the late eighth and the early eleventh century, seven distinct sign treatises going back either directly to a version of the 21-sign treatise, or to one of its witnesses, such as *De notis sententiarum*, came into being in the Latin West. These are probably not the only sign treatises composed in this tradition, as is suggested by younger witnesses (**London, BL, Royal 13 C IV**) and by missing intermediaries (**Paris, BnF, Lat. 4841**). Some of these treatises were intended for scholarly study and as depositories of knowledge (such as the list in the *Liber Glossarum*), while others seem to have had an applied use – they were used to help identify technical signs encountered in the manuscripts (*Item sicut alibi inventae sunt*), reflected advanced lessons (Byrhtferth's sign treatise), or served an educational purpose (**Zofingen, Stadtbibliothek, Pa 32, London, BL, Stowe 57**). No other anonymous sign treatise experienced a similar degree of revival in the period, nor did it survive in a similar variety and richness.

The revival of the tradition embodied in the 21-sign treatise was not uniform in all regions and at all times. While the oldest witnesses of the 21-sign treatise show that it circulated in the Beneventan area and Visigothic Spain, the later sign treatises derived from this late antique text came into being in the Frankish lands and in England. While the two Beneventan manuscripts discussed in this chapter, which can be dated to the late eighth and early ninth century, indicate that some degree of interest in the tradition of the 21-sign treatise existed in the Beneventan area at the time, it seems to have been only limited and short-lived. As I will show in the following chapter, a more significant surge of interest in compilations about technical signs occurred in this region in the late tenth and early eleventh century (see p. 104). In Spain, after a period of active engagement with the 21-sign treatise in the seventh century (Isidore of Seville, compilers of the *Liber Glossarum*), the only trace of a further engagement with this textual tradition is from the tenth century. The enthusiastic Carolingian reception of the tradition of the 21-sign treatise may be connected with the Carolingian Renaissance as well as with the Carolingian reception of the *Etymologiae*, as this work played a pivotal role in the transmission of the *doxa* represented by the 21-sign treatise in the Frankish lands. The Anglo-Saxon sign treatise of Byrhtferth of

Ramsey provides evidence that the Carolingian study of the tradition spread to England, even though it may have been known only locally.

To my knowledge, only one sign treatise, the versified treatise of Geoffrey of Ufford, was produced after the end of the tenth century, and this in England, where the tradition represented by the 21-sign treatise took root later than on the Continent and also seems to have lasted longer. From the twelfth century, the tradition of the 21-sign treatise was in its final decline and seems no longer to have been actively studied or used for instruction and applied use. We will see in the following chapters that this decline affected not only this particular tradition, but also concerned both other texts about technical signs and the *praxis*.

The tradition embodied in the 21-sign treatise was not the only written tradition about technical signs that was revived in the Early Middle Ages. Several other traditions that were rediscovered in this period will be discussed in the following chapter. Nevertheless, the tradition of the 21-sign treatise was certainly the one with the largest impact on what the Carolingian scholars and students could have known about technical signs and their use in Antiquity. We will encounter references to texts that belong to this tradition in the following chapters, and in chapter 6, we will see how it even affected the Carolingian *praxis*.

## Chapter 3

### Transmission of other *doxa* with ancient roots in the Early Middle Ages

The 21-sign treatise represents the most important and most widespread tradition of writing about technical signs with ancient roots circulating in the early medieval period, but it was not the only one. Several other traditions were known in the Early Middle Ages, sometimes represented by a single and sometimes by several interrelated texts. Some of these traditions may have had a history of compilation and transmission which was just as complex as that of the 21-sign treatise; however, their development is more difficult to reconstruct given that they are represented by fewer texts and preserved in fewer manuscripts. Several circulated only in a particular geographical region. Others may have been unique attempts to rework particular ancient material. These traditions fall into three categories: a) anonymously transmitted sign treatises of patristic authors discussed in chapter 1; b) sign treatises with an ancient core surviving in the Beneventan area; and c) Greek sign treatises from the Byzantine East. Each of these categories will be examined in a separate section of this chapter.

Together with the 21-sign treatise, sign treatises belonging to these three categories constitute the 'old' *doxa* because the material they contain reflects the scholarship of Antiquity rather than that of the Early Middle Ages. By the Carolingian period, this material attained the status of an autonomous genre with rules that defined in which form this material could be represented and which sources could be used to produce new compilations. As a result it ceased to reflect contemporary *praxis*, but to a growing extent, it attained the status of inherited knowledge that was preserved and studied in its own right. This 'old' *doxa* contrasts with the 'new' *doxa* that emerged in the Early Middle Ages in response to contemporary needs and that will be the subject of the following chapter. I have already described several characteristics of the 'old' *doxa* in the previous chapter as a part of the examination of the 21-sign treatise. In the fourth, concluding section of this chapter, I will return to the general shared features of the texts falling into this category in order to place this group into the wider context of the early medieval intellectual culture.

In this chapter, I also refer to two appendices: Appendix II, in which I list testimonies about technical signs, and Appendix III, in which I provide an overview of sign treatises.

### Anonymous transmission of Patristic sign treatises in the Latin West

In chapter 1, I discussed four Patristic sign treatises produced in the course of the fourth to the sixth centuries: two are preserved in a work of Epiphanius of Salamis, one was produced by Cassiodorus, and one was attached to the *Orationes* of Gregory of Nazianzus by an anonymous scholiast. These texts were composed as integral parts of particular theological works and were transmitted under the name of their respective authors. In the Early Middle Ages, however, two of these sign treatise also circulated as anonymous, self-standing sign treatises detached from the respective works from which they were drawn, in the same fashion as the 21-sign treatise and other sign treatises:<sup>345</sup> the sign treatise concerned with the set of Origen's critical signs from Epiphanius's *De mensuris et ponderibus*, and the sign treatise in Cassiodorus's *Expositio psalorum*. I will discuss each of them in turn.

The oldest exemplar of the anonymous version of Epiphanius's sign treatise survives in the Byzantine Patristic florilegium *Doctrina patrum de incarnatione verbi* from the late seventh or early eighth century.<sup>346</sup> Rather than being a lengthy prose account, just as Epiphanius's original text, it has the form of a short list consisting of four items, each devoted to one critical sign. Its name is Περί τῶν σημείων τῶν κειμένων ἐν τοῖς ἕκ τῶν ἑξαπλῶν Ὀριγένους μεταγραφεῖσι βιβλίῳ ('On the signs used in the *Hexapla* of Origen', see Appendix III, item 10). A different anonymous version of this sign treatise is preserved in **Paris, BnF, Syr. 27**, fols. 88v-89v (c. 719), a manuscript of the Syro-Hexaplaric Book of Daniel that belonged to the *bibliotheca* of bishop James of Edessa (c. 640-780).<sup>347</sup> In this context, it functioned as a technical prologue to the Syro-Hexapla, similar to how Jerome's writings discussing the *asterisci* and the *obeli* were used as prefaces to various books of the Bible in the early medieval West.

<sup>345</sup> A third Patristic sign treatise which underwent a similar development in the course of the Middle Ages was the sign treatise attached to the *Orationes* of Gregory of Nazianzus. It can be found as a self-standing anonymous sign treatise on fol. 429v of **Florence, Biblioteca Medicea Laurenziana, Plut. 59.38** (15<sup>th</sup> century), at:

<http://teca.bmlonline.it/ImageViewer/servlet/ImageViewer?idr=TECA0000869398&keywords=Plut.59.38>.

Although it represents the same phenomenon as is discussed below, it is much later and does not seem to have had any effect on the Latin West. I will, therefore, not discuss it here further.

<sup>346</sup> This florilegium was edited by Franz Diekamp; Diekamp, *Doctrina patrum de incarnatione Verbi*. Its oldest witness is **Vatican, BAV, Vat. Gr. 2200** (750-850). Other witnesses, which do not predate the twelfth century, are described in *Ibid.*, xiv-xxii.

<sup>347</sup> According to his biographer, Michael the Syrian, James of Edessa spent nine years at the Syriac monastery of Tel'ada near Edessa revising the Old Testament. Five volumes of this revised version completed in 705 survive, two of which bear a colophon with James's name; see Baars, 'Ein neugefundenes Bruchstück aus der Syrischen Bibelrevision des Jakob Von Edessa'; Saley, *The Samuel Manuscript of Jacob of Edessa*, 5-6.

Epiphanius's sign treatise had once also circulated in the Latin-writing environment. Isidore of Seville used the text as a source for his items *lemniscus* and *antigraphus* (*Etym.* 1.21.5-6, see Appendix III, item 8) in *De notis sententiarum*.<sup>348</sup> Textual similarities between these two items and the anonymized, abbreviated version as it survives in the *Doctrina patri* suggest that he worked with an abbreviated version rather than a direct translation of Epiphanius's text.<sup>349</sup> *De mensuris et ponderibus* was still available to the Visigothic compilers of the dossier behind the *Liber Glossarum*, as is suggested by the tag *De mensuris* attached to some of the glosses in this collection.<sup>350</sup> They may have used Epiphanius's sign treatise for the compilation of the sign treatise preserved in the *Liber Glossarum*.<sup>351</sup> It is even very likely that they used the same version employed by Isidore. This Latin version of Epiphanius's sign treatise disappears from the evidence after this point.<sup>352</sup>

Cassiodorus's preface to the *Expositio psalmodum* was reworked into an anonymous, self-standing text in two different ways. In the first case, it circulated largely unaltered, but without an attribution, in miscellanies. It can be found in this fashion on fol. 97v of **Paris, BnF, Lat. 528** (before 826, St. Denis), a Carolingian miscellany of grammatical and Patristic texts, in which it features at the beginning of excerpts from Cassiodorus's commentary on the Psalms concerning various *schemata* and *figurae*.<sup>353</sup> Cassiodorus's sign treatise is present in this unaltered form also in the Monte Cassino sign florilegium, which is discussed in p. 104.<sup>354</sup>

<sup>348</sup> The relationship between Isidore and Epiphanius is particularly clear given that Epiphanius is the source of the information that Origen used four rather than two critical signs. See also Fontaine, *Isidore de Séville*, 77; and Jocelyn, 'The Annotations of M. Valerius Probus (II)', 153, n. 90.

<sup>349</sup> Compare *Antigraphus cum puncto adponitur, ubi in translationibus diversus sensus habetur* (*Etym.* 1.21.6, Appendix III, item 8) with 'Ὁ ὑπολημνίσκος δὲ καὶ οὗτος δηλοῖ ἐγκείμενος, ὡς μία ζυγὴ τῶν ἐρμηνευτῶν παρηλλαγμένως τὴν λέξιν εἶπεν (item ὑπολημνίσκος in the *Doctrina patri*, see Appendix III, item 10), in contrast to 'Ὁπου οὖν εὐρεθῆι λέξει τιὸν παρακείμενος, δηλοῦται ὑπὸ μιᾶς ποῦ ζυγῆς ἐρμηνευτῶν ἐξενεχθεῖς ὁ λόγος, καθ' ὃ ἡ μία στιγμὴ ὑποφαίνει. Καὶ ἐστὶ καὶ αὐτὸ συναμφοτέρον ἢ συνάδελφον τῆι λέξει, ἧ ἐπίκειται (full text of Epiphanius in *De mensuris et ponderibus*, see Appendix III, item 5). A similar parallel can be shown between *Etym.* 1.21.5 and the item *λημνίσκος* in the *Doctrina patri*.

<sup>350</sup> Grondeux, 'Note sur la présence de l'Hypomnesticon', 69.

<sup>351</sup> See my article Steinová, 'The List of *notae*'.

<sup>352</sup> *De mensuris et ponderibus* continued to be available in the early medieval West in the Carolingian period, as it was used by John the Scot for his *Glossae divinae historiae*. However, John's version seems to have had a different transmission history than the Visigothic text known to Isidore and the compilers of the *Liber Glossarum*; see Johannes Scotus Eriugena, *Glossae Divinae Historiae*, 34–35. It may have been a selection from Epiphanius's compendium, just as the surviving Greek text, and therefore did not contain the sign treatises. The surviving Latin fragments of *De mensuris et ponderibus*, printed in Frederick Hulstsch's edition do not contain any of the two sign treatises of Epiphanius either; see Hulstsch, *Metrologicorum scriptorum reliquiae*, 2:xv–xvi and 100–6.

<sup>353</sup> At: <http://gallica.bnf.fr/ark:/12148/btv1b9078378q/f105.item>. This series of excerpts from the *Expositio psalmodum* is a part of a larger compilation concerned with *figurae* in the Bible copied by a single hand on fols. 93r–100v. **Paris, BnF, Lat. 528** also contains another excerpt concerned with *notae*, *Etym.* 1.19 (*De figuris accentuum*), on fol. 78v.

<sup>354</sup> Cassiodorus's sign treatise survives as an anonymous, separately transmitted sign treatise also in a number of more recent manuscripts: **Paris, BnF, Lat. 5371** (13<sup>th</sup> century); as a late-medieval addition on fol. 1v of

In the second case, Cassiodorus's sign treatise was used as a source for an extended composition, in which the thirteen *notae* from his preface were supplied with thirteen passages from the *Expositio psalorum*, one corresponding to each indexing sign and exemplifying the topic conveyed by it. Today, we have two such extended versions of Cassiodorus's sign treatises. Both follow the same basic pattern, but use different examples from the *Expositio psalorum* (see the comparison of the two versions in Appendix III, section B) and have a slightly different format, suggesting that they were produced independently.

The older of the two was produced in the insular environment<sup>355</sup> before the second quarter of the ninth century<sup>356</sup> and survives in a class of the manuscripts of Cassiodorus's commentary in place of the original preface (see Appendix III, item 14).<sup>357</sup> In this extended version, items in Cassiodorus's original sign treatise were used as rubrics throughout the text, each followed by an example from the *Expositio*.<sup>358</sup> Because of its presence in the manuscripts of the *Expositio*, James Halporn suggested that the extension of the original sign treatise with an addition of examples served to enhance the consultability of this

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Würzburg, Universitätsbibliothek, M.p.th.f.29 (9<sup>th</sup> century, 1/2, Mainz, digitized at: <http://vb.uni-wuerzburg.de/ub/mpthf29/pages/mpthf29/90.html>); in New York, Pierpont Morgan Library, MS 413, fols. 56v-57r (15<sup>th</sup> century); and in the form of an early modern addition to two medieval manuscripts in Leiden, Leiden, UB, BPL 12 (12<sup>th</sup> century, 4/4), fol. 1r; and Leiden, UB, Voss. Lat. O 95 (11<sup>th</sup> century), fols. 1r-1v. James Halporn also notes that Laon BM 26 (9<sup>th</sup> century) should contain 'prefatory material from Cassiodorus's, but it is unclear to me, whether this might mean that it contains a separately transmitted sign treatise from the *Expositio psalorum*'; see Halporn, 'The Manuscripts of Cassiodorus' *Expositio Psalorum*', 391.

<sup>355</sup> This revision was identified as insular by Halporn on account several insular paleographic features that passed as errors into the text; see Halporn, 'Methods of Reference in Cassiodorus', 77.

<sup>356</sup> The date *ante quem* is supplied by the oldest witness of this reworking, Munich, BSB, Clm 6253-6254 (9<sup>th</sup> century, 2/4, Freising). The reworking is present at the beginning of this three-volume exemplar of Cassiodorus's commentary, on fols. 1v-3v of Clm 6253, at: [http://daten.digital-sammlungen.de/bsb00047196/image\\_4](http://daten.digital-sammlungen.de/bsb00047196/image_4). The original version of the sign treatise is also present in this exemplar in the last page of the second volume, Clm 6254 fols. 254r-254v, at: [http://daten.digital-sammlungen.de/bsb00047197/image\\_512](http://daten.digital-sammlungen.de/bsb00047197/image_512).

<sup>357</sup> This cluster of manuscripts is distinguished from the rest by containing a variant incipit of the second preface, which follows the list of signs (*Respuissem aliquando* instead of *Repulsis aliquando*); see Halporn, 'The Manuscripts of Cassiodorus' *Expositio Psalorum*', 389, n. 12. Besides Munich, BSB, Clm 6253-6254 (Ps 1-100), this cluster includes Munich, BSB, Clm 14077-78 (Ps 1-50 and 100-150; 9<sup>th</sup> century, 2/4, Regensburg, a copy of the Freising manuscripts), Paris, BnF, Lat. 2196 (Ps 1-50, mid-9<sup>th</sup> century, perhaps Moutier-Saint-Jean), Bamberg, Staatsbibliothek, Msc. Bibl. 56 (olim B.II.15) (Ps 1-150, 10<sup>th</sup> century), and Florence, Biblioteca Medicea Laurenziana, Plut. 23.8 (Ps 1-81, 10<sup>th</sup> century, digitized at: <http://teca.bmlonline.it/ImageViewer/servlet/ImageViewer?idr=TECA0001367095&keywords=Cassiodoru s#/page/11/mode/1up>).

<sup>358</sup> For example, the rubric which gives the description of the first *nota*, PP (*hoc in idiomatibus, id es propriis locutionibus legis divinae*) is followed by a passage from Cassiodorus's commentary to Ps. 3, 7. This same passage is marked with a PP in the body of Clm 6253; see fol. 36r, at: [http://daten.digital-sammlungen.de/bsb00047196/image\\_73](http://daten.digital-sammlungen.de/bsb00047196/image_73). The next rubric (¶, *in dogmatibus valde necessariis*), however, is accompanied by a passage from Cassiodorus's commentary to Ps. 7, 3, which is not marked by any of the indexing signs in the body of Clm 6253; see fol. 55r, at: [http://daten.digital-sammlungen.de/bsb00047196/image\\_111](http://daten.digital-sammlungen.de/bsb00047196/image_111).

text.<sup>359</sup> However, Cassiodorus designed his sign treatise to be highly consultable, giving it the form of a short list that could easily be scanned. This insular extended version has a line-by-line format less easy to follow and given its length, one had to turn pages in order to consult all of its items. The modification certainly did not improve consultability. Rather, it enriched the contents of the text (which makes it comparable to the accumulative sign treatises discussed in the previous chapter) and made it more suitable for independent use. Indeed, it may have been intended for circulation as a self-standing text and its preservation in the manuscripts of Cassiodorus's commentary is perhaps a secondary development.

This view is supported also by the second extended version of Cassiodorus's sign treatise which is transmitted under the name *Notae divinae legi necessariae* ('Signs necessary to the Divine Law') in a set of mostly English manuscripts from the end of the eleventh, the twelfth and the thirteenth centuries that contain a collection of works of Jerome.<sup>360</sup> Unlike the older extended version of Cassiodorus's sign treatise, *Notae divinae legi necessariae* lists the thirteen indexing signs of Cassiodorus first and then adds thirteen passages from the *Expositio*, introduced by *Prima nota in hoc loco*, *Secunda in hoc loco*, etc. (see Appendix III, item 24). From the name of this text as well as from its context of transmission,<sup>361</sup> it is clear that it was considered a sign treatise. It is noteworthy that both extended versions of Cassiodorus's sign treatise can be connected with the British Isles, where Cassiodorus's commentary on Psalms enjoyed an early and enthusiastic reception.<sup>362</sup> Perhaps they are originally English compilations that, again, reflect the impact Cassiodorus's commentary and his indexing apparatus had on the regional intellectual circles.<sup>363</sup>

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<sup>359</sup> Halporn, 'Methods of Reference in Cassiodorus', 77.

<sup>360</sup> I owe all information about this text to Damian Fleming from Indiana University-Purdue University, who kindly pointed it out to me. The group of manuscript includes **Durham, Cathedral Library, B.II.11** (11<sup>th</sup> century, ex., Normandy), **Cambridge, Trinity College, O.4.7** (early 12<sup>th</sup> century, Canterbury, at: <http://sites.trin.cam.ac.uk/james/viewpage.php?index=815>), **Cambridge, Trinity College, B.2.34** (early 12<sup>th</sup> century, prov. Canterbury, at: <http://sites.trin.cam.ac.uk/james/viewpage.php?index=353>), **Oxford, Bodleian Library, Digby 184** (12<sup>th</sup> century, perhaps Reading), **Alençon BM 2** (after 1133, Saint-Évroult, Normandy), and **Rouen BM 27** (13<sup>th</sup> century, prov. Saint-Évroult, Normandy). Another manuscript which may belong to the same group on account of the presence of texts from Jerome is **Cambridge, University Library, Kk. iv.6** (12<sup>th</sup> century).

<sup>361</sup> In all manuscripts that I know it follows a list of the letters of the Hebrew alphabet, that is, a set of graphic signs that could be interpreted as *notae*. We have already seen in the previous chapter that sign treatises were sometimes attached to other texts about *notae* and we will see several other examples that indicate that this was a more general trend that in some cases ensured the survival of sign treatises.

<sup>362</sup> The *Expositio* was known here since the mid-seventh century, when the Vivarian archetype of the text was transferred to Northumbria; see Stoppacci, 'Cassiodorus Senator. *Expositio Psalmorum*', 144. Northumbria is also the home of several epitomes of the *Expositio*, including the one in **Durham, Cathedral Library, B.II.30** (mid-8<sup>th</sup> century, Northumbria), the oldest surviving manuscript of Cassiodorus's commentary; see Stoppacci, 'Stadi redazionali nella tradizione manoscritta dell' *Expositio psalmorum* di Cassiodoro', 155–56.

<sup>363</sup> In the first half of the eighth century, Bede used the indexing signs to excerpt material from the *Expositio psalmorum* into his *De schematibus et tropis*; Halporn, 'Methods of Reference in Cassiodorus', 87. See also Kendall, *Beda's opera didascalica*, 142.

### Anonymous sign treatises from the Beneventan area

In the previous chapter, I mentioned several sign treatises from the Beneventan area that seem not to have been known elsewhere. One of them was a version of the 21-sign treatise called *Notae XXI quae versibus apponi consuerunt* (see p. 63), another a sign treatise found attached to it in **Paris, BnF, Lat. 7530** that I have called the 15-sign treatise (see p. 70). Two other anonymous sign treatises survive in another, more recent group of Beneventan manuscripts in the same manner: they are inserted into a locally produced miscellany as a part of a cluster of short, anonymous texts about diverse *notae*. In this subsection, I will discuss these Beneventan sign treatises, analyze them as a group and show that they represent a unique, local trend in the production of texts about technical signs.

The history of the text that bears the title *Notae simplices* (the 15-sign treatise) is closely connected with the history of the Italian branch of the 21-sign treatise.<sup>364</sup> As I established in the previous chapter, the 15-sign treatise was added to *Notae XXI* after the separation of the Spanish from the Italian branch of transmission (see p. 72), and both contain additions made on the basis of the *Ars rhetorica* of Consultus Fortunatianus (see p. 75). However, while *Notae XXI* is a well-formed text with a single narrative scope, *Notae simplices* reads as a set of notes made from a more extensive text (a sign treatise similar to the 21-sign treatise?), and the elliptic character of these notes is almost frustrating. For example, item #7 reads  $\ominus$  *supervacuus* (see the full text in Appendix III, item 12), but does not provide any information on what is redundant.<sup>365</sup> This and other items containing masculine adjectives likely refer back to item #2  $\supset$  *alienus versus* and all of them should be considered to refer to verse, and thus to have a focus on a particular genre (just as the oldest sign treatises of the Alexandrian scholars).

Just like the 21-sign treatise, the 15-sign treatise is compiled from several clusters of material. A particularly clear break is visible between six signs with purely graphic forms divided into two smaller batches (#1-#2 and #7-#11), four siglaic signs inserted in between that were drawn from Fortunatianus (#3-#6), and four signs that combine graphic

<sup>364</sup> The only scholar to have discussed this sign treatise is, to my knowledge, Jocelyn; see Jocelyn, 'The Annotations of M. Valerius Probus (II)', 153–54. See also the mention in Deufert, *Textgeschichte und Rezeption der plantinischen Komödien im Altertum*, 51.

<sup>365</sup> In this respect, it can be compared to the marginalia in *De notis sententiarum* in **Cesena S.XXI.5** (see chapter 5, p. 155). Just like the material in the 15-sign treatises, these marginal notes were extrapolated from the text of *De notis sententiarum*, and can be read against it, since they are present in the same manuscript. The 15-sign treatise and the two sign treatises (to be discussed shortly) may have come into being in a similar fashion, copied from the margins of a late antique codex into a miscellany of some sort as a self-standing text.

symbols, siglaic signs, or graphic symbols with siglaic signs (#12-#15).<sup>366</sup> The signs from the first group form three pairs resembling those known from ancient Homeric scholarship and discussed in the 21-sign treatise as well.<sup>367</sup> This suggests that the core of *Notae simplices* reflects a genuine, ancient tradition, be it that the graphic symbols depicted in **Paris, BnF, Lat. 7530** are corrupted.<sup>368</sup> Its source may have been an ancient sign treatise similar to that which provided the oldest layer of the 21-sign treatise. In contrast, the authenticity of the other items is dubious. There exists no evidence, either in the form of *praxis* or *doxa*, that the signs as described were used. Some of the composite items are blends of other items provided by the sign treatise (e.g. #3 and #4 together make #15, and #1, #4 and #8 together make #13). They were probably a secondary addition brought about by the act of combining various genuine signs in this treatise by its curious reader. As for the items that draw definitions from Fortunatianus, these cannot be correct as technical signs. The rhetorical *figura* ('figure of speech') has nothing in common with the grammatical *figura* ('a graphic sign'), except for the homonym that may have been the cause of the mix-up. This observation, however, does not exclude that the graphic symbols attached to items #3-#6 are genuine. In fact, we are seeing here a similar process as we saw earlier in the most recent layer of the 21-sign treatise, where genuine graphic symbols were supplied with novel, imaginative descriptions by a compiler who still encountered the signs, but no longer understood their function.

It is quite implausible to me that an interpolator would insert descriptions drawn from Fortunatianus in the middle of an older sign treatise where, by coincidence, several

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<sup>366</sup> It is possible that the name *Notae simplices*, i.e. 'simple *notae*' may have referred originally only to those symbols and sigla that were not combinations of graphic symbols, i.e. #1-#11, as opposed to the 'composite *notae*', the items #12-#15.

<sup>367</sup> Aistermann, 'De Valerii Probi vita et scriptis', 11-12. For example the pair  $\text{⊕}$  and  $\text{⊖}$  (which must have been originally  $\text{⊕}$  and  $\text{⊖}$ ) correctly reflects the use of the  $\alpha\upsilon\tau\iota\sigma\mu\alpha\tau\alpha$  according to the Greek sign treatises as well as the 21-sign treatise. Compare  $\text{⊕}$  *bis dictum* (#1) in the 15-sign treatise with *Antisigma cum puncto ponebatur cum eiusdem sensus versus duplices essent et dubitaretur qui potius legendi* in the *Notae XXI* (#8, see Appendix III, item 11), and  $\text{⊖}$  *alienus versus* (#2) in the former with *Antisigma ponebatur ad eos versus quorum ordo permutandus erat* (#7, see Appendix III, item 11) in the latter. Only the *theta* (#7) has no pair, but it is attested both in *praxis* and *doxa* from Late Antiquity and should be considered genuine (see chapter 1, p. 32).

<sup>368</sup> This degree of corruption and the note-like, extremely contracted format of the material taken over into the 15-sign treatise from a source similar to that which was used for the 21-sign treatise in a fuller form may have implications for the dating of the compilation of the former. We will see that extensive abbreviation is one of the characteristics of the younger sign treatises, while the older sign treatises, such as those produced in Classical Antiquity, tend to contain full sentences and longer explanations (see p. 110). The fuller preservation of the material that reflects Homeric scholarship in the 21-sign treatise can therefore be explained by the fact that this layer was integrated into the treatise in the first or second century, i.e. at a time when Homeric scholarship was still flourishing and relevant for scholarly pursuit in the Latin West. The abbreviation visible in the 15-sign treatise, meanwhile, and in particular the omission of all references to known scholars, passages from Homer (or other poet for that matter) and similar details, could be seen as reflections of a later period, such as Late Antiquity, when ancient scholarly traditions of sign use no longer had the same status, particularly not in learned Christian circles, as we have seen in chapter 1.

graphic signs lacked text, and would at the same time leave the rest of the treatise intact. Rather, it is probable that the addition of this material was a part of the original act of compilation, and this would reveal something about the compiler. He or she had access to an older set of notes drawn from a sign treatise of the kind ascribed to Aristonicus and his peers, or even to one such treatise (in Latin? Is Suetonius again to be suspected here as a source?), and also had a copy of Fortunatianus in his (or her) hands. This compiler had seen some manuscripts annotated with technical signs, but no longer possessed the key to understand them. The intellectual and chronological setting of our compiler was very similar to that of the final compiler of the 21-sign treatise and drew on a similar pool of material. I argued above that the 21-sign treatise probably goes back to Vivarium (where it also may have been compiled) and was preserved in southern Italy thanks to a local knowledge network. In my opinion, it is probable that the 15-sign treatise likewise passed through Vivarium and that it may have been compiled there.

The 11-sign treatise, a text bearing the title *De notis antiquorum* (see Appendix III, item 20), and the 5-sign treatise, a text entitled *De oboelis et asteriscis platoniciis que nos ex Graeco transtulimus* (see Appendix III, item 21), are, like the 15-sign treatise, more sets of notes than narrative texts.<sup>369</sup> They survive in two manuscripts that contain the same miscellany produced at Monte Cassino at the beginning of the eleventh century: **Cava dei Tirreni, Abbazia di S. Trinita, MS 3**, fols. 247r-256r<sup>370</sup> (c. 1050, Cava dei Tirreni, C) and **Paris, BnF, Lat. 7418**, fols. 160v-169r<sup>371</sup> (14<sup>th</sup> century, Italy, Pa).<sup>372</sup> This miscellany is one of the very few produced in the Beneventan area and may be compared to the collection in **Paris, BnF, Lat. 7530**, the manuscript which preserved *Notae XXI* as well as *Notae simplices*.<sup>373</sup> It consists of several textual clusters, which may have been older textual entities, including one that is a sequence of short, anonymous texts about diverse *notae*. Because of the

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<sup>369</sup> They have been both edited by Reifferscheid as the *Anecdota Cavense*; see Reifferscheid, 'Mitteilungen aus Handschriften'. The 5-sign treatise was also reprinted, translated into German and analyzed in Dörrie, Dörrie, and Mann, *Der Hellenistische Rahmen des kaiserzeitlichen Platonismus*, 96–97 and 349–56.

<sup>370</sup> Described in Mattei Cerasoli, *Codices Cavenses*, 12–22.

<sup>371</sup> Digitized at: <http://gallica.bnf.fr/ark:/12148/btv1b9065955k/f162.item>.

<sup>372</sup> It has been examined and discussed by Susanne Lott, although she chose not to address the sign treatises; see Lott, *The Florilegium of Cava 3, Madrid 19 and Paris 7418*. As suggested by the title of Lott's dissertation, a third manuscript witness of this miscellany also exists, **Madrid, Biblioteca Nacional, MS 19** (12<sup>th</sup> century, southern Italy), which, however, lacks the section about the signs.

<sup>373</sup> In fact, Virginia Brown asserts that only three miscellanies were ever produced in the Beneventan area – the compendium represented by **Paris, BnF, Lat. 7530**, the miscellany represented by **Cava 3** and a miscellany preserved in **Monte Cassino, Archivio dell'Abbazia, MS 580** (11<sup>th</sup> century, ex./12<sup>th</sup> century, in., probably Monte Cassino). See Brown, 'Pastorale, Mysticum, Peccatorium', 135. For the latter manuscript, see also Tarquini, *I codices grammaticali*, 59–61.

thematic unity of this cluster, I will call it the Monte Cassino sign florilegium.<sup>374</sup> It includes following texts:

- a) a sequence of excerpts from *Etym.* 1.21-22, 1.26, 1.24-25, 1.23 (C: 243r-245r;<sup>375</sup> Pa: 160v-161v, numbered IIII-VIII in Pa)  
inc.: *De notis sententiarum*, no explicit;
- b) a list of *notae iuris* (C: 245r-250v; Pa: 161v-168r, included under VIII in Pa)  
no separate incipit or explicit (follows *De notis iuridicis*, *Etym.* 1.23);
- c) the 11-sign treatise, preceded by two epigrams, the first from one Campaninus to one Olybrius, the other from Olybrius to Campaninus (C: 250v-251r; Pa: 168rv, numbered VIII in Pa)  
inc.: *De notis antiquorum. Inlustris Campaninus patricio Olybrio*, no explicit;
- d) the 5-sign treatise (C: 251r; Pa: 168v, numbered X in Pa)  
inc.: *De oboelis et asteriscis platonis que nos ex Graeco transtulimus*, no explicit;
- e) excerpted sign treatise from the *Expositio psalorum* (C: 251rv; Pa: 168v, no number in Pa)  
no separate incipit or explicit;
- f) a set of notices concerned with *notae* (C: 251v-253r; Pa: 168v-170r, no number in Pa)
  - i. a cryptographic notice entitled *De vergilianis versibus* (C: 251v)
  - ii. four tables for translation of the Latin letters into numbers (C: 251v-252r);
  - iii. a ‘cryptographic’ notice written in a difficult ornamental script (C: 252r);
  - iv. a short notice in *notae iuris* (C: 252r);
  - v. a letter containing a set of *notae iuris* addressed from emperors Constantine II. and Constans to pope Liberius (C: 252r-253r);<sup>376</sup>

<sup>374</sup> One of the manuscripts, Pa, even contains a micro-contents page akin to that attached to *Notae XXI* (see chapter 2, p. 67). It seems to be a secondary addition, as it does not feature in **Cava 3**. Moreover, it does not neatly fit the contents of the Monte Cassino sign florilegium. First, it gives three sections (I-III), which are not concerned with signs: a text bearing title *De conigatis Ysidori*, corresponding to the diagram of consanguinity in *Etym.* 9.6.28 (Pa: 158r); *De ortographia* corresponding to *Etym.* 1.27 (cropped in Pa); and Bede’s *De orthographia* (Pa: cropped at the beginning, 159v-160v). Second, it does not mention two sections at the end of the florilegium which are not numbered in the body of the text, but which are concerned with *notae*. Third, it places *De oboelis et asteriscis platonis* before *De notis antiquorum* although both the Parisian and the Cava manuscripts place the latter before the former.

<sup>375</sup> The manuscript contains double foliation. I am using the more recent one, which can be found stamped at the bottom of the folia. The older pen foliation, which is present at the top of the pages and which is used by the manuscript catalogue of Leone Mattei Cerasoli, is in this section of the manuscript ahead of the stamped foliation by four folia, e.g. item a) appears on fols. 247r-249r.

<sup>376</sup> It was edited in Morcaldi et al., *Codex diplomaticus cavensis.*, 5:app. 81–82.

Several parallels with **Paris, BnF, Lat. 7530** can be gleaned from this overview. In the first place, just as the combination of the 21-sign treatise and the 15-sign treatise forms a kind of accumulative sign treatise of thirty-six signs, this florilegium, too, seems to serve to bring together *notae* discussed in various sources and used for various purposes into a new and enlarged single whole. The compilation process behind these two clusters of material preserved in Benevento can be compared and contrasted with the compilation process behind the sign treatises discussed in the previous chapter, in particular with the compilation of the sign treatise in the *Liber Glossarum*. The Visigothic sign treatise (and its Frankish continuations) and the Beneventan compilations reflect an accumulative attitude towards ancient knowledge and a similar knowledge-oriented setting. Yet, while in the Visigothic and Frankish areas this desire to collect material resulted in a new text, a mix put together from bits and pieces taken from other texts, in Benevento, the process resulted in a chain of excerpts, which were juxtaposed to form a florilegium. When faced with the same material in different sources, the Frankish compilers chose to eliminate inferior or superficial information; while in Benevento, all items were kept, even if they reproduced the same or provided conflicting descriptions of signs. The two sets of accumulative texts reflect, thus, two different regional knowledge cultures and attitudes to compilation.

Second, just like the cluster of sign treatises in **Paris, BnF, Lat. 7530**, the Monte Cassino sign florilegium contains ancient material (items c) and d)) that is otherwise unattested. The two patricians mentioned in the epigrams in c) can be identified with two known personages from the fourth or the fifth century,<sup>377</sup> and the 11-sign treatise correctly describes several signs that were used until the end of Late Antiquity, but not after.<sup>378</sup> Finally, *De oboelis et asteriscis platonis* (item d)) is an independent witness of the same textual tradition as the second-century **PSI 1488** (see Appendix III, item 2) and the sign treatise

<sup>377</sup> The earlier date was proposed by Reifferscheid, the editor of these epigrams; Reifferscheid, 'Mitteilungen aus Handschriften', 129. It was also recently supported by Justin Stover; Stover, 'Olybrius and the Einsiedeln Eclogues'. The more recent date was proposed by Scharf, who identified the Campaninus of the epigrams with a correspondent of Sidonius Apollinaris; Scharf, 'Der Stadtpräfekt Iulius Felix Campanianus'.

<sup>378</sup> It accurately describes four signs: *theta* (Θ, #4) as *in amputandis* ('for [passages] that should be removed'), a convention that was discussed in chapter 1 (see p. 32); *zeta* (Ζ, #8) as *in incertis* ('for [passages] where there is some uncertainty'), in agreement with its function as a correction sign in the ancient *praxis* described in chapter 1 (see p. 22); *yfen* (Υ, #10) as *in exemplis* ('for quotations'), which, as will be shown in chapter 6 (p. 191), was used as a quotation sign in some regions before the ninth century; and *kappa* (Κ, #11) as *in capitibus sensuum* ('for the beginning of a unit of text'), that is as a text-structuring sign, which was used since Antiquity and which is discussed in chapter 1 (see p. 203 and footnote 63). Besides, it also mentions *ωροζιον*, a sign that we encountered in chapter 1 in law manuscripts (see p. 35), as *oreon in invincibilibus* (#5, 'for invincible [words, arguments?]). Nevertheless, in contrast to all other sign treatises discussed in this chapter, the 11-sign treatise cannot be connected with any ancient tradition and provides few clues about its context of origin and purpose on the basis of internal evidence. Its vocabulary seems to be post-Classical (e.g. *invincibilis*).

preserved by Diogenes Laertius (see Appendix III, item 3).<sup>379</sup> It should be noted that the 5-sign treatise breaks off in the middle of the description of the *obelus*, so that it mentions only five out of the nine Platonic signs, lacking even the *asterisci* advertised in its title. This cropping could be explained, perhaps, by assuming that the treatise was once placed at the end of some textual unit before other sections were added to it in order to form the Monte Cassino sign florilegium. There was, thus, probably an older layer to the Monte Cassino sign florilegium consisting of only these two ancient texts (items c) and d)). Indeed, excerpts from *Etym.* 1.21-26, a list of *notae iuris* and an excerpt of Cassiodorus's sign treatise in the *Expositio psalmsorum* are early medieval in origin rather than late antique.<sup>380</sup> Unlike items c)-d), all three are attested in Carolingian manuscripts well before the eleventh century. In conclusion: items c)-d) reflect locally preserved ancient material, while items a)-b) and e) may have come from outside the Beneventan zone, in particular as the Monte Cassino florilegium is a rare witness of their presence in this region.<sup>381</sup> The combination of local and Frankish material is, again, a feature that characterizes both **Paris, BnF, Lat. 7530** and the two manuscripts containing the Monte Cassino sign florilegium. It may even be that, since the florilegium was a rare occurrence in the Beneventan area,<sup>382</sup> the production of both collections – the one in **Paris, BnF, Lat. 7530** and that in the eleventh-century Monte Cassino miscellany – was triggered by an influx of new material from the north. We saw a similar process happening in two cases I described in the previous chapter: the abbreviated *De notis sententiarum* in **Zofingen, Stadtbibliothek, Pa 32**, which was included in a German branch of manuscripts of the *Etymologiae* on the basis of a western Frankish manuscript, and perhaps also in *Item sicut alibi inventae sunt*, which was incorporated in the *Etymologiae* in northern Spain, on the basis of material which may have come from beyond the Pyrenees. In Monte Cassino, the format of a miscellany may have been borrowed from the north and its appropriation may have prompted the Monte Cassino *librarius* to go through the *armaria* of the library to look for suitable material that

<sup>379</sup> The three texts are compared in Dörrie, Dörrie, and Mann, *Der Hellenistische Rahmen des kaiserzeitlichen Platonismus*, 92–97 and 349–56. Justin Stover also kindly pointed out to me that this text contains the rare idiom *ipsa Graecitas*, which was not used in Classical or medieval Latin, but is typical for Late Antiquity. Its most frequent user was Hilary of Poitiers (23 instances), but it was also used by Cassiodorus (3 instances), the translator of the *Historia Tripartita* (2 instances), Ireneus (2 instances), Servius (2 instances) and Jerome (1 instance). This phrase, thus, dates the translation alluded to in the title of the sign treatise in Late Antiquity.

<sup>380</sup> The only exception may be item f), which is a strange hotchpotch of shorter texts, some of which, such as isolated cryptographic notices, are not attested in other manuscripts, while others, such as the numerical conversion tables, are known from Carolingian manuscripts.

<sup>381</sup> Especially the excerpts from Isidore and Cassiodorus are otherwise unattested in the region. The miscellany of which this florilegium is a part contains more such items, some of which were connected by Lott with Frankish manuscript traditions and traditions of illustration; Lott, *The Florilegium of Cava 3, Madrid 19 and Paris 7418*, 221–22 and 234.

<sup>382</sup> Compare with footnote 373.

could be added to the material borrowed together with the genre. This is how the entity that passed into the Monte Cassino sign florilegium as items c)-d) may have been rediscovered.

It may seem contradictory that I call the Monte Cassino sign florilegium, on the one hand, a product of a local intellectual culture while, on the other, I point out that it contains some Frankish material and that its very form may have been borrowed from a Frankish model. Yet, the Frankish material and format were just the source and the model, but not the cause. They do not explain why the two collections were put together in the fashion they were, or why in the late eighth century and in the early eleventh scribes at Monte Cassino took the trouble to copy the fragments of ancient learning that they seem not to have cared about at other times.

These two discrete impulses coincide with two periods of flourishing of intellectual life in Monte Cassino. In the late eighth century, the prestige of Monte Cassino II, the one founded by Petronax in 718 and destroyed in 883 by Saracens, culminated when it was drawn into the political and intellectual orbit of the Carolingian world.<sup>383</sup> The abbey experienced an intellectual renewal, best embodied in the person of Paul the Deacon, in whose lifetime **Paris, BnF, Lat. 7530** was produced.<sup>384</sup> The Monte Cassino sign florilegium belongs to Monte Cassino III, the foundation that was revived in 949 and reached a true golden age under abbot Desiderius in the eleventh century.<sup>385</sup> This period saw not only the production of a score of new works, but also a resurgence of interest in Classical and Patristic authors, as well as the establishment of contacts with the Greek literary culture via St. Nilus.<sup>386</sup> A revival of the study of grammar may not have taken place in this context, but it can be noted that the Monte Cassino miscellany was not so much a compendium of Liber Arts (as **Paris, BnF, Lat. 7530**); rather it was a collection with a wider scope, one containing Aratus, Bede and poetry of Paul the Deacon side by side with local annals and the Monte Cassino sign florilegium. Neither **Paris, BnF, Lat. 7530** nor the Monte Cassino sign florilegium (or the miscellany of which it is a part, for that matter)

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<sup>383</sup> See Lowe, *The Beneventan Script*, 6–7; Lentini, *Ilderico e la sua Ars grammatica*, 192–201; Meeder, ‘Power and Prayer’.

<sup>384</sup> This is how **Paris, BnF, Lat. 7530** is situated also by Louis Holtz; Holtz, ‘Le Parisinus Latinus 7530’, 149. For the hypothesis that Paul was involved in the compilation of **Paris, BnF, Lat. 7530**, see Neff, *Die Gedichte des Paulus Diaconus*, 74–75.

<sup>385</sup> Intellectual life at Monte Cassino in this period is discussed in great detail by Francis Newton; Newton, *The Scriptorium and Library at Monte Cassino*.

<sup>386</sup> Not long after the re-foundation of the monastery by Aligern, it was visited by St. Nilus, who later founded a Graeco-Latin monastery at Valleluccio not far from Monte Cassino; Lowe, *The Beneventan Script*, 8.

can be considered teaching tools. Both lack traits that would identify them as intended for use in the classroom.

### Greek sign treatises

While this dissertation is devoted to the technical signs used in the early medieval Latin West, it is still necessary to take the sign treatises that came into being in the Byzantine Empire into account. My analysis of the developments in the Latin-speaking world would be incomplete without them. Indeed, some of these Greek texts descended from the same textual traditions as the Latin sign treatises and can help us to understand Latin textual traditions. Moreover, many of the Greek texts reflect the same kind of development that can be observed in the Latin texts. Furthermore, in some areas, such as southern Italy, which was under Byzantine influence, there is the possibility of intellectual exchange.

Apart from the Patristic texts about signs discussed in chapter 1, writing about technical signs in Greek is represented by four sign treatises falling into the tradition represented by the Alexandrian grammarians of the Classical period that also provided the core of the 21-sign treatise and some material of the 15-sign treatise.<sup>387</sup> I will first describe each of them briefly and then discuss them as a group in relationship to the Western sign treatises.

The oldest of these treatises is preserved in **Rome, Bib. Naz., Gr. 6** (9<sup>th</sup> century, 2/2<sup>388</sup>), on fols. 3rv. It is a manuscript of the *Iliad* and the oldest witness of the so-called scholia D to this text. The sign treatise belongs to the extensive prolegomena to the *Iliad* in this manuscript and was edited under the name *Anecdoton Romanum* (see Appendix III, item 16).<sup>389</sup> This sign treatise consists of several elements:

<sup>387</sup> There are also several testimonies about technical signs from the Byzantine period. Eustathius (fl. 12<sup>th</sup> century, 2/2) included many remarks from earlier authors in his commentaries on Homer. He provided the Aristarchian definitions of *asteriscus* and *asteriscus cum obelo* in his commentaries to *Iliad* 5.733 and *Odyssey* 8.570, and mentioned *obelus* in his commentary to *Iliad* 13.730, which suggests he either had access to now-lost sources about the Alexandrian scholarly conventions or used one of the surviving sign treatises; see Gudeman, 'Kritische Zeichen', 1921–22. *Coronis* is discussed in the anonymous treatise about tragedy preserved on fol. 415 of **Oxford, Bodleian Library, Barocci 131** (c. 1250 – 80); see Jocelyn, 'The Annotations of M. Valerius Probus (II)', 157, n. 116. A fragment of a letter in which critical signs attached to Aratos's *Φαινόμενα* are discussed is preserved in **Florence, Biblioteca Medicea Laurenziana, Plut. 87.10** (c. 1464). It has been transcribed in Maass, 'De Phaenomenis Arati recensendis', 108.

<sup>388</sup> The manuscript used to be dated to the tenth century, but an earlier date, perhaps even mid-ninth century, is now accepted; see West, *Studies in the Text and Transmission of the Iliad*, 139. On paleographic grounds, West suggested that **Rome, Bib. Naz., Gr. 6** is affiliated with **Paris Gr. 510**, which was mentioned in chapter 1 as the most important witness of the scholia and technical signs to the *Orationes* of Gregory of Nazianzus, and which was produced under the direction of Photius between 879 and 883 in Constantinople (see footnote 186).

<sup>389</sup> This name was assigned to it by Friedrich Osann, its *editor princeps*, in 1851; see Osann, *Anecdotum romanum*. A more recent edition can be found in Dindorf and Maass, *Scholia Graeca in Homeri Iliadem*, xliii–xlv. This sign treatise is the only one to have been so far translated into English; see West, *Homeric Hymns*, 450–57.

- a) a first sign list with the title *Τὰ παρατιθέμενα τοῖς Ὀμηρικοῖς στίχοις Ἀριστάρχεια σημεῖα. ἀναγκαῖον γινῶναι τοὺς ἐντυγχάνοντας* ('The Aristarchian signs placed beside lines of Homer - must be identified by those who encounter them') which consists of:
- i. a list of eight signs serving as a contents page to a-ii.;
  - ii. descriptions of these eight signs;
  - iii. a short epilogue to the list: 'For all these signs, more detailed knowledge is to be found in the volumes of those who have written about them, and if you care to, you can seek it out from the specialists';
- b) a second sign list with no separate title or a contents page consisting of six signs;
- c) a notice about Apellicon's version of the *Iliad* ending with: 'The rhapsodies were joined up continuously, being demarcated by a *coronis* alone and nothing else.'<sup>390</sup>

A second sign treatise is preserved in **Venice, Biblioteca Marciana, Gr. 822 (olim 454)** (10<sup>th</sup> century, 1/2). This manuscript, known as Venetus A, is the oldest complete manuscript of the *Iliad* and the most important witness of Homeric scholia,<sup>391</sup> including the so-called 'Viermännerkommentar', a late antique compilation drawing on the works of Aristonicus, Didymus, Herodian and Nicanor.<sup>392</sup> The text of the *Iliad* in this codex is famous for being annotated with Alexandrian critical signs and just like **Rome, Bib. Naz., Gr. 6** contains important prolegomena. Venetus A was called one of the finest products of Byzantine scholarship.<sup>393</sup> However, the scholarly debate about the extent to which this manuscript follows a late antique prototype, or, rather, reflects medieval Byzantine scholarship, remains open.<sup>394</sup> In fol. 8r it contains a fragment of a sign treatise, which has been identified by Dindorf as a fragment of the treatise of the same name composed by Aristonicus.<sup>395</sup> The text of this treatise, unfortunately, breaks off at the end of the page and

<sup>390</sup> Apellicon of Teos (d. c. 89/8 BCE) was an important book collector from Athens, whose book collection was seized by Sulla and removed to Rome. It served as a basis of several scholarly works, notably of Aristotle.

<sup>391</sup> It was digitized as a part of the Homer Multitext Project, at: <http://www.homermultitext.org/manuscripts-papyri/venetusA.html>. This project website contains also several useful publications about this manuscript and a bibliography, at: <http://www.homermultitext.org/manuscripts-papyri/VenA-Introduction-2014.html>.

<sup>392</sup> For more information on this commentary tradition and the four grammarians, see Lehrs, *Aristarchus*, 1–35.

<sup>393</sup> West, *Studies in the Text and Transmission of the Iliad*, 140.

<sup>394</sup> See Howald, 'Eustathios und der Venetus A'; and Erbse, 'Zur handschriftlichen Überlieferung der Iliasscholien'. The most recent contribution to the debate which summarizes the previous scholarship is Pagani, 'Through the Warping Glass'.

<sup>395</sup> In his edition, Dindorf even gave this prolegomenon the title *Περὶ Ἀριστάρχου σημείων Ἰλιάδος* ('On the signs of Aristarchus used in the Iliad') not found in the manuscript. The subscriptions in this manuscript explicitly state 'placed in the margin are the signs of Aristonicus ...'; see Bird, 'Critical Signs', 90–91. However, Gudeman argued against this origin and suggested rather that the text is a younger, Byzantine composition; see Gudeman, 'Kritische Zeichen', col. 1917.

contains only the descriptions of the first three signs - διπλῆ ἀπεριστικτος, διπλῆ περιεστιγμένη and ὄβελός (see Appendix III, item 17).<sup>396</sup> This fragment is, nevertheless, indispensable since it seems to reflect the original format and language of the ancient sign treatises. It provides the essential point of departure for understanding the compilation processes that affected the majority of sign treatises between Antiquity and the Middle Ages.

A third Greek sign treatise can be found on fol. 46v of **Venice, Biblioteca Marciana, Gr. 483** (14<sup>th</sup> century<sup>397</sup>) and on fol. 32v of **Oxford, Bodleian Library, Auct. T. 4. 9** (15<sup>th</sup> century).<sup>398</sup> In both manuscripts, it is attached to the end of the *Enchiridion* of Hephaestion, who was mentioned in chapter 1 (see p. 32), and seems to serve as an extension of Hephaestion's own sign treatise. The text, edited under the name *Anecdoton Venetum* (see Appendix III, item 28), has a structure similar to that of both *Notae XXI* and the *Anecdoton Romanum*.

- a) a first sign list with the title Ταῦτα εὑρηται ἐν τινι παλαιῷ βιβλίῳ ('These are found in some old books') that consists of
  - i. a list of eight signs serving as a contents page to a-ii;
  - ii. description of the *diple*, which must be the beginning of a sign list, now cropped;
- b) a second sign list with the title Τὰ παρατιθέμενα τοῖς Ὀμηρικοῖς στίχοις σημεῖα ἀναγκαῖον γνῶναι τοὺς ἐντυγχάνοντασ· εἰσὶ δὲ ταῦτα ('The Aristarchian signs placed beside lines of Homer - must be identified by those who encounter them') that consists of
  - i. a list of seven signs serving as a contents page to b-ii.;
  - ii. a descriptive list of these signs;
- c) a one-line epilog: 'The rhapsodies were joined up continuously, being demarcated by a *coronis* alone and nothing else.'

The fourth Greek sign treatise is found on fol. 2r of **London, BL, Harley 5693** (14<sup>th</sup> century). It is yet another manuscript of the *Iliad* equipped with scholia, this time of

<sup>396</sup> It was edited by Dindorf in Dindorf and Maass, *Scholía Graeca in Homeri Iliadem*, 1–2. The more recent edition can be found in Erbse, *Prefatio et scholia ad libros A-D*, 1:lxv–lxvi.

<sup>397</sup> According to some scholars, this manuscript was used by the Byzantine scholar Demetrius Triclinius (fl. 14<sup>th</sup> century, 1/4), and contains his annotations. If so, it must be dated to the beginning of the century. See Irigoien, *Les scholies métriques de Pindare*, 80–81; and Smith, 'Tricliniana II', 202.

<sup>398</sup> The first to edit the sign treatise from the Venetian manuscripts was Jean-Baptiste Gaspard d'Ansse de Villoison; in Villoison, *Homeri Ilias ad veteris codicis Veneti fidem recensita*, lx. The sign treatise from the Bodleian manuscripts was first edited in Gaisford, *Hephaestionis Alexandrini Enchiridion*, 136–37. An edition based on both manuscripts was produced by August Nauck and reprinted by Dindorf; Nauck, *Lexicon vindobonense*, 274–76; and Dindorf and Maass, *Scholía Graeca in Homeri Iliadem*, xlv–xlvi.

Porphyrus. Also, just like the two other manuscripts of *Iliad* mentioned in this subsection, it contains extensive prolegomena to Homer and the first of these is a sign treatise with the title Περὶ τῶν παρ' Ἀριστάρχου σημείων παρατιθεμένων τῷ Ὅμηρῳ ('On the signs used by Aristarchus, placed beside lines of Homer').<sup>399</sup> This sign treatise, known more commonly as the *Anecdota Harleianum*, consists of two sections: a contents page of seven signs, and a descriptive sign list of these seven signs (see Appendix III, item 29).

With the exception of the fragment of Aristonicus's sign treatise, the Greek sign treatises thus all have a familiar structure, which we already encountered in the Italian branch of the 21-sign treatise: they are equipped with a section that serves information retrieval in the manner of a contents page. The *Anecdota Romanum* and the *Anecdota Venetum*, moreover, seem to be a combination of two related texts, just as are the 21-sign treatise and the 15-sign treatise in **Paris, BnF, Lat. 7530**. All in all, the four sign treatises discussed here may be broken down to six short sign treatises of six to eight signs that clearly go back to a single tradition. Yet, as the varying number and order of signs in these five treatises indicate, they are neither merely variations of the same text, nor direct descendants. The only exceptions are, perhaps, the first sign list in the *Anecdota Romanum* and the second sign list in the *Anecdota Venetum*, which share the name, many of the sign descriptions and the closing remark about *coronis*.

As I mentioned in the previous chapter, the oldest layer of the 21-sign treatise (items #1-#8) was originally translated from Greek and may go back to one or more of the sign treatises produced in Classical Antiquity (see p. 68). Indeed, the comparison of the core layer of the 21-sign treatise with the six short sign treatises preserved in Greek (fig. 2) supports this impression. It reveals obvious parallels between the seven textual entities which can be explained only by the dependence on a common source, possibly one or more of the sign treatises written by Aristonicus and his peers.<sup>400</sup>

<sup>399</sup> It was edited for the first time by John Anthony Cramer; Cramer, *Anecdota graeca*, 3:293. It can be also found reprinted in Nauck and Dindorf; Nauck, *Lexicon vindobonense*, 8. and Dindorf and Maass, *Scholia Graeca in Homeri Iliadem*, xlvii.

<sup>400</sup> I colour-coded the items for the purpose of clarity: the two types of *diple*/διπλή are light gray, *obelus*/ὀβελός is gray, and items that appear each only in one of the sign treatises and therefore seem to reflect interpolations are dark gray.

21-sign treatise #8	<i>Anecdoton Romanum</i> (a)	<i>Anecdoton Romanum</i> (b)	<i>Anecdoton Venetum</i> (a)	<i>Anecdoton Venetum</i> (b)	<i>Anecdoton Harleianum</i>	Venetus A
obelus	διπλῆ ἀπερίστικτος	διπλῆ	διπλῆ καθαρά	διπλῆ ἀπερίστικτος	ὄβελός	διπλῆ ἀπερίστικτος
asteriscus	διπλῆ περιεστιγμένη	διπλῆ περιεστιγμένη	διπλῆ περιεστιγμένη	διπλῆ περιεστιγμένη	διπλῆ ἀπερίστικτος	διπλῆ περιεστιγμένη
asteriscus cum obelo	ὄβελός	ὄβελός	ὄβελός	ὄβελός	διπλῆ περιεστιγμένη	ὄβελός
paragraphus	ἀστερίσκος (καθ' ἑαυτὸν)	ἀστερίσκος μετὰ ὄβελου	ὄβελός σὺν ἀστερίσκῳ	ὄβελός μετὰ ἀστερίσκου	ἀστερίσκος	
diple aperistikton	ἀστερίσκος μετὰ ὄβελου	ἀντίσιγμα περιεστιγμένον	ἀντίσιγμα	ἀστερίσκος καθ' ἑαυτὸν	ἀστερίσκος μετὰ ὄβελου	
diple periestigmenne	ἀντίσιγμα	ἀστερίσκος	κεραία	ἀντίσιγμα ἄστικτον	ἀντίσιγμα	
antisigma	ἀντίσιγμα περιεστιγμένον		πλάγιον	ἀντίσιγμα περιεστιγμένον	δύο στιγμαί	
antisigma cum puncto	κεράνιον					

fig. 2: comparison of the core layer of the 21-sign treatise with the Greek sign treatises

This comparison shows that the common core of this tradition was constituted by seven signs – the two types of *diple*, *obelus*, *asteriscus*, *asteriscus cum obelo* and the two *antisigmata*. Moreover, it suggests that while the Greek sign treatises follow the original order of the signs in this tradition, the 21-sign treatise changed this order.<sup>401</sup> Placing the *asteriscus* before the two types of *diple*, in particular, seems eccentric and cannot go back to the Alexandrian scholarly tradition or any of the Classical traditions of writing about technical signs mentioned in chapter 1.<sup>402</sup> However, *asteriscus* and *obelus* (but not *diple*) were

<sup>401</sup> This order reflects the hierarchy of signs in the Alexandrian tradition discernible also in the scholiastic tradition and in the frequency of signs in Venetus A. See the article of Graeme Bird, who lists the respective signs in the order of frequency with which they occur in the Venetus A; Bird, 'Critical Signs', 92–94. According to Bird's count, plain διπλῆ appears in Venetus A over 1800 times, ὄβελός over 400 times and διπλῆ περιεστιγμένη almost 300 times. In contrast, ἀστερίσκος appears only 73 times and ἀστερίσκος μετὰ ὄβελου 66 times. See also McNamee, *Stigla and Select Marginalia*, 8.

<sup>402</sup> That *diple* and *obelus* may have once been at the head of the 8-sign treatise, the core layer of the 21-sign treatise, is also suggested by the fact that the items *diple* and *obelus* contain longer and more detailed

the two core signs of the tradition inaugurated by Origen in the third century (also discussed in chapter 1, see p. 39). Thus, this change may imply that one of the compilers of the 21-sign treatise was a Christian influenced by this Patristic tradition.<sup>403</sup> These subtle traces of Christianity, given the chronological growth of this text discussed in the previous chapter, may be interpreted to give us information about the final compiler of this treatise, who lived in the fifth or the sixth century.

The two contexts of transmission of the Greek sign treatises – as a prolegomenon to the *Iliad* and as an attachment to the sign treatise in Hephaestion's *Enchiridion* in a metrical compendium – thus resemble the two contexts of transmission of sign treatises we already encountered in the Latin West: as a technical preface to a scholarly work, and as a unit in a topical compendium. All of the treatises, moreover, can be connected with scholarly milieu and knowledge-oriented setting, rather than with a classroom or teaching.

Although the Greek and Latin sign treatises developed in close proximity in Classical Antiquity, there seems to have been little interaction between the Greek *doxa* and the Latin *doxa* in the later periods, especially after Late Antiquity. Several sign treatises described in this and the previous chapters show traces of Greek influence that must be late antique, such as the presence of a contents page in the Italian branch of the 21-sign treatise (see p. 70), or the translation of a (part of a) sign treatise concerned with the annotation of Plato, which survives as the 5-sign treatise (see p. 106). Also, while there was an influence from the East on the West, a similar influence in the opposite direction cannot be attested. All of this agrees with what we already know about the relationship between the Eastern and the Western parts of the Empire in Antiquity.<sup>404</sup>

### **Conclusion: anonymization, abbreviation and list-like arrangement as a trend**

In this and the previous chapter, I examined several traditions of writing about technical signs that had the form of specialized technical texts, the sign treatises. I have termed them the 'old' *doxa*, because they go back to one or more pools of material of ancient origin and reflect knowledge cultures of Antiquity rather than of the Middle Ages, even though the manuscripts that preserve them are medieval. These witnesses of the 'old' *doxa* have several

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descriptions in *Notae XXI* than any other items implying that they may have served as the opening items in the tradition.

<sup>403</sup> The Origenian-Jeromian tradition processed through Epiphanius of Salamis affected Isidore's rendering of the 21-sign treatise with a similar result: he demoted the *diple* from place #5 in the 21-sign treatise to #12, and inserted two signs mentioned by Epiphanius, *lemniscus* and *antigraphus/hypolemniscus*, after the *asteriscus* and the *obelus*, in positions #4 and #5 (see also Appendix III, section B).

<sup>404</sup> See Cameron, *The Last Pagans of Rome*, 529–32; Cameron, 'Wandering Poets', 494; Millar, *A Greek Roman Empire*, 84–97.

traits in common, which, in fact, make them old wine in new wineskins, to use a biblical idiom. The material they contain may refer to ancient practices and scholarship, but the use to which it was put is medieval (or at least late antique). Several concluding observations can now be made.

In the first place, the sign treatises discussed in this chapter were transmitted anonymously, even in cases when the material they contain had known authors. We have already seen this in the case of the 21-sign treatise, which in some phases of its development may have had an author or a compiler (e.g. the *Aristarchos*), but his or her name was not preserved. In the 21-sign treatise, elements of the text that could connect it to persons, places or known works were removed in the process of compilation, even as late as in the early seventh century, when Isidore of Seville removed all references to ancient Roman scholars from his version of the 21-sign treatise (see p. 72). Such anonymization is particularly striking in the case of the Patristic sign treatises analyzed above (see p. 98), which continued to circulate in the Early Middle Ages both under the name of their respective authors as a part of the works of these authors, and as anonymous sign treatises in miscellanies and compendia. It is impossible that the users of the latter would not be aware of the connection between the two; yet, no amends were ever made, no names were added to these Patristic sign treatises. It is obvious that the anonymization was perceived as an integral part of the sign treatises as a genre.

Furthermore, virtually all the sign treatises mentioned here have the form of a list, and this is true also for the 21-sign treatise and for the sign treatises derived from it. By list, I mean a formal arrangement that presents individual sign descriptions as discrete items and thus enhances a discontinuous consultation of the text. A part of the process of reformatting was also the abbreviation of the material, sometimes into a single word or a phrase (even at the expense of obscuring the meaning to those who are unfamiliar with the tradition). We have, for example, seen that the sign treatise in the *Doctrina patrum de incarnatione verbi* squeezed the lengthy account of Epiphanius of Salamis about Origen's use of critical signs in the Hexapla into four brief items, in total fifteen lines of text (see p. 98). Similarly, the Greek sign treatises such as the *Anecdoton Romanum* or the *Anecdoton Venetum* can be compared to the fragment of the sign treatise in Venetus A, which preserves an older, more authentic format of the ancient sign treatises (see p. 110). The same three critical signs which in the latter require an entire page of narrative prose are covered by five to six lines of itemized text in the former. The two *anecdota* are, moreover, equipped with a

section that serves as a contents page and allows for a quicker localization and retrieval of information, a feature that is present also in *Notae XXI*.

These two features – a list-like arrangement and abbreviated character – may have been known already in Classical Antiquity (**PSI 1488** could be viewed as such an ancient abbreviated sign list); however, they seem not to have been regularly used until Late Antiquity, when they may have come into the scholarly mainstream together with other book-related innovations (e.g. marginal scholia, *catena*-like commentaries, and alphabetized glossaries).<sup>405</sup> As the fragment of Aristonicus in Venetus A and the Patristic sign treatises that survive as a part of the works of their respective authors suggest, the most common format of a sign treatise in Classical Antiquity (as well as in the first few centuries after) was that of a text written in running prose, often quite lengthy in comparison with the younger list-like sign treatises. The reformatting of the ancient material was a result of the same compilation process that also entailed anonymization, and just like anonymization, it informs us about the changes in intended use of sign treatises and about the defining features of this genre in the early medieval period.

Third, the majority of the sign treatises discussed in this chapter survive separated from the original textual context in which they emerged. This is, again, particularly visible in the case of anonymously transmitted Patristic sign treatises treated above (see p. 98), which were designed as a constituent part of a theological or exegetic work, but when transmitted anonymously, they are found contained in compendia and miscellanies, with no link to exegesis or theology. We should imagine a similar degree of detachment in case of the 21-sign treatise and the sign treatises discussed in this chapter, which is less tangible since we lack the source texts on which they were based. It is likely that they were not originally transmitted in miscellanies and florilegia, but rather that this happened only after they were anonymized, abbreviated and re-formatted. This detachment from the original

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<sup>405</sup> See the overview of several such features in McKitterick, ‘Glossaries and Other Innovations’, 23–28. For the late antique emergence of glossaries, see Dionisotti, ‘On the Nature and Transmission of Latin Glossaries’. For the history of alphabetically ordered lists and their existence but limited popularity before the Early Middle Ages, see Daly, *Contributions to a History of Alphabetization*. However, the most important book-related innovation that gained momentum only in Late Antiquity, as it seems, was the production of *catenae*, marginal commentaries and a systematic annotation of texts. While the debate on when these new forms of using the text became widespread is not closed, it is now widely assumed that glossing and marginal scholia began to occur systematically only in Late Antiquity. Scholars agree that the production of marginal commentaries and *catenae* was possible already before the transition to the codex and emergence of minuscule scripts, but the surviving annotated papyrus book rolls represent only isolated instances of scholarly activity, not a trend. For the overview of the arguments in this debate, see Zuntz, *Die Aristophanes-Scholien der Papyri*; Wilson, *Scholars of Byzantium*, 32–35; McNamee, ‘Missing Links’; McNamee, ‘Another Chapter’; Wilson, ‘Scholiasts and Commentators’, 40–47; McNamee, ‘Very Small Scripts’; Montana, ‘The Making of Greek Scholiastic Corpora’.

context of use and the potential for re-contextualization stemming from it is the third defining trait of the genre in the early medieval period.

This brings us to the fourth point, which is the relative homogeneity of the context of the transmission of the ‘old’ *doxa* in the Early Middle Ages, whether in the Frankish lands, in southern Italy or in Byzantium. We have seen that they feature most commonly in compendia and miscellanies (*Doctrina patrum de incarnatione verbi*, **Paris, BnF, Lat. 7530**, the Monte Cassino florilegium), or in knowledge collections and encyclopedia (the *Etymologiae*, the sign treatise in the *Liber Glossarum*). In this case they are frequently clustered together with other texts concerned with *notae* – other sign treatises (*Notae XXI* and *Notae simplices* in **Paris, BnF, Lat. 7530**, *Anecdoton Venetum*), lists of *notae iuris* (**Paris, BnF, Lat. 4841**), and various other phenomena that can be described as *notae* (the *Etymologiae*, *Notae divinae legi necessariae*). The best example of the magnetic effect that texts about *notae* can have on each other is the Monte Cassino sign florilegium, in which two sign treatises were combined with excerpts on *notae* from the *Etymologiae* and Cassiodorus’s *Expositio psalmsorum*, a list of *notae iuris*, tables for conversion of letters into numerals (apparently classified as *notae*), and a hotchpotch of short, obscure notices containing cryptographic signs (see p. 104).

In a small number of cases, sign treatises survived as technical prefaces to texts that contain signs, such as the *Iliad* (*Anecdoton Romanum*, fragment of a sign treatise in Venetus A, *Anecdoton Harleianum*) or the Book of Daniel (the abbreviated account of the Origenian critical signs in the Syro-Hexapla). We have encountered this format already in some of the most recent ancient sign treatises discussed in chapter 1, such as the preface of the *Expositio psalmsorum* or of the *Orationes* of Gregory of Nazianzus (see p. 48 and p. 49). We will see in the following chapter, that this context dominated the scene with the appearance of the ‘new’ *doxa* in the Carolingian realms.

Fifth, it should be pointed out that despite the degree of flexibility that the sign treatises show due to their anonymous, list-like and self-standing character, they do not draw on early medieval *praxis* (and in case of some of them, it is even questionable whether they reflect a *praxis* at all). Since the early medieval *praxis* is discussed in chapter 6, I do not wish to treat this discrepancy between the ‘old’ *doxa* and *praxis* in detail here. I will just point out a handful of technical signs, well-known to anyone who handled early medieval codices, which are never mentioned by sign treatises. The S-shaped quotation sign is probably the technical sign most frequently occurring in the manuscript evidence (see p. 200), yet it is unknown to the sign treatises, as are *nota* signs and *require* query signs. At the same time sign treatises continued to contain a number of technical signs that seem to have

been used in Classical Antiquity, but had no practical use in the Early Middle Ages. The most notable case are the Alexandrian critical signs described in the 21-sign treatise and in the 15-sign treatise, which were specifically designed for scholarly assessment of Homer. Isidore of Seville, working in the early decades of the seventh century in Spain, was the last to draw on contemporary *praxis* by adding several signs that were used in his days into his *De notis sententiarum*.<sup>406</sup> After this point, however, the pool of material that could be used for sign treatises included only earlier texts, especially older sign treatises. We can speak about the closing up of a tradition, a process that began already in Antiquity<sup>407</sup> and reached its final formative stage with Isidore of Seville.

Finally, if we now look back at chapter 1, we can see that, although sign treatises existed already in Antiquity, their function changed in the course of the centuries. The treatises of Aristicus, Hephaestion, and Epiphanius of Salamis reflected a particular *praxis* and although the representation of this *praxis* was not meant to be accurate, their works could be used to interpret technical signs in particular authors and also for instruction. As the sign treatises gradually became anonymous, list-like, de-contextualized compilations, their original functionality diminished.<sup>408</sup> The question is what other functionalities they may have acquired, or in other words, what purpose these sign treatises had for those who copied them. So far, I have looked at the sign treatises as a self-standing genre of technical literature, but in reality they share the traits I described here (anonymization, list-like arrangement, context of transmission) with other texts that can be jointly described as ‘depositories of inherited knowledge’. The best example of such ‘depositories’ are glossaries, growing ever larger and ever more complex, but progressively detached from the context in which they were used to the extent that it is impossible for us today to discern which of the glosses may have come from the margins of codices of Classical authors, which from the domain of *notarii*, and which were added at a much later date, once the ‘depository’ was formed.<sup>409</sup> Although those who copied ‘depositories of

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<sup>406</sup> The first of these signs is *positura* that complements *paragraphus* as a closing parenthesis (*Etym.* 1.21.9); the second is a correction sign that Isidore calls *cryptia* (*Etym.* 1.21.10) and which is attested in 5<sup>th</sup>- and 6<sup>th</sup>-century manuscripts (see chapter 6, p. 196); and the third is *diple* which he describes, contrary to the Alexandrian tradition, as a quotation sign (*Etym.* 1.21.13), just as it was used in contemporary manuscripts (compare with Appendix II, item 18a).

<sup>407</sup> Note that already the compiler of the 12-sign treatise, the second stage in the formation of the 21-sign treatise, based his sign treatise on an older sign treatise, i.e., the 8-sign treatise.

<sup>408</sup> The function is not a trait of a text that is binary – present or absent. Rather, it is a qualitative category that is dependent on various traits of a text and that can therefore be present to a certain extent and grow or diminish.

<sup>409</sup> See especially the enlightening article by Carlotta Dionisotti; Dionisotti, ‘On the Nature and Transmission of Latin Glossaries’. Other studies touching on this subject include a recent article by Carmen Codoñer on the origin of the lists of *notae iuris* and a more general article by Marietta Horster and Christiane Reitz on the ‘condensation’ of literature in Late Antiquity; Codoñer, ‘Posibles sistemas de compilación en las *notae iuris*’;

inherited knowledge' may have done so with some particular function in mind, it seems to me that authority stemming from their status as 'inherited knowledge' rather than functionality played the key role in survival of these texts.<sup>410</sup> This also explains why the detachment of the 'old' *doxa* from *praxis* was not just a one-way process, since the 'old' *doxa* had already no influence on *praxis* before the Carolingian period.

The set of changes to the sign treatises that I describe in this chapter could be ascribed to a scarcity of books and a poor condition of texts in the centuries before the Carolingian Renaissance. Indeed, several of the sign treatises that were described suffer from truncation (*Notae XXI, De oboelis et asteriscis platonis*, the sign treatise in Venetus A, etc.). However, I would argue that the nature of the genre changed primarily as a result of the active decision-making on the part of scribes, who, on the basis of their preferences, determined what should be copied and in which form it would be copied. This applies in the first place to the scribes who lived in the crucial period between 600 and 800, when many of the ancient texts about signs seem to have gotten lost, but also to the subsequent generations, since some texts survived until after 800 (the 21-sign treatise in Spain, the treatise of Aristonicus in the Byzantine East), only to be lost at a later date.<sup>411</sup> Overall, we can conclude that scribes rarely decided to copy sign treatises in their entirety (this happened almost exclusively when they were part of a Patristic work). Nevertheless, they must have taken notes from these texts and copied these.<sup>412</sup> Interest in this note-copying seems to have been connected with revivals of learning. Virtually all the material presented above survived various bottleneck moments thanks to such localized revivals. In the Frankish realm, this was the Carolingian Renaissance, in Visigothic Spain, it had to do with the intellectual activities of Isidore of Seville and later in Zaragoza, in Benevento, survival of sign treatises reflected the fortunes of Monte Cassino, and in Byzantium it was tied to the period of revival brought about by the Macedonian dynasty.<sup>413</sup>

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Reitz and Horster, "'Condensation" of Literature'. Compare also with what David Ganz says about the *Commentarii notarum Tironianum* in Ganz, 'On the History of Tironian Notes', 39. Although Tironian notes, the third major type of *notae* besides technical signs and *notae iuris*, had a slightly different fate from the other two, effectively having been revived in the Carolingian period, the *Commentarii notarum Tironianum* have all the features of 'depositories of inherited knowledge'.

<sup>410</sup> Garrison, 'The *Collectanea* and Medieval Florilegia', 43–48.

<sup>411</sup> Sign treatises would get lost as late as in the Late Middle Ages, as is suggested by an entry in the 1461 library catalogue of Bobbio that records a text entitled *De emendatione et notis veterum librorum*. It was part of a miscellany with grammatical texts; see Peyron, *Ciceronis orationum fragmenta inedita*, 29–30.

<sup>412</sup> Compare with the theoretical discussion about the 'condensation' of texts by Markus Dubischar; Dubischar, 'Survival of the Most Condensed?'

<sup>413</sup> For more information on this so-called Macedonian Renaissance, see Treadgold, 'The Macedonian Renaissance'. The achievements of this period are also discussed in detail in Wilson, *Scholars of Byzantium*, 79–147.



## Chapter 4

### The emergence of new, medieval *doxa* and the revival of scholarly sign use in the Carolingian period

Before the Carolingian period, written texts that described technical signs had two forms, both going back to Antiquity. Sign treatises, treated in detail in the previous two chapters, transmitted ancient *doxa* about technical signs as anonymized, abbreviated lists of signs, a piece of ‘inherited knowledge’ that could be encountered in miscellanies, compendia and knowledge collections of various kinds. In addition, Carolingian readers had access to the Patristic works mentioned in chapter 1. These texts were the most important source of information about the Christian sign use. For many early medieval readers, they were more readily available than the sign treatises and more central to their Christian *paideia*. These two types of written texts contained the thin trickle of information still available about Aristarchus’s and Origen’s critical activities and ancient philological practice. There may have been only a handful of those who appreciated these texts for the information they provided about technical signs, studied them for this reason and, in the case of sign treatises, safeguarded their copying.

However, a change occurred in the Frankish lands in the second half of the eighth century. Manuscript and textual evidence suggest a significant surge of interest in technical signs that lasted beyond the end of the ninth century. This wave of interest involved not only the copying of, appropriation of and commenting on old texts (which we have seen in chapter 2), but more importantly also the production of a whole set of new texts reflecting a novel attitude to technical signs, one that was rooted in early medieval intellectual practice rather than in ancient scholarship. The emergence of this ‘new’ *doxa* – to contrast it with the ‘old’ *doxa* discussed so far in this dissertation – marks a new chapter in the history of technical signs.

In the first three sections of this chapter, I describe three categories of Carolingian textual and manuscript evidence that can be connected with the ‘new’ *doxa*. The first, most impressive category reflects textual criticism of the Old Testament, in particular of the Psalter; the second the textual criticism stemming from biblical textual criticism, but applied to other texts; and the third a type of criticism which was not philological, but rather assessed the orthodoxy of texts. In section four, I will discuss several cases of sign use that cannot be assigned to any of the three categories, but seem to have been produced

in the same environment. I refer to two appendices: Appendix II, in which I list all relevant testimonies about Carolingian sign use, and Appendix III, in which I provide an overview of sign treatises discussed in this chapter.

### Carolingian textual criticism of the Old Testament

The Bible was the single most central text in Carolingian religious life, liturgy, and intellectual culture. For this reason, Carolingian elites showed from early on a strong concern for the establishment of the correct text of the Scriptures, its correct transmission, performance and interpretation. A call for a *correctio* of the Bible was issued in the *Admonitio generalis* (789) and in *De litteris collendis* (786-800).<sup>414</sup> It was realized, among other projects, in two revisions of the Bible undertaken by distinguished Carolingian scholars – Alcuin of York and Theodulf of Orléans.<sup>415</sup> This spirit of reform also provided favourable conditions for the revival of Origenian textual criticism, since it was ideally suited for the *correctio* of the Scriptures. From the second half of the eighth century on, we see that critical signs belonging to this type of textual criticism were used for the emendation of the Bible. Texts pertaining to it were studied and copied with greater vigour than before, and new texts were produced engaging with this *doxa*. Here, I will focus on a particularly illustrative example of this revival: the Carolingian textual criticism of the Psalter.<sup>416</sup> I will first describe the liturgical reforms that led to the promotion of the Gallican Psalter in the Carolingian realms and the need to tackle the critical signs pertinent to this Psalter version, then I will describe three cases of revision of the Psalter from the eighth and the ninth centuries, and finally I will discuss manuscript evidence for the restitution of critical signs in the Gallican Psalters in the Carolingian period.

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<sup>414</sup> They are both reproduced and discussed in Fischer, ‘Bibeltext und Bibelreform’, 156; Ganz, ‘Carolingian Bibles’, 329–31. Fischer’s article is the most important study on the Bible reform during the Carolingian period and should be read in its entirety. The other essential study of the Bible in Carolingian times is Berger, *Histoire de la Vulgate*. A more recent publication on the Bible in the Carolingian period is Chazelle and Edwards, *The Study of the Bible in the Carolingian Era*.

<sup>415</sup> These revisions of the Bible are discussed in Fischer, ‘Bibeltext und Bibelreform’, 159–63. The Alcuin Bible is also a subject of Fischer’s monograph; Fischer, *Die Alkuin-Bibel*. For more information on the Theodulfian recension, see also Pseudo-Jerome, *Quaestiones on the Book of Samuel*, 4–5.

<sup>416</sup> I regret that the word limit of this dissertation does not allow me to delve deeper into the Carolingian textual criticism of the other books of the Bible, since it would certainly be a fruitful line of research. Tracing the Carolingian reception of Jerome’s writings referring to Origen’s critical method (see Appendix II, item 17) would be particularly worthwhile. It can be noted here that a section from his *Apologia contra Rufinum* appears in many early medieval pandect Bibles as a preface to the Pentateuch, for example in **Paris, BnF, Lat. 1** (845-51, Tours), fol. 8r: <http://gallica.bnf.fr/ark:/12148/btv1b8455903b/f23.item>. Likewise, Daniel in the early medieval Vulgate version contains an explicit inserted title indicating the beginning of the section not found in Hebrew and marked with critical *oheli*, see for example **Reims BM 1** (9<sup>th</sup> century, Reims), fol. 214v: <http://gallica.bnf.fr/ark:/12148/btv1b8449584c/f430.item>; **Paris, BnF, Lat. 3** (825-35, Tours), fol. 178r: <http://gallica.bnf.fr/ark:/12148/btv1b8426789n/f361.item>; or **Paris, BnF, Lat. 11514** (807-34, Tours), fol. 187v: <http://gallica.bnf.fr/ark:/12148/btv1b90808164/f195.item>.

The Psalter was certainly the most wide-read and ubiquitous of the biblical books in the Carolingian world.<sup>417</sup> It was also a biblical book with the highest number of distinct text versions that had been in use across the territory that came under the influence of the Carolingians in the course of the eighth and the ninth centuries. As explained in chapter 1, Jerome alone produced three Latin redactions of Psalms: the Roman Psalter (*Romanum*, 382-85) based on the Old Latin version, the Gallican Psalter (*Gallicanum*, 386-7) based on the Hexapla, and the Psalter *Iuxta Hebraeos* (*Hebraicum*, 392-3) based on the Hebrew. Each of these versions was favoured in a particular geographical area.<sup>418</sup> In addition, Milan used its own Old Latin version, the Ambrosian Psalter, and Christian communities in Spain used another Old Latin version, the Mozarabic Psalter.<sup>419</sup> The existence of multiple text versions of the Psalter was a source of Carolingian concern.<sup>420</sup> Particularly given the central role of the Psalms in monastic prayer, Carolingian political and intellectual elites had a reason to ensure that they were performed uniformly throughout the Christian *imperium*. To achieve this, they used a similar strategy as in the case of the reform of liturgical practices or of monastic rules – introduction of a single authoritative model for the *renovatio*, disseminated from the central *loci* of the Empire.<sup>421</sup> The Carolingian choice went to the *Gallicanum*, which was used in some parts of Gaul since Late Antiquity and which was established as the Carolingian Psalter *par excellence* in the course of the eighth and ninth centuries.<sup>422</sup>

As noted in chapter 1, the Gallican Psalter was the only version of the Book of Psalms equipped with critical signs, the *asterisivi* (✠) and the *obeli* (⚡), which were placed in the Hexapla by Origen and taken over by Jerome. These were a source of additional concern on the part of the Carolingian reformers, who knew about the critical signs from Jerome and other Church Fathers. However, many of the exemplars of the Gallican Psalter

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<sup>417</sup> For a more detailed discussion of the role of the Psalter in early and later medieval life, see Gross-Diaz, 'The Latin Psalter', 427.

<sup>418</sup> Fischer, 'Die Texte', 223. *Romanum* was used in England, Germany, southern and central Italy, and parts of Gallia, *Gallicanum* in Ireland and in some regions in Gallia, and *Hebraicum* gained some popularity in parts of Spain, while it was also used in scholarly editions of the Psalter and for advanced study.

<sup>419</sup> For other text versions, see Gross-Diaz, 'The Latin Psalter', 429–30.

<sup>420</sup> See Fischer, 'Bibeltext und Bibelreform', 193.

<sup>421</sup> It has now been discounted that there was a single *locus* of reform or that it was Charlemagne's court, as once proposed by Traube; see Contreni, 'The Pursuit of Knowledge in Carolingian Europe', 110–11; and more recently Contreni, 'Learning for God', 90. Rather, it is likely that the dissemination occurred from several interconnected places in the central region of the Carolingian realm. By the High Middle Ages, the Gallican Psalter was by far the most wide-spread version of the Psalms in use in the Latin West, substituting the previously dominant *Romanum*; see Fischer, 'Die Texte', 224; and Gross-Diaz, 'The Latin Psalter', 429.

<sup>422</sup> Fischer, 'Bibeltext und Bibelreform', 193–94. It is not clear why the *Gallicanum* was preferred over the *Romanum* (which was more wide-spread in the Frankish lands before the reform and moreover connected with the spread of Benedictine monasticism) or the *Hebraicum* (which was the version preferred by Jerome and would accord better with the other books of the Bible, which also belonged to Jerome's *Iuxta Hebraeos* revision).

found in Gaul at the time of the reforms no longer contained these signs:<sup>423</sup> they had been dropped because of faulty copying and for the convenience of the liturgical performance.<sup>424</sup> Carolingian thinkers perceived their absence as a corruption of the Psalter, which needed to be remedied. This was done not only on the basis of available manuscripts of the *Gallicanum* equipped with some signs and Jerome's writings – in this respect letter 106 to Sunnia and Fretela, which could be used as a guide for a revision of the Psalter in accordance with the tenets of Origenian textual criticism (see chapter 1, p. 42), was essential<sup>425</sup> –, but also on the basis of other text versions. The early medieval revisers used *Iuxta Hebraeos* to emend the *Gallicanum* on the premise that both derived from the same, divinely inspired Ur-text.<sup>426</sup> For the same reason, Greek Psalters could be used to emend the Greek readings in the Gallican Psalter. The differences between readings found in various manuscripts – as far as they reflected the Greek and the Hebrew – could be expressed by means of *asterisci* and *obeli*. The result was a hyper-corrected Gallican Psalter, which contained more critical signs than were originally present in Jerome's archetype.<sup>427</sup> Today, this hypercorrection may strike us as erroneous; however, the goal of the Carolingian reforms was not to reconstruct Jerome's archetype faithfully, but rather to create a hermeneutically superior, emended text of Psalms. Textual contamination was perceived as useful, if not fundamental, to this goal.

The oldest traces of a correction of the Gallican Psalter against the Psalter *Iuxta Hebraeos* can be detected already in the Cathach of St. Columba (6<sup>th</sup> century, 2/2), an Irish *Gallicanum* treasured in Ireland as written by St. Columba himself.<sup>428</sup> Just as in the Frankish

<sup>423</sup> McNamara, 'Psalter Text and Psalter Study', 107–108; Fischer, 'Bibeltext und Bibelreform', 265; Fischer, 'Die Texte', 259; Gross-Diaz, 'The Latin Psalter', 429. Compare with the absence of the *asterisci* in Job; Gentry, *The Asterisked Materials in the Greek Job*, 1–2.

<sup>424</sup> Fischer, 'Bibeltext und Bibelreform', 194. See also Heinrich Schneider's remarks about the Milanese revision of the Psalter discussed below; Schneider, *Die allateinischen biblischen Cantica*, 106.

<sup>425</sup> Its early transmission and reception has been explored by Bernice Kaczynski and Rosamond McKitterick; see Kaczynski, 'Greek Glosses on Jerome's Ep. CVI'; McKitterick, 'Takamiya MS 58'. McKitterick, for example, shows that letter 106 was commonly used as a preface to the Psalter, in particular in the double, triple and quadruple Psalters; *Ibid.*, 7. She gives several examples of such manuscripts, including **Vatican, BAV, Reg. Lat. 11** (CLA I 101, mid-8<sup>th</sup> century or 2/2, northern France), the oldest witness of this text. Kaczynski focuses on the set of learned annotations to letter 106 in **Berlin, Staatsbibliothek, MS 17 (Phillipps 1674)** (9<sup>th</sup> century, 1/3, Verona), another early witness of this text. Letter 106 was also used for the revision of **London, BL, Harley 2793**, a Psalter *Iuxta Hebraeos* produced between 841 and 860 at Tours; Fischer, 'Bibeltext und Bibelreform', 170. The overview of eighth- to tenth-century manuscripts containing this letter is provided in Lambert, *Bibliotheca Hieronymiana manuscripta*, 870–73.

<sup>426</sup> Compare Gross-Diaz, 'The Latin Psalter', 434–35.

<sup>427</sup> The pioneer who demonstrated that the early medieval Gallican Psalters were contaminated by the *Hebraicum* was Alfred Rahlfs, the editor of the Hexaplaric Psalms. By comparing the Latin manuscripts with the Greek Hexaplaric manuscripts and Syro-Hexapla, he was able to show that the Latin codices contain signs that are superfluous; see Rahlfs, *Der Text des Septuaginta-Psaltern*, 131. In his opinion, this revision had no single source, but reflected the work of multiple revisers; *Ibid.*, 133.

<sup>428</sup> This revision is discussed in McNamara, 'Psalter Text and Psalter Study', 29–31 and 108–10. According to his biographers, Columba died while copying a Psalter at Iona. The old Irish *Amra Coluim Chille* credits him

lands, these Irish attempts at a correction of the Psalter followed the adoption of the Gallican Psalter in Ireland, which seems to have prompted similar revisionist tendencies as in Francia and led to the study of Origen's critical method.<sup>429</sup> This earlier Irish revival of textual criticism may have contributed to the development on the Continent,<sup>430</sup> but the Frankish attempts to emend the *Gallicanum* were mostly rooted in the local, Gaulish manuscripts and should be seen as independent attempts stemming from the adoption of the Gallican Psalter in the Carolingian territory.<sup>431</sup>

The earliest written evidence for the resurgence of interest in Origenian textual criticism in the Frankish world is a prologue to the Psalter found in two manuscripts: **Stuttgart, Württembergische Landesbibliothek, Bibl. fol. 23** (9<sup>th</sup> century, 1/2, St. Germain des Prés), and **Vatican, BAV, Vat. Lat. 5729** (10<sup>th</sup>/11<sup>th</sup> century, Ripoll).<sup>432</sup> This prologue originally accompanied a *psalterium duplex* consisting of the Gallican Psalter and the Psalter *Iuxta Hebraeos*<sup>433</sup> which is now lost (the Stuttgart Psalter is a pure *Gallicanum* and the Ripoll manuscript is a Theodulfian Bible, and as such contains the Psalms in a version *Iuxta Hebraeos*; neither of them, thus, contains the text for which the prologue was intended). The Ripoll manuscript ascribes this prologue to Isidore of Seville, but as Bonifatius Fischer showed, it is a pseudo-Isidorian work of Frankish origin.<sup>434</sup> Fischer was also able to show that the Stuttgart Psalter shares a common ancestor with the Alcuin Bible

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with critical work on the Psalms, which seems to have included also some engagement with the *asterisci* and the *obelis*; see *Ibid.*, 30. It is unlikely that the Cathach is the work of Columba himself, but rather seems to have been made by his pupils. The manuscript is described at: <https://www.ria.ie/library/special-collections/manuscripts/cathach.aspx>.

<sup>429</sup> Some examples of a new *doxa* that came into being in the context of this study can be found in Hiberno-Latin and Irish commentaries on the Psalter from this period, for example in the so-called 'Irish Reference Bible' (**Munich, BSB, Clm 14276**, beginning of the 9<sup>th</sup> century, Regensburg), the *Ecloga tractatorum in psalterium* (**St. Gallen, Stiftsbibliothek, MS 261**, 9<sup>th</sup> century, 1/2, St. Gall), and the Old-Irish commentary on the Psalms (**Oxford, Bodleian Library, Rawlinson B 512**, 15<sup>th</sup> century, but the text was dated to the 9<sup>th</sup> century, 1/2). See Appendix II, item 40a. While the Irish were interested in the technical signs used for Origenian textual criticism, they seem not to have been interested in other texts about technical signs. They seem, for example, not to have studied Isidore's *De notis sententiarum*, which will be discussed in greater detail in chapter 5.

<sup>430</sup> Some of the 'false' critical signs described by Bonifatius Fischer in the Stuttgart Psalter can be traced to an insular source; Fischer, 'Die Texte', 282.

<sup>431</sup> This was the most important conclusion of Fischer, who showed that the early revisions were Frankish and not taken over from the Irish; see *Ibid.*, 283.

<sup>432</sup> It is edited and analyzed in Fischer, 'Die Texte'. The Stuttgart Psalter is digitized at: <http://digital.wlb-stuttgart.de/purl/bsz307047059>.

<sup>433</sup> A *psalterium duplex* is a Psalter, in which two different text versions are presented side by side, usually in two columns on a single page, or on two pages of an opening. Similarly, a *psalterium triplex* combines three text versions, often the *Romanum*, the *Gallicanum* and the *Hebraicum*, on one page, in a three-column layout. One example of such a *triplex* is **Karlsruhe, Badische Landesbibliothek, Aug. Perg. 38** (9<sup>th</sup> century, 1/2; Reichenau). There exist also *psalteria quadruplices*, such as the Psalter of bishop Salomon III. of Konstanz, **Bamberg, Staatsbibliothek, Msc. Bibl. 44 (olim A I 14)** (c. 909, St. Gall), in which the three Latin versions are combined with the Greek text of the Book of Psalms.

<sup>434</sup> Fischer, 'Die Texte', 260.

and **Paris, BnF, Lat. 13159** (795-800, eastern France). In his opinion, this ancestor, which he dated tentatively to 770-790 and located in Francia, was possibly the lost *psalterium duplex*.<sup>435</sup>

The prologue of pseudo-Isidore (see Appendix II, item 29) has several important features which are also characteristic of other texts that will be mentioned here.<sup>436</sup> First, while it is not devoted specifically to critical signs (it is, thus, not a sign treatise), one of its purposes is to describe them so that the users of the revised Psalter will be able to understand their function when they come across them. In this case, these are not only *asterisci* and *obelii* used for additions and omissions, but also *antigraphi* (∨), an original addition of the reviser to the system of two signs devised by Origen, which marked discrepancies between the two text versions. Second, the descriptions of these three signs were drawn from the tradition of writing about technical signs represented by the sign treatises discussed in chapter 2, specifically from *De notis sententiarum* of Isidore of Seville.<sup>437</sup> Third, the text of the prologue was modeled on the prologues of Jerome and falls into the tradition of writing about technical signs represented by this Church Father. Thus, although pseudo-Isidore made use of material belonging to the tradition of the sign treatises, he chose to write in the manner of a different tradition, even to position himself as a new Jerome. Finally, pseudo-Isidore's revision is a scholarly version of the Psalter, or at least a version that was produced by a scholar for a non-scholarly audience.<sup>438</sup> It provides evidence that already in the eighth century some scholars in the Frankish realms possessed the skills and knowledge necessary to engage in a critical assessment of a text. Pseudo-Isidore's understanding of the critical method could not be superficial since he was not a mere imitator but rather an innovator, who introduced a new critical sign, the *antigraphus*.

The second critical revision of the Psalter, that of Florus of Lyon (d. around 860), can be pinpointed on the Carolingian intellectual map with greater precision than the

<sup>435</sup> Ibid., 282–83.

<sup>436</sup> In my appendix, I used the text as edited in the *Patrologia Latina*. The prologue was more recently also edited in Ibid., 257–58.

<sup>437</sup> Compare: *Quapropter ubi in Septuaginta translatione aliquid superfluum est, virgulae † signo notatum est; ubi vero aliquid deest, ut clareat, asterici ✱ figura signatum est. Verum ubi per dissonantiam utraque invicem discrepant, antigraphus ∨ in utrisque columnis appositus est* (Appendix II, item 29); and *Etym.* 1.21.2-3 and 6: ✱ *Asteriscus adponitur in his quae ommissa sunt, ut inlucescant per eam notam, quae deesse videntur. Stella enim ἀστὴρ dicitur Graeco sermone, a quo asteriscus est derivatus. — Obolus, id est, virgula iacens, adponitur in verbis vel sententiis superflue iteratis, sive in his locis, ubi lectio aliqua falsitate notata est, ut quasi sagitta ingulet supervacua atque falsa confodiat. Sagitta enim Graece ὀβελός dicitur. ... ∨ Antigraphus cum puncto adponitur, ubi in translationibus diversus sensus habetur* (Appendix III, item 8).

<sup>438</sup> In his prologue he voices the need to understand the Psalms better by setting the two versions side by side. In his words, 'the ambiguity of an obscure verse, difficult to grasp on the basis of one text, is made clear by the consultation of the other' (*nam obscurae sententiae ambiguitas, quae per unius intellectum difficilis est, alterius inspectione aperitur*).

activity of pseudo-Isidore.<sup>439</sup> Unfortunately, just as in the case of the earlier Frankish reviser, the revised text of Florus's Psalter did not survive. A letter in which Florus described his enterprise survives in four manuscripts as a Psalter prologue (see Appendix II, item 35).<sup>440</sup> These are the already-mentioned **Vatican, BAV, Vat. Lat. 5729** (10<sup>th</sup>/11<sup>th</sup> century, Ripoll), **Ivrea, Biblioteca Capitolare, MS 30** (10<sup>th</sup> century, Ivrea, where it is attributed to Jerome), **Rome, Bib. Cas., MS 720-21** (12<sup>th</sup> century, perhaps Pistoia), and **Rome, Bib. Cas., MS 722-23** (12<sup>th</sup> century). The letter was once also included in the *Chronicon Novalicense*, the chronicle of the abbey of Novalesa in northern Italy.<sup>441</sup> It was addressed to St. Eldrad (781-844), abbot of Novalesa, who, according to this letter, asked Florus to emend a Psalter for his use. Florus responded by producing a new revision of the Psalter based on the comparison of the *Gallicanum* and the version *Iuxta Hebraeos* (like pseudo-Isidore), but also on Jerome's letter 106 to Sunnia and Fretela and on what Florus calls a *hebraicum volumen*.<sup>442</sup> Given that Eldrad became the abbot of Novalesa in 827, the revision must have taken place between this date and Eldrad's death in 844. Bogaert speculated that it was connected to the replacement of a locally used Psalter by the Frankish Gallican Psalter.<sup>443</sup>

Just like the prologue of pseudo-Isidore, Florus's letter-prologue is very descriptive and focuses on the operations Florus performed (collation of different text versions, consultation of additional sources, restitution of critical signs, removal of errors, and addition of variant readings in the margin). Moreover, Florus explicitly instructs Eldrad in which order various components, including his letter, which should be used as a prologue, should be placed in the codex containing the revised Psalter, which texts should be left out, how it should be copied (with wide margins, in order to accommodate marginal annotations), and how it should later be used and transmitted in new copies (critical signs should in no case be omitted). In contrast to pseudo-Isidore, Florus does not refer to any sign treatise. His letter-prologue is modeled entirely on Jerome's writings, and Florus, too,

<sup>439</sup> Florus's revision of the Psalter is discussed in Bogaert, 'Florus et le Psautier'.

<sup>440</sup> It was edited in MGH Epp. 5, pp. 340-43.

<sup>441</sup> This chronicle once had chapters with the titles *Epistola sancti Eideradi ad Florum directa*, *Rescriptum Flori ad beatum Elderadum*, and *Item Florus ad eundem abbatem*; see MGH Epp. 5, p. 340. Bogaert believes that the source of the Psalter prologues in the four manuscripts may have been this chronicle rather than Florus's original manuscript; Bogaert, 'Florus et le Psautier', 409.

<sup>442</sup> It is unclear what is meant by this phrase, since it seems not to be Jerome's translation from Hebrew, his *Iuxta Hebraeos*. In Florus's times, Lyon had a Jewish community which seems to have been quite active, as is evidenced by the anti-Jewish writings of Agobart of Lyon. It is, thus, not impossible that Florus, wishing to imitate Jerome, consulted members of the Jewish community or otherwise engaged them in the preparation of his revision. It is, however, highly unlikely that he himself would make use of a Hebrew manuscript of the Psalms or that he had any command of Hebrew. For the relationship between the Jews and the Christians in Lyon, see Langenwalter, 'Agobard of Lyon'. and Pez , 'Amalaire et la communaut  juive de Lyon'.

<sup>443</sup> Bogaert, 'Florus et le Psautier', 411.

presents himself as a new Jerome, especially when he complains about good-for-nothing copyists and the ever-growing number of corrupted manuscripts.<sup>444</sup> Yet, Florus was a vigorous user of technical signs and must have been familiar with sign treatises such as those discussed in chapter 2.<sup>445</sup> Like pseudo-Isidore, Florus must have been familiar with several traditions of *doxa* and chose from them what he needed. The traces of his activities as a manuscript annotator in Lyon on the one hand and his work as a reviser of the Psalter on the other illustrate wonderfully the dichotomy between *doxa* and *praxis* we have already seen in the previous chapters. The former left no trace in written record while of the latter only *doxa* survives. The two represent different aspects of his scholarly work that, as far as the evidence suggests, did not overlap.

A third critical revision of the Psalter survives in its entirety in three manuscripts: **Munich, BSB, Clm 343** (9<sup>th</sup> century, 3/4, Milan), **Vatican, BAV, Vat. Lat. 82** (9<sup>th</sup> century, 3/3), and **Vatican, BAV, Vat. Lat. 83** (9<sup>th</sup> century, 3/3).<sup>446</sup> This revision uses the Ambrosian Psalter as one of its sources, and its prologue refers to this text version as *consuetudo meae provinciae* (see Appendix II, item 38).<sup>447</sup> The reviser, thus, clearly worked in Milan, where he attempted to reconcile the Ambrosian Psalter, i.e. a version of an Old Latin Psalter used in Milan, with the *Gallicanum*, and the *Hebraicum* as well as with the Greek text of the Psalms. The anonymous reviser was once identified by Dom Morin as Sedulius Scottus<sup>448</sup> or was alternatively seen as a member of the local Irish colony.<sup>449</sup> I rather agree with the scholars who saw him as a local, Milanese man (thus *consuetudo meae provinciae*).<sup>450</sup> Evidence for the local origin of the reviser is provided in particular by parallels between the text of the revised Psalter and of the *psalterium duplex* of the Milanese priest-monk Symeon,

<sup>444</sup> MGH, Epp. 5, p. 340: *Valde mihi molesta et gravis extitit multorum codicum perplexa ac mendosa varietas, quae dormitantium librariorum exorta vitiō, imperitorum cotidie ignavia alitur ac propagatur* (see Appendix II, item 35). Perhaps, Florus's reference to *hebraicum volumen* should also be understood as a literary device that alludes to Jerome's *volumina*.

<sup>445</sup> This usage is currently being studied by Pierre Chambert-Protat, who is preparing a dissertation on this subject; Chambert-Protat, 'Florus de Lyon, lecteur des Pères.' See also Charlier, 'Les manuscrits personnels de Florus de Lyon et son activité littéraire'; Holtz, 'Le Ms. Lyon, B.M. 484 (414)'. Florus's use of *paragrapbi* (Γ) and *positurae* (⏏) for passages to be excerpted in particular seems to be rooted in *Etym.* 1.21.8-9. Other technical signs that are found in Florus's personal manuscripts also resemble the signs described in *De notis sententiarum*.

<sup>446</sup> **Munich, BSB, Clm 343** is digitized at: [http://daten.digital-sammlungen.de/bsb00015213/image\\_1](http://daten.digital-sammlungen.de/bsb00015213/image_1). **Vat. Lat. 83** is digitized at: [http://digi.vatlib.it/view/MSS\\_Vat.lat.83](http://digi.vatlib.it/view/MSS_Vat.lat.83). The revision is discussed in Morin, 'Une révision du Psautier'; Rahlfs, *Der Text des Septuaginta-Psaltern*, 91–94; Allgeier, 'Exegetische Beiträge zur Geschichte des Griechischen', 274–5; McNamara, 'Psalter Text and Psalter Study', 64–66. The description of the three manuscripts is in Huglo, 'Psalmody in the Ambrosian Rite', 120–24.

<sup>447</sup> The entire text of the preface is found in MGH, Epp. 6, ep. 33, pp. 201–5. In my appendix, I reproduce only the section concerned with technical signs (pp. 204–5).

<sup>448</sup> Morin, 'Une révision du Psautier', 196.

<sup>449</sup> McNamara, 'Psalter Text and Psalter Study', 66; Schneider, *Die altlateinischen biblischen Cantica*, 106–7.

<sup>450</sup> This is the opinion of both Rahlfs and Allgeier, as well as of Walter Berschin; Berschin, *Griechisch-Lateinisch Mittelalter*, 194–97.

preserved in **Berlin, Staatsbibliothek, Hamilton 552** (9<sup>th</sup> century, 2/2, Milan).<sup>451</sup> This manuscript is connected by virtue of its Greek column<sup>452</sup> (the other, Latin column is based on the Ambrosian Psalter) to the *psalterium quadruplex* of Solomon III. of Konstanz (**Bamberg, Staatsbibliothek, Msc. Bibl. 44 (olim A I 14)**, c. 909, St. Gall).<sup>453</sup> Quite possibly, the Greek Psalters to which the anonymous Milanese reviser referred as one of his sources was identical with this northern Italian Greek text. His revision was a local intellectual project, although the impetus for it may have been the propagation of the Gallican Psalter, the other major source of the revision, in northern Italy.<sup>454</sup>

Like pseudo-Isidore and Florus of Lyon, this Milanese reviser was a scholar, who produced an emended Psalter version for his community.<sup>455</sup> His revised Ambrosian Psalter attests not only to a good knowledge of Origen's critical method but also to a true mastery of it. On top of the *asterisci* and the *obeli*, which he took over from the *Gallicanum*, the Milanese reviser used five additional critical signs to express four types of errors (*vitia*): omissions (*detractiones*), additions (*adietiones*), variations (*mutationes*), and transpositions (*transmutationes*).<sup>456</sup> These are: *theta* (⊕) for passages he found only in the *Ambrosianum*, but not in Greek or Hebrew; *psi* (Ψ) for passages which are different in Greek and in Latin (i.e. in the Gallican and the Ambrosian Psalter?); *chresimon* (⌘) for passages found in Greek and Hebrew, but not in the *Ambrosianum*; *et* (⊔) for 'and' found in Greek but not in Latin (apparently this variation was frequent and deserved a separate critical sign); and *diastole* (⊃), which serves as an equivalent of a *metobelus/duo puncta* to provide the closing parenthesis for passages marked with *theta* or *psi*. Similarly to pseudo-Isidore, then, the Milanese reviser expanded the original Origenian system, in this case not only to add new functions, but also to increase the number of compared text versions from two to three (Greek, Hebrew, and Latin). The result was perhaps the most complex critical work of the early medieval Latin West, more akin to modern critical editions than to an ancient or medieval ἔκδοσις.

<sup>451</sup> Schneider, *Die allateinischen biblischen Cantica*, 105–6.

<sup>452</sup> See footnote 433.

<sup>453</sup> Allgeier, 'Exegetische Beiträge zur Geschichte des Griechischen', 271–72.

<sup>454</sup> Allgeier saw it as a defense of the Ambrosian Psalter against the Gallican Psalter; *Ibid.*, 275.

<sup>455</sup> In his prologue, he explicitly refers to his desire for *veritas* to replace fanciful chant in the mouths of those performing the Psalms; MGH, Epp. 6, ep. 33, p. 203: *nisus sum, ut in ore psallentis magis veritas resonet quam carmen strophosum*. He also refers to the addressees of his revision as *mi fratri dilectissimi*, i.e. the members of the monastic community to which he also belongs.

<sup>456</sup> One of the sections of his prologue is called explicitly *De vitiiis*, see MGH, Epp. 6, ep. 33, p. 202. The degree of reflection embodied in this section is outstanding and clearly shows that the reviser of the Ambrosian Psalter understood both Origen's method and the theory of what we might call textual criticism well.

The prologue of the Milanese reviser shares features with the prologues of pseudo-Isidore and Florus of Lyon. The material for *chresimon* is taken from *De notis sententiarum*<sup>457</sup> and for *theta* and *diastole* from other parts of the *Etymologiae*.<sup>458</sup> The influence of sign treatises on the work of the Milanese reviser is also evident from the fact that the five critical signs added to the revision are described in a separate section of the prologue entitled *De notis*.<sup>459</sup> This section has its own rubricated micro-contents page (perhaps inspired by Greek sign treatises) and has a list-like format. The rest of the prologue is, again, modeled on the writings of Jerome. Furthermore, the Milanese reviser used Jerome's letter 106 to Sunnia and Fretela, as well his letter 112 to Augustine, both of them concerned with Origen's critical method.<sup>460</sup>

Although each of the three revisions that have been described in the previous paragraphs reflects particular conditions and local contexts, at the same time they fit into the same picture. All three can be seen as a response to the diffusion of the Gallican Psalter promoted by the Carolingian reform. This also agrees with the chronology of the reform, which first occurred in the central Carolingian zone, and later spread into other areas under Carolingian control, such as northern Italy, where the Gallican Psalter competed with local text versions of the Psalms.

This double-fold trend – the dissemination of the *Gallicanum* and in its wake the restitution of critical signs in it – is discernible also in a number of manuscripts other than those connected with the three scholarly revisions of the Psalter. The best evidence for the impact of the reform is that by the High Middle Ages the Gallican Psalter had replaced the locally used Psalters in several areas of Western Europe.<sup>461</sup> Alfred Rahlfs observed that the hyper-corrective *asterisci* and *obelii* introduced in the late eighth and ninth centuries can still be found in manuscripts as recent as the eleventh century.<sup>462</sup> Together with these newly disseminated *Gallicana* spread both the awareness of the Origenian critical method and a general interest in technical signs and their potential utility. The three scholarly revisions should be seen as illustrative of this broader development, which, for the most part, left no

<sup>457</sup> The description of *chresimon* contains the definition from *Etym.* 1.21.22.

<sup>458</sup> The definition of *theta* is taken from *Etym.* 1.3.8 and 1.24.1; and the definition of *diastole* from *Etym.* 1.19.7. *Et* is inspired by the Tironian shorthand, a different type of *notae*, and for *psi* there exists no precedent in *doxa*, although it is known from *praxis* – it can be found for example on fol. 47v of **Oxford, Bodleian Library, Rawlinson B 502** (12<sup>th</sup> century, 2/4, Ireland), digitized at: <http://image.ox.ac.uk/show?collection=bodleian&manuscript=msrawlb502>.

<sup>459</sup> In **Munich, BSB, Clm 343**, the general title of this prologue is *Prologus psalterii* (fol. 1v). It is subdivided into section *De vitiis* (fol. 3r) and *De notis* (fol. 6r).

<sup>460</sup> Other texts he refers to include Quintilian's *Institutiones* and Jerome's preface to the Gallican Psalter and *Tractatus in Psalmis*; see McNamara, 'Psalter Text and Psalter Study', 66.

<sup>461</sup> See Fischer, 'Bibeltext und Bibelreform', 193; McNamara, 'Psalter Text and Psalter Study', 103.

<sup>462</sup> Rahlfs, *Der Text des Septuaginta-Psalters*, 131.

written trace in the form of technical prologues or similar texts. In many cases, the evidence shows us the work of local scholars (or simply senior, knowledgeable members of monastic communities), who added some critical signs into one or more copies of the Gallican Psalter available to them, not necessarily consistently, competently or with a well-thought programme in mind.<sup>463</sup> This group of sign users should be most likely also associated with the marginal notes and glosses found here and there in Carolingian manuscripts and referring to the Origenian critical signs (but never to other signs, see Appendix II, items 40b-c). Nevertheless, that the reform and the interest in Origenian textual criticism initiated by the reform was not entirely decentralized or left to chance is suggested by the fact that one of the media for spreading the ideas of the reform was the Tours Bible.<sup>464</sup>

The Tours Bible was the intellectual offspring of Alcuin's revision of the Bible mentioned above (see p. 122). Alcuin chose the *Gallicanum* as the text version of the Book of Psalms in this revision (for comparison, Theodulf chose *Hebraicum* for his revision).<sup>465</sup> As a result, the Tours Bibles, which were to become the icon of the Carolingian reform, too, contained the Gallican Psalter. The pandect Bibles produced at Tours during Alcuin's abbacy (796 – 804) do not contain *asterisci* and *obeli*,<sup>466</sup> the restitution of which belongs to the package of changes to the original Alcuin Bible made by Alcuin's successors, Fridugisus (807 – 834), Adalhard (834 – 843) and Vivien (843 – 851).<sup>467</sup> David Ganz showed that Tours served as a Bible-producing manufacturer from which pandect Bibles, Gospel books and Psalters were distributed in the course of the first half of the ninth century.<sup>468</sup> In the

<sup>463</sup> Examples include **Reims BM 2**, the so-called Hincmar Bible (9<sup>th</sup> century, Reims), in which *obeli* are absent from the first page of the Book of Psalms, but were added from fol. 2r onwards; **Zürich, Zentralbibliothek, C.12** (9<sup>th</sup> century, perhaps Reichenau), in which *asterisci* and *obeli* were added here and there *sup. lin.*; as well as the Stuttgart Psalter (**Stuttgart, Bibl. fol. 23**, 9<sup>th</sup> century, 1/2, St. Germain des Prés), in which some of the critical signs were added secondarily. However, other Carolingian Gallican Psalters are completely devoid of signs, for example, the Utrecht Psalter, **Utrecht, UB, MS 32** (820-30, Hautvilliers), **Amiens BM 18** (9<sup>th</sup> century, in., Corbie); the Golden Psalter, **Vienna, ÖNB, Lat. 1861** (783-95, royal court), and in **Karlsruhe, Badische Landesbibliothek, Aug. Perg. 37** (9<sup>th</sup> century, 1/2; Reichenau).

<sup>464</sup> The production and dissemination of Tours Bibles was studied by Bonifatius Fischer and by David Ganz; see Fischer, *Die Alcuin-Bibel*; and Ganz, 'Mass Production of Early Medieval Manuscripts'.

<sup>465</sup> Fischer moreover affirms that the version Alcuin used was Gaulish, not Irish; Fischer, 'Bibeltext und Bibelreform', 173. As in the case of the Carolingian reform, it is unclear, why Alcuin preferred the *Gallicanum* over the *Romanum*, which was the version favoured both in Anglo-Saxon England and in parts of Gaul; see *Ibid.*, 194.

<sup>466</sup> The only pandect Bible produced under Alcuin that contains traces of *asterisci* and *obeli* is **St. Gallen, Stiftsbibliothek, MS 75** (c. 800, Tours). They are present in p. 462, the first page of the Book of Psalms, but otherwise they are absent from the text, see at: <http://www.e-codices.unifr.ch/en/csg/0075/463/0/Sequence-271>.

<sup>467</sup> Fischer, 'Bibeltext und Bibelreform', 171. Other changes implemented by these two abbots include contamination of the Vulgate text of Acts and Pauline epistles by Old Latin and also some changes in the Octateuch. See also Ganz, 'Carolingian Bibles', 332.

<sup>468</sup> He estimates that approximately two Bibles were produced at Tours every year; Ganz, 'Mass Production of Early Medieval Manuscripts', 53.

case of the revision of the Gallican Psalter and revival of Origenian textual criticism, Tours-produced manuscripts should be seen as an important medium of innovation and change, which served to introduce these novel trends to other communities.<sup>469</sup> Some of the local attempts at the revision of the Gallican Psalter may have been very well carried out under the influence of Tours Bibles.

The Tours Bible can be seen as a reflection of official Carolingian policies.<sup>470</sup> It is, thus, of paramount importance that it contains the revised critical signs from the 810s onwards. The restitution of *asterisci* and *obeli* in the Gallican Psalter was part and parcel of the whole package of intellectual revival during the Carolingian period. It should be seen as stemming from the same Carolingian reform movement as many other intellectual developments in this period. Since it seems to precede the compilation and copying of the sign treatises discussed in chapters 2 and 3, as well as the developments that will be illustrated in the following two chapters, it seems to me that the adoption of the *Gallicanum* – along with the need to understand and implement Origenian textual criticism stemming from it – provided one of the initial impetuses behind the revival of interest in technical signs and sign treatises in the Frankish area. It may have provided a model for the production of the texts discussed below, and was perhaps crucial for the introduction of the technical signs into the teaching of grammar, which is discussed in chapter 5.

### Textual criticism applied to other texts

Another effect of the Carolingian revival of Origenian textual criticism in the service of biblical scholarship was that the same critical method began to be also applied to texts other than the Bible. In this section, I will present a few examples. Some have not yet been noticed by modern scholars, since in order to see the critical signs it is necessary to consult the manuscript in full detail, as the signs are not always immediately visible or do not occur consistently throughout the entire codex. It is probable that some relevant manuscripts with critical signs escaped my attention, because they were not easily accessible and also since it is not always easy to discern the signs or to ascertain that they reflect textual criticism.

In non-scriptural manuscripts, the Origenian critical signs appear in two distinct manners, just as in the Bible. The *obelus* (⚭) was either used together with a *metobelus/duo puncta* (:), which provided a closing parenthesis for the passage marked, usually a single

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<sup>469</sup> For the spread of this innovation, see Fischer, 'Bibeltext und Bibelreform', 174–75.

<sup>470</sup> Ganz, 'Book Production', 800.

word or several words, just as in the Psalter. Alternatively, the *obelus* was employed alone, placed in the margin to mark a longer passage, as in the Books of Esther and Daniel. A well-known example of the first type is **St. Gallen, Stiftsbibliothek, MS 914** (9<sup>th</sup> century, 1/3, St. Gall),<sup>471</sup> a manuscript connected with yet another important chapter of the Carolingian *renovatio* – the reform of the Benedictine rule.

In 787, Charlemagne visited Monte Cassino where a manuscript believed to be Benedict's autograph of the Rule had been kept since the re-founding of the abbey in 718. Shortly thereafter, he asked abbot Theodemar for a copy of this codex.<sup>472</sup> This copy, the so-called Aachen *Normalexemplar*, was kept in Aachen. Prior to Charlemagne's acquisition of a copy of the Monte Cassino codex, the text of the Rule of Benedict had been known in the Frankish lands only in its 'contaminated' version. The Aachen *Normalexemplar* contained the 'pure' text version, which stimulated new intellectual activity. Several manuscripts, including the St. Gall manuscript, were produced in the following decades on the basis of this Aachen *authenticus*.<sup>473</sup>

**St. Gallen 914** is unique among them as it provides a critical comparison between the 'pure' and the 'contaminated' text. The 'pure' text version was placed in the main text window while variant readings taken from the 'contaminated' text version are present in the margin. Moreover, its makers used a combination of *obelus* and *metobelus/duo puncta* in the main text to mark letters, syllables or words that appeared in the 'pure' but not in the 'contaminated' text of the Rule, i.e. they could be found in the *authenticus* from Aachen, but not in other manuscripts.<sup>474</sup> The variant readings were marked by two *metobeli* and the respective variant (or in some cases several variants) was then placed in the margin.<sup>475</sup> In some cases, a *metobelus/duo puncta* or a *trigon* placed between words coupled with a variant reading in the margin indicates that a particular reading was found only in the 'contaminated' and not in the 'pure' text version. The makers of the revised version, thus,

<sup>471</sup> The manuscript is digitized at: <http://www.e-codices.unifr.ch/en/searchresult/list/one/csg/0914>. It was studied by Ludwig Traube, see Traube, *Textgeschichte der Regula S. Benedicti*, 51–53 and 66–67. Its facsimiles was edited by Germain Morin and others as Morin, Probst, and Amelli, *Regula Benedicti*.

<sup>472</sup> See Traube, *Textgeschichte der Regula S. Benedicti*, 31–32. The letter of Theodemar to Charlemagne concerning this project is edited in MGH Epp. 4, pp. 509–14. It is found in many copies of the Rule, which suggests that it may have been attached to this copy of the Rule and circulated with it. According to Traube, after Charlemagne's death, this *codex authenticus* was kept at the monastery of Benedict of Aniane at Inda-Kornelimünster close to Aachen.

<sup>473</sup> See *Ibid.*, 32–34.

<sup>474</sup> For example in p. 77,  $\text{↯}n\text{↯}ullo$  and  $\text{luctu}\text{↯}m\text{↯}$ , at: <http://www.e-codices.unifr.ch/en/csg/0914/77/0/Sequence-713>.

<sup>475</sup> For example in p. 73, in main text  $\text{↯}dispensationem\text{↯}$ , in the margin  $\text{↯}dispositionem\text{↯}$ , at: <http://www.e-codices.unifr.ch/en/csg/0914/73/0/Sequence-713>. However, the *obelus-metobelus* combination is also used sometimes for variance, as in p. 74,  $\text{↯}u\text{↯}$ , in the margin  $\text{↯}el\text{↯}$ , at: <http://www.e-codices.unifr.ch/en/csg/0914/74/0/Sequence-713>.

adopted the critical signs used in the Gallican Psalter, although they used two *metobeli* rather than *asterisci* with *metobeli* for readings that were not found in the *authenticius*.<sup>476</sup>

This critical revision of the Rule of Benedict can be associated with a letter that survives in **St. Gallen 914** in pp. 202-203<sup>477</sup> and which probably served as an accompanying letter-prologue to this work, similar to the letter of Florus of Lyon to Eldrad of Novalesa discussed above. It was written by two Reichenau monks, Tatto (d. 847, teacher of Walahfrid Strabo) and Grimald (c. 800 – 872, also Walahfrid’s teacher and later abbot of St. Gall) and addressed to Reginbert, the *bibliothecarius* of Reichenau (d. 846). It responds to the request of Reginbert for a copy of the normative exemplar, which the two monks were to make when they visited Aachen.<sup>478</sup> Tatto and Grimald fulfilled Reginbert’s wish and – as they explain in their letter – also added variant readings *de aliis regulis a modernis correctis magistris* in the margins (see Appendix II, item 32). As the letter explicitly refers to the use of *duo puncta* for marking these variant readings, as well as to readings not found in the *neoterici* and marked *oboelo et punctis duobus*, it is clear that it describes the revision present in **St. Gallen 914**. Traube believed that the manuscript was the copy made by Tatto and Grimald, which later found its way to St. Gall.<sup>479</sup> He was corrected by Bernhard Bischoff, who showed that the manuscript was copied directly at St. Gall and suggested that it is a copy of the Reichenau manuscript,<sup>480</sup> mentioned in the Reichenau library catalogue of Reginbert (before 842).<sup>481</sup>

The letter of Tatto and Grimald shares many characteristics with the prologues to the revised Psalters discussed above and should be considered another piece of ‘new’ *doxa* about technical signs produced in the Carolingian period. It describes the activities that led to the making of the revised Rule and provides information about the critical signs necessary for their comprehension. Although its authors quote neither Isidore nor Jerome, the *obeli* and *metobeli/duo puncta* certainly go back to Jerome via the Gallican Psalter. The activities of the two Reichenau monks can be seen as a reflection of the influence of the

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<sup>476</sup> It is noteworthy that the revisers chose the *obelus* for variant readings present in the ‘pure’ text, but not in the ‘contaminated’ text of the Rule rather than vice versa. In the Hexapla and the Gallican Psalter, *obelus* was reserved for readings not found in Hebrew, i.e., going against the *hebraica veritas* and thus, potentially, having less authenticity. This choice of signs may imply that the ‘contaminated’ text, marked with the ‘Hebrew’ signs, had a higher authority for the revisers than the ‘pure’ text, marked with the ‘Greek’ signs.

<sup>477</sup> At: <http://www.e-codices.unifr.ch/en/csg/0914/202/0/Sequence-713>.

<sup>478</sup> The letter is edited in MGH Epp. 5, p. 302. It is dated to 817 or shortly after and may be connected to the *legatio* of the two monks to the Council of Aachen in this year, which is described in another letter addressed by them to their abbot Haito; see MGH Epp. 5, pp. 305-307.

<sup>479</sup> Traube, *Textgeschichte der Regula S. Benedicti*, 66–67.

<sup>480</sup> Morin, Probst, and Amelli, *Regula Benedicti*, viii–xiv.

<sup>481</sup> Becker 10.20: *in vigesimo libello est regula sancti Benedicti abbatis et hymni Ambrosiani et epistola ad regem Karolum de monasterio S. Benedicti directa et capitulares ... de statu regulae et martyrologium per anni circulum, quem Tatto et Crimolt mibi condonaverrunt.*

revision of the *Gallicanum*: they embody the very same notions of difference between two versions of text, in this case not of Hebrew and Greek, but of the ‘pure’ and the ‘contaminated’ version of the Rule of Benedict. The revised Rule was produced for the monks of Reichenau and can thus be seen as a scholarly product meant for a not necessarily scholarly audiences, just as we saw with the Psalters. It is remarkable that Grimald must have been in his late teens or early twenties when he produced the revised Rule (perhaps he was an assistant of Tatto). He must have been only slightly older than the pupils that frequented Alcuin’s *scola* as pictured in the *De grammatica* and who, as will be shown in chapter 5, were required to learn about *asterisci* and *obeli* (see p. 189).<sup>482</sup>

I came across five other manuscripts that contain *obeli* and *metobeli*. In these, however, critical signs are used in a less consistent and less sophisticated manner and without a prologue explaining their purpose. The most interesting of these is **Schaffhausen, Stadtbibliothek, Min. 42** (9<sup>th</sup> century, 2/4, Mainz), a copy of the *Etymologiae* of Isidore of Seville.<sup>483</sup> Critical signs in this manuscript in some cases reflect corrections for which no second exemplar of the text was needed,<sup>484</sup> and in other cases variant readings based on other manuscripts of the *Etymologiae*.<sup>485</sup> Just as the Psalms and the Rule of Benedict, the *Etymologiae* was known in several distinct textual versions in the Early Middle Ages.<sup>486</sup> Carolingian scholars had reasons to compare their manuscripts of the *Etymologiae*. Indirect evidence for critical work on the *Etymologiae* is provided by the family ζ of this text, which is

<sup>482</sup> A passage in Notker Balbulus can be understood as indicating that Grimald was a student of Alcuin; see MGH SS. rer. Germ. n.s. 12, p. 11.

<sup>483</sup> I have personally examined this manuscript at Schaffhausen in January 2014. For its description, see Gamper, Knoch-Mund, and Stähli, *Katalog der mittelalterlichen Handschriften der Ministerialbibliothek Schaffhausen*, 134–35.

<sup>484</sup> Unfortunately, I was unable to analyze the passages marked by *obeli* and *metobeli* in detail. Here I provide several examples of passages marked to correct ungrammatical text in the first folia of the manuscript and provide a comparison with the edition of the *Etymologiae* produced by W.M. Lindsay; Lindsay, *Etymologiae*.

fol. 1v: *De navibus, junibus et retibus, de fabris fratriis et fabricis parietum et cunctis instrumentis aedificiorum, de lanificiis quoque, ornamentis et vestibus* ↗*universis* ⚡ (no similar variant reading found in the edition, see *Index librorum*, book XIX);

fol. 3r: ↗*et lacrimabiles* ⚡ *et calumniabiles lacrimae* (should be *et lacrimabiles calumniae et calumniabiles lacrimae*, no similar variant readings recorded by Lindsay, see letter IV, ll. 10–11);

fol. 24r: *Inter barbarismum et figuras* ↗*hoc est* ⚡ *latinam et perfectam elocutionem (constat sup. lin.) metaplasmum esse* (here the *hoc est* was marked as superfluous by error, no similar variant reading is recorded by Lindsay, see *Etym.* 1.35.7)

fol. 32r: *omnis* ↗*hominis* ⚡ *elabitur* (no similar variant reading is recorded by Lindsay, see *Etym.* 2.2.2);

fol. 44v: *DE FORMIS SYLLOGISMORUM* ↗*DALECTICIS* ⚡ (should be *DE SYLLOGISMIS DALECTICIS*, no similar variant reading is recorded by Lindsay, see *Etym.* 2.28).

<sup>485</sup> This is the case, for example, of a passage marked on fol. 32r: ... *usta et bona* ↗*in rerum personarumque negotii causa* ⚡ *Dicta autem rhetorica ...*, from *Etym.* 2.1.1. The marked passage is found in manuscript **Bern, Burgerbibliothek, MS 101** (9<sup>th</sup> century, 1–2/3, Loire area). Similarly, a passage marked on fol. 154v (*promissa re* ↗*data* [erasure] *ut compleatur* ⚡) is a variant reading found in **Bern 101** (see *Etym.* 9.7.6).

<sup>486</sup> See Porzig, ‘Die Rezensionen der *Etymologiae*’; Reydellet, ‘La diffusion des *Origines*’.

a mixed form based on the three older families of the *Etymologiae* (known as  $\alpha$ ,  $\beta$  and  $\gamma$ ). According to Marc Reydellet, this hybrid branch can be first attested in the ninth century in the area of Switzerland and Germany.<sup>487</sup> Unfortunately, the activity of the annotator of this manuscript can neither be connected to the formation of this hybrid family nor with other marginalia in the manuscript.<sup>488</sup>

Passages marked with *obeli* and *metobeli* are also present on fols. 9v, 10v, 19v and 20r of **Amiens BM 220** (9<sup>th</sup> century, Corbie<sup>489</sup>), an exemplar of Paterius's *Liber testimoniorum veteris testamenti*, a compilation made on the basis of the works of Gregory the Great.<sup>490</sup> A contemporary annotator writing in ink darker than the ink of the main text added them slightly above the line to four sentences, in all likelihood to indicate that they differ from the reading of Gregory's *Homiliae in Ezechielem*.<sup>491</sup> Another ninth-century manuscript from Corbie, **Paris, BnF, Lat. 13174**, an exemplar of the Acts of the Apostles, Catholic Epistles and the Apocalypse, contains an *obelus* and *metobelus* to Apc 16, 7.<sup>492</sup> In **Munich, BSB, Clm 6242** (9<sup>th</sup> century, ¼, Freising), a copy of the *Dionysio-Hadriana*, an annotator marked three passages with critical *obeli* and *metobeli* on fols. 174r, 258r and 265r.<sup>493</sup> Finally, three passages are marked with a pair of *obeli* (one of them acting as a *metobelus*) in the Bobbio Orosius,

<sup>487</sup> See Reydellet, 'La diffusion des Origines', 433. Note also that St. Gall possessed a relatively large number of codices of the *Etymologiae*, including some which contained very ancient features and features characteristic of the Spanish manuscripts; *Ibid.*, 422.

<sup>488</sup> **Schaffhausen 42** contains corrections, variant readings and annotations in the margins from both contemporary and more recent hands. See the catalogue description in Gamper, Knoch-Mund, and Stähli, *Katalog der mittelalterlichen Handschriften der Ministerialbibliothek Schaffhausen*, 134–35. Walter Porzig remarks that **Schaffhausen 42** originally contained books seven to ten divided according to an order found only in the oldest manuscripts, but a hand writing in the margin 'updated' this order to one commonly found in ninth-century manuscripts. Perhaps this hand is identical with the hand of the critical annotator; Porzig, 'Die Rezensionen der Etymologiae', 138.

<sup>489</sup> In CLA, this manuscript is dated to the second half or the end of the eighth century; CLA VI.711.

<sup>490</sup> The manuscript is digitized at: <http://gallica.bnf.fr/ark:/12148/btv1b8452176j>. It is described in Ganz, *Corbie in the Carolingian Renaissance*, 132.

<sup>491</sup> He can be distinguished as a corrector of the same manuscript particularly on fols. 19v and 20r. The passage marked on fol. 19v reads  $\nabla$ *Et gentilis populus dum se peccatorem confiteri non erubuit, carnis in se peccata mactavit* $\blacktriangleright$ . This is a variant recorded only by Paterius. The original passage in the *Homiliae in Ezechielem* prophetam 1.6 *Et gentilis populus carnis quidem in se peccata mactavit, sed coopertum se peccatis carnalibus confiteri non erubuit*, see CCSL 142, p. 68. Similarly, on fol. 20r, **Amiens 220** reads  $\nabla$ *Et quia electorum populus in universo mundo virtutibus redolet, odor fidei odor est agri pleni* $\blacktriangleright$ , another variant found only in Paterius, while the original passage in the *Homiliae in Ezechielem* 1.6 reads *Et quia gentilis populus ad fidem perductus per electos suos in universo mundo virtutibus redolet, odor filii odor est agri pleni*, see CCSL 142, p. 69.

<sup>492</sup> On fol. 126r:  $\nabla$ *Et audivi alterum dicens* $\blacktriangleright$  *etiam domine Deus omnipotens vera et iusta iudicia tua*. This manuscript is digitized at: <http://gallica.bnf.fr/ark:/12148/btv1b8427447k/f261.item>. The passage marked with critical signs was also equipped with a variant reading in the lower margin reading *Et audivi ab altari dicentem*, but it is unclear to me whether the hand that made this marginal note is the same as the hand that added the signs. The original reading of the text seems to correspond to the Old Latin, while the marginal variant reading is closer to the text of the Vulgate, which reads: *Et audivi alterum ab altari dicentem*.

<sup>493</sup> On fol. 174r: *Nunc iterare formam argumentis evidentioribus*  $\nabla$ *relationis* $\blacktriangleright$  *geminata percunctatio vestra compellit*. On fols. 258r and 265r, a different annotator obelized two rubrics referring to the documents of Pope Symmachus. The manuscript is digitized at: [http://daten.digital-sammlungen.de/bsb00036889/image\\_1](http://daten.digital-sammlungen.de/bsb00036889/image_1) and described in Bischoff, *Die süddeutschen Schreibschulen*, 1:100–101.

**Milan, BA, D 23 sup.** (early 7<sup>th</sup> century, Bobbio).<sup>494</sup> This is the only manuscript containing critical *obeli* applied to non-scriptural text known to me that pre-dates the Carolingian period.

*Obeli* without *metobeli* are used for marking passages in several other manuscripts, in two cases as a part of the work of known revisers. The first of these two is a supplement added to the *Gregorianum-Hadrianum*.<sup>495</sup> Again, this is a case of the use of critical signs in the context of the Carolingian reforms, in this case of the Gregorian sacramentary. This sacramentary, sent to Charlemagne by pope Hadrian, was tailored for the Roman churches, and as such not directly suitable for use in Frankish churches. It was therefore extended by a supplement.<sup>496</sup> The preface to this supplement, known as *Hucusque* because of its opening words *hucusque praecedens sacramentorum libellus a beato papa Gregorio constat esse editus*, states that several of the sections of the text do not go back to Gregory but are secondary additions. For this reason, it continues, they are marked by *obeli* (*virgulis antepositis ingulata*, see Appendix II, item 31). Indeed, the most important manuscript of the *Gregorianum-Hadrianum*, **Vatican, BAV, Ottobonianus 313** (9<sup>th</sup> century, 3/4, Paris)<sup>497</sup> contains *obeli* added to one of the feasts mentioned in the prologue.<sup>498</sup>

Another work that made use of *obeli* was the revision of the *Martyrologium Bedae* carried out in the last decades of the ninth century by Erchenbert, a monk of Monte Cassino.<sup>499</sup> A short notice about Erchenbert's editorial activities survives in **Madrid**,

<sup>494</sup> This manuscript is described in CLA III.328. The three passages can be found on fols. 23v, 33v and 34v. I compare them below with the Teubner edition of Orosius's *Historia adversus paganos*; Zangemeister, *Orosii historia adversus paganos*.

on fol. 23v: *ut quisque ÷ ut quis ÷ non doceatur timorem Dei ÷* (the third *obelus* seems to be a secondary addition, compare with *ut quisquis non docetur timorem Dei* in the edition);

on fol. 33v: *A meridie Chartaginense ÷ Affricum ÷ a septentrione Macedonium* (compare with *a meridie Carthaginense, a septentrione Macedonicum* in the edition);

on fol. 34v: *quo Roma sub Procha rege ÷ inchoata ÷ novissime eo tempore a Cyro rege subversa* (compare with *quo Roma sub Proca rege, ut proprie dixerim, seminata est*).

<sup>495</sup> It has long been thought that the author of this supplement was Alcuin (thus, Traube still talks about the Alcuin supplement), but it is now widely accepted that its author was Benedict of Aniane. The most likely date for the composition of this supplement is the second decade of the ninth century; see Deshusses, *Le sacramentaire grégorien*, 66–75.

<sup>496</sup> See Palazzo, *A History of Liturgical Books*, 51–54.

<sup>497</sup> This manuscript is described in Gamber, *Codices liturgici Latini antiquiores*, n. 740.

<sup>498</sup> Traube, *Textgeschichte der Regula S. Benedicti*, 69. They can be seen on fol. 23v to the feast day of Gregory the Great. Traube also notes their presence in the Essen Sacramentary, **Düsseldorf, Universitäts- und Landesbibliothek, D 1** (867–72, western France or northwestern Germany), but considers them a secondary addition in this case; *Ibid.*, 725. I was unable to find these *obeli* in the digital facsimiles of the Essen Sacramentary, available at: <http://digital.ub.uni-duesseldorf.de/ms/content/titleinfor/3664968>.

<sup>499</sup> On this martyrology, see Quentin, *Les martyrologes historiques du moyen âge*, 121–22. Erchenbert's martyrology was edited on the basis of the oldest manuscript in Amelli, *Spicilegium Casinense*, 1:401–4.

**Biblioteca Nacional, MS 19 (olim A 16)**<sup>500</sup> produced around 1130 in Italy (see Appendix II, item 39).<sup>501</sup> Just as in the case of the supplement to the *Gregorianum-Hadrianum*, Erchenbert used *obeli* to mark verses that were his own, secondary additions to Bede's verse.<sup>502</sup>

Other manuscripts that contain passages marked by critical *obeli* include **Munich, BSB, Clm 5508** (8<sup>th</sup> century, ex., Salzburg), the manuscripts of the *Collectio Diessensis*,<sup>503</sup> in which both *asterisci* and *obeli* were added to a series of canons from the councils of Gaul misplaced among the African councils on fol. 37r.<sup>504</sup> In **Cologne, Dombibliothek, MS 193** (10<sup>th</sup> century), a copy of Martianus Capella's *De nuptiis Mercurii et philologiae*, verses on fols. 119v and 120v were marked with *obeli* to signal that they had been misplaced.<sup>505</sup> Verses were marked with *obeli* also in **St. Gallen, Stiftsbibliothek, MS 263** (9<sup>th</sup> century, ½, St. Gall) in a letter of Theodulf to Moduin,<sup>506</sup> possibly to indicate that they were not found in other manuscripts. Other manuscripts contain *obeli* that could be considered critical signs, but in these cases, their function is ambiguous.<sup>507</sup>

<sup>500</sup> This is one of the three manuscripts that contain the Monte Cassino miscellany, which includes the sign florilegium discussed in chapter 3 (see p. 100). It is described in Lott, *The Florilegium of Cava 3, Madrid 19 and Paris 7418*, 39–48. See also García Avilés, 'El manuscrito 19 del la Biblioteca Nacional'.

<sup>501</sup> **Madrid 19** is not the only manuscript of the revised *Martyrologium Bedae*. The oldest manuscript to transmit it is **Monte Cassino, Archivio dell'Abbazia, MS 439** (mid-10<sup>th</sup> century, Puglia); see Tarquini, *I codices grammaticali*, 56. The catalogue description does not contain any information about the presence of critical signs in this manuscript.

<sup>502</sup> The notice also mentions *obresima*, but it is unclear what their purpose would be, as *obeli* were sufficient for the marking of secondary additions. This ambiguity, rather uncharacteristic for prologues explaining technical signs, suggests that the notice was not composed by Erchenbert, but that it was added later by those who wanted to inform other readers of the text about the technical signs present in it, but did not necessarily know what Erchenbert's intentions were.

<sup>503</sup> See Kéry, *Canonical Collections of the Early Middle Ages*, 3–4.

<sup>504</sup> See at: [http://daten.digitale-sammlungen.de/bsb00036890/image\\_82](http://daten.digitale-sammlungen.de/bsb00036890/image_82).

<sup>505</sup> See at: [http://www.ceec.uni-koeln.de/ceec/cgi/kleioc/0010/exec/pagedmed/%22kn28-0193\\_238.jpg%22/segment/%22body%22](http://www.ceec.uni-koeln.de/ceec/cgi/kleioc/0010/exec/pagedmed/%22kn28-0193_238.jpg%22/segment/%22body%22) and [http://www.ceec.uni-koeln.de/ceec/cgi/kleioc/0010/exec/pagedmed/%22kn28-0193\\_240.jpg%22/segment/%22body%22](http://www.ceec.uni-koeln.de/ceec/cgi/kleioc/0010/exec/pagedmed/%22kn28-0193_240.jpg%22/segment/%22body%22).

<sup>506</sup> I would like to thank Enimie Rouquette, who is working on the critical edition of Theodulf's poetic works, for pointing out this manuscript to me. The *obelus* attached to Theodulf's text in p. 203 overwrites a Tironian note, which should mean *abest*. It may indicate that the particular verse is missing from a different copy of the same text, see at: <http://www.e-codices.unifr.ch/en/csg/0263/203>. This Tironian note is present in several other places in this letter, e.g. in pp. 205-207 and 211-212. Two *obeli* are placed *sup. lin.* in p. 219, at: <http://www.e-codices.unifr.ch/en/csg/0263/219/0/Sequence-447>.

<sup>507</sup> Besides critical signs, the graphic symbol of *obelus* (✚) was also used for correction, deletion and as a quotation sign (I discuss these uses in detail in chapter 6, p. 198). The manuscripts which contain *obeli* that may be critical include **St. Gallen, Stiftsbibliothek, MS 899** (9<sup>th</sup> century, 2/2-10<sup>th</sup> century, St. Gall), a collection of late antique and early medieval poetry, in which *obeli* were attached to verses of Paul the Deacon in pp. 8 and 15, see Neff, *Die Gedichte des Paulus Diaconus*, 129. This manuscript is digitized at: <http://www.e-codices.unifr.ch/en/csg/0899/8/0/Sequence-703>. They may have been used as critical signs, but possibly also as correction signs. In **Brussels, Koninklijke Bibliotheek, II 4856** (8<sup>th</sup> century, ex., Corbie), a manuscript of the *Etymologiae*, a single *obelus* was added to *Etym.* 1.15, or rather to the title *De litteris apud grammaticos*, which is the only vestige of this chapter preserved in non-Spanish manuscripts. In many Frankish manuscripts, this title was erased, because it was perceived as an error, or a marginal notice was added to indicate that the text is corrupted. In **Munich, BSB, Clm 14315** (9<sup>th</sup> century, ¼; perhaps Swabia), a copy of Origen's homilies on Genesis, a single *obelus* was attached to a line of text on fol. 12r, see:

### Critical assessment of doctrine in theological texts

So far, I have discussed critical signs that reflected the Carolingian concern for the establishment of correct versions of authoritative texts. In this section, I will examine critical signs that also had a basis in the Carolingian reform movement, but reflected a concern for ideas contained in the text rather than for the text itself. These signs can be associated with an intellectual endeavour that occupied the leading imperial theologians during most of the ninth century - the quest to establish the correct Christian doctrine in the face of a constant threat of heresy and dissent.<sup>508</sup>

As discussed in chapter 1, a similar concern for the uniformity of belief had occupied theologians in Late Antiquity and led to the emergence of what I termed doctrinal criticism (see p. 51). I used this term to describe a category of textual and manuscript evidence surviving from Late Antiquity consisting of Christian theological texts, in which passages were marked as orthodox and herewith sanctioned or on the contrary as heterodox and herewith dangerous. Carolingian manuscripts also contain signs that have this function.<sup>509</sup> They were added to texts central to the Carolingian theological debates and reflect a revival of the ancient practice.<sup>510</sup>

Carolingian practitioners of doctrinal criticism drew inspiration from testimonies of Patristic authors, especially Cassiodorus (see Appendix II, item 22).<sup>511</sup> Another important source must have been the ancient codices and their copies available in Carolingian

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[http://daten.digitale-sammlungen.de/bsb00046619/image\\_25](http://daten.digitale-sammlungen.de/bsb00046619/image_25). In **Laon BM 468** (9<sup>th</sup> century, 3/4, Laon), the handbook of Martin of Laon, a passage entitled *De diis et deabus* on fols. 6rv was also obelized. The *obeli* can be seen in the facsimiles of this manuscript; Contreni, *Codex Laudunensis 468*. Warren Pez  discovered *obeli* on fols. 53rv of **Vatican, BAV, Reg. Lat. 191** (9<sup>th</sup> century, 2/2, Reims), a collection of various theological and ecclesiastical works pertaining to the predestination controversy; Pez , 'Excerptum aliquod'.

<sup>508</sup> A general overview of the theological controversies in the Carolingian period is provided in Ganz, 'Theology and the Organisation of Thought'. I will refer to it throughout this chapter section.

<sup>509</sup> Just like in Late Antiquity, doctrinal criticism could have been carried out also by means of textual marginal notes. Some examples of such critical annotation is discussed in van Renswoude, 'Practices of Censorship in the Early Middle Ages'. and Pez , 'H r sie, anath me et exclusion'.

<sup>510</sup> Carolingian reformers were looking at the Christian Roman empire of Late Antiquity (rather than to the pagan Rome of Classical Antiquity) as their intellectual model and perceived the theological controversies of their times as a continuation of the struggle between the orthodoxy and heretics that was waged by the Church Fathers; see for example Ganz, 'Theology and the Organisation of Thought', 764. While in Late Antiquity, doctrinal criticism was a pragmatic activity without a particular fixed point of reference in the past, in the Carolingian period it acquired some features of a narrative tradition (see p. 6), which looked back at Late Antiquity as a foundational period that should be emulated (even though this tradition lacked a foundational figure similar to Aristarchus or Origen).

<sup>511</sup> At least one Carolingian manuscript of the *Institutiones*, **St. Gallen, Stiftsbibliothek, MS 199** (9<sup>th</sup> century, 3/4, St. Gall), contains a gloss to the word *ahresimi* in *Inst.* 1.1.8 reading *heresia*; see the digital facsimiles at: <http://www.e-codices.unifr.ch/en/csg/0199/20/0/Sequence-385>. Unfortunately, I was unable to examine other Carolingian copies of this text for similar traces of Carolingian engagement with the passages concerned with doctrinal criticism.

libraries, which contained the traces of ancient *praxis*.<sup>512</sup> Sign treatises were of limited use in this regard, as they did not contain any information about doctrinal criticism (but as we will see they were used as a source of graphic symbols and names for critical signs). In the following paragraphs, I will analyze two excellent ninth-century cases of doctrinal criticism: *De praedestinatione contra Ioannem Scottum* of Prudentius of Troyes (d. 861), and *De una et non trina deitate* of Hincmar of Reims (806-882).<sup>513</sup> I will also describe Carolingian manuscripts that contain signs of doctrinal criticism, but provide no direct clue about the context of their addition.

Prudentius's *De praedestinatione contra Ioannem Scottum* came into being in the early 850s<sup>514</sup> in the context of the predestination controversy, a theological dispute concerning the precise understanding of the Augustinian doctrine of predestination.<sup>515</sup> Gottschalk of Orbais, a former monk of Fulda and a charismatic itinerant preacher, upheld a doctrine of double predestination, of the elect towards reward and of the damned towards punishment. This idea was seen as dangerous and heretical by many Carolingian theologians. The most powerful opponent of double predestination was Hincmar, archbishop of Reims and Gottschalk's ecclesiastical superior. In 849 at the council of Quierzy convened by Hincmar and Charles the Bald and peopled by Hincmar's suffragan bishops, Gottschalk was condemned as a heretic and confined to the monastery of Hautvilliers.<sup>516</sup> Hincmar also commissioned John the Scot, an Irish scholar resident at the royal court, to write a treatise of refutation against Gottschalk. However, Hincmar's strategy backfired as John's *De praedestinatione contra Godescalcum* turned out to be doctrinally problematic itself.<sup>517</sup> Wenilo, bishop of Sens, therefore, asked Prudentius to write against John's errors.

Prudentius produced a work in which individual statements of John the Scot were quoted and then refuted on the basis of Patristic authors. As Prudentius informs Wenilo in

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<sup>512</sup> Compare with what Ganz says about the influence of these ancient codices on the Carolingian standards of book production; Ganz, 'Book Production', 798. A notable example is **St. Petersburg, Public Library, Q.v.I.6-10** (6<sup>th</sup> century, Italy, possibly Vivarium) discussed in chapter 1 (see p. 49), which was owned by Corbie at least from the beginning of the eighth century; see Ganz, *Corbie in the Carolingian Renaissance*, 40. Another Carolingian center that could be expected to possess such ancient copies annotated with sign of doctrinal criticism is Lyon, where many late antique codices were kept in the ninth century.

<sup>513</sup> This analysis is based chiefly on a forthcoming article that I wrote together with my colleague, Irene van Renswoude, who works on the subject of Carolingian theological controversies and practices of censorship; van Renswoude and Steinová, 'The Annotated Gottschalk'. See also Pezé, 'Hérésie, anathème et exclusion'.

<sup>514</sup> This work has been edited in PL 115, cols. 1009-1366. The essential studies about it include Petimengin, 'D'Augustin à Prudence de Troyes'; and Pezé, 'Deux manuscrits personnels'.

<sup>515</sup> This controversy was examined in the recent dissertation of Warren Pezé, Pezé, 'Le virus de l'erreur'. See also and Ganz, 'The Debate on Predestination'. Ganz, 'Theology and the Organisation of Thought', 767-73; and Zechiel-Eckes, *Florus von Lyon als Kirchenpolitiker*.

<sup>516</sup> For this episode, see Pezé, 'Le virus de l'erreur', 87-91.

<sup>517</sup> For an overview of this work, see Ganz, 'Theology and the Organisation of Thought', 770-71; and Pezé, 'Le virus de l'erreur', 109-16.

a dedicatory letter, he chose to mark summaries of John's statements by *theta* ( $\Theta$ ), a sign that "the men of old used to affix to the decrees of capital punishment of men to be executed" (*quam sententiis capitalibus damnandorum antiqui praescribere solebant*), and his refutation by *chresimon* ( $\text{✠}$ ), which he identifies as a sign of Christ and Christ-given knowledge (*quoniam velut monogramma nominis Christi effigiare quodammodo cernitur, ut eius totum ostenderem quicquid benignitatis ipsius largifluis indebitisque muneribus inbibissem*, see Appendix II, item 36). The same signs are found in the single surviving copy of *De praedestinatione*, **Paris, BnF, Lat. 2445** (before 861, Troyes), identified as Prudentius's working copy.<sup>518</sup>

Hincmar wrote his treatise *De una et non trina deitate* in the 850s.<sup>519</sup> Gottschalk was already condemned at the time but continued to write from his confinement at Hautvilliers. When Hincmar banned the singing of the hymn *Sanctorum meritis inclita gaudia* in his diocese on the grounds that it contained the problematic statement *trina deitas*, Gottschalk reacted by composing pamphlets defending this term.<sup>520</sup> Hincmar's *De una et non trina deitate*, just like Prudentius's *De praedestinatione*, refutes Gottschalk's position by reproducing Gottschalk statements and then arguing against them on the basis of Church Fathers. Similarly to writers mentioned earlier in this section, Hincmar prefaced his work with a prologue addressing his subordinates, in which he describes his *modus operandi* as well as the two doctrinal critical signs he used: *obelus* ( $\div$ ), which marks the passages taken from Gottschalk's pamphlets, and *chresimon* ( $\text{✠}$ ), which was placed at the head of the passages based on Church fathers proving the opposite. In Hincmar's words, he used the former "so that it may pierce through his false arguments as an arrow" (*ut quasi sagitta falsa illius dicta confodiat*), and the latter "so that by means of this sign, the testimonies of the Catholic Fathers, the antidote to his poisonous interpretations, may be highlighted" (*ut per eam [figuram] catholicorum testimonia, quae resistunt venenosis ejus sensibus, demonstrantur*, see Appendix II, item 36a).<sup>521</sup> These critical signs can also be seen in the sole surviving manuscript of *De una et non trina deitate*, **Brussels, Koninklijke Bibliotheek, MS 1831-33**, produced during Hincmar's lifetime at Reims.<sup>522</sup>

<sup>518</sup> This manuscript is described and several facsimile images of it are provided in Petitmengin, 'D'Augustin à Prudence de Troyes'.

<sup>519</sup> *De una et non trina deitate* was edited in PL 125, cols. 490-533. The most thorough study of this text is Tavad, *Trina Deitas*.

<sup>520</sup> For this controversy, see Devisse, *Hincmar, archevêque de Reims 845-882*, 1:154-86; Ganz, 'Theology and the Organisation of Thought', 766-67; Pezè, 'Le virus de l'erreur', 94-97.

<sup>521</sup> According to Traube, he was inspired also by letter 106 of Jerome; Traube, *Textgeschichte der Regula S. Benedicti*, 69.

<sup>522</sup> See the manuscript description in Bischoff, *Katalog I*, n. 704.

Although Prudentius and Hincmar used a slightly different set of doctrinal signs, both seem to have borrowed their method from Cassiodorus (and possibly from older manuscripts annotated by critical signs<sup>523</sup>): they used one critical sign as a positive ‘sign of approval’, to use Cassiodorus’s phrasing, and another critical sign as a negative ‘sign of disapproval’.<sup>524</sup> Just as in the case of scholars engaged in textual criticism, Isidore’s sign treatise was used as the main source: both the definition of *theta* and of *obelus* are certainly taken from the *Etymologiae*.<sup>525</sup> Prudentius’s *chresimon* seems to come from the same text.<sup>526</sup> They also worked in a similar context, producing scholarly, theological works for audiences that needed to be instructed on doctrinal matters.<sup>527</sup> Importantly, one reason why they may have chosen to employ signs of doctrinal criticism may have been that the matters disputed were far from settled.<sup>528</sup> The positions expressed were, in fact, not at all as clear-cut as suggested by the signs, which unambiguously separated heresy from orthodoxy.<sup>529</sup> The implicit goal of their working strategy may have been to present themselves as the champions of orthodoxy, and label their theological opponents as heretics rather than as equal partners in debate.

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<sup>523</sup> The Bamberg copy of *Contra Iovinianum* discussed below, in particular, resembles *De una et non trina deitate* both in format and in the use of *obeli* for the statements of the party to be refuted. Similarly, as mentioned in chapter 1, three ninth-century manuscripts of Prosper of Aquitaine’s *Pro praedicatoribus gratiae Dei contra librum Cassiani* contain signs of doctrinal criticism which may go back to Cassiodorus (see p. 49). It is unlikely that any of these manuscripts were directly available to either Prudentius or Hincmar, but given that in both cases the signs were copied from an older exemplar, it is possible that they may have been present in other copies that the two theologians did have an access to. Moreover, Hincmar may also have been inspired by the Acts of the Third Council of Constantinople (I discussed these as an example of late antique doctrinal criticism in chapter 1, see p. 50). He used them for *De una et non trina deitate*, see van Renswoude and Steinová, ‘The Annotated Gottschalk’.

<sup>524</sup> The difference in their use may have been caused by the ambiguity of the *Institutiones*, which do not specify which graphic shapes should be used for approval and disapproval, or what their names were. Here, the flexibility of sign treatises proved handy. Both *theta* and *obelus* have a clearly negative connotation in the *Etymologiae*, while Isidore’s *chresimon* sounded similar to Cassiodorus’s ‘sign of approval’, which he calls *chresimon*.

<sup>525</sup> *Obelus* is described in *De notis sententiarum*, *Etym.* 1.21.3; *theta* is mentioned as a technical signs both in *Etym.* 1.3.8 and 1.24.1 (see Appendix II, item 27).

<sup>526</sup> Prudentius specifically mentions that the sign is called *chresimon ab artigraphis*, i.e. by the writers of *artes grammaticae*. Since Isidore of Seville is the only source to mention it, and since he had a status of an *artigraphus* in the Early Middle Ages (see chapter 5, p. 150), Prudentius certainly refers to *De notis sententiarum*.

<sup>527</sup> Prudentius’s work, which was sent to his fellow-bishop Wenilo, may have been aimed at the intellectual elite, but Hincmar was certainly addressing the priests and monks of his own diocese, in order to establish his authority and theological position in his own diocese.

<sup>528</sup> The predestination culminated in a series of synods throughout the 850s and continued until the 860s; see Ganz, ‘Theology and the Organisation of Thought’, 771–73.

<sup>529</sup> Both Hincmar’s and Prudentius’s works remind one of Patristic dossiers that were frequently used in the heat of debate both in late antiquity and in the Carolingian Period. They were not a rare sight and within the predestination controversy several more such treatises-dossiers were compiled by various parties, including by Gottschalk (his dossier was famously burnt at Quierzy); see *Annales Bertiniani*, MGH SS rer. Germ. 5, pp. 36–37. The use of critical signs or signs of doctrinal criticism in such dossiers, however, was rare and to my knowledge Prudentius and Hincmar were the only ones to use them in this context. The texts to which signs of doctrinal criticism were applied in Antiquity were not dossiers used in an on-going debate, but rather theological works of problematic authors or council acts.

Despite this sophisticated method of harnessing authority, neither of the two projects seems to have met with success beyond the limited circle of Prudentius's and Hincmar's followers.<sup>530</sup> This is suggested by the limited dissemination of their treatises. **Paris, BnF, Lat. 2445** was later kept at Reims, where a slip of parchment was attached to the manuscript, warning the potential users against Prudentius's 'uncatholic' opinions, effectively using a similar method of disqualification that Prudentius applied to John's theological opinions.<sup>531</sup> Hincmar's ban had limited effect.<sup>532</sup> The use of doctrinal critical signs served to convey the impression that both Prudentius and Hincmar were writing from a firmer position than was the case and moreover honouring the ancient tradition of the Fathers who similarly censured the heretics of their own day.

Several other theological disputes of the ninth century prompted the use of signs of doctrinal criticism, as is testified by manuscripts. Signs are found, for example, in **Paris, BnF, Lat. 1572** (8<sup>th</sup> century, 2/2, probably Tours<sup>533</sup>), the famous Latin copy of the Acts of the council of Ephesus. This copy was used at Tours by Alcuin when he prepared his anti-Adoptionist treatise *Adversus heresin Felicis*.<sup>534</sup> Since Carolingian theologians equated Adoptionism with Nestorianism – the chief concern of the Council of Ephesus – it seems that the doctrinal *obeli* that can be found on fols. 144v-145r<sup>535</sup> and 166v of this manuscript also pertain to this Carolingian theological controversy, as they mark statements of Nestorius supportive of his doctrine.<sup>536</sup> Bischoff suggested that the excerpation signs *s(cribe)* and *d(imitte)* throughout the manuscript were made by Alcuin himself when he was preparing passages for excerpation into *Adversus heresin Felicis*.<sup>537</sup> The *obeli* in this manuscript were perhaps also made by Alcuin.

<sup>530</sup> In this respect, the two works resemble **Verona, Biblioteca Capitolare, MS LIII**, a manuscript discussed as an exemplary illustration of late antique doctrinal criticism in chapter 1 (see p. 50). **Verona, Biblioteca Capitolare, MS LIII** was clearly produced and annotated in the circle around Facundus of Hermiana, who opposed the condemnation of the Three Chapters. Even though the manuscript attempts to convey the impression that he was the victorious party in the Three Chapter controversy, this was never the case.

<sup>531</sup> See van Renswoude and Steinová, 'The Annotated Gottschalk'.

<sup>532</sup> As Hincmar complains, only one bishop, Rudolph of Bourges, followed his directions; see PL 125, cols. 473-4.

<sup>533</sup> See CLA V 530.

<sup>534</sup> This was shown by Bernhard Bischoff in Bischoff, 'Aus Alkuins Erdentagen'.

<sup>535</sup> The *obeli* on fol. 145r are not visible in the digital facsimiles accessible at <http://gallica.bnf.fr/ark:/12148/btv1b9078172j/f148.item>, since they were made in the inner margin of the manuscript. I have seen them when I examined the manuscript personally in August 2013.

<sup>536</sup> The passage marked on fols. 144v-145r bears the heading *Ex codice eiusdem Nestorii quaternione septimodecimo in dogmate*. The passages on fol. 166v are both statements of Nestorius discernible in the text on the basis of *inquit* present in the respective passages in the text, at: <http://gallica.bnf.fr/ark:/12148/btv1b9078172j/f171.item>. A third passage on fol. 220v that is marked by unusual *diple*-like signs seems also to have been flagged for doctrinal reasons. It contains another statement of Nestorius, in this case delivered by one of his opponents, at: <http://gallica.bnf.fr/ark:/12148/btv1b9078172j/f227.item>.

<sup>537</sup> Bischoff, 'Aus Alkuins Erdentagen', 17-18.

Doctrinal *obeli* can also be found in **Paris, BnF, Lat. 11611** (mid-9<sup>th</sup> century, Corbie), a copy of the *Synodicon* of Rusticus the Deacon, who was already mentioned in chapter 1 as a notable practitioner of textual criticism in the sixth century (see p. 47). **Paris, BnF, Lat. 11611** contains both the critical signs originally attached to the text by Rusticus and a score of other signs that must have been added later, as is evident from the comparison of this manuscript with another ninth-century French copy of the same text, **Paris, BnF, Lat. 1458** (9<sup>th</sup> century, 3/4, France). Only the Corbie manuscript contains a series of *obeli*-shaped signs attached to several passages on fols. 2v-3v.<sup>538</sup> All of these passages refer to the statements of Eutyches at the Council of Chalcedon and reflect his Monophysite position.<sup>539</sup>

Another manuscript with doctrinal *obeli* is **Bamberg, Staatsbibliothek, Msc. Patr. 86 (olim B.V.13)** (799-836, perhaps Amiens), a copy of Jerome's *Contra Iovinianum*<sup>540</sup> that was presumably made for bishop Jesse of Amiens (d. 836) and used by him for his *Epistula de baptismo* in 812.<sup>541</sup> In this case, the doctrinal character of the *obeli* is reinforced by marginal tags. The beginning of passages marked by *obeli* are tagged *verba Ioviniani* or *assertiones Ioviniani*, the end *Contra haec verba Ieronimus*.<sup>542</sup> The hand that made both the critical signs and the tags also made corrections and annotations and is identical with the main hand of the text.<sup>543</sup>

In **Milan, BA, M 67 sup.** (9<sup>th</sup> century, 4/4, Bobbio), a copy of the Latin acts of the Third Council of Constantinople, critical *obeli* were attached to a number of passages containing statements of heretics or referring to their condemnation.<sup>544</sup> This manuscript

<sup>538</sup> See at: <http://gallica.bnf.fr/ark:/12148/btv1b90683096/f3.item>.

<sup>539</sup> The text in question is the letter of Flavianus to pope Leo the Great, who was Eutyches staunch opponent; see PL 54, cols. 725-27 (which corresponds to the passage marked on fols. 2v-3r), col. 749B (fol. 3v), col. 749C (fol. 3v) and cols. 749-750C (fol. 3v).

<sup>540</sup> Jovinian (d. 405) was a monk who opposed celibacy and fasting practices and was condemned for this reason by synods at Rome and Milan, see Livingstone, 'Jovinian'. Jerome was the most important refuter of Jovinian's opinions.

<sup>541</sup> See the manuscript description in CLA VIII 1030.

<sup>542</sup> See for example fols. 2v-3r in the manuscript, accessible at: <http://bsbsbb.bsb.lrz-muenchen.de/~db/0000/sbb00000165/images/index.html?id=00000165&fip=192.87.139.143&no=9&seite=8&signatur=Msc.Patr.86>.

<sup>543</sup> In places, such as on fol. 5v, this hand copied parts of the main text in a pre-Caroline minuscule that was difficult to read and for this reason the most difficult words were transcribed *sup. lin.* in Caroline minuscule, see at: <http://bsbsbb.bsb.lrz-muenchen.de/~db/0000/sbb00000165/images/index.html?id=00000165&fip=192.87.139.143&no=12&seite=14&signatur=Msc.Patr.86>. This older exemplar may have already contained some of the signs and annotations transcribed into the Bamberg manuscripts.

<sup>544</sup> Condemnation at this council refers to monothelism. In all the cases of obelization, *obelus* was attached in the outer margin next to the line containing the passage in question. On fol. 10v, for example, the longer passage in question is: *Anathematizamus autem et Theodorum qui fuit episcopus Mopsustiae tamquam qui alienus semper extiterit ab ecclesiasticis et sanctis patribus adversarius, qui non confitetur incarnatum esse deum verbum, id est Christum esse unam subsistentiam et +unam personam et unam operationem....*, compare with Riedinger, *Concilium universale Constantinopolitanum tertium*, 647. On fol. 26r, it is: *Item eiusdem in sermone qui super +scriptus est In epiphania*

also contains many *chresima* (✠), which, however, in this case do not seem to have been used as ‘positive’ signs of doctrinal criticism.<sup>545</sup>

One last manuscript that deserves to be mentioned here, even though not all the signs present in it are doctrinal in character, is **Brussels, Koninklijke Bibliotheek, MS 5169** (9<sup>th</sup> century, 2/2, France), a copy of Prosper’s *Chronicon*.<sup>546</sup> It contains an enigmatic set of technical signs consisting of *asterisci* (✱), *antisigmata* (⊃) and serpents. The function of the serpents is clear from the fact that they occur attached to passages describing the emergence of particular heresies.<sup>547</sup> The meaning of *asterisci* and *antisigmata* is far less clear.<sup>548</sup> Again, the signs are copied by the main hand and thus were probably part of the prototype of this manuscript.

### Other evidence for the revival of sign use in the Carolingian period

Not all manuscripts annotated with technical signs can be classified as reflecting textual or doctrinal criticism. For example, I found unusual technical signs attached to Alcuin’s poem *O uos est aetas* in a family of manuscripts containing both his *De rhetorica* and *De dialectica*.<sup>549</sup> According to Donald Bullough, this group of manuscripts goes back to a prototype produced by Alcuin’s students at Tours before 800.<sup>550</sup> The annotated poem can be found in the oldest surviving exemplar produced just a few years after the prototype, **Munich, BSB,**

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*incarnationis dei: Unus enim Christus diuina tantum voluntate monebatur, secundum quod et unam eius nouimus operationem, compare with Riedinger, Concilium Lateranense a. 649 celebratum, 323. On fol. 27r, it is: ✚ ...Pyrrus in dogmatico thomo et confirmatione ectheseos unam voluntatem confitetur...*, compare with Riedinger, *Concilium universale Constantinopolitanum tertium*, 109. Other passages marked with *obeli* are found on fols. 26v, 27v, 50r, 51r, 52v, 67r, 78r-80v, 81r, 102r, 102v, 105r, 108r, 109v, 110r, 110v, 121v, and 125r. The long passage marked on fols. 78r-80v also features a marginal note at the beginning reading *testimonia hereticorum*.

<sup>545</sup> On fol. 26v, for example, *obelus* and *chresimon* mark the same line: *Uel execrabilis haeretici Nestorii libro secundo quem scripsit “epiphanius ✠ ✚-myseos. Inconfusos custodimus naturas, non secundum substantiam, arbitrio tantum copulatas...*, compare with Riedinger, *Concilium Lateranense a. 649 celebratum, 333*. Other *chresima* are found, for example, on fols. 16v, 17r, 33v, 49r, and 50v.

<sup>546</sup> This manuscript is digitized at: <http://www.europeanaregia.eu/en/manuscripts/brussels-koninklijke-bibliotheek-belgie-bibliotheque-royale-belgique-ms-5169/en>.

<sup>547</sup> The serpents occur in five places, marking passages concerned with Novatian (fol. 34v), Paul of Samosata (fol. 36r), Mani (fol. 37v), Arius (fol. 42r) and Audian (fol. 45r).

<sup>548</sup> Bischoff thought that *asterisci* marked ascensions of popes and patriarchs and *antisigmata* elections of consuls; Bischoff, *Katalog I*, n. 710.

<sup>549</sup> This poem appears in this family of manuscript inserted between *De rhetorica* and *De dialectica* as part of a group of shorter texts binding the two works together. It has been edited in MGH, *Poetae 1*, pp. 299-300. For this family of manuscripts, see Ganz, ‘Handschriften der Werke Alkuins aus dem 9. Jahrhundert’, 189-90. The signs appear attached to the beginning of each elegiac couplet in the poem. The first and the last resemble *chresimon* (✠), the second and third are crosses (✚), the fourth has the shape of a barred p (Ⓟ), the fifth resembles a *lectio* sign (Ⓛ), and the sixth looks like the abbreviation for *prae*.

<sup>550</sup> Bullough, ‘Alcuin’s Cultural Influence’, 18.

**Clm 6407** (c. 800, Verona), on fol. 43r,<sup>551</sup> and in other manuscripts containing this corpus of Alcuin's works.<sup>552</sup> The signs were possibly added by Alcuin himself or by his students.

Hincmar's use of critical *obeli* and *obresima* in *De una et non trina deitate* may have been his first attempt to annotate text with technical signs, and it may have inspired him to use them more often. In the late 860s, he used technical signs to annotate Ratramnus of Corbie's *Contra obiectiones Graecorum* in order to point out his errors, in this case as a friend rather than as an opponent.<sup>553</sup> The signs are perhaps preserved in **Vatican, BAV, Reg. Lat. 151**.<sup>554</sup>

Hincmar also used technical signs in his *Vita Remigii* composed around 878.<sup>555</sup> He explained in a prologue to this text that he placed *asteriscus* (✱) at the beginning of those passages he recommended for festive reading to the people (*quae populo recitanda sunt*), while *paragraphus* (Γ) marked passages that were reserved for private reading (*quae illuminatis legenda reservari debent*), and *antisigma* (⊃) was used as a closing parenthesis for these passages (see Appendix II, item 36c). Hincmar took the definition of the *asteriscus* from *Etym.* 1.21.2 and of *paragraphus* from *Etym.* 1.21.8, but the use of *asteriscus* as a text-structuring sign rather resembles its function in contemporary scribal *praxis* (see chapter 6, p. 210).<sup>556</sup>

A third early medieval scholar who can be placed into this category is Atto (d. 960/61), who was made bishop of Vercelli in 924. Atto was a stern critic of the political

<sup>551</sup> This manuscript is digitized at: [http://daten.digitale-sammlungen.de/bsb00036088/image\\_88](http://daten.digitale-sammlungen.de/bsb00036088/image_88).

<sup>552</sup> I was able to confirm the presence of signs in **Munich, BSB, Clm 13084** (c. 811, Freising, copy of **Munich, BSB, Clm 6407**), fol. 26v; **Munich, BSB, Clm 14377** (9th century, 2/4, Regensburg), fol. 31v (see at [http://daten.digitale-sammlungen.de/bsb00046529/image\\_66](http://daten.digitale-sammlungen.de/bsb00046529/image_66)); **St. Gallen, Stiftsbibliothek, MS 276** (9th century, 2/2, perhaps southern Germany), p. 219 (see at <http://www.codices.unifr.ch/en/csg/0276/219/0/Sequence-460>); and **Valenciennes BM 404** (9th century, perhaps St. Amand), fol. 56r (see at <http://gallica.bnf.fr/ark:/12148/btv1b8452582n/f115.item>). Other ninth-century manuscripts belonging to the same manuscript group include: **Vatican, BAV, Reg. Lat. 1461** (before 814, Tours), **Vatican, BAV, Reg. Lat. 324** (820-30, Fleury), **Oxford, Bodleian Library, Junius 25** (9th century, 1/4, southwestern Germany), and **Valenciennes BM 405** (9th century, 2/4, Germany, perhaps western).

<sup>553</sup> Ironically, Hincmar and Ratramnus were dire opponents since the days of the predestination controversy, but Hincmar mistakenly thought that *Contra obiectiones Graecorum* was written by his friend Odo of Beauvais. We know about Hincmar's annotation from his letter to Odo preserved in **Ghent, UB, MS 239** (13th century), pp. 1-2. It has been edited in Lambot, 'L'homélie du Pseudo-Jérôme sur l'Assomption', 269-70; see Appendix II, item 37b. My colleague Irene van Renswoude is currently preparing an article on this subject.

<sup>554</sup> I have examined this manuscript in person in May 2015. It contains a large number of unusual, idiosyncratic signs, which were made in part by the main hand and in part by an annotating hand using a lighter ink. They were drawn in thick lines, as if those who made them were unfamiliar with them and wished to copy them faithfully from an exemplar. Several of the signs, such as those preserved on fols. 127r, 140v and 151r, resemble Tironian notes. Others, such as those on fols. 110r (six-pointed star), 115v (⚡ mounted on a cross), 138r (dotted *zeta*), 141r (like Ⓢ) and 141v (like ⚡), rather resemble technical signs discussed in this dissertation. Several other signs, such as those on fols. 5v, 8r, 135v and 138r, do not resemble *notae* known to me.

<sup>555</sup> It is edited in MGH, SS rer. Merov. 3, pp. 239-349.

<sup>556</sup> According to editor of this *vita*, Bruno Krusch, Hincmar's signs are present in **Arras BM 189** (10th/11th century), **Reims BM 1146** (11th century, ex., prov.: Reims), and **Berlin, Staatsbibliothek, MS 118 (Phillipps 1841)** (14th century, France); see MGH, SS rer. Merov. 3, pp. 244-46.

and ecclesiastical situation in Italy of his days and wrote several works in which he castigated his contemporaries. The last in the line of these works was the *Perpendicularum*, a critical treatise written in a convoluted learned Latin and equipped by Atto himself with explanatory glosses and a simplified version of the text.<sup>557</sup> In a passage from this work, Atto defended himself against the attacks of his opponents and claimed that his work would never be marked with critical *obeli* and *ceraunia* (*mea [pagina], quam nec obelus signabit, merebitur* <the text is damaged> *ceraunis*, see Appendix II, item 41b). Both sign names are glossed by definitions coming from *De notis sententiarum*.<sup>558</sup>

Last but not least, I want to mention the reference to *chresimon* made by Hraban Maur in his *In honorem sanctae crucis*. Poem twenty-two of this work includes the image of a Chi-Rho monogram (✠) which is then analyzed in the commentary that Hraban Maur wrote to his *carmina figurata*.<sup>559</sup> While it is clear that the symbol represents the Christogram, Hraban Maur begins his exposition by referring to Isidore's *notae sententiarum* and by quoting *Etym.* 1.21.22 (see Appendix II, item 34). The rest of his commentary is based on Bede's *Expositio Apocalypseos* and deals with the numerological value of the Chi-Rho and its identification with the 'sign of the Beast' mentioned in the Apocalypse.<sup>560</sup> This conflation of the technical sign *chresimon* with the Christogram and the 'sign of the Beast' illustrates the associative power of different texts referring to the same *nota* (✠) could have had on the early medieval scholars, even though they discussed clearly different phenomena. It is particularly interesting that Hraban Maur makes a link with *De notis sententiarum*, the text we saw was a favourite among Carolingian thinkers, as his reference indirectly shows how deep-rooted the familiarity with this sign treatise was in his intellectual milieu and how easy it was to invoke it in various contexts.

<sup>557</sup> An edition of this text is currently being prepared by Giacomo Vignodelli; Vignodelli, 'Atto Vercellensis. *Polipticum quod appellatur Perpendicularum*'. See also his article; Vignodelli, 'Politics, Prophecy and Satire: Atto of Vercelli's *Polipticum Quod Appellatur Perpendicularum*'.

<sup>558</sup> Giacomo Vignodelli indicated in a private conversation with me that the glosses were not taken from the *Etymologiae*, but rather from a copy of the *Liber Glossarum*, which was once owned by Atto and is today still preserved in Vercelli as **Vercelli, Biblioteca Capitolare, MS 1** (9<sup>th</sup> century, ex., probably Milan). In another passage of the *Perpendicularum*, Atto refers to the Isidorian definition of the *coronis* (see Appendix II, item 41a).

<sup>559</sup> This poem is discussed in Perrin, 'Les problèmes de composition des *carmina figurata* du *De laudibus sanctae crucis* de Raban Maur.' More information about this text can be found in Perrin, 'Le *De laudibus sanctae crucis* de Raban Maur'.

<sup>560</sup> Apc 13, 16-18: *Et faciet omnes pusillos et magnos et divites et pauperes et liberos et servos habere caracter in dextera manu aut in frontibus suis. Et ne quis possit emere aut vendere nisi qui habet caracter nomen bestiae aut numerum nominis eius. Hic sapientia est qui habet intellectum computet numerum bestiae numerus enim hominis est et numerus eius est sescenti sexaginta sex.* Besides Bede and Hraban Maur, several other texts reflect this tradition of identifying this sign as a chi-rho monogram. They include an anonymous, possibly insular text *Pauca de monogramma* (6<sup>th</sup>/7<sup>th</sup> century) entirely devoted to the question of this *caracter* and its numerological significance, and the commentary on the Apocalypse by Beatus of Liebana (8<sup>th</sup> century); see Gryson, *Variorum auctorum Commentaria minora in Apocalypsin*, 133-57; Sanders, *Beati In Apocalypsin libri duodecim*, 496-97.

## Conclusion

In this chapter, I provided a comprehensive overview of early medieval textual and manuscript evidence that shows that technical signs were used for scholarly purposes in the Carolingian period. This period, in fact, represents another important period of flourishing of the scholarly *praxis* in the Latin West after Classical and Late Antiquity. This upsurge of scholarly activity can be situated in the Carolingian reform movement that began in the last decades of the eighth century. The first major impetuses for the revival of scholarly sign use, specifically of Origenian textual criticism, were probably provided by the promotion of the Gallican Psalter by Frankish kings and Alcuin's decision to include it in his revision of the Bible. This is suggested by the early date of the evidence that connects the scholarly sign use to the revision of the *Gallicanum*: the prologue of pseudo-Isidore datable to before 790, which is the oldest piece of written evidence from the Carolingian period; and Bible pandects produced at Tours, the oldest piece of the manuscript evidence, which contained revised critical signs reflecting the Carolingian appropriation of Origen's critical method from the first decade of the ninth century (we will, moreover, see in the following chapter that another early text referring to technical signs, Alcuin's *De grammatica*, also reflects the adoption of the *Gallicanum* in the Frankish realms).

The study of Origenian textual criticism and efforts to revise the Psalter, I argue, should be credited with bringing about a more general interest in the scholarly potential of technical signs that led to a score of additional developments and innovations. Origenian critical signs were employed for texts other than the Old Testament, Carolingian theologians revived doctrinal criticism, and new sign treatises (such as the abbreviated descendants of the 21-sign treatises discussed in chapter 2, p. 83) were produced on the basis of old ones. Each of these aspects, moreover, probably had a reinforcing effect on other aspects, as the study of one text may have led to the discovery of others belonging to the same tradition. In this fashion, we should imagine, the study of Origen's critical method led Carolingian readers to *De notis sententiarum* of Isidore of Seville, which described Origen's signs. This text would in turn serve as a gateway to the tradition of the 21-sign treatise and make Carolingian readers alert to sign treatises as a genre.

Frankish lands were not the only geographic area where intellectual elite became interested in technical signs. In Ireland, Origenian textual criticism seems to have been studied and was certainly put to use as early as around 600 in connection with the introduction of the Gallican Psalter, i.e., conditions similar to those that would prevail later

in Francia (the annotation of the Bobbio Orosius seems to reflect the same trend). We have also seen in the previous two chapters that local revivals took place in the Beneventan area, in Spain and in the Byzantine Empire. However, in neither of these areas the revival of interest was as intense and creative as in the Frankish realms. In Ireland, for example, the study of Origen's critical method and revision of the Psalter did not lead to a further interest in sign treatises. In Byzantium, the revival of interest seems to have been restricted to Homeric scholarship. Also, while 'old' *doxa* was copied in all these regions, only in the Frankish realm do we see that 'new' *doxa* was produced on the basis of older models and that texts were appropriated for instruction (see chapter 2, p. 93). In general, the scholarly engagement with technical signs in the Early Middle Ages took place during periods of intellectual renewal, many of them on a local scale and dependent on a short-term prosperity of a particular institution or intellectual community. In the Frankish lands, this revival was longer and more sustained than elsewhere and led to more variation and experiment.

Carolingian scholarly sign users can be seen as a professional group with a shared set of practices, training and worldview, just like Hellenistic scholars-philologists and Patristic scholarly sign users described in chapter 1. Texts and manuscripts described in this chapter allow us in many cases to identify members of this group by name. They include the top intellectuals of the Carolingian realm – Alcuin of York, who may have annotated **Paris, BnF, Lat. 1572** and his poem *O uos est aetas* (we will see that he was also involved with the 'new' *doxa* in chapter 5); Benedict of Aniane, who employed critical *obeli* in his supplement to the *Gregorianum-Hadrianum*; Tatto and Grimald, who produced a critical redaction of the Rule of Benedict; Florus of Lyon, who emended a Psalter for Eldrad of Novalesa and used technical signs abundantly for his excerption and annotation projects; Hraban Maur, who quoted from *De notis sententiarum* in an exposition to one of his poems; Hincmar of Reims, who used technical signs in his *De una et non trina deitate* and *Vita Remigii*; Prudentius of Troyes, who employed signs of doctrinal criticism in his *De praedestinatione*; Erchenbert of Monte Cassino, who revised and obelized the *Martyrologium Bedae*; and Atto of Vercelli, who referred to critical annotation in his *Perpendiculum*. In other cases, we cannot identify the scholars by name, but the very sophistication and intellectual depth of their annotation suggest that they belonged to the same milieu as the above-mentioned personages and received a similar education. It is particular relevant that majority of these Carolingian scholarly sign users refer to *De notis sententiarum* of Isidore of Seville, as it suggests that this sign treatise was a part of their shared knowledge. I will further explore this aspect in the

following chapter, in which I argue that *De notis sententiarum* was used in the Carolingian classroom.

It is important to realize that the evidence presented in this chapter does not reflect the skills, knowledge and interests of the wider literate class. Annotators mentioned here deserve a comparison to Aristarchus or Origen, who represented the uppermost echelons of the intellectual elite of their times, rather than to ordinary scribes and annotators. Nevertheless, as is suggested by some of the evidence showcased here, in particular the non-systematic use of critical signs in manuscripts of non-scriptural texts and their use without a prologue explaining their purpose, at least some of the users of critical signs seem to have been local scholars or simply individuals who tried to emulate current scholarly practices. This appropriation of the scholarly *praxis* by the lower levels of the literate class may have been another consequence of the revisions of the Gallican Psalter, which were carried out by scholars (in one case even on commission) for monks and clerics of a lower hierarchy. As a result, some of these monks and clerics of lower ranks may have become acquainted with the methods of textual and doctrinal criticism and may have themselves become their practitioners. We have seen a similar trickle-down phenomenon in chapter 1 when discussing the core and the periphery of the communities of sign users (see p. 25). In chapter 6, I will discuss further evidence that scholarly practices trickled down to sign users lower in the hierarchy (I term them ‘scribes’).

The real novelty of the ‘new’ *doxa* can be summed up in four points. First, while Carolingian scholarly sign users drew heavily on older traditions, which they approached primarily through written text, they did so in a manner not dictated by the older material, and in order to cater for new intellectual endeavours. Second, the ‘new’ *doxa* combined the two inherited traditions of scholarly sign use that I discussed in chapter 1, the one Hellenistic, which was accessible to the early medieval thinkers via the sign treatises, and the other Patristic, represented by testimonies of Jerome and other Church Fathers. The latter category of texts provided the textual model for writing about technical signs, while sign treatises were used in a manner of catalogues from which individuals items, their graphic forms and names could be drawn and used. Third, the ‘new’ *doxa* had its particular characteristic genre, that of the technical prologue, which could be attached to the scholarly work in which signs were used. This use of a prologue as a space to discuss technical signs (rather than, say, sign treatises or other medium) follows the development that took place since Late Antiquity, when, as we have seen in chapter 1, several scholarly sign users used prologues to provide information about the signs used in their works (see p. 48 and 49).

Finally, for the first time since Antiquity, texts about technical signs can again be related to *praxis*, which is generated from the *doxa* (not vice versa).

Just as in the Hellenistic period, the favourable economic, cultural and social conditions during the Carolingian Renaissance provided fertile grounds for the flourishing of the scholarly *doxa* and for the emergence of a *praxis* that can be related to scholarly, rather than scribal users (I discuss the difference between these two groups in chapter 6, p. 255). Just as in the Hellenistic period, this development proved to be fragile and temporary, sustained by particular institutions, communities and circumstances. After Atto of Vercelli wrote around the mid-tenth century, no further reference to the scholarly sign use rooted in the tradition of *doxa* established by Carolingian thinkers can be found in the evidence. This development confirms the impression provided by chapter 2, where we saw that on the Continent, the interest in the 21-sign treatise correlated roughly with the Carolingian *renovatio*, but did not last beyond the tenth century. In the following chapter, in which I discuss the early medieval reception of *De notis sententiarum*, we will see a similar trend suggesting that the revival of scholarly *doxa* and *praxis* between the eighth and the tenth centuries did not significantly outlive the Carolingian Renaissance.



## Chapter 5

### Instruction on technical signs in the Early Middle Ages: the case of *De notis sententiarum*

I have shown in the previous chapter that many of the scholars who engaged in the use of technical signs in the Carolingian employed as their source of information a particular text - Isidore's chapter *De notis sententiarum* from the first book of the *Etymologiae* (*Etym.* 1.21), which was introduced as a witness of the 21-sign treatise in chapter 2. We have also seen in that chapter that *De notis sententiarum* served as the most important access point to the tradition of the 21-sign treatise for the Carolingian readers (but less so for those who lived in the same period in either Spain or in southern Italy). These two observations alone could suffice to conclude that *De notis sententiarum* played a central role in the formation of the Carolingian *doxa* about technical signs and that the engagement with this text may have been one of the crucial differences between the Carolingian sign users and sign users from other regions and periods. However, this conclusion, even if correct, does not tell us why Isidore's sign treatise came to play this role in the Carolingian realms, but not elsewhere, where, as the manuscript evidence tells us, Isidore's *Etymologiae* were known, read and received with equal enthusiasm. We are also still largely in the dark about the nature of the engagement with *De notis sententiarum*. To answer these questions, it is necessary to look at the transmission history of Isidore's sign treatise. The manuscripts will show us not only how this text influenced Carolingian sign users, but also how they themselves left their imprint on this text. Manuscripts could also hold a key to another aspect of the history of *De notis sententiarum*, which was touched upon in chapters 2, 3 and 4, namely that several pieces of evidence suggest that in the Frankish lands, but not elsewhere, this text may have been appropriated for teaching.

This chapter is devoted to the examination of the reception history of *De notis sententiarum* with a special focus on its use for teaching and instruction. It is divided into two parts dealing with different types of sources. In the first part, I examine 151 manuscripts containing *De notis sententiarum*. I show that Isidore's sign treatise was rewritten in several ways in the Early Middle Ages, and I trace these textual innovations across the set of manuscripts examined in order to assess their scope, impact, and duration. As will be shown, the innovations of *De notis sententiarum* that took place in the Frankish lands confirm

that this text, which was originally not intended for teaching, was most likely studied in the classroom.<sup>561</sup>

In the second part, I look at the ancient and the early medieval *artes grammaticae* and examine how the *doxa* about technical signs was represented in this type of texts. I will show that the transformation of the status of *De notis sententiarum* evident from the manuscripts examined in the first part of this chapter is also visible in the *artes*, some of which included a section on technical signs based on *De notis sententiarum* in the Carolingian period.

In the conclusion to this chapter, I will survey all the evidence presented in this dissertation so far to reflect on how and why technical signs began to be perceived as a part of classroom education and what implications their inclusion into the curriculum may have had for their use. Apart from Appendix II, two other appendices are used in this chapter: Appendix IV contains an overview of manuscripts discussed in the first part of this chapter; Appendix V contains the glosses and annotations attached to *De notis sententiarum* and related chapters in these manuscripts.

### **The evidence of the manuscripts containing *De notis sententiarum***

In this section, I discuss several innovations affecting *De notis sententiarum* (henceforth DNS) in the manuscripts from the early medieval period. In the first three sections, I pay attention to three ‘major’ innovations: the separate transmission of the first book of the *Etymologiae*, the addition of glosses and annotations to DNS, and changes in the layout of this text. I call them ‘major’ innovations because they appear in a relatively large number of manuscripts. As will be shown, some of these innovations affected a number of manuscripts independently, suggesting widespread trends and deeper changes of the intellectual environment. Because of their degree of dissemination, moreover, ‘major’ innovations acted themselves as stimuli of further change. In the fourth section of this chapter part, I discuss several innovations of DNS that can be considered ‘minor’. They are examples of isolated readership that affected only in one manuscript or a small number of codices, but I include them for comparison with the ‘major’ innovations. In conclusion of

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<sup>561</sup> I am aware of the problems that surround the study of ancient and early medieval schools, especially the limited evidence we have for the actual practice of teaching, the fact that the curricula and age groups to which lessons were delivered were never standardized, and the non-trivial relationship between what could be called, using the terminology established in this dissertation, the *doxa* and the *praxis* of education (i.e., the models and manuals we possess versus the actual lessons taking place). For some reflection on these issues, see Contreni, ‘The Carolingian Renaissance’, 712–25; Contreni, ‘The Pursuit of Knowledge in Carolingian Europe’, 111; Jong, *In Samuel’s Image*, 228–44; Diem, ‘The Emergence of Monastic Schools’.

this chapter, I connect the observations based on my examination of the manuscripts of DNS with my earlier observations on signs treatises in the previous chapters.

### The set of manuscripts examined

This section is based on the examination of three types of manuscripts containing DNS: a) manuscripts of the entire *Etymologiae*; b) manuscripts containing the separately transmitted book one of this work; and c) manuscripts transmitting DNS alone (*Etym.* 1.21) or the *capitulum De notis* (*Etym.* 1.21-26).<sup>562</sup> I examined these manuscripts in person, or consulted digital facsimiles or microfilms. In total, I saw 140 manuscripts of the complete *Etymologiae* (Appendix IV, section A), eleven manuscripts containing only the first book of the *Etymologiae* (Appendix IV, section B), and eleven manuscripts that contain DNS or *De notis* as an excerpt. Appendix IV also includes nine manuscripts of the *Etymologiae* in which the first book was cropped or is missing for other reasons (section C) and six manuscripts containing the first book but not DNS (section D). This makes a total of 177 manuscripts, of which 151 are manuscripts of the *Etymologiae* or its first book.

Although my dissertation is concerned primarily with the Carolingian period and realms, I have also included a number of more recent manuscripts and manuscripts coming from non-Carolingian areas into my survey. They provide a comparative frame for the Carolingian manuscripts similar to that provided in chapters 2 and 3 for the sign treatises, in particular to show the relative significance of the innovations carried out in the Carolingian context. Moreover, some of the innovations that spread to non-Carolingian regions or lived on after 1000, allow us to interpret the developments in the Carolingian period better.

65 of the manuscripts I examined were dated to the eighth, ninth or the tenth century (see fig. 3), and 86 were dated to after 1000. My set is, thus, balanced with respect to manuscripts from both before and after 1000 and allows us to compare the rate of innovation in these two periods.

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<sup>562</sup> In the following sections, I account for the entire *capitulum* since its division into six chapters is a modern invention and does not reflect how this text was transmitted in the Middle Ages. In medieval times, DNS all six sections concerned with *notae* (*Etym.* 1.21-26) belonged to a single *capitulum*, *De notis*. Alternatively, *De notis* could have been re-divided into two related *capitula*: *De notis sententiarum* (*Etym.* 1.21), and *De notis vulgaribus et aliarum rerum* (*Etym.* 1.22-26).

date	complete <i>Etym.</i>	only book one	mss. containing DNS
8 <sup>th</sup> century	7	0	7
9 <sup>th</sup> century	35	11	46 (53)
10 <sup>th</sup> century	12	0	12 (65)
11 <sup>th</sup> century	12	0	12 (77)
12 <sup>th</sup> century	33	0	33 (110)
13 <sup>th</sup> century	21	0	21 (131)
14 <sup>th</sup> century	11	0	11 (142)
15 <sup>th</sup> century	9	0	9 (151)
total	140	11	151

fig. 3: distribution of manuscripts containing DNS according to the date of origin

Geographically, the examined manuscripts represent four regions – the Frankish lands west of Rhine roughly corresponding to modern France and parts of the Benelux (I shall refer to this region as France); the Frankish lands east of Rhine roughly corresponding to modern Germany, Switzerland and Austria (Germany); the Appenine peninsula (Italy) and Iberian peninsula (Spain).<sup>563</sup> These four regions correspond also to the three main families of the *Etymologiae*: the Frankish complete family (*integrae*,  $\alpha$ , associated with France and Germany), the Italian shortened family (*contractae*,  $\beta$ , associated with Italy) and the Spanish interpolated family (*interpolatae*,  $\gamma$ , associated with Spain).<sup>564</sup> To show how the numbers of extant manuscripts compare, I list them here in a table (fig. 4). Manuscripts with origin in other regions than the four mentioned above, e.g. England or Bohemia, are listed under ‘elsewhere’. Manuscripts with an unknown place of origin are given as ‘unknown’.

<sup>563</sup> Compare with Contreni, ‘The Carolingian Renaissance’, 721.

<sup>564</sup> Lindsay, *Etymologiae*, 1:vi–xi. The fourth family designated  $\xi$  should be, according to Reydellet, considered a hybrid of  $\alpha$ ,  $\beta$  and  $\gamma$  that came into being as a result of a Carolingian revision in the areas of Switzerland and Germany. It was certainly wide-spread in the Frankish regions, just as  $\alpha$ , and should be also considered characteristic of France and Germany. Reydellet, ‘La diffusion des Origines’, 433. According to Porzig,  $\xi$  represented Braulio’s edition of the *Etymologiae*; Porzig, ‘Die Rezensionen der Etymologiae’, 165–67. Porzig, however, based himself on German manuscripts and did not study the early French exemplars. His thesis was taken over by Bischoff; Bischoff, ‘Die europäische Verbreitung der Werke Isidors von Sevilla’, 341.

region	number of mss. before 1000		number of mss. after 1000		total
	<i>Etym.</i>	book one	<i>Etym.</i>	book one	
France	21	6	5	0	32
Germany <sup>565</sup>	11	3	8	0	22
Italy <sup>566</sup>	10	0	3	0	13
Spain <sup>567</sup>	7	0	5	0	12
elsewhere	2	0	4	0	6
unknown	3	2	61	0	66
<b>total:</b>	54	11	86	0	151

fig. 4: distribution of manuscripts containing DNS according to the region of origin

As can be seen in fig. 4, most of the manuscripts produced before 1000 I examined come from the Frankish lands: 41 out of 60 localized manuscripts from before 1000 come from France or Germany.<sup>568</sup> This is mainly due to the low survival rate of manuscripts of the *Etymologiae* from Italy and Spain, and also due to a high production rate in France.<sup>569</sup> France and Germany are also the best represented regions among manuscripts of the *Etymologiae* produced after 1000 (13 out of 25 localized manuscripts from after 1000 and probably also many of the unlocalized manuscripts which are preserved in French libraries). My set does not contain a sufficient number of manuscripts from the insular area (England and Ireland) for a full-fledged comparison of this region with the Continent, even though the evidence provided in the previous chapters suggests that the Irish were interested in technical signs (see p. 124) and that sign treatises based on *De notis sententiarum* were produced and copied in England from the eleventh century (see p. 88). We will see that the few English manuscripts that I include corroborate this picture.

#### The separate transmission of book one of the *Etymologiae*

As is clear from the previous section, DNS was transmitted principally in two contexts: as a part of the complete *Etymologiae*; or as a part of a separately transmitted book one.<sup>570</sup> The two tables above also show that the separately transmitted book one is a phenomenon restricted roughly to the ninth century and to France and Germany. Its circulation, in other

<sup>565</sup> I consider also the modern territories of Austria, Bavaria and Switzerland as well as the modern region of Alsace as a part of 'Germany'.

<sup>566</sup> I consider southern and northern Italy as one region.

<sup>567</sup> I consider northern and southern Spain and Septimania as one region.

<sup>568</sup> Two of the five undated manuscripts from before 1000 are now preserved in the Bibliothèque Nationale de France, and thus possibly also originated in the Carolingian area. These are **Paris, BnF, Lat. 17159** and **Paris, BnF, Lat. 7585**.

<sup>569</sup> Cf. Beeson, *Isidor-Studien*, 120.

<sup>570</sup> Irvine, *The Making of Textual Culture*, 212; Parkes, *Pause and Effect*, 22. This was the case, for example, with the so-called *Musica Isidori* discussed by Huglo; Huglo, 'The *Musica Isidori* Tradition', 64. Huglo refers to the edition of this text made by Martin Gerbert; Gerbert, *Scriptores ecclesiastici de musica sacra potissimum*, 1:20–24.

words, seems to coincide with the revival of learning in the Frankish area during the Carolingian Renaissance.<sup>571</sup>

As the list of manuscripts containing only the first book of the *Etymologiae* (Appendix IV, section B) shows, the manuscripts constitute a rather homogeneous group to such an extent that we could consider the separately transmitted book one a separate, albeit derived, work of Isidore of Seville. This may, in fact, very well be the way in which it was perceived by Carolingian readers, who would not find the name *Etymologiae* in their copies.<sup>572</sup> None of the eleven manuscripts make a reference to Isidore's *opus maior*. In four manuscripts, instead, their title is given as *Liber Isidori* or *Liber Isidori de grammatica*. In one case, it is explicitly called *Ars Isidori* (**Munich, BSB, Clm 6411**), i.e., it is presented as a grammatical textbook. The same title can be found in several other manuscripts that do not contain DNS but otherwise transmit a selection from book one of the *Etymologiae*: **Bern, Burgerbibliothek, MS 207, Karlsruhe, Badische Landesbibliothek, Aug. Perg. 112, and Leiden, UB, Voss. Lat. Q 86** (see appendix IV, section D). The testimony of Carolingian bishop Prudentius of Troyes, who referred to Isidore as to an *artigraphus*, i.e. an author of an *ars* (see Appendix II, item 36 and footnote 526), also confirms that book one of the *Etymologiae* could be considered a grammatical treatise.<sup>573</sup> I will use the name *Ars Isidori* as a generic term for book one of the *Etymologiae* transmitted separately in this chapter.

Five out of the six manuscripts transmitting book one without DNS and eight of the eleven manuscripts containing the separately transmitted book one with DNS can be identified as grammatical compendia.<sup>574</sup> They combine book one of the *Etymologiae* with Donatus, Priscian, Phocas, Diomedes, in one case with Alcuin's *De grammatica* and with other, less familiar grammatical texts. Three other manuscripts from this group, **Oxford, Bodleian Library, Junius 25, Paris, BnF, Lat. 11278** and **London, BL, Harley 2713**, contain book one as the only text and can, thus, be labeled grammatical books, too (even though they are not compendia). Thus, there seems to be a clear link between the separate

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<sup>571</sup> Malcolm Parkes thought that the separately transmitted book one was an Irish phenomenon, but he provides no arguments for this opinion; Parkes, *Pause and Effect*, 22–23. Alcuin's use of such book one, which is discussed below (see p. 178), could provide some substance to his opinion, but since there are almost no manuscript traces of book one in the insular world, I deem it correct to consider it a Carolingian phenomenon (irrespectively of whether it might have been an Irish invention or used in this fashion in Ireland and England as well). For the transmission and appropriation of the *Etymologiae* in Anglo-Saxon England, see especially Lapidge, 'An Isidorian Epitome'.

<sup>572</sup> This is the most common name found in the manuscripts as well as in the medieval library catalogues; Hispalensis Isidorus, *Etimologias*, 1:170.

<sup>573</sup> For Isidore's reputation as a grammarian, see Hagen, 'De Isidoro grammatico', cclv–cclvi.

<sup>574</sup> The sixth manuscript that contains a selection from book one is the twelfth-century miscellany **Troyes BM 1328**, which is much younger than the other manuscripts in this category (see Appendix IV, item D6).

transmission of book one and grammar. Some of the manuscripts may very well have had a teaching purpose.

This hypothesis is strengthened by the format of some of the manuscripts, which are small and light, as if designed to be carried around. **Paris, BnF, Lat. 11278** (9<sup>th</sup> century, ½, perhaps southern France) is a good example. With dimensions of only 200x140 mm and only four quires, it was a perfect pocket book. It even includes a colophon that attests to its vagrant character: *SI SIS (sic) ME LEGERE TRACTA ME BENE. SI VERO NESCIIS ME LEGERE TRADE ME SAPIENTI*. Even though the manuscripts from this group are overall larger and heavier than **Paris, BnF, Lat. 11278**, they nevertheless contrast with the manuscripts of the complete *Etymologiae*, which are usually preserved in bulky codices designed for limited mobility and in which additional texts are only rarely present. The *Etymologiae* was, first and foremost, a library book, not a classroom tool. The separation of book one from the rest of the encyclopedia gave it the wings necessary to reach the classroom audience.<sup>575</sup> However, this does not mean that the manuscripts of the *Etymologiae* did not invite study, too.

The manuscripts transmitting the separated book one can also be contrasted with the manuscripts transmitting DNS and *De notis* as excerpts, which do not form a single distinguishable group. Of the eleven manuscripts that fall into this category,<sup>576</sup> only three were produced before 1000 and only four were produced in France or Germany (not all before 1000). Also, the excerpts do not feature in texts belonging to a single genre. Two are, for example, collections of the plays of Plautus to which DNS was attached at the end.<sup>577</sup> Two other manuscripts are copies of the Monte Cassino sign florilegium discussed in chapter 3 (see p. 104),<sup>578</sup> in another manuscript, the entire sequence *Etym.* 1.21-26 was added to mathematical texts,<sup>579</sup> and in yet another, this same set appears in the company of computistic material.<sup>580</sup> Only two of the manuscripts transmit DNS in the context of *grammatica*: **Douai BM 748** (12<sup>th</sup> century, perhaps Anchin), in which DNS is transmitted

<sup>575</sup> Indeed, **Oxford, Bodleian Library, Junius 25** is such a detached first book of the *Etymologiae* that still contains the end of the preceding letter exchange between Isidore and Braulio and the beginning of the second book.

<sup>576</sup> Again, some of these manuscripts are described in Beeson, *Isidor-Studien*, 87–88.

<sup>577</sup> **London, BL, Royal 15 C XI** (11<sup>th</sup> century, ex./12<sup>th</sup> century, in., southern England) and **Paris, BnF, Lat. 7890** (15<sup>th</sup> century). The London manuscript is now a composite; the folia containing Plautus (113r-194v) were once a separate codex. DNS is on fol. 194v. In the Paris manuscript, it is on fols. 88rv. The plays of Plautus were equipped with critical signs in Antiquity and this could explain why DNS would be attached to them.

<sup>578</sup> These are **Cava dei Tirreni, Abbazia di S. Trinita, MS 3** (c. 1050, Cava dei Tirreni) and **Paris, BnF, Lat. 7418** (14<sup>th</sup> century, Italy).

<sup>579</sup> **Leiden, UB, Voss. Lat. O 95** (11<sup>th</sup> century), on fols. 3r-4r.

<sup>580</sup> **London, BL, Cotton Caligula A.xv** (c. 743, perhaps northeastern France), on fols. 31r-36r.

attached to the *Institutiones* of Priscian, and codex 100 of the one-time library of Charles de Montchal, which contained Priscian, Servius, treatises on meter, orthography and a glossary.<sup>581</sup> The three other manuscripts include a compendium of the Liberal Arts<sup>582</sup> and two miscellanies.<sup>583</sup>

It seems safe to conclude that the separately transmitted book one of the *Etymologiae* was considered an *ars grammaticae* in ninth-century France and Germany. I will return to this hypothesis below, where I will compare it with other early medieval *artes* (see p. 185).

### Paratextual additions to DNS

Fifteen manuscripts from my set contain marginalia to DNS or to *De notis*. Fourteen of them are manuscripts containing the whole book one and one, **London, BL, Cotton Caligula A XV**, is a manuscript in which *De notis* is transmitted excerpted.<sup>584</sup> Some of these marginalia have the form of singular words that explain other singular words, synonyms in the same language, or translations into a different language.<sup>585</sup> Other marginalia provide new, additional information, express the relationship between different parts of the text or the text and other texts, or speculate about the meaning of particular unclear passages. In what follows, I will call the former glosses and the latter annotations. The reason to distinguish the two is that they tend to reflect different contexts of use. The glosses have the purpose of enhancing the comprehension of the text on the most basic level, i.e., they address the language of the text and not its content, context or significance.<sup>586</sup> The

<sup>581</sup> See *Catalogus bibliothecae manuscriptorum Caroli de Montchal*, fol. 29v, available at: <http://www.bibliotheca-tholosana.fr/inside#!ouvrage/34/1192>.

<sup>582</sup> This is **Paris, BnF, Lat. 7530** (779-799, Monte Cassino), which contains DNS on fols. 154v-155v and which was already discussed as a witness of the 21-sign treatise in chapter 2 (see p. 60).

<sup>583</sup> These are: **Karlsruhe, Badische Landesbibliothek, Aug. Perg. 111** (9<sup>th</sup> century, 1/3, perhaps Reichenau), which contains DNS on fols. 72v-73r, at the beginning of a series of excerpts from Isidore's *De natura rerum*, see Holder, *Die Reichenauer Handschriften: Die Pergamenthandschriften*, 287–88; and **Innsbruck, Univ. und Landesbibliothek Tirol, MS 48** (mid-15<sup>th</sup> century, southern Germany).

<sup>584</sup> In addition, traces of marginalia to DNS can be found incorporated in the text in several other manuscripts. In **Paris, BnF, Lat. 6810**, which contains a sign treatise derived from DNS, one can read *in connexu .i. in copulatione partium* (see Appendix III, item 18, I included this gloss in Appendix V as item 15). The text of DNS in **Leiden, UB, Voss. Lat. O 15** (11<sup>th</sup> century, 1/2, southern France), the handbooks of Ademar of Chabannes, contains what seems to be a gloss to *diple peristichon, ad separationem Olympi a caelo, nepotis a serpente* (see Appendix V, item 17); see van Els, 'Een leeuw van een handschrift', 965. Similarly, a gloss *antisigma. contrarium sigma*, which we will encounter below, can be found in the glossary *Auxilium* preserved in **Monte Cassino, Archivio dell'Abbazia, MS 90** (11<sup>th</sup> century, 1/2, Monte Cassino); Goetz, *Corpus glossariorum Latinorum*, 5:561, 2.

<sup>585</sup> *Etym.* 1.30.1: *Hanc philosophi adverb[um] dicunt, quia vocem illam, de cuius requiritur, uno et singulari verbo designat. Quid enim illud sit in uno verbo positum declarat, ut: "conticescere est a tacere".*

<sup>586</sup> Compare also with the definition in Black, *Humanism and Education in Medieval and Renaissance Italy*, 9.

annotations, in contrast, reflect a more advanced study and for this reason they are valuable for detecting the involvement of more advanced audiences such as scholars.<sup>587</sup>

Of the fifteen manuscripts, nine were produced in Francia, two in Germany, three in Italy, and one in England. Five belong to the group of Frankish manuscripts containing only the first book of the *Etymologiae*. Thus, it seems that the practice of annotating DNS took a foothold particularly in the Frankish area. This also agrees with what we know about the Frankish scholars and their habit of almost obsessive glossing, commenting and annotating in the period.<sup>588</sup> The high number of annotated manuscripts coming from this area strengthens the impression that the first book of the *Etymologiae*, and the sections about the *notae* specifically, were among the texts they studied,<sup>589</sup> both in the more elementary classroom setting, as suggested by the glosses, and in the more advanced scholarly setting, as suggested by the annotations.<sup>590</sup>

The oldest of the fifteen manuscripts containing marginalia to DNS are **Milan, BA, L 99 sup.** produced in the first half of the eighth century in Bobbio, and **London, BL, Cotton Caligula A XV** produced in 743 in northeastern France; the youngest is the English **Paris, BnF, Lat. 7585** dated to the second half of the tenth century. Not all manuscripts were glossed in the same period as they were produced; however, most seem to have been annotated within a century of their production. **Milan, BA, L 99 sup.** was annotated in Caroline minuscule, probably in the ninth century, and **London, BL, Cotton Caligula A XV**, the other eighth-century manuscript, was annotated even later than that, perhaps in the late tenth or eleventh century. Because of the relatively late date of the annotations in both **Milan, BA, L 99 sup.** and in **London, BL, Cotton Caligula A XV**, the oldest layer of annotations features not in the oldest manuscripts, but in the mid-eighth century manuscript **Vatican, BAV, Vat. Lat. 5763** from northern Italy. In France, annotations to DNS are restricted to ninth-century manuscripts. The marginalia, we may conclude, are a product of the period of the revival of learning in the Carolingian realms,

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<sup>587</sup> It is no longer recognized that marginalia belong to the classroom and therefore annotated manuscripts reflect the activity of masters and their pupils; see in particular Teeuwen, 'Introduction', 3–4.

<sup>588</sup> Contreni, 'The Carolingian Renaissance', 735; and Copeland, 'Gloss and Commentary', 174. See also Contreni, 'The Biblical Glosses of Haimo of Auxerre and John Scottus Eriugena'.

<sup>589</sup> Naturally, the role of the *Etymologiae* in early medieval intellectual culture is well-known, but the early medieval annotations to the works have so far not been studied. For the place of the *Etymologiae* in the Early Middle Ages, see Contreni, 'The Carolingian Renaissance', 726; and more thoroughly in Bischoff, 'Die europäische Verbreitung der Werke Isidors von Sevilla'.

<sup>590</sup> The scholarly position on the exact purpose of the glosses and annotations is still being fine-tuned. The modern scholarship seems to agree that annotations were used for a range of educative purposes from the most elementary classroom education to a highly advanced and sophisticated self-study of authors; see Teeuwen, 'Glossing in Close Co-Operation?'; Wieland, 'The Glossed Manuscript?'; Lendinara, 'The *Versus de Die Iudicii*', 184–85.

just as the manuscripts separately transmitting book one of the *Etymologiae*. This is also clear from the fact that while the annotated manuscripts constitute roughly 10% of the entire set, they appear in over 20% of the manuscripts produced before or around 1000 and in roughly one-third of the manuscripts produced at this time in France.<sup>591</sup> I will now describe the marginalia in the fifteen manuscripts in chronological order (the glosses and annotations are presented in Appendix V).

**Milan, BA, L 99 sup.** (8<sup>th</sup> century, 1/2, Bobbio) contains a single gloss in book one, and this to *Etym.* 1.21.27 (*alogus*). It was added in a younger, Carolingian hand. A different Carolingian hand corrected the first book here and there and tried to improve the legibility of a difficult script.

**London, BL, Cotton Caligula A XV** (c. 743, northeastern France) contains eight annotations to *Etym.* 1.21.1-1.21.8. They were made by a younger hand, writing perhaps as late as in the eleventh century. All but one of these annotations – to *ponitur* – have a parallel in annotations from the tenth-century **Paris, BnF, Lat. 7585**. The two manuscripts seem to be related, which suggests that at the time when the annotations were made, the Cotton manuscript may have already been in England where it is preserved today.<sup>592</sup> I have not encountered any other marginalia in the sequence of excerpts from the *Etymologiae* (1.21-1.27.1 and 1.37.31-34) in this manuscript.

**Vatican, BAV, Vat. Lat. 5763** (mid-8<sup>th</sup> century, northern Italy) contains only one marginal annotation in the entire book one of the *Etymologiae*, which pertains incidentally to *Etym.* 1.21.14 (*diple peristichon*).

**Oxford, Bodleian Library, Junius 25** (8<sup>th</sup>/9<sup>th</sup> century, southwestern Germany, provenance Murbach) contains nine glosses to *Etym.* 1.21-26, of which six are glosses to DNS. They were made by a single hand, writing in a script similar to the script of the main text that added altogether 55 glosses to book one of the *Etymologiae*, all on fols. 140r-150v.<sup>593</sup> Eight of these glosses, including one in DNS (*improbantur. lastrot*), are in Old High German.<sup>594</sup> The majority of the glosses are lexical, but there are also one or two more complex glosses, such as *catalogo. census regni*.

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<sup>591</sup> While I noticed also some humanistic marginalia during my investigation, e.g. in **Paris, BnF, Lat. 7584** (see Appendix IV, item A35), there were none in hands from the later Middle Ages. This does not necessarily mean that the sections about the *notae* were not read in the High Middle Ages. Rather, post-Carolingian readers of these sections used different methods of interaction with the text or used it in a different context, as will be shown in the section devoted to the minor manuscript innovations of DNS.

<sup>592</sup> Ownership mark shows that it was owned by St. Augustine's Abbey at Canterbury in 1614; see [http://searcharchives.bl.uk/primo\\_library/libweb/action/display.do?doc=IAMS041-001102357](http://searcharchives.bl.uk/primo_library/libweb/action/display.do?doc=IAMS041-001102357).

<sup>593</sup> Four other glosses to this book on fols. 135r-137r were made by a different hand.

<sup>594</sup> Some of these Old High German glosses were printed in Steinmeyer and Sievers, *Die althochdeutschen Glossen. Glossen zu nichtbiblischen Schriften*, 2:340.

**Leiden, UB, Voss. Lat. F 82** (9<sup>th</sup> century, in., Paris) also contains only one single long marginal annotation to *strophe* (1.21.17).

**Reims BM 426** (9<sup>th</sup> century, ¼, Reims) contains nineteen glosses to *Etym.* 1.21-26, of which eight are glosses to DNS. They were made by two hands, one of them writing in lighter ink and another writing in the same dark ink as the main hand. The majority of the glosses are lexical. Only a few, such as the glosses to *paragraphus* and to *Brutus* provide an explanation that goes beyond synonymy. This manuscript contains glosses which also appear in **Orléans BM 296** and in **London, BL, Harley 3941**. The hand writing in lighter ink also added glosses, longer annotations and corrections to 1.1-37 and seems to have also made the *require* and *nota* signs in the margins of these sections. This hand disappears from fol. 18v on, in the middle of *Etym.* 1.37, after which there are no more marginalia to book one in this manuscript.

**Munich, BSB, Clm 6411** (9<sup>th</sup> century, ¼, perhaps Passau) contains only a single gloss to *conamur* (1.21.18) reading *incipimus*. Several other glosses of this sort are scattered throughout book one.

**Orléans BM 296** (9<sup>th</sup> century, ¼, perhaps area of Paris) contains 69 interlinear glosses to *Etym.* 1.21.18-1.26, of which nine belong to 1.21.18-1.21.27, the only part of DNS present in this cropped manuscript.<sup>595</sup> Given the number of glosses added to the surviving sections of DNS and in the other sections of *De notis*, it is likely that this manuscript would have been a rich source had the other sections also survived. Ten of the glosses to 1.21-1.26 are in Tironian notes, four of these in DNS. All glosses in the standard script can be characterized as lexical glosses, i.e., they provide synonyms for difficult words. Several of the Tironian glosses I was able to decipher with the aid of Martin Hellmann are grammatical, i.e., they provide information about the grammatical properties of given words (e.g. *aduerbium* to *diple superne obelata*, and *proprium nomen* which appears several times in *De notis*). Several glosses from this manuscript can also be found in **Reims BM 426** (e.g. *abolendas. delendas* and *Brutus. dux Romanorum*),<sup>596</sup> and one can be found in **London, BL, Harley 3941** (*ad mendas. mendacia*). According to Bischoff, the glosses are from the ninth and the tenth centuries.<sup>597</sup>

<sup>595</sup> For other sections, the count is as following: *De notis vulgaribus* (15), *De notis iuridicis* (14), *De notis militariibus* (9), *De notis litterarum* (12) and *De notis digitorum* (10).

<sup>596</sup> These two manuscripts contain both identical glosses and glosses similar in meaning to the same phrases in *De notis*, e.g. the phrase in *liminari* (1.21.28) is glossed as *in margine* in **Reims BM 426** and as *hoc est termino* in **Orléans BM 296**, and the phrase *superstitem* (1.24.1) as *viventem* in **Reims BM 426** and as *vivum* in **Orléans BM 296**. All in all eleven words or phrases in *De notis* were glossed in these two manuscripts with either identical or similar expressions.

<sup>597</sup> Bischoff, *Katalog II*, n. 3738.

**Cesena, Biblioteca Maltesiana, S.XXI.5** (9<sup>th</sup> century, 1/3, northern Italy) contains eleven marginal annotations to *Etym.* 1.21.2-12. Each marginal note summarizes Isidore's description of the respective sign in one or two words. The same hand also corrected 1.21-26 and made a marginal index to *De figuris accentuum* (1.19),<sup>598</sup> added variant readings, corrections and interlinear glosses to 1.3, 1.19-20 and 1.27-28, a marginal note accompanied by a *nota* sign to 1.35.7 (*anadiplosis*) and 1.36.22 (*hypallage*) and placed *obeli* to several passages of book one.<sup>599</sup> Several other hands also made annotations, corrections, and other marginalia throughout book one, some contemporary and others younger than the main hand, but these do not form a coherent set as in the case of the annotations to DNS. The hand that made these annotations looks roughly contemporary or slightly younger than that of the main text.<sup>600</sup>

**Paris, BnF, Lat. 11278** (9<sup>th</sup> century, 1/2, perhaps southeastern France) contains ten glosses to *De notis*, of these eight are glosses to DNS. With the exception of the gloss to the word *monade*, they provide explanations of the names of the technical signs discussed by Isidore similar to those found in several other manuscripts, such as **Orléans BM 296**, **London, BL, Harley 3941** and **Paris, BnF, Lat. 7585**. This manuscript also contains glosses to *Etym.* 1.1-4 (twenty-two glosses), 1.36 (four glosses) and 1.39 (two glosses). At least two hands made the glosses to DNS, one of which seems to be the main hand.

**Paris, BnF, Lat. 7671** (mid-9<sup>th</sup> century, perhaps northeastern France) contains an annotation to the word *catalogus* (1.21.8) made by the main hand of the text. The manuscript also contains glosses and annotations to *Etym.* 1.2-3, 1.18, 1.35-36 and 1.39-40. Several sections have contemporary marginal tabs,<sup>601</sup> e.g. *De qualitate* (1.7.18), *De comparatione* (1.7.27), and *De modis verborum* (1.9.4).

**Paris, BnF, Lat. 7583** (mid-9<sup>th</sup> century, central France) contains two glosses to DNS, one to *ingulet* (1.21.3) reading *decollet*, and one to *confodiat* (also 1.21.3) reading *vulneret*. The same hand seems to have added glosses and corrections to several other sections of book one, e.g. to 1.4 and 1.17.

<sup>598</sup> I use the term marginal index to refer to marginalia that merely highlight words from the text in the margin. They do not explain or add information.

<sup>599</sup> They can be found on fol. 21r to 1.35.8 (*anaphora*), on fol. 22v to 1.37.8 (*metonymia*), on fol. 23v to 1.37.20 (*synthesis*), and on fol. 25r to 1.39.10.

<sup>600</sup> See also the article by Anna Belletini; Belletini, 'Il codice del sec. IX di Cesena, Malatestiano S. XXI.5'.

<sup>601</sup> I define marginal tabs as a marginalia that inform one about the contents of a particular passage. They usually have the form of a keyword placed in the margin, e.g. *De anima* (I discuss marginal tabs in greater detail in chapter 6, see p. 233).

**London, BL, Harley 3941** (9<sup>th</sup> century, 2/2, Brittany) contains 67 marginal and interlinear glosses and annotations to *Etym.* 1.21-26, forty of them to DNS alone.<sup>602</sup> Some of these are lexical glosses, e.g. *celeberrimos. clarissimos*, but, for example, the word *in his* is glossed with the deictic *sententiis*. There are also annotations, e.g. *catalogus. series nominum vel locorum vel iustorum numerus*. The phrase *iustorum numerus* goes back to a glossary<sup>603</sup> and links this passage to Apc 6:9-11.<sup>604</sup> A marginal annotation to the quotation from *Aen.* 10.88 in *Etym.* 1.21.18 similarly links this passage with the commentary of Servius on Virgil's *Aeneid* and even contains the referential tag *Ser g.* for Servius *grammaticus*. The interlinear annotation to *ad separationem Olympi a caelo* (1.21.14) explains this somewhat obscure formulation: *quia aliquando Olimpbum montem posuit* [i.e. Homer] *pro caelo propter altitudinem*, and the interlinear annotation to the verse quoted from the *Aeneid* clarifies: *haec ait Iuno*, an explanation which might be perplexing to someone who was not familiar with the *Aeneid*. Furthermore, several of the glosses form pairs, e.g. the passage *adponitur in verbis vel sententiis superflue iteratis* (1.21.3) contains a gloss for *verbis* reading *apud poetas* and a gloss for *sententiis* reading *apud oratores*. The purpose of these two glosses was thus to explain that Isidore's use of the two terms in one sentence refers to two types of users of the signs, viz. poets and orators.<sup>605</sup> Finally, ten of the names of the technical signs in DNS were glossed with explanatory terms, some of which can be found in several other manuscripts. The layer of marginalia in this manuscript is perhaps most obviously of all manuscripts mentioned here not only meant for the elementary comprehension of the text, but enriches it with explanations, clarifications, suggestions and links to other texts. Other annotated sections of book one in this manuscript include *Etym.* 1.1-3, 1.17-20, and 1.36-41. In fact, **London, BL, Harley 3941** is annotated throughout in all books. Some of the glosses in other books are in old Breton,<sup>606</sup> showing clearly that the annotation took place in Brittany, where the manuscript was produced.

**Leiden, UB, Voss. Lat. O 41** (9<sup>th</sup> century, 4/4, northeastern France) contains 74 interlinear glosses, 46 of which are glosses to DNS.<sup>607</sup> With the exception of perhaps one or two glosses, all are lexical and many, in fact, provide what might be perceived as a less

<sup>602</sup> For other sections, the count is following: *De notis vulgaribus* (11), *De notis iuridicis* (7), *De notis militaribus* (4), *De notis litterarum* (1) and *De notis digitorum* (4).

<sup>603</sup> See Goetz, *Thesaurus glossarum emendatarum*, 1:188.

<sup>604</sup> See Stuhlmann, *Das eschatologische Mass im Neuen Testament*, specifically 153-63.

<sup>605</sup> Two other pairs of this type are: *ad separandos in comoediis vel tragoediis periodos* (1.21.16), *in comoediis. in commesationibus* and *tragoediis.rusticis*; and *quotiens strophe et antistrophus infertur* (1.21.17), *strophe.conversio* and *antistrophus.reconversio*.

<sup>606</sup> Fleuriot, 'Gloses inédites en vieux-Breton', 197.

<sup>607</sup> For other sections, the count is as following: *De notis vulgaribus* (13), *De notis iuridicis* (5), *De notis militaribus* (6), *De notis litterarum* (4) and *De notis digitorum* (0).

common synonym for a more common word, e.g. *fines.boc est terminos*. The name Zenodotus is glossed as *proprium nomen* and the name of Homer with *Graecus fuit*. Despite the relative density of annotation, the glosses are rather elementary and do not go beyond the enhancement of reading and an elementary comprehension of the text.

**Paris, BnF, Lat. 7585** (10<sup>th</sup> century, 2/2, England) contains 16 annotations, 14 of which are to DNS.<sup>608</sup> Several of the marginalia in DNS belong to the same set of glosses as found in **London, BL, Harley 3941** and **Paris, BnF, Lat. 11278**. It also shares four annotations with **London, BL, Cotton Caligula A XV**, for example, *eodem sensu, sed diversis sermonibus* (1.21.5). *id est ut est veritas et iustitia*. Annotated sections in book one in this manuscript include *Etym.* 1.1-3, 1.7 (one gloss), 1.17, 1.20-21, 1.22 (one gloss), 1.25 (one gloss), 1.27 (two glosses), 1.28 (one gloss), 1.32-37, and 1.39-40. In addition, many sections and chapters contain interlinear variant readings and corrections. There are also *kaput* text-structuring signs throughout book one, and several sections are further structured by means of Roman numerals inserted in the margin, including DNS, in which the individual items are numbered up to XXIII.

Two observations can be made on the basis of this overview. First, the annotated manuscripts from France are not only more numerous than annotated manuscripts from other regions, but they were also more densely annotated. The three manuscripts containing more than fifty glosses and/or annotations to *De notis* (**Orléans BM 296**, **London, BL, Harley 3941** and **Leiden, UB, Voss. Lat. O 41**) were all produced in France. In fact, only two manuscripts from outside the Frankish area, **Cesena, Biblioteca Maltesiana, S.XXI.5** and **Paris, BnF, Lat. 7585**, contain more than just one or two annotations/glosses compared to seven such manuscripts from France or Germany (or three and six, if **London, BL, Cotton Caligula A XV** was annotated in England). The Frankish manuscripts are, moreover, interconnected as can be showed by shared glosses. The annotations in the Cesena manuscripts, in contrast, represent a ‘minor’ innovation, a product of a singular act of readership of an interested reader. Since **Cesena, Biblioteca Maltesiana, S.XXI.5** comes from northern Italy, it may very well represent a local outburst of interest stimulated by the Carolingian influences in this region. **Paris, BnF, Lat. 7585**, the other non-Frankish manuscript containing many glosses, is a composite manuscript partially made from quires taken from a ninth-century Frankish book, and partially from quires produced in the tenth century in England.<sup>609</sup> Although book one was

<sup>608</sup> One gloss is found in *De notis vulgaribus* and one in *De notis digitorum*.

<sup>609</sup> See Bishop, *English Caroline Minuscule*, n. 6.

copied entirely in England, it displays parallels with Frankish manuscripts (including some of the glosses), possibly because it was copied from the now lost, damaged leaves of the Frankish exemplar. Both these non-Frankish manuscripts containing a larger amount of glosses can, thus, be seen as reflecting the Frankish influence in the areas.

Second, the layers of marginalia in the five more extensively annotated manuscripts produced and kept in France, and in **London, BL, Cotton Caligula A XV** and **Paris, BnF, Lat. 7585** overlap, even though the text versions of the *Etymologiae* in these manuscripts are unrelated.<sup>610</sup> The overlap is, thus, not a result of copying from a common ancestor which already contained the shared glosses or annotations, but rather the result of contacts between centers in France and in England and of a shared intellectual climate, which created the favourable conditions for annotation as a trend. As the simple lexical glosses in many of these manuscripts suggest, classroom education may have played a role in the dissemination of these glosses and annotations.

I was able to discern two sets of marginalia shared by several manuscripts. The first is a set of glosses to the names of the signs found in four manuscripts, **Paris, BnF; Lat. 11278, London, BL, Harley 3941, Paris, BnF, Lat. 7585** and **London, BL, Cotton Caligula A XV**.<sup>611</sup> A fifth witness of this set is the eleventh-century *Enchiridion* of Byrhtferth of Ramsey discussed in chapter 2 (see p. 88, I reproduced the glosses to this text from the only complete manuscript of the *Enchiridion* in Appendix V, item 18). The following table provides an overview of these glosses (fig. 5, glosses deviating from the set in gray):

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<sup>610</sup> **Paris, BnF, Lat. 11278** contains twenty-five chapters in book one, while **Reims BM 426, London, BL, Harley 3941** and **Leiden, UB, Voss. Lat. O 41** belong to the ‘pure’ 26-chapter version of book one, and **Paris, BnF, Lat. 7585** is an eccentric exemplar with twenty-seven chapters in the *capitula* and 38 chapters in the body of the book.

<sup>611</sup> A fifth manuscript which may have contained the same glosses is **Orléans BM 296**, which is, however, preserved incompletely.

<i>lemma</i>	Paris, BnF, Lat. 11278	London, BL, Harley 3941	Paris, BnF, Lat. 7585	London, BL, Cotton Caligula A XV	<i>Enchiridion</i>
Lemniscus	finalis	finalis	.i. custodia	-	finalis
Antigraphus	-	-	.i. contrarius scriptor vel contraria scriptura	contrarius scriptor	contraria scriptura
Paragraphus	similis scriptio	similis scriptio	.i. similis scriptio	similis scriptor	-
Cryphia	iudiciale	.i. iudiciale	.i. circulus	-	iudicialis
Antisigma	contraria simma	contraria simmae [...]	-	-	contraria
Diple	-	.i. duplex	.i. duplex	-	id est duorum
Diple peristichon	duorum versuum	duorum versuum	distinguendo	-	sentium
Diple periostigmene	duplex adnotatio	duplex annotatio	-	-	duplex id notatio

fig. 5: glosses to the names of the technical signs in DNS

These glosses attempt to provide a translation of the Greek names of the technical signs. They are, thus, neither lexical nor elementary, but rather interpretative or even speculative. They do not improve the basic comprehension of the text, but rather expand it. They seem to reflect a scholarly engagement with DNS, rather than an aid to elementary, language-oriented reading, which seems to underline the glossing of **Leiden, UB, Voss. Lat. O 41** and **Orléans BM 296**. Moreover, two of the witness of this set of glosses, the oldest (**Paris, BnF, Lat. 11278**) and the youngest (*Enchiridion*), contain no or almost no other marginalia to DNS or *De notis*. This strengthens the impression that we are dealing here with a discrete set. The ninth-century **Paris, BnF, Lat. 11278** and **London, BL, Harley 3941** are tied more closely together than to other manuscripts containing this set. They share in common six glosses, four of which can be also found in the *Enchiridion*. **Paris, BnF, Lat. 7585** shares only two glosses with these two manuscripts and **London, BL, Cotton Caligula A XV** only one, but the two manuscripts share altogether five glosses and annotations, three of which are found only in these manuscripts. These five marginalia can be considered a second set (fig. 6).

DNS	London, BL, Cotton Caligula A XV	Paris, BnF, Lat. 7585
eodem sensu sed diversis sermonibus	ut veritas et iustitia	i. ut est veritas et iusticia
Antigraphus	contrarius scriptor	i. contrarius scriptor vel contraria scriptura
(Asteriscus cum obelo) hac	s. nota	s. nota
Paragaphus	similis scriptor + graecum g	i. similis scriptio
separant	ne unum fiat a duobus	s. ne unum fiat de duobus

fig. 6: glosses and annotations shared by Cotton Caligula A XV and Paris Lat. 7585

The set in **Paris, BnF, Lat. 7585** and **London, BL, Cotton Caligula A XV** seems to be younger, given the dates of the two manuscripts that contain it. Moreover, these two manuscripts are tied to England, which may imply that the unique glosses they contain are English in origin, rather than Frankish. Since these manuscripts show that there were links between centers on both sides of the Channel and the glosses and annotations circulated between the two regions, it is perhaps correct to see them as a Franco-English phenomenon.<sup>612</sup> The precise mechanisms of knowledge exchange between the Frankish intellectual centers and centers in England can be illustrated by the youngest witness - the *Enchiridion* of Byrhtferth of Ramsey.

As explained in chapter 2, the *Enchiridion* is a work devoted to the Abbonian computus, the name of which comes from Abbo of Fleury (c. 945 – 1004). Abbo was one of the great minds of the second half of the tenth century, famous particularly for his study of arithmetic and computus, but otherwise a prolific scholar contributing to all liberal disciplines.<sup>613</sup> In 985, he accepted the invitation of archbishop Oswald of Worcester to teach at Ramsey, where Byrhtferth became his student.<sup>614</sup> It is very likely that not only the computistic material but also other sections of the *Enchiridion*, including a sign treatise based on DNS which was with Latin glosses, derive from Abbo's teaching.<sup>615</sup> A continental origin of the glosses is certainly suggested by their presence in older manuscripts from

<sup>612</sup> Thanks to the work of Wilhelm Levison and more recently of Joanna Story, we know that a vibrant intellectual and cultural exchange took place between Anglo-Saxon England and the Continent in the eight and ninth centuries; see Levison, *England and the Continent in the Eighth Century*; and Story, *Carolingian Connections*. More recently, the phenomenon of the transfer of knowledge and practices across the Channel was explored in two volumes; Rollason, Leyser, and Williams, *England and the Continent in the Tenth Century*. and Sauer, Story, and Waxenberger, *Anglo-Saxon England and the Continent*.

<sup>613</sup> Abbo's career was studied by Mostert, see Mostert, *The Political Theology of Abbo of Fleury*.

<sup>614</sup> Lapidge and Baker, *Byrhtferth's Enchiridion*, xxi. Byrhtferth, who was born around 970, must have been in his teens at the time. Just like the case of Tatto mentioned in chapter 4 (see p. 129), his case suggests that some of the future sign users were exposed to *doxa* about technical signs at a relatively young age.

<sup>615</sup> The section based on DNS in the *Enchiridion* is followed by another list of signs, in this case for weights and measures, *De ratione unciarum*. According to Lapidge, it is based on Abbo's treatise *De unciarum minutis* of Abbo of Fleury via which it goes back to Bede's *De tempore rationum*, *Ibid.*, 332.

France. Byrhtferth's source for the glosses could have been a book brought by Abbo, or perhaps Abbo's lesson, from which he took notes.<sup>616</sup> In any case, the *Enchiridion* demonstrates that teaching was the medium for the transfer of knowledge associated with DNS. Abbo's involvement, moreover, implies that Fleury was one of the centers involved in the teaching of DNS and dissemination of glosses and annotations attached to this text. It was, indeed, renowned as a center of learning in the ninth and the tenth centuries, well-connected with the scholarly networks in the Frankish territory,<sup>617</sup> and thus a perfect candidate for a nod in the intellectual network we can imagine behind the spread of marginalia to DNS beyond the Frankish lands.<sup>618</sup> That Isidore was used here for teaching before Abbo's days is suggested by another glossed manuscript, **Orléans BM 296**, which may have been written in Fleury and was certainly there later,<sup>619</sup> and by two manuscripts of the separately transmitted book one of the *Etymologiae* that originated there – **Bern, Burgerbibliothek, MS 207** and **Leiden, UB, Voss. Lat. Q 86**.

Summing up, I hope to have shown that the annotated manuscripts containing the first book of the *Etymologiae* provide evidence that from the ninth century onwards, probably in the large intellectual centers in northern France, an innovation emerged in the form of glosses and annotations to DNS, a section which before that date did not receive a similar treatment. This innovation fits into the general picture of the emergence of commentaries on various texts in the form of marginal glosses and annotations in the period. Both the marginalia and the *Ars Isidori* suggest that instruction and teaching based on the first book of the *Etymologiae* took place in Francia. The marginalia, moreover, provide evidence for a more advanced engagement that provided room for speculation and external knowledge. The marginalia did not spread because of the copying of manuscripts which already contained glosses, or at least not only in this manner. As the case of Byrhtferth of Ramsey suggests, they were also disseminated as a result of teaching. This is how the practice reached England by the second half of the tenth century. Knowledge transfer of the same kind may have also taken place from France to Germany and to northern Italy, but there is no evidence for Spain and southern Italy, although both regions

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<sup>616</sup> Cf. Contreni, 'Bede's Scientific Works in the Carolingian Age', 253.

<sup>617</sup> Fleury had, for example, good connections with Ferrières and Auxerre via their common mother house, Tours; Reynolds, *Scribes and Scholars*, 100; McKitterick, *The Frankish Kingdoms under the Carolingians*, 212–13. It had also close relations with nearby Orléans; cf. Fischer, 'Bibeltext und Bibelreform', 176. Fleury was also one of the places in which the study and use of Tironian shorthand, a different type of the *notae*, is amply attested; Teeuwen, 'The Pursuit of Secular Learning', 44.

<sup>618</sup> For the links between Fleury and England, see specifically the article of Marco Mostert; Mostert, 'Relations between Fleury and England'.

<sup>619</sup> Mostert, *The Library of Fleury*, 167.

had strong intellectual traditions and played an important role in the transmission of the *Etymologiae*.

### Innovations of the layout of DNS

In the manuscripts containing the first book of the *Etymologiae*, the section DNS is laid out on the page in two principal ways. In some manuscripts, this section was copied as a continuous block of text, so that each new item begins immediately following the preceding item, and the graphic symbol that belongs to it is placed inside the text: this is the line-by-line layout.<sup>620</sup> In others, the items are set apart by white spaces and form self-standing capsules of text: this is the list-like layout.<sup>621</sup> The main difference between these two layouts is the potential degree of consultability. The list-like layout is better suited for a non-sequential reading and the retrieval of discrete bits of information.<sup>622</sup> A number of other formal features could enhance the consultability of the text as well: rubrication and capitalization indicated where a new item began; a marginal index divided the text into shorter sections; and the graphic signs for each item could be set off in the margin, where they were more visible and at the same time marked the beginning of a new item just as a marginal index.

There are good reasons to think that Isidore organized the archetypal text of DNS in a line-by-line fashion and that the list-like layout is an innovation. The majority of the manuscripts contain DNS in a line-by-line format, irrespective of their region or period of origin (fig. 7). The line-by-line arrangement is also the most common arrangement in the oldest manuscripts. The presence of the list-like layout and/or of other features enhancing the consultability of DNS can therefore be taken to indicate a particular intended form of readership.

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<sup>620</sup> An example of a manuscripts in which DNS is arranged line-by-line is **Munich, BSB, Clm 6411**, at: [http://daten.digitale-sammlungen.de/bsb00012886/image\\_74](http://daten.digitale-sammlungen.de/bsb00012886/image_74).

<sup>621</sup> An example of a manuscript in which DNS is arranged list-like is **Wolfenbüttel, HAB, Weiss. 64**, at: <http://diglib.hab.de/mss/64-weiss/start.htm?image=00042>.

<sup>622</sup> Blair, *Too Much to Know*, 152–53.

date	line-by-line	list-like	no information	total
8 <sup>th</sup> century	3	3	1	7
9 <sup>th</sup> century	34	12	0	46
10 <sup>th</sup> century	7	5	0	12
11 <sup>th</sup> century	9	3	0	12
12 <sup>th</sup> century	33	0	0	33
13 <sup>th</sup> century	18	3	0	21
14 <sup>th</sup> century	11	0	0	11
15 <sup>th</sup> century	9	0	0	9
total	124	26	1	151

fig. 7: distribution of manuscripts according to their layout

Only about 17% of the manuscripts I examined are arranged list-like. Contrary to what may be expected, this ratio is higher for the manuscripts produced before 1000 (30%) and drops for manuscripts produced after 1000 (7%). Even though, in my opinion, a list-like layout is a new feature because of the new modes of reading it enabled, it did not spreading after 1000. In fact, the low number of manuscripts containing this feature produced after 1000 suggests it was in decline, despite the fact that from the twelfth-century onwards scholastic reading favoured the kind of consultability which was facilitated by the list-like layout.<sup>623</sup>

Manuscripts with a list-like layout fall into three categories. The oldest manuscripts with this arrangement are **Wolfenbüttel, HAB, Weiss. 64** and **Vatican, BAV, Vat. Lat. 5763**, related manuscripts produced in the first half of the eighth century in the same scriptorium in northern Italy (probably Bobbio<sup>624</sup>) representing the manuscript family  $\beta$ .<sup>625</sup> Despite their age, these manuscripts also contain other consultability-enhancing features, such as the rubrication of the first letter of each item and the setting-out of the graphic symbol in the margin. The thirteenth-century **Bern, Burgerbibliothek, MS 95** seems to follow the same, unique pattern of layout as the Wolfenbüttel *Etymologiae* and since it contains other archaic features (e.g. the ‘old’ 25-chapter format of book one, see Appendix IV, item A101), it is probably a copy of an ancient exemplar similar to **Wolfenbüttel, HAB, Weiss. 64**.

The second category consists of nine manuscripts from Spain and Septimania. Seven of them belong to the Spanish family of the *Etymologiae* discussed in chapter 2, which contains the sign treatise *Item sicut alibi* (see p. 65).<sup>626</sup> They are thus textually related and the

<sup>623</sup> Rouse and Rouse, ‘*Statim Invenire*’, 192.

<sup>624</sup> Bischoff, ‘Die europäische Verbreitung der Werke Isidors von Sevilla’, 322.

<sup>625</sup> See Porzig, ‘Die Rezensionen der *Etymologiae*’, 139–40.

<sup>626</sup> These are: **Madrid, Real academia de la historia, MS 25**, **Madrid, Real academia de la historia, MS 76**, **El Escorial, Monasterio San Lorenzo, P I 6**, **Paris, BnF, n.a.l. 2169**, **Madrid, Biblioteca Nacional, MS 10008**, **El Escorial, Monasterio San Lorenzo, & I 3**, and **Vatican, BAV, Vat. Lat. 623**.

list-like layout of DNS, too, goes back to the archetype of this family. It is one of the innovations that characterizes this Spanish family and may be connected with two older manuscripts, **El Escorial, Monasterio San Lorenzo, P I 7** (c. 900, northern Spain) and **El Escorial, Monasterio San Lorenzo, P I 8** (c. 800, Septimania). It is probably not Spanish in origin as is suggested by the fact that the oldest manuscript in this category is from outside Spain.

Finally, the last and the largest group consists of fourteen manuscripts, of which eight can be localized to France and dated to the ninth or the tenth centuries.<sup>627</sup> Unlike the other two categories, these manuscripts are not all related textually.<sup>628</sup>

In conclusion, the layout of DNS was changed from an original line-by-line layout to a list-like layout independently several times between the eighth and the tenth century. This happened in three different contexts: in northern Italy before 800; in northern Spain as a part of a revision of the *Etymologiae* carried out in the tenth century; and in France in the ninth and the tenth centuries. This progressive layout seems to have been transmitted as a part of the textual tradition of the *Etymologiae* in the first two categories of manuscripts, i.e. it goes back to a single exemplar that was the archetype of a particular manuscript group. Manuscripts from the third group, by contrast, are not related and thus seem to represent several cases of transition from a line-by-line to a list-like layout that happened outside of the context of the copying of the manuscripts. In this respect, they resemble the annotated manuscripts discussed in the previous subsection, in which the glosses were, I argued, not copied together with the main text but added separately. The manuscripts containing the separately transmitted book one, too, do not represent a single textual family, but attest to a separation of book one independently multiple times at multiple places. While there is no

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<sup>627</sup> The eight manuscripts are: **Bern, Burgerbibliothek, MS 224** (9<sup>th</sup> century, 1/3, France), **Vatican, BAV, Reg. Lat. 1953** (9<sup>th</sup> century, 1/4, Orléans), **Paris, BnF, Lat. 10292** (9<sup>th</sup> century, 3/4, eastern France), **Paris, BnF, Lat. 7584** (9<sup>th</sup> century, 3/4, France), **Montpellier, Bibliothèque de la faculté de médecine, H 53** (9<sup>th</sup> century, 3/4, France?), **Bern, Burgerbibliothek, MS 36** (9<sup>th</sup> century, 3/4, France, perhaps Auxerre or Fleury), **Vercelli 102** (9<sup>th</sup> century, ex., Lyon). One manuscript, **Oxford, Queen's College, MS 320**, was produced after mid-tenth century in England and perhaps further illustrates the knowledge exchange between France and England in this period. Another manuscript, **Munich, BSB, Clm 4541**, is a ninth-century codex produced in Benediktbeuern. **Vercelli, Biblioteca Capitolare, MS 202**, in fact contains only some items in a list-like format and was produced in the early ninth century in Vercelli and **Berlin, Staatsbibliothek, Lat. fol. 641** was produced at the turn of the tenth century in northern Italy. Finally, the ninth-century manuscript **Paris, BnF, Lat. 17159** and the thirteenth-century manuscript **Tours BM 845** were not localized.

<sup>628</sup> This is evident from both the number of *capitula* in the first book and the shape of chapter *Etym.* 1.15 (see the introduction to Appendix IV). One of the thirteen manuscripts contains a variant of book one divided into twenty-five chapters, five are representatives of the 'pure' version with twenty-six chapters with the title *De litteris apud grammaticos*, but no text present in the place of *Etym.* 1.15, one is a similar 'pure' version with *De voce* as *Etym.* 1.15, three are versions of book one with twenty-six chapters missing chapter *De historia*, one is an 'extended' version with twenty-nine chapters, one is a 'corrupted' version with twenty-three chapters, and one is a manuscript with a different arrangement and with no *Etym.* 1.15.

direct link between the list-like layout of DNS and pedagogical setting, nevertheless it seems correct to say that the reformatting of DNS was yet another feature related to the study of DNS in France, where the reformatting took place most intensively.

### 'Minor' innovations to DNS

Besides the three 'major' innovations discussed in the previous subsections – the separate transmission of book one of the *Etymologiae*, the addition of glosses and annotations to DNS, and reformatting of DNS – , some of the manuscripts I examined showed traces of innovations that were restricted to a single manuscript or to a small set of manuscripts. Some of these 'minor' innovations show that attention was paid to DNS or to *De notis* also after the Carolingian period, but they also reveal that any further innovations were relatively small and isolated. Just as the glosses, annotations and the list-like layout of DNS can be taken as an indication that this text was studied in the Early Middle Ages, these 'minor' innovations suggest that after this period the interest in Isidore's list of technical signs was marginal at best.

The most notable post-Carolingian form of engagement with DNS is the addition of marginal indices and tabs and *nota* signs. In **Leiden, UB, Voss. Lat. F 74** and **Florence, Biblioteca Medicea Laurenziana, Plut. 90 sup. 17/3** a Gothic hand equipped DNS with a marginal index. In **London, BL, Harley 2660** and **Vatican, BAV, Vat. Lat. 624**, a marginal index was added not only to DNS but also to a number of chapters of the first book of the *Etymologiae*.<sup>629</sup> In **Paris, BnF, Lat. 7674**, a Gothic hand not only marked passages from DNS and *De notis digitorum*, but also added marginal notes to the references to Augustus and Ennius in the latter section.<sup>630</sup> Gothic *nota* signs were added to several sections of *De notis* in **Paris, BnF, Lat. 10293**, and to other *capitula* in **Toulouse BM 177** (12<sup>th</sup> century), **St. Die BM 6** (12<sup>th</sup> century), **Auxerre BM 76** (12<sup>th</sup> century) and **St. Omer BM 643** (12<sup>th</sup> century, ex.). Sections on the *notae* in the first book of the *Etymologiae* were still read after the early medieval period, but the manner in which this reading was conducted and the traces the engagement with the text left in the manuscript evidence changed. Traces of the activity of readers from the High Middle Ages seem few and scattered compared to those from the Early Middle Ages.

<sup>629</sup> In **London, BL, Harley 2660**, it is particularly dense in 1.1-9. The Harley manuscript is an *extravagans* with two sections about *notae* and two sections *De notis sententiarum*. Indices to the sections about the *notae* read: *De figuris quae inveniuntur in divina pagina* (abbreviated 1.21), *Similes figurae in Salustio inveniuntur* (1.23), *Nota. Ille figurae inveniuntur in sacra scriptura* (1.21), *Nota. Militares figuras* (1.24). There are no indices to 1.22 and 1.25-26. In **Vatican, BAV, Vat. Lat. 624**, marginal tabs appear to 1.1, 1.3, 1.5-9, 1.15-19, 1.21-22 (i.e. DNS and *De notis vulgaribus*), 1.27 and 1.29-41.

<sup>630</sup> The same manuscript contains marginal indices up to 1.18 and again from 1.27, but not for 1.21-26.

The only significant innovation to *De notis* that took place after the ninth century and can be compared to the earlier innovations of DNS was the attachment of a list of *notae iuris* (see p. 8) to this *capitulum* or after *De notis iuridicis* (1.23).<sup>631</sup> The oldest manuscript, in which this addition occurs after *De notis digitorum* (1.26), is **Paris, BnF, Lat. 7585** (10<sup>th</sup> century, 2/2, England), which was already mentioned here as the youngest manuscript containing glosses, a hybrid book combining ninth-century Frankish and tenth-century English features.<sup>632</sup> The same list of *notae iuris* appears after *De notis digitorum* in four other manuscripts: **St. Omer BM 642** (12<sup>th</sup> century, ex.), **Cambridge, Trinity College, R.9.10** (13<sup>th</sup>/14<sup>th</sup> century), **Leiden, UB, BPL 11** (15<sup>th</sup> century, 1/2) and **Leiden, UB, BPL 29** (mid-15<sup>th</sup> century).<sup>633</sup> Two manuscripts from Italy, **Florence, Biblioteca Medicea Laurenziana, Plut. 90 sup. 17/1** (13<sup>th</sup> century) and **Vatican, BAV, Vat. Lat. 623** (13<sup>th</sup>/14<sup>th</sup> century), also contain a list of *notae iuris*, but of a different type<sup>634</sup> and placed after *De notis iuridicis* (1.23).<sup>635</sup>

While *De notis sententiarum* (1.21) and *De notis iuridicis* (1.23) were extended by lists of *notae* from external sources (sign treatises and lists of *notae iuris*, respectively), a third section of the *capitulum* to which similar external lists existed, *De notis vulgaribus* (1.22), never received a similar attention.<sup>636</sup>

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<sup>631</sup> **Berlin, Staatsbibliothek, Lat. fol. 641** (10<sup>th</sup> century, 1/2, northern Italy) contains a list of *notae iuris* attached to the *Etymologiae* at the end of the manuscript. Since the same list of *notae iuris* that features in this manuscript appears also in several younger Italian manuscripts, it was perhaps this particular manuscript that stimulated the innovation on the peninsula. It is, thus, not necessarily true that this innovation is post-Carolingian or independent from the development in the Frankish lands, especially since northern Italy was under Carolingian influence.

<sup>632</sup> Given the date of this manuscript and the possibility that the list of *notae iuris* was present in its Frankish prototype, it is possible that the attachment of this list to *De notis* was originally a Carolingian innovation. In that case, it would resemble the German eccentric family of the *Etymologiae*, whose parent, **Zofingen, Stadtbibliothek, Pa 32**, was produced at the beginning of the ninth century, but which gained greater popularity only after the year 1000.

<sup>633</sup> They are the *notae iuris* of the so-called Magno-type, named after archbishop Magno of Sens (d. 818); see Mommsen, 'Notarum laterculi', 285–300. Carolingian origin of this version of the *notae iuris* may, too, suggest that they are a Carolingian, rather than a more recent innovation.

<sup>634</sup> The *notae* in this manuscript resemble the *notae Vaticananae* and *notae* of Peter the Deacon; see *Ibid.*, 301–14 and 331–46.

<sup>635</sup> Note that the two types of *notae*, technical signs and *notae iuris*, are frequently associated with each other in early medieval manuscripts. In **Paris, BnF, Lat. 7530** (779–799, Monte Cassino), a list of *notae iuris* precedes excerpted DNS on fols. 148v–154v, in **Paris, BnF, Lat. 4841** (mid-9<sup>th</sup> century, southern France), it follows a sign treatise on fols. 28r–31v, and in the Monte Cassino sign florilegium, both in **Cava dei Tirreni, Abbazia di S. Trinita, MS 3** (c. 1050, Cava dei Tirreni) and **Paris, BnF, Lat. 7418** (14<sup>th</sup> century, Italy), it follows the sequence of excerpts from *De notis* (see chapters 2 and 3).

<sup>636</sup> *Etym.* 1.22 was, nevertheless, excerpted into several manuscripts, including exemplars of the *Commentarii notarum Tironianum*: **Kassel, Universitätsbibliothek, Phil. Fol. 2** (8<sup>th</sup>/9<sup>th</sup> century, northern or northeastern France, on fol. 1r), and in **Paris, BnF, Lat. 8779** (9<sup>th</sup> century, 3/4, Reims, on fol. 1r). It features also in the famous codex with texts in Tironian notes, **Bern, Burgerbibliothek, MS 611** (c. 727), on fol. 72v.

### The innovations to DNS in perspective

In this section I will put the innovations discussed in this chapter into perspective to show how they correspond to regional intellectual developments, reflect changes in readership across time and allow us to track patterns of knowledge transfer from the center to the periphery and within the early medieval intellectual zones of contact. I will here also return to the two selective sign treatises transmitted in the manuscripts of the *Etymologiae* that were discussed in chapter 2 – the one preserved in **Zofingen, Stadtbibliothek, Pa 32** (see p. 83) and the one called in the manuscripts *Item sicut alibi inventae sunt* (see pp. 65 and 88) – since they can be considered a type of innovation of DNS, too.

The first important observation about these innovations is that they appeared before 1000. It is quite surprising that some of them, such as the list-like layout, seem not to have continued to enjoy popularity in the High Middle Ages. The interest in Isidore's treatment of the *notae* did not ebb completely after the Early Middle Ages, as is suggested by marginal indices and *nota* signs made by Gothic hands. However, it is clear that the peak of interest in DNS lies in the Carolingian period, and no other revival of interest similar in scope occurred in the later Middle Ages.

The early medieval innovations of DNS were regional in character. Not only did they spread within particular regional networks, but they also often appeared in these regions as a set emanating from a single *locus* or reflecting a single, regional trend. In northern Spain, a revised version of the *Etymologiae* that emerged around the mid-tenth century contained a second sign treatise attached to DNS (*Item sicut alibi inventae sunt*), a list-like layout of this chapter and novel textual features which came from the Mozarabic south of the peninsula.<sup>637</sup> Its emergence can be connected with the revival of interest in learning from the Frankish lands in this region.<sup>638</sup> I think it is no coincidence that the oldest manuscript of this 'revised' family comes from the monastery of San Millan de Cogolla, which was the focal point of this revival.<sup>639</sup> In Germany, a different 'revision' of the *Etymologiae* took place already a century earlier. Here, Isidore's other work, *De natura rerum*, was inserted into the

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<sup>637</sup> All manuscripts from this family restore the chapter *De litteris apud grammaticos* (1.15), which had been transmitted in manuscripts from southern Spain. In all other manuscripts, this 'draft' chapter was removed entirely, replaced by a different text, or only its title survives (see the introduction to Appendix IV). Other southern features of the manuscripts in this family are discussed in Huglo, 'The *Musica Isidori* Tradition', 65–66.

<sup>638</sup> Wright, 'Latin Glossaries in the Iberian Peninsula', 217.

<sup>639</sup> The monastery was part of the territory of La Rioja, which had been controlled by Muslims from 711 to 923, when it was conquered by the Christian kings of Pamplona. This conquest brought about a period of intellectual and cultural revival and, more importantly, restitution of a scriptorium at San Millan de Cogolla, where several notable manuscripts were produced in the tenth and the eleventh centuries. See Menéndez Pidal, 'Sobre el escritorio emilianense en los siglos X a XI'.

*Etymologiae* and book one of this encyclopedia was copied on the basis of a separately transmitted book one, an *Ars Isidori* (see chapter 2, p. 84). As a result of this conflation, a second sign treatise, which displays traces of adaptation for instruction, slipped into book one. Just as the Spanish ‘revised’ version, this German ‘revised’ version enjoyed success in the region in the following centuries and spread via the local knowledge network, possibly from St. Gall, where it may have been compiled.

The original impetus for the emergence of these ‘revised’ versions was probably the introduction of novel, transregional material. In Spain, we can detect influence from beyond the Pyrenees.<sup>640</sup> In Germany, the source manuscript which stimulated reworking of book one in the ‘revised’ *Etymologiae* came from western France. In both these cases, an element that was already established in the Frankish lands – the list-like layout and a separately transmitted book one adapted for teaching – provided a stimulus for development in neighbouring regions.

Frankish lands have been the most important region where innovations to DNS took place during the Early Middle Ages. Only here was DNS extensively annotated, both by simpler, lexical and grammatical glosses that suggest elementary instruction in a classroom, and by more sophisticated textual annotations that reflect more advanced study. Moreover, the separately transmitted book one of the *Etymologiae*, the *Ars Isidori*, circulated only in this area and adds further weight to the hypothesis that DNS was used for teaching. The spreading of the list-like layout of DNS in Frankish manuscripts may be taken as an evidence for a heightened interest in DNS, as it enhanced the usage of this text. Several eighth-century manuscripts from northern Italy, which include this feature, suggest that this particular innovation may have been imported rather than invented. Each of these innovations corroborates the picture provided by Frankish selective sign treatises (see chapter 2, p. 83) and by Prudentius’s remarks about the *artigraphi* (see chapter 4, footnote 526), namely that DNS was the chief source of knowledge about technical signs among Carolingian thinkers. The inclusion of DNS in the classroom curriculum would, moreover, explain why Carolingian scholars referred to this text frequently and with a great ease.

At least one set of glosses that came into being in a ninth-century Frankish scholarly milieu was transmitted to Anglo-Saxon England as a result of contacts between centers in northern France and England. The knowledge was transmitted by teaching, as the case of

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<sup>640</sup> Although I noted above that some of the features of the Spanish ‘redaction’ are southern, the list-like arrangement of DNS and *Item sicut alibi* are northern in origin. The former appears in older manuscripts from Septimania (**El Escorial, Monasterio San Lorenzo, P 1 8**) and from France. The latter, as I hypothesized in chapter 2, was probably a part of a version of the 21-sign treatise that survived in Septimania (or in southern France) during the eighth and the ninth centuries (see footnote 238).

Byrhtferth and Abbo of Fleury shows. We lack similar evidence from other regions, where some study and instruction about technical signs may have also taken place, but cannot be documented. Although the innovations that spread into Spanish and German manuscripts may have originally emerged in the context of study and instruction, these manuscripts cannot be taken as an indication that DNS or *De notis* were studied or used for teaching there. In the first place, the manuscripts in question do not show any other elements that could be interpreted as traces of classroom use, such as glosses or association with known classroom texts. Moreover, the innovations were transmitted in these regions as a result of the copying of manuscripts, unlike in France, where they reflected several independent instances of the same innovation and thus reflect a particular intellectual trend.

It is interesting that both in Germany and in Spain, the act of innovation had the shape of the addition of a new section to book one of the *Etymologiae*, while in France, no similar additions were made to Isidore's work, even though it was otherwise a very innovative area. At the same time, several new sign treatises were compiled on the basis of DNS in France as I showed in chapter 2, but that no similar texts were compiled in Spain or in Germany. Thus, engagement with DNS stimulated rewriting in all three regions, but while in Spain and in Germany this rewriting took place inside the manuscripts of the *Etymologiae*, in France it happened outside and did not leave a visible trace in these manuscripts. Italy, which was so far not mentioned, because I did not find many traces of innovative readership there, is also a case in point. Italian manuscripts of the *Etymologiae* do not display traces of innovation, but they are found in several compendia, which contain excerpts of DNS combined with other material on *notae*, as I show in chapter 3. The regional differences are particularly clear from the comparison of three regions – Spain, France, and Italy.

In Spain, revisers of the *Etymologiae* had at their disposal DNS together with a different sign treatise, but they did not compile a new sign treatise based on the two texts. Rather, they inserted their version of the 21-sign treatise into the manuscript of the *Etymologiae* as an addition to DNS. In France, DNS also converged with other sign treatises, such as with the one preserved in the *Liber Glossarum*. The result of this textual contact was the emergence of a new entity, a compilation that involved a re-working of the two texts into one new whole by cutting and pasting fragments together (**Paris, BnF, Lat. 4841** and **Paris, BnF, Lat. 6810** may be considered products of such a convergence). In Italy, DNS was put side to side with other sign treatises, too. However, in this region the result was neither the insertion of these other sign treatises into the *Etymologiae* as in Spain, nor the

compilation of wholly new texts as in France. Rather, material from the *Etymologiae* and these sign treatises were juxtaposed to form a chain. This method is visible in **Paris, BnF, Lat. 7530** as well as in the Monte Cassino miscellany, in which juxtaposed excerpts form an entire florilegium about *notae*.

Do these different techniques of combining information from different sources into one reflect regional traditions of knowledge-production, or is the correlation between a region and a particular format of innovation a mere coincidence? I would like to suggest that there is at least some truth in seeing the innovations as reflecting local intellectual practices, but that none of them can be explained on these grounds alone. The fact that a similar enterprise led in three regions to different results underlines that these acts were independent from each other. It follows that Spanish, Frankish and Italian readers each had their own response to Isidore. They shared him as a source of knowledge about the technical signs but adapted him in their own way.

### **The place of technical signs in the teaching of grammar**

The manuscript evidence presented above reveals three facts: more attention was paid to *De notis sententiarum* in the Early Middle Ages than in other periods of the Middle Ages, particularly in the Frankish lands; in this region, the intensification of interest can be attributed to the use of this text for instruction; and the trend lasted from the end of the eighth to the beginning of the tenth century. These observations will prove useful in what comes below, namely the examination of various *artes grammaticae*. Terms *doxa* and *praxis*, as defined in the introduction, can be used to describe the relationship between the *artes grammaticae* and manuscripts evidence – the former are models and ideal representations of *grammatica* which inform us about how technical signs were situated within the changing ideas about grammar and grammatical education, while the latter provides us with clues about the actual realization of these models. The most important subjects I will address here concern the incorporation of *doxa* about technical signs into the discipline of *grammatica*, its more specific inclusion into teaching of grammar, and the place technical signs were assigned within the division of *grammatica*.

This chapter part is organized chronologically. I first return to the relationship between *doxa* about technical signs and the teaching of grammar in Antiquity. Then, I trace the development leading to the inclusion of the 21-sign treatise into the first book of Isidore's *Etymologiae* and assess this innovation. In the third section, I discuss how this book was adapted into an *ars grammatica*, the *Ars Isidori*, in the ninth century. Finally, I show the

influence of Isidore's book one on Alcuin and his *De grammatica*, and via Alcuin on a number of derived Carolingian *artes*.

#### Technical signs in the ancient *artes grammaticae*

While chapter 1 was devoted to the use of technical signs in Antiquity, it touched only marginally upon instruction in sign use and the possible role of grammatical education. Because of a lack of evidence, I suggested that the transmission of *doxa* in this period was oral in character. Scribes, I argued, must have acquired their skill in using signs as a part of their professional training in the workshop (rather than in a classroom), whereas scholars seem to have transmitted the knowledge of signs from teacher to pupil, with written text only as auxiliary means to the oral instruction.

The teachers and pupils in the sketch above, however, should not mislead us to think that we are talking about the grammatical classroom.<sup>641</sup> The study of grammar (and rhetoric) were the standardized secondary stages in the ancient education leading towards an active political life. The pupils attending grammatical lessons were typically adolescents who received their daily portion of Homer or Virgil.<sup>642</sup> In contrast, the pupils of Aristarchus or Probus belonged to an older age group, falling into the tertiary, scientific education, such as would have taken place in the Museion or in private literary salons in Rome.<sup>643</sup> This agrees with another observation I made in chapter 1, namely that technical signs are absent from classroom books (see p. 55). They were not a regular subject of the grammatical education in this period, as can also be gathered from the surviving ancient *artes grammaticae*, none of which contain a section devoted to technical signs. The only ancient educator who mentions technical signs is Quintilian and even this only in a passing reference to *veteres grammatici* who engaged in *iudicium* (see Appendix II, item 8).<sup>644</sup>

This term, *iudicium*, provides a key to the question of the place of technical signs in the ancient discipline of *grammatica*. It was coined by Varro, whom we met in chapter 1 as a member of the earliest generation of Roman scholars-philologists (see p. 30). Varro

<sup>641</sup> Compare with Marrou, *Histoire de l'éducation dans l'antiquité*, 228–29; and Jocelyn, 'The Annotations of M. Valerius Probus (II)', 152–53.

<sup>642</sup> This secondary education is described in Marrou, *Histoire de l'éducation dans l'antiquité*, 223–242 and 369–89; and Bonner, *Education in Ancient Rome*, 189–249.

<sup>643</sup> This tertiary education is described in Marrou, *Histoire de l'éducation dans l'antiquité*, 243–296 and 395–97. Note that Marrou distinguishes several distinct disciplinary trainings on the tertiary level – rhetoric, philosophy, mathematics, astronomy etc.

<sup>644</sup> Quintilian also mentions *notae musicae* (*Inst.* 1.12.14), shorthand (*Inst.* 11.2.25), and mnemotechnic *notae* (*Inst.* 11.2.28–29). Except for the latter, these statements refer to the practices that are not part of Quintilian's ideal curriculum. In the case of *notae musicae* he even remarks that the study of musical notation is undesirable for his students.

proposed a four-fold division of grammar into *lectio* (reading), *enarratio* (exposition), *emendatio* (correction, equivalent of the Greek term διόρθωσις), and *iudicium* (critical assessment, equivalent of the Greek term κρίσις ποιημάτων).<sup>645</sup> This division was borrowed from the older model devised by Dionysius Thrax, also mentioned in chapter 1 as a pupil of Aristarchus, teacher of Varro's teacher Aelius Stilo, and an influential proponent of the Alexandrian views on grammar (see p. 29).<sup>646</sup> In both Varro's and Dionysius's divisions, *iudicium*/κρίσις occupied the last stage of grammatical formation and represented the pinnacle of grammatical craft (*ars*/τέχνη).

While the three lower stages were subjects of the secondary education supervised by a γραμματικός (Lat. *grammaticus*),<sup>647</sup> the fourth was reserved for a specialist, the φιλόλογος (Lat. *studiosus*).<sup>648</sup> This division explains why critical signs, which belonged to the domain of *iudicium*/κρίσις, were rarely employed by professionals lower in the hierarchy, such as the γραμματικοί or the workshop scribes who employed technical signs for διόρθωσις. It also explains why critical signs were seen as prestigious and, as we have seen in chapter 1, why a basic familiarity with them was desirable among the Roman intellectual elite (see p. 33). The differences between γραμματικοί and φιλόλογοι also had a social dimension, as the former were often men of smaller means, lower social status, limited learning and aspiration.<sup>649</sup> Although grammarians may have cultivated higher forms of scholarship in their *otium* or someone who would otherwise consider himself a φιλόλογος may have fallen on hard times and give lessons for a wage, the expectations of the pupils' parents, who would wish that their offspring were prepared for a successful career, would leave little room for *iudicium* in the standard curriculum.

<sup>645</sup> See Diomedes, *Ars grammatica: Grammaticae officia, ut adserit Varro, constant in partibus quattuor, lectione enarratione emendatione iudicio*; in Keil, 'Diomedes. *Ars grammatica*', 426. Varro's division had a lasting influence on younger Latin *artes grammaticae*, including early medieval ones. See Traglia, 'L'ars grammatica vista da Varrone in rapporto con le altre arti'.

<sup>646</sup> See Irvine, *The Making of Textual Culture*, 51. Dionysius Thrax is the author of the only *ars grammatica* reflecting the Alexandrian grammatical ideas surviving in entirety, although it is debated to what extent the text that survives represent's Dionysius's ideas and to what extent it is a more recent compilation; see Law and Sluiter, *Dionysius Thrax and the Technē Grammatikē*; and McNamee, *Annotations in Greek and Latin Texts from Egypt*, 63.

<sup>647</sup> For the most detailed profile of this professionals, see Kaster, *Guardians of Language*. See also the essential overview of ancient grammatical teaching in Marrou, *Histoire de l'éducation dans l'antiquité*, 223–42; and a concise article on the same subject by Alan Booth; Booth, 'Elementary and Secondary Education in the Roman Empire'.

<sup>648</sup> This term was first used by Eratosthenes (c. 276 – 195/4 BCE), the third director of the *Museion*, a predecessor of Aristophanes of Byzantium and Aristarchus in this position, to distinguish himself from a γραμματικός. The two terms are not necessarily of the same kind, as γραμματικός refers to particular tasks one performs, namely teaching, while φιλόλογος is rather referring to a level of expertise. For the ideas about the distinction between the two and about a 'lower' grammar and a 'higher' grammar, see Irvine, *The Making of Textual Culture*, 39–48.

<sup>649</sup> See Kaster, *Guardians of Language*, 51–55.

Technical signs and *grammatica* from Late Antiquity to Isidore of Seville

While technical signs were not discussed in the ancient *artes grammaticae*, a specialized literature in the form of sign treatises, consumed and copied by those who aspired to scholarly sign use, existed since Classical Antiquity, as we have seen in chapter 1. The physical format of this genre provides a key to the changes in the perception of the place of technical signs in the secondary grammatical education in the Early Middle Ages. The earliest sign treatises written by Aristonicus and others were most likely modeled on an established format of Alexandrian scholarly writing – a short technical pamphlet resembling in scope a modern scholarly article.<sup>650</sup> Such technical treatises could be fitted on a single book roll, which made them portable and thus suitable for a scholarly polemic.<sup>651</sup> However, the same format was disastrous for their long-term survival.<sup>652</sup> During Late Antiquity, if a scribe chose not to copy the text on his scroll into a codex, these would almost certainly not survive the test of time. If he or she did copy them, the short texts had to be combined together or attached to longer texts and this, in turn, provided them with the context in which they would be read and used. It was around this time, we should imagine, that sign treatises became a part of *artes grammaticae*. The development can be observed in **Paris, BnF, Lat. 7530**, a compendium of Liberal Arts based, so it seems, on an older, late antique codex. A version of the 21-sign treatise and the 15-sign treatise survive in this manuscript placed among grammatical texts, identifying them, thus, as a part of that discipline.<sup>653</sup>

It is only a small step from a grammatical compendium which included a sign treatise and a grammatical codex in which this same material was present in the body of the text itself. This is, indeed, what happened in the case of Isidore and his *Etymologiae*. As explained in chapter 2, the grammatical compendium that Isidore used as a basis for the first book of the *Etymologiae* included Donatus's *Ars maior* together with other grammatical texts as well a version of the 21-sign treatise (see p. 76). The physical shape of this Donatus codex provides the most likely explanation why Isidore inserted the 21-sign treatise into the first

<sup>650</sup> See Wilson, 'Scholiasts and Commentators', 41. Two examples of such a pamphlet are: the treatise of Apollonius of Rhodes on Zenodotus's *ἔκδοσις* and the treatise of Ammonius, Aristarchus's successor, with the self-explanatory title *That there were not more editions of Iliad by Aristarchus*.

<sup>651</sup> Technical treatises were used in this manner during the affair of the Hippocratic *σημεία*, which involved at least six Hellenistic scholars who argued about their meaning; see von Staden, *Herophilus*, 503.

<sup>652</sup> Didymus of Alexandria, a contemporary of the Aristarchians active in Alexandria, was, for example, credited with having written between 3500 and 4000 books (we should imagine book rolls that would contain either one short pamphlet-like text or a part of multi-volume work), of which we know only a handful of titles; see Schmidt, *Didymi Chalcenteri Fragmenta quae supersunt omnia*.

<sup>653</sup> See Holtz, 'Le Parisinus Latinus 7530', 141.

book of the *Etymologiae* devoted to grammar. Nevertheless, Isidore's source manuscript did not give him the idea to adjoin several other sections about *notae* to the sign treatise in order to form a separate *capitulum*, nor to place this *capitulum* into the middle of the book, effectively cutting the material taken from Donatus into two halves. These were Isidore's own ideas and in the following paragraphs, I will show how Isidore engaged in a subtle, implicit rewriting of this text (I already alluded to this in chapter 2, see p. 72) to appropriate it to his own world and, more importantly, to the world of his peers.

Positioning *De notis* into the middle of book one as *capitulum* X, Isidore must have wished to link it to the preceding *capitula* devoted to metrical feet (*pedes*, VII), accents (*accentus*, VIII) and punctuation (*positurae*, IX), three phenomena for which the term *nota* was used.<sup>654</sup> Unlike technical signs, feet, accents and punctuation were part of classroom education and Isidore would have been familiar with them from his own school days, as would be his learned Christian readers. In this process of appropriation, he demoted technical signs from the category of *iudicium*, which is not discussed substantially in book one of the *Etymologiae*, and placed them among the *capitula* assigned to *emendatio*.<sup>655</sup> His Christian audience in the early seventh century, after all, may not have had much interest in textual criticism, although they certainly appreciated a well-corrected book.<sup>656</sup>

The sequence of *capitula* VII-X in the first book of the *Etymologiae* (modern sections 17-26) forms, thus, a larger unit dedicated to various graphic symbols used in manuscripts. There is a certain balanced hierarchy visible in the order of the sections within this unit. Only the first five of them devoted to *pedes*, *accentus*, *positurae* and *notae sententiarum* (17-21) contain a sufficient amount of information to serve instruction.<sup>657</sup> The following five sections, devoted to *notae vulgares*, *notae iuridicae*, *notae militares*, *notae litterarum* and *notae digitorum* (22-26), contain either no information about the *notae* in question (22 and 26) or

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<sup>654</sup> Donatus himself used this term to describe accents; Donatus, *De tonis* 5: *Acutus accentus est nota per obliquum ascendens in dexteram partem, gravis nota a summo in dexteram partem descendens, circumflexus nota de acuto et gravi facta, longus linea a sinistra in dexteram partem aequaliter ducta, brevis virgula similiter iacens, sed panda et contractior, hypphen virgula subiecta versui: hac nota subter posita duo verba, cum ita res exigit, copulamur, 'ante tulit gressum' et Turnus ut ante volans tardum praecesserat agmen.* This text served as a basis for Isidore's *De accentibus* (*Etym.* 1.18-19); Fontaine, *Isidore de Séville*, 55. Isidore's intention is particularly clear from his use of *preterea* as the opening word of *capitulum* X, suggesting that it is a continuation of the previously discussed matter.

<sup>655</sup> According to Martin Irvine, these are modern sections *Etym.* 1.20-27, Irvine, *The Making of Textual Culture*, 223. *Etym.* 1.27, the *capitulum* following after *De notis*, is *De orthographia* (XI).

<sup>656</sup> Isidore never tells us directly who his intended was audience, but the Visigothic Christian literate elite is a reasonable guess. For discussion on Isidore's audience, see Riche, *Education and Culture in the Barbarian West*, 293-303; Fontaine, *Isidore de Séville*, 74; Irvine, *The Making of Textual Culture*, 209 and 212.

<sup>657</sup> There are two sections devoted to *accentus*, *De accentibus* (18) and *De figuris accentuum* (19), which is the only other section of the first book that has the form of a list of graphic symbols. Isidore uses the term *nota* three times to refer to accent marks in the latter section, which, in my mind, further clarifies why he chose to attach a sign treatise in this portion of book one.

only examples of the respective *notae* (23, 24 and 25).<sup>658</sup> They can be used to gain a general knowledge of a certain type of signs, but not to acquire the skill to use them. This is particularly apparent in the case of the *notae vulgares* (22) and *notae iuris* (23) for which, as mentioned in the introduction, technical lists similar to sign treatises existed (see p. 8). Isidore was more familiar with both than he shows in the *Etymologiae*: shorthand was used in Spain in Isidore's times, even during the councils at which he was present,<sup>659</sup> and he must have consulted a list of *notae iuris* for his examples in *De notis iuridicis*.<sup>660</sup>

The differences in Isidore's approach to technical signs, on the one hand, and to shorthand and legal abbreviations, on the other, tells us something about his intended audiences, I believe. It suggests that they were monks and clerics, just as Isidore himself, who engaged in copying books in the scriptorium and were already familiar with some technical signs, namely those derived from the ancient scribal *praxis* (as discussed in chapter 1).<sup>661</sup> A list of technical signs related to their daily activities would have a direct relevance for them. However, shorthand and legal abbreviations were beyond their domain as book-copyists and book readers, belonging to the skill set of notaries.<sup>662</sup>

It is important to add that the version of the first book of the *Etymologiae* that circulated in the Frankish lands was not the Isidore's original, but rather a revision produced by Isidore's close friend and co-bishop Braulio of Zaragoza, who took over the work on the *Etymologiae* after Isidore's death in 636. Braulio made an important change to the structure of this book. He re-divided the twenty-five original chapters into twenty-six chapters,<sup>663</sup> splitting the *capitulum De notis* (X) in two: *De notis sententiarum* (X); and *De notis*

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<sup>658</sup> Another difference between the two sets of sections is their sources. While sections 17-21 were taken over with few changes from pre-extant full-fledged texts on the respective subjects – sections 17-20 on the basis of section of Donatus's *Ars maior* and section 21 on the basis of the 21-sign treatise –, sections 22-26 were compiled by Isidore from a variety of smaller sources; see the analysis of *De notis vulgaribus* (22) in Traube, *Die Geschichte der tironischen Noten bei Suetonius und Isidorus*. Watson has similarly analyzed *De notis militariibus* (24) in Watson, 'Theta Nigrum'. For the sources of *De notis digitorum* (26), see Fontaine, *Isidore de Séville*, 83–84.

<sup>659</sup> Fontaine, *Isidore de Séville*, 82.

<sup>660</sup> Many of his *notae iuris* can be found, for example, in the list of *notae iuris* preserved in **Vatican, BAV, Reg. Lat. 1128** (9<sup>th</sup> century, 1/2, France); see Mommsen, 'Notarum laterculi', 282–84.

<sup>661</sup> Three of the five signs added to the 21-sign treatise by Isidore reflect this contemporary scribal *praxis*. *Positura* (#8) is a counterpart of the *paragraphus* which refers to excerption, possibly as it was carried out by Isidore during the making of the *Etymologiae*. *Cryphia* (#9) described as a correction sign is found in this capacity in a number of late antique codices from Italy (see p. 196). In the item *diple* (#12), Isidore remarks that this quotation sign was used by contemporary scribes in the works of Patristic authors for the designation of scriptural quotes (*Hanc scriptores nostri adponunt in libris ecclesiasticorum virorum ad separanda vel demonstranda testimonia sanctorum Scripturarum*).

<sup>662</sup> The essential studies on notaries and shorthand include Arns, *La technique du livre*, 51–62; Ganz, 'Bureaucratic Shorthand and Merovingian Learning'; Teitler, *Notarii and Excerptores*; Ganz, 'On the History of Tironian Notes'.

<sup>663</sup> Braulio's revisions are discussed comprehensively in Schindel, 'Zur frühen Überlieferungsgeschichte der *Etymologiae* Isidors von Sevilla'; Huglo, 'The *Musica Isidori* Tradition', 64–67. See also Henderson, 'The Creation of Isidore's *Etymologies*'.

*vulgaribus et aliarum rerum* (XI). In doing so, he made Isidore's intention even more explicit, namely that *De notis sententiarum* belonged to the set of *notae* to be learned and used by the scribes in the scriptorium, while the other sections on *notae* presented in *capitulum* XI were only informative. According to both Isidore and Braulio, technical signs were worthy of study by Christian clerics and monks. Nevertheless, they were still not designed for classroom education, as the *Etymologiae* can be hardly envisaged as a school book.<sup>664</sup> This step was taken when Isidore's book one was removed from its encyclopedic context and transformed into a grammatical handbook, the *Ars Isidori*.

### Technical signs in the *Ars Isidori*

In the early medieval Latin West, grammar still constituted the secondary stage of the standard classroom education, to which pupils progressed once they had learned their letters.<sup>665</sup> They belonged to the same age group as grammatical students in Antiquity. Since the end of the fourth century, Donatus's *Ars minor* and *Ars maior* were used as the basic textbook.<sup>666</sup> What did change, however, were the career prospects of these students – they no longer vied for a place in the imperial administration but rather for a place in the hierarchy of the Church – and the teaching methods, which served audiences which did not have Latin as their mother tongue.<sup>667</sup> Furthermore, a number of new *artes grammaticae* came into being since the days of Donatus, many of them reworked versions of his *Ars maior* and *Ars minor* that reflected new teaching contexts and needs.<sup>668</sup>

The *Ars Isidori* can be considered one of these early medieval adaptations of Donatus, not because it was intended as such by Isidore and Braulio, but because they were put to this use in the Carolingian period. It is significant that unlike other adaptations of this text,

<sup>664</sup> Such a schoolbook reflecting ideas about grammatical education in Visigothic Spain is the *ars* of Julian of Toledo (c. 644 – 690). Julian used the first book of the *Etymologiae* as one of his major sources, but his *ars* does not contain any section devoted to *notae*; see *Ars Iuliani Toletani Episcopi*, xxix–lx.

<sup>665</sup> For secondary education in the early medieval Latin West, see Riche, *Education and Culture in the Barbarian West*, 468–77. and Law, 'The Study of Grammar'. More specifically, on secondary education in Carolingian times, see Contreni, 'The Carolingian Renaissance', 725–47; and Contreni, 'Learning for God'.

<sup>666</sup> Contreni, 'Learning for God', 95.

<sup>667</sup> For the development of new teaching methods in the Early Middle Ages, see Law, 'Memory and the Structure of Grammar', 17–32.

<sup>668</sup> This trend began already in Late Antiquity with revisions such as the *Donatus Christianus*, in which the examples from non-Christian authors were replaced with references to Christian texts; see Irvine, *The Making of Textual Culture*, 212. For some early medieval *artes* based on Donatus's *Ars Minor*, see Jeudy, 'Un commentaire anonyme'; Jeudy, 'Donat et commentateurs de Donat à l'abbaye de Ripoll au Xe siècle'. The majority of adaptations of Donatus, however, were based on the *Ars maior*. To this category belong the *Ars grammatica* of Peter of Pisa, the *Ars Donati* of Paul the Deacon, and the *Tractatus super Donatum* of Erchanbert, see Munzi, 'Testi grammaticali e renovatio studiorum carolingia'; Clausen, 'Erchanberti Frisingensis "Tractatus Super Donatum"'; Law, 'Erchanbert and the Interpolator', 224–26.

many of which survive in only one or two codices,<sup>669</sup> the *Ars Isidori* (with or without *De notis sententiarum*) survives in sixteen ninth-century manuscripts from Francia and Germany.<sup>670</sup> In comparison, the Irish *Ars grammatica ad Cuimnanum* survives in five early medieval manuscripts,<sup>671</sup> Tatwine's *ars* in four,<sup>672</sup> Boniface's *Ars grammatica* is preserved in three,<sup>673</sup> and the *Ars grammatica* of Julian of Toledo is transmitted in seven manuscripts.<sup>674</sup> Even though the *Artes Isidori* is not a product of one master – they belong to different textual versions of the *Etymologiae* (see Appendix IV, section B) signaling that several independent cases of adaptation took place – they still represent a consistent trend.

*Ars Isidori* brought a score of material that were previously not a part of the teaching tradition of *grammatica* to the attention of schoolmasters. Some reacted by removing those passages that they found unsuitable for their lessons. In **Karlsruhe, Badische Landesbibliothek, Aug. Perg. 112**, for example, the compiler retained only those sections of book one that covered the parts of speech (see Appendix IV, item D3), and in **Paris, BnF, Lat. 7559**, only sections concerned with various literary genres were absorbed into the grammatical compendium (see Appendix IV, item D4). However, twelve of the sixteen manuscripts of the *Ars Isidori* contain or contained the entire first book of the *Etymologiae*.<sup>675</sup> It seems that the unfamiliar material did not prove so challenging, that it was removed in the process of transmission. The richness of the *Ars Isidori* may have been, in fact, one of the factors to ensure its popularity in the Carolingian lands. It was a ready-made adaptation of Donatus that could be used for advanced students with just a few adjustments and that could be used selectively for beginners.

<sup>669</sup> See the overview in Law, 'The Transmission of Early Medieval Elementary Grammars', 240–43. Vivien Law, moreover, argues that manuscripts of these grammatical works, mostly from the seventh, eighth and the very beginning of the ninth centuries, reflects a short-live period of interest that peaks around 800 and declines sharply soon afterwards; see *Ibid.*, 242–43; and Law, 'The Study of Grammar', 92.

<sup>670</sup> A seventeenth manuscript, **Troyes BM 1328**, is a twelfth-century Patristic compendium and does not fit the pattern, but I included it for the sake of completion in Appendix IV, D6.

<sup>671</sup> See Bischoff and Löfstedt, *Anonymus ad Cuimnanum*, vii–xii. Only three of these manuscripts date to the ninth century: **Naples, Bib. Naz., IV.A.34** (beginning of the 9<sup>th</sup> century, Luxeuil), **Angers BM 493** (mid-9<sup>th</sup> century, western France), and **Vatican, BAV, Pal. Lat. 1746** (c. 800, Lorsch), which also contains the *Ars Isidori*.

<sup>672</sup> See De Marco, *Tatwini Opera omnia*, vi–x. All four codices are dated between the late eighth and the end of the ninth century.

<sup>673</sup> See Gebauer and Löfstedt, *Bonifatii Ars grammatica*, vi. Two of the three manuscripts date to the ninth century: **Paris, BnF, Lat. 17959** (8<sup>th</sup>/9<sup>th</sup> century, Corbie), and again **Vatican, BAV, Pal. Lat. 1746** (c. 800, Lorsch), which contained both the *Ars Isidori* and the *Ars ad Cuimnanum*.

<sup>674</sup> Beeson, 'The *ars Grammatica* of Julian of Toledo', 59–60. Six of them date to the ninth century and one, **Gotha, Forschungsbibliothek, II 193**, is a fragment of an eight-century insular copy, probably from Fulda. Furthermore, fragments of Julian's *ars* are preserved also in **Paris, BnF, Lat. 7530**; see Holtz, 'Le Parisinus Latinus 7530', 130–31, 134–35 and 148–49.

<sup>675</sup> Four of the manuscripts are today cropped: **Orléans BM 296** opens with *Etym.* 1.21.18, **London, BL, Harley 2713** contains the first book only up to 1.37.9, **Leiden, UB, BPL 122** lacks 1.16–1.17.22, and **Leiden, UB, Voss. Lat. Q 86** is cropped after 1.17.20.

Another advantage that the *Ars Isidori* may have had over other *artes* based on Donatus's *Ars maior* was Isidore's popularity as an *auctoritas*.<sup>676</sup> A grammatical treatise attached to his name would be more attractive than one from a less-known *artigraphus* or an anonymous compilation. Moreover, since every larger monastic community seems to have possessed a copy of the *Etymologiae*,<sup>677</sup> the *Ars Isidori* was readily available, more so than many *artes grammaticae*, and could further profit from the association with this text.

The *Ars Isidori* proved to be a viable substitute for Donatus's *Ars Maior* in the Frankish realms, but not in other regions where Isidore's encyclopedia was also well-known and popular. For example, the *Etymologiae* was known from a very early date on the Isles,<sup>678</sup> where, as noted in the previous chapter, scholars also used critical signs for the textual criticism of the Psalter (see p. 124). Yet none of the insular *artes grammaticae* (*Anonymous ad Cuimannum*, Tatwine, Boniface) mentions technical signs, nor was the first book of the *Etymologiae* used as an *ars* here.<sup>679</sup> Similarly, the Beneventan region was renowned for its grammatical teaching in the Early Middle Ages,<sup>680</sup> and at least three great masters were active at Monte Cassino or in Benevento in the course of the late eighth and the ninth centuries – Paul the Deacon, Hilderic of Monte Cassino and Ursus of Benevento.<sup>681</sup> Hilderic even made use of Isidore's *Etymologiae* as one of his sources.<sup>682</sup> In some cases, their grammatical works were even copied in the very same manuscripts in which sign treatises were also copied.<sup>683</sup> In other cases, manuscripts of their works and those containing sign

<sup>676</sup> For the Carolingian reception of Isidore's major works, see Bischoff, 'Die europäische Verbreitung der Werke Isidors von Sevilla', 336–41.

<sup>677</sup> Porzig, 'Die Rezensionen der Etymologiae', 133.

<sup>678</sup> Reydellet, 'La diffusion des Origines', 433.

<sup>679</sup> Although both Boniface and Tatwine used the first book of the *Etymologiae* as one of the sources for their grammatical works; see Lapidge, *The Anglo-Saxon Library*, 38 and 44. The exception to this rule is Donatus Ortigraphus, an Irish grammarian, who was active probably in France and who did use the first book of the *Etymologiae*. However, he did not make use of any section of *De notis*. Donatus's precise *floruit* and the place where he was active is unknown; see Chittenden, *Donatus Ortigraphus, Ars grammatica*, xiii–xiv.

<sup>680</sup> Brown, 'Where Have All the Grammars Gone?', 395. The overview of the history of grammatical studies is provided in Black, *Humanism and Education in Medieval and Renaissance Italy*, 175–78. See also the notice in the *Chronicon Salernitanum*, MGH SS III, p. 534: *tempore quo Samnitibus Lodogicius saepedictus praeerat, triginta duobus philosophis illo in tempore Beneventum habuisse perhibetur ex quibus illorum unus insigne, cui nomen fuit Ildericus, inter illos degebat, et non solum liberalibus disciplinis aprime imbutus, set etiam proba virtute deditus.*

<sup>681</sup> The work of each survives in a single manuscript. Paul's *Ars Donati* in **Vatican, BAV, Pal. Lat. 1746** was already mentioned. That Paul's work was composed in Italy, rather than north of the Alps, is suggested by the dependence of his student, Hilderic, on it; Lentini, *Ilderico e la sua Ars grammatica*, 121–22. Hilderic's *Ars grammatica* is preserved in **Monte Cassino, Archivio dell'Abbazia, MS 299** (9<sup>th</sup> century, ½, Monte Cassino); see Lentini, *Ilderico e la sua Ars grammatica*. Ursus's *Abbreuiatio artis grammaticae* is preserved in **Rome, Bib. Cas., MS 1086** (8<sup>th</sup> century, ex./9<sup>th</sup> century, ½, Benevento); see Morelli, 'I trattati di grammatica e retorica del cod. Casanatense 1086'.

<sup>682</sup> Lentini, *Ilderico e la sua Ars grammatica*, 108.

<sup>683</sup> The poetry of Paul the Deacon is preserved in **Paris, BnF, Lat. 7530**, one of the two Italian witnesses of the 21-sign treatise, which also contains the 15-sign treatise, *De notis sententiarum* and a list of *notae iuris*. This manuscript was produced during the time when Paul the Deacon was probably physically present at Monte

treatises or share a common ancestor.<sup>684</sup> It, thus, seems that these masters, their students, or the readers of their *artes* were also interested in these sign treatises. Nevertheless, Isidore's book one was never adapted here as an *Ars Isidori*, nor were the sign treatises integrated into the *artes grammaticae* in this region, although the conditions seem to have been favourable to both developments. Based on the absence of an *Ars Isidori* in the insular and Beneventan areas, I would argue that the mere availability of material and an evidenced interest in technical signs were still not enough to turn Isidore's first book of the *Etymologiae* into a separate grammatical treatise. For this last step a final push was needed, and this push was provided by the Carolingian effort to reform the grammatical education. This effort is most clearly expressed in Alcuin's *De grammatica*: here the technical signs were not taken over simply because they were found in the source text, but rather consciously embedded in the new grammatical education as envisaged by this Carolingian reformer.

#### Technical signs in Alcuin's *De grammatica*

Alcuin's *De grammatica* is one of the *artes* which reflect the climate of the Carolingian reform movement.<sup>685</sup> It employs many new trends in pedagogy such as the emergence of the parsing grammar and a dialogue as a vehicle for teaching.<sup>686</sup> As there are grounds to consider the Isidorian influence on teaching grammar as a continental phenomenon, the presence of material from the first book of the *Etymologiae* in *De grammatica* is another of its innovative traits, especially since it was composed at the time of the appearance of the oldest *Artes Isidori*.<sup>687</sup>

The main influence of the *Etymologiae* on Alcuin's *ars* was Isidore's division of grammar into thirty sub-categories presented in *Etym.* 1.5.4 (*De grammatica*). Alcuin used this section as a model for his own division of grammar into twenty-six sub-categories (see Appendix II, item 33a), and, just as Isidore, he employed this division as a road map for his

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Cassino. The other Italian witness of the 21-sign treatise is **Rome, Bib. Cas., MS 1086**, the manuscript of Ursus's treatise.

<sup>684</sup> According to Lentini, **Paris, BnF, Lat. 7530, Rome, Bib. Cas., MS 1086** and the manuscript containing Hilderic's grammatica treatise, **Monte Cassino, Archivio dell'Abbazia, MS 299**, have a common ancestor; Lentini, *Ulderico e la sua Ars grammatica*, 12–13. This common ancestor is probably the very same common ancestor which was the source of the 21-sign treatise mentioned by Louis Holtz in his analysis of **Paris, BnF, Lat. 7530**; Holtz, 'Le Parisinus Latinus 7530', 139.

<sup>685</sup> Its precise date and place of composition are unknown. According to Donald Bullough, it was composed while Alcuin was staying at the royal court, thus between 790 and 796; Bullough, 'Alcuin's Cultural Influence', 15. According to Louis Holtz, it was composed after 796 at Tours; Holtz, 'Le dialogue de Franco et de Saxo', 134. Other important studies of *De grammatica* include Irvine, *The Making of Textual Culture*, 313–33; Holtz, 'L'oeuvre grammaticale d'Alcuin'; Schmitz, *Alcuin's Ars grammatica*.

<sup>686</sup> For the novel trends in the early medieval grammatical education, see Munzi, 'Testi grammaticali e renovatio studiorum carolingia'.

<sup>687</sup> Alcuin's sources and their use were studied by Louis Holtz; see Holtz, 'Le dialogue de Franco et de Saxo', 137–44.

text. When his interlocutors ask him to define in turn all the enumerated sub-categories, Alcuin draws, again, on Isidore for the individual definitions.<sup>688</sup> When he comes to *notae*, however, he goes well beyond what Isidore could tell him. Alcuin says that *notae* are certain graphic signs (*figurae quaedam*) used: a) for abbreviation (*ad brevianda verba*), b) expressing ideas (*ad sensus exprimentos*), and c) for other purposes (*ob diversas causas constitutae*). As an example, he then provides *asteriscus* (✱) and *obelus* (➤) ‘as [can be found] in the Holy Scriptures’ (*ut in Scriptura sacra obelus vel asteriscus*). In this description, Alcuin seems to combine the definitions of *nota* that Isidore provides in *De notis sententiarum*<sup>689</sup> and in *De notis iuridicis*<sup>690</sup> with a reference to the Origenian textual criticism.<sup>691</sup>

Alcuin’s definition is equally innovative as Isidore’s choice to integrate the 21-sign treatise into the first book of the *Etymologiae*, and just like Isidore, Alcuin implicitly emphasized some aspects of *notae*. His definition promotes technical signs and abbreviations while summing up other uses of signs, including shorthand, under *ob diversas causas constitutae*.<sup>692</sup> Moreover, he makes a connection between Isidore’s *capitulum De notis* and the textual criticism of the Bible discussed by Jerome (just like other Carolingian scholars who I examined in chapter 4). The text is short, but nevertheless it informs us about Alcuin’s intended application of *notae* to the understanding of the Scriptures.<sup>693</sup> Most importantly, while Isidore’s inclusion of technical signs into the book on grammar does not provide direct evidence that he intended Visigothic youth to study them at school, Alcuin’s aim to this effect is clear. The intended audience of his *De grammatica* are adolescents receiving their secondary education in grammar, as is indicated by the age of his two fictional *discipuli*, Franco and Saxo, who are fourteen and fifteen years old.<sup>694</sup> It can be

<sup>688</sup> Compare Alcuin’s definition of the *pes* (*Pes est syllabarum compositio et temporum certa dimensio. Pedes dicti, eo quod ipsis metra ambulent.*) with *Etym.* 1.18.1: *Pedes sunt, qui certis syllabarum temporibus insistent, nec a legitimo spatio umquam recedunt. Pedes dicti eo, quod per ipsos metra ambulent*; or his definition of the *positura* (*Positurae sunt puncti ad distinguendos sensus.*) with *Etym.* 1.20.1: *Positura est figura ad distinguendos sensus per cola et commata et periodos.*

<sup>689</sup> *Etym.* 1.21.1: *Nota est figura propria in litterae modum posita, ad demonstrandam unamquamque verbi sententiarumque ac versuum rationem*, see Appendix III, item 8.

<sup>690</sup> *Etym.* 1.23.1: *Quaedam autem litterae in libris iuris verborum suorum notae sunt, quo scriptio celeris breviorque fiat.*

<sup>691</sup> Isidore defines *asteriscus* and *obelus* in *Etym.* 1.21.2-3, but he does not mention their presence in the Bible. The note about *scripturae sacrae*, thus, indicate that Alcuin’s point of reference are rather the works of Jerome (see Appendix II, item 17), which played a central role in the study of the Origenian textual criticism in the Early Middle Ages. For more on Alcuin’s definition, see my article Steinová, ‘*Psalmos, Notas, Cantus*’.

<sup>692</sup> It should be noted that Isidore’s *capitulum De notis* contains three definitions of the term *nota*, but Alcuin chose not to refer to the second one, pertaining to shorthand (*Etym.* 1.22.2).

<sup>693</sup> Riché, *Education and Culture in the Barbarian West*, 472–73; and Munzi, ‘*Testi grammaticali e renovatio studiorum carolingia*’, 360.

<sup>694</sup> *De grammatica*, PL 101, col. 854: *Fuerunt in schola Albini magistri duo pueri, unus Franco, alter Saxo, qui nuperrime spineta grammaticae densitatis irruerunt. Quapropter placuit illis paucas litteralis scientiae regulas memoriae causa per interrogationes et responsiones excerpere. At prior illorum Franco dixit Saxoni: Eia, Saxo, me interrogante responde, quia tu majoris es aetatis. Ego XIV annorum; tu ut reor XV.* Note that the age of the several sign users mentioned in this

speculated that Alcuin emphasized technical signs and abbreviations (the only two types of *notae* that received attention in the manuscripts of the *Etymologiae*, it can be noted) over shorthand and other signs because he intended his disciples to take part in the *emendatio* so clearly expressed in chapter 70 (olim 72) of the *Admonitio generalis*.<sup>695</sup> Both technical signs and abbreviations (not only legal but of any kind) had a place in the copying and correcting of books, unlike shorthand, which did not have a direct application in this enterprise.

Alcuin's *De grammatica* was widely disseminated during the ninth century and served as a source for new *artes*.<sup>696</sup> Two of them took over Alcuin's definition of the *notae*: the *Ars Laureshamensis* produced by an Irish *artigraphus* on the Continent in the ninth century (see Appendix II, item 33b),<sup>697</sup> and the *ars* of Clemens Scottus, an Irish master at the royal court in 815-25 (see Appendix II, items 33c).<sup>698</sup> The *Ars Laureshamensis* even contains a marginal note to this definition in which the two signs mentioned are described: *obelus minuit et dividit sententiam sicut gladius superfluum, asteriscus vero diminutam amplificat*.<sup>699</sup>

## Conclusion

The testimonies of the *artes grammaticae* – Alcuin's *De grammatica*, the *Ars Isidori*, and others – do not alone substantiate the thesis that teaching about technical signs based on *De notis sententiarum* took place in the Carolingian classroom. The *artes* can inform us about a design for teaching, but not about the actual lessons, as we cannot know with certainty whether and how individual manuscripts were used. It could be the case, for example, that the

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dissertation was very similar – Byrhtferth was fifteen when Abbo came to teach to Ramsey, and Tatto was perhaps an adolescent when he took part in the critical work on the Rule of Benedict.

<sup>695</sup> *Admonitio generalis*, cap. 70: ... *Et ut scholae legentium puerorum fiant. Psalmos, notas, cantus, compotum, grammaticam per singula monasteria vel episcopias et libros catholicos bene emendate, quia saepe dum bene aliquid deum rogare cupiunt, sed per inemendatos libros male rogant. Et pueros vestros non sinite eos vel legendo vel scribendo corrumpere. Et si opus est evangelium et psalterium et missale scribere, perfectae aetatis homines scribant cum omni diligentia*; edited in Mordek, Zechiel-Eckes, and Glatthaar, *Die Admonitio generalis Karls des Großen*, 222–24. On Alcuin's connection to the writing of the *Admonitio generalis*, especially his potential involvement in the section 70 of this document, see Scheibe, 'Alcuin und die Admonitio generalis'; and Mordek, Zechiel-Eckes, and Glatthaar, *Die Admonitio generalis Karls des Großen*, 48, 58–59.

<sup>696</sup> David Ganz lists sixteen ninth-century manuscripts of *De grammatica*, a number similar to that of the *Ars Isidori*, see Ganz, 'Handschriften der Werke Alkuins aus dem 9. Jahrhundert', 190–91. In the ninth century, it was used by Ermanrich of Ellwangen; Schmitz, *Alcuins Ars grammatica*, 79–80. In the tenth century, Notker Balbulus preferred it for his teaching over Donatus or Priscian; Grotans, *Reading in Medieval St. Gall*, 73.

<sup>697</sup> For a brief description of this grammatical work, see Jeudy, 'Lexicon Grammaticorum', 2 June 2009. It was edited as Löfstedt, *Ars Laureshamensis: Expositio in Donatum maiorem*.

<sup>698</sup> For a brief description of this grammatical work, see Jeudy, 'Lexicon Grammaticorum', 2009. It was edited as Tolkiehn, *Clementis ars grammatica*.

<sup>699</sup> See Löfstedt, *Ars Laureshamensis: Expositio in Donatum maiorem*, 5. The note, specifically the reference to a sword, does not resemble any testimony about *asterisci* and *obeli*. The closest parallel can be found in the preface to Pentateuch taken from Jerome's *Apologia contra Rufinum* 2.25: *Quod ut aunderem, Origenis me studium provocavit, qui editioni antiquae translationem theodotionis miscuit, asterisco et obelo, id est stella et ueru, opus omne distinguens, dum aut inulescere facit quae minus ante fuerant aut superflua quaeque iugulat et confodit* (see Appendix II, item 17a).

section on *notae* was included in the manuscripts of the *Ars Isidori* simply because their copyists wished to preserve the text of the *Etymologiae* in its entirety, even though not all of it could have been used for teaching. However, the manuscript evidence presented in the first part of this chapter, particularly the glosses in the manuscripts containing *De notis sententiarum*, adds significant weight to the hypothesis that *De notis sententiarum* was used in school context in the Frankish lands during Carolingian period. To the material provided in this chapter can be added the indirect evidence presented in chapters 2 and 4: the appearance of abbreviated sign treatises based on *De notis sententiarum* in the ninth-century Francia, the unique testimony of Prudentius of Troyes about Isidore as an *artigraphus*, and the overall high degree of familiarity of Carolingian scholars with *De notis sententiarum*. All of this evidence taken together, it is clear that technical signs were studied in the Frankish lands on the basis of *De notis sententiarum*, and it is probable that at least some elementary instruction in sign use was a part of the grammatical, that is secondary, education in monastic and cathedral schools. Such an education would have not been extensive, but it provided an important springboard for a further advanced study on the subject that we can see reflected in the activities of some scholars, who themselves a received classroom education. In the history of technical signs and their use, this development was unprecedented. It cannot be explained as a consequence of the spreading of the *Etymologiae*, as it did not take place in other regions where this text attained popularity, nor was it a case of revival, as this development does not have roots in the ancient instruction about the signs.

The thesis presented here is further strengthened by the chronological concurrence of the evidence. We have seen that the *Ars Isidori* and the paratextual additions to *De notis sententiarum* in the Frankish manuscripts occurred only in the window of roughly a hundred years from the late eighth to the early tenth century. This is also the period of the largest popularity of Alcuin's *De grammatica*, as is suggested by the surviving manuscripts.<sup>700</sup> The list-like format of *De notis sententiarum* reached its most extensive distribution in the Frankish manuscripts within the same hundred years, and it can be added that two of the abbreviated sign treatises based on *De notis sententiarum* – the one in **Zofingen, Stadtbibliothek, Pa 32** and the one in **Paris, BnF, Lat. 4841** – date to the ninth century. It is particularly significant that the composition of *De grammatica* falls into roughly the same period as the emergence of the oldest *Ars Isidori*. A detailed philological analysis would be needed to assess the precise relationship between the two, to see, for example,

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<sup>700</sup> Bullough, 'Alcuin's Cultural Influence', 17.

whether Alcuin drew from an *Ars Isidori* rather than the *Etymologiae*. For now, I can only speculate that *De grammatica* and the *Ars Isidori* appeared more or less simultaneously in a period where new ideas about education began to crystallize in the Frankish intellectual circles. Both Alcuin's *ars* and the *Ars Isidori* were an expression of these new attitudes expressed in *De litteris collendis* or the *Admonitio Generalis*.

With regards to chronology, it is interesting that the evidence for the inclusion of technical signs in the teaching of grammar postdates the oldest evidence for the revival of the Origenian textual criticism by roughly a decade. This may suggest that the study of technical signs was stimulated by this revival and by the adoption of the Gallican Psalter in the Frankish lands. In any case, the two traditions of ancient *doxa* represented by the Origenian textual criticism and *De notis sententiarum* dominated the Carolingian manuscript and textual evidence. Just as the Origenian tradition, engagement with Isidore's sign treatise may have been one of the stimulating factors behind the growing interest in technical signs in the Carolingian period. The intellectual climate that the two traditions created may have been the necessary condition for the survival of those sign treatises that would otherwise not generate interest on their own to guarantee their copying.

Due to a sequence of developments between Late Antiquity and the Carolingian period, texts about technical signs transformed from an auxiliary tool for scholars engaged in the study of Homer and Virgil to a branch of grammar which was taught to young monks and clerics, the future intellectual elite of the Carolingian empire.<sup>701</sup> This transformation can be best described in a set of singular evolutionary steps resulting from an active agency of individuals – late antique scribes who chose to attach a version of the 21-sign treatise to grammatical texts in a compendium, thus establishing that it belonged to grammar; Isidore of Seville, who decided to incorporate it into the first book of the *Etymologiae* and in the process assimilated it to phenomena that were familiar to his Christian audiences and that gave this text a new potential for use; Braulio of Zaragoza, who reinforced Isidore's vision by strengthening the ties between technical signs, accents and punctuation; Carolingian scribes, who extracted the first book from the *Etymologiae* and transformed it into an *ars grammatica*; and finally, Alcuin of York, who explicitly incorporated technical signs into his *ars* and related them to the study and emendation of the Bible. In this chain of events, Isidore deserves special credit for transferring the technical signs from *iudicium* to *emendatio*, because the corrective potential of the technical signs – above all for the correction of the Scriptures – clearly resonated with the

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<sup>701</sup> See Jong, *In Samuel's Image*, 241.

Carolingian thinkers and may have provided the primary reason why they were incorporated in the classroom education.

The only region besides the Frankish lands where some teaching of technical signs on the basis of *De notis sententiarum* probably took place is England, as is attested both by glossed manuscripts and the *Enchiridion* of Byrhtferth of Ramsey. Just like the English sign treatises discussed in chapter 2 (see p. 88), this English evidence for teaching the signs reflects a Frankish influence. Here, too, this influence seems to be delayed by roughly a century and half with respect to the Frankish development. In fact, English masters may have taken over a practice that was in decline by the time on the Continent: the manuscript evidence there thins down in the tenth century and disappears by the beginning of the eleventh. This is the same horizon that we have seen already in other chapters and which suggests that all phenomena described in this dissertation so far – the increased interest in texts about technical signs, the production of new sign treatises, the revival of the use of critical signs, and the incorporation of technical signs into the teaching of grammar – reflect a single wider trend that can be fitted into the Carolingian *renovatio*.



## Chapter 6

### Scribal sign use in the Latin West: from Late Antiquity until the end of the ninth century

The evidence provided in the previous four chapters may lead us to believe that the terrain of technical signs is chartable and systematic. Sign treatises, because of their very form, suggest that technical signs can be listed and that all of them have graphic symbols, names and descriptions that can be recorded and which, indeed, were recorded. Written evidence that can be connected with annotated manuscripts creates the impression that annotation took place regularly in specific historical circumstances that can be at least partially reconstructed. It also suggests that annotated manuscripts reflect unique intellectual endeavours. Even if we may not always be able to identify annotators by name, we may reasonably assume that they were individuals with a program in mind and we can recognize their intentions on the basis of the signs.

However, even a casual engagement with manuscripts at large, rather than just with hand-picked examples, shows how artificial and inaccurate the image created by sign treatises and testimonies is. As far as the manuscript evidence allows us to see, the majority of technical signs used in the Early Middle Ages is neither recorded in any list nor mentioned by any authority. Nevertheless, the numbers in which they appear in the manuscript margins and the consistency with which they are used over long periods of time and across large geographical areas suggest that they must have been deeply ingrained in the minds and hands of those who made them – those who can be described as scribes rather than as scholars.<sup>702</sup> At the end of chapter 1, I left the story of this professional group unfinished and promised to return to it later in my dissertation. This chapter can be, indeed, read as a continuation of this narrative. In it, I will address the development of scribal sign use from Late Antiquity until the end of the ninth century.

This chapter is divided into two parts. Both are based on the examination of manuscript evidence, which belongs to two different, although partially overlapping datasets. In the first part, I provide a general picture of the scribal *praxis* from Late

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<sup>702</sup> I will use the term ‘scribes’ as an umbrella term for those individuals who participated in the production of manuscripts in monastic and other scriptoria in the Early Middle Ages. They can be further distinguished as copyists, illuminators, correctors and annotators, and, since they were often not just the producers of the manuscripts but also their main users, as their readers. This does not exclude the possibility that those that I term scribes acted at other times as scholars, quite the contrary, all scholars were also scribes, because they engaged in copying, correcting, annotating and reading of manuscripts, but not all scribes were scholars, because not all copyists, correctors, annotators and readers engaged in scholarly activities.

Antiquity up to 800. My principal dataset consists of the manuscripts described in the *Codices latini antiquiores*, a catalogue of all Latin manuscripts produced before 800.<sup>703</sup> I first describe the development of several major sign types. Then, I show that several regional profiles of scribal sign use existed in the Latin West before 800 and that these provided the basis for the scribal *praxis* in the ninth century.

The second part of this chapter is devoted to the Carolingian scribal *praxis* in the second half of the eighth and the ninth centuries. I base my observations on the examination of a set of over 150 manuscripts produced before the year 900 in Bavaria.<sup>704</sup> These manuscripts reflect a local, Bavarian scribal *praxis* (or perhaps a localized form of the broader Carolingian scribal *praxis*), and I will reconstruct the profile of the annotators from this region of the Carolingian empire. Moreover, this corpus provides important information that cannot be gained from the *Codices latini antiquiores*: about the frequency and consistency of sign use, and the most common graphic symbols and sign types used. I will use them to establish standard patterns of annotation in early medieval Bavaria and to discern which manuscripts from my corpus were annotated in an extraordinary or eccentric fashion and are therefore worthy of further examination.

This chapter is accompanied by two appendices. In Appendix VI, I present charts and tables invoked in the second part. In Appendix VII, I provide an overview of different sign types that I found in my second dataset. I will occasionally also refer to testimonies in Appendix II.

Unfortunately, this chapter provides only a partial insight into the early medieval scribal sign use. It will leave many questions unanswered. In the ideal case, it would include the observations of not only two, but many more corpora of material that could be compared against each other. Such an examination, however, is still hindered by the limited access to manuscripts from many of the collections central to the research of the Carolingian practices of annotation. In particular, I was unable to gather a significantly large and at the same sufficiently controlled corpus of manuscript material from the central Frankish area, where, as was shown in the previous chapters, most of the major developments in the scholarly sign use took place. Nevertheless, I will occasionally refer to manuscripts from this region and compare them with my findings in Bavaria.

I want to emphasize that this chapter is first and foremost an invitation to further research on the subject of technical signs in early medieval manuscripts. Many of the

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<sup>703</sup> Lowe, *Codices Latini Antiquiores*.

<sup>704</sup> My choice of this region is explained in greater detail in p. 210.

conclusions I present in this chapter need to be corroborated or refuted by additional data-sampling. The analysis method of technical signs is also in need of further development. Some major questions, the answers of which are necessary as a prerequisite for any general conclusions, only just emerged from the research I concluded for this chapter. The three most important questions are: a) is it possible to date and localize technical signs in a fashion familiar to scripts and other manuscript features? If so, how can this be achieved in a controlled fashion?; b) is it possible to discern ‘hands’ making signs in the same fashion as it one can distinguish hands copying the main text and making textual annotations? If so, is it possible to link the hands of the former and the latter kind and identify sign-makers as scribes participating in manuscript production and use?; and c) are technical signs a makeshift, personal tool, or do they, at some places and times, become a more permanent, externalized feature of the manuscript similar to running titles, chapter numbers and glosses? In what contexts do signs attain a more permanent function (or, on the contrary, lose it)?

### **Scribal sign use in the Latin West from Late Antiquity to 800**

In the following sections, I will describe the patterns of use of six functional categories of signs between roughly the end of the fourth and the beginning of the ninth century (with occasional references to ninth-century manuscripts). These six categories are, following the categorization provided in the introduction: a) signs that indicate the presence of cited material (quotation signs); b) signs used to mark errors and passages with textual problems (correction signs); c) signs that draw one’s attention to a particular passage (attention signs); d) signs that indicate an omission in the text and point to the place on the page where the omitted text was added (omission signs); e) signs that divide the text into smaller units and/or indicate beginnings and ends of sections (text-structuring signs); and f) signs that indicate passages intended for extraction from the text (excerptation signs). The only sign category mentioned in the introduction that is not discussed in this chapter are critical signs, which are largely absent from the evidence presented here, and which have been, moreover, treated in chapter 4.

The corpus examined in the following sections consists of the approximately 330 manuscripts for which the *Codices latini antiquiores* (henceforth CLA) records the presence of technical signs.<sup>705</sup> The descriptions provided by the CLA are not precise. While this

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<sup>705</sup> I was able to examine at least some of these manuscripts as digital facsimiles to corroborate the descriptions and sample images provided by the CLA.

catalogue indicates the presence of signs in the manuscript description, it does not specify how many there are, whether they occur only in some part of the manuscript and whether they are contemporary with the manuscript or were added at a later stage. As we will see, this lack of precision causes some problems in the interpretation of the information provided by the CLA. Moreover, my consultation of the CLA showed that it documents some categories of signs consistently while other signs are not always recorded, even when they are in fact present in manuscripts.<sup>706</sup>

For this reason, I begin this chapter part by discussing the omission signs, for which the data collected in the CLA are consistent and precise. They were a feature of the oldest Western manuscripts in which E.A. Lowe, the editor of the CLA, was particularly interested, as testified by a study of them from his hand.<sup>707</sup> I then discuss another category of signs for which the CLA record is consistent: the quotation signs.<sup>708</sup> Next, I discuss two other categories that seem to have frequently been used by early medieval scribes before 800, correction and attention signs.<sup>709</sup> Finally, I will briefly talk about the two remaining categories, text-structuring and excerption signs.<sup>710</sup>

### Omission signs

On the basis of his manuscript observations, Lowe was able to demonstrate that the omission sign underwent three phases of development between the fifth and the eighth centuries. First, the omission sign had the form of anchor-shaped symbols known as *anchorae* (↓ and ↑) which may have been accompanied by Greek words ἀνω ('upwards') and κάτω ('downwards') pointing to the upper or lower margin respectively where the omitted

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<sup>706</sup> I was able to verify this by examining some of the manuscripts described by the CLA online as digital facsimiles and by consulting studies which discuss manuscripts contained in the CLA. For example, Kathleen McNamee records the presence of the attention sign ὀρθῶν in **P. Berol. inv. 6758** (6<sup>th</sup> century, Egypt or Byzantium), which is not mentioned in the description of this papyrus by the CLA; see McNamee, *Annotations in Greek and Latin Texts from Egypt*, 512; and CLA VIII 1034.

<sup>707</sup> Lowe, 'The Oldest Omission Signs'.

<sup>708</sup> No study similar in scope to E.A. Lowe's article about the omission signs has been produced on the basis of the CLA. Patrick McGurk used the data for insular manuscripts (vol. 2 of the CLA) to describe the patterns of the use of quotation signs on the British Isles; see McGurk, 'Citation Marks in Early Latin Manuscripts'. Another study of quotation marks focusing on the earliest manuscripts was produced by C. P. Hammond, see Hammond, 'A Product of a Fifth-Century Scriptorium', 377–83.

<sup>709</sup> Because of the incompleteness of the data provided by the CLA, I will also rely on the studies of correction signs by W.M. Lindsay, Albert Clark and Erik Kwakkel; Lindsay, *Palaeographia Latina*, 2:11–15; Clark, *The Acts of the Apostles*, 371–73; Kwakkel, 'Behind the Scenes of a Revision', 112–15. Attention signs have been discussed in Cau, 'Scrittura e cultura a Novara', 57–60.

<sup>710</sup> The use of the *kaput* text-structuring sign was studied by Robert Weber; Weber, 'Le lettre grecque K'. Mildred Budny and Adolfo Tura wrote more general articles about technical signs to which I will also refer throughout the following sections; Budny, 'Assembly Marks'; Tura, 'Essai sur les *marginalia*'.

text was restored.<sup>711</sup> This phase lasted in the West until the fifth or sixth centuries.<sup>712</sup> In the second phase, a new convention appeared, in which both *anchorae* and the Greek words  $\acute{\alpha}\nu\omega$  and  $\kappa\acute{\alpha}\tau\omega$  were substituted by Latin sigla *hs* (for *hic sursum*) and *hd* (for *hic deorsum*) respectively. These signs can be found in uncial and half-uncial manuscripts from Italy from the fifth century until the beginning of the seventh.<sup>713</sup> In one of the Bobbio exemplars of Isidore's *Etymologiae*, **Vat. Lat. 5763**, the locative sigla *hs* and *hd* are used correctly in the eighth century.<sup>714</sup> In Visigothic manuscripts, the locative function of the omission signs was retained although the *hs* and *hd* sigla were substituted with *sr* (for *supra* or *sursum*) and *db* (for *deorsum hic*).<sup>715</sup>

In the third phase, the *hs* and *hd* convention became corrupted by scribes who no longer understood the locative meaning of the two signs and their Greek background. This led to the emergence of a number of omission signs that had no locative aspect, such as the *d-h* convention (standing for *deest* and *hic [invenies]?*), employed in insular environment starting from the seventh century.<sup>716</sup> Outside of the British Isles and Spain, meaningless pairs of symbols were used as omission signs (e.g. *hd* paired with *hp* or *ds* with *db*) or two identical signs would be combined as *signes de renvoi* (i.e., *hd* with *hd* and *hs* with *hs*).<sup>717</sup> The omission signs were not originally a type of *signe de renvoi*, but rather standard technical signs with a self-contained function, namely to point to the upper or the lower margin.<sup>718</sup> The development of the omission signs had both a chronological and a geographical aspect as different conventions became established in different regions and may be connected with regional scripts.

<sup>711</sup> The upwards and downwards orientation of the *anchorae* was determined by the shape of the papyrus book roll, in which only the upper and the lower margins were suitable for lengthy additions; McNamee, *Annotations in Greek and Latin Texts from Egypt*, 17–18. This phase of the development is also described in chapter 1 (see p. 22).

<sup>712</sup> See the overview of manuscripts attesting to this usage in Lowe, 'The Oldest Omission Signs', 44–48. The youngest manuscript using correctly placed omission signs of this type is the sixth-century *Codex Pisanus* of the *Digesta* mentioned below, which was, however, produced in Byzantium, not in the Western part of the former Roman Empire. The oldest Western manuscript recorded by Lowe, **Vatican, BAV, Urb. Lat. 1154** (northern Italy, perhaps Bobbio), is datable to the end of the fifth century, see CLA I 117.

<sup>713</sup> *Ibid.*, 49–51.

<sup>714</sup> *Ibid.*, 51.

<sup>715</sup> *Ibid.*, 60–61.

<sup>716</sup> *Ibid.*, 76. See also Kwakkel, 'Behind the Scenes of a Revision', 112–13.

<sup>717</sup> Clark, *The Descent of Manuscripts*, 34; Budny, 'Assembly Marks', 210. In some cases, a usage particular to a certain region or center can be identified as Bischoff proved for Lorsch and Weissenburg, where scribes used *hl* omission sign; see Bischoff, *Latin Palaeography*, 172. Corrupted remnants of *anchorae* survive in Western Latin manuscripts as *signes de renvoi*, see von Büren, 'Une édition critique de Solin', 66. *Anchora* used as a *signe de renvoi* can be seen also on fol. 24r of **Munich Clm 4541** (9<sup>th</sup> century, 3/3, Benediktbeuern), at [http://daten.digitale-sammlungen.de/bsb00071097/image\\_51](http://daten.digitale-sammlungen.de/bsb00071097/image_51).

<sup>718</sup> See Budny, 'Assembly Marks', 209–10.

### Quotation signs

By the beginning of the ninth century, passages of the manuscript text that were taken from the Bible or from another authoritative source were frequently marked in the margin with a sign that had the form of one or two vertical S-shaped flourishes (S and SS).<sup>719</sup> This sign and all of its variants go back to the ancient technical sign we have encountered earlier – the διπλή (> or >>).<sup>720</sup> As explained in chapter 1, διπλή served originally to mark noteworthy passages, i.e., as an attention sign,<sup>721</sup> but began to be used as a quotation symbol already in Classical Antiquity (see pp. 27 and 47).<sup>722</sup> By the end of the sixth century, it was used almost exclusively in this function,<sup>723</sup> as is demonstrated by a number of CLA manuscripts.<sup>724</sup> The διπλή is described in one of the few testimonies we possess for scribal sign use: Isidore states in his *De notis sententiarum* that the scribes of his times used it ‘in books of churchmen to separate or to make clear the citations of Sacred Scriptures’ (*Etym.* 1.21.13, see Appendix III, item 8).<sup>725</sup>

Already since the sixth century, διπλή (>) was increasingly drawn in a cursive hand, so that its shape became ‘blunted’ and eventually acquired the form of an S-shaped flourish characteristic of the Carolingian manuscripts (S).<sup>726</sup> This process is visible, for example, in the *Codex Pisanus* of the *Digests* of Justinian (soon after 533, Byzantium; CLA III 295), in

<sup>719</sup> In CLA, it is described as a ‘flourish’, ‘comma’, ‘S-shaped flourish’, or ‘S-like sign’; see for example CLA III 303b, III 374a, V 517, and VIII 1066. Other variants of the same quotation symbols resemble single and double parentheses (J or JJ), or a single or double rune *sigel* (S or SS).

<sup>720</sup> This observation was already made at the beginning of the twentieth century by Lindsay; Lindsay, *Palaeographia Latina*, 2:19.

<sup>721</sup> Aristarchus, for example, used it to mark passages noteworthy for their use of language or contents. See also the testimony of Simplicius (Appendix II, item 23).

<sup>722</sup> The oldest example of διπλή used as quotation signs is **P. Oxy. 8.1086** (1<sup>st</sup> century BCE, Oxyrhynchus), a fragment of a commentary on the *Iliad*, see Turner, *Greek Manuscripts of the Ancient World*, n. 58. An older papyrus, **P. Par. 2 recto** (2<sup>nd</sup> century BCE, 1/2, Memphis), contains a 7-shaped quotation sign that may be a διπλή; see the plate in Roberts, *Greek Literary Hands*, 6a. Other early examples of quotation signs are mentioned in McGurk, ‘Citation Marks in Early Latin Manuscripts’, 4.

<sup>723</sup> Wildberg, ‘Simplicius und das Zitat’, 192.

<sup>724</sup> The CLA mentions six uncial and half-uncial codices from the fifth and the sixth centuries containing this quotation sign: the *Codex Pisanus* of the *Digesta*, **Florence, Biblioteca Medicea Laurenziana, Pap. PSI s.n.** (soon after 533, Byzantium); Jerome’s commentary on Psalms, **Paris, BnF, Lat. 2235** (6<sup>th</sup> century, Italy); a fragment of Augustine’s *Contra duas epistulas Pelagianorum*, **Orléans BM 192 (fol. 32-33) + Paris, BnF, Lat. 13368 (fol. 256) + n.a.l. 2199 (fol. 1)** (5<sup>th</sup> century, Italy); Hilary’s *De trinitate*, **Vienna, ÖNB, Lat. 2160** (6<sup>th</sup> century, Italy, presumably southern); Augustine’s *De civitate Dei*, **Paris, BnF, Lat. 12214** (6<sup>th</sup> century, Italy); and Jerome’s *In Ecclesiasten*, **Würzburg, Universitätsbibliothek, M.p.th.q.2** (5<sup>th</sup> century, Italy). I am aware of three additional late antique manuscripts containing this quotation sign: a letter of the patriarch of Alexandria containing a quotation from John, **P. BL inv. 729** (c. 577, Alexandria); the *Harley Gospels*, **London, BL, Harley 1775** (6<sup>th</sup> century, 4/4, northern Italy); and Hilary’s commentary on Psalms, **Verona, Biblioteca Capitolare, MS XIII (11)** (5<sup>th</sup> century; Italy, provenance Verona). Note that the majority of these are Christian texts.

<sup>725</sup> The translation was taken from Barney, *Etymologiae*, 51.

<sup>726</sup> A similar development towards a cursive form took place in the East from the tenth century onwards; see McGurk, ‘Citation Marks in Early Latin Manuscripts’, 4.

which the shape of  $\delta\pi\lambda\eta$  oscillates between its ‘calligraphic’ and ‘cursive’ form.<sup>727</sup> A similar oscillation can be seen in **Oxford, Bodleian Library, Bodley 819** (8<sup>th</sup> century, 1/2, Wearmouth-Jarrow; CLA II 235)<sup>728</sup> and in **Colmar BM 49** (8<sup>th</sup>/9<sup>th</sup> century, prov.: Murbach; CLA VI 753).<sup>729</sup> By the late eighth century, the S-shaped, ‘cursive’ quotation sign was widely established, at least on the continent.<sup>730</sup> It can be found correctly used in a large number of manuscripts, which suggests that it was a convention familiar to both annotators and readers.<sup>731</sup> The classical  $\delta\pi\lambda\eta$  was, however, not completely eclipsed: it survives in some manuscripts that were produced by insular scribes.<sup>732</sup>

While the ‘cursive’ S-shaped flourish was the dominant form of quotation sign in the Latin West both before and after 800, the CLA showcases three other forms of quotation sign that reflect regional conventions.<sup>733</sup> They came into being after the end of Late Antiquity, in the context of the emergence of new, regional scripts that replaced uncial and half-uncial. In the insular environment, the regional quotation sign was a combination of points and commas, usually resembling one or two full-stops and a comma (., or ...).<sup>734</sup> This

<sup>727</sup> *Ibid.*, 7. For an image of the quotation signs in this codex, see Baldi, ‘Il *Codex Florentinus* del Digesto e il “Fondo Pandette” della Biblioteca Laurenziana’, fig. 3.

<sup>728</sup> See a plate and description in Parkes, *Pause and Effect*, 180–81.

<sup>729</sup> This manuscript is discussed in Lindsay, *Palaeographia Latina*, 2:19. It is digitized at: [http://bvmm.irht.cnrs.fr/consult/consult.php?COMPOSITION\\_ID=12837&corpus=manuscrit](http://bvmm.irht.cnrs.fr/consult/consult.php?COMPOSITION_ID=12837&corpus=manuscrit)

<sup>730</sup> From the data provided by the CLA, it is unclear when the S-shaped flourish became the normative quotation sign. The CLA records its presence already in manuscripts from the sixth century, such as in **Milan, BA, Cimelio 1** (6<sup>th</sup> century, Italy), **Monte Cassino, Archivio dell’Abbazia, MS 150** (pp. 65-910) (before 570, southern Italy), **Verona, Biblioteca Capitolare, MS LIII (51)** (6<sup>th</sup> century, 2/2, presumably Verona), **Autun BM 24 (S. 28) + Paris, BnF, n.a.l. 1629 (fols. 17-20)** (6<sup>th</sup> century, ex., probably southern France, provenance: Autun) and **Orléans BM 192 (fol. 19)** (6<sup>th</sup> century, ex., southern Italy, provenance: Fleury). It does not indicate, however, whether these quotation signs were added by a contemporary or a younger hand. As I point out in footnote 920, the S-shaped flourishes were, indeed, added secondarily in eighth-century manuscripts from Bavaria lacking a consistent marking of quotations, probably by ninth-century scribes.

<sup>731</sup> However, it is unclear whether these annotators and readers still recognized the S-shaped flourish and  $\delta\pi\lambda\eta$  as one and the same sign, and if not, around what time the S-shaped flourish emerged as a distinct convention, rather than a variant graphic form of  $\delta\pi\lambda\eta$ .

<sup>732</sup> Parkes, *Pause and Effect*, 27; Saenger, *Space Between Words*, 74. The  $\delta\pi\lambda\eta$  is present, for example, in two Graeco-Latin books of the New Testament produced by insular scribes from the circle of Sedulius Scottus, **Dresden, Sächsische Landesbibliothek, A 145 b** (9<sup>th</sup> century, 2/3, continent), and **St. Gallen, Stiftsbibliothek, MS 48** (mid-9<sup>th</sup> century, continent). The latter manuscript is digitized at: <http://www.e-codices.unifr.ch/en/csg/0048/53/0/Sequence-255>.

<sup>733</sup> In addition, the CLA also records over twenty manuscripts which contain unique or rare quotation signs. The fragment **Barcelona, Biblioteca Capitular, MS s.n.** (7<sup>th</sup>/8<sup>th</sup> century, probably southern France), for example, contains quotation signs which look like ‘heart-shaped leaves’ and **Naples, Bib. Naz., Lat. 2 (fols. 42-75)** (8<sup>th</sup> century, Bobbio) contains quotation marks in the form of ‘a group of dots’; see CLA III 394 and XI 1626.

<sup>734</sup> McGurk, ‘Citation Marks in Early Latin Manuscripts’, 7–8. McGurk dates its emergence in the eighth century. Indeed, the sign can be encountered in a group of books produced in Northumbria in the first half of the eighth century, e.g. in the St. Petersburg Bede (**St. Petersburg, Public Library, Q.v.I.18**), Cotton Bede (**London, BL, Cotton Tiberius A XIV**), and Moore Bede (**Cambridge, University Library, Kk. v.16**). See CLA II 139, XI 1621, and Suppl. 1703. The Moore Bede is digitized at: <http://cudl.lib.cam.ac.uk/view/MS-KK-00005-00016/1>.

convention continued to be favoured by Irishmen and Anglo-Saxons on the continent,<sup>735</sup> and it can be found in continental manuscripts written in insular scripts,<sup>736</sup> in manuscripts where insular scribes collaborated with Frankish scribes,<sup>737</sup> and in Carolingian manuscripts with insular annotations.<sup>738</sup>

Another convention made use of a sign which resembles the letter V (V or VV), sometimes with a dot in between its shafts (VV̇), and less often with a long descender which makes it look like a y (Y or Ẏ). This sign is recorded in two sign treatises. Isidore, who calls it *antigraphus cum puncto* (VV̇), claims that it was used ‘where there is a different meaning in the translation’ (*Etym.* 1.21.6, see Appendix III, item 8), but his description does not fit a quotation sign.<sup>739</sup> The 11-sign treatise contains an item Ẏ *Yfen in exemplis* (see Appendix III, item 20), which seems to be more accurate. Because we lack other evidence for the name of this sign, I will refer to it as to *yfen* throughout this chapter.<sup>740</sup> The CLA records the presence of *yfen* in twenty-one manuscripts from before or around 800,<sup>741</sup> to which I can

<sup>735</sup> Some examples of manuscripts produced in insular centers on the continent using this convention include **Vatican, BAV, Vat. Lat. 491** (8<sup>th</sup> century, ex., insular centre in northern Italy), **Turin, Biblioteca Universitaria, F.IV.1 fasc. 5 + 6** (8<sup>th</sup>/9<sup>th</sup> century, probably Bobbio), **Paris, BnF, Lat. 10399, fols. 42-43** (8<sup>th</sup> century, perhaps Echternach) and **Karlsruhe, Badische Landesbibliothek, Aug. Perg. 105** (8<sup>th</sup>/9<sup>th</sup> century, Lorsch).

<sup>736</sup> For example, it is present in a number of manuscripts from the Fulda-Würzburg-Mainz area, e.g. in **Würzburg, Universitätsbibliothek, M.p.th.f.64** (8<sup>th</sup>/9<sup>th</sup> century, perhaps Würzburg).

<sup>737</sup> This is the case of **London, BL, Egerton 2831** (8<sup>th</sup> century, 2/2, Tours), of which the first 109 folia were copied in a pre-Caroline minuscule and the following folia in insular minuscule. It contains both S-shaped flourishes and insular quotation signs made by an insular scribe; CLA II 196a and 196b. Described in McGurk, ‘Citation Marks in Early Latin Manuscripts’, 8.

<sup>738</sup> In **Boulogne-sur-Mer BM 32 (37)** (6<sup>th</sup> century, 1/2, probably Italy, provenance: St. Bertin), eighth-century marginalia and .., quotation signs were added by an Anglo-Saxon hand. See CLA VI 735. Similarly, insular quotation signs were added into **Epinal BM 149 (68)** (744-45, Tours, provenance: Murbach). See CLA VI 762.

<sup>739</sup> The description that Isidore provides clearly fits Epiphanius’s ὑπολημιστικός (⚡); see Jocelyn, ‘The Annotations of M. Valerius Probus (II)’, 153, n. 90. This is confirmed by the fact that the preceding item in *De notis sententiarum* is *lemniscus* (i.e., Epiphanius’s λημιστικός, ⚡). The conflation of a graphic symbol of a quotation sign, a definition of a critical sign and, moreover, a name that is otherwise unattested (probably from Gr. ὑπογράφος, ‘copied, transcribed’) suggests that Isidore’s *antigraphus cum puncto* is another case of sub-invention (see footnote 177). It can be taken as an indication that Isidore did indeed encounter the graphic symbol in manuscripts, but probably without recognizing its function.

<sup>740</sup> *Yfen* (ὑφέν, Gr. ‘lower’) is probably not the genuine name of the sign, which may have gone nameless. This name was perhaps taken from *Etym.* 1.19.6, in which *yfen* (⚡) is described as one of the accent marks.

<sup>741</sup> These are: **St. Paul in Carinthia, Stiftsbibliothek, MS 31** (7<sup>th</sup>/8<sup>th</sup> century, Luxeuil, Luxeuil minuscule), **Verona, Biblioteca Capitolare, MS XL (38)** (7<sup>th</sup>/8<sup>th</sup> century, France, Luxeuil minuscule), **New York, Pierpont Morgan Library, MS 334** (c. 669, Luxeuil), **St. Petersburg, Public Library, Q.v.I.14** (7<sup>th</sup>/8<sup>th</sup> century, Luxeuil, Luxeuil minuscule), **St. Petersburg, Institute of History of the Academy of Sciences, frag. 1/625 + Public Library s.n. + Altenburg, Staatsarchiv misz. z. 89 + Munich, BSB, Clm 29162** (7<sup>th</sup>/8<sup>th</sup> century), **London, BL, Add. 11878** (680-720, center affiliated with Luxeuil), **London, BL, Add. 31031** (8<sup>th</sup> century, northeastern France), **Paris, BnF, n.a.l. 2061** (7<sup>th</sup>/8<sup>th</sup> century, northeastern France), **Paris, BnF, Lat. 2206** (8<sup>th</sup> century, in., France), **Douai BM 281.2 (fol. A) + 342 (fols. A-B, 182)** (8<sup>th</sup> century, in., France), **Paris, BnF, Lat. 13348** (mid-8<sup>th</sup> century, France), **Vatican, BAV, Pal. Lat. 177** (8<sup>th</sup> century, Lorsch), **Paris, BnF, Lat. 13047** (8<sup>th</sup> century, 2/2), **Paris, BnF, Lat. 13347** (8<sup>th</sup> century, 2/2, northern France), **Berlin, Staatsbibliothek, Theol. lat. fol. 354** (8<sup>th</sup> century, 2/2, Corbie), **Paris, BnF, Lat. 12171** (8<sup>th</sup> century, ex., Corbie), **Paris, BnF, Lat. 17371** (8<sup>th</sup>/9<sup>th</sup> century, St. Denis), **Colmar BM 49** (8<sup>th</sup>/9<sup>th</sup> century, center in Germany, probably Murbach), **Berlin, Staatsbibliothek, Theol. lat. fol. 346** (8<sup>th</sup>/9<sup>th</sup>

add four additional ninth-century manuscripts.<sup>742</sup> The oldest group of these manuscripts was dated to the late seventh or the early eighth centuries and was copied in Luxeuil minuscule.<sup>743</sup> For this reason, Lowe considered *yfen* a quotation sign ‘typical of Luxeuil.’<sup>744</sup> Interestingly, nine out of the twenty-five manuscripts are copies of *Moralia in Iob*, a text that was already present in the oldest manuscript group copied in Luxeuil script.<sup>745</sup>

The third type of regional quotation sign cannot be easily placed geographically or associated with a particular script. It resembles a division sign (÷) or less often a hyphen (–), sometimes with emphasized ends (⊢ or )–(). It appears at the beginning of the eighth century and features in up to twenty manuscripts of the CLA corpus.<sup>746</sup> Manuscripts from Francia and from the British Isles are particularly well-represented in this group.<sup>747</sup> It is not clear whether this quotation sign pertains to the register of a particular script and became wide-spread due to copying, as happened to the *yfen*, or whether the same shape was employed for quotation signs in several areas independently. To me, it seems that the ÷ quotation sign was a pre-Caroline Frankish convention.<sup>748</sup> As late as at the end of the

century, Corbie or Werden), **Berlin, Staatsbibliothek, Theol. lat. fol. 354 (fols. 48-49, 96, 104-105, 113-116, 125)** (8<sup>th</sup>/9<sup>th</sup> century, Corbie or a scriptorium under Corbie influence), and **Wolfenbüttel, HAB, Weiss. 74** (8<sup>th</sup>/9<sup>th</sup> century, Weissenburg).

<sup>742</sup> These are: **St. Gallen, Stiftsbibliothek, MS 87** (9<sup>th</sup> century, St. Gall), **Munich, BSB, Clm 14425** (8<sup>th</sup>/9<sup>th</sup> century, Regensburg), **Munich, BSB, Clm 14286** (9<sup>th</sup> century, 1/4, Regensburg), and **Munich, BSB, Clm 6300** (8<sup>th</sup>/9<sup>th</sup> century, perhaps northern Italy).

<sup>743</sup> These are: **Verona XL (38)**, **St. Paul in Carinthia 3<sup>l</sup>**, **St. Petersburg, Public Library, Q.v.I.14, New York 334**, and **London Add. 11878**. Another manuscript containing *yfen*, **London Add. 31031**, was copied in az-minuscule and three more manuscripts were produced in late seventh-century or early eighth-century French uncial.

<sup>744</sup> See for example the description of **St. Petersburg, Public Library, Q.v.I.14**, CLA XI 1617.

<sup>745</sup> **Verona XL (38)** and **London Add. 11878** both contain *Moralia* and are copied in Luxeuil minuscule. Other manuscripts of *Moralia* containing *yfen* are **Paris, BnF, Lat. 2206, Paris n.a.I. 2061** (7<sup>th</sup>/8<sup>th</sup> century, northeastern France), **Douai 281.2 (fol. A) + 342 (fols. A-B, 182)** (8<sup>th</sup> century, in., France), **Berlin Theol. lat. fol. 354** (8<sup>th</sup> century, 2/2, Corbie), **Berlin Theol. lat. fol. 354 (fols. 48-49, 96, 104-105, 113-116, 125)** (8<sup>th</sup>/9<sup>th</sup> century, area of Corbie), **London Add. 31031** (8<sup>th</sup> century, Laon area) and **Munich, BSB, Clm 6300** (8<sup>th</sup>/9<sup>th</sup> century, perhaps northern Italy).

<sup>746</sup> The CLA records the presence of this sign in twenty-one manuscripts and McGurk adds three more, but at least some should be excluded as containing deletion or critical signs which had the same shape and are unrelated to the quotation signs, but are easily confused; McGurk, ‘Citation Marks in Early Latin Manuscripts’, 8. For example, the CLA records presence of ÷ quotation signs in **Verona, Biblioteca Capitolare, MS LIII (51)** (6<sup>th</sup> century, 2/2, Verona) for ‘quotations within quotations’(?), CLA IV 506. However, as I have shown in chapter 1, the signs in this manuscript no doubt reflect doctrinal criticism (see p. 50).

<sup>747</sup> McGurk talks about its spreading into a wide area from Northumbria to Italy in the eighth century, but it is not clear to me whether he is aware of the problems of the descriptions in the CLA and whether he distinguishes the use of the ÷ shaped quotation signs from *obelis*; Ibid. I exclude the Italian manuscripts, which are overall too old (fifth and sixth centuries) and which cannot be shown to contain quotation marks of this type conclusively.

<sup>748</sup> I base this assumption on my personal examination of those manuscripts in which the ÷ quotation signs were clearly present. These stem from Francia or Bavaria, e.g. **Paris, BnF, Lat. 528** (before 826, St. Denis), **Paris, BnF, Lat. 2051** (9<sup>th</sup> century, 3/4, perhaps northwestern France), **Karlsruhe, Badische Landesbibliothek, Aug. Perg. 167** (before 855, Soissons), **Munich, BSB, Clm 6284** (9<sup>th</sup> century, 2/4, Freising), **Munich, BSB, Clm 14385** (9<sup>th</sup> century, 2/4, Regensburg) and **Munich, BSB, Clm 14393** (mid-9<sup>th</sup> century, Regensburg). Also, one of the two oldest manuscripts containing this sign is **St. Petersburg, Public**

eighth century, it may still have been in use in Corbie.<sup>749</sup> The quotation mark with emphasized sides was used to indicate non-biblical quotations in Wearmouth-Jarrow.<sup>750</sup>

The distribution of quotation signs according to the CLA is summed up in this table (fig. 8):

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**Library, F.v.I.2** (7<sup>th</sup>/8<sup>th</sup> century, northern France) associated with Corbie. However, note that the other manuscript of the same date, **Oxford, Bodleian Library, Douce 140** (7<sup>th</sup>/8<sup>th</sup> century) is probably English. The † quotation signs in this manuscript are visible in the photo provided by the CLA; CLA XI 1598.

<sup>749</sup> They can be found in **Cambridge, CCC, MS 193** (8<sup>th</sup> century, Corbie) and were added in the margins of **St. Petersburg, Public Library, Q.v.I.6-10** (6<sup>th</sup> century, Italy, possibly Vivarium), which was kept at Corbie in the eighth century.

<sup>750</sup> The three old Northumbrian copies of Bede's *Historia Ecclesiastica* from the first half of the eighth century all contain two types of quotation signs, the standard insular type (..) for biblical passages and }—{ for quotations from other texts. The latter type of quotation signs as present in the St. Petersburg Bede (**St. Petersburg, Public Library, Q.v.I.18**) can be seen in a plate printed in Parkes, *The Scriptorium of Wearmouth Jarrow*, 10. For the same sign in the Moore Bede (**Cambridge, University Library, Kk. v.16**), see the digital facsimiles, at: <http://cudl.lib.cam.ac.uk/view/MS-KK-00005-00016/50>. The only other text in which different quotation signs are used to distinguish sources of quotations are several exemplars of Augustine's *De civitate Dei*: **Paris, BnF, Lat. 12214 + St. Petersburg, Public Library, Q.v.I.4** (6<sup>th</sup> century, probably Italy), **Lyon BM 607 (523 bis.)** (6<sup>th</sup> century, Italy), and **Basel, Universitätsbibliothek, N I 4 A + Freiburg, Universitätsbibliothek, MS 483, 12** (8<sup>th</sup> century, northeastern France, a copy of Paris, BnF, Lat. 12214), in which S-shaped quotation signs are used for Christian and — for non-Christian texts quoted; see CLA V 635, VI 784 and VII 852. Apart from the three Northumbrian copies of the *Historia Ecclesiastica*, the }—{ quotation sign occurs also in **Wolfenbüttel, HAB, Weiss. 34** (8<sup>th</sup>/9<sup>th</sup> century, uncertain, but from an Anglo-Saxon exemplar) kept at Weissenburg; CLA IX 1385.

	number of mss. recorded by the CLA <sup>751</sup>	the oldest manuscript according to the CLA <sup>752</sup>	probable period of the mainstream use
S- and SS-shaped flourishes (S, SS, λ, λ), ζ, ζζ)	144	<b>Lyon BM 483 (413)</b> (5 <sup>th</sup> /6 <sup>th</sup> century, Italy, prov.: Verona and Lyons, 9 <sup>th</sup> century; CLA VI 779)	from the 6 <sup>th</sup> century? in Francia from the beginning of the 8 <sup>th</sup> century?
insular quotation signs (., and ..)	80	<b>Cambridge, CCC, MS 286</b> (6 <sup>th</sup> century, Italy, prov.: England, 7 <sup>th</sup> /8 <sup>th</sup> century; CLA II 126)	from the first half of the 8 <sup>th</sup> century?
yfen quotation signs (V, VV, V, Y, Y)	21	<b>New York, Pierpont Morgan Library, MS 334</b> (c. 669, Luxeuil; CLA XI 1659)	from the late 7 <sup>th</sup> century? until the late 8 <sup>th</sup> century?
÷ quotation signs (÷, —, H, )-(	18	<b>St. Petersburg, Public Library, Q.v.I.6-10</b> (6 <sup>th</sup> century, Italy, prov.: Corbie, 8 <sup>th</sup> century; CLA XI 1614)	from the end of the 7 <sup>th</sup> century? until the beginning of the 9 <sup>th</sup> century?
διπλῆ quotation signs (>, >>)	9	<b>Würzburg, Universitätsbibliothek, M.p.th.q.2</b> (5 <sup>th</sup> century; Italy; CLA IX 1430a)	until the end of the 6 <sup>th</sup> century
other	24	-	-
one quotation sign for Bible, another for other documents <sup>753</sup>	2	-	-
all	298 <sup>754</sup>		

fig. 8: distribution of quotation signs in the manuscripts recorded by the CLA

Although only two, rather than three, stages can be recognized in the development of quotation sign,<sup>755</sup> it can be nevertheless compared to the developmental pattern provided by Lowe for the omission sign. The first stage lasted roughly until the end of the sixth century when both East and West used quotation sign from the ancient Greek scribal *praxis*. In the second stage, we see on the one hand the rise of the ‘cursive’ S-shaped flourish that replaced the older διπλῆ, and on the other the emergence of several regional quotation signs, notably on the British Isles and in the Frankish lands. When and where several of the conventions described above precisely began, is difficult to determine on the basis of the CLA data. It is clear, for example, that many uncial and half-uncial manuscripts

<sup>751</sup> Numbers presented in this column correspond to the CLA, which is not necessarily always accurate or consistent. They may, therefore, differ from the numbers I use elsewhere in this chapter. Some manuscripts may contain several types of quotation signs. In this case, they are counted for each type that they contain. Moreover, the numbers include manuscripts in which quotation signs were added in a second layer of scribal activity.

<sup>752</sup> The CLA does not record whether the signs in these manuscripts are contemporary or added later, which is, in fact, more likely in the case of the uncial and half-uncial Italian manuscripts.

<sup>753</sup> See footnote 750.

<sup>754</sup> The CLA records roughly 1, 800 Latin manuscripts produced before 800, which makes the total number of manuscripts containing quotation signs little over 16% of that set. They do not seem to be distributed evenly across the dataset: recent manuscripts are more likely to contain quotation signs than old manuscripts.

<sup>755</sup> The ‘translation’ stage is missing for an obvious reason: unlike sigla, graphic symbols do not need to be translated from one language and script into another.

which were originally made in Italy were only later annotated with quotation signs, possibly only after 800. I will return to this trend below where I discuss the use of quotation signs in ninth-century Bavaria (see p. 244).

### Correction signs

In Antiquity and the Early Middle Ages, two different classes of signs have been used in the process of the *emendatio* of text. The first can be characterized as query signs: they indicated which passages were corrupted and required re-checking against another copy. The second were deletion signs, which indicated which lines of text should be skipped in the process of copying.

The story of the standard Carolingian query sign *require* (Lat. imp. of ‘to look up, to search’), which has the form of a minuscule or majuscule letter R or less often a siglum *rq* or *req*,<sup>756</sup> reads very similar to the story of the S-shaped quotation sign and of the omission signs studied by Lowe. In ancient papyri, both Greek and Latin, the commonly used query sign was that of ζῆται (Gr. imp. of ‘to look up, to search’), which has the form of the letter *zeta* or a siglum made out of several letters of this Greek word (see chapter 1, p. 23).<sup>757</sup> Until the end of the sixth century, this query sign is attested both in Eastern and in Western manuscripts.<sup>758</sup> In the West, ζῆται seems to have been used until at least the beginning of the ninth century in Italy.<sup>759</sup> This is confirmed by a rare Carolingian testimony describing scribal *praxis*: the letter of Paul the Deacon to Adalhard of Corbie attached to a collection of the letters of Gregory the Great (the so-called *Collectio Pauli*). In this letter,

<sup>756</sup> Some exemplary manuscripts making use of different variants of the *require* are mentioned in Lindsay, *Palaeographia Latina*, 2:12–13. An alternative sign *quaere*, abbreviated as *q* or sometimes *qr*, had a similar function, but it seems to have been employed less frequently; see Clark, *The Descent of Manuscripts*, 35. Stephen Tranter, however, argued the siglum *r* had been used in the Irish manuscripts to indicate that a particular passage was to be learned by rote; see Tranter, ‘Marginal Problems’, 226.

<sup>757</sup> Turner, *Greek Manuscripts of the Ancient World*, 16; Clark, *The Acts of the Apostles*, 371–72. Zeta appears for example in **P. Oxy. 9.1174** (2<sup>nd</sup> century, Oxyrhynchus) and also in the papyri from Herculaneum; Cavallo, *Libri scritte scribi a Ercolano*, 24.

<sup>758</sup> Some Western manuscripts in which ζῆται occurs are: Hilary’s *In Psalmos*, **Verona, Biblioteca Capitolare, MS XIII (11)** (5<sup>th</sup> century, Italy); Lactantius, **Bologna, Biblioteca Universitaria, MS 701** (5<sup>th</sup> century, 2/2, northern or central Italy); and Hilary’s *De trinitate*, **Vienna, ÖNB, Lat. 2160** (6<sup>th</sup> century, Italy, presumably southern). Among the Eastern manuscripts from the same period, it can be found in the Psalm commentary from Tura, **P. Cologne Theol. 1** (6<sup>th</sup> century, perhaps Alexandria). The Viennese Hilary is described and analyzed in Beer, *Monumenta palaeographica vindobonensia*, 1:6–24; and also in CLA Suppl., p. ix. The Psalm commentary from Tura is discussed in Kehl, *Der Psalmenkommentar von Tura*, 22–23.

<sup>759</sup> It was, for example, the correction sign used by Pacificus of Verona in **Lyon BM 483 (413)** (5<sup>th</sup>/6<sup>th</sup> century, Italy), see CLA VI 779. This manuscript is digitized at: [http://numelyo.bm-lyon.fr/manuscripts/list.php?order\\_by=Relevance&cat=quick\\_filter&search\\_keys\[core\\_8\]\[0\]=%24collection\\_pid&recherche=483](http://numelyo.bm-lyon.fr/manuscripts/list.php?order_by=Relevance&cat=quick_filter&search_keys[core_8][0]=%24collection_pid&recherche=483). Other Italian manuscripts corrected by means of the ζῆται convention include **Einsiedeln, Stiftsbibliothek, MS 18 (576) + 370 (194), fols. 18r-19v** (8<sup>th</sup> century, ex., northern Italy) and **Vatican, BAV, Pal. Lat. 1547** (9<sup>th</sup> century, in., northern Italy). The former is described in CLA VII 871. The latter manuscript is digitized at: [http://digi.vatlib.it/view/bav\\_pal\\_lat\\_1547](http://digi.vatlib.it/view/bav_pal_lat_1547).

Paul explains that he emended the letters of Gregory the Great that Adalhard requested, but where he was unable to fill in the lacunose text he ‘attached to these passages in the outer margin a *zeta*, which is the sign of error’ (*vitiū signum*, see Appendix II, item 30).<sup>760</sup> Ζῆται continued to be used in the Byzantine East,<sup>761</sup> and became the standard correction sign among the Irish.<sup>762</sup> The ζῆται convention was imported to the Frankish lands by the Irish *peregrini*, who continued to use the insular correction sign on the continent in the ninth century.<sup>763</sup>

As the similarities between the terms ζῆται and *require* suggest, the latter sign was first introduced as the Latin ‘translation’ of the older Greek convention, just like the *bs* and *hd* omission signs imitated the Greek ἀνω and κάτω sigla. This could indicate that the Latin convention originated in Late Antiquity; however, it is not attested in the surviving material from the fifth and sixth centuries.<sup>764</sup> This convention, nevertheless, found firm ground in Gallia,<sup>765</sup> where ζῆται correction signs were not common.<sup>766</sup> Eventually, the *require*

<sup>760</sup> For this letter, see Neff, *Die Gedichte des Paulus Diaconus*, 126–30. It is preserved in the singular manuscript of Paul’s collection of selected letters of Gregory the Great, **St. Petersburg, Public Library, F.v.I.7** (c. 787, Italy, perhaps northern), which, indeed, contains ζῆται signs used as mentioned by Paul; see CLA XI 1603. Olga Dobiash-Rozhdstvenskaia considered this manuscript to contain the autograph of Paul. The attribution is no longer considered a certainty, but the ζῆται signs may nevertheless have been made by Paul; see Dobiash-Rozhdstvenskaia and Bakhtine, *Les anciens manuscrits latins de la Bibliothèque publique Saltykov-Ščedrin de Leningrad*, 47–51. The criticism of her argument is presented in Hoffmann, ‘Autographa’, 18–19.

<sup>761</sup> For example in the Laurentian Aeschylus from the tenth century; Clark, *The Acts of the Apostles*, 372.

<sup>762</sup> A list of all insular manuscripts containing ζῆται correction signs is too long to reproduce here. Some examples include: **Milan, BA, C 301 inf.** (8<sup>th</sup>/9<sup>th</sup> century, Ireland or Bobbio), **Kassel, Universitätsbibliothek, Theol. Fol. 22** (8<sup>th</sup> century, 2/2, Ireland), **Basel, Universitätsbibliothek, F III 15d** (8<sup>th</sup> century, Ireland), and the Book of Armagh, **Dublin, Trinity College, MS 52** (9<sup>th</sup> century, in., Ireland). In the Book of Armagh, ζῆται is accompanied in two places by a marginal note *incertus liber*; see Tranter, ‘Marginal Problems’, 227. This manuscript is digitized at: [http://digitalcollections.tcd.ie/home/#folder\\_id=26&pidtopage=MS52\\_01&entry\\_point=1](http://digitalcollections.tcd.ie/home/#folder_id=26&pidtopage=MS52_01&entry_point=1). Ζῆται was also used in the eighth-century manuscript **Naples, Bib. Naz., Lat. 2** from Bobbio.

<sup>763</sup> Several examples of continental Irish manuscripts include the three famous Graeco-Latin scriptural manuscripts from the circle of Sedulius Scottus: **Dresden, Sächsische Landesbibliothek, A 145 b** (9<sup>th</sup> century, 2/3), **St. Gallen, Stiftsbibliothek, MS 48** (mid-9<sup>th</sup> century), and **Basel, Universitätsbibliothek, A VII 3** (9<sup>th</sup> century, 3/3). Nevertheless, the insular convention seems to have been only rarely combined with the Frankish convention. According to the CLA, **Oxford, Bodleian Library, Laud. Misc. 126** (mid-8<sup>th</sup> century, northeastern France) contains both *require* and ζῆται query signs added by a later annotator; see CLA II 252. However, CLA does not specify whether both of these signs belong to the same layer of annotation. Another manuscript containing both *require* and ζῆται is **Bern, Burgerbibliothek, MS 363** (9<sup>th</sup> century, 3/3, perhaps Milan); see Hagen, ‘Über die kritischen Zeichen’.

<sup>764</sup> The oldest example of a *require* sign among manuscripts that I examined may be in **Rome, Bib. Naz., Sessoriano 13** (6<sup>th</sup> century, ½, Italy). A pre-Carolingian annotator writing in light ink used an r-shaped *require* on fols. 58v, 79v, 109v etc. My colleague Jesse Keskiahio suggested it may be dated to the seventh century on the basis of annotations made by the same hand. See also CLA IV 418. Another manuscript that seems to contain an early *require* sign is **Paris, BnF, Lat. 12097** (6<sup>th</sup> century, southern France, at Corbie from at least 700), in which *REQ* written in rustic capitals can be seen on fols. 36r and 44v. It does not seem to have been made by any of the several sixth-, seventh- and eighth-century annotating hands mentioned by the CLA; see CLA V 619. This manuscript is digitized at: <http://gallica.bnf.fr/ark:/12148/btv1b525030636/f99.item>.

<sup>765</sup> The oldest Frankish manuscripts known to me that contain a contemporary *require* sign are **Paris, BnF, Lat. 13348** (mid-8<sup>th</sup> century, France; CLA V 656) and **Paris, BnF, Lat. 12190** (8<sup>th</sup> century, in., probably Corbie). In the latter manuscript, *require* was added, according to the CLA, by the same hand which made

convention became a regular sign within the Caroline minuscule script and eclipsed older conventions in areas into which this script spread in the course of the ninth century and later.<sup>767</sup> Our only written testimony for the meaning of *require* is an eleventh-century note made by Eckhart IV of St. Gall in **St. Gallen, Stiftsbibliothek, MS 174** (see Appendix II, item 42).<sup>768</sup>

Two other correction signs can be mentioned next to ζήτει and *require*: the *cryphia* and the *frontis*. *Cryphia* (⊕) is an ancient correction sign that appears in fifth- and sixth-century codices from Italy.<sup>769</sup> It is also mentioned in *De notis sententiarum* (*Etym.* 1.21.10, see Appendix III, item 8). It is not possible to follow the trajectory of its use after the beginning of the seventh century, which could mean it was substituted by other correction signs, or it may have been used to a limited degree alongside ζήτει in Italy. However, from the second half of the eighth century, the *cryphia* can be found again in manuscripts produced in Frankish centers, in particular in Corbie and Tours.<sup>770</sup> In the course of the

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annotations on fol. 14v; see CLA V 632. This same annotator was identified by Ganz as being the earliest traceable Corbie annotator; Ganz, *Corbie in the Carolingian Renaissance*, 72.

<sup>766</sup> In the few cases when ζήτει appears in Frankish manuscripts, it does not seem to have had the function of a standard correction sign. In the oldest manuscripts of the *Liber Glossarum*, **Paris, BnF, Lat. 15529-30**, it is one of five technical signs used to mark certain items. Here, ζήτει may serve as a complement to *require* and *theta*, two other signs with a corrective function, see Lindsay, *Palaeographia Latina*, 2:12. Ζήτει features alongside *require* in **Bourges BM 94** (9<sup>th</sup> century, 3/3, Reims), a manuscript equipped with a whole apparatus of signs, where ζήτει does not seem to have been used as a correction sign. This manuscript was pointed out to me by Warren Pez . I was kindly informed by David Ganz that dotted *zeta*'s occur frequently in **Vatican, BAV, Vat. Lat. 630** (9<sup>th</sup> century, 3/4, Corbie), a manuscript of pseudo-Isidorian decretals, but I was not able to examine this manuscript in person to confirm whether these are, indeed, query signs or whether they serve a different purpose. It was used also in the Chelles Augustine, **Cologne, Dombibliothek, MSS 63, 65 and 67**; see Mayr-Harting, 'Augustine of Hippo', 56.

<sup>767</sup> *Require* can be found, for example, from a certain point onwards in manuscripts from northern Italy. Some examples include **Milan, BA, M 67 sup.** (9<sup>th</sup> century, 4/4, Bobbio) and **Rome, Bib. Naz., Sessoriano 13** (6<sup>th</sup> century, 1/2; Italy, provenance possibly in Nonantola in the 9<sup>th</sup> and 10<sup>th</sup> centuries), in which *require* was used by an annotator writing in Caroline minuscule. In the absence of a more complete picture (the CLA records ζήτει and *require* signs only in six manuscripts), it is difficult to assess when the shift of balance between the ζήτει and the *require* convention may have taken place in Italy. It seems unlikely to me that *praxis* was uniform here at any time.

<sup>768</sup> This notice is preserved on page 1 of this ninth-century manuscript, at: <http://www.codices.unifr.ch/en/csg/0174/1/0/Sequence-363>. The author was identified as Eckhart IV by Lindsay; Lindsay, *Palaeographia Latina*, 2:12.

<sup>769</sup> It features, for example, in the Medicean Virgil, **Florence, Biblioteca Medicea Laurenziana, Plut. 39.1** (before 494, Rome), in **Rome, Bib. Naz., Sessoriano 13** (6<sup>th</sup> century, 1/2, Italy, Augustine's *De Genesis ad litteram*), in the Ravenna Orosius, **Florence, Biblioteca Medicea Laurenziana, Plut. 65.1** (6<sup>th</sup> century, probably Ravenna), in **Paris, BnF, Lat. 12214** (6<sup>th</sup> century, Italy, Augustine's *De civitate Dei*), and in **Paris, BnF, Lat. 2235** (6<sup>th</sup> century, Italy, Jerome's commentary on Psalms). Its function is clear from a marginal note that accompanies *cryphia* in the Ravenna Orosius: *non est sensus in hoc loco*, see at: <http://teca.bmlonline.it/ImageViewer/servlet/ImageViewer?idr=TECA0000767441#page/1/mode/1up>.

<sup>770</sup> It can be seen on fol. 100r of **Paris, BnF, Lat. 12239** (8<sup>th</sup> century, Corbie), and on fol. 179r of **Paris, BnF, Lat. 1572** (8<sup>th</sup> century, 2/2, Tours). Other manuscripts from Corbie and Tours containing this sign include: **Paris, BnF, Lat. 2848** (9<sup>th</sup> century, 1/3, area of Tours), **Paris, BnF, Lat. 12141** (9<sup>th</sup> century, 2/4, area of Corbie), and **Paris, BnF, Lat. 13759** (9<sup>th</sup> century, 1/4, Tours).

ninth century, it was used in several other centers, such as Reims and Ferrières.<sup>771</sup> Since we lack evidence of a continued use of the *cryphia* from Late Antiquity to the Carolingian period in Gallia, or even that it was used in Gallia at all, I would not interpret the appearance of *cryphia* in the Frankish manuscripts as evidence for a continuity of late antique scribal *praxis*. It is more likely that it was adopted in Francia as a result of the study of Isidore's *Etymologiae*, the impact of which was discussed in the previous chapter.

A similar trajectory of development can be observed for *frontis* (ϕ), a sign that Isidore's *Etymologiae* recommends to use for passages 'where there is something obscure requiring close attention' (*Etym.* 1.21.23, see Appendix III, item 8). In chapter 2, I discussed that the earliest evidence of this sign is found in the 21-sign treatise and Cassiodorus's sign treatise in the *Expositio Psalmorum*, two pieces of *doxa* which, incidentally, appeared at around the same time and possibly in the same place (see p. 79). Apart from these two references in the written evidence, we have little manuscript evidence that the *frontis* was actually used, that is before the Carolingian period.<sup>772</sup> The 'revival' of the *frontis* should again, to my mind, be ascribed to the influence of sign treatises, or, to be specific, to the Carolingian interest in Isidore's *De notis sententiarum*. Just like the *cryphia*, the *frontis* can primarily be found in manuscripts from France,<sup>773</sup> and to a limited extent also in manuscripts from other regions.<sup>774</sup> It frequently occurs in manuscripts of Isidore's *Etymologiae*, which further strengthens the impression that its use is linked with this text.<sup>775</sup>

<sup>771</sup> Some examples of the usage of the *cryphia* from the area of Reims include: **Paris, BnF, Lat. 11674** (mid-9<sup>th</sup> century, perhaps Reims), **Leiden, UB, BPL 126** (9<sup>th</sup> century, 3/4, area of Reims), and **Bourges BM 94** (9<sup>th</sup> century, 3/3, Reims). Manuscripts from Ferrières, in which the *cryphia* occurs, can be connected with Lupus; see Beeson, *Lupus of Ferrières as Scribe and Text Critic*, 27. They are **Bern, Burgerbibliothek, MS 351** (9<sup>th</sup> century, 2/3, Ferrières), and **London, BL, Harley 2736** (c. 840, Ferrières). Other manuscripts from northern France that contain this correction sign are **Paris, BnF, Lat. 8305** (9<sup>th</sup> century, 4/4, northern France), and **Bern, Burgerbibliothek, MS 50** (9<sup>th</sup> century, 2/3, perhaps Micy).

<sup>772</sup> For the potential use of a phi-rho monogram (which may, however, stand rather for  $\varphi\rho\acute{\alpha}\sigma\iota\varsigma$ ) in a papyrus, see McNamee, *Sigla and Select Marginalia*, 22. As I speculated in chapter 1, Cassiodorus's *frontis* and the *frontis* in the 21-sign treatise which passed into Isidore's *De notis sententiarum*, may have been two cases of sub-invention reflecting the use of the attention sign  $\omega\rho\acute{\alpha}\sigma\iota\omega\nu$  (ϕ or ρ which could be corrupted into ϕ and ϕ) in the context of law texts (see p. 48). The very name of the sign in Latin, *frontis* (from  $\varphi\rho\acute{\alpha}\sigma\iota\varsigma$ , Gr. 'attention') indicates it was originally an attention rather than a correction sign.

<sup>773</sup> Some examples include: **Cologne, Dombibliothek, MS 63** (c. 800, Chelles), **Paris, BnF, Lat. 12446** (9<sup>th</sup> century, 1/2, France), **Bern, Burgerbibliothek, E 219** (9<sup>th</sup> century, 1/2, France), **Bern, Burgerbibliothek, MS 317** (9<sup>th</sup> century, 2/4, western France), **Leiden, UB, Voss. Lat. Q 32** (9<sup>th</sup> century, 2/4, Fleury), **Paris, BnF, Lat. 17361** (9<sup>th</sup> century, 2/3, France), **Paris, BnF, Lat. 7558** (9<sup>th</sup> century, 3/4, Loire area), **Paris, BnF, Lat. 10292** (9<sup>th</sup> century, 3/4, eastern France), **Paris, BnF, Lat. 13955** (9<sup>th</sup> century, 3/4, Corbie), **Vatican, BAV, Reg. Lat. 151** (after 868, Corbie), **Leiden, UB, Voss. Lat. O 88** (9<sup>th</sup>/10<sup>th</sup> century, France), **Paris, BnF, Lat. 8305** (9<sup>th</sup> century, 4/4, northern France), and **Leiden, UB, Voss. Lat. O 79** (9<sup>th</sup> century, 4/4, France). I would like to thank Michael Allen for alerting me to this last manuscript.

<sup>774</sup> It can be found in **Munich, BSB, Clm 6250** (9<sup>th</sup> century, 1/4, Freising), **Munich, BSB, Clm 6277** (9<sup>th</sup> century, 1/4; Freising), **Munich, BSB, Clm 15818** (842-855, Würzburg), and **Munich, BSB, Clm 6375** (9<sup>th</sup> century, 2/3, northern Italy).

<sup>775</sup> I am aware of its appearance in the following manuscripts of the *Etymologiae*: **Munich, BSB, Clm 6250** (9<sup>th</sup> century, 1/4, Freising); **Vatican, BAV, Reg. Lat. 1953** (9<sup>th</sup> century, 1/4; Orléans), **Bern, Burgerbibliothek,**

Of the variety of signs that were used for deletion and expunction,<sup>776</sup> two achieved wider popularity in the course of Late Antiquity: *theta* ( $\Theta$ ), discussed in chapter 1 (see p. 34), and *obelus* (– or  $\ddagger$ ).<sup>777</sup> Both are mentioned in Isidore’s *Etymologiae*: *theta* in *Etym.* 1.3.8 and 1.24, and *obelus* in 1.21.3 (see Appendix II, items 27a-b and Appendix III, item 8 respectively), although *theta* is described as ‘a sign of death’ rather than as a deletion sign. *Obeli* continued to be used as deletion signs throughout the Early Middle Ages.<sup>778</sup> *Theta* is far less frequent.<sup>779</sup>

Just like omission signs, correction signs frequently lent their shapes to *signes de renvoi*. The reasons are quite obvious: once a need for a correction is indicated by means of a sign, it may be necessary to supply a longer text in the margin and to connect it with the right spot. As a correction sign is already in place, the easiest way to do so is to draw a second, similar sign next to the marginal fill-in.<sup>780</sup> A gradual assimilation of certain correction signs as *signes de renvoi* can explain why graphic shapes that are related to correction signs are,

**MS 224** (9<sup>th</sup> century, 1/3, France), **Paris, BnF, Lat. 10292** (9<sup>th</sup> century, 3/4, eastern France), **Paris, BnF, Lat. 17159** (10<sup>th</sup> century), and **Bern, Burgerbibliothek, MS 36** (9<sup>th</sup> century, 3/4, France, perhaps Auxerre or Fleury).

<sup>776</sup> See for example McNamee, *Sigla and Select Marginalia*, 17.

<sup>777</sup> Examples of the use of *theta* from Late Antiquity include the Medicean Virgil, **Florence, Biblioteca Medicea Laurenziana, Plut. 39.1** (before 494, Rome), in which two thetas were attached to a subscription of one Turcius Rufus Apronianus Asterius; and **Fulda, Landesbibliothek, Bonifatianus 1** (c. 546, Capua), the famous codex of the New Testament corrected by bishop Victor of Capua, in which two thetas occur on fols. 51v and 52r. The *theta*’s in the former can be seen in the photo in the CLA (CLA III 296) and also as digital images at:

<http://teca.bmlonline.it/ImageViewer/servlet/ImageViewer?idr=TECA0000481080#page/48/mode/1up>.

*Obeli* can be found in a number of ancient papyri, e.g. in **University of California, P. 2390** (P. Teb. i.4, 2<sup>nd</sup> century BCE, Egypt) and in the famous Hawara Homer, **P. Hawara 59** (1<sup>st</sup> century, Hawara); see Turner, *Greek Manuscripts of the Ancient World*, 38.

<sup>778</sup> In **Brussels, Koninklijke Bibliotheek, II 4856** (8<sup>th</sup> century, ex., Corbie), an *obelus* marks a chapter title in the first book of Isidore’s *Etymologiae* which is superfluous on fol. 13v; the manuscript is digitized at: <http://www.europeanaregia.eu/en/manuscripts/brussels-koninklijke-bibliotheek-belgie-Bibliothèque-royale-belgique-ms-ii-4856/en>. In **Karlsruhe, Badische Landesbibliothek, Aug. Perg. 72** (9<sup>th</sup> century, in., Reichenau), *obeli* are used as correction signs here and there, for example on fol. 30r, at: <http://digital.blb-karlsruhe.de/blbhs/Handschriften/content/pageview/8696>. They feature often in St. Gall manuscripts, for example in **St. Gallen, Stiftsbibliothek, MS 261** (9<sup>th</sup> century, 1/2, St. Gall), **St. Gallen, Stiftsbibliothek, MS 87** (9<sup>th</sup> century, St. Gall), **St. Gallen, Stiftsbibliothek, MS 670** (9<sup>th</sup> century, St. Gall), **St. Gallen, Stiftsbibliothek, MS 257** (9<sup>th</sup> century, 1/2, St. Gall), **St. Gallen, Stiftsbibliothek, MS 728** (9<sup>th</sup> century, 2/2, France and St. Gall), and **Zofingen, Stadtbibliothek, Pa 32** (9<sup>th</sup> century, in.; perhaps St. Gall), in which a sign treatise discussed in chapter 2 was obelized in order not to be copied on into other manuscripts (as indeed happened in some cases, see footnote 301). It is not always possible to distinguish correction *obeli* from critical *obeli* as the two functions, as far as they both refer to superfluity, are related.

<sup>779</sup> It appears in the margins of fol. 145r in **Paris, BnF, Lat. 7530** (779-799, Monte Cassino), on fols. 10r and 12r of **Amiens BM 220** (9<sup>th</sup> century, Corbie), and on fols. 3v and 11v of **Bourges BM 94** (9<sup>th</sup> century, 3/3, Reims). I have also found two signs which look like *theta*’s and which are not *signes de renvoi* but rather proper technical signs on fols. 162r and 198v of **Munich, BSB, Clm 6252** (9<sup>th</sup> century, 2/4, Freising), a copy of *Moralia in Iob*, and in p. 48 of **St. Gallen, Stiftsbibliothek, MS 904**, an exemplar of Priscian in Irish minuscule (c. 850, Ireland). The *theta* in the former can be seen at: [http://daten.digital-sammlungen.de/bsb00047195/image\\_327](http://daten.digital-sammlungen.de/bsb00047195/image_327), and in the latter at: <http://www.e-codices.unifr.ch/de/csg/0904/48/large>.

<sup>780</sup> For a general study on *signes de renvoi*, see Humphrey, *De institutione arithmetica*, 6–8 and 232–37; Shiel, ‘A Set of Reference Signs’.

together with those related to omission signs, most commonly used as *signes de renvoi*.<sup>781</sup> Another technical sign commonly used as a *signe de renvoi* in Carolingian manuscripts is the *asteriscus* (✱).<sup>782</sup>

### Attention signs

In Antiquity, four different signs that drew attention to a particular passage of interest were used: διπλή (>), which was mentioned among quotation signs, was employed as an attention sign in the Alexandrian philological tradition (see chapter 1, p. 27); χροῖσιμον/*chresimon* (✱) marked interesting passages in literary papyri (see chapter 1, p. 23); and ὠραῖον (Ⓜ or Ⓝ) with σημειῶσαι (Ⓜ) were employed in law texts (see chapter 1, p. 37). The last of these four conventions can be seen as a direct precursor of the medieval Latin *nota* attention sign that gained popularity in the Carolingian period:<sup>783</sup> just as we saw for the omission and correction signs, the Latin term *nota* (imp. ‘to note, to mark’) is a ‘translation’ of the Greek σημειῶσαι (imp. ‘to note, to mark’). While σημειῶσαι originated in the context of law texts, by the sixth century, it was used more widely, for example by the scholiast of Gregory of Nazianzus (see chapter 1, p. 48).

The oldest *nota* signs can be found in Italian manuscripts from the fifth and the sixth centuries, that is in the same codices as *hd* and *hs* omission signs and the *cryphia* correction sign.<sup>784</sup> This oldest *nota* sign has a characteristic shape of an uncial N with a superscript O

<sup>781</sup> For the use of ζῆται signs as *signes de renvoi*, see O’Sullivan, ‘Servius in the Carolingian Age’; and CLA V 517. For the use of *theta* as a *signe de renvoi*, see Ganz, ‘The Literary Interests of the Abbey of Corbie’, 97; Tura, ‘Essai sur les *marginalia*’, 297. *Cryphia* was used as a *signe de renvoi* by Lupus of Ferrières, see for example fol. 17v of **London Harley 2736** (c. 840, Ferrières), Lupus’s copy of Cicero’s *De oratore*; Beeson, *Lupus of Ferrières as Scribe and Text Critic*, 27. See also Tura, ‘Essai sur les *marginalia*’, 292.

<sup>782</sup> It attained this function most likely, again, under the influence of *De notis sententiarum*, in which Isidore says that *asteriscus* ‘is placed next to omissions’ (*Etym.* 1.21.2, see Appendix III, item 8). He certainly meant this statement as a reference to the Origenian critical sign used in the Old Testament, but it is vague enough to suggest that *asteriscus* is an omission sign; Barney, *Etymologiae*, 50. *Asteriscus* was used as a *signe de renvoi* again by Lupus of Ferrières; see Beeson, *Lupus of Ferrières as Scribe and Text Critic*, 29. Another notable user is Walafrid Strabo in his personal notebook, **St. Gallen, Stiftsbibliothek, MS 878** (9<sup>th</sup> century, ½), see p. 307 of this manuscript, at: <http://www.e-codices.unifr.ch/de/csg/0878/307/0/Sequenze-699>.

<sup>783</sup> Saenger, *Space Between Words*, 75.

<sup>784</sup> Manuscripts that I examined that contain this sign include: the Medicean Virgil, **Florence, Biblioteca Medicea Laurenziana, Plut. 39.1** (before 494, Rome); a manuscript of Hilary’s *In Psalmos*, **Verona, Biblioteca Capitolare, MS XIII (11)** (5<sup>th</sup> century, Italy); a manuscript of Lactantius, **Bologna, Biblioteca Universitaria, MS 701** (5<sup>th</sup> century, 2/2, northern or central Italy); a manuscript of Hilary’s *De trinitate*, **Vatican, BAV, Archivio di Sancto Pietro D 182 (fols. 288-311)** (6<sup>th</sup> century, in., Cagliari, southern Italy), a manuscript of Jerome’s *In Psalmos*, **Paris, BnF, Lat. 2235** (6<sup>th</sup> century, Italy); a manuscript of Augustine’s *De civitate Dei*, **Paris, BnF, Lat. 12214** (6<sup>th</sup> century, probably Italy); a manuscript of Augustine’s works, **Paris, BnF, Lat. 13367** (6<sup>th</sup> and 7<sup>th</sup> century, uncertain origin, some portions seem Italian, other French); an exemplar of *Codex Theodosianus*, **Reg. Lat. 886** (6<sup>th</sup> century, France, probably Lyon); a manuscript of Hilary’s *De trinitate*, **Vienna, ÖNB, Lat. 2160** (6<sup>th</sup> century, Italy, presumably southern); and a manuscript of Facondus of Hermiane, **Verona, Biblioteca Capitolare, MS LIII (51)** (6<sup>th</sup> century, 2/2, probably Verona). For *nota* in the Basilican Hilary, see also CLA I 1b and Troncarelli, ‘L’*odissea* di un’*odissea*’, 9–10.

(sometimes slanting in the same way as textual annotations from this period).<sup>785</sup> I will call this type the N<sup>O</sup> type to distinguish it from more recent pre-Carolingian and Carolingian shapes of *nota*.<sup>786</sup> The more recent signs can be classified into several subtypes based on how many letter elements they contain and whether these are placed in superscript or not: NT type, NOT type, N<sup>O</sup>T type (with O in superscript), NOTA type, NOT<sup>A</sup> type (with A in superscript), and more rarely N type and NO type (for examples of different types, see Appendix VII). I was unable to determine whether any of these subtypes are characteristic for a particular region or a writing community, although some of the scholars known to us utilized a particular identifiable shape,<sup>787</sup> and it seems that scribes have the tendency to use one subtype consistently and can be identified on the basis of their usage.<sup>788</sup>

The ancient attention sign *chresimon* (✠) resurfaces in the Early Middle Ages in two different contexts. It reappears in ninth-century insular codices,<sup>789</sup> including continental manuscripts written in insular scripts,<sup>790</sup> or codices copied in Caroline minuscule but annotated by insular scribes.<sup>791</sup> Its known users include, among others, members of the

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<sup>785</sup> See for example fol. 17r of the Medicean Virgil, at <http://teca.bmlonline.it/ImageViewer/servlet/ImageViewer?idr=TECA0000481080#page/51/mode/1up>. Another is visible on fol. 3r of Paris, BnF, Lat. 2235, at <http://gallica.bnf.fr/ark:/12148/brv1b90659775/f4.item>. Another *nota* sign can be found on fol. 6v of Paris, BnF, Lat. 12214, at <http://gallica.bnf.fr/ark:/12148/brv1b9076864s/f11.item>.

<sup>786</sup> Apart from the fifth- and sixth-century uncial manuscripts from Italy, the CLA notes that N<sup>O</sup> type *nota* signs can be found in three manuscripts that were kept and presumably also annotated in Fleury: a fragment of *Regula sancti Basilii*, Orléans BM 192 (fols. 2-3) (6<sup>th</sup>/7<sup>th</sup> century; southern France, provenance Fleury), a collection of works of Fulgentius of Ruspe, Vatican, BAV, Reg. Lat. 267 (6<sup>th</sup>/7<sup>th</sup> century, probably France, provenance Fleury), and the works of Cyprian, Augustine and Ambrose, Orléans BM 154 (131) + Paris, BnF, n.a.l. 1598 + n.a.l. 1599 (mid-8<sup>th</sup> century, France, provenance Fleury); see CLA I 104a-b, CLA VI 802 and 805. Bernhard Bischoff notes the presence of the same N<sup>O</sup> type *nota* signs also in Florence, Biblioteca Medicea Laurenziana, Plut. 64.35 (9<sup>th</sup> century, 3/4, area of Loire), an exemplar of Curtius's *Historiae Alexandri Magni*; Bischoff, *Katalog* I, n. 1234. I have seen similar *nota* signs also on fols. 67v, 70v and 75r of London, BL, Add. 11878 (680-720, center affiliated with Luxeuil).

<sup>787</sup> Lupus of Ferrières used an NT-type *nota* sign, see Beeson, *Lupus of Ferrières as Scribe and Text Critic*, 28. His pupil Heiric used the same type of *nota* sign. I have this information from a private conversation with Michael Allen. For *nota* signs used by Hincmar of Reims, see Pezé, 'Le virus de l'erreur', 664. For *nota* signs used by Rather of Verona, see Leonardi, 'Von Pacificus zu Rather', 407-17.

<sup>788</sup> See, for example, the 'N annotator' and the 'NOT annotator' identified by David Ganz on the basis of the Corbie manuscripts, the former working in Corbie in the first half of the ninth century, the latter annotating manuscripts related to the treatises of Ratramnus and Paschasius Radbertus; Ganz, *Corbie in the Carolingian Renaissance*, 73-76.

<sup>789</sup> *Chresima* are present, for example, in the Priscian manuscript, St. Gallen, Stiftsbibliothek, MS 904 (c. 850, Ireland).

<sup>790</sup> This attention sign can be found in Bern, Burgerbibliothek, MS 363 (9<sup>th</sup> century, 3/3, perhaps Milan), and Paris, BnF, Lat. 9382 (8<sup>th</sup> century, in., Echternach). Most notable insular manuscripts annotated with the *chresimon* are, however, the three Graeco-Latin books of the Bible from the circle of Sedulius Scottus: Dresden, Sächsische Landesbibliothek, A 145 b (9<sup>th</sup> century, 2/3), St. Gallen, Stiftsbibliothek, MS 48 (mid-9<sup>th</sup> century), and Basel, Universitätsbibliothek, A VII 3 (9<sup>th</sup> century, 3/3).

<sup>791</sup> In Epinal BM 149 (68) (744-45, Tours) and Laon BM 50 (8<sup>th</sup>/9<sup>th</sup> century, a centre with an Irish connection, presumably in northeastern France), the *chresimon* features side by side with the insular quotation signs suggesting it was added by insular annotators, even though both manuscripts are continental. In Bern, Burgerbibliothek, MS 224 (9<sup>th</sup> century, 1/3, France), the *chresimon* was used by an annotator who also used other typical insular symbols, such as l-shaped *lectio* signs and Roman numerals, and who made several

circles of John the Scot<sup>792</sup> and Sedulius Scottus.<sup>793</sup> It is unlikely that the introduction of *chresimon* in the insular environment is a consequence of the study of Isidore's *De notis sententiarum*, as we have no other evidence for the active engagement with this text in the insular circles. Rather it is probable that, just as in the case of ζῆτες, the insular usage of *chresimon* is a remnant of a genuinely ancient scribal *praxis* that was imported to Ireland, possibly by means of ancient books in which they were used.<sup>794</sup>

Some Carolingian scribes adopted the *chresimon* as an attention sign instead of *nota*, as is clear from some examples of manuscripts written and/or annotated in Caroline minuscule with no particular traces of insular influence.<sup>795</sup> This adoption may have been reinforced by the encounter of Carolingian scribes with the insular use of this sign, but its primary source was Isidore, who described *chresimon* in *De notis sententiarum* (*Etym.* 1.21.26, see Appendix III, item 8). Two patterns of use that are testified by the manuscript evidence support this view. First, the Carolingian *chresimon* is frequently combined with the *frontis*, which derives from Isidore and never appears in insular manuscripts.<sup>796</sup> Second, the time and place of the re-introduction of the *chresimon* agrees with the time frame and area of the study of *De notis sententiarum*, as discussed in chapter 5 (see p. 191).

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interlinear glosses in an insular script. Bischoff identified this insular annotator as a member of the circle of Sedulius; Bischoff, 'Irische Schreiber im Karolingerreich', 52. The *chresimon* appears together with the ζῆτες query sign also on pages 111, 112, 116, 120 and 163 of **Einsiedeln, Stiftsbibliothek, MS 18 (576)** (8<sup>th</sup> century, ex., northern Italy), but here the insular connection is suggested only by the correction signs. This manuscript is digitized at: <http://www.e-codices.unifr.ch/en/sbe/0018/163/small>.

<sup>792</sup> They can be found both in the Bamberg and the Paris copy of the *Periphyseon*: **Bamberg, Staatsbibliothek, Ph. 2/1** (9<sup>th</sup> century,  $\frac{3}{4}$ , circle of John the Scot), and **Paris, BnF, Lat. 12964** (9<sup>th</sup> century, 2/2, northeastern France). The former is digitized at: <http://bsbsbb.bsb.lrz-muenchen.de/~db/0000/sbb00000177/images/index.html?id=00000177&nativeno=7r>; the latter at: <http://gallica.bnf.fr/ark:/12148/brv1b9066715p/f9.item>.

<sup>793</sup> They are found in two copies of Sedulius's *Collectanea in Epistulas Pauli*, copied by non-insular hands as part of the marginalia: on fols. 49r, 58r and 63r of **Munich, BSB, Clm 6238** (10<sup>th</sup> century, 1/3, southwestern Germany), and in many places in **Bamberg, Staatsbibliothek, Msc. Bibl. 127** (11<sup>th</sup> century,  $\frac{1}{2}$ , Metz). It is clear that in the latter case, the scribe merely copied the signs without understanding their purpose, since they were copied in rubrics and he or she imitated the *ductus* of what must have been originally a ninth-century insular hand.

<sup>794</sup> For the archaic features in the oldest Irish book culture, see Bischoff, *Latin Palaeography*, 197. Note that Irish scribes likewise adopted the old Greek shorthand symbol for ἐστὶ (ε̅) as an abbreviation for *est*; see Lindsay, *Notae Latinae*, 69. For other parallels between the ancient and the insular scribal culture, see also Saenger, *Space Between Words*, 75–76.

<sup>795</sup> There are too many such manuscripts to mention them all here. Notable examples of these non-insular *chresima* include: **Munich, BSB, Clm 14315** (9<sup>th</sup> century,  $\frac{1}{4}$ , perhaps Swabia), **Amiens BM 220** (9<sup>th</sup> century, Corbie), **Paris, BnF, Lat. 1869** (9<sup>th</sup> century, 2/4, northern France), **Paris, BnF, Lat. 2051** (9<sup>th</sup> century,  $\frac{3}{4}$ , perhaps northwestern France), **Paris, BnF, Lat. 12296** (after 843, Corbie), **Paris, BnF, Lat. 12294** (mid-9<sup>th</sup> century, Corbie), **Paris, BnF, Lat. 8540** (9<sup>th</sup> century,  $\frac{3}{4}$ ). For information about the *chresima* in some of these manuscripts, I consulted the personal notes of Bernhard Bischoff kept at the Bayerische Staatsbibliothek.

<sup>796</sup> Manuscripts in which this pattern of use is visible include: **Munich, BSB, Clm 6250** (9<sup>th</sup> century  $\frac{1}{4}$ ; Freising), **Bern, Burgerbibliothek, E 219** (9<sup>th</sup> century,  $\frac{1}{2}$ , France), **Bern, Burgerbibliothek, MS 224** (9<sup>th</sup> century, 1/3, France), **Munich, BSB, Clm 15818** (842–855, Würzburg), **Munich, BSB, Clm 6375** (9<sup>th</sup> century, 2/3, northern Italy), **Reg. Lat. 151** (after 868, Corbie), **Paris, BnF, Lat. 10292** (9<sup>th</sup> century,  $\frac{3}{4}$ , eastern France), and **Paris, BnF, Lat. 8305** (9<sup>th</sup> century, 4/4, northern France).

Another common attention sign found in early medieval manuscripts has the shape of a triangle of dots ( $\blacktriangle$  or  $\blacktriangleright$ ).<sup>797</sup> The other attention sign which should be mentioned is the siglum DM, which stands for *dignum memoriae*.<sup>798</sup> Neither of the two signs can for now be connected with a specific location or a script.

### Text-structuring and excerption signs

We have far less evidence for the use of text-structuring and excerption signs than for any other category of technical signs discussed in this dissertation. My treatment will, therefore, be short, but I will make a few observations on the basis of both the CLA and the ninth-century evidence.

As noted in chapter 1, text-structuring signs are the oldest attest category of technical signs used by scribes (see p. 21). They were a necessary aid in the age of papyrus, when the words, sentences and larger segments of text were undivided and thus a subject of possible misunderstanding and interpretation.<sup>799</sup> This ancient method of text division was substituted in the course of Late Antiquity, as a result of the transition to the codex, by a score of new techniques which employed the layout of the text and white space on the page, for example in the division *per cola et commata* promoted by Jerome.<sup>800</sup> Nevertheless, some of the ancient text-structuring signs continued to be used in and after Late Antiquity, sometimes adapted to fit new functions, for example as lesson marks, dialogue cues or excerption signs.

The most widely attested of these text-structuring signs is the K-shaped *caput* sign that marked the beginning of a new section or chapter.<sup>801</sup> It was used in this capacity in

<sup>797</sup> Its name, if it had one, is unattested. I shall call it *trigon*, because it resembles in shape a punctuation sign and a neum with this name; see Saenger, *Space Between Words*, 73; Humphrey, *De institutione arithmetica*, 232. Compare also with the *trifoglio* described by Marilena Maniaci; Maniaci, *Terminologia del libro manoscritto*, 202. Manuscripts containing consistently *triga* that are, given their frequency, probably attention signs include: **Paris, BnF, Lat. 12239** (8<sup>th</sup> century, Corbie), **St. Gallen, Stiftsbibliothek, MS 87** (9<sup>th</sup> century, St. Gall), the *Oblongus* of Lucretius, **Leiden, UB, Voss. Lat. F 30** (c. 825, northwestern Germany), **Amiens BM 220** (9<sup>th</sup> century, Corbie), **Paris, BnF, Lat. 1661** (9<sup>th</sup> century, 2/3, northern Italy), **Munich, BSB, Clm 6300** (8<sup>th</sup>/9<sup>th</sup> century, perhaps northern Italy), and **Munich, BSB, Clm 6308** (8<sup>th</sup> century, ex., Freising). According to Mariken Teeuwen, *trigon* was used in **Paris, BnF, Lat. 8067** (9<sup>th</sup> century, 3/4, Corbie), a copy of Martial's epigrams, to mark obscene words; see Teeuwen, 'What Is Martialis Doing in a Medieval Monastery?', <http://voicesfromtheedge.huylgens.knaw.nl/?p=332>. The manuscript is digitized at: <http://gallica.bnf.fr/ark:/12148/btv1b9078255c/f15.item>. See also Florian Hartmann's remark about the present of attention signs in *Lucretius Quadratus*; Hartmann, "'A Textual Community'?"

<sup>798</sup> See Bischoff, *Latin Palaeography*, 173; Munk Olsen, *La réception de la littérature classique, manuscrits et textes*, 4.2:245. This siglum can be found in: **Munich, BSB, Clm 6265** (9<sup>th</sup> century, 2/4, Freising), **Munich, BSB, Clm 9543** (820-40, Regensburg), and **Leiden, UB, Voss. Lat. O 79** (9<sup>th</sup> century, 4/4, France).

<sup>799</sup> Two major studies on the history of text division are: Parkes, *Pause and Effect*; Saenger, *Space Between Words*.

<sup>800</sup> The division *per cola et commata* is discussed in Parkes, *Pause and Effect*, 16; Saenger, *Space Between Words*, 16.

<sup>801</sup> Parkes, *Pause and Effect*, 12 and 118, n. 44. Compare also with *Etym.* 1.23.1: *Quaedam autem litterae in libris iuris verborum suorum notae sunt, quo scriptio celeris breviorque fiat. Scribebatur enim verbi gratia per B et F "bonum factum" ... per unum K "caput"*. Weber rather thinks the K stood for *kolon* or *komma*; Weber, 'Le lettre grecque K', 63.

twelve CLA manuscripts.<sup>802</sup> It also appears in a handful of Carolingian manuscripts – as a relic copied from ancient exemplars divided in this manner,<sup>803</sup> or as a dialogue marker in theological texts.<sup>804</sup> Of the other ancient text-structuring signs, only the *coronis* is recorded by the CLA.<sup>805</sup> Another sign that was used for indicating the beginning of text sections is the cross; however, this sign was used for a variety of other purposes, and its function in the manuscript is not always identifiable.<sup>806</sup>

The CLA mentions no technical signs that can be identified as exception signs and I am unaware of any conventions of their use predating the Carolingian period.<sup>807</sup> Nevertheless, Isidore of Seville included an exception sign, the *positura*, among the

<sup>802</sup> These are: **St. Petersburg, Public Library, Q.v.I.12** (5<sup>th</sup> century, 2/2, Italy), **Erfurt, Wissenschaftliche Allgemeinbibliothek, Ampl. 2<sup>o</sup> 74 (fly-leaf)** (6<sup>th</sup> century 2/2, uncertain origin, probably Italy, provenance western Germany), **Vienna, ÖNB, Lat. 110** (6<sup>th</sup> century, probably Byzantium, found in Egypt), **Wolfenbüttel, HAB, Weiss. 76** (7<sup>th</sup>/8<sup>th</sup> century, French center, probably in Burgundy), **Würzburg, Universitätsbibliothek, M.p.th.f.64a** (7<sup>th</sup>/8<sup>th</sup> century, Luxeuil, digitized at: <http://vb.uni-wuerzburg.de/ub/mpthf64a/index.html>), **Oxford, Bodleian Library, Douce 140** (7<sup>th</sup>/8<sup>th</sup> century, insular center, probably in England), **Kassel, Universitätsbibliothek, Theol. Fol. 24** (8<sup>th</sup> century, Anglo-Saxon center in Germany, possibly Fulda), **Den Haag, Museum Meermanno-Westreenianum, 10 A 1** (mid-8<sup>th</sup> century, Tours), **Würzburg, Universitätsbibliothek, M.p.th.f.149a** (8<sup>th</sup> century, 2/2, Anglo-Saxon minuscule, digitized at: <http://vb.uni-wuerzburg.de/ub/mpthf149a/index.html>), **Paris, BnF, Lat. 1839** (8<sup>th</sup> century, ex., eastern France), **Madrid, Biblioteca Nacional, Vit. 14.3** (mid-9<sup>th</sup> century, Spain), and **Oxford, Bodleian Library, Bodley 426** (8<sup>th</sup>/9<sup>th</sup> century, southern England). Other manuscripts not mentioned by the CLA are discussed in Weber, 'Le lettre grecque K'. An important group among them are late antique exemplars of the Bible: **Fulda, Landesbibliothek, Bonifatianus 1**, the New Testament copied by Victor of Capua in 546 (CLA I 110); the Graeco-Latin Psalter **Verona, Biblioteca Capitolare, MS 1** (6<sup>th</sup>/7<sup>th</sup> century, northern Italy), the *Codex Amiatinus*, and its sister manuscript **London, BL, Add. 45025**, both produced in the eighth-century Northumbria.

<sup>803</sup> See for example in **Paris, BnF, Lat. 6332** (9<sup>th</sup> century, 2/4, area of Paris), a copy of Cicero's *De senectute*, digitized at: <http://gallica.bnf.fr/ark:/12148/btv1b9066820b>. The *kaput* signs can be seen, for example, on fols. 77r and 77v. This manuscript is discussed in Parkes, *Pause and Effect*, 16 and 33. Another Carolingian manuscript copied from an ancient exemplar that contains *kaput* is **Paris, BnF, Lat. 1572** (8<sup>th</sup> century, 2/2, Tours), a copy of the Latin acts of the council of Ephesus mentioned in chapter 4 (see p. 137).

<sup>804</sup> In **Paris, BnF, Lat. 13363** (Maurdrannus period, Corbie), a copy of Augustine's *De baptismo*, the combination of *kaput* and *trigon* is used from fol. 117v to mark a sequence of statements of Donatists (*kaput*) with the responses of Augustine (*trigon*). This manuscript is digitized at: <http://gallica.bnf.fr/ark:/12148/btv1b90678583/f123.item>. In **Munich, BSB, Clm 52** (817–47, Regensburg) and **Munich, BSB, Clm 14253** (9<sup>th</sup> century, 4/4, Regensburg), two exemplars of the *Recognitiones*, a dispute between Simon the Mage and Peter was marked by a series of *kaput* signs (for Simon the Mage) and crosses (for Peter).

<sup>805</sup> It should be present on fol. 88bisr of **Paris, BnF, Lat. 17225** (5<sup>th</sup> century, Italy); see CLA V 666. Bird-shaped forms that mark the beginning or the end of texts in **Paris, BnF, Lat. 7530**, for example on fols. 148r, 154r and 245r, may be also remnants of *coronides*. This manuscript is digitized at: <http://gallica.bnf.fr/ark:/12148/btv1b84900617/f493.item>. The CLA also records the use of an *yfen* (ŷ) in two Anglo-Saxon liturgical manuscripts as a sign marking the beginning of a prayer: **London, BL, Harley 7653** (8<sup>th</sup>/9<sup>th</sup> century, England, probably Mercia) and **London, BL, Royal 2 A XX** (8<sup>th</sup> century, England, probably Mercia); see CLA II 204 and 215. This sign occurs also in the Oxford Primasius, **Oxford, Bodleian Library, Douce 140** (7<sup>th</sup>/8<sup>th</sup> century, insular center, probably in England); see CLA II 237. In **Barcelona, Biblioteca Capitulare, MS s.n.** (7<sup>th</sup>/8<sup>th</sup> century, probably southern France), a new paragraph is marked on fol. 203r by four points arranged in a diamond shape, see CLA XI 1627.

<sup>806</sup> The CLA records the presence of text-structuring crosses in **Milan, BA, F 60 sup.** (8<sup>th</sup> century, ex., Bobbio); see CLA III 337.

<sup>807</sup> The only exception to this rule may be **Trier, Stadtbibliothek, MS 22** (8<sup>th</sup>/9<sup>th</sup> century, royal court), a gospel book which contains sequences of text marked with a cross at the beginning and an f (for *finit*) at the end, although these are lessons rather than sections prepared for exception.

additions he made to the 21-sign treatise (*Etym.* 1.21.9, see Appendix III, item 8). Like all the other signs he added to the core of the twenty-one signs, the addition is likely to reflect an actual scribal *praxis* of his times. It is, therefore, reasonable to assume that the excerption pair *paragraphus* (Γ) and *positura* (⊐) – the former marking the beginning of a passage to be excerpted and the latter its end – already existed in Isidore’s times.

The most famous Carolingian user of the Isidorian convention of excerption signs was Florus of Lyon.<sup>808</sup> Other notable Carolingian users include Alcuin, who employed *s(cribe)* and *d(imitte)* sigla in **Paris, BnF, Lat. 1572**, a manuscript of the Latin Acts of Ephesus already mentioned in chapter 4 (see p. 143),<sup>809</sup> and Ratramnus of Corbie, who used Tironian symbols for *hic* and *usque* in a group of manuscripts he used for his treatise on predestination.<sup>810</sup> Klaus Zechiel-Eckes identified excerption signs used by the makers of the pseudo-Isidorian decretals in two Corbie manuscripts, **Paris, BnF, Lat. 11611** and **St. Petersburg, Public Library, F.v.I.11**.<sup>811</sup> Bernhard Bischoff uncovered thirteen manuscripts containing Carolingian excerption signs, including the Tironian *hic* and *usque* (*hinc*), but also the Greek characters Α and ω, and the letters a, b, c and d used for consequential excerpts.<sup>812</sup> He proposed that these manuscripts bear traces of an extensive excerption project supervised by Helisarch, the archchaplain of Louis the Pious, the purpose of which was the compilation of a large biblical catena.<sup>813</sup> Michael Gorman recently disproved Bischoff’s Helisarch hypothesis,<sup>814</sup> but the manuscripts identified by Bischoff nevertheless contain Carolingian excerption signs that indicate, together with other examples provided in this paragraph, that Carolingian annotators recognized a multitude of conventions for excerption.<sup>815</sup>

<sup>808</sup> His annotation practices are studied by Pierre Chambert-Protat; see footnote 445. See also the article by Klaus Zechiel-Eckes, Zechiel-Eckes, *Florus von Lyon als Kirchenpolitiker*. For an example of Florus’s excerption signs, see fol. 11v of manuscript **Paris, BnF, Lat. 152** (5<sup>th</sup> century, 2/2, perhaps Lyon), at: <http://gallica.bnf.fr/ark:/12148/btv1b8452765t/f28.item>.

<sup>809</sup> Bischoff, ‘Aus Alkuins Erdentagen’, 16–17.

<sup>810</sup> Ganz, *Corbie in the Carolingian Renaissance*, 76–77. Recently, new manuscripts from the same group containing the Tironian excerption signs were discovered by Warren Pez ; see Pez , ‘A New Manuscript Annotated by Ratramnus’.

<sup>811</sup> See Zechiel-Eckes, ‘Ein Blick in Pseudoisidors Werkstatt’, 39–54. In this case, the excerption signs are not a single pair, but several sigla and symbols, including *h̄*, *h̄* *t*, *h̄* (*trigon* (••)) and others.

<sup>812</sup> For an overview of these manuscripts, see Gorman, ‘Paris Lat. 12124’, 100–2.

<sup>813</sup> See Bischoff, ‘Libraries and Schools in the Carolingian Revival of Learning’, 111–13.

<sup>814</sup> See Gorman, ‘Paris Lat. 12124’, 68–69.

<sup>815</sup> From my own observation, I can add two manuscripts to the list of Carolingian manuscripts containing excerption signs. In **Clm 3842** (9<sup>th</sup> century, 3/4, northern Italy), a manuscript of *Moralia in Iob*, over 100 passages were marked with *nota* and *usque*. In **Clm 5255** (8<sup>th</sup>/9<sup>th</sup> century, Charlemagne’s court), a copy of the *Collationes* of John Cassian, fourteen passages were marked with *leg(e)* and *usque*.

### Conclusion

Stepping back from the detailed observations of sign use in the CLA and ninth-century manuscripts, several points can be made. While scribes used technical signs for their work continuously from Antiquity to the ninth century, a break, or rather several breaks, in scribal *praxis* occurred in this period. These breaks intimate a significant transformation of the intellectual world that took place in the Latin West between Late Antiquity and the Early Middle Ages, a transformation which is well-documented in paleographic evidence, and which resonates with the wider political and social transformations of the Roman world.

The three stages of the development of omission signs proposed by Lowe can also be applied to three other categories of technical signs for which we have more or less complete data from the period between the fourth and the ninth centuries: the quotation, correction, and attention signs. The first of these stages essentially corresponds to the ancient Graeco-Latin scribal *praxis* discussed in chapter 1, and can be associated with the papyrus book roll and those features of the codex which were adopted from the papyrus book culture. In the Latin West, this Graeco-Latin phase lasted until the end of the sixth century in some cases.

In the second stage, which corresponds to the period of the uncial and half-uncial codex, Latin versions of the most frequently used Greek technical signs were coined to substitute the Greek terms in the Latin West. In this manner, Greek *ἀνω* and *κάτω* gave birth to *hs* and *hd* omission signs, and Greek *ζήτει* and *σημειῶσαι* were literally translated into Latin as *require* and *nota* (while *diple* did not require ‘translation’ as it was not a siglum and continued to be used in the same fashion as before). The formation of a Latin terminology on the basis of older Greek terminology suggests an environment that was still familiar with the Greek conventions, but in which scribes chose to use Latin equivalents instead, perhaps because of a dwindling familiarity with Greek and a growing distance between the East and the West.<sup>816</sup> Isidore’s *De notis sententiarum* should be situated in this stage as those items he added to the 21-sign treatise on the basis of the scribal *praxis* familiar to him seem to accurately reflect several of the trends that emerged in this period.<sup>817</sup>

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<sup>816</sup> Cf. Cameron, *The Last Pagans of Rome*, 530.

<sup>817</sup> This is the case specifically with the *eryphia*. Note also that Isidore seems to have no knowledge of the *anchorae* belonging to the previous, Graeco-Latin phase, which he misinterprets as signs of literary criticism (*Etyim.* 1.21.24-25).

In the third stage, possibly already before the end of the sixth century, the political, social and cultural changes in the West led to a widening of the gap between Greek and Latin scribal use. While in the Byzantine East, scribes continued to use the ancient Greek conventions, in the Latin West, they were replaced by local conventions on a growing scale. This trend can be seen as a continuation of the process that already began in Late Antiquity with the ‘Latinization’ of Greek signs. The break was the result of both a lack of understanding on the part of scribes and of a political and intellectual fragmentation of the West. As a result, by the eighth century, a new landscape of regional conventions emerged in the Latin West that substituted the more homogeneous ancient Graeco-Latin scribal *praxis* of Antiquity (see chapter 1, p. 23).<sup>818</sup>

The three-stage development was not uniform throughout the entire Latin West. It seems to have been the fastest in northern Gallia and the insular world, regions which were far removed from the old intellectual centers of the Mediterranean and which were quick to adopt their own localized conventions of sign use. Visigothic Spain and Italy seem to have sustained elements of the ancient or ‘Latinized’ *praxis* longer than other regions. Even within regions, the transition from one convention to another may not have been uniform. Lowe’s findings show that it involved phases in which several conventions coexisted together in a single region - the *anchorae* and the *hs* and *hd* conventions co-occur in Italian uncial and half-uncial manuscripts dated to the sixth century. Similarly,  $\omega\alpha\iota\alpha$ , *cbresima*, and *notae* were used in uncial and half-uncial codices of the sixth century.<sup>819</sup> What we see may be best described as a shifting pattern of preferences as various scriptoria and individual scribes started to prefer one convention over another.

In this chapter section, I have approached various conventions of sign use from the perspective of functional categories, but they can also be viewed from the perspective of geographic regions. If we piece various observations together, we can see that the conventions actually formed sets that can be related to particular regional scripts and that were used consistently in a combination with that script. The *yfen*, which can be associated with the Luxeuil minuscule, is a good example. This can be taken as an indication that technical signs were a part of scribal training, just as in Antiquity. Even if the same sign was

<sup>818</sup> This development can be paralleled with the development of the minuscule script as discussed in Ganz, ‘Book Production’, 786–87.

<sup>819</sup> In **Vatican Reg. Lat. 886** (6<sup>th</sup> century, France, probably Lyon), for example, a N<sup>o</sup> type *nota* sign occurs next to a  $\omega\alpha\iota\alpha$  on fol. 89r. See the digitized manuscript at: [http://digi.vatlib.it/view/MSS\\_Reg.Lat.886/0207](http://digi.vatlib.it/view/MSS_Reg.Lat.886/0207). The Basilican Hilary, **Vatican, BAV, Archivio di S. Pietro D 182** (6<sup>th</sup> century, in., southern Italy) contains both a  $\omega\alpha\iota\alpha$  (Ɀ) and a N<sup>o</sup>T type *nota* signs inserted by the same hand writing in a dark ink, compare fols. 304r and 306r, the latter folio at: [http://digi.vatlib.it/view/MSS\\_Arch.Cap.S.Pietro.D.182/0621](http://digi.vatlib.it/view/MSS_Arch.Cap.S.Pietro.D.182/0621).

tied to several regional scripts, as in the case of the ζῆται, it was used in a slightly different graphic form in each region.<sup>820</sup>

Two sets of conventions became particularly prominent in the course of the eighth century and continued to have a strong presence in the Carolingian scribal culture of the ninth century. The first of these can be associated with the insular world, and I will, therefore, call it the insular scribal *praxis*.<sup>821</sup> Scribes adhering to this insular *praxis* had a consistent preference for the insular quotation signs ., or .., (and less often for a different sign made out of dots and commas), the correction sign ζῆται, and the attention sign *chresimon* (and possibly *trigon* as well). It remained strong on the continent so that it is still possible to discern when a continental manuscript was corrected or annotated by an insular scribe,<sup>822</sup> although it may have influenced Carolingian scribes, just as we saw earlier with the *chresimon*. In other cases, continental scribes seem to have been trained in insular manner, as we will see below (see p. 230). It is interesting that some elements of the insular scribal *praxis* reflect the oldest, ‘Greek’ phase of the development of technical signs.

A second important set of conventions emerged in the course of the eighth century in the Frankish territory, and I will, therefore, call it the Frankish scribal *praxis*. This set consisted of the S-shaped flourish used as the preferred quotation sign,<sup>823</sup> *require* as the correction sign, and *nota* as the attention sign. This Frankish scribal *praxis* provided the basis for the Carolingian scribal *praxis* that developed at the end of the eighth century as a register of the Caroline minuscule. Nevertheless, Carolingian scribal *praxis* also included conventions of sign use that did not derive from older Frankish scribal use. Most importantly, it included several technical signs that were introduced into scribal *praxis* as a result of the study of Isidore’s *De notis sententiarum*.

<sup>820</sup> The Irish ζῆται does not resemble the *zeta* signs that we can find in the late antique manuscripts and which continued to be used in Italy. This allows for a relatively easy recognition of insular and Italian layers of annotation. The Irish ζῆται resembles the letter Z as written in the insular minuscule and has a strong vertical orientation. See for example the ζῆται in the intercolumn of fol. 9v of **Kassel, Universitätsbibliothek, Theol. Fol. 22** (8<sup>th</sup> century, 2/2, Ireland), at: <http://orka.bibliothek.uni-kassel.de/viewer/image/1328187128694/22/>. The Italian ζῆται resembles rather the letter Z as written in Italian minuscule scripts and has a horizontal orientation. See for example the ζῆται in the margin of fol. 9v of **Vatican, BAV, Pal. Lat. 1547** (9<sup>th</sup> century, in., northern Italy), at: [http://digi.vatlib.it/view/bav\\_pal\\_lat\\_1547/0022](http://digi.vatlib.it/view/bav_pal_lat_1547/0022).

<sup>821</sup> By using this term, I do not wish to suggest that it was used only on the British Isles or that its users were in all cases Irishmen or English. The preferred insular forms of technical signs could have been learned by non-Irish and non-English scribes in the same fashion as insular scripts were.

<sup>822</sup> For example, insular technical signs appear on fols. 15v, 16v and 20r of **Bern, Burgerbibliothek, MS 224** (9<sup>th</sup> century, 1/3, France). Insular signs also appear throughout **Munich, BSB, Clm 14425** (8<sup>th</sup>/9<sup>th</sup> century, Regensburg).

<sup>823</sup> Rather than ➔, which could, potentially, have become the established quotation sign in the Frankish lands, given its use in the eighth-century Frankish manuscripts.

It is difficult to pinpoint with precision the time and area from which the Isidorian technical signs spread. Nevertheless, manuscript evidence clearly indicates that some Carolingian scribes adopted the *cryptia* and the *frontis* as query signs, and the *chresimon* as an attention sign (and as we will see in p. 232, *anchorae* as critical signs).<sup>824</sup> These innovations spread only to a limited degree outside of the main area of re-introduction, i.e., northern France with its large intellectual centers, which is, as I pointed out several times throughout this dissertation, where Isidore's sign treatise was studied.

Just as it is possible to talk about a characteristic insular and Frankish *praxis*, we should keep in mind that other important intellectual zones, such as the Beneventan and Visigothic regions, probably had their own regional sets of conventions. Unfortunately, I am unable to describe these, since only a few pre-800 manuscripts in Beneventan and Visigothic scripts survive and since I have not studied more recent Beneventan and Visigothic manuscripts systematically. It is possible that these regional conventions influenced the *praxis* of scribes from the Carolingian lands who came into contact with them, but they are not necessarily easy to discern in Carolingian manuscript evidence because of their limited impact (and cannot be distinguished from cases of idiosyncratic deviance).

Before I turn to Carolingian Bavarian manuscripts, I would like to make two closing remarks. First, apart from 'living' conventions, it is necessary to account for several 'dead' sign types that Carolingian and insular scribes could encounter in ancient codices available in early medieval libraries, and that they may have copied from these old books together with the text.<sup>825</sup> When dealing with contemporary Greek books, the scribes would also have come across technical signs that would seem archaic to a Western eye.<sup>826</sup> Encounters of this type may have been conducive to the revival or sustained use of some of the ancient

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<sup>824</sup> *Anchorae* represent a particularly clear-cut case of Isidorian influence, since Isidore's definition, stemming from the 21-sign treatise, is incorrect. While it was demonstrated that *anchorae* had been used as omission signs, Isidore thought they were signs of literary criticism, denoting a high or low style of writing (*Etym.* 1.21.24-25). The ninth-century usage of these signs conforms to Isidore's definition. *Anchorae* appear frequently in **Cologne, Dombibliothek, MS 75** (c. 800, St. Amand or Salzburg), on fols. 66r and 69r of **Paris, BnF, Lat. 17361** (9<sup>th</sup> century, 2/3, France), in many places in **Paris, BnF, Lat. 10292** (9<sup>th</sup> century, 3/4, eastern France), in **Munich, BSB, Clm 6284** (9<sup>th</sup> century, 2/4; Freising), and in a layer of early medieval annotations in **Vatican, BAV, Reg. Lat. 267** (6<sup>th</sup>/7<sup>th</sup> century, probably France). *Anchora superior* was also added in large numbers by a tenth-century hand in **Boulogne-sur-Mer BM 44** (9<sup>th</sup> century, St. Bertin). The same hand also excerpted the item about *anchora superior* (*Etym.* 1.21.24) on fol. 1r; see Traube, *Textgeschichte der Regula S. Benedicti*, 127.

<sup>825</sup> Thus copied 'dead' signs may be useful for reconstructing the transmission history of particular texts, for example of the *Moralia in Iob* discussed above as harboring the *yen* quotation signs.

<sup>826</sup> One can look for example at **Vienna, ÖNB, Gr. 314** (c. 925), a collection of philosophical texts, which is equipped with *paraglyphi* and *asterisci* as text-structuring signs, and *σημειώσεις*, *ὠραίων* and *χρησιμίων* attention signs. This combination of signs is closer to ancient Greek papyri than to contemporary Latin codices.

signs, such as the *chresimon* among Carolingian and διπλῆ among insular scribes.<sup>827</sup> In other cases, ‘dead’ conventions created confusion and conflict. I have seen several codices in which pre-Carolingian quotation signs copied by the main hand from the prototype of that codex were ‘corrected’ to the Carolingian convention of S-shaped flourishes.<sup>828</sup>

Second, we have seen that quotation signs were frequently added in a secondary layer of scribal activity to old codices. This trend may have also concerned other technical signs, specifically correction and attention signs, two other frequently employed sign types; however, it is nowhere as evident as in the case of the quotation signs. It is clear that in the course of the ninth century, in some places perhaps already before 800, scribes invested energy into adding technical signs in manuscripts that they felt lacked them (just like they may have partitioned undivided text or added punctuation to the same old codices). This trend further strengthens the impression that technical signs were considered part and parcel of a scribe’s profession and that they were increasingly seen as a necessity, not an option. While I described above several general developments in the scribal *praxis* between Antiquity and the Carolingian period, the most important trend visible in the pre-800 manuscript evidence is the general increase in the density of annotation with technical signs.

### Scribal sign use in pre-Carolingian and Carolingian Bavaria

While the CLA provides evidence that early medieval scribes regularly used certain technical signs as a part of their profession, the more detailed contours of this usage remain obscured by the imprecision and incompleteness of the data gathered in the catalogue. This is the case with essentially every study of early medieval manuscripts conducted so far, as scholars rarely pay systematic attention to technical signs and analyze the patterns of their usage in a particular corpus.<sup>829</sup> In the following sections, I fill this gap in our understanding

<sup>827</sup> The use of διπλῆ in the Graeco-Latin scriptural books from the circle of Sedulius almost certainly has to do with the Greek *praxis*.

<sup>828</sup> In **Munich, BSB, Clm 6300** (8<sup>th</sup>/9<sup>th</sup> century, perhaps northern Italy), an exemplar of the *Moralia in Iob* equipped with *yfen* quotation signs by the copyist, the corrector attempted to mark additional quotations first by new clusters of *yfen*, but slipped into a form more familiar to him: the S-shaped flourish. See for example fol. 86v of this manuscript, at [http://daten.digital-sammlungen.de/bsb00047252/image\\_176](http://daten.digital-sammlungen.de/bsb00047252/image_176). In **Munich, BSB, Clm 6284** (9<sup>th</sup> century, 2/4, Freising), a copy of Bede’s commentary on the Catholic Epistles, the † quotation signs were partially erased and overwritten to be replaced by S-shaped flourishes. See for example fol. 49v of this manuscript, at [http://daten.digital-sammlungen.de/bsb00047245/image\\_100](http://daten.digital-sammlungen.de/bsb00047245/image_100). In **Munich, BSB, Clm 6316** (8<sup>th</sup> century, 3/4, Freising), insular quotation signs were erased on several folia and replaced by S-shaped flourishes. See for example fol. 107v of this manuscript, at [http://daten.digital-sammlungen.de/bsb00047260/image\\_216](http://daten.digital-sammlungen.de/bsb00047260/image_216).

<sup>829</sup> I am aware of only two studies that pay some attention to early medieval technical signs. Henry Mayr-Harting studied textual annotations and *nota* signs in the early medieval manuscripts from Cologne in Mayr-Harting, *Church and Cosmos in Early Ottonian Germany*. Helene Scheck is currently studying the annotation

of technical signs by examining a selected corpus of material, manuscripts from early medieval Bavaria. I address a number of questions concerning the early medieval scribal *praxis* that can be answered only by a systematic examination of manuscript evidence: What are the general patterns of distribution of signs within manuscripts and what can they tell us about the production and use of manuscripts in this period? What were the most commonly used signs in this period and why? Were there important changes in the scribal *praxis* and if so, what changed and why? Is it possible to create a regional profile or should we assume a unified Carolingian scribal *praxis*?

This chapter part is divided into four sections. In the first section, I describe my dataset and discuss my methodology. In section two, I provide background information about the Bavarian scribal culture in the eighth and the ninth centuries. In the third section, I pick up where I left off in the first part of this chapter devoted to sign use before 800. I analyze the major functional categories of signs as outlined above. In this section, I also discuss the character of the localized, Bavarian scribal *praxis*. While this analysis is a qualitative one, in the fourth section of this chapter, I focus on the quantitative data provided by my manuscript corpus. In specific, I explore the distribution patterns of technical signs in my dataset and attempt to establish a profile of standard and non-standard sign uses by scribes.

### Dataset and methodology

The material presented in this section is based on the examination of a corpus of 152 eighth- and ninth- century manuscripts preserved in the Bayerische Staatsbibliothek in Munich (henceforth BSB) that I examined either in person or as digital facsimiles. The selection of manuscripts for my dataset was governed by several practical and theoretical concerns. My first criterion was accessibility. At the time of the writing of this chapter, the BSB had digitized the majority of its holdings from the Carolingian period and made them accessible online and downloadable as PDF files.<sup>830</sup> Besides their accessibility, manuscripts

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practices of nuns from three early medieval nunneries; see her analysis of one of the manuscripts used at the Abbey of Quedlinburg, Scheck, 'Reading Women at the Margins of Quedlinburg Codex 74'.

<sup>830</sup> The Carolingian manuscripts are available via the interface of the digital collections of the BSB, at: [http://daten.digital-sammlungen.de/~db/ausgaben/gesamt\\_ausgabe.html?projekt=1157467155&ordnung=sig&recherche=ja](http://daten.digital-sammlungen.de/~db/ausgaben/gesamt_ausgabe.html?projekt=1157467155&ordnung=sig&recherche=ja). Some manuscripts have been in the meantime transferred to a new platform, the *Europeana Regia*, at: <http://www.europeana-regia.eu/en/search/manuscripts/?filters=tid%3A249>. I was able to consult the manuscripts that were not digitized in person at the BSB in April 2014. I will refer to the manuscripts from the BSB to exemplify phenomena discussed below.

from the BSB are also exceptionally well catalogued and described.<sup>831</sup> Furthermore, I needed a corpus that was large enough to perform quantitative analysis and at the same time consistent enough to avoid too much fuzziness. Manuscripts from Bavaria fulfill both criteria. Most importantly, however, manuscripts from Bavaria are relatively static – they rarely left Bavaria and were often kept by the same institution that produced them well into the modern period.<sup>832</sup> Thus, they can serve to reconstruct the practices characteristic of this region.

Because of the large number of manuscripts that could have been included in my dataset and the limited time available, I decided to focus on two large Bavarian centers: Freising in southern Bavaria (76 mss.), and Regensburg in northern Bavaria (57 mss.). Additional locations represented in my corpus are the Bavarian monasteries of Benediktbeuern (5 mss.) and Tegernsee (4 mss.), as well as further unspecified locations in Bavaria (10 mss.).

The manuscripts I chose for my primary corpus are consistent with respect to the geographic area they represent, but not with respect to their chronology. The manuscripts I selected were produced in the eighth and the ninth centuries, but this does not guarantee that the annotations preserved in them are also from these periods. Textual annotations can be dated on paleographic grounds. As long as technical signs can be linked with any of the layers of textual annotation or correction present in the manuscript, e.g. because of an explicit association of a sign with a correction or textual annotation, they can effectively be dated to the same period as these hands. Certain categories of signs are more prone to this association: attention signs sometimes occur together with marginal notes, correction signs may be accompanied by textual corrections, omission signs would by rule require a text that fills in the omission, and in some cases, excerption signs, too, may invite marginal notes that specify what the excerpt covers. But there are also signs that cannot be associated with scribal hands, which, therefore, cannot be dated on paleographic grounds. Nevertheless, even in these cases, internal and external evidence can often help us date

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<sup>831</sup> The most important study of early medieval Bavarian manuscripts remains Bischoff, *Die südostdeutschen Schreibschulen*. Bischoff's study was complemented by manuscript catalogues of the BSB by Katharina Bierbrauer and Günter Glauche; Bierbrauer, *Die vorkarolingischen und karolingischen Handschriften*; Glauche, *Clm 28255-28460*; Glauche, *Die Pergamenthandschriften aus Benediktbeuern: Clm 4501-4663*; Glauche, *Die Pergamenthandschriften aus dem Domkapitel Freising, Bd. 1. Clm 6201-6316*. Additional studies about the collection of the BSB include: Daniel, *Handschriften des zehnten Jahrhunderts aus der Freisinger Dombibliothek*; Bergmann and Stricker, *Die Althochdeutsche und Altsächsische Glossographie*.

<sup>832</sup> See Bierbrauer, *Die vorkarolingischen und karolingischen Handschriften*, 9. Bierbrauer's catalogue systematically records the presence of medieval ownership marks in the manuscripts and whether they were entered in medieval and early modern catalogues of various institutions. All manuscripts I include in my corpus can be shown on these two grounds to have remained in Bavaria throughout the Middle Ages.

layers of sign use relatively to scribal hands. The colour of ink can be, for example, of help in discerning which technical signs were inserted by the main hand (and may have been therefore copied from the prototype of the manuscript).<sup>833</sup> In other cases, the position of technical signs on the page with respect to other marginalia indicates whether they were added before or after a particular layer of datable annotation.<sup>834</sup>

As for the external evidence, I used general chronology I established in the previous chapters as an aid to assess the broader chronology of the use of a particular sign. For example, I have shown that the *frontis* and the *anchora* signs were introduced into scribal *praxis* in the Carolingian period on the basis of Isidore's sign treatise and that their early medieval use differs significantly from their use in Antiquity. Thus, if they are encountered in a late antique codex, particularly if this codex already contains marginalia that can be dated to the Carolingian period and particularly if they were used in accordance with *De notis sententiarum*, in all likelihood these signs were inserted in the manuscript in the Carolingian period, rather than before the late eighth century. Similarly, it is more likely that old text-structuring signs and quotation signs in Carolingian manuscripts are vestiges of the prototypes of these manuscripts, rather than that they are Carolingian additions. For the same reason, I do not discuss in this dissertation the *manicula* (☞), a hand-like pointer that was used as an attention sign in the High Middle Ages and the Renaissance.<sup>835</sup> It is too recent for the scope of this research, and if one encounters it in an early medieval manuscript, one can be almost certain that it is a secondary addition.<sup>836</sup>

Neither of the methods of dating technical signs that cannot be associated with textual layers is straightforward; there are always exceptions and anomalies. Nevertheless, both have been used by paleographers, such as E.A. Lowe and Bernhard Bischoff. In the

<sup>833</sup> As an example, one can take **Clm 52** (817-47, Regensburg), a copy of the pseudo-Clementine *Recognitiones*, in which a series of crosses and *kaput* signs was added both in the margin and in the text window by the main hand. It is, thus, likely that they were copied from the prototype of this manuscript. On fol. 47r, moreover, a *require* correction sign is present in the main text window, suggesting it was copied by a scribe from the prototype. See the digital facsimiles at: [http://daten.digital-sammlungen.de/bsb00047182/image\\_102](http://daten.digital-sammlungen.de/bsb00047182/image_102) (fol. 45v); and [http://daten.digital-sammlungen.de/bsb00047182/image\\_105](http://daten.digital-sammlungen.de/bsb00047182/image_105) (fol. 47r).

<sup>834</sup> As an example, one can take the textual note on fol. 134v of **Clm 14315** (9<sup>th</sup> century, ¼, perhaps Swabia), a copy of Origen's homilies on Genesis, at: [http://daten.digital-sammlungen.de/bsb00046619/image\\_268](http://daten.digital-sammlungen.de/bsb00046619/image_268). The hand that added the textual note *De conversione* had to divide the word *conversione* into *conuer* and *sione* because a *nota* sign was already present on the page. This clearly indicates that the *nota* sign was inserted in the margin first and the textual note in the Caroline minuscule only then, i.e., that the *nota* sign predates the textual note.

<sup>835</sup> For a general description of the *maniculae*, see Clemens and Graham, *Introduction to Manuscript Studies*, 4-45; Maniaci, *Terminologia del libro manoscritto*, 201.

<sup>836</sup> Although the earliest examples may perhaps date to the Carolingian period; see Munk Olsen, *La réception de la littérature classique, manuscrits et textes*, 4.2:246. Another early medieval manuscript that may contain contemporary *maniculae* is **Vienna, ÖNB, Lat. 397** (9<sup>th</sup> century, ½, Reichenau). See fols. 136r and 141v at: [http://aleph.onb.ac.at/F/?func=find-b&find\\_code=IDN&request=AL00171288&local\\_base=ONB06&adjacent=N](http://aleph.onb.ac.at/F/?func=find-b&find_code=IDN&request=AL00171288&local_base=ONB06&adjacent=N).

following sections, I would like to argue for a more systematic approach to the dating of technical signs, namely that it is possible to create a chronological typology of signs, somewhat similar to that created by paleographers for script, on the basis of manuscript examination. If I wanted to put this idea to test, I would have to create several consistent corpora of manuscript data similar to the one I put together from the Carolingian manuscripts in the BSB and produce a comparative analysis. If several such corpora of roughly the same size and from the same region but from different periods were examined side by side, it would be possible to attribute patterns of sign use to different times. A comparative examination of several corpora was, unfortunately, not possible in the scope of this research, but I was able to research at least one consistent corpus that can be used as a starting point for further research.

#### Bavarian scribal culture in the eighth and the ninth centuries

The early medieval region of Bavaria covers a geographic area that now spans three modern countries – Germany, the western parts of Austria and parts of South Tyrol in Italy. In the eighth and ninth centuries, this region was organized into five ecclesiastical provinces – the dioceses of Freising, Regensburg, Passau, Säben-Brixen, and Salzburg (which became an archdiocese to which the other four dioceses were subordinated in 798). Two other areas that belonged geographically and culturally to Bavaria were a part of the archdiocese of Mainz – the diocese of Eichstätt in northern Bavaria, and the monastery of Benediktbeuern in eastern Bavaria, which was situated in the diocese of Augsburg.<sup>837</sup> The most comprehensive overview of the early medieval history of the book in this region was produced by Bernhard Bischoff in his *Die südostdeutschen Schreibschulen und Bibliotheken in der Karolingerzeit*.<sup>838</sup> I will refer to this study in the following paragraphs in order to summarize the development of scribal practices in the four centers I included in my dataset: Benediktbeuern, Freising, Tegernsee, and Regensburg.

The monastery of Benediktbeuern and the nearby nunnery of Kochel were both founded around 750 and lasted until their destruction by the Hungarians in 955.<sup>839</sup> Bernhard Bischoff recognized three stages of the development of minuscule script in Benediktbeuern and Kochel: the oldest, which lasted until the end of the eighth century, is

<sup>837</sup> Bischoff, *Die südostdeutschen Schreibschulen*, 1:2–3.

<sup>838</sup> See footnote 831.

<sup>839</sup> Bischoff associated sixteen complete manuscripts and several sets of fragments with these two foundations. Bischoff, *Die südostdeutschen Schreibschulen*, 1:27–43. He also associated a group of five manuscripts and a liturgical palimpsest in **Clm 6333** written in a script transitioning from half-cursive to fully formed Caroline minuscule with the nunnery of Kochel; *Ibid.*, 1:26–27.

characterized by the use of pre-Caroline minuscule similar to that of the diocese of Freising; in the second, which lasted from the end of the eighth century until c. 825, the script became more cursive and acquired features that disclose an Italian influence; and in the third stage, which lasted into the second half of the ninth century, Benediktbeuern came under a strong influence of Caroline minuscule from the Frankish lands.<sup>840</sup>

Two independent scriptoria operated in the diocese of Freising: the episcopal scriptorium of Freising and its affiliated institutions and the monastic scriptorium of Tegernsee. While a monastery founded by St. Corbinian existed in Freising from the 720s onwards, and while St. Boniface established the diocese of Freising in 739, an established scriptorium, which used an early form of Caroline minuscule, can be located in Freising only from the times of bishop Arbeo (764 – 784).<sup>841</sup> Many scribes trained elsewhere appear in Freising during his incumbency and the incumbency of his successor Atto (784 – 811/12).<sup>842</sup> This phase in the development of minuscule script at Freising is characterized by the lack of a single style that could be attributed to Freising.<sup>843</sup> A uniform style of Caroline minuscule evolved at Freising only in the second stage of the development, during the incumbency of bishops Hitto (811/12 – 836) and Erchanbert (836 – 854). The so-called ‘Hitto style’ represents the purest and most advanced Freising style of Caroline minuscule.<sup>844</sup> Around this time, the scriptorium of Freising reached the peak of its scribal activity.<sup>845</sup> In the following, third phase of the development, under bishops Anno (854 – 875), Arnold (875 – 883), and Waldo (883 – 906), Freising produced fewer manuscripts and the style became fragmented, suggesting a degree of decline. The scribe Waltheri, who collaborated with a Frankish hand on a series of three manuscripts of commentaries of Hraban Maur (**CIm 6260-62**), worked in this period.<sup>846</sup>

<sup>840</sup> Bischoff, *Die süddeutschen Schreibschulen*, 1:22–26. Bischoff also records traces of insular influence in one manuscript from the first period; *Ibid.*, 1:23.

<sup>841</sup> For Arbeo, see also Löwe, ‘Arbeo von Freising’.

<sup>842</sup> Among them was one Peregrinus who used Anglo-Saxon script and left behind a subscription in two manuscripts: **CIm 6237** and **CIm 6297**. Another foreigner working in Freising was a German scribe writing under insular influence in **CIm 6303**, **CIm 6305** and **CIm 6309**. Arbeo himself was trained in northern Italy and was a close friend of the Irishman Virgil, archbishop of Salzburg. For an overview of foreign hands in Freising manuscripts copied under Arbeo and Atto, see Bischoff, *Die süddeutschen Schreibschulen*, 1:60–64.

<sup>843</sup> See *Ibid.*, 1:60–65.

<sup>844</sup> For manuscripts belonging to this group, see *Ibid.*, 1:66–67. We can identify several scribes belonging to this group by names: Cozroch (who was also active as a notary between 820 and 848), Madalfrid, Froimund, Alpunc and Tiso.

<sup>845</sup> Over a hundred manuscripts were produced in early medieval Freising according to Bischoff. Forty of these can be dated to the times of bishop Hitto, see *Ibid.*, 1:58 and 65.

<sup>846</sup> Bischoff notes that the fragmentation ensued as a result of the replacement of a single style by several styles that were introduced by different masters. Waltheri, whose small, slightly elongated script resembles still the Hitto style and who left behind a subscription in **CIm 6262**, was one of them. His Frankish collaborator worked on **CIm 6260**. Another style seems to have been imported to Freising by a foreign master, perhaps from Würzburg; see *Ibid.*, 1:68–71.

The monastery of Tegernsee was founded around 770 and declined in the course of the first half of the tenth century as a result of Hungarian raids. The oldest manuscript fragments from this foundation, datable to the first decades of the scriptorium's activities, disclose both Italian and Anglo-Saxon influences.<sup>847</sup> Until the late eighth century, scribes at Tegernsee used a pre-Caroline minuscule script, in some cases with cursive features. From this period we know the scribe Dominic, who left a subscription in **CIm 18092**, and whose hand worked on **CIm 19408**, **CIm 18168** and the fragments bound into **CIm 19126**.<sup>848</sup> By the second third of the ninth century, the scriptorium of Tegernsee had adopted a fully formed Caroline minuscule that shows some resemblance to the contemporary minuscule used at Freising at the same time.

The oldest manuscripts produced at the monastery of St. Emmeram in Regensburg can be dated to the second half of the eighth century. Bischoff distinguishes five phases in the development of the minuscule script at Regensburg. In the first phase, which lasted until the end of the eighth century, the script in St. Emmeram was under a strong Anglo-Saxon influence.<sup>849</sup> In the first decades of the abbacy of Adalwin (792 – 816/17), Regensburg developed a calligraphically uniform script, which retained some insular features (e.g. the occasional use of insular abbreviations), but can otherwise be considered a full Caroline minuscule;<sup>850</sup> however, this stylistic unity disintegrated in the last two decades of Adalwin's abbacy. Under abbot Baturich (817 – 847), St. Emmeram entered a second period of calligraphic refinement, and its scriptorium reached its zenith.<sup>851</sup> This stage can be compared to the contemporary flourishing of the Freising scriptorium under Hitto. Just as Freising, Regensburg developed its particular variant of Caroline minuscule, the Baturich style. After 830, Bischoff notes that the manuscripts produced at St. Emmeram disclose the

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<sup>847</sup> *Ibid.*, 1:153–54. Italian influences are visible in the fragment of Virgil in **CIm 29005**, in the fragments of a homiliary and a passion preserved in **CIm 19108**, **CIm 29062** and **CIm 29066**, and in the Bible, **CIm 18036**. Manuscript **Munich, Hauptstaatsarchiv, Raritäten-Selekt 108** is a fragment of a Northumbrian calendar that was used either in Tegernsee or its dependency, Ilimünster Abbey; see *Ibid.*, 1:167.

<sup>848</sup> A fifth manuscript that can be associated with Dominic is **CIm 6233**, which was copied by a large number of untrained apprentice hands interrupted here and there by the supervising hand of Dominic. This manuscript was later corrected by a sharp insular hand; see Bischoff, *Die südostdeutschen Schreibschulen*, 1:154.

<sup>849</sup> *Ibid.*, 1:173. Bischoff mentions also the influence of the minuscule from Verona and a Frankish hand collaborating on one of the manuscripts.

<sup>850</sup> This period is described in *Ibid.*, 1:174–75. Some isolated pre-Carolingian Frankish features are detectable in **CIm 1303b**, fol. 136v. A scribe originally trained in central or northern Italy, who copied parts of **CIm 14166** and **CIm 14197**, can be assigned to the same period, see *Ibid.*, 1:188–90.

<sup>851</sup> For the literary activities at St. Emmeram at the time of Baturich, see Bischoff, 'Literarisches Und Künstlerisches Leben in St. Emmeram', 77–78. Three of the scribes from this period can be identified by name: Ellenhart, who copied **CIm 9534**, Dignus, who copied **CIm 14727**, and Engyldeo, who copied **CIm 9543**. At least one other hand from this period was trained in Freising; see Bischoff, *Die südostdeutschen Schreibschulen*, 1:177–79. Bischoff also notes that some sixty codices were produced in the first half of the ninth century at St. Emmeram; *Ibid.*, 1:181.

presence of scribes trained outside Regensburg, notably showing traces of Anglo-Saxon influence.<sup>852</sup> The most important ‘foreigner’ active in St. Emmeram in this period is a Celtic, possibly Welsh, scribe who copied **CIm 14666**, a manuscript of Consentius, and participated in the annotation of several other manuscripts.<sup>853</sup> In the fifth and last stage of the development, which lasted from 850 to 930, Bischoff again notes a decline: only ten manuscripts were produced under the abbots Erchanfrid (847 – 864), Ambricho (864 – 891), Aspert (891 – 894), and Tuto (894 – 930).<sup>854</sup>

In sum, in its earliest phase, i.e., during the second half of the eighth century, Bavarian scribal culture shows both insular and Italian influences.<sup>855</sup> In the course of the first half of the ninth century, a regular, localized form of Caroline minuscule developed – in Freising and Regensburg this happened in the second decade and in Benediktbeuern in the second quarter of this century. In both Freising and Regensburg, the establishment of a uniform minuscule was connected with a general increase in scribal activity. During this period, the production of the Bavarian scriptoria reached a peak that lasted until the mid-ninth century, roughly corresponding to the incumbencies of Hitto of Freising and of Baturich of Regensburg. The second half of the ninth century can be seen as a period of decline and at the beginning of the tenth, the Frankish uniform type of Caroline minuscule began to lose its grip on Bavaria.<sup>856</sup>

This general line of development, in particular the non-Bavarian influences that I mentioned, give us an idea of which conventions of sign use we can expect to find at various times in Bavaria. It suggests, for example, that just as the Bavarian script was from a certain point onwards a form of Caroline minuscule, the scribal *praxis* in this region would be a variant of the Carolingian scribal *praxis*. We should also expect traces of the insular scribal *praxis* and of Italian conventions (e.g. Italian ζήτε! signs) in the oldest manuscript evidence, and insular sign types in manuscripts from Regensburg annotated after 830. Overall, Regensburg manuscripts can be expected to contain more traces of insular scribal *praxis* as the insular influences on this center seem to have been stronger.

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<sup>852</sup> Bischoff speculates that this Anglo-Saxon influence reflects Baturich’s ties with Hraban Maur. He connects another set of foreign influences with Baturich’s acquisition of Mondsee Abbey from the diocese of Passau. These foreign influences are discussed in Bischoff, *Die südostdeutschen Schreibschulen*, 1:179–80.

<sup>853</sup> See *Ibid.*, 1:180–81.

<sup>854</sup> *Ibid.*, 1:181–83.

<sup>855</sup> Compare with Riché, *Education and Culture in the Barbarian West*, 438–39; Ganz, ‘Book Production’, 789.

<sup>856</sup> Bischoff, *Die südostdeutschen Schreibschulen*, 1:70 and 182.

### Qualitative analysis of my dataset

In this section, I refer to the six functional categories of signs I employed in the previous part of this chapter in order to analyze the Bavarian scribal *praxis*. I first show that we can speak, indeed, of a single standard form of sign use in Bavaria. I, then, discuss several alternative sets of conventions which were in use in Bavaria and which can be related to the influences discussed above. I end with a description of those sign types that do not belong to any set of conventions, but rather testify to a special or eccentric sign use.

As suggested by the development of the minuscule script in Bavaria, the standard scribal *praxis* in Bavaria resembles the scribal *praxis* that was connected with the Caroline minuscule. The most commonly used quotation sign in Bavaria was the S-shaped flourish, which appears in 87 out of the 152 manuscripts (57%, see Appendix VI for this and the following statistical data). The most common Bavarian correction sign was *require*, which features in 85 manuscripts (56%). The most common attention sign was *nota*, which can be found in 57 manuscripts (38%). In 33 manuscripts (22%), the three signs occur together. While there are some differences in the shapes of these three sign types used in Bavaria (see Appendix VII), there are no obvious patterns in the use of their subtypes that could be associated with a particular location, time period or annotating hand.<sup>857</sup> All three types of signs appear, nevertheless, more frequently in manuscripts from the first half of the ninth century than from the second,<sup>858</sup> and *require* and *nota* signs appear slightly more frequently in manuscripts from Regensburg than in those from Freising.<sup>859</sup>

Beside these Frankish forms, the manuscripts I studied also contain some of the other types of quotation, correction and attention signs mentioned above. A small, but

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<sup>857</sup> *Nota* signs, in particular, defy such assessment. It is, for example, quite common that the annotator oscillated between several subtypes of *nota* sign within one layer of annotation. One annotator, whose hand can be seen in **CIm 6252**, in fact, used six different types of *nota* signs within one layer of annotation.

<sup>858</sup> The S-shaped flourishes appear in 61% of the manuscripts from my dataset that were produced in the first half of the ninth century (in comparison with 43% produced in the second half of the ninth century). *Require* appears in 63% of the manuscripts from the first half of the ninth century (in comparison with 48% from the second half). *Nota* appears in 40% of manuscripts produced in the first half of the ninth century (in comparison with one third of the manuscripts produced in the second half). The contrast in distribution of quotation signs between the first and the second half of the ninth century is confirmed by the manuscripts from Freising, the only center considered here for which we have a significant number of manuscripts from the second half of the ninth century (15 mss.). Of the manuscripts produced here before 850, 69% were marked with S-shaped flourishes (in comparison with 47% of those produced after this date), 56% were marked by *require* (in comparison with 40% produced in the second half of the ninth century), and 46% were marked with *nota* (in comparison with 20% produced after 850).

<sup>859</sup> *Require* features in 63% of manuscripts produced at Regensburg, in comparison with 49% of manuscripts produced at Freising. *Nota* appears in 40% of manuscripts produced at Regensburg, in comparison with one third of manuscripts produced at Freising. However, this difference can be explained by the fact that Regensburg 'outproduced' Freising in the first half of the ninth century. It indirectly confirms that technical signs appear in manuscripts from my set more frequently in the first than in the second half of the ninth century.

significant number of manuscripts shows traces of the insular scribal *praxis*: in 12 manuscripts (8%) I found insular quotation signs rather than the S-shaped flourishes.<sup>860</sup> 17 manuscripts (11%) were corrected by ζήτει.<sup>861</sup> Furthermore, I counted 29 manuscripts annotated with *trigon*, which may be the preferred insular form of attention sign in Bavaria (rather than *chresimon*). All three sign types occur more often in the eighth-century than in the ninth-century manuscripts from my dataset.<sup>862</sup> This agrees with what was said about the insular influences on Bavarian scribal culture in the second half of the eighth century. While S-shaped flourishes and *require* signs usually occur as the only quotation and corrections signs in the manuscripts from my dataset, the insular quotation signs and ζήτει are often used in the manuscripts in which S-shaped flourishes or *require* correction signs also occur.<sup>863</sup> Moreover, insular quotation signs were used in combination with ζήτει only in three manuscripts.<sup>864</sup> This dispersed pattern of use strengthens the impression that they represent an older *praxis* which was eclipsed by the Frankish conventions.

The insular quotation signs are present in **Clm 14417**, **Clm 14760** and **Clm 15408** produced in Regensburg during the abbacy of Baturich. They have a different shape from the older insular quotation signs used in Bavaria (see Appendix VII) and are probably a witness of the Anglo-Saxon influences in Regensburg at this time (see p. 227).<sup>865</sup> In the same period, the insular quotation sign was considered outdated at Freising, as is suggested by **Clm 6316**, in which insular quotations signs copied by the main hand were partially

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<sup>860</sup> Insular quotation signs are present, for example, in **Clm 4549** produced around 800 possibly in nunnery of Kochel affiliated with nearby Benediktbeuern, and in **Clm 16128** produced at the end of the eighth century at Salzburg.

<sup>861</sup> The total number of manuscripts in my dataset for which I record the presence of a sign in the shape of *zeta* is 24, but in at seven of them, the *zeta*-shaped sign appears only once and cannot be conclusively considered a ζήτει. Ζήτει copied in insular *ductus* features, for example, in **Clm 6276** (9<sup>th</sup> century, 2/4, southern Bavaria), **Clm 14077** (9<sup>th</sup> century, 2/4, Regensburg), **Clm 14679** (9<sup>th</sup> century, 2/4, Regensburg), **Clm 18092** (8<sup>th</sup> century, ex., Tegernsee), and **Clm 6250** (9<sup>th</sup> century, 1/4, Freising). The continental *zeta* appears in **Clm 14078** (9<sup>th</sup> century, 2/4, Regensburg) and **Clm 6355** (9<sup>th</sup> century, 2/4, Freising).

<sup>862</sup> *Trigon* is, in fact, more common in the eighth-century manuscripts from my dataset than *nota* (there are 238 *triga* in the eighth-century manuscripts and only 188 *notae*). One reason to consider it at least partially an insular trait is this pattern of distribution.

<sup>863</sup> The notable exception are three manuscripts produced at Tegernsee in the second half of the eighth century, **Clm 18092**, **18168** and **18550a**, in which the ratio between ζήτει and *require* is more balanced than elsewhere in Bavaria. It seems that the insular influence here was stronger.

<sup>864</sup> Two of these manuscripts, **Clm 6286** (8<sup>th</sup>/9<sup>th</sup> century, southern Bavaria) and **Clm 18092** (8<sup>th</sup> century, ex., Tegernsee), predate the beginning of the ninth century. In the third, more recent manuscript, **Clm 14417** (9<sup>th</sup> century, 2/4, Regensburg), insular quotation and correction signs were added by a corrector (see the following footnote).

<sup>865</sup> The three manuscripts that Bischoff associates with hands writing under Anglo-Saxon influence, **Clm 14540**, **Clm 14405**, and **Clm 14426**, do not contain quotation signs; see Bischoff, *Die südostdeutschen Schreibschulen*, 1:213–15. In **Clm 14417**, insular quotation signs were added by a corrector (e.g. on fols. 26r and 27v, while the main hand used S-shaped flourishes (e.g. on fol. 6v). This corrector does not seem to be identical with either of the hands writing under Anglo-Saxon influence (see e.g. the correction on fol. 40r in the same manuscript).

replaced or overlaid with SS-shaped flourishes by a corrector. However, the strongest insular trace in my dataset was left behind by the Celtic scribe mentioned above who collaborated on **Clm 14666**, a manuscript of Consentius's *Arx* produced in the mid-ninth century at Regensburg. Bischoff identified this scribe as an annotator and corrector in several other Regensburg manuscripts: **Clm 14077** (835-40, e.g. on fols. 4v and 169v), **Clm 14492** (9<sup>th</sup> century, 2/4, on fol. 19r), **Clm 14392** (not part of my dataset, 9<sup>th</sup> century, 1/2, e.g. on fols. 2r and 109v), and **Clm 14425** (8<sup>th</sup>/9<sup>th</sup> century, on fols. 73v and 85v).<sup>866</sup> Three of these manuscripts also contain technical signs that were made by the same hand. In **Clm 14077**, the Celtic annotator inserted insular ζήτετ signs on fols. 46v, 52v (erased), 93r, 120r, 129v, 139r, 141r, 205r, and 300v. In **Clm 14666**, he inserted l's that stand for *lectio a lege*, a common insular technical sign, on fols. 3r, 14v, 15r and many others.<sup>867</sup> The most thoroughly annotated manuscript this Celtic scribe left behind is **Clm 14425**, in which he used almost twenty different sign types, some of them in peculiar combinations. These include crosses, *chresimon*, *sigmata* and *antisigmata*, *trigon*, Tironian *hic*, several types of insular quotation signs, zigzags and a variety of letters (d, v, l, f, n, t, r, and m). Because of the rich layer of annotations made by this scribe (on top of the *yfen* quotation signs copied by the main hand) and the unusually high variety of signs, **Clm 14425** resembles more closely Irish manuscripts such as **Bern 363** or one of the Graeco-Latin biblical books produced in the circle of Sedulius than any other manuscript from my dataset.<sup>868</sup> It clearly reveals the presence of a foreign insular scholar rather than of a local scribe trained in an insular environment or under insular influence.

<sup>866</sup> Bischoff identified his hand also in fragments of the *Aeneid* with scholia, now preserved in **Berlin, Staatsbibliothek, Lat. fol. 421** (9<sup>th</sup> century, 2/3, Regensburg). A hand from St. Emmeram, which resembles the hand of the scribe of **Clm 14077-78**, copied the first four books. The Celtic scribe copied the rest of the text and marginal commentary; see *Ibid.*, 1:219–20.

<sup>867</sup> See Hagen, 'Über die kritischen Zeichen', 147; Best, *The Commentary on the Psalms*, 30.

<sup>868</sup> For example, I have counted nineteen different sign types in **St. Gallen 904**, including r's, u's, v's, Q's, E's, Ex's, fs, i's, K's and t's, apart from the non-siglaic *chresima*, *anchorae*, crosses, and ζήτετ. In **St. Gallen 48**, a Graeco-Latin Gospel book produced around the mid-ninth century in the circle of Sedulius, technical signs present include l's, q's, r's, ζήτετ, *chresima* and *diplai*. Hagen described thirteen sign types used in **Bern 363** including T's, q's, v's, fs, c's (and *cor* which has perhaps the same function), and s's, apart from *asterisci*, *chresima*, ζήτετ, quotation signs, and signs in the form of a circle; see Hagen, 'Über die kritischen Zeichen'. The facsimiles of this manuscript were published as Hagen, *Codex Bernensis 363*. Large amounts of diverse sign types can be also found in the Old Irish Commentary on Psalms, **Milan, BA, C 301 inf.** (8<sup>th</sup>/9<sup>th</sup> century, Ireland or Bobbio) and in **Würzburg, Universitätsbibliothek, Mp.th.f.12** (8<sup>th</sup> century, 2/2, Ireland), a manuscript of the Pauline epistles with Latin and Old-Irish glosses; see Best, *The Commentary on the Psalms*, 30; Stern, *Epistolae Beati Pauli glosatae glosa interlineali*, xiv. The latter manuscript is digitized at: <http://vb.uni-wuerzburg.de/ub/mpthf12/index.html>.

In contrast to insular conventions of sign use, Isidorian conventions do not have a strong presence in Bavaria: *cryphia* was used in five,<sup>869</sup> *frontis* in three,<sup>870</sup> *chresimon* in eight,<sup>871</sup> and critical *anchorae* in three manuscripts.<sup>872</sup> It should be noted, however, that unlike the insular technical signs, which tend to be scattered across many manuscripts and rarely occur together, *frontis*, *chresimon*, and critical *anchorae* occur side by side in a small number of manuscripts.<sup>873</sup> The traces of this set of conventions are, in other words, very compact and suggest a small group of users who switched consistently to Isidorian conventions. This is also implied by the patterns of the use of the *frontis* correction sign: it was not combined with *require*, as was ζῆται, but rather it is often the only or the dominant correction sign in the manuscript.<sup>874</sup> Whereas insular signs occur in the earliest manuscripts in my dataset, *frontis*, *chresimon* and critical *anchorae* do not occur in the Bavarian manuscripts produced before 800. *Cryphia* does not appear before the second quarter of the ninth century and the two manuscripts in which it is most prominent, **Clm 14386** (Regensburg, 9<sup>th</sup> century, 3/3) and **Clm 6261** (Freising, 9<sup>th</sup> century, 3/4), were both produced after 850, i.e. in the period when Bavarian scriptoria were past their peak of productivity. Importantly, the latter manuscript is one of the three copies of Hraban Maur's commentaries that were produced in the circle of Waltheri with the aid of a foreign, Frankish scribe (see p. 226). The *cryphiae* and other correction signs in this manuscript seem to have been copied from the prototype and thus should be seen as a foreign trend.<sup>875</sup>

<sup>869</sup> These are: **Clm 6261** (9<sup>th</sup> century, 3/4, Freising), **Clm 6281** (mid-9<sup>th</sup> century, Freising), **Clm 6424** (9<sup>th</sup> century, 2/4, Freising), **Clm 14386** (9<sup>th</sup> century, 3/3, Regensburg), and **Clm 14434** (9<sup>th</sup> century, 2/4, Regensburg).

<sup>870</sup> These are: **Clm 6250** (9<sup>th</sup> century, 1/4, Freising), **Clm 6277** (9<sup>th</sup> century, 1/4, Freising) and **Clm 14386** (9<sup>th</sup> century, 3/3, Regensburg). Two additional manuscripts contain *frontis*, **Clm 14197** (8<sup>th</sup> century, ex., Regensburg) as an attention sign copied by the main hand, and **Clm 6272** (9<sup>th</sup> century, 1/4, Freising) as a *signe de renvoi*.

<sup>871</sup> These are: **Clm 4585** (9<sup>th</sup> century, 2/4, Regensburg), **Clm 6250** (9<sup>th</sup> century, 1/4, Freising), **Clm 6284** (9<sup>th</sup> century, 2/4, Freising), **Clm 14386** (9<sup>th</sup> century, 3/3, Regensburg), **Clm 14425** (8<sup>th</sup>/9<sup>th</sup> century, Regensburg), **Clm 14523** (9<sup>th</sup> century, 3/4, Freising), **Clm 14679** (9<sup>th</sup> century, 2/4, Regensburg), and **Clm 14716** (9<sup>th</sup> century, 2/4, Regensburg). In **Clm 14425**, *chresima* were inserted by the Celtic annotator and should be considered rather an insular feature.

<sup>872</sup> These are: an exemplar of Augustine's *De civitate Dei*, **Clm 6267** (9<sup>th</sup> century, 2/4, Freising); an exemplar of Bede's commentary on Catholic Epistles, **Clm 6284** (9<sup>th</sup> century, 2/4, Freising); and a homiliary, **Clm 14386** (9<sup>th</sup> century, 3/3, Regensburg).

<sup>873</sup> **Clm 6250** (9<sup>th</sup> century, 1/4, Freising) contains both *chresimon* and *frontis*, **Clm 6284** (9<sup>th</sup> century, 2/4, Freising) contains *chresimon* and *anchorae*, and **Clm 14386** (9<sup>th</sup> century, 3/3, Regensburg) contains all four Isidorian sign types.

<sup>874</sup> Of the three manuscripts in which it occurs, *frontis* features in one, **Clm 6277** (Freising, 9<sup>th</sup> century, 1/4), as the only correction sign. In another manuscript, **Clm 6250** (9<sup>th</sup> century, 1/4, Freising), it appears side by side with *require*, but it is nevertheless the dominant correction sign.

<sup>875</sup> On fol. 142r, the *quaere* correction sign was copied in rubrics by the same hand that rubricated the main text. On fol. 141r, *quaere* and *cryphia* occur side by side, probably made by the same hand. In other places, the ink of *cryphiae*, which are not accompanied by any text, resembles the ink of the main hand. Both the presence of a Frankish scribe and *cryphiae*, which, as was shown, gained popularity in Francia, suggest that the prototypes of the three manuscripts came from the north or northwest.

Several manuscripts also contain other technical signs that cannot be directly related to any of the sets of conventions discussed in the previous part of this chapter. In seven manuscripts from Regensburg, quotations are marked with a 3- or 33-shaped sign (see Appendix VII, item 1e), which can be considered on this account a signature convention of Regensburg.<sup>876</sup> In five other Regensburg codices, a recurring sequence of n's and f's occurs, probably standing for *nota* and *finit*.<sup>877</sup> Apart from their place of production and preservation, these five manuscripts have one more feature in common: they contain commentaries on the books of the Old and the New Testament written by or ascribed to Jerome. It seems that at some point around or shortly after 850,<sup>878</sup> a group of scribes from Regensburg prepared these books for excerption, flagging 276 passages.<sup>879</sup> The scale of this annotation suggests that we may be talking about a major regional intellectual project, similar to the excerption activities of Alcuin, Ratramnus of Corbie or Florus of Lyon discussed above (see p. 216). However, the five Regensburg manuscripts cannot be connected to any surviving collection of excerpts.<sup>880</sup>

Three manuscripts from my dataset contain *yfen* and three contain ÷ quotation signs. In all instances, these old quotation signs were copied by the main hand of the scribe. They are, thus, likely to reflect the exemplars from which the Bavarian copies were made. They feature in the manuscripts in an inconsistent, haphazard manner, which may have been the reason why they were regularly supplemented by younger S-shaped flourishes.<sup>881</sup> In **Clm**

<sup>876</sup> These are: **Clm 3747** (9<sup>th</sup> century, 2/4, Regensburg), **Clm 14080** (8<sup>th</sup> century, 4/4, Regensburg), **Clm 14166** (8<sup>th</sup> century, ex., Regensburg), **Clm 14197** (8<sup>th</sup> century, ex., Regensburg), **Clm 14248** (9<sup>th</sup> century, in., Regensburg), **Clm 14286** (9<sup>th</sup> century, 1/4, Regensburg), and **Clm 14314** (9<sup>th</sup> century, 2/4, Regensburg). These 3-shaped quotation signs seem to be work of different annotators. **Clm 14080** is one of the oldest manuscripts from Regensburg, copied in Anglo-Saxon minuscule. In this manuscript, as well as in **Clm 14166** and **Clm 14197**, 3-shaped quotation signs were made by the main hand. On the contrary, in **Clm 14286** and **14314**, which came into being about a quarter century later, the 3-shaped quotation signs were added by a corrector.

<sup>877</sup> These are: **Clm 13038** (c. 800, on Pauline epistles), **Clm 14200** (mid-9<sup>th</sup> century, on Ezekiel), **Clm 14393** (mid-9<sup>th</sup> century, on Minor prophets), **Clm 14417** (9<sup>th</sup> century, 2/4, on Wisdom Books) and **Clm 14425** (8<sup>th</sup>/9<sup>th</sup> century, on Jeremiah).

<sup>878</sup> The *terminus post quem* is provided by the date of copying of the two youngest manuscripts in the group, **Clm 14200** and **Clm 14393**, which both come from mid-ninth century.

<sup>879</sup> One of these scribes can be identified as the Celtic annotator mentioned earlier, who inserted n's and f's into **Clm 14425**. This further confirms that this excerption project should be dated to mid-ninth century, when the Celtic annotator was active at Regensburg.

<sup>880</sup> In this respect, it can be compared to the manuscripts that Bischoff once identified as reflecting an excerption project tied to a planned exegetical catena initiated by Helisarch; see footnote 813.

<sup>881</sup> For example, in **Clm 14393** (mid-9<sup>th</sup> century, Regensburg), ÷ appear only in the first twelve folia, after which point a corrector added S-shaped flourishes. In **Clm 4541** (9<sup>th</sup> century, 3/3, Benediktbeuern), *yfen* quotation signs were copied in only some twenty pages. **Clm 14425** is a rare exception, as its 225 pages annotated with *yfen* were supplemented by the insular quotation signs made by the Celtic annotator in 110 more pages. *Yfen* have been copied by the main hand also into non-Bavarian **Clm 6300** (8<sup>th</sup>/9<sup>th</sup> century, perhaps northern Italy). A second hand then intervened, first adding more *yfen*, but got repeatedly tired and slipped into using S-shaped flourishes, e.g. on fol. 86v.

**6284** (Freising, 9<sup>th</sup> century, 2/4), the original ÷ quotation signs were even erased to be replaced by the standardized S-shaped flourishes (e.g. on fols. 3v and 49v).<sup>882</sup>

Other notable, but rarely used sign types that I encountered in my dataset include remnants of *anchora* omission signs (2 manuscripts),<sup>883</sup> and the deletion signs *obelus* (4 manuscripts) and *theta* (3 manuscripts).<sup>884</sup> Bavarian manuscripts also contain the ancient text-structuring signs *asteriscus* (up to 16 manuscripts) and *kaput* (6 manuscripts).<sup>885</sup> In **Clm 52** and **Clm 14253**, two Regensburg copies of the *Recognitiones*, passages in which Peter debates with Simon the Mage in Rome were structured into a dialogue by means of K's and crosses.<sup>886</sup> In **Clm 6271** (825-35, Freising), Jerome's commentary on Isaiah, 64 quotations from Isaiah were marked both by a *kaput* sign and SS-shaped flourishes.<sup>887</sup> In **Clm 6264a** (825-35, Freising), the *asteriscus* was used nine times to mark the beginning of a passage of interest in the Homiliary of Paul the Deacon, retaining its value as a sign marking beginnings, while at the same time developing towards an attention sign. In **Clm 6264a** (825-35, Freising), several passages were marked with a combination of excerption signs *s(cribe)-d(imitte)* known from other manuscripts.<sup>888</sup> This combination of excerption signs is also found in **Clm 28135** (9<sup>th</sup> century, in., Freising). In **Clm 6269** (9<sup>th</sup> century, 3/4, Freising), 34 sections were marked with *i(ncipit)*. Finally, in **Clm 14200** (mid-9<sup>th</sup> century,

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<sup>882</sup> This phenomenon of replacing of outdated quotation sign with a more recent convention is observable in two other manuscripts, **Clm 6316** from Freising, in which insular quotation signs were erased and replaced, and the non-Bavarian **Clm 6300**, in which *yfen* was treated in this manner. I discuss all three manuscripts in footnote 828.

<sup>883</sup> In **Clm 4541** (9<sup>th</sup> century, 3/3, Benediktbeuern), *anchora* features as a *signe de renvoi* on fols. 24r and 192r. On fol. 1r of **Clm 21525** (9<sup>th</sup> century, 1/4, Freising), an *anchora* is used as a pointer to the upper margin, but without a complementary downwards pointing *anchora*. Moreover, the same fill-in is also connected with the main text by a *signe de renvoi*. In neither case, thus, should we talk about a genuine omission sign, but rather a vestige of the older convention.

<sup>884</sup> In total, *obelus* appears in nine manuscripts from my dataset, but in three cases, it is a critical sign and in one case, it seems to have other than deletion function (see Appendix VII, items 2f and 4a).

<sup>885</sup> In total, *asteriscus* appears in 18 manuscripts from my dataset, but in two, *asteriscus* is used as a critical sign (once in Jerome's commentary on Ezekiel as a part of the original text). In some of the remaining 16 manuscripts, it might have been used as an attention sign or as a critical sign rather than as a text-structuring sign (see Appendix VII, items 4a and 5a), but this is not immediately obvious from the context and I therefore include them in my count.

<sup>886</sup> See footnote 804.

<sup>887</sup> *Kaput* was used in the same fashion in several manuscripts from the insular milieu listed above. In **Würzburg M.p.th.f.149a** (8<sup>th</sup> century, 2/2), an exemplar of *Moralia in Job* copied in Anglo-Saxon minuscule, quotations from Job are marked both by insular quotation signs and *kaput* signs. In **Oxford, Bodleian Library, Bodley 426** (8<sup>th</sup>/9<sup>th</sup> century, southern England), another exegetical text concerned with Job, the same combination occurs; see CLA IX 1427 and CLA II 234. In **Oxford, Bodleian Library, Douce 140** (7<sup>th</sup>/8<sup>th</sup> century, insular center probably in England), a copy of Primasius's commentary on the Apocalypse, *yfen* quotation signs were altered by a corrector into *kaput* signs; see CLA II 237.

<sup>888</sup> See p. 204. I have found sixteen *scribe* signs, but only eight *dimitte* in **Clm 6264a**. The siglum *dim(itte)* occurs also in **Clm 5508** (8<sup>th</sup> century, ex., Salzburg), but in this manuscript it may be post-Carolingian.

Regensburg), an exemplar of Jerome's commentary on Ezekiel, sections were marked with an indexing siglum *All(egoria)*.<sup>889</sup>

Last but not least, I would like to discuss several Bavarian manuscripts that contain critical signs. As I emphasized earlier, critical signs belong to the *praxis* of scholarly elite rather than to professional scribal activity, but nevertheless we see that they permeate the lower levels of hierarchy and are occasionally employed by users who can be described as scholarly-minded scribes or local intellectuals (see chapter 4, p. 131). Indeed, this is how the critical signs present in my dataset may be interpreted. In the *Collectio Diessensis*, **CIm 5508** (8<sup>th</sup> century, ex., Salzburg), canons were marked with critical *asterisci* and *obeli* on fol. 37r, probably to indicate that they were misplaced.<sup>890</sup> In the *Dionysio-Hadriana*, **CIm 6242** (9<sup>th</sup> century, ¼, Freising), the annotator who added interlinear glosses throughout the codex also marked three passages with critical *obeli* and *metobeli*.<sup>891</sup> In **CIm 14253** (9<sup>th</sup> century, 4/4, Regensburg), a copy of the *Recognitiones*, a passage on fol. 60v was both marked by an *obelus* and a *metobelus* and crossed out.<sup>892</sup>

In this chapter section, I have shown which sign types were most frequently used in my dataset. I related them both to the pre-800 developments of sign use in the Latin West and to the development of the Bavarian scribal culture studied by Bernhard Bischoff in *Die südostdeutschen Schreibschulen und Bibliotheken in der Karolingerzeit*. Indeed, the patterns of sign use I described here fit both these pictures – we can view them as a continuation of earlier trends and as a complement to the development of the Bavarian minuscule script. We have seen that the characteristic Frankish trio of S-shaped flourishes, *require* correction signs and *nota* attention signs became the dominant set of technical signs used in Bavaria in the first half of the ninth century, at the same time when the acquisition of the Caroline minuscule by Bavarian scriptoria became completed, and fully-formed localized versions of the Caroline minuscule appeared in Freising and Regensburg. Manuscripts copied before 800 in the four Bavarian centers examined here show traces of insular influence, but in none is the insular scribal *praxis* present in a pure form as in **CIm 14425** annotated by the Celtic annotator from Regensburg around the mid-ninth century. The second half of the eighth century, thus, reflects a situation in which the older insular influence was already giving way to a growing Frankish influence, and this is shown by the manuscripts from this period.

<sup>889</sup> The same siglum and an additional siglum *mor(aliter)* appear also in **CIm 14315** (9<sup>th</sup> century, ¼, perhaps Swabia).

<sup>890</sup> See footnote 504.

<sup>891</sup> See footnote 493.

<sup>892</sup> The quality of the black-and-white microfilm images does not allow me to see whether the critical signs and/or the crossing-out were made by a correcting hand present elsewhere in the manuscript. See the digitized manuscript at: [http://daten.digitale-sammlungen.de/bsb00036897/image\\_124](http://daten.digitale-sammlungen.de/bsb00036897/image_124).

The conventions of sign use based on Isidore's *De notis sententiarum* seem never to have been adopted in Bavaria, although they do make an occasional appearance, echoing the development in Francia.

The peak of sign use in Bavaria corresponds to the peak of the manuscript production and as the manuscript production declined, so did the extent of annotation. This is a crucial observation, as it suggests that annotation with technical signs took place frequently during or shortly after the production of the manuscript. If this was, indeed, a broader trend, it could provide an important basis for a relative dating of technical signs. However, in two cases from my dataset, technical signs were added as late as fifty years after the manuscript was produced. In one case, the Celtic scribe who was active at Regensburg around the mid-ninth century annotated a manuscript that was produced at the turn of the ninth century. In another, a different annotator inserted the excerpption sigla *n* and *f* into a manuscript produced around 800. Both these cases, however, reflect non-standard *praxis* and cannot be considered representative for Bavarian scribal practices. In fact, Bavarian scribes rarely employed technical signs beyond quotation, correction, and attention signs. I will discuss the 'standard' and 'non-standard' scribal annotation in greater detail below, showing that, in fact, two different patterns of sign use existed among the scribes (see p. 243).

#### Quantitative analysis of my dataset

In this section, I look at various characteristics of manuscripts that can be quantified and, therefore, allow for a comparison. After I explain my working method in the first subsection, I answer the most basic questions about the dataset in subsection two: how many of the manuscripts I examined were annotated with signs, how densely were they annotated, and do the signs occur in manuscripts uniformly, or are some parts more densely annotated than in others? I also assess which sign types were the most commonly used, and how many signs on average a scribe used. In subsection three, I will discuss in detail the distribution patterns of the three most common sign types – the S-shaped quotation signs, *require* correction signs and *nota* attention signs –, to show that although they belong to a single, Carolingian scribal *praxis*, each was used differently in Bavaria. In the fourth subsection, I compare the distribution pattern of technical signs with the distribution pattern of textual marginalia in order to place them in the wider context of the culture of annotation.

*Working method*

Research results presented in this chapter section are based on a thorough page-by-page examination of all 152 manuscripts included in my dataset.<sup>893</sup> For each page of each manuscript (over 47,000 pages altogether), I recorded information about the presence of technical signs, marginal annotations, and marginal tabs, and I entered these data into our project database.<sup>894</sup> For the purpose of the comparison of the 152 manuscripts, I created five quantitative variables reflecting various commensurable characteristics of these manuscripts.

To express the total density of annotation with technical signs, I use the percentage of the pages in a manuscript containing technical signs (total signs%). This variable has a form of a number between 0 (no pages of the manuscript contain technical signs) and 1 (all pages of the manuscript contain technical signs), e.g. 0.3 indicates that 30% of the pages in the manuscript contain technical signs. Similarly to how I calculated the total signs% value for each manuscript, I also provided them with a total annotation% value and a total mgtabs% value, which reflect the percentage of annotated pages in a manuscripts, but in this cases for pages containing two types of textual marginalia (see p. 246).

The fourth variable I use reflects the difference in the distribution of technical signs in a single manuscript. To calculate it, I subtracted the number of pages containing signs in the twenty folia following directly after the middle folio of the manuscript from the number of pages containing signs in the twenty folia at the beginning of the manuscript (i.e., the first twenty folia in the first and in the second half of the manuscript). In a manuscript with hundred folia, the portions analyzed would correspond to fols. 1r-20v and 51r-70v, respectively. The difference between these two values (diff signs) allows one to estimate whether the number of technical signs grows, declines or is stable in the manuscript. It is a numeric value between -40 and 40 (since each folio has a recto and a verso side, twenty folia make forty pages in which signs may occur). A positive value indicates that more signs occur in the first twenty folia of the manuscript, i.e., at the beginning. A negative value indicates that more signs occur in the first twenty folia of the second half of the manuscript, i.e., in the middle. If the diff signs value is zero or close to zero, it suggests that there is no significant difference in the density of technical signs between the beginning and the middle of the manuscript.

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<sup>893</sup> By manuscript, I understand a single codicological unit, even though it may be today bound together with a different codicological unit under a single shelfmark. In this respect, I follow Bernhard Bischoff, who distinguished medieval codicological units both in his *Die südostdeutschen Schreibschulen und Bibliotheken in der Karolingerzeit* and in his *Katalog der festländischen Handschriften des neunten Jahrhunderts*.

<sup>894</sup> At: <http://marginalia.huynens.knaw.nl/view/codices/>.

The fifth variable corresponds to the total number of different sign types used in the manuscript (#sign types). A manuscript in which sixty pages were annotated with S-shaped flourishes, twenty with *require* correction signs and five with *nota* attention signs, for example, would have #sign types value 3 because it contains S-shaped flourishes, *require* and *nota* signs.

In addition to these five variables, I have also recorded separately the total number of pages containing the nineteen most common identifiable sign types in my dataset for each manuscript: four different types of a quotation sign (S-shaped flourishes, insular, *yfen*, and ÷ quotation signs), four types of correction signs (*require*, ζῆται, *cryphia* and *frontis*), three types of attention signs (*nota*, *chresimon*, and *trigon*), two types of *anchorae* (*anchora superior* and *anchora inferior*),<sup>895</sup> exception signs *n* and *f*, *asteriscus*, *obelus*, *theta*, *kaput*, and crosses.<sup>896</sup> In the statistical tables provided in Appendix VI, I provide two types of information about the distribution of the individual sign types within my dataset. First, I give the average number of pages containing signs of a particular type in my dataset (i.e., all 152 manuscripts counted in). A value of 1.8, for example, indicates that, if equally distributed, this sign type would occur on 1.8 pages in each of the 152 manuscripts examined. Second, I indicate the number of manuscripts from my dataset containing this sign type.

Finally, I point out any significant differences in the patterns of distribution of technical signs and other marginalia between different scribal centers and periods. I also point out any correlation between patterns of sign distribution and textual genres present in my dataset. For this purpose, I classified the texts in the manuscripts I examined into eight genres: exegesis (67 manuscripts, 44% of my set), theology (29 manuscripts, 19%), knowledge texts (20 manuscripts, 13%), Bible (11 manuscripts, 7%), liturgy (9 manuscripts, 6%), law (7 manuscripts, 5%), hagiography (6 manuscripts, 4%), and history (3 manuscripts, 2%).<sup>897</sup>

<sup>895</sup> I chose to count each type of *anchora* separately rather than a single sign type.

<sup>896</sup> These are not all sign types that I encountered in my dataset, which amount to perhaps fifty, but rather the nineteen most important and most relevant sign types whose distribution can be compared and contrasted.

<sup>897</sup> I decided to distinguish between exegesis and theology in order to set apart those texts that are commentaries on biblical text and thus contain large number of scriptural quotes or even, as in the case of biblical catenas, embed the scriptural text directly in the text of the commentary. As we will see below, this distinction is particularly relevant for the understanding of the early medieval use of the quotation signs. I define texts concerned with the Liberal Arts as well as glossaries and similar lists of terms as knowledge texts. 132 out of the 152 manuscripts (87%) contain only one text and can be, thus, assigned to a genre without a problem. Of the twenty remaining manuscripts, twelve (8%) contain two or more texts belonging to the same genre, e.g., several exegetical treatises or knowledge texts. Only eight manuscripts (5%) have mixed contents. All of them, nevertheless, contain one longer text and one or more shorter texts or excerpts and I assign them on the basis of this longer text. Manuscript **CIm 6314** (825-35, Freising) is, for example, a theological collection that contains the works of Alcuin and Defensor of Ligege, as well as several homilies, and manuscript **CIm 6434** (8<sup>th</sup> century, ex., Freising) is a law collection to which excerpts from grammarians were attached. In fact, five of the eight manuscripts contain homilies added to theological, exegetical or liturgical

*The general distribution of technical signs in the dataset*

101 of the 152 manuscripts that make up the dataset, that is roughly two thirds, contain technical signs on at least 10% of their pages (see Appendix VI, fig. 1).<sup>898</sup> On average, around one quarter of the pages in each of the manuscripts was annotated with technical signs. A manuscript from my set also contains on average 4-5 sign types,<sup>899</sup> with 107 manuscripts (~70%) featuring 5 or fewer sign types, 38 manuscripts (~25%) between 6 and 10, and in only seven manuscripts (~5%) I recorded more than ten sign types (see Appendix VI, fig. 2). These numbers suggest that annotation with technical signs was common in the early medieval Bavaria, but at the same time, manuscripts were not annotated very densely, and only a handful of signs were used for the purpose.

I have already discussed above the most commonly used technical signs in Bavaria (see p. 229). The quantitative assessment of my dataset, furthermore, shows that the cross (102 manuscripts, 67% of the set), the S-shaped flourish (87 manuscripts, 57% of the set), *require* (85 manuscripts, 56% of the set), and *nota* (57 manuscripts, 38% of the set) are the only four sign types that appear in more than fifty manuscripts (see Appendix VI, fig. 6). These four sign types also occur on average the most frequently in the dataset and are the only to reach the average value higher than 2.5.<sup>900</sup> With the exclusion of the cross, which, as mentioned above, cannot be associated with a single functional category and which is difficult to date,<sup>901</sup> this gives us the familiar trio of Frankish quotation signs, correction signs, and attention signs as the basic arsenal of the early medieval Bavarian scribe.

There are no significant differences in the general distribution of technical signs between Freising and Regensburg,<sup>902</sup> but there are some between manuscripts belonging to

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texts, two are pastoral handbooks that combine Isidore's *De officiis* with short, anonymous pastoral texts (I assign them to theology), and one is the Freising law collection with attached grammatical excerpts.

<sup>898</sup> Only thirteen manuscripts (8.5% of the set) contain no technical signs at all and form, thus, a rather small proportion of the manuscript set. There is no apparent pattern in their distribution.

<sup>899</sup> The average based on genres, dates and places of origin oscillated between 3 and 6, i.e. the whole set is quite uniform when it comes to the number of sign types.

<sup>900</sup> S-shaped flourish appears on average 47 times, *nota* 11 times, cross 9 times and *require* 6 times per manuscript (see Appendix VI, fig. 6).

<sup>901</sup> To give just a few examples of the widespread use of crosses as technical signs: according to Lowe, crosses were sometimes used as omission signs in insular environment, Maniaci mentions their use as *signes de renvoi* and in liturgical context, Stephen discusses crosses used as text-structuring signs in Late Antiquity, Tura provides the example of the use of the cross as an attention sign by Rather of Verona, while miscellaneous crosses can be found both in the Tura papyrus from the sixth century and in the Quedlinburg codex examined by Scheck; see Lowe, 'The Oldest Omission Signs', 76; Maniaci, *Terminologia del libro manoscritto*, 202; Stephen, 'The Coronis', 9; Tura, 'Essai sur les *marginalia*', 275-76; Kehl, *Der Psalmenkommentar von Tura*, 23; Scheck, 'Reading Women at the Margins of Quedlinburg Codex 74', 10.

<sup>902</sup> The average and median values of total signs% in Freising are 0.26 and 0.11, and in Regensburg 0.25 and 0.14.

different genres.<sup>903</sup> Manuscripts that I classified as exegesis contain technical signs in almost 40% of their pages on average. In contrast, theological and knowledge texts, as well as the Bible, contain technical signs only on 10-14% of their pages on average. In other words, Bavarian scribes were keener to annotate exegetical works with signs than theological works, knowledge texts or the Bible. The exegesis was not only the most popular genre in the early medieval Bavaria but also annotated with the most zeal.<sup>904</sup> However, we have to keep in mind that this difference is partially caused by the nature of exegesis, which contains usually more biblical material that could be marked by quotation signs than other genres.

In almost 90% of the manuscripts, technical signs are distributed very evenly (see Appendix VI, fig. 3).<sup>905</sup> This indicates that the annotators worked consistently, and this regardless of whether their annotation was dense or light. The layers of technical signs rarely if ever ‘fade away’, i.e., they do not thin down after several densely annotated folia as textual annotations tend to do (see below, p. 248).<sup>906</sup> On the contrary, several manuscripts reflect an opposite, ‘thickening’ trend, i.e., an otherwise consistent layer of signs picks up only after the first ten or twenty folia left very empty.<sup>907</sup>

The general tendency in the distribution of technical signs in the dataset is downward: there are more ‘empty’ manuscripts than ‘full’ ones (see Appendix VI, fig. 1). Nevertheless, this tendency is neither uniform nor linear. Given that the dataset includes 23 manuscripts that contain technical signs in approximately 20% of their pages, 13 that contains signs in approximately 40%, and only 4 that contain them in approximately 60% of their pages, it could be expected that the number will continue to decrease further. However, that is not the case, as evidenced by 10 manuscripts with approximately 80% of their pages annotated with technical signs. In total, 26 manuscripts contain technical signs in 65% or more of their pages. This number is higher than could be expected even if there

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<sup>903</sup> I will consider only the four largest genre categories: exegesis, theology, knowledge texts, and the Bible. The four remaining genres contain each less than 10 manuscripts and I will, therefore, not include them in this and similar comparisons.

<sup>904</sup> For the popularity of the exegesis in Bavaria, see Garrison, ‘The *Collectanea* and Medieval Florilegia’, 81.

<sup>905</sup> The figure corresponds to the number of manuscripts with diff signs values of -10 to 10. Around three quarters of my dataset have diff signs values between -5 and 5.

<sup>906</sup> An example of this ‘fading away’ is **Clm 6273** (820-30, Freising), Ambrose’s commentary on Luke, in which S-shaped flourishes fade away in the second half of the manuscript.

<sup>907</sup> Manuscripts in which this phenomenon occurs are: **Clm 6314** (825-35, Freising), **Clm 6308** (8<sup>th</sup> century, ex., Freising), **Clm 14653** (8<sup>th</sup> century, 3/4, Regensburg) and **Clm 14758** (9<sup>th</sup> century, 1/4, Regensburg).

was no further decrease in the manuscript distribution beyond a total signs% value of 0.6.<sup>908</sup>

*Distribution of different sign types within the dataset*

On the basis of the previous subsection, we can assume that some early medieval Bavarian scribes worked as casual annotators, using signs on occasion, but not too frequently – perhaps when they spotted an error here, or an interesting point there, or recognized a scriptural quote elsewhere. Others inserted technical signs in the manuscript margins regularly, producing dense layers of annotation and going systematically through almost all the pages of the manuscript. But should we assume that the differences between the former and the latter kind of scribes were just a matter of a degree? Did they work in the same context, but some were simply more enthusiastic or more skilled than others? Or was there some external reason for the differences in the sign use we can perceive?

It is, of course, impossible to determine what medieval annotators were thinking. We may only be able to reconstruct their motives when we have a very clear context for their activities (e.g. if they identify themselves as scholars who worked on an intellectual project in a prologue or a letter). Nevertheless, the analysis of the different sign types, I argue, can be interpreted as reflecting different tasks. Allow me to illustrate this by means of a comparison between the average distributions of the three most common sign types in the dataset – S-shaped flourishes, *require* signs, and *nota* signs. In order to perform this comparison, I divide my dataset along the major breaks in distribution of manuscripts suggested by fig. 1 into two groups: a) the ‘lightly’ annotated manuscripts which contain signs in 40% or fewer pages (116 manuscripts, 76% of the set); and b) the ‘heavily’ annotated manuscripts that contain signs in 65% or more pages (26 manuscripts, 18%).<sup>909</sup>

The ‘heavily’ annotated manuscripts, simply because they are annotated more densely, should contain on average more signs of the same type than the ‘lightly’ annotated manuscripts, i.e., we should see an increase in the average distributions of the three sign types between the ‘lightly’ and the ‘heavily’ annotated groups. However, these sign types could differ in their rate of increase. The similarity in patterning can be used as an indicator that Bavarian scribes employed them in a similar fashion or even as a part of a single process. The more dissimilar the patterns, the more distinct manners of use should we

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<sup>908</sup> If there was no further decrease after the distribution of the manuscripts reached its lowest point around 60% of the pages (4 manuscripts), the segment of the distribution reflecting manuscripts with 65% and more percent of pages annotated with technical signs should not contain more than 16 manuscripts.

<sup>909</sup> The remaining 10 manuscripts contain technical signs in 40-65% of their pages and will not be considered in this subsection.

presuppose. As this table shows, indeed, scribes employed the three most common sign types in a distinct fashion.

	avg. values in the set	avg. values in 'lightly' annotated mss.	avg. values in 'heavily' annotated mss.	diff. <sup>910</sup>
<b>S-shaped flourish</b>	46.9	9.3	190.1	180.8
<i>nota</i>	10.9	3.8	36.2	32.4
<i>require</i>	6	5.7	7.5	1.8

fig. 9: the average amount of common signs per manuscript in various segments of the set

The *require* correction signs appear on average roughly as often in the 'lightly' annotated manuscripts (5.7) as in the 'heavily' annotated manuscripts (7.5) – the difference between the two averages is only 1.8.<sup>911</sup> However, the 'heavily' annotated manuscripts clearly contain on average significantly more *nota* signs (36.2) than the 'lightly' annotated manuscripts (3.8) – the difference in the averages is 32.4.<sup>912</sup> This number suggests that what makes the manuscripts 'heavily' annotated is, in fact, *nota* signs (rather than *require* signs), that is the act of marking passages of interest (rather than the act of correction). Yet, the most significant difference in averages can be attributed to S-shaped flourishes (180.8).<sup>913</sup> In fact, it could be claimed that the addition of the S-shaped flourishes is the main characteristic of 'heavy' annotating in the early medieval Bavaria.<sup>914</sup>

How could we interpret these patterns in terms of historical reality? In early medieval Bavaria, scribes used correction signs regularly, as is indicated by 92 manuscripts from my set that contain correction signs, but they rarely marked more than a handful of passages in each manuscript. There were no great differences between scribes in this respect, and although some marked more passages than others, no surviving early medieval manuscript

<sup>910</sup> This column records the differences in the average values among the 'lightly' and among the 'heavily' annotated manuscripts (see also Appendix VI, fig. 6).

<sup>911</sup> The differential of other correction signs is very similar to that of *require* and confirms that they behave similarly across the set.

<sup>912</sup> Another attention sign, *trigon*, also has a high differential (9.1).

<sup>913</sup> Other quotation signs, too, have high differentials (*yfen* 7.9; ↯-quotation sign 9), especially in contrast with correction signs. If the nineteen sign types I decided to pay attention to were ranked based on their differences in averages between 'lightly' and 'highly' annotated manuscripts, the four quotation signs would rank in the top 8. In contrast, the four correction signs would rank in the bottom 10.

<sup>914</sup> While the intense use of particular signs seems to be the main factor behind the phenomenon of 'heavy' annotation, the 'heavily' annotated manuscripts contain also on average a higher number of sign types. The average for my set is 4.5, but in the group of 'heavily' annotated manuscripts it is 7.2. The 'heavily' annotated manuscripts are both manuscripts in which several sign types are used very consistently, but also manuscripts in which many different sign types are used non-systematically, although the latter case is rarer (see Appendix VI, fig. 2).

from Bavaria can be considered corrected systematically by means of signs.<sup>915</sup> Many scribes used attention and quotation signs in a similar non-systematic fashion, as is suggested by manuscripts that are annotated only ‘lightly’ by these signs. Yet, some scribes used *nota* signs and S-shaped flourishes in a highly systematic fashion. In some cases, they seem to have gone through an entire manuscript in order to insert one of these two sign types consistently.<sup>916</sup> As the pattern of the use of S-shaped flourishes suggests, scribes may have been trained to highlight every single scriptural quote. Or, as the pattern of the use of *nota* signs suggests, they may have been requested to go through a particular text in order to mark every passage that dealt with a certain subject. The difference between the two groups of scribes, those who worked in a non-systematic and those who worked in a systematic manner, is so significant in my quantitative analysis, that I would argue that we can clearly distinguish two modes of annotation: a casual and a programmatic one. The programmatic character of annotation in some manuscripts can explain the irregularity of the general sign distribution revealed in fig. 1, which, as this subsection shows, can be attributed to the extensive use of S-shaped flourishes and *nota* signs.

The nature of programmatic annotation can be further explored by focusing on the quotation signs since they show most clearly that scribes employed technical signs in two different manners rather than merely to a different degree. In my dataset, several examples can be found of manuscripts containing the same text and thus also the same amount of scriptural quotations. They could be, therefore, expected to contain roughly the same amount of quotation signs, if scribes strived to mark them by default. However, this is not the case. **Clm 14653** and **Clm 14286**, for example, two copies of Augustine’s *Tractatus in*

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<sup>915</sup> The two manuscripts most thoroughly annotated with correction signs are: **Clm 14200** (mid-9<sup>th</sup> century, Regensburg), an exemplar of Jerome’s commentary on Ezekiel with 358 pages, which contains 69 *require* signs, and **Clm 6250** (9<sup>th</sup> century, ¼, Freising), a copy of Isidore’s *Etymologiae* with 560 pages, which was corrected by means of 53 *require* and 81 *frontis* signs. For a comparison, **Clm 5255** (8<sup>th</sup>/9<sup>th</sup> century), an exemplar of Paterius which might have been copied at the court of Charlemagne, thus not a Bavarian book, contains 107 *require* signs in 338 pages, and **Paris, BnF, Lat. 11674** (mid-9<sup>th</sup> century, perhaps Reims, 512 pages), the *Registrum* of Gregory the Great, contains 86 pages annotated with *require* and 161 with *cryptia* signs. Although I haven’t examined non-Bavarian manuscripts systematically, it seems to me that the relatively low rate of the use of correction signs in Bavaria is a regional phenomenon and not a wider trend.

<sup>916</sup> For example, **Clm 9515** (810-20, Regensburg, 270 pages), Gregory the Great’s *Homiliae in evangelia*, is annotated with 142 *nota* signs. **Clm 6253** and **Clm 6254**, two volumes of Cassiodorus’s *Expositio in Psalmos* produced in the second quarter of the ninth century in Freising contain 93 and 75 *nota* signs, respectively. **Clm 14286** (9<sup>th</sup> century, ¼, Regensburg), Augustine’s *Tractatus in evangelium Iohannis*, contains 82 *nota* signs. **Clm 18168** (8<sup>th</sup> century, ex., Tegernsee, 394 pages), an exemplar of *Breviarium in Psalmos*, contains 329 pages with S-shaped flourishes. **Clm 6223** (825-35, Freising, 314 pages), Jerome’s commentary on Jeremiah, contains 278 pages annotated with S-shaped flourishes. **Clm 6305** (8<sup>th</sup> century, 4/4, Freising, 290 pages), Jerome’s commentary on Matthew, contains 268, **Clm 6303** (c. 800, Freising, 110 pages), Jerome’s commentary on the Minor prophets, contains 72, and a homiliary, **Clm 14386** (9<sup>th</sup> century, 3/3, Regensburg, 494 pages) contains 245 such pages. **Clm 6305** and **Clm 6303** with total signs% values of 0.94 are the two most densely annotated manuscripts in my dataset.

*evangelium Iobannis* from Regensburg, which were produced perhaps within the same decade or two around the turn of the ninth century, reveal different patterns of activity in the margin. The former has 266 pages and was copied in an Anglo-Saxon script; the latter consists of 424 pages and was produced in a local minuscule. While in **Clm 14653** 222 pages were marked with insular quotation signs (61% of pages, see Appendix VII, item 1f), in **Clm 14286** only 4 pages were annotated with S-shaped flourishes and 79 more with *yfen* (20% of pages, see Appendix VII, item 1b).<sup>917</sup> Similarly, **Clm 14314** (9<sup>th</sup> century, 2/4, Regensburg) and **Clm 6276** (9<sup>th</sup> century, 2/4, southern Bavaria) are two copies of the *Breviarium in Psalmos*. The former contains only 40 pages (out of 318; 12.5%) annotated with quotation signs, the latter 338 (out of 428; 79%). The best demonstration is provided, however, by the nine manuscripts of the *Moralia in Iob* contained in my dataset (fig. 10):

shelfmark	number of pages containing quotation signs	% of pages containing quotation signs
Clm 6279	278	74%
Clm 3842	335	62%
Clm 6252	268	57%
Clm 6274	159	50%
Clm 6300	43	14%
Clm 14050	22	12%
Clm 6278	14	6%
Clm 6297	0	0%
Clm 6382 (44-172)	0	0%

fig. 10: distribution of quotation signs in the manuscripts of *Moralia in Iob*

This table shows that some manuscripts of *Moralia* were annotated ‘lightly’ (quotation signs were inserted in up to 14% of their pages), while others were annotated ‘heavily’ (at least 50% of their pages contain quotation signs). It is significant, however, that there are no ‘intermediary’ manuscripts that would attest to the activity which is neither casual nor systematic.<sup>918</sup>

The three examples also indicate that a thorough marking of quotations in the text was not a standard operation performed by scribes in early medieval Bavaria but reflects an

<sup>917</sup> The difference between the two manuscripts can be demonstrated on a passage from *capitulum* XXXII of the text of Augustine’s exposition. The annotator of **Clm 14286**, very likely the main scribe himself, marked first *Nonne hic est quemque rebant* on fol. 3v and then *Clamabat ergo docens* on fol. 4r. The first passage is also marked in **Clm 14653** (fol. 2v), but before *Clamabat ergo* (fol. 3v), the annotator, again probably the copyist himself, marked also *Non enim inaniter nata est* (fol. 3r) and *Ille autem convocatis eis* (fol. 3r). It is also clear from this comparison that annotators in some cases marked not genuine scriptural quotes, but interesting quote-like passages which could be considered *sententiae*.

<sup>918</sup> Note also the relative emptiness of the middle part of the distribution of total signs% values in Appendix VI, fig. 1. While it could be ascribed at least partially to the error of measurement and the low number of manuscripts in my dataset, it seems to me it also reflects the existence of two modes of annotation – the ‘light’ casual and the ‘heavy’ programmatic.

above-average effort. Nevertheless, the extent to which manuscripts from my set were marked programmatically by quotation signs, particularly in comparison with the extent of the programmatic annotation with *nota* signs, suggests that it was not the work of isolated individuals. Rather, it seems to me that the data reflect an engagement of a relatively large proportion of the scribal community in the programmatic use of quotation signs. This, in turn, may signal a change in the working process of the scribes – a shift from one standard, which did not require scribes to systematically mark scriptural quotes in a text, to another, in which scribes were expected to perform this operation.<sup>919</sup> A change of this type can be observed indirectly in the CLA data discussed above: many fifth- and sixth-century uncial and half-uncial manuscripts, in which scriptural passages were originally not marked, were later annotated by S-shaped flourishes (and insular quotation signs), possibly, or perhaps probably, in the eighth and the ninth centuries (see p. 205).<sup>920</sup>

The S-shaped flourishes and *nota* signs are not the only sign types that were used in a programmatic fashion. They are merely the most visible in the quantitative evidence I collected given the high numbers of manuscripts containing *nota* signs or S-shaped flourishes in my set. I already mentioned at least two other cases of programmatic annotation above: the set of manuscripts from Regensburg containing *n* and *f* exception signs (see p. 233),<sup>921</sup> and the layer of technical signs made by the Celtic annotator in **Clm 14425** (see p. 231).<sup>922</sup> Both these cases reflect a scribal activity which is clearly above average. Moreover, they can be connected with intellectual projects and local masters. Indeed, the cases of programmatic annotation can be considered a real intellectual engagement with the text, one, however, rooted in the scribal rather than in the scholarly *praxis*. While the programmatic scribal annotation and scholarly annotation as discussed in

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<sup>919</sup> Compare McKitterick, ‘Glossaries and Other Innovations’, 25. This development is, perhaps, a reflection of the formalization of the training of the scribes, which is presupposed by David Ganz as one of the aspects of the Carolingian book production; see Ganz, ‘Book Production’, 789.

<sup>920</sup> My own dataset also confirms this impression. The average amount of S-shaped flourishes per manuscript in the manuscripts produced in the second half of the eighth century (51.8) is higher than the average of the dataset (46.9), but this is explained by the fact that some of the eighth-century manuscripts contain quotation signs added secondarily. For example, in **Clm 6279** (8<sup>th</sup> century, 4/4, Freising), the exemplar of *Moralia in Job* mentioned above, all quotation signs are a younger addition by a corrector, and similarly in **Clm 6303** (c. 800, Freising), and in **Clm 6316** (8<sup>th</sup> century, 3/4, Freising). Quotation signs were partially added by a correcting hand also in **Clm 13038** (c. 800, Regensburg). If these manuscripts are excluded, the average in this group drops to 36.3, i.e., it can be said that the amount of manuscripts annotated with S-shaped flourishes increased with time.

<sup>921</sup> The relatively low total signs% value of **Clm 14417** (0.14) is caused by the fact that this manuscript contains two different texts, a Bede and a Jerome, and exception signs were used only in the latter. The other four manuscripts in this set have total signs% values above 0.4. Moreover, if we calculated the difference between the average in the ‘lightly’ and in the ‘heavily’ annotated manuscripts, it would be 6.8, that is similar to the lesser quotation signs (*yfen* and  $\div$  quotation signs).

<sup>922</sup> Its total signs% value is 0.93, the third highest in my dataset.

chapter 4 resemble each other in their systematic character, they are distinguished by the fact that even the most sophisticated scribal users employed the same inventory of signs as ordinary scribes and engaged in the same activities – they just did so with greater consistency and clearer focus. The use of critical signs was not entirely unknown in Bavaria, as was shown above (see p. 235), but I did not find manuscripts in which they were used in a systematic fashion. The contrast between the systematic use of scribal signs and a non-systematic use of scholarly signs in Bavaria is not a measure of intellectual ability of local sign user but rather reflects the regional attitudes towards the two traditions of sign use – the scribal and the scholarly.

#### *Textual annotation versus annotation with signs in Bavaria*

The two profiles of scribal sign use in early medieval Bavarian manuscripts can now be compared to other types of annotation. For this purpose, I chose two categories of textual marginalia: ‘marginal annotations’ and ‘marginal tabs’. The first term refers to marginalia that enrich the main text with new interpretations, comments or vocabulary.<sup>923</sup> The second refers to marginalia which point to the contents of a particular passage, usually having the form of a keyword in the margin, e.g. *de baptismo* or *quid sit anima*.<sup>924</sup> I use the nouns ‘annotations’ and the verb ‘to annotate’ in the following paragraphs as umbrella terms referring to both textual marginalia and technical signs.

A comparison of the general distribution patterns of technical signs (Appendix VI, fig. 1), marginal annotations (fig. 4) and marginal tabs (fig. 5) reveals different patterns of use for each of these. The differences can be summed up as follows. First, marginal annotations and marginal tabs were used less frequently than technical signs, as can be seen in fig. 11 below, in which I present side by side the number of manuscripts containing no marginalia of a particular type, the number of manuscripts that contain the given type on at least 10% of pages, and the average number of pages containing the particular type per manuscript in my set:

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<sup>923</sup> I use this term, thus, differently from how I used it in chapter 5, where I distinguished between ‘marginal annotations’ and ‘glosses’ (see p. 151). In this chapter, I use only one term, ‘marginal annotations’ for both phenomena.

<sup>924</sup> Rather than enriching the text, marginal tabs served as query cues or as mnemotechnic devices and they are thus more similar to attention signs than to marginal annotations.

	technical signs	marginal annotations	marginal tabs
number of manuscripts containing no marginalia of the given type (% of the set)	13 (8.5%)	97 (64%)	122 (80%)
number of manuscripts containing the given type of marginalia in at least 10% of the pages	99 (65%)	13 (8.5%)	5 (3%)
average number of pages containing the given type of marginalia per manuscript	25%	3.6%	1.4%

fig. 11: comparison of the distribution of various types of marginalia in my set

It is particularly revealing that while my dataset contains only thirteen manuscripts containing no technical signs, it also contains only thirteen manuscripts that contain some marginal annotations,<sup>925</sup> and just five manuscripts that contain some marginal tabs.<sup>926</sup> Some of these manuscripts can be considered programmatically annotated according to the definition I provided in the above. **Clm 6242** (9<sup>th</sup> century, ¼, Freising), a copy of *Dionysio-Hadriana*, can serve as an example: it contains only textual annotations in the form of interlinear glosses which were added consistently throughout this book with the exception of contents pages and subscriptions. Because of these, only 53% of the pages contain glosses, and the layer of annotation appears thinner than it really is.<sup>927</sup>

Second, annotation with signs and annotation with text show little correlation. While manuscripts from the ‘heavily’ annotated group (those that have technical signs on more than 65% of their pages) have an average of 76% for pages annotated with signs, they have an average of only 2% for pages annotated with marginal annotations, which is even less than the average of the entire set (3.6%). In contrast, manuscripts from the ‘lightly’ annotated group (those that have technical signs on less than 40% of their pages) have an average of 11% of their pages annotated with signs, but about 4% (i.e., twice as much as the ‘heavily’ annotated manuscripts) of their pages contain marginal annotations, which is more than the average for the entire set. Only three manuscripts that contain marginal annotations on at least 10% of their pages also feature technical signs on at least 10% of

<sup>925</sup> These are (with the percentage of pages containing marginal annotations): **Clm 601** (9<sup>th</sup>/10<sup>th</sup> century, Bodensee region, 29%), **Clm 6225** (9<sup>th</sup> century, ¼, Freising, 25%), **Clm 6242** (9<sup>th</sup> century, ¼, Freising, 53%), **Clm 6277** (9<sup>th</sup> century, ¼, Freising, 93%), **Clm 6308** (8<sup>th</sup> century, ex., Freising, 45%), **Clm 6374** (9<sup>th</sup> century, ¾, Freising, 14%), **Clm 6404** (9<sup>th</sup> century, ¾, Freising, 19%), **Clm 14324** (9<sup>th</sup> century, ¾, Regensburg, 89%), **Clm 14461** (820-30, Freising, 13%), **Clm 14523** (9<sup>th</sup> century, ¾, Freising, 24%), **Clm 14666** (mid-9<sup>th</sup> century, Regensburg, 18%), **Clm 18550a** (8<sup>th</sup> century, ex., Tegernsee, 26%) and **Clm 21525** (9<sup>th</sup> century, ¼, Freising, 32%).

<sup>926</sup> These are (with the percentage of pages containing marginal tabs): **Clm 6355** (9<sup>th</sup> century, 2/4, Freising, 15%), **Clm 9515** (810-20, Regensburg, 26%), **Clm 14050** (mid-9<sup>th</sup> century, Regensburg, 62%), **Clm 14377** (9<sup>th</sup> century, 2/4, Regensburg, 48%) and **Clm 14386** (9<sup>th</sup> century, 3/3, 25%).

<sup>927</sup> An example of a manuscript programmatically annotated with marginal tabs is **Clm 14386** (9<sup>th</sup> century, 3/3, Regensburg), a homiliary in which marginal tabs occur from fol. 55r onwards, and from roughly fol. 116r appear with great regularity. This manuscript has in total 124 pages (25%) annotated with marginal tabs, being the manuscript most densely annotated with marginal tabs in terms of the number of pages.

their pages.<sup>928</sup> In other words, manuscripts in Bavaria that do contain many marginal annotations contain relatively few signs, and those that are ‘heavily’ annotated with signs do not contain many marginal annotations. Interestingly, the pattern of the use of marginal tabs is not similar to that of marginal annotations, but rather to that of technical signs: where there are more technical signs, there are usually also more marginal tabs.<sup>929</sup>

Third, whereas the annotation with technical signs is an activity that was in general performed with consistency throughout the entire manuscript, this is not the case for annotations with marginal annotations and marginal tabs. Marginal annotations and marginal tabs often ‘fade away’ after only a few folia rich with marginalia.<sup>930</sup>

The three aspects of textual annotation in the early medieval Bavaria – the low total numbers of manuscripts annotated with text in comparison to the manuscripts annotated with signs; the low correlation between annotation with text and with signs; and the low stability of annotation with text in comparison to the stable annotation with signs – suggest that it was a phenomenon apart from the annotation with signs. The two forms of annotation took place in distinct contexts and were rarely combined. We should, perhaps, also imagine that they were carried out by different persons, or by the same persons but in different capacities.

As I analyzed the manuscripts, significant differences in the degree of annotation with signs, marginal annotations, and marginal tabs between both different genres and centers came to the fore. As already said, exegesis was annotated with signs to a greater extent than other genres in my dataset (an average of almost 40% of the pages, way above

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<sup>928</sup> These are: **Clm 6308** (marginal annotations in 44%, technical sign in 69% of pages), **Clm 6374** (marginal annotations in 14%, technical sign in 32% of pages) and **Clm 14666** (marginal annotations in 18%, technical sign in 26% of pages). None of the other manuscripts with at least 10% of pages containing marginal annotations contains technical signs in more than 5% of their pages, which is a significant underperformance in comparison with the average of my set (25%).

<sup>929</sup> The average for the ‘lightly’ annotated manuscripts is 0.8%, lower than the average for the entire set (1.4%) and increases in the ‘heavily’ annotated manuscripts to 3.4%. However, it should be noted that the total number of manuscripts which contain any marginal tabs is very low and this correlation is therefore not necessarily of great significance.

<sup>930</sup> One can take for example **Clm 18550a** (8<sup>th</sup> century, ex., Tegernsee), Gregory’s *Regula pastoralis*, in which glosses occur almost on every page of the first thirty folia, but then thin down until of the last hundred pages only nine contain glosses. In **Clm 6374** (9<sup>th</sup> century, ¾, Freising), Boethius’s *Logica*, marginal annotations appear only in the first half of the manuscript, most of them in the first thirty-five folia. In **Clm 14523** (9<sup>th</sup> century, ¾, Freising), Boethius’s *De musica*, marginal annotations feature only in the first twenty-five folia. In **Clm 21525** (9<sup>th</sup> century, ¼, Freising), again a *Regula pastoralis*, marginal and interlinear annotations cover rather consistently the first fifty folia, but then their frequency decreases and in the second half of the manuscript, only three pages contain some textual annotations. In **Clm 14377** (9<sup>th</sup> century, 2/4, Regensburg), Alcuin’s *Rhetorica*, marginal tabs appear regularly in the first twenty-four folia, but only four times in the rest of the manuscript.

the average of the entire set which is 25%),<sup>931</sup> but it attracted a below-average amount of marginal annotations (0.4%, while the set average is 3.6%) and marginal tabs (1%, while the set average is 1.4%). Books of history and law, on the other hand, contain on average a significantly above-average amount of marginal annotations: 15% in the case of the former, and 9.4% in the case of the latter.<sup>932</sup>

As for the centers of production, I found that while technical signs were used to the same degree at Regensburg and Freising, the two differ substantially in the frequency of the use of textual annotations. In Regensburg, scribes were keen to use marginal tabs: on average, 3% of the pages in Regensburg books have marginal tabs, while in Freising, this is only 0.4% (the average of the whole set is 1.4%). In contrast, scribes in Freising were relatively enthusiastic glossators: their manuscripts contain marginal annotations on an average of 5% of their pages, while in Regensburg, this is only 2% (the average of the whole set is 3.6%). The difference in the working methods at the two centers can be illustrated with two pairs of manuscripts. The Freising copy of Orosius's *Historia adversus paganos*, **Clm 6308** (8<sup>th</sup> century, ex.), was equipped with marginal annotations, but not with marginal tabs, while the *Historia tripartita* owned by Regensburg, **Clm 6376** (9<sup>th</sup> century, 2/4), was annotated with marginal tabs rather than with marginal annotations. In Regensburg, Alcuin's *Rhetorica* in **Clm 14377** (9<sup>th</sup> century, 2/4), was equipped with marginal tabs, while in Freising, his *Grammatica*, **Clm 6404** (9<sup>th</sup> century, 3/4), only has marginal annotations.

### Conclusion

In this chapter section, I identified and analyzed several quantitative patterns of sign use in early medieval Bavarian manuscripts and used them to provide an insight into the scribal *praxis* in this region that could not be gained from other forms of examination. Perhaps the most important conclusion is that the scribes we encounter in the margin are not a homogeneous group. Specifically, scribes employed technical signs in at least two distinct modes which can be discerned on the basis of the consistency and density of their annotation. It was impossible to connect these two modes, which I termed casual and programmatic, directly with external historical contexts. I could speculate that they reflect the different contexts of annotation and capacities in which the annotators worked. Casual

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<sup>931</sup> It could be expected that this above-average degree of annotation reflects the higher amount of scriptural quotes in exegetical texts that were highlighted by quotation signs. However, exegesis has also the highest average amount of *nota* signs in my dataset.

<sup>932</sup> Law books also contain on average the highest number of marginal tabs, 2%.

annotators, for example, could be readers inserting technical signs in manuscript margins during their Lenten reading,<sup>933</sup> and programmatic annotators could be scribes working in the scriptorium under the supervision of a master and following strict guidelines. Alternatively, the two modes of annotation may be offering us a window into the hierarchy of a scriptorium: the programmatic annotators perhaps identifiable with masters and senior copyists and with those scribes who had the skill to be assigned the more complex tasks (such as the Regensburg excerption project), while the casual annotators were, perhaps, the scribes who performed only the simple tasks and may have, therefore, occupied the lower ranks of the hierarchy of the scriptorium.

The quantitative analysis also revealed that about 17% of the manuscripts I examined can be classified as ‘heavily’ annotated because they disclose an above-average engagement with the manuscript text. This ratio may be useful for assessing the rate of manuscript annotation in other regions. Most of these ‘heavily’ annotated manuscripts reflect a single general pattern: they feature only a handful of sign types that form an extensive layer of annotation because they were used in abundance. In a smaller number of cases, the pattern of ‘heavy’ annotation was rather caused by many diverse sign types, each used to a limited degree. The sign types involved in the first pattern are almost always S-shaped flourishes and *nota* attention signs, but in one case also *trigon* signs, crosses, insular quotation signs and *yfen* quotation signs, and in two cases these are *n* and *f* excerption signs. The prominence of S-shaped flourishes and *nota* signs reveals which activities of scribes were most commonly performed in a systematic manner, although it is impossible to associate these activities with particular contexts (such as study) or a particular production phase (such as correction).<sup>934</sup> Moreover, the fact that quotation signs appear in so many manuscripts, so consistently and in such large numbers signals, in my opinion, a change in the perception of their function, when compared with previous centuries. My impression is that they were increasingly copied from manuscript to manuscript, even though other technical signs were usually ‘erased’ by the act of copying.<sup>935</sup> This implies that quotation signs transformed from

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<sup>933</sup> At least one manuscript confirms that Lenten reading was a context for the use of technical signs. **Clm 6300** (8<sup>th</sup>/9<sup>th</sup> century, perhaps northern Italy), an exemplar of *Moralia in Iob*, contains a subscription on fol. 42r: *Ego Adaloez canonica hic legi istam litteram per totam quadragesimam et ego hic scripsit* (sic) *istam causam*, see at: [http://daten.digitale-sammlungen.de/bsb00047252/image\\_87](http://daten.digitale-sammlungen.de/bsb00047252/image_87). Adaloez also made some of the corrections and added some of the signs in the manuscript. See also Bischoff, *Die süddeutschen Schreibschulen*, 1:143.

<sup>934</sup> Overall, it is difficult to connect any form of annotation with a particular context or production phase, but an important contribution in this respect has been recently made with regards to the early medieval textual annotations by Markus Schiegg; Schiegg, *Frühmittelalterliche Glossen*, 125–208.

<sup>935</sup> The clearest evidence for this is copying of quotation signs in rubrics, for example in **Clm 14384** (9<sup>th</sup> century, 3/4, Regensburg), a copy of Hraban Maur’s commentary on the Kings, at: [http://daten.digitale-sammlungen.de/bsb00046518/image\\_204](http://daten.digitale-sammlungen.de/bsb00046518/image_204). Unfortunately, I have not noted consistently, which manuscripts

a personal or context-specific feature (such as *nota* signs or exception signs) to an externalized accessory of the book with a universal utility (such as punctuation or a contents page). The relative scarcity of correction signs in the ‘heavily’ annotated books is noteworthy as a case of ‘underperformance’, although it is not clear to me whether it should be taken for a regional trend or a Carolingian phenomenon.

In Bavaria, technical signs are the most common form of marginalia. This seems to have been the trend also in other regions of the Carolingian world, although even my limited experience with manuscripts from these other regions showed me that Bavaria is exceptionally poor on textual marginalia. Therefore, the ratio between signs, marginal annotations and marginal tabs that I observed in my dataset is probably of only limited applicability to other regional sets. The most important observation about the relationship between technical signs and marginal annotations that I can make is that they seem not to occur together. Again, I would argue, this implies that they reflect different procedures and thus probably also different contexts of annotation. This is not surprising given that marginal annotations are generally associated with teaching and study, while technical signs, I argue, reflect the activities of ordinary scribes. In this regard, it is interesting that, as far as the limited data allows for making any observations at all, the patterns of use of the marginal tabs resemble the patterns of use of technical signs rather than of marginal annotations.

### **Conclusion: early medieval scribal *praxis* in perspective**

In conclusion to this chapter, I would like to put the early medieval scribal *praxis* into a broader context by comparing it, on the one hand, with the ancient scribal *praxis* discussed in chapter 1, and on the other, with the early medieval scholarly *praxis* discussed in chapters 4 and 5. In order to undertake these comparisons, let me begin by summarizing the observations presented in this chapter.

The manuscript evidence revealed three distinct patterns of sign use. The majority of manuscripts (in Bavaria around 75%) contains some technical signs, but not too many, so that they appear annotated only lightly – perhaps one sign per four pages. The annotation in these manuscripts is usually limited to only four or five common sign types, principally quotation, correction and attention signs (and crosses, which are, however, difficult to interpret). These were used in accordance with a regional custom, e.g. Frankish or insular.

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contain quotation signs copied by the main hand and in how many pages. Nevertheless, my impression is that at least in early medieval Bavaria this was a common trend.

The tradition into which these sign types belong can be traced back to the activities of professional workshop scribes in Antiquity. I associated this pattern, therefore, with professional scribes in monastic and other intellectual centers, who not only produced copies of texts, but also engaged in emending them, identifying quotations in them and pointing out useful passages. Only a handful of written testimonies reflect this pattern of sign use, which suggests that it was primarily sustained by oral instruction and was, thus, probably a part of the practical training of a scribe in the scriptorium.<sup>936</sup>

In a smaller portion of the manuscripts (in Bavaria around 17%), the same scribal conventions appear in a more systematic and thorough fashion. These clearly reflect activities that went beyond the simple correction or occasional highlighting of scriptural quotes.<sup>937</sup> The substantial difference in the density of annotation between these two groups, as well as the fact that some manuscripts from this group can be shown to reflect a local intellectual project (e.g. the excerption of Jerome's writings in Regensburg), suggests that these manuscripts reflect the work of scribes with a program in mind, such as creating copies of texts suitable for scholarly engagement. We could speculate that some of these manuscripts reflect the work of master scribes, schoolmasters, scholarly-minded scribes, or those who worked under their direct supervision.<sup>938</sup> Given the lack of written sources for this mode of annotation, however, it is difficult to contextualize all of the cases from this group. For example, it is impossible to say why in some manuscripts scriptural quotes were systematically highlighted and whether this was an initiative of individuals or an order from above.

Only a handful of manuscripts (in Bavaria only 10 codices) contains traces of yet a different pattern of annotation, distinguishable not so much on the basis of the density of annotation, but rather because a different set of conventions is used altogether. These conventions do not reflect the training in the scriptorium, but rather derive from a set of written texts (Jerome, Isidore etc.) even to the extent that where these texts misinterpret a particular tradition, the manuscripts reflect this error.<sup>939</sup> By virtue of these texts, this

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<sup>936</sup> For this practical training, see Ganz, 'Book Production', 790–91.

<sup>937</sup> Besides Bavarian manuscripts studied in this chapter, I can include into this group **Bourges BM 94** (9<sup>th</sup> century, 3/3; Reims) in which annotator made use of eleven different sign types. Three of those are combinations of more simple signs, *nota* and *require*, *nota* and zeta and *nota* and cross. Signs appear in the manuscript from the first to the last folio. Another manuscript belonging to this group is **Boulogne-sur-Mer BM 44** (9<sup>th</sup> century, St. Bertin), a copy of *Retractationes* marked consistently with Isidorian *anchora*.

<sup>938</sup> A similar difference between scribes lower and higher in the hierarchy was pointed out by Pezè, who has shown that the opposition to the concept of double predestination in the ninth century was tackled by correcting the incriminating passages by the 'average' scribes, but were annotated textually by scribes with good grounding in the theology who were more likely to engage with the arguments provided by the texts in question; Pezè, 'Le virus de l'erreur', 552–80.

<sup>939</sup> See footnotes 772 and 824.

pattern of sign use can be associated with ancient scholarly sign users. It is only manuscripts from this tiny group that can be linked directly with new texts about signs, frequently in the form of prologues attached to these manuscripts. On the basis of this written evidence, manuscripts from this group can be associated with known intellectuals and identified as scholarly enterprises *par excellence*. Even when a precise identification is not possible, other manuscripts from this group contain layers of annotation with signs that disclose sophisticated intellectual projects or at least attempts at a scholarly engagement with the text. Yet other manuscripts, for example those preserved in Bavaria, contain only a few signs, but belong to this group on the grounds that these signs reflect conventions inspired by texts (rather than by practices in the scriptorium).

It is important to point out, to my mind, that if we did not possess written evidence, it would be difficult, if not impossible, to contextualize manuscripts from the third group. Given that they represent only a minute proportion of the entire manuscript production in the Carolingian period, we might overlook them entirely, drowned among the more numerous manuscripts from the first group. I mention this because the lack of a key prevents us from fully understanding the manuscripts in the second group. We can identify them on account of the density of annotation they contain, it may be even possible to describe the pattern of sign use they reflect and on its basis associate them with other manuscripts displaying a similar pattern; however, we do not know what the layers of annotation mean, in what context they were made, and we cannot connect them with identifiable agents. Who was the Celtic annotator who added a thick layer of signs to the commentary of Jerome from Regensburg and why did he study this book? Why did scribes in Regensburg mark a large number of passages in Jerome's works for excerption at around the same time? And why do we not have evidence that they produced an excerpt collection in the end? We cannot answer these questions, but the signs in the manuscript margins do reveal that some form of intellectual engagement with the text certainly took place.

The manuscripts belonging to the first two groups reflect a tradition of sign use that goes back to the scribal *praxis* of Antiquity discussed in chapter 1. On the basis of the CLA, we can follow an almost uninterrupted trail of sign use that leads us from ancient book workshops to the early medieval scriptoria. It is true that the use of some sign types and graphic forms declined or was discontinued between the sixth and the ninth centuries, but the general functional categories remained, with or without significant innovations. This continuity was sustained by oral transmission in the scribal environment, but an equally important reason why scribes continued to use signs was that they needed to perform the

same routine operations as their ancient predecessors. In some cases, signs seem to have been coined anew after a disruption in transmission, as is suggested by new sign forms of quotation and correction signs that emerged in Late Antiquity and the Early Middle Ages (e.g. *crÿphia*, *yfen* and ÷ quotation signs).

Yet this general observation of continuity does not mean that no transformations occurred between the end of Antiquity and the end of the Carolingian period. Quite the contrary, two major transformations can be documented on the basis of my qualitative and quantitative examination of manuscript data. First, while the scribal *praxis* in Graeco-Roman Antiquity is characterized by a relative geographical homogeneity, in the Early Middle Ages we see a number of localized practices. A parallel development has been observed in early medieval scripts and has been connected to the broader political, social and intellectual transformation of the Latin West. Second, the popularity of various functional categories of signs changed over the course of the centuries. Text-structuring signs fell out of fashion and were replaced by other methods of dividing the text, probably in the process of the transformation of the book in Late Antiquity. At the same time, both the CLA and my Bavarian dataset document the growing popularity of quotation signs, reflecting, I argue, their change of status from a personalized annotation tool to a commonplace feature of a text, fitting to the nature of the Carolingian attitude towards text and textual scholarship.

To a great extent, the development of the scribal *praxis* was independent of the development of the early medieval scholarly *praxis*, which, as was shown in chapter 4, was essentially restituted in the Carolingian period on the basis of texts such as *De notis sententiarum*, sustained through classroom education, and displays features typical of traditions that are as much constructed as inherited, e.g. a hybridization of distinct older traditions on account of superficial similarities (e.g. the appearance of *chresimon*) or novel interpretations. The introduction of conventions based on Isidore's *De notis sententiarum* in the Carolingian scribal *praxis*, nevertheless, indicates that the scholarly *praxis* influenced the scribal sign users, even though only to a limited degree. This happened, perhaps via the classroom, where, as was shown in chapter 5, *De notis sententiarum* was studied. This indicates that the instruction of scribes did not take place in the classroom, or at least that the classroom education was not translated immediately into new scribal practices.<sup>940</sup> In

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<sup>940</sup> I do not wish to suggest that these two *loci* were distinct physical spaces or that it is possible to discern those medieval individuals who received their training in a scriptorium from those who were formed by classroom education and study of written texts. We know far too little about how young monks and clerics were educated in particular centers and even about the general contours of education in the Early Middle

order to assess the impact of *De notis sententiarum*, it would be necessary to analyze evidence from outside Bavaria, especially from Francia, where Isidore's sign treatise received the most attention. In particular, it would be interesting to know whether those scribes who adopted Isidorian *chresima*, *frontes*, *cyphiae* and *anchorae* differed in any respect from those scribes who were more conservative, for example in the level of formal education they received, their place in the hierarchy of the scriptorium, or simply in being more open to innovations and responsive to reforms spreading from center to periphery.

In the conclusion of chapter 1, I pointed out that ancient sign users were members of different professional groups that did not share a common identity or training track, as is also suggested by the manuscript evidence (see p. 54). Medieval scribes and scholars, on the contrary, can be considered two parts of a single professional group, the Christian literary class. I used the labels 'scribe' and 'scholar' here not to distinguish between individuals with different career paths or group membership, but rather between character of their activity and to the traditions of sign use that they adhered to. In fact, a single individual could be considered a scribe in one context and a scholar in another based on how he or she annotated a text. Carolingian thinkers such as Paul the Deacon or Lupus of Ferrières were familiar with scribal conventions and competently used attention and correction signs. In fact, all Carolingian thinkers and writers were also scribes and received a similar basic training as ordinary scribes before ascending through the ranks of the local ecclesiastical hierarchy. In terms of sign use, what sets them apart from ordinary scribes lower in this hierarchy is their use of non-standard conventions that could be acquired only through classroom education and advanced study. In fact, the use of these conventions – such as Isidorian signs or Origenian critical signs – can be considered a sign of upward mobility or scholarly aspirations among scribes.

Thus, I argued for a distinction between a scribal versus a scholarly *praxis* for the use of signs: a practical versus an intellectual engagement with texts, their authority, and interpretation. Both scholarly and scribal sign users engaged in a complex intellectual activity, and they may have even pursued similar goals and responded to similar trends, but they employed different conventions of sign use in their work. The key difference is that the scholarly sign users actively engaged with the text as a normative or an inspirational source for *praxis*: they referred to older written traditions and produced new texts explaining and justifying their sign use.

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Ages. On the contrary, I hope that my research may contribute to broadening of our horizons in this respect. For the problem of the early medieval classroom, see Riché, *Education and Culture in the Barbarian West*, 458–59.

My manuscript examination revealed disappointingly little evidence of the specific processes and contexts in which technical signs were used by scribes. At least in some cases, it seems clear that scribes inserted signs in manuscripts because they were already there in the prototype (e.g. in the case of quotation signs). In other cases, they may have added new signs in the process of the copying of a manuscript.<sup>941</sup> The case of Adalleoz mentioned earlier showed the possibility that scribes transferred the skills they used in scriptorium to their private reading.<sup>942</sup> In other cases, signs were certainly inserted into manuscripts in the process of correction, or scribes were specifically tasked with the annotation with signs as a separate activity, as we saw in the case of the Regensburg excerption project.

It remains to be assessed to what extent the data presented in the second part of this chapter reflect a broader, Carolingian situation or regional, Bavarian trends. For example, the overall low ratio of textual annotations to technical signs is likely to reflect the particularity of the region rather than indicate a general trend in Carolingian realms. The last point that I would like to make is that roughly 75-80% of the manuscripts produced in early medieval Bavaria that I studied were annotated with signs only lightly while about 15-20% contain a form of programmatic annotation. These programmatically annotated manuscripts, even when they were not annotated by marginal annotations or marginal tabs, should be considered for further examination because they are likely to harbour traces of the work of local scholars and masters. By our modern standards the signs in the margins may seem literally marginal, but they were an important part of the toolkit of early medieval scribes, readers, and thinkers and in many cases they are our only trace of their activities.

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<sup>941</sup> Henry Mayr-Harting likewise showed that attention and other signs entered into the Chelles copy of Augustine's commentary on the Psalms, now **Cologne, Dombibliothek, MS 63** (c. 800) were made by the nuns who copied individual quires of the codices, and thus were entered in the process of copying; Mayr-Harting, 'Augustine of Hippo'.

<sup>942</sup> See footnote 933.

## Conclusion

In his *editio princeps* of *Notae XXI quae versibus apponi consuerunt*, Theodore Bergk asserted that technical signs that were described in this sign treatise disappeared from the manuscript evidence after the third century.<sup>943</sup> In a way, Bergk's intuition was correct: certain conventions of technical signs – those that went back to Hellenistic Alexandria and reflected a scholarly engagement with Homer and other Classical authors – were in decline from this period onwards. However, this was hardly true for the general practice of using technical signs, or *notae*, for the annotation of manuscripts. As I showed in this dissertation, even if we accounted only for those conventions of sign use that reflect textual criticism or other forms of scholarly engagement with the text, sign use flourished during three distinct periods. Besides the Hellenistic, Alexandrian period, which lasted roughly from the third century BCE to the third century CE, there was the Patristic period, which began with Origen in the third century and lasted at least until the sixth century. Most importantly, however, a third period of renewed interest in the scholarly potential of technical signs, which lasted from the end of the eighth to the end of the ninth century, can be associated with the Carolingian Renaissance.

In this dissertation, I attempted to chart this Carolingian phase of the use of technical signs, not only with respect to their application to scholarly tasks but also in wider sense. In the simplest terms, it could be said that the reality of how technical signs were used in this period (what I termed *praxis*) as well as how they were conceptualized and written about (what I termed *daxa*), was extremely complex. It cannot be easily summarized into a single, uniform model. Nevertheless, I was able to identify several aspects of sign use that allow us to understand and explain these complex dynamics. The first aspect is geographical: conventions of sign use differed based on the region where they were first introduced. In my dissertation, I have discussed only two regional sets of conventions – one Insular and another Frankish – but there were certainly other regional conventions of sign use, such as those that can be associated with Byzantium, which left only a few traces in the Latin West. Given the fact that these regionalized forms of sign use seem to reflect the regional character of scripts and intellectual networks in the Early Middle Ages, we should assume that other regional sets of conventions existed in this period (or has existed before the Carolingian period). These, however, cannot be identified on the basis of the Carolingian manuscript evidence because of their limited influence on the Carolingian manuscript and

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<sup>943</sup> Bergk, *Kleine philologische Schriften*, 1:593.

intellectual culture. Besides the Carolingian area, sign treatises also survive from Visigothic Spain and Beneventan area, two regions where technical signs attracted interested in the Early Middle Ages.

The second aspect is the different traditions of sign use that can be traced back into Classical Antiquity. As I emphasized several times, in the Early Middle Ages, technical signs were the domain of only one wider community of users, the Christian literary elite. In Antiquity, on the other hand, several professional groups employed technical signs for tasks specific to their profession. Two of such groups stand out because of their influence on the early medieval sign users: the craftsmen-like scribes who worked in book workshops and employed technical signs as a part of book production (I refer to them as *scribes*), and scholarly thinkers who engaged in textual and other forms of criticism of key texts, whether Classical or Christian, and commented on the work of other thinkers (I refer to them as *scholars*). The scribal tradition of sign use was transmitted to the Early Middle Ages in a direct, continuous line from ancient book workshops to early medieval scriptoria, in which a new class of Christian scribes continued to use the same or similar conventions of signs as were already employed in the book production of the Hellenistic period. By contrast, the scholarly traditions – since we need to consider both the Hellenistic and the Patristic conventions of sign use as representative of the scholarly attitudes towards technical signs – were discontinued before the advent of the Carolingian period. The chief source of knowledge about these ancient scholarly traditions was the written word, whether it had the form of anonymous technical lists of signs or testimonies of known *auctoritates* referring to sign use. In the absence of a continuous tradition of instruction and interpretation of these texts, Carolingian readers had to re-invent the scholarly sign use, frequently engaging in experiment and creative synthesis of originally distinct traditions and conventions of sign use. In this respect, the Carolingian scholarly sign use, although employing elements of the earlier Hellenistic and Patristic scholarly traditions, was a distinct scholarly tradition with its own rules, texts, and community of users.

While I applied the terms ‘scribes’ and ‘scholars’ also to the early medieval sign users, it is essential to note that these terms refer to the tasks they performed and the traditions of sign use to which they referred and not to their identity. This is particularly important because an individual could have acted as a ‘scribe’ in one context and as a ‘scholar’ in another. Still, several observations can be made about the difference and relationship between these two classes of sign users. Most importantly, the scribal sign use was so widespread and overall of such a high quality and consistency in the Carolingian period

(whether among insular or Frankish users), that it is clear that the knowledge of scribal conventions was common among the Christian literary elite at the time. In fact, the absence of signs in a manuscript is non-typical and may reflect, for example, that a particular manuscript was a luxury copy purposefully left devoid of traces of scribal engagement. On the contrary, traces of scholarly sign use are rare. When present, they can be frequently associated with testimonies, which allow us to identify some of the most notable scholarly sign users with known Carolingian scholars. On the other hand, we only have a few testimonial sources for scribal sign use, which in general can be only associated with anonymous copyists, correctors and the like. In the light of its widespread use, it is clear that knowledge of scribal signs must have been communicated in a different manner, probably in the context of the training of scribes in scriptoria. The case of Isidore's *De notis sententiarum* indicates that texts about technical signs could also be used as a source of instruction. However, as far as the actual manuscript evidence of the use of Isidorian conventions can be considered indicative of the impact of such instruction, the study of texts had only a limited influence on practices beyond the restricted milieu of scholarly users.

Overall the various observations seem to support the following picture: the members of the Carolingian literary elite acquired a basic competence in scribal conventions as a part of their basic training, perhaps in the same fashion as they acquired a basic competence in writing and manuscript production, but only some also acquired the additional package of scholarly conventions. We may connect this secondary acquisition with advanced instruction, notably that involving the study of texts. For the most part, it may have taken place chiefly outside of the classroom, but we have also seen that efforts were made to introduce the subject of technical signs into the Carolingian grammatical curriculum and that some degree of classroom instruction about technical signs may have taken place in Francia. The texts that can be explicitly associated with the Carolingian scholarly sign use are Isidore's *De notis sententiarum*, which was the most important early medieval sign treatise and a vital source of information about the Hellenistic scholarly sign use, and various writings of Jerome, which were studied for their reference to Origen's critical signs. Among other texts that seem to have received attention in this period because of their reference to technical signs are Cassiodorus's *Expositio psalmorum*, which included technical signs used for topical indexing, his *Institutiones*, which alluded in several passages to the use of technical signs for annotating heretical and orthodox texts, and various sign treatises, which were copied, abbreviated and extended with new vigour in the Carolingian period.

The third aspect of the dynamics of the early medieval use of technical signs is most difficult to pinpoint and explain. It emerged only once I scrutinized the patterns of the distribution of technical signs in a selected corpus of manuscript evidence. These manuscripts were annotated either very lightly or very heavily, as if their annotators recognized two distinct modes of annotation (rather than working with a varying degree of attention). The ‘light’ mode of annotation may be considered the standard form of early medieval sign use, as it appeared in the majority of manuscripts I examined. It consisted of, on average, only four or five most common sign types, which reflected basic operations performed by scribes – the correction of errors, the marking of interesting passages, and the highlighting of scriptural quotes. By contrast, the ‘heavy’ mode, which I called programmatic annotation, features only in a small proportion of manuscripts from my corpus. It involved, on average, more sign types, included some rare conventions, and reflected overall more complex operations. In some cases, I was able to associate the programmatic annotation with intellectual projects, such as a set of five manuscripts of Jerome’s commentaries on the Bible prepared for excerption at Regensburg. The overall sophistication behind this mode of annotation, particularly well-visible in some insular manuscripts, suggests that conventions stemming from scribal sign use could have been appropriated for scholarly tasks.

In other words, what we see in the Carolingian period is a rekindling of interest in using technical signs for complex tasks in addition to the more mundane use of technical signs for routine tasks connected with book production in the scriptorium. This rekindling seems to have had two forms. On the one hand, older scholarly traditions of sign use mentioned in authoritative texts and textual traditions were re-introduced and re-invented. On the other, the established scribal tradition of sign use was appropriated for more sophisticated tasks. It remains to be established whether the users of these two distinct above-standard modes of annotation were the same individuals, who switched between the two depending on the particular tasks they were performing, as was the case with ‘scribes’ and ‘scholars’, or whether the relationship between them was more complex. It can be pointed out, for example, that insular sign users developed their own, specific mode of programmatic annotation that was fully derived from the insular scribal sign use, and seem never to have used texts as a source of their sign use.

Within the zone of Carolingian influence, the revival of interest in technical signs, both falling into the scholarly and the scribal traditions, can be situated particularly well into the Carolingian *renovatio*. Although it is not possible to establish an absolute

chronology of the revival, it seems that the first serious encounter of Carolingian thinkers with the scholarly traditions of sign use came about as a result of the adoption of the Gallican Psalter in the Frankish lands as a part of liturgical reforms. The study of this text version, especially of the works of Jerome referring to critical signs present in the Gallican Psalter, revealed that critical signs were missing in the copies available in Francia and required restitution. The surge of interest in texts about technical signs after 800 should perhaps be attributed to this spirit of restitution, but was not limited to the revision of the Psalter or textual criticism of the Bible alone. In a second wave of interest in signs, Isidore's *De notis sententiarum* came to prominence as a key text, probably because of its exhaustiveness, so that it stimulated further developments, e.g. the applied use of several Isidorian conventions. A third major feature of the scholarly sign use in the Carolingian period was the revival of the tradition of doctrinal criticism, i.e., the examination and annotation of theological texts for the purpose of discerning orthodox from heterodox ideas.

New practices can also be connected with scribal tradition employed in the Carolingian zone, although it is more difficult to pinpoint them in the absence of textual evidence and given that large quantity of manuscript evidence needs to be examined in order to identify them. Nevertheless, my quantitative analysis of a corpus of Carolingian Bavarian manuscripts revealed, particularly after a comparison with the pre-Carolingian manuscript evidence, a staggering rise in the frequency of the use of quotation signs in the Carolingian period. This rise is not easy to explain, although it can be speculated that it reflects a change in the function of the quotation signs: a development from a personalized annotation to a permanent, externalized feature of a book. Just like the revival of interest in scholarly traditions can be connected with the Carolingian *renovatio*, the rise of the quotation sign can thus be associated with the spreading of Caroline minuscule.

The Carolingian period can be considered the third golden age of sign use in the Latin West after the Hellenistic period and the Patristic period. While it was not the last period in which technical signs were brought into vogue, it was certainly the last in which the use was influenced by the oldest practices of sign use coined in Hellenistic and Patristic periods and in which conscious links were forged with past traditions. This is particularly evident from the reverence that the early medieval copyists had for sign treatises, the majority of which survive in early medieval manuscripts, presumably because their content was seen as relevant to the generation that copied them. During the Renaissance of the twelfth century,

technical signs were once again put to use by scholars, but they introduced novel conventions that reflected the new attitudes towards the page and towards the text, rather than reviving the older conventions known since Antiquity.<sup>944</sup> For example, Gilbert of Poitiers (d. 1154) came up with a system of twelve indexing signs for the Psalms that allowed him to classify them based on their contents, just like Cassiodorus. However, his topical index had an entirely new purpose: a Roman numeral written above the symbol indicated the order of the given psalm in the sequence of the psalms belonging to the same category, while a Roman numeral below disclosed the number of the following psalm in the same category.<sup>945</sup> Gilbert's topical index thus allowed for a quick retrieval of information and an effective linking together in a new manner that characterizes the scholastic method. About a century after Gilbert, the great English scholar Robert Grosseteste (1175 – 1253) perfected the use of technical signs for scholastic purposes when he devised a system of over 400 symbols that could be used to annotated any text and compile an immense concordance of human learning.<sup>946</sup> Both Gilbert's and Robert's use of technical signs belong to a new chapter in the history of sign use that no longer looked back to Antiquity. Although some of the graphic symbols these two scholars used in their annotation were identical with the graphic symbols employed earlier, they no longer had the same meaning or purpose, but resembled rather *signes de renvoi*. Neither Gilbert nor Robert drew their inspiration from Isidore, Jerome, Cassiodorus, or, for that matter, a Carolingian writer, nor have they referred to the practice of the ancients as their model and norm.

To my knowledge, the last scholar to employ technical signs in the Carolingian manner was Papias, who affirmed in his prologue to the *Elementarium doctrinae rudimentum* (1040s) that he used *obelus cum puncto* (±) and *asteriscus cum obelo* (※-) for those items in his lexicographic work that required checking or confirmation respectively.<sup>947</sup> Papias not only employed Isidorian signs, but his *Elementarium*, which was based on the *Liber Glossarum*, also contained a sign treatise taken from this older glossographic compendium. He was the last

<sup>944</sup> See especially Rouse and Rouse, '*Statim Invenire*'; Rouse and Rouse, 'The Development of Research Tools'.

<sup>945</sup> See Smith, 'Medieval Glossed Psalters', 53–56; Rouse and Rouse, '*Statim Invenire*', 195. Gilbert's system of indexing signs can be seen in its entirety in **Oxford, Balliol College, MS 36** (before 1166), digitized at: <http://www.flickr.com/photos/baliolarchivist/sets/72157630972741576/>.

<sup>946</sup> See Rouse and Rouse, 'The Development of Research Tools', 232–33. Because of the large number of symbols employed by Grosseteste, his system required a table in which their meanings were explained similar to sign treatises. This *tabula* was preserved in two manuscripts, **Lyon BM 414** (13<sup>th</sup> century) and **Paris, BnF, n.a.l. 540** (13<sup>th</sup> century), see the edition made by P. W. Rosemann; Rosemann, 'Tabula'. This system was so complex and difficult to use that it was eventually abandoned and the concordance was never produced. Nevertheless, Grosseteste's signs seem, to have been used for some time after his death in Franciscan circles at Oxford, see Hunt, 'Manuscripts Containing the Indexing Symbols of Robert Grosseteste'.

<sup>947</sup> For this preface, see Daly and Daly, 'Some Techniques'.

in the line of the transmission of the 21-sign treatise from Late Antiquity, via the *Etymologiae* of Isidore of Seville, the Visigothic core of the *Liber Glossarum*, and its Carolingian continuations and epitomes.

Only a century after Papias, Hugh of St. Victor (1096 – 1141), one of the first representatives of the nascent scholastic generation, wrote an *ars grammatica* based on the first book of the *Etymologiae* of Isidore of Seville, that still contained a section on *notae*. However, he concluded this chapter with a laconic statement: “But our generation has little use for these signs, and since they seem to belong to the grammar only marginally, it is sufficient merely to list them, so that they may be known.”<sup>948</sup> Only a few decades later, John of Salisbury (1120 – 1180), lamented that the knowledge of *notae* fell into disuse and was irretrievably lost: “There also exist *notae*, which mark the manner of writing: what is clear in the text, what is unclear, what is certain, what dubious, and in similar fashion many other [features]. This aspect of grammar has sadly fallen into disuse, and this to such a degree that some, being the most learned in letters, justly complain almost deplore this most useful tool and one very suitable both for retaining things [in memory] and for their comprehension, that the art of the notaries has disappeared because of the dislike and negligence of the previous generations. ... If, thus, such a great key to knowledge is embodied in *notae*, it is bizarre that the previous generations did not realize [what is their significance], although they were knowledgeable of many matters, or that the keys to such a great knowledge have been lost.”<sup>949</sup>

Not all of the technical signs were irretrievably lost, as John of Salisbury complained, as is attested by the continuity of several Carolingian scribal conventions in the monastic scriptoria.<sup>950</sup> Nevertheless, the conventions reinvigorated and sustained by scholarly communities in the Carolingian period seem not to have lasted. A telling evidence of a break with an earlier tradition is the fate of the Gallican Psalter. As we have seen, the adoption of the *Gallicanum* in the Carolingian period led to the study of Origenian textual criticism, restitution of critical signs in the Psalter, and also to the application of the

<sup>948</sup> Hugh of St. Victor, *De grammatica* 9: *Sed horum usum etas nostra non nouit et quia ad grammaticam parum spectare uidetur ne nesciantur solum nec enumerasse sufficiat.*

<sup>949</sup> John of Salisbury, *Metalogicon* 1.20: *Sunt et notae quae scripturarum distinguunt modos, ut deprehendatur quid in eis lucidum, quid obscurum, quid certum, quid dubium, et in hunc modum plurima. Pars haec tamen artis iam ex maxima parte in desuetudinem abiit, adeo quidem ut studiosissimi litterarum merito querantur, et fere lugeant rem utilissimam et tam ad res retinendas quam intelligendas efficacissimam, maiorum nostrorum inuidia aut negligentia artem dico deperisse notariam. Nec miretur quis tantam uim fuisse in notulis, cum et musici cantores paucis characteribus multas acutarum et grauium differentias indicent uocum. Et ob hoc quidem characteres illos, musicae clauis dicunt. Si tamen tanta scientiae clauis fuit in notulis, mirum est nostros licet plura scierint non agnouisse maiores, aut tantae scientiae perditas esse clauis.*

<sup>950</sup> I owe this information to Jenekka Janzen from the Turning Over a New Leaf project at Leiden University. She kindly showed me several examples of *chresimon* (✠) in twelfth-century manuscripts. See also Munk Olsen, *La réception de la littérature classique, manuscrits et textes*, 4.2:245.

Origenian critical method to texts other than the Old Testament. The Gallican Psalter was likewise included as the text version of the Psalms in the Parisian Bible.<sup>951</sup> However, the text of the *Gallicanum* in this influential version of the Vulgate, which played the same role in the age of medieval universities and scholastics as the Alcuin Bible in the Carolingian period,<sup>952</sup> no longer contained critical signs. They were purposefully omitted.<sup>953</sup> Although new texts referring to critical signs continued to be produced in the twelfth century and after,<sup>954</sup> the Carolingian period proved to be the last golden age of the use of Origenian textual criticism, as well as of other scholarly traditions of sign use with roots in Antiquity.<sup>955</sup>

<sup>951</sup> See Gross-Diaz, 'The Latin Psalter', 433.

<sup>952</sup> For the up-to-date discussion of the Parisian Bible, see van Liere, 'The Latin Bible', 103–5.

<sup>953</sup> Allgeier, *Die Psalmen der Vulgata*, 307.

<sup>954</sup> Nevertheless, different descriptions of the *asterisci* and *obelii* continued to be included into exegetical commentaries and prefaces of the Psalters after the Carolingian period. One such exegetical account is found in a fourteenth-century copy of the exegetical works of Guilelmus Brito (d. 1275), **Einsiedeln, Stiftsbibliothek, MS 28** (14<sup>th</sup> century), pp. 159–60, at: <http://www.e-codices.unifr.ch/en/sbe/0028/159/0/Sequence-964>. Another description is found in **Vitry-le-François BM 18** (12<sup>th</sup> century) as the second part in a compilation about the Holy Scriptures (*Secunda... de intellectu scripturarum, de diapsalmate, de obelisco et asterico, de divitibus*); see the catalogue description of this manuscript at: [http://ccfr.bnf.fr/portailccfr/jsp/index\\_view\\_direct\\_anonymous.jsp?record=eacgcm:EADC:D19010297](http://ccfr.bnf.fr/portailccfr/jsp/index_view_direct_anonymous.jsp?record=eacgcm:EADC:D19010297). A third descriptive account is present in **Cambrai BM 407** (11<sup>th</sup>/12<sup>th</sup> century), in the last folium of the manuscript, see the catalogue description of this manuscript at: [http://ccfr.bnf.fr/portailccfr/jsp/index\\_view\\_direct\\_anonymous.jsp?record=eacgcm:EADC:D23011373](http://ccfr.bnf.fr/portailccfr/jsp/index_view_direct_anonymous.jsp?record=eacgcm:EADC:D23011373).

Critical signs are also the subject of two unique twelfth-century Psalter prefaces, one preserved in two manuscripts from Valenciennes, and another in two manuscripts now kept in Paris; see Bruyne, *Préfaces de la Bible latine*, 108–9.

<sup>955</sup> Another example of the break is *De notis sententiarum* of Isidore of Seville. As was shown, the interest in this sign treatise plummeted after the Carolingian period. This decline can be attributed to changes ushered in by the twelfth century: the *Etymologiae* held the pride of place as the most exhaustive encyclopedia to be had in the Early Middle Ages, but by the early thirteenth century it was replaced by the *Speculum Mains* of Vincent of Beauvais, which reflected the novel attitudes towards knowledge and its systematization characteristic of the Renaissance of the twelfth century. See Bischoff, 'Die europäische Verbreitung der Werke Isidors von Sevilla', 342. Importantly, Vincent's encyclopedia no longer contained a section dedicated to *notae*, as did the *Etymologiae*, the *Liber Glossarum* or the *Elementarium doctrinae rudimentum* of Papias.

## Appendices

### Appendix I: Overview of the most important technical signs

In this appendix, I present the most important technical signs discussed in this dissertation in an alphabetical order for a quick reference. I include their names, the standardized graphic symbols I used to refer to them in the text of the dissertation, and a short description of the conventions they reflected, the communities with which they were associated and the texts in which they were mentioned. In case the particular sign was known under several names, I provide them all, including the signs that only had a Greek name.

#### **Alogus, ἄλογος:** ʃ ʎ

*Alogus* is a correction sign marking textual corruptions and lack of clarity (Gr. ἄλογος, ‘absurd, meaningless’) that is chiefly known from written evidence. Scholia to the *Iliad* mention that Aristarchus placed ἄλογος next to certain lines of Homer but do not inform us about its graphic form. According to Servius’s commentary to *Aeneid* 10.444, the ancient scholar Valerius Probus placed the *alogus* to this verse, ‘since it was pronounced somewhat freely’ (*satis licenter dictum est*), again not indicating the shape of the graphic symbol of this *alogus*.

*Alogus* also features in the 21-sign treatise, perhaps echoing the Homeric scholia, Servius’s commentary or both. While witnesses of the 21-sign treatise contain its graphic symbol, it can be noted that they disagree with each about its form and frequently contain several distinct variants, as if its shape was particularly unstable or as if the copyists of particular manuscripts did not know it well. Taken together, the evidence of various texts suggests that *alogus* was a genuine ancient correction sign, which, however, does not seem to have been used in the Early Middle Ages and the shape of which, therefore, may have been corrupted. It is possible that one of the graphic symbols recurring in ancient papyri is the original *alogus*, especially if they can be identified as correction signs.

#### **Anchora superior, anchora inferior:** † ↓ † ↓

*Anchorae* are old omission signs used in Greek papyri from Classical Antiquity. They formed a complementary pair: the *anchora superior* pointed downwards, the *anchora inferior* upwards, and together they linked a place in the text where something was missing with a fill-in in the upper or the lower margin. The signs may have been accompanied with Greek

words ἀνω ('upwards') and κάτω (downwards). In the course of the transition from papyrus book roll to codex, *anchorae* were replaced in the Latin West by new omission signs, sigla *bs* for *hic sursum* and *bd* for *hic deorsum* (which retained a directional aspect), and disappeared from use before the sixth century. Traces of *anchorae* can be occasionally found in Latin manuscripts after the sixth century, for example in the form of *signes de renvoi*.

After their decline as omission signs, *anchorae* received a second life in the 21-sign treatise. In this text, they are described as signs of stylistic assessment, *anchora superior* marking passages of high and *anchora inferior* of low style. These descriptions are almost certainly secondary and invented, perhaps as a result of the interpretation of *anchorae* encountered in manuscripts by someone who no longer understood their function. We possess no manuscript evidence that *anchorae* were used in this fashion before the Carolingian period. In Carolingian manuscripts, both types of *anchorae* can be occasionally found used not as omission sign, but as a sign of stylistic assessment. This use almost certainly sprang from the tradition of the 21-sign treatise, just like the revival of *cryphia* and *frontis*.

#### **Antigraphus (cum puncto): ∇**

This technical sign is described solely in the *Etymologiae* of Isidore of Seville and seems to be a conflation of several distinct items. Its name is otherwise unattested (it seems to derive from the Greek ἀντιγραφος, 'transcript'), its graphic form is that of *γfen*, and the description attached to this form is that of *hypolemniscus*.

*Antigraphus* was used by the anonymous reviser of the Gallican Psalter in the late eighth-century Francia whom I called pseudo-Isidore. He clearly adopted this sign from the *Etymologiae*.

#### **Antisigma, ἀντισιγμα: ∷**

*Antisigma*/ἀντισιγμα is one of the technical signs that occasionally occur in Greek papyri from Egypt. Its function varies: ἀντισιγμα was sometimes used as a correction or an omission sign and in other cases its purpose is impossible to guess. In the Alexandrian scholarly tradition, ἀντισιγμα (paired with ἀντισιγμα περιεστιγμένον and possibly related to signs called σῖγμα and στιγμαί) was used to mark verses in Homer which required transposition. This function is also mentioned in PSI 1488, a fragment of a sign treatise referring to the scholarly annotation of Plato, although the descriptions of ἀντισιγμα

περιεστιγμένον and ἀντίσιγμα seem to have been interchanged (or perhaps the difference between the two signs was not clear to the author of this sign treatise).

In the Carolingian period, Hincmar of Reims used *antisigma* in his *Vita Remigii* to mark the end of passages intended for private reading (rather than public recitation). The anonymous reviser of the Gallican Psalter from Milan used an *antisigma*-shaped sign he calls *diastole* as a closing parenthesis for passages found in the Greek but not in the Latin Psalter. *Antisigmata* can also be found in **Brussels, Koninklijke Bibliotheek, MS 5169** (9<sup>th</sup> century, 2/2, France), a copy of Prosper's *Chronicon*, where they have an unclear function.

#### **Antisigma cum puncto, dotted antisigma, ἀντίσιγμα περιεστιγμένον: ∩**

Dotted *antisigma* is a sign complementary to *antisigma* (and possibly related to σῖγμα and στιγμαή), which was used in the Alexandrian scholarly tradition for marking reduplication of verses in Homer. It may have come into being originally as a combination of *antisigma* and στιγμαή, but gained some degree of autonomy. It is also mentioned in Diogenes Laertius as a sign both for reduplication and transposition, thus combining the definitions of both *antisigma* and dotted *antisigma* (perhaps as a result of an error).

This sign is rare in Latin manuscripts but is occasionally found in the annotation practices of insular scholars. Dotted *antisigmata* feature, for example, in **Bern, Burgerbibliothek, MS 363** (9<sup>th</sup> century, 3/3, perhaps Milan), the famous compendium of Servius and Horace containing a rich layer of insular annotation, and in **Munich, BSB, Clm 14425** (8<sup>th</sup>/9<sup>th</sup> century, Regensburg), a copy of Jerome's commentary on Jeremiah richly annotated by a Celtic scholar.

#### **Asteriscus, ἄστερισκος, stella: ✱**

*Asteriscus*/ἄστερισκος (Gr. 'star-like') was one of the most important technical signs used in Antiquity and in the Early Middle Ages. It was employed as a graphic symbol in at least four major ancient and medieval conventions. In addition, *asteriscus* features in many additional conventions known from specific scholarly works (restricted to manuscripts of this text) or described in sign treatises (without any manuscript evidence).

In Antiquity, ἄστερισκος was used as a text-structuring sign. It is described in this capacity by Hephaestion, specifically as a mark of changing meter. However, the actual use of ἄστερισκος as a text-structuring sign was probably broader as it can be found in a more general function of a sign marking the beginning of a particular text or unit of text. Medieval examples of this convention can be found in **Vatican, BAV, Pal. Gr. 23** (9<sup>th</sup>

century, 2/2 – 10<sup>th</sup> century, 1/2, Constantinople), the manuscript of *Anthologia Palatina*, where *asterisci* appear as markers dividing individual poems, or in **Vienna, ÖNB, Gr. 314** (c. 925), a compendium of philosophical texts. In the Latin book culture, remnants of this convention can be found, for example, in **Munich, BSB, Clm 6264a** (825-35, Freising), a copy of the homiliary of Paul the Deacon, in which *asterisci* and similar star-shaped signs indicate the beginning of lessons.

In the Alexandrian scholarly tradition, ἄστερισκος was used to mark verses of Homer that belonged where they appeared, implying that a similar or the same verse also appeared elsewhere where it was placed incorrectly (and where it was, consequently, marked with an *asteriscus cum obelo*). We may assume that the same convention was adopted by scholars for other texts. The reference to ἄστερισκος as a sign for ‘the agreement of doctrine’ in the sign treatises connected with the annotation of the works of Plato may reflect the Alexandrian scholarly tradition and specifically the affirming, anchoring function of *asteriscus* in this tradition (as an opposite of the rejecting *obelus*).

In the Origenian critical method, ἄστερισκος (combined with *metobelus*) attained yet another meaning as a sign marking the passages in the Hexaplaric version of the Old Testament that were found only in the text versions following Hebrew closely, but not in the Septuagint. It is possible that this convention was based on the Alexandrian scholarly tradition since ἄστερισκος has the same affirming, positive connotation (as opposed to the negative connotation of *obelus* which was used for the passages found only in the Septuagint and which were, consequently, potentially spurious or of lesser authority).

In Carolingian manuscripts, *asteriscus* is also commonly found in the function of an omission sign. This convention may stem from a loose interpretation of *Etym.* 1.21.2, which certainly refers to the Origenian critical method, but only states that *asteriscus* was placed ‘where something is missing’ (understand: in the Septuagint). Some examples of this use of the *asteriscus* include **St. Gallen, Stiftsbibliothek, MS 878** (9<sup>th</sup> c., 1/2), the personal notebook of Walahfrid Strabo (on p. 307); **Oxford, Bodleian Library, Canon. Misc. 353** (9<sup>th</sup> century, in., Fulda), an early copy of Hraban Maur’s *De computo* (on fol. 36r); and **Paris, BnF, Lat. 13363** (8<sup>th</sup>/9<sup>th</sup> century, Corbie), a copy of Augustine’s *De baptismo* (on fols. 1v and 162v).

Texts mentioning different conventions of the use of *asteriscus* include Cassiodorus’ *Expositio psalorum*, in which *asteriscus* was used as an indexing sign for passages concerned with astronomy, the anonymous annotation of the *Orationes* of Gregory of Nazianzus, in which *asteriscus* marked passages concerned with the Incarnation, Hincmar’s *Vita Remigii*, in

which it marked passages intended for public reading, the 11-sign treatise, in which *asteriscus* is used ‘for statements’ (*in sententiis*), and the Greek letter referring to the critical annotation of Aratos, which is, however, cropped. *Asterisci* also appear in **Brussels, Koninklijke Bibliotheek, MS 5169** (9<sup>th</sup> century, 2/2, France), a copy of Prosper’s *Chronicon*, with an unclear function.

**Asteriscus cum obelo, ἀστερίσκος μετὰ ὀβελοῦ: ※– –※**

In the Alexandrian scholarly tradition, individual critical signs were combined to indicate more complex ideas about the text. *Asteriscus cum obelo* is one example, which was used frequently enough by Aristarchus to warrant it its own item in later sign treatises. According to these sign treatises and according to Homeric scholia, *asteriscus cum obelo* was placed next to those verses of Homer, which were genuine (thus *asteriscus*) but placed incorrectly in the spot in which they were found (thus *obelus*). There seems not to be particular significance in the order of the *asteriscus* and the *obelus* element of this composite sign. Origen may have also used *asteriscus cum obelo* to indicate that the order of Greek was at fault.

**Astragalus:**

*Astragalus* (Gr. ἀστράγαλος, ‘knucklebone, dice made of knucklebone’) is mentioned in the 11-sign treatise as a sign ‘for utterances’ (*in elocutis*). The graphic symbol of this sign is absent from the sign treatise, and it is unclear what the shape and meaning of this technical sign were. Perhaps, the name *astragalus* is an alternative name for a known technical sign.

**Aversa obelismene, obelus cum aversa: -2**

*Aversa obelismene* is one of the text-structuring forms of *diple* that are mentioned in the 21-sign treatise. According to this tradition, it was used ‘whenever the strophe and the antistrophe are introduced’ (*quotiens strophe et antistrophus infertur*). It is unattested in Latin manuscripts.

**Aversa cum obelo:** ⚡

*Aversa cum obelo* is one of the text-structuring forms of *diple* that are mentioned in the 21-sign treatise. According to this tradition, it was used as a quotation sign. This definition, thus, seems to reflect the use of *diple* as a quotation sign rather than its use as a text-structuring sign. There is no evidence to support an actual use of this sign.

**Ceraunium, κεραύνιον:** ⚡ T

*Ceraunium/κεραύνιον* (Gr. ‘thunderbolt-like’) is mentioned in several sign treatises, but it is essentially unattested in manuscript evidence. It is one of the signs of which it is difficult to say whether they were actually used and what their function was. According to a scholion to *Odyssey* 18.282, Aristophanes of Byzantium, Aristarchus’ predecessor, placed the *κεραύνιον* next to this verse because it was ‘mean’. This could explain why the same sign is mentioned in only one of the Greek sign treatises, the *Anecdoton Romanum*, as a sign for ‘other problems besides those mentioned’. Apart from this source, however, *κεραύνιον* does not seem to have been a part of the Alexandrian scholarly tradition.

According to the 21-sign treatise, *ceraunium* was used ‘when multiple verses are to be obelized in order that the *obelus* is not used multiple times’ (*quotiens multi versus improbantur ne per singulos obelentur*), a definition which may echo the Alexandrian scholarly tradition, but in an incorrect way. In the manuscript evidence, *obelus* is commonly found applied to multiple following verses, and there is no evidence that a different convention was employed to avoid this. In the tradition of annotation of Plato described in PSI 1488 and Diogenes Laertius, *ceraunium* was used rather enigmatically for ‘the philosophical school’.

The sign treatises also seem to be uncertain about the graphic shape of this sign – the *Anecdoton Romanum* depicts it as a T-shaped sign, while according to the 21-sign treatise, it looked like a six-pointed star. A sign of the latter shape can be found in **Brussels, Koninklijke Bibliotheek, II 4856** (8<sup>th</sup> c., ex., Corbie), a copy of Isidore’s *Etymologiae*. Here it may have a function similar to *obelus*, indicating a line of text that is dubious or should be deleted.

**Chi:** X

*Chi* (or perhaps a form of a cross) is a technical sign commonly found in Greek papyri from Egypt. It does not seem to have had a single function that can be easily identified. It may have served as a general attention sign in non-Homeric texts (thus having a function similar to *diple* in the Alexandrian scholarly tradition).

*Chi* is mentioned in PSI 1488, the 5-sign treatise and in the sign treatise preserved in Diogenes Laertius as a sign used in the annotation of Plato ‘for Platonic usage and idiom’ (*schema consuetudinemque Platoniam significat*). It is also mentioned in the Greek letter describing the annotation of Aratos.

*Chi*-shaped crosses can also be found in early medieval Latin manuscripts, but they are likely just a variant of the commonly used crosses, and they do not seem to reflect either the practices of ancient scribes or annotators of philosophical texts.

#### **Dotted chi, chi distinctum: ☒**

Dotted *chi* is mentioned as a dotted version of *chi* in PSI 1488, the 5-sign treatise (where it is called *chi distinctum*) and in the sign treatise preserved in Diogenes Laertius. According to this tradition, the sign was used in the annotation of Plato for passages that were deemed outstanding because of their style. However, I am unaware of any manuscript evidence that could be connected to this convention or with the use of dotted *chi*.

#### **Chresimon, Chi et rho, crisimon, χρῆσιμον, χρῆστόν, χρῆσις, keir ro: ☒ ☒**

A chi-rho siglum is one of the most outstanding technical signs present both in ancient papyri and medieval manuscripts. It can be connected with at least four ancient and medieval conventions.

A siglum that combines the Greek letters *chi* and *rho* appears in the Greek papyri from Egypt with various functions, including as an attention sign and in one papyrus, **P. Oxy. 13.1611** (3<sup>rd</sup> century, Oxyrhynchus) as a quotation sign. In the absence of written evidence, it is unclear what Greek word it may have been derived from. Suggestions include *χρηστόν* (Gr. ‘good’), *χρησιμον* (Gr. ‘useful, beneficial’) and *χρησις* (Gr. ‘passage’). It reflects a scribal convention not related to the Alexandrian scholarly tradition.

In Cassiodorus’ *Expositio psalmsorum*, *chresimon* is used as an indexing sign for ‘very important doctrines’ (*in dogmatibus valde necessariis*). In this regard, it resembles the use of *ἡλιακόν* in the contemporary annotation of the *Orationes* of Gregory of Nazianzus and may reflect the same broader trend, but by means of a different graphic symbol.

In the tradition of the 21-sign treatise, this sign, known both as a *chi et rho* and as a *chresimon*, is described as an attention sign. It was used in this fashion in two early medieval manuscript cultures: insular and Frankish. The insular use seems to derive from the ancient Greek scribal practices. In the Frankish environment, it may have been introduced into scribal practice as the result of the reading of the *Etymologiae* of Isidore of Seville, which

was also the case for *cryphia*, *anchorae*, and *frontis*, which were re-introduced on the basis of this version of the 21-sign treatise.

The graphic form of *chresimon* resembles the Christogram and in the Early Middle Ages the two were, at times, conflated. The result was a convention in which the attention sign pointed to passages specific for their Christian, doctrinal or orthodox content. For example, *chresimon* was used by Hincmar of Reims as a symbol of orthodoxy in his *De una et non trina deitate* (coupled with the *obelus* used for 'heretical' passages in the same text). Prudentius of Troyes used *chresimon* as a sign of approval in his polemics with theologian John the Scot (whose opinions he marked with a negative *theta*). *Chresimon* is interpreted as a Christ-like sign by Hraban Maur in his collection of figurative poems, *In honorem sanctae crucis*.

In the revised Gallican Psalter from Milan, *chresimon* was used as a critical sign, indicating omissions in the Ambrosian Psalter with respect to the Gallican Psalter.

### Coronis, $\kappa\omicron\rho\omega\nu\iota\varsigma$ : $\text{P} \quad \text{T}$

*Coronis*/ $\kappa\omicron\rho\omega\nu\iota\varsigma$  (Gr. 'crooked, curved') is a text-structuring sign that served to mark the end of a book. It was originally used by ancient scribes, but it was also adopted by Alexandrian scholars in the context of the scholarly debate about the precise termination of the various books of the *Iliad* and the *Odyssey*. Perhaps because of this,  $\kappa\omicron\rho\omega\nu\iota\varsigma$  is mentioned in the *Anecdoton Romanum* and in the *Anecdoton Harleianum*, sign treatises reflecting the Alexandrian scholarly tradition. *Coronis* is mentioned in the same function in the 21-sign treatise and by Hephæstion. The early medieval sign treatise in **Paris, BnF, Lat. 6810** (10<sup>th</sup> century) contains a unique, otherwise unattested definition of this sign, which reflects the same convention: '*Chronus* means short in Greek and this graphic sign, since [the text] has an ending shortly and it is impossible to stretch it beyond the end of the book therefore it is attached in this fashion' (*Chronus dicitur brevis grece et haec figura quia brevem habet iam terminum et ultra finem libri protendi non potest, idcirco taliter adiungitur quasi manum refrenet scribentis*). In the course of Late Antiquity, *coronis* fell out of use when it was replaced by newer text-structuring techniques, such as the use of rubricated headings and white spaces between texts.

While the function of *coronis* seems to have been stable, its graphic shape was not. In the oldest witnesses, it has the shape of a stylized bird, perhaps on account of its name which resembles the word  $\kappa\omicron\rho\omega\nu\eta$  (Gr. 'crow'). This is, for example, the case of **P. Berol. inv. 9875** (4<sup>th</sup>/3<sup>rd</sup> century BCE), a fragment of a play of Timotheus of Miletus. From the

first century BCE, however, its shape became simplified into a symbol resembling modern paragraph mark (§). Another stage in the development of the *coronis* took place in the fourth century when *coronis* acquired a form resembling a hook (or a capital J) with a roof. This graphic form of *coronis*, for example, features in the 21-sign treatise.

**Cross:** + † ‡ † † †

The cross is one of the most common symbols used as a technical sign and for a variety of other purposes. As a symbol, it is traditionally associated with Christianity and the cross as a technical sign did, indeed, have a specific Christian connotation in some contexts and periods. Its origins, however, are pre-Christian, and for the interpretation of the sign, a Christian interpretation is not always necessary. The Christian connotation did probably reinforce the use of this technical sign in the medieval period and may have led to its novel uses, just like the *chresimon*, which blended with the Christogram.

The cross can already be found in Greek papyri from Egypt from the first century CE. In some cases, it may have been a text-division sign and a correction sign. In other cases, its function is difficult to interpret. In the Early Middle Ages, it also served a variety of purposes, including that of an attention sign, a text-structuring sign, a dialogue marker and a lesson sign. In medieval manuscripts, the cross is very frequent, but notoriously difficult to interpret because it was used in numerous conventions. It is also commonly found traced in dry-point.

The cross is not mentioned in any sign treatise.

**Cryphia:** ☩

*Cryphia* is a late antique correction sign that marked irresolvable error or corruption. It is present in a number of uncial and half-uncial manuscripts from the fourth to sixth centuries, mostly from Italy. It did not leave a trace in the manuscript evidence from Gaul, where the preferred correction sign was *require*.

The name *cryphia* stems from the *Etymologiae* of Isidore of Seville, the only sign treatise that describes this sign. It was probably Isidore's invention based on the Latin word *griphus* (taken over from grammarian Sacerdos), rather than the original, late antique name. If it were not for this description, *cryphia* might have become extinct at the end of Late Antiquity; however, it was revived as a correction sign by Carolingian users in the course of the second half of the eighth century and used side by side with *require* in Carolingian manuscripts.

**Delta: Δ**

The Greek letter Δ is commonly used as a dialogue marker in the early medieval Western manuscripts. It forms a pair with the Greek letter M. Depending on how the two sigla are interpreted, they stand either for the Greek words διδάσκαλος (“teacher”) and μαθητής (“pupil”) or for the Latin words *magister* and *discipulus* (delta being sometimes but not always replaced with a D). Incidentally, the words for a teacher and a pupil in Latin and Greek begin with the opposite combination of letters, which caused some confusion in the Early Middle Ages, especially if a scribe wished to translate the Greek convention (Δ-M) into a Latin one (M-Δ). In the Vivarian exemplar of Junilius, for example, the dialogue started with an inquisitive teacher who posed questions to his pupils, but by the end of the codex, it is the pupils who ask questions and the teacher answers, clearly as a result of the misunderstanding of the convention employed.

**Diple, diplen aperistikton, διπλῆ, διπλῆ ὑπερίστικτος: > >>**

*Diple*/διπλῆ (Gr. ‘double’) was used in three different, related conventions in Antiquity. In the Alexandrian scholarly tradition, it was the most frequently used sign, marking verses which contained noteworthy or unusual features such as *hapax legomena*. In this capacity, it may be considered an attention sign. This convention is described in the 21-sign treatise in the item *diplen aperistikton*/*diple peristichon*.

Already in Antiquity, διπλῆ was also used to mark quoted material in the text. This more particular purpose stemmed perhaps also from its function as an attention sign. Gradually, this use of διπλῆ eclipsed the others. By Late Antiquity, it was established the preferred way to mark quotations in uncial and half-uncial manuscripts. In the Christian context, διπλῆ was used almost exclusively to mark biblical quotes in Patristic works. It was mentioned in this capacity by Isidore of Seville in the *Etymologiae* (as *diple*, an item which should not be confused with *diple peristichon* discussed below) and by the anonymous annotator of the *Orationes* of Gregory of Nazianzus. Already before the end of Late Antiquity, the graphic form of διπλῆ began to change. It was increasingly drawn in a single stroke, which gave it a characteristic blunted look resembling either a comma or the letter S.

Various forms of διπλῆ were also used as text-structuring signs in Antiquity, although it is not clear whether their direction and elements had a specific meaning or not. With the exception of διπλῆ περιεστειγμένη and διπλῆ ὀβολισμένη, the different technical signs based

on διπλῆ may be just graphic variants of this sign. These other forms of διπλῆ are mentioned both by Hephaestion and the 21-sign treatise, suggesting that they were used in particular in Greek lyric poetry and drama, for example for indicating a change of speakers in a dialogue.

This sign is also mentioned in two additional texts concerned with technical signs. In the series of sign treatises devoted to the annotation of Plato, διπλῆ stands for ‘doctrines and opinions characteristic of Plato’ (this convention perhaps reflects the Alexandrian scholarly tradition). In the letter describing the critical annotation of Aratos, διπλῆ is also mentioned.

**Diple obelismene, διπλῆ ὀβολισμένη, ‘forked’ παράγραφος: > >- >**

*Diple obelismene*/διπλῆ ὀβολισμένη (Gr. ‘obelized diple’), also known as a ‘forked’ παράγραφος, can be associated with two distinct conventions, one attested in the manuscript evidence but not in texts, the other described in sign treatises, but not known from manuscript evidence. Together with παράγραφος and κορωνίς, the forked’ παράγραφος (>) was a common text-structuring sign in Antiquity. It had a function similar to that of a παράγραφος and in some periods may have been a preferred technical sign (or perhaps graphic shape of a sign) to mark lesser divisions in the text. In some cases, it can be seen in papyri side by side with κορωνίς as a sign for a book-end.

The 21-sign treatise lists *diple obelismene* (with a slightly different graphic form >) among other variants of *diple* that were used, according to this sign treatise, to mark various breaks and text divisions in Greek lyric poetry and drama. Specifically, *diple obelismene* was to be used as a separator of speeches in drama (*ad separandos in comoediis vel tragoediis periodos*). This description may be grounded partially in genuine ancient practices as described by Hephaestion (who does not mention *diple* among the text-structuring signs used in poetry and drama, but includes παράγραφος, which, as it seems, was in certain periods interchangeable with *diple obelismene*/‘forked’ παράγραφος). *Diple obelismene* was not used in the Latin-writing environment, and its use in the specific function described in the 21-sign treatise is unattested.

**Diple periestigmene, dotted diple, διπλῆ περιεστιγμένη:** ≍

Dotted *diple* may have been originally just a variant of the text-structuring *diple* mentioned by Hephaestion, just like the ‘reverse *diple*’ or ‘double *diple*’. However, Aristarchus chose to use it as a sign of disagreement with his predecessor, Zenodotus of Ephesus (and according to one of the Greek sign treatises he may have also used it for disagreement with another scholar, Crates of Mallus). This Alexandrian scholarly convention may have had an impact on the ancient annotators of Plato, as is suggested by the 5-sign treatise, PSI 1488 and the sign treatise preserved in Diogenes Laertius, in which *diple* is described as a sign for ‘editors’ corrections of the text’.

When a dotted form of a *diple* is found in a Latin manuscript, it should be seen as a graphic variant of the standard *diple* in its capacity as a quotation sign, for example in **Paris, BnF, Lat. 1572** (8<sup>th</sup> century, 2/2, Tours) and in **Paris, BnF, Lat. 9538** (8<sup>th</sup> century, perhaps Echternach).

**Diple peristichon:** ≧

The name *diple peristichon* appears for the first time in the *Etymologiae* of Isidore of Seville. According to Isidore, it was used by an otherwise unknown Leogoras of Syracuse ‘to distinguish Mount Olympus from the heavenly Olympus’ (*ad separationem Olympi a caelo*). The term *peristichon* is a corruption of ἀπεριστικτος, (Gr. ‘undotted’) used for *diple* in order to distinguish it from διπλῆ περιεστιγμένη (Gr. ‘dotted *diple*’). The definition of *diple peristichon* in the *Etymologiae* is similar to the description associated with *diple* in the 21-sign treatise and seems to reflect the Alexandrian scholarly tradition. By contrast, Isidore’s sign treatise also contains the item *diple* which describes a quotation sign. It thus seems that Isidore struggled with the fact that a single sign, *diple*, was used for two conventions: both as an Alexandrian attention sign and as a more widely used quotation sign. He resolved this situation by including both definitions in his sign treatise, one as *diple*, the other as *diple peristichon*.

*Diple peristichon* was not used in Latin manuscripts.

**Diple superne obelata:** ≧

*Diple superne obelata* is one of the text-structuring forms of *diple* that was mentioned in the 21-sign treatise. According to this tradition, it marked ‘the change of conditions of places, times, and people’ (*ad conditiones locorum ac temporum personarumque mutatas*). It is unattested in Latin manuscripts.

**Dignum memoriae, DM:**

The siglum DM is occasionally found in early medieval manuscripts. It probably stands for *dignum memoriae* ('worth to remember') and it is, thus, a type of an attention sign.

**Duo puncta:** see *metobelus*

**Finit, f:**

Minuscule letter f is used in the early medieval Western manuscripts as a siglum for *finit* ('[here] ends'). It marks the end of a particular passage, for example an excerpt or a lesson, usually in combination with a different siglum or sign that marks the beginning (e.g. h for *hinc* or i for *incipit*). In special cases, letter f (or an abbreviation *fab*) may also abbreviate *fabula*, a tag that indicates the presence of mythological material.

**Frontis, φροντις: ϕ ϐ ϑ ϕ**

*Frontis* (Gr. φροντις, 'attention') is also called *phi et rho* because it is a siglum composed from the Greek letters *phi* and *rho*. It is first unambiguously depicted and described in the 21-sign treatise, according to which it was placed 'where there is something obscure requiring a close attention' (*ubi aliquid obscuritatis est, ob sollicitudinem ponitur*). The oldest manuscript evidence of *frontis* is even more recent: the sign features in Carolingian manuscripts, frequently as a correction sign in a combination with the *chresimon* attention sign. It is not well-attested earlier, however, and it is likely that it was introduced in the Carolingian scribal use only as the result of the Carolingian engagement with the *Etymologiae* of Isidore of Seville, which also led to the inclusion of other signs into Carolingian use (see *cryphia*, *anchorae*, and *chresimon*). Importantly, the tradition of the 21-sign treatise describes *frontis* as an attention sign, but Carolingian scribes seem to have used it as a correction sign.

Before the 21-sign treatise, the history of *frontis* or of the *phi* and *rho* siglum is obscure. It is unclear whether the convention described in the 21-sign treatise actually existed before it was described by this text. Possibly, it is an example of misinterpretation or free re-interpretation of one of the attested Greek sigla, comparable to the misinterpretation of *anchorae* in this tradition. The most likely candidate, in this case, is the ὠραῖον (ϕ), a sign similar in graphic shape to *frontis* which was used as an attention sign in Late Antiquity, particularly in manuscripts of law. While ὠραῖον is attested in Eastern

manuscripts, it seems to have been used only rarely in Western manuscripts, which may explain the confusion it created.

A graphic symbol resembling *frontis* also appears among the indexing signs in Cassiodorus' *Expositio psalmorum*. Here it designated definitions (*in definitionibus*).

**ἡλιακόν:** ☉

Ἠλιακόν (Gr. 'solar, sun-like') was introduced in the annotations of the *Orationes* of Gregory of Nazianzus as a sign that marked 'more theological passages' (usually those concerned with Trinitarian theology). It is known chiefly from this text, although in several Byzantine and Latin manuscripts ἡλιακόν is attached to other texts. In a Patristic florilegium, **Paris, BnF, Coislin Gr. 120** (10<sup>th</sup> century), certain excerpts concerned with the Trinity are also marked with the sign. In **Cambridge, Trinity College, B.2.34** (early 12<sup>th</sup> century, prov. Canterbury), a collection of Latin theological texts, the sign of ἡλιακόν was added in the margin of fols. 116v and 117r together with other signs.

**Hic/hinc, h:**

Minuscule letter h is occasionally used in early medieval Western manuscripts as a siglum for *hic* ('here') or *hinc* ('from here'). This technical sign could mark a beginning, for example of an excerpt or of a lesson. It would be usually paired with a closing sign such as a siglum f for *fnit*. Siglum h was also used as an omission sign in combination with d. This convention was typical for the insular environment: d (probably for [*hic*] *deest*) was placed in the text window and h (probably for *hic* [*invenies*]) linked this spot with a fill-in in the margin.

**ᾠραῖον, oreon:** ⚡ ⚡ ⚡

ᾠραῖον (Gr. 'well-put') is an attention sign devised for law texts in Late Antiquity. Its development can be followed in the manuscript margins: from an exclamatory textual note ᾠραῖον, via an abbreviation ᾠϞ, to a full-fledged technical sign with its own autonomy as a symbol.

While ᾠραῖον was originally devised for law texts, it was also used in other types of texts already in Late Antiquity. In the annotations of the *Orationes* of Gregory of Nazianzus, it marked passages, which were deemed outstanding because of their style. ᾠραῖον features in the 11-sign treatise as *oreon*; here it is used for "irrefutable [arguments]" (*in invincibilibus*).

Most of the examples of this sign come from Eastern manuscripts. Notable Western examples of the use of ὠραῖον include **Vatican, BAV, Reg. Lat. 886** (6<sup>th</sup> century, France, probably Lyon), a manuscript of the Theodosian code, and **Paris, BnF, n.a.l. 1592** (6<sup>th</sup> century, southern Italy), a copy of Hilary's *De trinitate*. In the Latin West, ὠραῖον may have been replaced by *frontis* as a result of re-interpretation of the Greek siglum.

### **Hypolemniscus, ὑπολημνίσκος: ⁂**

Together with λημνίσκος, ὑπολημνίσκος (Gr. 'lower *lemniscus*') is first mentioned in *De mensuris et ponderibus* of Epiphanius of Salamis as one of the four signs used by Origen for the textual criticism of the Old Testament. According to Epiphanius, it was used for passages in Scriptures that were omitted by some versions and moreover contained a variant reading in another. Again, this description is at odds with both the manuscript evidence and Origen's own testimony, which mentions only two signs. It seems to be another case of sub-invention, probably with the same roots as its complement, the λημνίσκος.

An item with a similar description is Epiphanius' ὑπολημνίσκος, which appears as an addition to the original 21-sign treatise in the *Etymologiae* of Isidore of Seville. However, in Isidore's account it is called *antigraphus cum puncto* rather than ὑπολημνίσκος and has a graphic shape taken from another sign, *yfen*. Again, we have no evidence that this *antigraphus cum puncto* was used or that Isidore's account reflects anything else than Epiphanius' information.

### **Incipit, i:**

The minuscule letter i is occasionally used in early medieval Western manuscripts as a siglum for *incipit* ('[here] begins'), a common denominator of a beginning of a new textual unit. It was used for marking excerpts and lessons, usually in combination with a second, closing sign, for example f for *finit* or a cross.

### **Insular quotation marks: .., ., ...,**

In manuscripts annotated in the insular environment, quotation signs have the shape of a combination of dots and commas. It is probable that this graphic form developed from the ancient *diple*, just like the S-shaped flourish on the continent. It is not described in the written evidence, but fairly common in insular manuscripts, both those produced in Ireland and England and in insular continental centers.

**Insular sigla:**

Early medieval insular manuscripts and continental manuscripts annotated by insular annotators frequently contain a number of technical signs that were not used on the continent or which are uncommon in continental manuscripts from the same period. Some examples discussed in this appendix are the l-shaped siglum (perhaps for *lege* or *lectio*), q-shaped siglum (probably for *quaere*), and Z-shaped siglum (probably for ζητεῖ). Since we possess no sign treatise from the insular environment, it is unclear what the frequently very rich and complex layers of signs mean and what their purpose was. Nevertheless, two patterns can be discerned: first, while continental scribes commonly use only four or five common signs in their annotation, insular manuscripts are more likely to contain layers of annotations that consist of ten or more sign types; second, these complex layers of annotations combine otherwise unknown sigla with known insular technical signs such as insular quotation signs, *trigon* and *chresimon* signs.

Examples of this form of annotation include: **Bern, Burgerbibliothek, MS 363** (9<sup>th</sup> century, 3/3, perhaps Milan), which was annotated with nineteen technical signs (*chresimon*, *asteriscus*, *antisigma cum puncto*, cross, *trigon*, *require*, ζητεῖ, *quaere*, insular quotation signs, Θ, Γ, Γ, v, f, c, l, l, l.l., and h.l.); **Basel, Universitätsbibliothek, A VII 3** (9<sup>th</sup> century, 3/3), which was annotated with sixteen technical signs (*require*, l, d, v, *quaere*, Γ, .S., ps, e, f, *sigma*, dotted *sigma*, *obelus superne adpunctus*, *chresimon*, ζητεῖ, and *quaere*); and **St. Gallen, Stiftsbibliothek, MS 904** (c. 850, Ireland), which was also annotated with sixteen technical signs (Q-shaped sign, f, *quaere*, k, X, o, l, v, u, ζητεῖ, .S., l, ex, cross, *anchorae*, and *chresimon*).

**Kaput, κεφάλαιον, K: k**

From Antiquity, a technical sign having the shape of letter K was used as a text-structuring sign marking the beginning of a new section. The letter stood either for κεφάλαιον ('heading, chapter') or *kaput*. This matches the description of this sign in the 11-sign treatise: 'for topical headings' (*in capitibus sensuum*). In the *Etymologiae*, K is mentioned among the *notae iuris* as an abbreviation for *kaput*.

In the course of Late Antiquity and the Early Middle Ages, *kaput* gradually fell out of use as it was replaced by more modern methods of text layout. It features mostly in older manuscripts or manuscripts copied from late antique exemplars – an example of this phenomenon is **Paris, BnF, Lat. 6332** (9<sup>th</sup> century, 2/4, area of Paris), a copy of Cicero's *De senectute*. After 800, it can be found in the text as a relic (sometimes copied by mistake in

the main text window by a copyist) or it is used in novel ways. In **Munich, BSB Clm 52** (817-47, Regensburg), a copy of the *Recognitiones*, for example, *kaput* was used a dialogue marker (together with a cross) in certain passages of the text. Similarly, *kaput* was ideal as an excerpt sign for its connotation as a sign of a beginning.

**κεραία:** ✎

*Κεραία* is an enigmatic technical sign mentioned in the *Anecdoton Venetum*, one of the Greek sign treatises devoted to the Alexandrian scholarly tradition. The sign treatise lacks the description of this technical sign. As it is unknown from any other texts concerned with the Alexandrian scholarly tradition, it may be either a secondary addition to the Alexandrian critical signs, or the name and graphic symbol are corrupted. Perhaps, the symbol in question should be *κεράυνιον/ceraunium* known from both the *Anecdoton Romanum* and the 21-sign treatise.

**Lectio/lege, l:** †

Some early medieval Latin manuscripts contain l-shaped sigla that probably stand for *lectio* or *lege*. Discrete *lectio/lege* sigla are particularly common in insular manuscripts. Their function is not entirely clear. In continental Carolingian manuscripts, l-shaped sigla are rare, but if they occur, they may be lesson signs, especially if they are combined with Roman numerals, to indicate the beginning of passages which are read in the liturgy or during the meals in the monastic community. These technical signs should not be confused with the abbreviation for *vel* which is also drawn as an l with a vertical suspension stroke and which may be used to introduce variant readings in the margin.

**Lemniscus, λημνίσκος, palma:** †

*Lemniscus/λημνίσκος* (Gr. ‘ribbon, bandage’) is first mentioned in *De mensuris et ponderibus* of Epiphanius of Salamis as one of the four signs used by Origen for the textual criticism of the Old Testament. According to Epiphanius, it was used passages in Scriptures ‘which were translated differently in different versions’. However, this information does not seem to be correct: Origen used two and not four critical signs, and we have no manuscript evidence for either *λημνίσκος* or the fourth sign mentioned by Epiphanius, *ὕπολημνίσκος*. Thus, it seems that *λημνίσκος* may have been created by Epiphanius or that he picked up this sign from his source. This sub-invention may have been caused by the different shapes of *obelus*: the undotted and the dotted version. Thus,

they may have given the impression that each graphic variant had a slightly different function. The *lemniscus* was spread in the Latin West via its inclusion into the *Etymologiae* by Isidore of Seville, but it does not seem to have been used. On the contrary, early medieval users considered the undotted and dotted *obelus* one and the same technical sign and used it interchangeably.

*Lemniscus* is also mentioned in the 11-sign treatise, in which it denotes ‘pointed [arguments]’ (*in acutis*). This treatise also provides its alternative name *palma*, which reflects the original Greek meaning of *λημνισκος* (Gr. ‘ribbon, bandage’, but also used for a wreath). As in the case of Epiphanius’ *lemniscus*, we cannot link this rather enigmatic definition with manuscript evidence, and it may likewise reflect sub-invention stemming from a misunderstanding of the dotted *obelus* rather than actual use.

### **Metobelus: :**

*Metobelus*, also known in Latin as *duo puncta*, is a technical sign used in the Origenian critical method to mark the closing parenthesis of a passage marked by an *asteriscus* or an *obelus*. It was used in particular when a short segment of a text, such as only a single word, was to be marked and thus the *asteriscus* or the *obelus* had to be terminated very precisely. *Metobelus* under the name *duo puncta* is frequently mentioned in the writings of Jerome about the Origenian critical method, but it did not make it in any sign treatise.

In the Carolingian period, when the Origenian critical method was applied to texts other than the Old Testament, the pair *obelus* and *metobelus* were used to mark textual variants of certain texts. It is particularly prominent in **St. Gallen, Stiftsbibliothek, MS 914** (9<sup>th</sup> century, 1/3, St. Gall), a manuscript of the revised Rule of Benedict, which contains in the margins many variant readings tied by means of *metobeli* with the main text. Indeed, the colon-like sign, which can sometimes be seen in the margins of Carolingian manuscripts as a *signe de renvoi* tying together the main text and a variant reading in the margin, may be an outgrowth of *metobelus*.

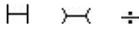
**Mu, M:** see *delta*

### **Nota:**

*Nota* was one of the most commonly used technical signs in the Early Middle Ages. As its name suggests (*nota*, Lat. imperat. ‘note, pay attention’) it was used to mark passages of interest. It first occurred in uncial and half-uncial Latin manuscripts from Italy in the

fifth and sixth centuries. In this period, it had almost always the form of a capital N with a superscript O, usually slightly tilted to the right. In the course of the following centuries, its graphic form became more varied and less stable. It remains to be established whether the variability was at least partially meaningful and whether it, thus, can help us to identify individual scribes or associate them with a particular center. In some cases, idiosyncratic forms of *nota* signs that could be associated with known scholars have been identified (e.g. Lupus of Ferrières, who used a typical NT-type *nota*).

*Nota* is not mentioned in the written evidence.

**Obelus, ὀβελός, verus, virga, virgula:** — 

*Obelus*/ὀβελός (Gr. ‘javelin, spit’) is, together with *asteriscus*, one of the most important technical signs used in Antiquity and the Early Middle Ages. It appears in several distinct variants, which merit attention, as they collude with the graphic forms of other technical signs and may cause confusion. Originally, *obelus* had the shape of a vertical stroke, just as *paragraphus*, which was, however, placed below the line, not on it. Nevertheless, perhaps because of the potential confusion between the two, *obelus* acquired additional features. Most commonly this was a dot above and below the vertical line. The same graphic shape was also associated with *lemniscus*. In other cases, *obelus* was given pronounced ends, or it was drawn in a wavy fashion. *Obelus* was employed as a graphic symbol in at least four major ancient and medieval conventions and just like *asteriscus* features in many additional conventions known from specific scholarly works (restricted to manuscripts of this text) or described in sign treatises (without any manuscript evidence).

In all of the conventions, *obelus* has a negative connotation: it is a sign of deletion, disapproval, rejection, doubt or error. In this respect, it functions as a complement to *asteriscus*, which seems to have had a positive, affirming meaning. The negative meaning of *obelus* is perhaps grounded in its oldest use as a correction and deletion sign. This is how *obelus* continued to be used in the Early Middle Ages, both as a correction and as a deletion sign, in some cases with no clear distinction between the two functions. Many examples of this convention can be found in the early medieval manuscripts from St. Gall: for example, **St. Gallen, Stiftsbibliothek, MS 261** (9<sup>th</sup> century, 1/2, St. Gall), **St. Gallen, Stiftsbibliothek, MS 670** (9<sup>th</sup> century, St. Gall), and **St. Gallen, Stiftsbibliothek, MS 257** (9<sup>th</sup> century, 1/2, St. Gall).

In the Alexandrian scholarly tradition, *obelus* was used for athetesis of Homer, a convention that was probably inspired by the use of *obelus* for correction and deletion. It

was used in the same manner in the ancient annotation of other Classical texts, including Plato, as we are informed by Diogenes Laertius and others (while dotted *obelus* was used for ‘incorrect athetesis’).

In the Origenian critical method, *obelus* was used (in combination with *metobelus*) to mark those passages in the Hexaplaric Old Testament that were found in the Septuagint but not in the text versions following Hebrew closely. Again, this use seems grounded in the negative connotation of *obelus*, as Origen may have wanted to indicate that those passages that he had found only in the Septuagint may be spurious or at least problematic. The negative connotation is blunted in the Carolingian use of Origenian *obeli* (or *obeli* in scholarly annotation in general). Commonly, Carolingian scholarly *obeli* simply denote secondary additions with no special implication of their problematic or negative character, for example in the supplement of the Gregorian sacramentary, in which Benedict of Aniane marked his own additions by *obeli*.

From Late Antiquity, the dotted version of *obelus* was used for marking passages of theological works which were problematic because of their contents, specifically because these contents expressed a non-orthodox position. *Obelus* was employed in this fashion, for example, in the annotation of the *Orationes* of Gregory of Nazianzus and in Hincmar’s *De una et non trina deitate*. In several late antique and Carolingian manuscripts, *obelus* was used in the same fashion, to mark unorthodox text, not in the Origenian fashion or as a correction or deletion sign. Just like Alexandrian and Origenian *obeli* were complemented by *asteriscus*, the doctrinal *obelus* was sometimes complemented with a positive sign of affirmation, which was, however, not *asteriscus* but rather vertical *obelus* or *chresimon*.

**Obelus cum asterisco:** see *asteriscus cum obelo*.

**Obelus-shaped quotation marks:** ÷ † ‡

In Latin manuscripts from the eighth century, quotations are occasionally marked by a quotation sign that resembles a dotted *obelus* or *lemniscus* (÷). This type of quotation mark is not described in the written evidence and has no known name. It disappeared after 800 when it was suppressed by the convention of S-shaped flourishes. Most likely, the *obelus*-shaped quotation mark reflects a local convention that was current in Merovingian Gaul, although the same quotation mark also appears in some insular manuscripts.

In several manuscripts from the eighth-century Wearmouth-Jarrow, the *obelus*-shaped quotation mark complements the standard insular quotation marks as a sign marking

quotations from non-biblical sources (while insular quotation marks indicate the presence of biblical material).

**Obelus superne adpunctus, obelus cum puncto: –**

*Obelus superne adpunctus* is a variant of *obelus* described in the 21-sign treatise as a sign for passages ‘about which there is doubt whether they should be removed or not’ (*de quibus dubitatur tolli debeant necne*). This description seems to reflect a scholion to *Iliad* 10.397-399, according to which Aristarchus first marked these three verses with a  $\sigma\tau\epsilon\gamma\mu\acute{\eta}$  to indicate a degree of uncertainty concerning their authenticity. Later on, he added *obeli* to the same passage, expressing his opinion about their spurious character more strongly. This is the only instance in which the two signs may have been combined to form *obeli cum punctis* (the logic seems to have been the same as in the case of *asteriscus cum obelo*, which was a combination of *asterisci* and *obeli*). The description in the 21-sign treatise, thus, seem to reflect a unique case of the use of a particular technical sign in the Alexandrian scholarly tradition. Indeed, there is no manuscript evidence that it was used outside this singular case recorded by the scholia.

**Paragraphus, παράγραφος, simplex ductus: — Γ**

Together with *coronis* and ‘forked *paragraphus*’, *paragraphus/παράγραφος* (Gr. ‘written on the side’) is one of the oldest technical signs attested in Greek papyri. It was originally devised as a text-structuring symbol in the shape of a vertical stroke that was inserted below the line at the beginning of the line to indicate a beginning of a new section. While it seems to have been known to Alexandrian scholars, it is not described in texts reflecting the Alexandrian tradition. Just like *coronis*, *paragraphus* eventually fell out of use as a text-structuring sign, being replaced by other text-structuring techniques.

In the 21-sign treatise, *paragraphus* is depicted as a hook-like symbol rather than a vertical stroke and it is described as a sign for ‘dividing items that occur side by side’ (*ad separandas res a rebus quae in conexu concurrunt*). This tradition reflects the change in both the shape and the function of *paragraphus* in the Latin West from a text-structuring sign to an excerption sign. In the *Etymologiae* of Isidore of Seville, *paragraphus* was coupled with a *positura*, which had an opposite graphic shape and served to mark the end of the passage. *Paragraphus* and *positura* were used as excerption signs by the Carolingian scholar Florus of Lyon and are occasionally found in Carolingian manuscripts.

Hinmar of Reims used *paragrabus* in his *Vita Remigii* to mark the beginning of passages intended for private reading only (in this case the closing parenthesis was an *antisigma* rather than a *positura*).

**Phi et rho, phietro, biatro:** see *frontis*

**Positura:** ⊐

*Positura* is an excerpt sign that was first mentioned in the *Etymologiae* of Isidore of Seville as a counterpart of *paragrabus*. It was used in combination with *paragrabus* in the Carolingian period, for example in the personal annotation of Florus of Lyon.

**Psi, Ψ:** Ψ

The Greek letter Ψ can occasionally be found in early medieval insular manuscripts. Its function and meaning are unclear. It can be noted that Irish used Ψ as a graphic sign for ‘ps’ (as in *psalterium* or *psalere*) and that in the revised Gallican Psalter from Milan, Ψ stands for ψεῦδος (or rather ψεῦδος, Gr. ‘lie, falsehood’), marking the discrepancies between the Greek and the Ambrosian Psalter. If this particular use reflects its broader insular use, Ψ may have stood, indeed, for ψεῦδος and thus mark passages with textual problems.

**Recta et aversa (superne obelata):** ≡

*Recta et aversa superne obelata* is one of the text-structuring forms of *diple* that are mentioned in the 21-sign treatise. According to this tradition, it marked a transition from one unit of text to another (*finita loco suo monade, significatque similem sequentem quoque esse*). It is unattested in Latin manuscripts.

**Require, quaere:** r rq R qr q

*Require* and its variant *quaere* are a common early medieval correction sign indicating that a particular passage is corrupted and requires checking against a different copy of the same text. It is one of the most frequently used technical signs, but one that is never mentioned in the written evidence. The singular exception is a marginal note attributed to Eckhart (IV.) of St. Gall and present on fol. 1r of **St. Gallen, Stiftsbibliothek, MS 174** (9<sup>th</sup> century, perhaps Mainz and St. Gall): *Hunc ego quidam corrigere per me exemplar aliud non habens, si poteram temptavi. Ergo ubi minus potui, r litteram apposui.*

*Require* is not found in ancient papyrus or late antique codices. When and where it was invented is unclear. The oldest manuscripts, which certainly contain contemporary *require*

signs come from the first half of the eighth century. There may be several earlier examples, but these are ambiguous. In any case, the standard correction sign in late antique uncial and half-uncial codices from Italy is *cr̄ph̄bia*. Given the later popularity of *require* in the Frankish lands, it may have been a convention originating in Gallia.

There are regional differences in the preference of *require* versus *quaere*: a q-shaped siglum is common in insular manuscripts while the preferred form on the continent was r-shaped.

### σημείωσαι: Ḳ

The Greek siglum *σημείωσαι* (Gr. ‘note, pay attention’) is an attention sign used in Late Antiquity in the context of the study of law. While its counterpart, ὄραϊόν, was used for notable style and phrasing, *σημείωσαι* may have drawn attention to a notable argument or good point. As in the case of ὄραϊόν, we can trace the development of this siglum from a full-fledged exclamatory marginal notes, through abbreviated notes to a monogram.

By the sixth century, *σημείωσαι* began to be used also outside of the context of law. The sign marked noteworthy passages, for example, in the *Orationes* of Gregory of Nazianzus and in the Early Middle Ages, it can be found in other texts as well as the most common Byzantine attention sign. Because of its similarity to the Latin *nota* sign, which also stands for ‘note, pay attention’, it may have been its Greek precursor, just like the Greek *anchorae* were the precursor of the Latin sigla *hic sursum* and *hic deorsum* and the Greek correction sign ζητεῖ may have been a precursor of the Latin correction sign *require*.

This technical sign is essentially never found in Latin manuscripts (where its function was completely taken over by *nota*). A singular exception is **Florence, Biblioteca Medicea Laurenziana, Plut. 63.20** (9<sup>th</sup> century, 3/4, Corbie), a copy of Livy, in which *σημείωσαι* appears together with ὄραϊόν added by an annotator writing in very light ink (probably early modern).

### Sigma, σῖγμα: Ḳ

Scholia to the *Iliad* mention σῖγμα as one of the technical signs used in the Alexandrian scholarly tradition. Its function is unclear. Σῖγμα may have been a technical sign used only temporarily to be replaced by one of the two forms of the ἀντισῖγμα.

**S-shaped flourish, ‘revised’ diplo:** S § § § § ) ))

While quotations were marked in Antiquity with a *diple* (>), we can observe already in the sixth century that the graphic form of this technical signs began to change as it began to be drawn in a single stroke. Gradually, the graphic symbol for the quotation sign came to resemble the letter S or ). Already before 800, the S-shaped flourish entirely replaced *diple* as a quotation sign in the Latin West (while in the Byzantine East, *diple* continued to be used until the tenth century when it independently underwent a similar development). During the Carolingian period, the S-shaped flourish became by far the most dominant technical sign used for manuscript annotation. Not only did it suppress other conventions of quotation signs previously used in the Frankish lands (e.g. *yfen*), but the marking of quotations became an increasingly common practice among Carolingian scribes.

The S-shaped flourish was usually used only to mark quotes from the Bible. In some cases, it was combined with another type of quotation sign, which marked non-biblical quotations. It is not described in the written evidence.

**Stauros, σταυρός:** †

Stauros (Gr. σταυρός, ‘pale, stake, cross’) is a form of a cross with a dot in each of its corners. This graphic symbol was used as a variant of the simple cross or of *asteriscus*.

**Στιγμή:** •

Στιγμή (Gr. ‘dot’) is a technical sign mentioned in the scholion to *Iliad* 10.397-399 as a weaker form of athetesis. It does not seem to have been regularly used in the Alexandrian scholarly tradition, but it can be noted that many signs in this tradition had a dotted and undotted form (e.g. διπλή and διπλή περιεστιγμένη or αντίστιγμα and αντίστιγμα περιεστιγμένον). Possibly then, the dotted versions of certain signs were originally composite signs consisting of a sign and a στιγμή, which gradually lost its function as an autonomous technical sign.

An item δύο στιγμαί (‘two dots’) is recorded in the *Anecdoton Harleianum*, one of the Greek sign treatises reflecting the Alexandrian scholarly tradition. This technical sign is described as a complement to the αντίστιγμα that marks a repetition of a verse (thus having the same function as αντίστιγμα περιεστιγμένον).

**Theta, Θ:** ⊕ ⊗

The Greek letter Θ is an ancient technical sign used in a variety of conventions. It is a sign with a strong negative connotation just like *obelus*, used as a sign of deletion, disapproval and criticism. This negative meaning probably owes to Θ standing for θάνατος (Gr. ‘death’) and its attested use in funerary inscriptions with this meaning. Since Antiquity, Θ was also used in the annotation of texts, for example in military rosters, where it denoted casualties. This use is explicitly mentioned in the description of this sign in the *Etymologiae* of Isidore of Seville (*Etym.* 1.24, *De notis militaribus*) and in Rufinus’ *Apologia contra Hieronymum*. Isidore also mentioned another convention of the use of Θ: as a sign used in judiciary proceedings for capital punishment (*Etym.* 1.3.8). This convention is also mentioned in poems by Martial and Ausonius and possibly alluded to in a reference in Cassiodorus’ *Expositio psalmorum* (Ps 71.4, although here the letter designating capital punishment is illogically K, perhaps as a result of an error).

From Late Antiquity at the latest, *theta* acquired a more abstract meaning as a sign of deletion and disapproval. It is referred to in this fashion, for example, in a poem by Sidonius Apollinaris who asked his friend to mark his verses with this sign if he found them lacking. We encounter this convention in two sign treatises. In the 15-sign treatise, *theta* is described as a sign for ‘redundant [verse]’ (*supervacuus*). In the 11-sign treatise, it denotes ‘[matter] to be removed’ (*in amputandis*).

While not many examples of this use survive from Late Antiquity or the Early Middle Ages, it seems that the negative connotation of Θ continued to be recognized in the Carolingian period. Prudentius of Troyes used it as a sign for this theological opponent John the Scot in his *De praedestinatione contra Ioannem Scottum*. The anonymous reviser of the Gallican Psalter from Milan designated Θ as a sign for passages which were found in the Ambrosian Psalter, but not in Greek or Hebrew text version. The reviser terms these passages ‘redundant’ (*superfluum*).

### **Tironian technical signs: † ‡**

Just like letters of Greek and Latin alphabets, Tironian notes could become technical signs. This is particularly true for the Tironian symbols *hic* (†) and *usque* (‡), which were used as excerption signs in the Carolingian period. This convention is not described in the written evidence.

**Trigon: ∴ ∵**

A technical sign in the shape of a triangle of dots is quite common in early medieval Western manuscripts. It is not described by the written evidence, and it is unclear how it was called in medieval times. I call it *trigon* because of its similarity to a punctuation mark with the same name.

*Trigon* may have been used for a variety of purposes which are difficult to discern because of its miscellaneous character. When its function can be identified, it probably served as an attention sign, for example in **Paris, BnF, Lat. 12239** (8<sup>th</sup> century, France) and **Munich, BSB, Clm 6300** (8<sup>th</sup>/9<sup>th</sup> century, perhaps northern Italy).

**Vertical obelus: † ‡**

A graphic symbol that resembles the *obelus* but rotated by 90° can be found in some manuscripts as a complement to the standard *obelus* (‡), when the latter is used as a sign of doctrinal criticism. A notable example are three early medieval manuscripts of Prosper's *Pro praedicatoribus gratiae Dei contra librum Cassiani*, **Vienna, ÖNB, Lat. 397** (9<sup>th</sup> c., ½; Reichenau), **Paris, BnF, Lat. 12098** (mid-9<sup>th</sup> c., Corbie), and **Einsiedeln, Stiftsbibliothek, MS 148** (10<sup>th</sup> century), which contain standard and vertical *obeli* to mark, respectively, disapproved and approved passages.

This convention may have its basis in Cassiodorus' *Institutiones*. In *Inst.* 1.1.8 and 1.9.3, Cassiodorus mentions two technical signs used for doctrinal criticism, a *chreston/chresimon*, which served as a 'sign of approval', and an *achreston/achresimon*, which served as a 'sign of disapproval'. The two signs are not depicted in the *Institutiones*, but it is possible that Cassiodorus referred to the standard and vertical *obelus* or that this is how the two passages were interpreted by his readers.

**Vulthres:**

A technical sign called *vulthres* (from Gothic *wulþrs*, 'important') is described in a notice attached to the *Codex Brixianus*, a sixth-century purple Bible connected with the Gothic text version of the Bible. According to this notice, *vulthres* marked differences between passages translated into Gothic from the Greek and from Latin. It, thus, seem to belong to a category of technical signs used for textual criticism of the Bible, in this case in the Gothic language environment. We possess no manuscript evidence of this *vulthres*, and its graphic shape is unclear.

**Yfen:**      

*Yfen* is one of the technical signs for which we have almost no written evidence, but which is amply attested in manuscript evidence from the medieval period. The name *yfen* is based on the only written source in which it is mentioned, the 11-sign treatise, where it is described as a sign ‘for examples’ (*in exemplis*). This description perhaps reflects the attested use of this graphic symbol (whose real name might not have been *yfen*) as a quotation sign. It appears in manuscripts written in Luxeuil script from the second half of the seventh century onwards and is found in later manuscripts copied in local minuscule scripts in France. It seems to have been dropped out of use after 800 when the S-shaped quotation sign replaced it as the preferred Frankish quotation sign.

In the *Etymologiae* of Isidore of Seville, the same graphic symbol is called *antigraphus cum puncto* and described as a sign for variance in translation (understand: in the translation of the Old Testament). It is clear that this item conflates several different signs and traditions. Nevertheless, the presence of the graphic symbol in the *Etymologiae* may indicate that before the second half of the seventh century, the sign was known and used not as described by Isidore but in a different manner.

**Zeta, ζητεῖ, Z:**   

The Greek siglum Z is an ancient query sign. It probably stands for the Greek word ζητεῖ (Gr. imperat. ‘look up, query’) or another term related to the verb ζητέω (Gr. ‘to seek’). While it could have been used in a variety of contexts – one example is a papyrus fragment in which it marks names of those who defaulted on their payments –, it was most commonly used as a type of a correction sign, indicating passages that required checking against a second copy.

Originally, Z was used both in Eastern and Western manuscripts, but in the course of Late Antiquity, ζητεῖ began to be replaced in the West by other correction signs – first *cryptia* and then *require*, which became the dominant correction sign in the Latin West in the Carolingian period. Ζητεῖ, nevertheless, was used a correction sign in two regions in the Early Middle Ages: Italy, where it may have been in continuous use since Antiquity, and Ireland, where it took root in the oldest formation period of insular scribal culture together with *chresimon*, another Greek sign, and a score of other Eastern features.

The convention of using Z as a correction sign is described in two sign treatises. In the list of eight signs used for the annotation of Scriptures incorporated in *De mensuris et ponderibus* of Epiphanius of Salamis, Z is listed as a sign ‘for obscure passages in Scriptures’.

According to the 11-sign treatise, Z is used to mark ‘suspected [reading]’ (*in incertis*). Z is also mentioned in a letter of Paul the Deacon to Adalhard of Corbie, in which Paul remarks that he marked certain passages in the text he sent to Adalhard with a Z because they were erroneous, but he was unable to resolve them.

While in almost in all cases the siglum Z reflects this convention, it seems that it may have had a different function in some manuscripts. For example, in some Carolingian manuscripts Z and *require* occur side by side, even though both signs have the same function and thus to use two distinct graphic symbols would be redundant. In these manuscripts, Z has perhaps a more specific meaning, indicating a particular type of error or correction required, while *require* stands for a different type of error or correction.

## Appendix II: Overview of the testimonies concerning the technical signs

In this appendix, I present the written evidence for the use of technical signs that can be described as testimonies rather than as sign treatises (those are presented in Appendix III). The majority of texts presented here are Latin, but there are also several testimonies in Greek (Galen, Ammonius, Origen, and Simplicius) and one in Old Irish (the Old-Irish commentary on the Psalms). These are presented in their original language and in English translation.

While most of the testimonies presented here refer indisputably to the use of technical signs, I have decided to include also several ambiguous instances of the use of the term *adnotatio*, *adnotare* and *notae*, since I refer to these testimonies in the text of my dissertation. This is specifically the case with the testimonies about the *adnotatio* of Pliny the Elder (item 7), Marcus Cornelius Fronto (item 11), and with the subscription of the grammarian Ammonius (item 12). I also included a passage from Servius's commentary on the *Aeneid* (item 16), which does not refer to the annotation with technical signs, but was understood as such by at least one late antique reader of his commentary, as is shown in chapter 2.

This overview is by far not complete or exhaustive. I included only those texts that are of direct relevance to my argument. For example, I omitted several Greek testimonies, such as the reference to Alexandrian critical signs in the Homeric commentaries of Eustathius<sup>956</sup> and the anonymous letter referring to the critical annotation of the *Φαινόμενα* of Aratus of Soloi,<sup>957</sup> as well as Latin testimonies that are more recent than the end of the tenth century.

The orthography of the texts presented here follows the orthography of the editions used. When they were not previously edited and I transcribed them directly from the manuscripts, I respected the orthography of these manuscripts.

- < > emendations by the editor
- [] omissions in the text
- () editorial comments

<sup>956</sup> See Valk, *Eustathii archiepiscopi Thessalonicensis Commentarii ad Homeri Iliadem pertinentes*. Eustathius provides the definitions of *asteriscus*, *obelus* and *asteriscus cum obelo* in his commentaries to *Iliad* 5.733, *Iliad* 13.730, and *Odyssey* 8.570, respectively.

<sup>957</sup> See Maass, 'De Phaenomenis Arati recensendis', 108.

## 1. Testimony of Galen about the Hippocratic *χαρακτήρες* 3rd century BCE

Galen, *In Hippocratis Epidemiarum librum III commentaria* II 4 (ed. Wenkebach, pp. 78-80)

καὶ νῦν οὖν ἐρῶ τὴν περὶ τῶν χαρακτήρων ἱστορίαν ἄπασαν, ἐπειδὴ τοῦτο δοκεῖ τοῖς τε φίλοις καὶ τοῖς ἐταίροις ἅπαξ ἐνθάδε γενέσθαι βέλτιον εἶναι. λέλεκται μὲν οὖν ἃ μέλλω λέγειν ὑπὸ Ζεῦξιδος ἐν τῷ πρώτῳ τῶν εἰς τὸ προκείμενον βιβλίον ὑπομνημάτων· καὶ ἦν ἴσως ἄμεινον, ὥσπερ εἶθθα ποιεῖν ἐν τοῖς τοιοῦτοις, ἀναπέμψαι τοὺς βουλομένους τὴν ἱστορίαν ταύτην γνῶναι πρὸς ἐκεῖνο τὸ βιβλίον, ἀλλ' ἐπειδὴ τὰ τοῦ Ζεῦξιδος ὑπομνήματα μηκέτι σπουδαζόμενα σπανίζει, διὰ τοῦτ' ἤξιωσαν ἐμὲ διελθεῖν αὐτὰ τὴν ἀρχὴν ἀπὸ τοῦ Μνήμονος ποιησάμενον. ἔνιοι μὲν γὰρ φασιν αὐτόν, λαβόντα τὸ τρίτον τῶν Ἐπιδημιῶν ἐκ τῆς ἐν Ἀλεξανδρείᾳ μεγάλης βιβλιοθήκης ὡς ἀγνωσόμενον, ἀποδοῦναι παρεγγράψαντα ἐν αὐτῷ καὶ μέλανι καὶ γράμμασι παραπλησίσις τοὺς χαρακτῆρας τούτους. ἔνιοι δὲ παρ<εγγεγραμμένον τὸ βιβλίον> αὐτόν ἐκ Παμφυλίας κεκομικέναι ... ὁ δ' οὖν Μνήμων, εἴτ' αὐτὸς ἐκόμισε τὸ βιβλίον εἴτε λαβὼν ἐκ τῆς βιβλιοθήκης παρενέγραψε, φαίνεται πράξας ἔνεκα χρηματισμοῦ τοῦτο. μόνον γὰρ ἐπίστασθαι λέγων ἑαυτόν, ἃ δηλοῦσιν οἱ χαρακτῆρες, μισθὸν τῆς ἐξηγήσεως αὐτῶν εἰσεπράττετο· καὶ εἶπερ τοῦθ' οὕτως ἔχει, πιθανώτερόν ἐστι τὸ κατὰ τὴν βιβλιοθήκην ἀποκείμενον ὑπ' αὐτοῦ διεσκευάσθαι.

(trans. Smith, *The Hippocratic tradition*, pp. 200-201)

Hence, I will tell the full history of the symbols since my friends and colleagues would like it to be set down once here. What I am going to say was said by Zeuxis in his first comment on the present book. Perhaps it would be better, as I do in such cases, to send those who want the history to read it in that book. But since Zeuxis' commentaries are not in demand, and are scarce, they asked me to relate it, beginning from Mnemon. Some say that he took the third book of Epidemics from the great Alexandrian Library to read, and that before he returned it he added the symbols in it in ink of similar blackness and in letters like those in the manuscript. But some say that he brought the book from Pamphylia with the symbols already inscribed. ... Well, then, Mnemon, whether he himself brought the book [to Egypt] or took it from the library and wrote in it, seems to have done so for profit. He said that only he could understand what the symbols meant, and he charged for interpreting them. If that is true, it is more credible that the library had the symbols. He would have been suspected if he himself had brought the copy from home.

## 2. References to the Aristarchian textual criticism 1st century BCE – 4th century CE

a) Cicero, *Ad familiares* IX 10.1 (ed. Shackleton Bailey, p. 289)

*Omnino mihi magis litterae sunt exspectandae a te quam a me tibi; nihil enim Romae geritur quod te putem scire curare, nisi forte scire vis me inter Niciam nostrum et Vidium iudicem esse. profert alter, opinor, duobus versiculis expensum Niciae, alter Aristarchus hos ὀβελίζει ego tamquam criticus antiquus iudicaturus sum utrum sint τοῦ ποιητοῦ ἢ παρεμβεβλημένοι.*

b) Cicero, *Ad familiares* III 11.5 (ed. Shackleton Bailey, p. 93)

*Ut enim Aristarchus Homeri versum negat quem non probat, sic tu (libet enim mihi iocari), quod disertum non erit, ne putaris meum.*

c) Cicero, *In Pisonem* 73 (ed. Klotz, p. 453)

*Verum tamen quoniam te non Aristarchum, sed Phalarin grammaticum habemus, qui non notam apponas ad malum versum, sed poetam armis persequare, scire cupio quid tandem in isto versu reprehendas: 'cedant arma togae'.*

d) Horace, *Ars poetica* 446-453 (ed. Shackleton Bailey, p. 328)

*vir bonus et prudens versus reprehendet inertis,  
culpabit duros, incomptis allinet atrum  
traverso calamo signum, ambitiosa recidet  
ornamenta, parum claris lucem dare coget,  
arguet ambigue dictum, mutanda notabit,  
fiet Aristarchus; nec dicit 'cur ego amicum  
offendam in nugis?' hae nugae seria ducent  
in mala derisum semel exceptum que sinistre.*

e) Pomponius Porphyrio, *Commentum in Horatium. De arte poetica* 450 (ed. Holder, p. 178)

*FIET ARISTARCHVS Hic Homeri carmina adnotavit. Ille ergo iudex etiam optimi poetae Aristarchus fiet.*

f) pseudo-Acro, *Scholia in Arte Poetica* 450 (ed. Keller, p. 377)

*FIET ARISTARCHVS Nomen Graeci grammatici, qui Homeri carmen adnotavit. Ille ergo iudex etiam optimi poetae fiet. Qui Aristarchus Homerum emendans hoc signo notavit uersus, quos indicavit Homeri non esse*

g) Seneca, *Epistulae morales ad Lucilium* 88.39 (ed. Hense, p. 373)

*Ita ne est? Annales evolvam omnium gentium et quis primus carmina scripserit, quaeram? Quantum temporis inter Orphea intersit et Homerum, cum fastos non habeam, computabo? Et Aristarchi ineptias, quibus aliena carmina conpunctit, recognoscam et aetatem in syllabis conteram? Ita ne in geometriae pulvere haerebo? adeo mihi praeceptum illud salutare excidit: 'tempori parce haec sciam? Et quid ignorem?*

h) Ausonius, *Epistulae* 11 (ed. Prete, p. 252)

*Vrsule collega nobilis Harmonio,  
Harmonio, quem Claranus, quem Scaurus et Asper,  
quem sibi conferret Varro prior que Crates  
qui que sacri lacerum collegit corpus Homeri  
qui que notas spuris uersibus adposuit:  
Cecropiae commune decus Latiae que camenae,  
Solutus qui Chium miscet et Ammineum.*

### 3. Cicero on *diple*

1st century BCE

Cicero, *Ad Atticum* VIII 2.4 (ed. Shackleton Bailey, p. 288)

*Vibulli res gestae sunt adhuc maximae. Id ex Pompei litteris cognosces, in quibus animadvertito illum locum ubi erit διπλῆν videbis de Gnaeo nostro ipse Vibullius quid existimet.*

#### 4. Testimonies about the critical work of Valerius Cato 1st century BCE

a) pseudo-Horace, *Versus spurii una cum Saturis servati*<sup>958</sup> (ed. Shackleton Bailey, p. 202)  
*Lucili, quam sis mendosus, teste Catone,  
 defensore tuo, pervincam, qui male factos  
 emendare parat versus; hoc lenius, ipse  
 quo melior vir <et> es longe subtilior illo,  
 qui multum puer et loris et funibus udis  
 + exoratus +, ut esset opem qui ferre poetis  
 antiquis posset contra fastidia nostra,  
 grammaticorum equitum doctissimus.*

b) Suetonius, *De grammaticis* 11.4 (ed. Brugnoli, p. 17)  
*Catonis modo, Galle, Tusculanum  
 Tota creditor urbe venditabat.  
 Mirati sumus, unicum magistrum,  
 Summum grammaticum, optimum poetam  
 Omnes solvere posse quaestiones,  
 Unim difficile expedire nomen.  
 En cor Zenodoti, en iecur Cratetis!*

#### 5. Testimony about the critical work of Valerius Probus 1st century

a) Suetonius, *De grammaticis* 24 (ed. Brugnoli, p. 26)

*M. Valerius Probus, Berytinus, diu centuriatum petiit, donec taedio ad studia se contulit. Legerat in provincia quosdam veteres libellos apud grammaticam, durante adhuc ibi antiquorum memoria, necdum omnino abolita sicut Romae. Hos cum diligentius repeteret atque alios deinceps cognoscere cuperet, quamvis omnes contemni magisque obprobrio legentibus quam gloriae et fructui esse animadverteret, nibilo minns in proposito mansit; multaque exemplaria contracta emendare ac distinguere et annotare curavit, soli huic nec ulli praeterea grammatices parti deditus. Hic non tam discipulos quam sectatores aliquot habuit. Nunquam enim ita docuit ut magistri personam sustineret; unum et alterum, vel cum plurimos tres aut quatuor postmeridianis horis admittere solebat, cubansque inter longos ac vulgares sermones legere quaedam, idque perraro. Nimis pauca et exigua de quibusdam minutis quaestiunculis edidi. Reliquit autem non mediocrem silvam observationum sermonis antiqui.*

b) Servius, *In Aen.* 10.444 (ed. Hagen, p. 437)

*AEQVORE IVSSO pro 'ipsi iussi'. Et est usurpatum participium: nam 'iubeor' non dicimus, unde potest venire 'iussus'. Sic ergo hic participium usurpavit, ut Horatius verbum, dicens 'haec ego procurare et idoneus imperor et non invitus'. Ergo satis licenter dictum est, adeo ut huic loco Probus [hic corruptum]<sup>959</sup> alogum adposuerit.*

#### 6. Testimony about the critical work of Dioscorides 1st century

Galen, *In Hippocratis De natura hominis commentaria* II 1 (ed. Mewaldt, p. 58)

<sup>958</sup> These are the first eight lines of *Saturae* 1.10, which were probably added to genuine verse of Horace in the first century; Conte, *Latin Literature*, 575.

<sup>959</sup> Paris, BnF, Lat. 7959 (mid-9<sup>th</sup> century, perhap Tours) reads *huic loco Probus alongam posuerit*; see fol. 224v, l. 8, at: <http://gallica.bnf.fr/ark:/12148/brv1b9066477r/f226.item>. Paris, BnF, Lat. 10307 (Loire area, before 875) reads *huic loco Probus abllongam posuerit*; see fol. 211v, l. 62, at: <http://gallica.bnf.fr/ark:/12148/brv1b8478987h/f430.item>.

Ταύτης ὅλης τῆς ῥήσεως Διοσκοριδῆς ἐκάστῳ στίχῳ προσέγραψε σημεῖον, ὃ καλοῦσιν ὀβελόν, οἷον σημείω καὶ Ἀριστάρχος ἐχρήσατο παρὰ τῷ ποιητῇ πρὸς τοὺς ὑποπτευομένους ὑπ' αὐτοῦ στίχους. ταῦτα μὲν ὁ Διοσκοριδῆς ἔγραψεν εἰκάζων εἶναι τὴν προκειμένην ῥῆσιν Ἴπποκράτους τοῦ Θεσσαλοῦ υἱέος. δύο γάρ υἱεῖς οὗτοι γεγονασιν τοῦ μεγάλου Ἴπποκράτους, Θεσσαλὸς καὶ Δράκων, ὧν ἐκάτεροι πάλιν Ἴπποκράτει ἐγένεμψαν. ταῦτα μὲν τὰ κατὰ τὴν <ὄλην> ῥῆσιν εἰρημένα. προσήκει δὲ που καὶ ἡμῖν ἐπισκέψασθαι περὶ αὐτῶν ἐκάστην τῶν λέξεων ἰδίᾳ προχειρισάμενοις.

(trans. Lewis, *On Hippocrates' On the Nature of Man* 110-111)

Beside every line of this entire passage, Dioscorides made the mark called the 'dagger' (Aristarchus used such a mark for those line of the Poet which he suspected). Dioscorides made this mark, inferring that the present passage was by Hippocrates, the son of Thessalos. For the great Hippocrates had two sons: Thessalos and Drakon, each of whom had a son Hippocrates. These remarks apply to the entire passage. Still, it is appropriate for us to consider this material to some extent, dealing with each phrase separately.

## 7. Testimony about the *adnotatio* of Pliny the Elder 1st century

Pliny the Younger, *Epistulae* III 5, 10-11 (ed. Schuster, p. 79)

*Post cibum saepe, quem interdū levem et facilem veterum more sumebat, aestate, si quid otii, iacebat in sole, liber legebatur, adnotabat excerpebat que. Nihil enim legit, quod non exciperet; dicere etiam solebat nullum esse librum tam malum, ut non aliqua parte prodesset. Post solem plerumque frigida lavabatur; deinde gustabat dormiebat que minimum; mox quasi alio die studebat in cenae tempus. Super hanc liber legebatur, adnotabatur, et quidem cursim.*

## 8. Quintilian on *obelus* 1st century

Quintilian, *Institutio oratoria* I 4, 3 (ed. Radermacher and Buchheit, p. 21)

*Nam et scribendi ratio coniuncta cum loquendo est, et narrationem praecedat emendata lectio, et mixtum his omnibus iudicium est: quo quidem ita severe sunt usi veteres grammatici, ut non versus modo censoria quadam virgula notare et libros, qui falso viderentur inscripti, tamquam subditos submovere familia permiserint sibi, sed auctores alios in ordinem redegerint, alios omnino excemerint numero.*

## 9. Martial on coronis and theta 1st century

a) Martial, *Epigramma* X 1.1-4 (ed. Shackleton Bailey, p. 315)

*Si nimius videor sera que coronide longus  
esse liber, legito pauca: libellus ero.  
ter que quater que mihi finitur carmine parva  
pagina: fac tibi me quam cupis ipse brevem.*

b) Martial, *Epigramma* VII 37.1-4 (ed. Shackleton Bailey, p. 223)

*Nosti mortiferum quaestoris, Castrice, signum?  
est operae pretium discere theta novum:  
exprimeret quotiens rorantem frigore nasum,  
letalem inguli insserat esse notam.*

## 10. Pliny the Younger on critical notae 1st/2nd century

Pliny the Younger, *Epistulae* IX 26, 5 and 13 (ed. Schuster, p. 293)

*Cur haec? Quia visus es mihi in scriptis meis adnotasse quaedam ut tumida quae ego sublimia, ut improba quae ego audientia, ut nimia quae ego plena arbitrabar. Plurimum autem refert, reprehendenda adnotes an insignia.... Exspecto, ut quaedam ex hac epistula ut illud 'gubernacula gemunt' et 'dis maris proximus' isdem notis quibus ea, de quibus scribo, confodias; intellego enim me, dum veniam prioribus peto, in illa ipsa quae adnotaveras incidisse.*

### 11. Fronto on *emendatio*, *distinctio* and *adnotatio*

2nd century

Marcus Cornelius Fronto, *Frontonis epistulae ad amicos* II, 2 (ed. van den Hout, p. 187)

*Castricium noster libellum tuum mihi reddidit de balneo egredienti; peti ut mane ad me veniret ad rescriptum accipiendum. Per noctem ita vexatus sum tussi et vigiliis, ut necessario in quintam horam dormierim. Ita Castricium nostrum detinui. Ciceronianos emendatos et distinctos habebis; adnotatos a me leges ipse; in vulgus enim eos exire quare nolim, scribam diligentius.*

### 12. Subscription of Ammonius the Grammarian

2nd century

P. Oxy. 2.221 (ed. and trans. McNamee, *Annotations in Greek and Latin Texts from Egypt*, p. 286)

Ἀμμώνιος Ἀμμωνίου γραμματικὸς ἐσημειωσάμην

I, Ammonius, son of Ammonius, *grammatikos*, ?made this notes (?marked for myself)

### 13. Origen on critical *asterisci* and *obeli*

c. 240

a) Origen, *Epistula ad Africanum de Susannae historia* 4 (ed. PG 11, col. 56-60)

Πάλιν τε αὐτὸ πλείστα τε ὅσα διὰ μέσου ὄλου τοῦ Ἰωβ παρ' Ἑβραίοις μὲν κεῖται, παρ' ἡμῖν δὲ οὐχί· καὶ πολλάκις μὲν ἔπη τέσσαρα ἢ τρία, ἔσθ' ὅτε δὲ καὶ δεκατέσσαρα καὶ δεκαεννέα καὶ δεκαεξί. Καὶ τί με δεῖ καταλέγειν ἢ μετὰ πολλοῦ καμάτου ἀνελεξάμεθα, ὑπὲρ τοῦ μὴ λανθάνειν ἡμᾶς τὴν διαφορὰν τῶν παρὰ Ἰουδαίους καὶ ἡμῖν ἀντιγράφων; Πολλὰ δὲ τοιαῦτα καὶ ἐν τῷ Ἱερεμίᾳ κατονοήσαμεν, ἐν ᾧ καὶ πολλὴν μετὰθεσιν καὶ ἐναλλαγὴν τῆς λέξεως τῶν προφητευομένων εὗρομεν. Καὶ ἐν τῇ Γενέσει δὲ τὸ «Ἔιδεν ὁ Θεὸς, ὅτι καλὸν,» ἐπὶ τῷ γενέσθαι στερέωμα, παρ' Ἑβραίοις οὐκ εὐρίσκειται· καὶ πρόβλημα δὲ ἐστὶ παρ' αὐτοῖς οὐ τὸ τυχόν τοῦτο. Καὶ ἄλλα δὲ ἐστὶν εὐρεῖν ἐν τῇ Γενέσει, οἷς σημεῖα παρεθήκαμεν τοὺς καλουμένους παρ' Ἑλλήσιν ὀβελούς, ἢ ἡμῖν γνώριμον ἢ τὸ τοιοῦτον· ὡς πάλιν ἀστερίσκους, τοῖς κειμένοις μὲν ἐν τῷ Ἑβραϊκῷ, παρ' ἡμῖν δὲ μὴ εὐρίσκομενοις. Τί δὲ με δεῖ λέγειν περὶ τῆς Ἐξόδου, ἐνθα τὰ περὶ τὴν σηγὴν καὶ τὴν αὐλὴν αὐτῆς, καὶ τὴν κιβωτὸν, καὶ τὰ ἐνδύματα τοῦ ἀρχιερέως, καὶ τῶν ἱερέων, ἐπὶ πολὺ παρήλλακται, ὡς μηδὲ τὴν διάνοιαν παραπλησίαν εἶναι δοκεῖν; Ὡρα τοίνυν, εἰ μὴ λανθάνει ἡμᾶς τὰ τοιαῦτα, ἀθετεῖν τὰ ἐν ταῖς Ἐκκλησιαίς φερόμενα ἀντίγραφα, καὶ νομοθετῆσαι τῇ ἀδελφότητι, ἀποθέσθαι μὲν τὰς παρ' αὐτοῖς ἐπιφερομένας ἱεράς βίβλους, κολακεύειν δὲ Ἰουδαίους, καὶ πείθειν, ἵνα μεταδώσιν ἡμῖν τῶν καθαρῶν, καὶ μηδὲν πλάσμα ἐχόντων. Ἄρα δὲ καὶ ἡ Πρόνοια, ἐν ἀγίαις Γραφαῖς δεδωκυῖα πάσαις ταῖς Χριστοῦ Ἐκκλησιαίς οἰκοδομῆν, οὐκ ἐφρόντισε «τῶν τιμῆς ἀγορασθέντων, ὑπὲρ ὧν Χριστὸς ἀπέθανεν» οὐ γὰρ ὄντος «οὐκ ἐφείσατο ὁ Θεὸς,» ἢ ἀγάπη, «ἀλλ' ὑπὲρ ἡμῶν πάντων παρέδωκεν αὐτὸν, ἵνα σὺν αὐτῷ τὰ πάντα ἡμῖν χαρίσῃται».

(trans. Roberts and Donaldson, p. 387)

Again, through the whole of Job there are many passages in the Hebrew which are wanting in our copies, generally four or five verses, but sometimes, however, even fourteen, and nineteen, and sixteen. But why should I enumerate all the instances I collected with so much labour, to prove that the difference between our copies and those

of the Jews did not escape me? In Jeremiah I noticed many instances, and indeed in that book I found much transposition and variation in the readings of the prophecies. Again, in Genesis, the words, "God saw that it was good," when the firmament was made, are not found in the Hebrew, and there is no small dispute among them about this; and other instances are to be found in Genesis, which I marked, for the sake of distinction, with the sign the Greeks call an obelisk, as on the other hand I marked with an asterisk those passages in our copies which are not found in the Hebrew. What needs there to speak of Exodus, where there is such diversity in what is said about the tabernacle and its court, and the ark, and the garments of the high priest and the priests, that sometimes the meaning even does not seem to be akin? And, forsooth, when we notice such things, we are forthwith to reject as spurious the copies in use in our Churches, and enjoin the brotherhood to put away the sacred books current among them, and to coax the Jews, and persuade them to give us copies which shall be untampered with, and free from forgery! Are we to suppose that that Providence which in the sacred Scriptures has ministered to the edification of all the Churches of Christ, had no thought for those bought with a price, for whom Christ died; whom, although His Son, God who is love spared not, but gave Him up for us all, that with Him He might freely give us all things?

b) Origen, *Commentaria in evangelium secundum Matthaenm* 15.14 (PG 13, col. 1293)

νυνὶ δὲ δῆλον ὅτι πολλὴ γέγονεν ἡ τῶν ἀντιγράφων διαφορὰ, εἴτε ἀπὸ ῥαθυμίας τινῶν γραφῶν, εἴτε ἀπὸ τόλμης τινῶν μοχθηρῶς <εἴτε ἀπὸ ἀμελούντων> τῆς διορθώσεως τῶν γραφομένων, εἴτε καὶ ἀπὸ τῶν τὰ ἐα υτοῖς δοκούντων ἐν τῇ διορθώσει <ἢ> προστιθέντων ἢ ἀφαιρούντων. τὴν μὲν οὖν ἐν τοῖς ἀντιγράφοις τῆς παλαιᾶς διαθήκης διαφωρίαν θεοῦ διδόντος εὖρομεν ἰάσασθαι, κριτηρίῳ χρησάμενοι ταῖς λοιπαῖς ἐκδόσεων τῶν γὰρ ἀμφιβαλλομένων παρὰ τοῖς Ἑβδομήκοντα διὰ τὴν τῶν ἀντιγράφων διαφωρίαν τὴν κρίσιν ποιησάμενοι ἀπὸ τῶν λοιπῶν ἐκδόσεων τὸ συνῆδον ἐκείναις ἐφυλάξαμεν, καὶ τινὰ μὲν ὠβελίσσαμεν <ὡς> ἐν τῷ Ἑβραϊκῷ μὴ κείμενα (οὐ τολμήσαντες αὐτὰ πάντῃ περιελεῖν), τινὰ δὲ μετ' ἀστερίσκων προσεθήκαμεν, ἵνα δῆλον ᾖ ὅτι μὴ κείμενα παρὰ τοῖς Ἑβδομήκοντα ἐκ τῶν λοιπῶν ἐκδόσεων συμφώνως τῷ Ἑβραϊκῷ προσεθήκαμεν, καὶ ὁ μὲν βουλόμενος προ<σ>ῆται αὐτά.

(trans. Grafton and Williams, *Christianity and the Transformation of the Book*, p. 125)

But now it is evident that much variation has arisen among the *antigrapha* [of Matthew], whether because of the carelessness of some of the copyists, or because of the daring of some rogues, or because of those who are unwilling to undertake the correction (διόρθωσις) of what has been written, or even because they add or remove things according to their own judgment in the process of correction (διόρθωσις). Therefore, God willing, we have sought to heal the variation among the *antigrapha* of the Old Testament, using as a yardstick (κριτήριον) the other versions (ἐκδόσεις). For having cast the about the Septuagint, making a judgment (κρίσιν) through the disagreement between the *antigrapha* on the basis of the remaining versions (ἐκδόσεις) we preserved the agreement with them. On the one hand, we obelized those passages which did not appear in the Hebrew (not daring to remove them entirely), while on the other hand we adjoined (προσεθήκαμεν) some passages with asterisks, in order that it might be clear that they were not present in the Septuagint, adding them from the other versions (ἐκδόσεις) in agreement with the Hebrew. He who wishes may attend to these additions.

14. Ausonius on *obelus*, *theta* and textual criticism

4th century

a) Ausonius, *Ludus septem sapientium* (ed. Prete, p. 138)

*Ignoscenda istaec an cognoscenda rearis,  
ad tento, Drepani, perlege iudicio.  
aequanimus fiam te iudice, sive legenda,  
sive tegenda putes carmina, quae dedimus.  
nam primum est meruisse tuum, Pacate, favorem:  
proxima defensi cura pudoris erit.  
possum ego censuram lectoris ferre severi  
et possum modica laude placere mihi.  
novit equus plausae sonitum cervicis amare,  
novit et intrepidus verbera lenta pati.  
Maeonio qualem cultum quaesivit Homero  
censor Aristarchus normaue Zenodoti!  
pone obelos igitur, primorum stigmata vatium:  
palmas, non culpas esse putabo meas  
et conrecta magis quam condemnata vocabo,  
adponet docti quae mihi lima viri.  
interea arbitrii subiturus pondera tanti,  
optabo, ut placeam: si minus, ut lateam.*

b) Ausonius, *Epigramma 87* (ed. Prete, p. 321)

*Eunus Syrius, inguinum ligurritor,  
Opicus magister (sic eum docet Phyllis)  
muliebre membrum quadrangulum cernit:  
triquetro coactu .Δ. litteram ducit.  
de ualle femorum altrinsecus pares rugas  
medium que, fissi rima qua patet, callem  
.Ψ. dicit esse: nam trifissilis forma est.  
cui ipse linguam cum dedit suam, .Λ. est:  
ueram que in illis esse . Φ. notam sentit.  
quid, imperite, .P. putas tibi scriptum,  
ubi locari .I. conuenit longum?  
miselle doctor . Ω. tibi sit obsceno,  
tuum que nomen . Θ. sectilis signet.*

15. Olybrius and Campanianus on *notae*

end of the 4th century?

Reifferscheid, 'Mitteilungen aus Handschriften', p. 128

*Inlustrissimus Campanianus Patricio Olybrio.  
Maiorum similis, nostrorum maior Olybri,  
stemma poetarum, regula dogmatibus,  
trade notas, quiscumque nitent bene dicta priorum:  
dux bonus audentes prisca tropea doce.  
clarius auctorum pateant quae pollice laudes,  
scis bona cunctorum conscius ipse tuis.*

*Patricius Olybrius Inlustrissimo Campaniano.  
Stigmata cur spectas maiorum infigere dictis,  
cuius iudicium sufficit ad titulos?*

*Censuram spernunt quae per te lauta patescunt,  
sit satis ad laudem complacuisse tibi,  
omnia doctorum quem sic cinxere tropaea,  
ut cedat titulis lingua diserta tuis.*

#### 16. Servius on the *adnotatio* of the Aeneid

4th/5th century

Servius, *In Aen.* 8.731 (ed. Hagen, p. 306)

*ATTOLLENS VMERO FAMAM QVE ET FACTA NEPOTVM si 'fata' legeris, hoc est, quae nepotes fataliter fecerunt. Hunc versum notant critici quasi superfluo et humiliter additum nec convenientem gravitati eius: namque est [eius] magis neotericus.*

#### 17. Jerome on Origenian *asterisci* and *obelis*

4th century

a) Jerome, *Praefatio in Pentateuch*; also *Apologia adversus libros Rufini II 25* (ed. Lardet, p. 62)

*Quod ut auderem, origenis me studium prouocauit, qui editioni antiquae translationem theodotionis miscuit, ✖<sup>960</sup> asterisco et obelo, id est stella et ueru, opus omne distinguens, dum aut inlucescere facit quae minus ante fuerant aut superflua quaeque ingulat et confodit, maxime que euangelistarum et apostolorum auctoritas, in quibus multa de ueteri testamento legimus quae in nostris codicibus non habentur, ut est illud: "ex aegypto uocauit filium meum", et: "quoniam nazareus uocabitur", et: "uidebunt in quem conpuxerunt", et: "flumina de uentre eius fluent aquae uiuae", et: "quae nec oculus uidit, nec auris audiuit, nec in cor hominis ascenderunt quae praeparauit deus diligentibus se", et multa alia quae proprium συνταγμα desiderant.*

b) Jerome, *Apologia adversus libros Rufini II 27, 29 and 31* (ed. Lardet, pp. 64-69)

*Et certe Origenes non solum exempla composuit quattuor editionum, e regione singula uerba describens, ut unus dissentiens, statim ceteris inter se consentientibus arguatur, sed - quod maioris audaciae est - in editione septuaginta theodotionis editionem miscuit, asteriscis designans quae minus fuerant, et uirgulis quae ex superfluo uidebantur apposita. ... transibo ad librum iob, quem post septuaginta interpretum editionem, quam origenes obelis asteriscis que distinxit, ante annos plurimos latino sermoni datum, cum rursus in iuxta ipsum hebraicum uerterem, sic locutus sum: 'cogor per singulos scripturae diuinae libros aduersariorum respondere maledictis, qui interpretationem meam reprehensionem septuaginta interpretum criminantur, quasi non et apud graecos aquila symmachus et theodotio uel uerbum e uerbo, uel sensum de sensu, uel ex utroque commixtum et medie temperatum genus translationis expresserint, et omnia ueteris instrumenti uolumina origenes obelis asteriscis que distinxerit, quos uel additos uel de theodotione sumptos translationi antiquae inseruit, probans defuisse quod additum est. Discant igitur obtrectatores mei recipere in toto quod in partibus susceperunt, aut interpretationem meam cum asteriscis suis radere. Neque enim fieri potest ut quos plura intermisisse susceperint, non eosdem etiam in quibusdam errasse fateantur, praecipue in iob, cui si ea quae sub asteriscis addita sunt subtraxeris, pars maxima detruncabitur, et hoc dumtaxat apud graecos. Ceterum apud latinos, ante eam translationem quam sub asteriscis et obelis nuper edidimus, septingenti ferme aut octingenti uersus sunt, ut decurtatus et laceratus corrosus que liber foeditatem sui publice legentibus praebeat'. ... Salomonis etiam libros, quos olim iuxta septuaginta, additis obelis et asteriscis, in latinum uerteram, ex hebraico transferens et dedicans sanctis episcopis chromatio et heliodoro, haec in praefatiunculae meae fine subiici: 'si cui septuaginta interpretum magis editio placet, habet eam a nobis olim emendatam. neque enim sic noua cudimus ut uetera destruamus'.*

c) Jerome, *Praefatio in Iob de hebreo translato* (ed. Fischer et al., p. 731)

<sup>960</sup> The two symbols are erased in the Bible of Mardraunmus, **Amiens BM 6**. See fol. 3r. in the digitized manuscript at: <http://gallica.bnf.fr/ark:/12148/btv1b8452188r/f9.zoom>.

*Cogor per singulos scripturae diuinae libros aduersariorum respondere maledictis, qui interpretationem meam reprehensionem septuaginta interpretum criminantur, quasi non et apud graecos aquila, symmachus et theodotion uel uerbum e uerbo, uel sensum de sensu, uel ex utroque commixtum et medie temperatum genus translationis expresserint, et omnia ueteris instrumenti uolumina origenes obelis asteriscis que distinxerit, quos uel additos uel de theodotione sumptos translationi antiquae inseruit, probans defuisse quod additum est. ... ceterum apud latinis ante eam translationem quam sub asteriscis et obelis nuper edidimus, septingenti ferme aut octingenti uersus sunt, ut decurtatus et laceratus conrosus que liber foeditatem sui publice legentibus praebeat.*

d) Jerome, Praefatio in libro Psalmodum (iuxta LXX) (ed. Fischer et al., p. 767)

*Unde consueta praefatione commoneo tam uos quibus forte labor iste desudat, quam eos qui exemplaria istiusmodi habere uoluerint, ut quae diligenter emendari, cum cura et diligentia transcribantur. Notet sibi unusquisque uel tacentem lineam uel signa radiantia, id est uel obelos uel asteriscos, et ubicumque uirgulam uiderit praecedentem, ab ea usque ad duo puncta quae inpressimus sciat in septuaginta translatoribus plus haberi; ubi autem stellae similitudinem perspexerit, de hebraeis uoluminibus additum nouerit, aequae usque ad duo puncta, iuxta theodotionis dumtaxat editionem qui simplicitate sermonis a septuaginta interpretibus non discordat.*

e) Jerome, Prologus in libro Paralipomenon (ed. Fischer et al., p. 546)

*et certe origenes non solum exempla composuit quattuor editionum e regione singula uerba describens, ut unus dissentiens statim ceteris inter se consentientibus arguatur, sed, quod maioris audaciae est, in editione septuaginta theodotionis editionem miscuit, asteriscis designans quae minus fuerint, et uirgulis quae ex superfluo uideantur adposita... Ubicumque ergo asteriscos, id est stellas, radiare in hoc uolumine uideritis, ibi sciatis de hebreo additum quod in latinis codicibus non habetur. Ubi uero obelus, transversa scilicet uirga, praeposita est, illic significatur quid septuaginta interpretes addiderint uel ob decoris gratiam uel ob spiritus sancti auctoritatem, et in hebraeis uoluminibus non legatur.*

f) Jerome, Praefatio in libro Josue (ed. Fischer et al., p. 285)

*Quae enim audientis utilitas est nos labore sudare et alios detrahendo laborare, dolere iudeos quod calumniandi eis et inridendi christianos sit ablata occasio, et ecclesiae homines id despiciere, immo lacerare, unde aduersarii torqueantur? Quod si uetus eis tantum interpretatio placet, quae et mihi non displicet, et nihil extra recipiendum putant, cur ea quae sub asteriscis et obelis uel addita sunt uel amputata, legunt et non legunt? Quare danielem iuxta theodotionis translationem ecclesiae susceperunt? cur originem mirantur et eusebium pamphili cunctas editiones similiter disserentes?*

g) Jerome, Commentarium in Daniele, prologus (ed. Glorie, p. 774)

*Unde et nos ante annos plurimos cum uerteremus danielem, has uisiones obelo praenotauimus, significantes eas in hebraico non haberi; et miror quosdam mempsimoribus indignari mihi, quasi ego decurtauerim librum, cum et origenes et eusebius et apollinaris alii que ecclesiastici uiri et doctores graeciae has, ut dixi, uisiones non haberi apud hebraeos fateantur, nec se debere respondere porphyrio pro his quae nullam scripturae sanctae auctoritatem praebeant. Illud quoque lectorem admoneo, danielem non iuxta lxx interpretes, sed iuxta theodotionem ecclesiae legere, qui utique post aduentum christi incredulus fuit, licet eum quidam dicant ebionitam, qui altero genere iudaus est. Sed et origenes de theodotionis opere in editione uulgata asteriscos posuit, docens defuisse quae addita sunt, et rursum quosdam uersus obelis praenotauit, superflua quaeque designans. Cum que omnes christi ecclesiae, tam graecorum quam latinorum syrorum que et aegyptiorum, hanc sub asteriscis et obelis editionem legant, ignoscant inuidi labori meo, qui uolui habere nostros quod graeci in aquilae et theodotionis ac symmachi editionibus lectitant.*

h) Jerome, Epistulae 57.11 (ed. Hilberg, p. 522)

*Longum est nunc euoluere, quanta septuaginta de suo addiderint, quanta dimiserint, quae in exemplaribus ecclesiae obelis asteriscis que distincta sunt. Illud enim, quod legimus in isaia: beatus, qui*

*habet semen in sion et domesticos in hierusalem, solent hebraei ridere, cum audierint, nec non et in amos post descriptionem luxuriae: stantia putauerunt haec et non fugientia. Re uera sensus rhetoricus et declamatio tulliana; sed quid faciemus ad authenticos libros, in quibus haec non feruntur adscripta et cetera his similia? Quae si proferre nitamur, infinitis libris opus est. Porro, quanta dimiserint, uel asterisci, ut dixi, testes sunt uel nostra interpretatio, si a diligenti lectore translationi ueteri conferatur: et tamen iure septuaginta editio obtinuit in ecclesiis, uel quia prima est et ante christi fertur aduentum uel quia ab apostolis, in quibus tamen ab hebraico non discrepat, usurpata.*

i) Jerome, Epistulae 106.7 (ed. Hilberg, p. 252)

*Verum est, sed in hebraeo legitur samacha, quod interpretatur 'caelos tuos' et de editione theodotionis in septuaginta interpretibus additum est sub asterisco; cuius rei breuiter uobis sensum aperiam. ubi quid minus habetur in graeco ab hebraica ueritate, origenes de translatione theodotionis addidit et signum posuit asterisci, id est stellam, quae, quod prius absconditum uidebatur, inluminet et in medium proferat; ubi autem, quod in hebraeo non est, in graecis codicibus inuenitur, obelion, id est iacentem, praeposuit, quam nos latine 'ueru' possumus dicere, quo ostenditur iugulandum esse et confodiendum, quod in authenticis libris non inuenitur. quae signa et in graecorum latinorum que poematibus inueniuntur.*

j) Jerome, Epistulae 112.19 (ed. Hilberg, p. 389)

*quod autem in aliis quaeris epistulis, cur prior mea in libris canonicis interpretatio asteriscos habeat et uirgulas praenotatas et postea aliam translationem absque his signis ediderim - pace tua dixerim -, uideris mihi non intellegere, quod quaesisti. illa enim interpretatio septuaginta interpretum est et, ubicumque uirgulae, id est obeli, sunt, significatur, quod septuaginta plus dixerint, quam habetur in hebraeo, ubi autem asterisci, id est stellae praelucentes, ex theodotionis editione ab origine additum est. et ibi graeca transtulimus, hic de ipso hebraico, quod intellegebamus, expressimus sensuum potius ueritatem quam uerborum interdum ordinem conseruantes. et miror, quomodo septuaginta interpretum libros legas non puros, ut ab eis editi sunt, sed ab origine emendatos siue corruptos per obelos et asteriscos et christiani hominis interpretatiunculam non sequaris, praesertim cum ea, quae addita sunt, ex hominis iudaei atque blasphemii post passionem christi editione transtulerit. uis amator esse uerus septuaginta interpretum? non legas ea, quae sub asteriscis sunt, immo rade de uoluminibus, ut ueterum te fautorem probes. quod si feceris, omnes ecclesiarum bibliothecas condemnare cogeris. uix enim aut alter inuenietur liber, qui ista non habeat. porro, quod dicis non debuisse me interpretari post ueteres et nouo ueris syllogismo: 'aut obscura fuerunt, quae interpretati sunt septuaginta, aut manifesta: si obscura, te quoque in eis falli potuisse credendum est, si manifesta, illos in eis falli non potuisse perspicuum est,' tuo tibi sermone respondeo.*

k) Jerome, Epistulae 134.2 (ed. Hilberg, p. 263)

*Grandem latini sermonis in ista prouincia notariorum patimur penuriam et idcirco praeceptis tuis parere non possumus, maxime in editione septuaginta, quae asteriscis uerbis que distincta est; pleraque enim prioris laboris ob fraudem cuiusdam amisimus.*

## 18. Rufinus on quotation signs, *theta*, *asterisci* and *obeli*

5th century

a) Rufinus, Apologia contra Hieronymum I 12 (ed. Simonetti, p. 45)

*In istis uero periarcho libellis etiam illud admonui, quod, cum in ipsis libris inuenirentur quaedam de fide ita catholice scripta, ut ecclesia praedicat, quaedam autem his contraria, cum de una re eademque dicantur, mihi uisum sit haec secundum illam semper regulam proferenda, quam ipse catholicae sententiae expositione protulerat; et ea quae a semetipso inuenirentur esse contraria uel inserta ab aliis (id enim epistulae suae querimonia contestatur) abicerem uel certe, ut nihil aedificationis in fide habentia, praeterirem. Non autem superfluum puto uideri inserere etiam ipsa loca de praefatiunculis meis, ut nihil careat teste quod dicimus. Sane ne in legendo error sit ex his, quae huic scripturae nunc aliunde inserimus, si quidem mea sunt, simplices ad uersuum capita habent notas; si accusatoris mei, duplices.*

b) Rufinus, *Apologia contra Hieronymum* II 40 (ed. Simonetti, pp. 114-15)

*Et quia frequenter, se disputatio accidisset, uel immutata esse aliquanta uel deesse uel abundare in nostris scripturis mentiebantur, uoluit origenes nostris ostendere qualis apud iudaeos scripturarum lectio teneretur, et in propriis paginis uel columnellis editiones eorum singulas quasque descripsit, et ea quae apud illos uel desunt uel abundant, certis quibusque signis additis ad uersiculorum capita designauit, et in alieno, non suo opere suas tantummodo notas fixit: ut sciremus non quid nobis, sed quid iudaeis aduersum nos certantibus aut deesse aut abundare uideretur. Quod tale esset, quale si quis, accepto breuiculo in quo militum nomina continentur, nitatur inspicere quanti ex militibus supersint, quanti in bello ceciderint; et requirens qui inspicere missus est, propriam notam, uerbi causa, ut dici solet, theta, ad uniuscuiusque defuncti nomen adscribat, et propria rursus nota superstitem signet. Numquid uidebitur is, qui notam ad defuncti nomen adponit et propria rursus nota superstitem signat, quod egerit aliquid, ut uel hic defuncti uel ille uiuentis notam acciperet? Sed quod eos qui ab aliis fuerint perempti, iste adnotationis suae designarit iudiciis. Ita ergo fecit et ille, ut ea quae per alios interpretes siue perempta fuerant sen etiam abundantius prolata, propriis quibusdam signis, id est, asterisci et obelisci notulis, designarit.*

19. Augustine on *asterisci* and *obelii*

5th century

a) Augustine, *De ciuitate Dei* 18.43 (ed. Dombart et al., p. 639)

*Nonnulli autem codices graecos interpretationis septuaginta ex hebraeis codicibus emendandos putarunt; nec tamen ausi sunt detrabere, quod hebraei non habebant et septuaginta posuerunt; sed tantum modo addiderunt, quae in hebraeis inuenta apud septuaginta non erant, eaque signis quibusdam in stellarum modum factis ad capita eorundem uersuum notauerunt, quae signa asteriscos uocant. Illa uero, quae non habent hebraei, habent autem septuaginta, similiter ad capita uersuum iacentibus uirgulis, sicut scribuntur unciae, signauerunt.*

b) Augustine, *Epistulae* 71.2 (ed. Goldbacher, p. 250)

*In hac autem epistula hoc addo, quod postea didicimus, iob ex hebraeo te interpretatum, cum iam quandam haberemus interpretationem tuam eius prophetae ex graeco eloquio uersam in latinum, ubi tamen asteriscis notasti, quae in hebraeo sunt et graeco desunt, obeliscis autem, quae in graeco inueniuntur et in hebraeo non sunt, tam mirabili diligentia, ut quibusdam in locis ad uerba singula stellas significantes uideamus eadem uerba esse in hebraeo, in graeco autem non esse.*

c) Augustine, *Ennarationes in Psalmos* 67.16 (ed. Dekkers, p. 879)

*Deinde sequitur: dilecti, et speciei domus diuidere spolia. Repetitio pertinet ad commendationem; quamquam istam repetitionem non omnes codices habeant, et eam diligentiores stella apposita praenotant, quae signa uocantur asterisci; quibus agnoscere uolunt ea non esse in interpretatione septuaginta, sed esse in hebraeo, quae talibus insignantur notis.*

d) Augustine, *Ennarationes in Psalmos* 89.17 (ed. Dekkers, p. 1253)

*Unde dicitur: signatum est super nos lumen uultus tui, domine. Et opera manuum nostrarum dirige super nos, ut non ea pro rerum terrenarum mercede faciamus; tunc enim non directa, sed curua sunt. Huc usque psalmum istum multi codices habent; sed in nonnullis legitur alius ultimus uersus: et opus manuum nostrarum dirige. Cui uersui diligentes et docti praenotant stellam, quos asteriscos uocant, quibus significant ea quae in hebraeo uel aliis interpretibus graecis reperiuntur, in septuaginta uero interpretatione non sunt.*

e) Augustine, *Quaestiones in Heptateuchum* I 155 (ed. J. Fraipont, p. 60)

*Quorum omnium in codicibus graecis, qui a diligentioribus conscripti sunt, quaedam obeliscos habent et significant ea quae in hebraeo non inueniuntur et in septuaginta inueniuntur, quaedam asteriscos, quibus ea significantur quae habent hebraei nec habent septuaginta.*

**20. Sidonius Apollinaris on *theta***

c. 469

Sidonius Apollinaris, *Carmina* IX, 332-335 (ed. Lütjohann, p. 226)

*germanum tamen ante sed memento,  
doctrinae columen, Probum advocare,  
isti qui valet exarationi  
dstrictum bonus applicare theta*

**21. Cassiodorus on the use of indexing signs**

6th century

Cassiodorus, *Institutiones* 1.26 (ed. Mynors, p. 67)

DE NOTIS AFFIGENDIS. Illud etiam indicandum esse curavimus, ut vos labor noster instrueret et qualicumque munusculo studium vestrae sanctitatis ornaret: praestante Domino quantum aut senes aut longa peregrinatione fatigatus relegere praevalui, quibusdam codicibus Patrum praesentes notas minio designatas, quae sunt indices codicum, singulis quibusque locis, ut arbitror, competenter impressi. Nam expositionibus Octateuchi banc dedimus notam OCT, alteram Regum REG, tertiam Psalterii PSL, quartam Salomonis SAL, quintam Prophetarum PROP, sextam Agiographorum AGI, septimam Evangeliorum EV, octavam Epistulis Apostolorum AP, nonam Actibus Apostolorum et Apocalypsi AAA. quas in primordiis codicum, quos tamen sub ipso studio transire praevalui, semper ascripsi, ut vos illas in textu positas sine ambiguitate possitis agnoscere, si paginas singulas studiosa mente curratis. Tunc si placet, qui tamen plurima lectione praesumitis, per tractatores probatissimos imitatio vobis facilis subiacebit. ita fiet ut aliud inde genus expositionis acutissimum pulcherrimum que nascatur, et quod forsitan priores nostri in commentis suis minime dilucidaverunt, ibi aliquatenus reperiat esse declaratum. - idiomatica quoque legis divinae, id est, proprias dictiones, tali PP karactere signavimus, ut ubicumque reperta fuerint, verba ipsa nulla praesumptione violentur.

**22. Cassiodorus on signs of doctrinal criticism**

6th century

a) Cassiodorus, *Institutiones* 1.1.8 (ed. Mynors, p. 14)

Item in Octateucho eloquentissimae nimis omeliae sunt Origenis in codicibus tribus; quem multorum quidem Patrum sententia designat hereticum, sanctus vero Hieronymus eius aliqua opuscula sermone disertissimo transtulit in Latinum. hunc licet tot Patrum impugnet auctoritas, praesenti tamen tempore et a Vigilio viro beatissimo papa denuo constat esse damnatum; Theophilus autem Alexandrinae ecclesiae pontifex triginta quinque sensus eius heretica pravitate distortos catholica veritate convicit, necnon et Epiphanius Cyprius Salaminae ecclesiae multa eum detestatione persequitur, cum dolore maximo dicta ipsius iniquissima calliditate perversa pontificis auctoritate redarguens. sed quemammodum legi debeat, in epistula quam scripsit ad Tranquillinum sanctus Hieronymus probabiliter indicavit, ut nec studiosos ab eius necessaria lectione removeat, nec iterum incautos praecipitet ad ruinam. quem quidam non immerito more anethi habendum esse dixerunt, qui dum sacrarum condiat pulmentaria litterarum, ipse tamen decoctus excucatus que proicitur. de quo conclusive dictum est 'Ubi bene, nemo melius: ubi male, nemo peius', et ideo caute sapienter que legendus est, ut sic inde sucos saluberrimos assumamus, ne pariter eius venena perfidiae vitae nostrae contraria sorbeamus. cui et illud convenienter aptari potest quod Vergilius, dum Ennium legeret, a quodam quid faceret inquisitus respondit - 'Aurum in stercore quaero. quapropter in operibus eiusdem Origenis, quantum transiens invenire praevalui, loca quae contra regulas Patrum dicta sunt achesimi repudiatione signavi, ut decipere non praevaleat qui tali signo in pravis sensibus cavendus esse monstratur. posteriores autem in toto dicunt eum esse fugiendum, propterea quia subtiliter decipit innocentes; sed si adiutorio Domini adhibeatur cantela, nequeunt eius nocere venenosa.

b) Cassiodorus, *Institutiones* 1.9.3 (ed. Mynors, p. 33)

Ticonius etiam Donatista in eodem volumine quaedam non respuenda subiunxit, quaedam vero venenosi dogmatis sui fecilenta permiscuit; cui tantum in bonis dictis chresimon, in malis achrison quantum

*transiens valui reperire, ut arbitror, competenter affixi. quod et vobis similiter in suspectis expositoribus facere suademus, ne lectoris animus fortasse turbetur nefandi dogmatis permixtione confusus.*

c) Cassiodorus, *Institutiones* 1.29.2 (ed. Mynors, p. 74)

*Cassianum presbyterum, qui conscripsit de institutione fidelium monachorum, sedule legite et libenter audite, qui inter ipsa initia sancti propositi octo principalia vitia dicit esse fugienda. Hic noxios motus animorum ita competenter insinuat, ut excessus suos hominem paene videre faciat et vitare compellat, quos antea confusione caliginis ignorabat. Qui tamen de libero arbitrio a beato Prospero iure culpatus est, unde monemus ut in rebus talibus excedentem sub cautela legere debeatis. Cuius dicta Victor Mattaritanus, episcopus Afer, ita Domino iuvante purgavit, et quae minus erant addidit, ut ei rerum istarum palma merito conferatur; quem inter alios de Africae partibus cito nobis credimus esse dirigendum. Cetera vero genera monachorum vehementer accusat. Sed vos, karissimi fratres, Deo iuvante eas partes elegite, quas salubriter cognoscitur ille laudasse.*

### 23. Simplicius on *diple* and *coronis*

c. 560

Simplicius, *In Aristotelis Categorias commentarium* 4, 16r A (ed. Kalbfleisch, p. 64)

ἢ ὅτι \*\*\* οὔτε προηγουμένη αὐτῶν ἐστὶν ἢ σεμασία, ἀλλὰ συσσημαίνουσι, ὥσπερ τὰς διπλᾶς εἰώθαμεν παραγράφειν καὶ τὰς κορωνίδας, αἵτινες μετὰ τῶν γεγραμμένων σημαίνουσιν τι, αὐταὶ δὲ καθ' ἑαυτὰς οὐδὲν σημαίνουσιν.

(trans. Grafton and Williams, *Christianity and the Transformation of the Book*, p. 227)

We often write *diple* and *coronis* beside the margins of the text; these signify nothing by themselves, but signify something with the written text.

### 24. A notice on the textual criticism of the Gothic Bible

6th century

*Codex Brixianus*, inserted parchment slip (ed. Bernhardt, pp. 295-96)

*Sanctus Petrus, apostolus et discipulus saluatoris domini nostri Iesu Christi, edocens fideles, propter diuersitatem adsertionis linguarum admonet cunctos -- ut in octauo libro Clementis continet scribturn -- dicens sic: "audite me, conserui dilectissimi. bonum est ut unusquisque uestrum secundum quod potest prosit accendentibus ad fidem religionis nostrae. et ideo non uos pigeat, secundum sapientiam quae uobis per dei prouidentiam conlata est, disserentes instruere, ignaros edocere: ita tamen ut his, quae a me audistis et tradita sunt uobis, uestri tantum sermonis eloquentiam societis, nec aliquid proprium et quod uobis non est traditum proloquamini, etiamsi uobis uerisimile uideatur. sed ut dixi, quae ipse a uero propheta suscepta uobis tradidi, prosequimini, etiamsi minus plenae adsertionis esse uidebuntur."*

*Et ideo, ne in interpraetationibus linguarum, secundum quae in interiora libri ostenduntur, legenti uideatur aliud in Graeca lingua, aliud in Latina uel Gotica designata esse conscribita: illud aduertat quis quod, si pro disciplina lingua[e] discrepationem ostendit, ad unam tamen intentionem concurrat. quare nullus exinde titubare debet de quod ipsa auctoritas manifestat secundum intentione[m] linguae. propter declinationes sonus uocis diligenti perceptione statuta sunt, ut in subsequentiis conscribita leguntur.*

*Haec res fecit probanter publicare propter aliquos qui falsa adsertione secundum uoluntatem] sua[m] mendacia in lege uel in euangeliis per interpraetationem propria[m] posuerunt. quare illa declinantes haec posita sunt quae antiquitas legis in dictis Graecorum contineri inueniuntur, et ipsas etymologias linguarum conuenienter sibi conscribitas ad unum sensum concurrere demonstra[n]tur. nam et ea[s] conuenit indicare pro quod in uultibres factu[m] est -- latina uero lingua adnotatio significatur -- quare id positum est agnoscere possit. ubi littera .gr. saper uultbre inuenitur, sciat qui legit quod in ipso uultbre secundum quod Graecus continet scribturn est. ubi uero littera .la. super uultbre inuenitur, secundum latina[m] lingua[m] in uultbre ostensum est. et ideo ista instructio demonstrata [a]ta est, ne legentes ipsos uultbres non perciperent pro qua ratione positi sint.*

25. Subscription of *Cyprianus famulus* to *De bello iudaico*

6th century

St. Gallen, Stiftsbibliothek, MS 626, p. 312

*Ecce pater dulcis ut potui tua iussa peregi  
 Plus prompto velle plane quam posse valente  
 Quodque tuis scis fidens orationibus actum  
 Quod cumque fuerit placitum in corde receptum  
 Omne hic offensum mihi deprecor esse donandum  
 denique percurrens sine auctore que retractans  
 Correxī ut valui distinguendo que notavi  
 Ambigua queque virgis signata reliqui  
 Monstrandas et causas breviter in limine promsi  
 Sit rogo iste labor placidus sit corde receptus  
 Sit tuus hic animus gratus sit semper amoenus  
 Ut fiat ethero satius et munere plenus  
 Quod promas Stephane sacer optima Dindima letus  
 Quodque tuus famulus Cyprianus gaudeat actus. Finiunt versi feliciter.*

26. Subscription of Rusticus Diaconus to the *Synodicon*

c. 565

Rusticus Diaconus, *Synodicon* (ed. Mansi and Labbe, col. 707)

*Explicit prima cognitio Chalcedonensis concilii. finivimus emendantes et conferentes apud  
 Kalchedonam feria IV indictione XIII XV Kal. April. Rusticus per gratiam Dei diaconus sanctae  
 ecclesiae Romanae contuli annotavi distinxi.*

27. Isidore of Seville on *theta*

beginning of the 7th century

a) Isidore of Seville, *Etymologiae* 1.3.8 (ed. Lindsay)

*Quinque autem esse apud Graecos mysticas litteras. Prima Y, quae humanam vitam significat, de qua nunc diximus. Secunda Θ, quae mortem [significat]. Nam indices eandem litteram Θ adponebant ad eorum nomina, quos supplicio afficiebant. Et dicitur Theta APO TOU THANATON, id est a morte. Vnde et habet per medium telum, id est mortis signum. De qua quidam: “O multum ante alias infelix littera theta.”*

b) *Etymologiae* 1.24 (ed. Lindsay)

*DE NOTIS MILITARIBUS. In breviculis quoque, quibus militum nomina continebantur, Propria nota erat apud veteres, qua inspiceretur quanti ex militibus superessent quanti que in bello cecidissent. T Tau nota in capite versiculi posita superstitem designabat; Θ Theta vero ad uniuscuiusque defuncti nomen apponebatur. Vnde et habet per medium telum, id est mortis signum. De qua Persius ait: Et potis est nigrum vitio praefigere theta. Cum autem inperitiam significare vellent, Lambda littera usi sunt, sicut mortem significabant, cum ponebant Theta ad caput. In stipendiorum quoque largitione propriae erant notae.*

## 28. The reference to obelization in the Acts of the 6th Ecumenical Council 680 – 81

*Acta conciliorum oecumenicorum II* 2.1 (ed. Riedinger, pp. 647-49)

*Haec cognovimus, quemadmodum et affirmant, qui ab apostolica sede antiquae Romae sunt, neque facta, neque scripta fuisse in tempore memorati sancti quinti concilii, sed adiectos quidem esse tres quaterniones in primo libro sancti quinti concilii, in quibus videtur libellus qui dicitur Mennae. post haec et in secundo libro circa septimam actionem mutatum quidem fuisse quantum decimum quaternionem, adjectumque esse quadrifolium non superscriptum ante decimum sextum quaternionem; in quo feruntur duo*

libri *Vigili*, qui dicuntur facti fuisse ad Justinianum et Theodoram divae memoriae, utrisque nullam litteram habentibus. Hos vero, qui falsaverunt praefatos duos libros et chartaceum volumen, ex illorum vocabulis malitiose adversus recta dogmata haec intericietes, eo quod neque in hunc prolatis antiquis et immutilatis libris eiusdem sancti quinti concilii, neque in chartaceo libro, qui in recenti inventus est apud bibliothecam venerabilis patriarchii reiacent iudem ipsi libelli, seu Mennae ad *Vigilium*, sive a *Vigilio* ad Justinianum et Theodoram divae memoriae; sed hos fallaciter invenientes insertos utpote qui diabolica operatione per eos, qui haec falsaverunt sint complices; chartaceum quidem volumen, quod falsatum est, decernimus cassari in locis, in quibus adiectiones sunt factae. Verum libros etiam eos obelis obduci in locis, in quibus depravati sunt, et cassari eos.

## 29. The preface of the revised *Psalterium duplex*

8th century?

ps-Isidore, Prologus in Psalterium (ed. PL 81, cols. 971a-972b)

Origines quondam ille, qui apud Graecos in opere divinarum non parvo elaboravit studio, ut ostenderet nostris qualis per singulas editiones Scripturarum lectio teneretur, in propriis paginis vel columnis editiones singularum translationum descripsit, ut ea quae in unaquaque deerant, vel superflua habebantur, caeteris quibusque signis distinguerentur. Huiusmodi igitur ego ipse studio delectatus, Psalmsorum librum duarum translationum compinge e malui, sive ut Septuaginta Interpretes, vel caeteri, transtulerunt; sive ut in Hebraeo legitur, et sanctissimo Hieronymo in Latinum sermonem interpretatum agnoscitur. Utamque igitur editionem e regione componentes adiunximus, ut quaeque in singulis vel desunt vel potius abundant, signis ad capita versicolorum praefixis, manifestentur. Quapropter ubi in Septuaginta translatione aliquid superfluum est, virgulae ÷ signo notatum est; ubi vero aliquid deest, ut clareat, asterici ✱ figura signatum est. Verum ubi per dissonantiam utraque invicem discrepant, antiglyphus ∇ in utrisque columnis appositus est. Nam procul dubio in plerisque locis multo alium sensum suggerunt: in plerisque vero ita pari sensu incedunt, ut aequae sibi pro expositione adhibeantur. Plurimum enim valet lectori geminae huius interpretationis collatio: nam obscurae sententiae ambiguitas, quae per unius intellectum difficilis est, alterius inspectione aperitur. Sane sciendum nequaquam esse in eadem editione scriptum, ubi versiculi vacantes claruerunt: neque enim antiquorum vitio omissa, vel dempta sunt, sed in propria translatione deesse perhibentur. In titulis autem, ubi Septuaginta dixerunt: in finem, psalmus; in hebraeo habetur, victori. Nec satis inter se discrepant; siquidem perseverare in finem ipsa est perfecta victoria, sicut scriptum est: Qui perseveraverit usque in finem, hic salvus erit. Primus autem et secundus psalmus in Septuaginta sine inscriptione habentur: in Hebraeo autem ii sunt, qui superscripti non sunt I, II, XXXII, XL, XLII, XLIII, XLIV, XLV, XLVI, XLVII, XLVIII, LXX, CXV, CXVI, CXVII, CXXXVI, CXLVI, CXLVII. Caeteri autem praeter hos, aut nominibus propriis titulatur, aut sine nomine perscriptionibus suis notantur.

## 30. Paul the Deacon on ζῆτεῖ

c. 787

Paul the Deacon, Epistulae 12 (ed. Dümmler, p. 509)

Suscipe tamen quamvis sero epistolas quas desiderasti, et quia mihi eas ante relegere prae occupatione totas non licuit, XXXIII ex eis scito relectas et prout potui emendatas esse, praeter pauca loca, in quibus minus inveni, et tamen meo ea sensu supplere nolui, ne viderer tanti doctoris verba immutare; quibus in locis et forinsecus ad aurem zetam, quod est vitii signum, apposui.

## 31. Benedict of Aniane on *obelus*

810s

Benedict of Aniane, Supplementum (ed. Deshusses, p. 351)

Hucusque praecedens sacramentorum libellus a beato papa Gregorio constat esse editus, exceptis his, quae in eodem in nativitate vel assumptione beatae Mariae, praecipue vero in quadragesima virgulis antepositis lectoris invenerit ingulata sollertia. Nam sicut quorundam relatu didicimus, dominus apostolicus in eisdem diebus a stationibus penitus vacat, eo quod ceteris septimanae feriis stationibus vacando fatigatus,

*eisdem requiescat diebus, ob id scilicet, ut tumultuatione populi carens et elemosinas pauperibus distribuere et negotia exteriora liberius valeat disponere. Missam vero praetitulatam in natale eiusdem beati Gregorii virgulisque antepositis iungulam a successoribus eius causa amoris, immo venerationis suae, eidem suo operi non dubium esse interpositam.*

### 32. Tatto and Grimald on the revision of the Rule of St. Benedict after 817

Grimald and Tatto. *Epistula ad Reginbertum* (ed. MGH Epp. 5, pp. 302-303)

*Memoria dilectionis vestrae animis nostris sedulo inherens inmemores petitionum vestrarum promissionumque nostrarum esse non permittit. Et utinam tam proficenter quam spontanee piam voluntatem vestram implere valuissemus. Ecce vobis regulam beati Benedicti, egregii doctoris, quam benivolus animus vester summo semper optaverat desiderio, direximus, sensibus et sillabis necnon etiam litteris a supra dicto patre ni fallimur ordinatis minime carentem. Quae de illo transcripta est exemplare, quod ex ipso exemplatum est codice, quem beatus pater sacris manibus suis exarare ob multorum sanitatem animarum curavit. Illa ergo verba, quae supra dictus pater secundum artem, sicut nonnulli autumant, in contextum regulae huius non inseruit, de aliis regulis a modernis correctis magistris colleximus, et in campo paginulae e regione cum duobus punctis insere[re] curavimus. Alia etiam quae a Benedicto dictata sunt et in neotericis minime inventa, oboelo et punctis duobus consignavimus. Hoc egimus, desiderantes vos utrumque et secundum traditionem pii patris etiam modernam habere. Eligite vobis, quod desiderabili placuerit animo. Valet in Domino.*

### 33. Reference to technical signs in *artes grammaticae* 9th century

a) Alcuin, *De grammatica* (ed. PL 101, cols. 857-858)

*Discipuli. In quot species dividitur grammatica?*

*Magister. In XXVI. In vocem, in litteras, in syllabas, partes, dictiones, orationes, definitiones, pedes, accentus, posituras, notas, orthographiae, analogiae, etymologiae, glossas, differentias, barbarismum, soloecismum, vitia, metaplasmum, schemata, tropos, prosam, metra, fabulas, historias.*

*Discipuli. De istis singulis, antequam ad partium tendamus disputationem, aliquam cognitionem edissere nobis, magister, per singula currens.*

*Magister. Jam de voce, littera et syllaba in superioribus habuistis. ...*

(definitions of dictio, oratio, etc. follow)

*Notae sunt figurae quaedam, vel ad brevianda verba, vel sensus exprimendos: vel ob diversas causas constitutae, ut in Scriptura sacra obelus ÷ vel asteriscus ✱.*

b) *Ars Laureshamensis prologus* (ed. Löfstedt, p. 5)

*Sciendum est autem, quod XXX et III sunt diuisiones grammaticae artis, id est: partes orationis octo, uox articulata, littera, syllaba, dictio, oratio, definitio, pes, accentus, positurae, notae, orthographia, analogia, ethimologia, glosae, differentiae, barbarismi, soloecismi, cetera uitia, metaplasmata, tropi, prosa, metra, fabulae, historiae.*

...

*Notae sunt figurae quaedam uel ad breuianda uerba inuentae uel ad sensus exprimendos uel ob diuersas causas institutae, ut in scriptura sacra obelus et asteriscus (obelus minuit et diuidit sententiam sicut gladius superfluum, asteriscus uero diminutam amplificat).<sup>961</sup>*

c) Clemens Scottus, *Ars grammatica* (ed. Tolkien, p. 12)

*Notae sunt figurae quaedam uel ad breuianda uerba inuentae uel <ad> sensus exprimendos uel ob diuersas causas constitutae, ut in scriptura sacra obelus uel asteriscus.*

<sup>961</sup> This latter part is a marginal note by a different hand in manuscript A; see Löfstedt, *Ars Laureshamensis: Expositio in Donatum maiorem*, 5.

34. Hraban Maur on *chresimon*

820s

Hraban Maur, *In honorem sanctae crucis* I 22, declaratio (ed. Perrin, p. 173)

*Quid itaque haec figura sit, et quid significet, ut exponatur necesse est. Vna quidem ista est figurarum, quae appellantur notae sententiarum, speciali quae uocabulo haec a Graecis uocatur chresimon, "ex uoluntate uniuscuiusque ad aliquid notandum" inuenta. Sed maiore dignitate nunc a Christianis ad exprimentum nomen Christi assumitur, quasi duae litterae primae nominis eius uno monogrammate simul sint comprehensae, id est, X et P.*

## 35. The preface of Florus of Lyon to his revision of the Psalter

825 – 40

Florus of Lyon, *Epistula Flori ad Hyldradum abbatem* (ed. MGH Epp. 5, pp. 340-343)

*Sed ueraciter dilectioni uestrae fateor, ualde mihi molesta et gravis extitit multorum codicum perplexa ac mendosa uarietas, quae dormitantium librorum exorta uitio, imperitorum cotidie ignauia alitur ac propagatur. Ego itaque, ut iniunctum negocium diligentius exequerer, dedi operam et hebraicam sacri interpretis translationem et LXX-ta ad inuicem conferre, ut ex utrisque quid in nostris minus quidue maius haberetur codicibus, curiosius investigarem; et quid in LXX-ta ex hebreo sub asterisco ✱ additum, quid prenotatum obelo ÷ plus in his quam in Hebreorum uoluminibus haberetur, solerti indagacione colligerem. Et quia inerat suspicio, ne forte et ipsa hebraica translatio scriptorum esset uitio deprauata, etiam hebraicum et ipsum uolumen ad lectionem adhibui, necnon et illam notissimam interpretis epistolam ad Suniam et Fretelam Getas conscriptam, in qua per plurimos codicum nostrorum errores confutat, adiuncti: et his omnibus psalterium uestrum, prout potui, correxi, asteriscos ✱ et obelos ÷ suis locis restitui, erasi uitia, recta queque et probata subiici. Unde et tanto iusto tempore ingenti labore decurso, remissurus librum hanc in eius parte conscripsi epistolam, per quam et illud uolui uestrae significare prudentiae, esse aliqua tam in titulis quam in corpore psalmodum, quae dupliciter etiam dici possunt, uel ad LXX-ta interpretum auctoritatem uel propter ueterem prolixi uerbi consuetudinem; et tamen, quid in his hebraica sibi vindicet ueritas, adnotari....*

*Et quoniam scio uelle sanctitatem uestram nouum psalmodum codicem scribere, hortor ac moneo, ut haec omnia ingenti cura et studio conseruetis: diapsalmata, ubicumque a nobis sunt relicta aut addita, inseratis; ubi rasimus relinquatis. Numeros psalmodum propriis titulis preponite, et alios ante alleluia, alios post, aliquos inter duos alleluia conscriptos, sicuti a nobis correctum est; est enim in singulis uera et utilis ratio, quae studiosis quibusque lectoribus maximum profectum gignit. Asteriscos ✱ et obelos ÷ ante omnia obseruate. In uolumine quod scripturi estis, ita spaciose inprimantur lineae, ita clara ac prolata liminaria relinquuntur, ut et litterarum nomina, quae extrinsecus addenda sunt, distincte et per intervalla consistent, et adnotationum sermunculorum locis suis diligentius adsignentur, ut liber ille uicini honestate ac decore et utilitate sui et librarium exerceat, et lectorem erudiat, et pascat animos, et oblectet aspectus.*

## 36. Prudentius of Troyes on doctrinal criticism

c. 851

Prudentius of Troyes, *Epistula ad Guenilonem archiepiscopum* (ed. MGH Epp. 5, pp. 632-633)

*Fidens igitur in eius gratia, qua praueuimus ut bene uelimus, subsequimur, ne frustra uelimus, reuolutis patrum consonis per omnia paginis, quid quisque eorum antidoti contra eadem uenena confecerit, decerpere fideliter curavi, praefixo cuiusque doctoris nomine libroque pariter intmato. Verba quoque eiusdem Iohannis, ut ab eo digesta sunt pluribus locis, inserui, praeposito etiam nomine ipsius cum praecedente illud nota, quae grece dicitur theta, quam sententiis capitalibus damnandorum antiqui praescribere solebant. In multis enim non uerba eius interposui, quae loquacitate nimia legentibus fastidium ingerunt, sed sensibus eorum pro captu meae pusillitatis ueraciter obuiaui. Ubicumque autem mei sermonis interpositio necessarium locum expetiit, ne quid michi tribuerem, si quid boni superna gratia per meae linguae organum loqueretur, notam superponere studui, quae ab artigraphis crisimon nuncupatur, quoniam*

*velut monogramma nominis Christi effigiare quodammodo cernitur, ut eius totum ostenderem quicquid benignitatis ipsius largifluis indebitisque muneribus inbibissem; illud etiam necessario credidi praemonendum, ut tuae beatitudinis perspicacia subtiliter sollicitaeque attendat, quantis se idem Iohannes contrarietatibus inpugnet, qui ea quae nunc adfirmat, post denegat et quae modo loquaci vanitate diffitetur, postmodum vana loquacitate confitetur, adeo ut aut non viderit quid dixerit aut a nullo umquam videri putaverit.*

### 37. Hincmar of Reims on various technical signs      second half of the 9th century

a) Hincmar of Reims, preface to *De una et non trina deitate* (ed. PL 125, cols. 473c-476c)

*Quapropter ministerio dignatione divina indignitati meae imposito, ad hanc sollicitudinis curam ac studium non modo vestris petitionibus sum invitatus, verum et tractus, et quantum ipsa deitas quae Trinitatis est unitas dederit, et occupatio multiplex, atque contumacia inertiaeque sensus mei permiserit, exsequi ea quae petitis procurabo; ponens cum integritate sui in hoc opusculo nostrae servitutis ejusdem Gothescalci schedulas, et per singulas sententias more veterum obelum ✚, id est jacentem virgulam eis opponemus, ut quasi sagitta falsa illius dicta confodiat, his vero quae opponentur ex orthodoxorum dictis ejus sententiis figuram ✠, quae chresimon dicitur praenotabimus, ut per eam catholicorum testimonia, quae resistunt venenosis ejus sensibus, demonstrantur, et sana ac vere Christiana intelligentia, ut revera a Christo contra antichristos tradita, evidenter simplicibus et devotis mentibus ostendatur.*

b) Hincmar of Reims, letter to Odo of Beauvais (ed. Lambot, p. 270)

*Libellum denique mihi a te datum contra obiectiones graecorum antea propter multimodas, immo continuas mihi occupationes tibi notissimas, non licuit legere. Nunc autem transcurre eum sub oculis et, sicut petisti, in quibus locis mihi aliter visum fuit, adnotare curavi, ponens viritim signa in marginibus paginarum et secundum eadem signa in hac scedula quae mihi visa sunt tuae dilectioni scripsi. Quae si ita et visa fuerint, retractabis.*

c) Hincmar of Reims, *Vita Remigii episcopi* (ed. Krusch, p. 258)

*Que ut ad recitandum omnia in populi audientia non increscant, cui pro captu audientium mensuram verbi convenit ministrari, et excerpta per se alia lectioni studiosorum non depereant, sicut quondam contigisse hac occasione in prefatione huius operis commemoravi, per lectiones ad legenda in duabus festivitibus, scilicet depositionis et translationis huius domni et patronis nostri, determinatas, - ut in depositionis sollempnitate novem lectiones ab exordio usque ad obitum eius legantur, et in eius translationis festivitate sex lectiones de his que post obitum illius ostensa sunt et tres de omelia lectionis evangelicae legantur, - subsiciva distinctione notis antiquorum peritia inventis, quantum inde, populo audiente, legantur, et que instructoribus et studiosioribus, quando sibi licuerit vel libuerit, legenda serventur, designare curavi: eo videlicet modo, ut illa que populo recitanda sunt nota quae asteriscus vocatur ✱, non ut ea que ommissa fuerant illucescant, sed ut quasi stelle radii minus scientes illuminent, prenotentur; eis vero quae per Dei gratiam illuminatis legenda reservari debent nota paragraphus ¶ preponatur ad separandas res a rebus, quae in conexione concurrunt; antisimma vero ⊃ subiungatur, ubi sunt finienda, quae paragraphus ¶ prenotavit.*

38. Section *De notis* in the revised Ambrosian Psalter

9th century

Pseudo-Sedulius, *Epistula* (MGH Epp. 6, pp. 204-5)<sup>962</sup>

DE NOTIS.

QUINQUE SUNT NOTAE, QUAS IN HOC PSALTERIO DEPINXIMUS, ID EST

I. ⊕ THETA.

II. Ψ PSI.

III. ✠ CHRISMON.

III. ∟ ET.

V. ∩ DIASTOLE. DE NOTA ⊕ THETA.

*Haec quidem nota mortem significat, quam Graeci theta hoc est "apo tu thanatu", id est "a morte" vocant. Nam apud antiquos indices hanc litteram, id est ⊕ thetam ad eorum nomina adponebant, quos mori indicabant. Unde et habet per medium telum, id est signum mortis. Hac autem littera ego usus sum in his locis, ubi superfluum esse videtur, ut sicut in iudicialibus sententiis eos, qui vivere non debebant, significabat, ita et in his locis mortuum significat, hoc est ut non dicatur illud apud Latinos, quod apud Graecos Hieronimumque non dicitur.*

II. DE NOTA Ψ PSI.

*Secunda nota est quam Graeci Ψ psi vocant. Per hanc autem litteram Graeci ψεδδον, hoc est "falsum", scribunt. Ego quidem ea usus sum in his locis, ubi mutatio esse videtur, ut, sicut qui falsum dicit alteram rem pro altera nominat, ita et haec nota falsitatem significat in his locis, ubi aliud sonat in Latino, aliud vero in Graeco.*

III. DE NOTA ✠ CHRISMON.

*Tertia nota est quae chrismon ✠ nuncupatur. Haec quidem ex voluntate scriptoris ad aliquid notandum ponitur. Ego quippe ea usus sum in his locis, ubi in Latino minus habetur quam in Graeco consonanti Hieronimo, eo quod, si ipsa nota altius consideretur, apud Graecos per eam solam nomen Christi exprimitur, quia duae litterae, hoc est X, quam Graeci "chi" nominant, necnon P, quam ipsi "ro" nuncupant, quibus nomen Christi legitur, concatenatae sibi in una videntur, unde apud illos monogrammon dicitur, id est unalis scriptio. Ideo autem ea usus sum in his locis, quae superius diximus, quia Dominus in evangelio dicit: "Qui sequitur me, non ambulat in tenebris, sed habebit lumen vitae". Nam ubi sunt maiores tenebrae, quam ubi ignorantia esse videtur? unde etiam eum, quod facile non potest intellegi, a quibusdam obscurum solet dici. Nam cum in tenebris ambulamus, non possumus videre membra, quae in domo sunt. Cum vero lumen accenditur, tenebrae quidem fugantur et membra, quae antea latebant, manifestabuntur. Sic autem et in his locis, ubi ea nota depicta esse videtur, cum sunt sine ea nota, qua nomen veri luminis, quod est Christus, nominatur, qui verum atque lucidissimum lumen esse firmissime creditur, tenebrae ac caligo ignorantiae ibi esse nullus ambigit. At ubi nomen Christi, qui inluminat abscondita, sonuerit, omnia lucidissime atque clarissime sine ullo obstaculo tenebrarum patebunt.*

III. DE NOTA ∟ ET.

*Quarta nota, quam in hoc psalterio depinximus, figuratur ita, cuius nomen, quo vocetur, quamvis non repperi, sed tamen in libris a scriptoribus pro "et" coniunctione positam esse scio. Unde et ego ea simili modo in his locis usus sum, ubi και, id est "et" apud Graecos et sanctum Hieronimum habetur.*

V. DE NOTA ∩ DIASTOLE.

*Quinta nota est diastole ∩. Qua vero nota utuntur grammatici in his locis ad discernenda verba, quae male sibi cohaerentia esse videntur. Ego autem ea unus sum in his locis, quae a duabus praefatis notis, id est ⊕ theta et Ψ psi, notantur, ut discernat ea verba usque ad quae loca superflua aut mutata esse notantur. Nam ceteris duabus notis, hoc est ∟, quae "et" diximus significare,*

<sup>962</sup> Formatting of this text follows the layout of the oldest manuscript, **Munich, BSB, Clm 343** (9th century, 3/4, Milan), fols. 6r-8r.

*necnon et ¶ chrison, quae aliquid deesse [sic] praefati sumus ostendit, hanc diastole notam non coniunximus, eo quod istae duae notae praedictae, quae aliquid deesse ostendunt, non ibidem ea verba specialiter, quae esse debeant, sicut ceterae demonstrant. In cuius ergo fine eam ponere debuimus, cuius verba ibi non leguntur?*

### 39. Notice about the *notae* of Erchenbert of Monte Cassino end of the 9th century

(ed. MGH Poetae 3, p. 753)

*Item martirologium de presbyteri Bede heroico compositum metro. Et adverte, prudens lector, quia hi versus, quos obelo et chrimonio<sup>963</sup> in capite prenotatos inveneris, ab Erchenperto monacho monasterii sancti Benedicti de castro Casino editi sunt.*

### 40. Various references to the Origenian textual criticism 8th – 9th century

#### Biblical commentaries

*Pauca problemata de enigmatibus ex tomis canonicis* (ed. McNamara, 'Psalter Text and Psalter Study', p. 139)

*CASSIODORUS XXV. Cur inveniuntur alia verba in psalmis sub obelo que sunt in ebreo et alia sub asteriscis que non sunt in ebreo? Ideo quia non contra ebreum sefe<.> sed consideravit Hironimus Theodocian priusquam vidit, quia dissonans fuit secum contra Septuaginta et invenit primum scriptorem, deinde posuit obelum super quod est in Septuaginta, quod non fuit in Theodocian, et posuit asteriscum in Theodocian, deinde convertit ad veritatem ebricam.*

*Eclogae Tractorum in Psalterium* (St. Gallen, Stiftsbibliothek, MS 261, p. 155<sup>964</sup>)

*AG Septuaginta interpretes psalmos inter caeteros libros transferentes et in numerum reeligerunt, et in ordinem collocaverunt, et diapsalmis distinxerunt, quia omnes secundum Aebros in unum confusi habebantur. De Greco vero in Latinum ante translationem Hieronimi male translati sunt obelis et asteriscis psalterium correxit. HIR Obelus est virga iugulans vel iacens quam subponitur in verbis vel in sentiis superflue iteratis, vel in his dictis ubi aliqua lectio falsitate notata est ut quasi sagitta iugulat atque falsa confodiat. Sagitta enim grece obelus dicitur. AG Asteriscus est stella radiens ubi aliquid de hebraica veritate defuisse radiat.*

*The Old-Irish commentary on the Psalms 329* (ed. and trans. Meyer, p. 33)

*Ceist. Cia tintúd foratá inna salmu? indul atát cóic tintúdu foraib .i. tintúd Septin, tintúd Simmaig, tintúd Teotbais, tintúd Aquil, tintúd Cirini. Tintúd Septin ém, is hé fil forsna salmu, ocs is hé romalartad oco. Tintúd asind ebru isin n-gréic, isin latin. Corubertaig Cirine fo obil ocs astrisc .i. nach ní dorormacht Septin nad rabi i firinni inna n-Ebraide, dorat Cirine obil ÷ foir. Obil didiu .i. 'virga iugulans' .i. fleisc ÷ gonas. Nach ní immurgu doreremat Septin robóí hi firinni inna n-Ebraide do réir Cirini, dorat Cirine astrisc foir. Astrisc nó ✱ didiu 'stella radiens' etercertar, ut Orion poetas.*

Question. What is the translation that is on the psalms? For there are five translations on them, to wit, the translation of the Septuagint, the translation of Symmachus, the translation of Theodotion, the translation of Aquila, the translation of Jerome. The translation of the Septuagint, truly, that is the one which is on the psalms, and this is the one which was altered by him. It is a translation from the Hebrew into the Greek, into the Latin. Jerome corrected it under dagger and asterisk. To wit, anything that the Septuagint added, which was not in the 'Hebrew Verity,' Jerome put a dagger on it. Obelus, however,

<sup>963</sup> Madrid, Biblioteca Nacional, MS 19 (12<sup>th</sup> century, southern Italy) reads *chrunons*; see *Inventario general de manuscritos de la Biblioteca Nacional*, vols. 1, 20–21.

<sup>964</sup> This manuscript is digitized at: <http://www.e-codices.unifr.ch/de/csg/0261/155/medium>.

to wit, *virga ingulans*, that is, a rod that wounds. Anything, however, which the Septuagint forgot, which, according to Jerome, was in the ‘Hebrew Verity,’ Jerome put an asterisk on it. Asteriscus, however, means *stella radians, ut Orion poetes* (*Etym.* 3.60.1).

glossographic sources

Abseida (Vatican, BAV, Pal. Lat. 1773 and Bern, Burgerbibliothek, MS 688)

ASTERICUS. *asteris signa*

Erfurt glossary (Erfurt, Wissenschaftliche Allgemeinbibliothek, Ampl. 2° 42)

ASTERISCIS. *stellis*

OBELIS. *virgis*

Abstrusa-Abolita (Vatican, BAV, Vat. Lat. 3321)

ASTERISCOS. *stellae perlucentes* (Abstrusa)

Abba (St. Gallen, Stiftsbibliothek, MS 912)

OBELO. *linea*

Anonymous glosses in Reims BM 408, fol. 172v (9<sup>th</sup> century)<sup>965</sup>

OBELUS. *virgula iacens*

ASTERISCUS. *stelle similitudo*

John the Scot, Glossae divinae historiae 150-151 (Contreni and O Néill, *Glossae divinae historiae. The biblical glosses of John Scottus Eriugena*, p. 120)

*Cur ea quae sub asteriscis et obelis* (Jerome, Pref. to Josue 6, 6)

ASTERISCIS: *stellaribus exemplaribus*

OBELIS: *virgis ingulantibus*

marginal notes, glosses and various other notes

Vatican, BAV, Pal. Lat. 200, fol. 26r (9<sup>th</sup> century, 1/2, Lorsch)<sup>966</sup>

marginal note to Augustine, *De civitate Dei* 18.43: *...eaeque signis quibusdam in stellarum modum factis ad capita eorundem uersuum notauerunt, quae signa asteriscos nocant. Illa uero, quae non habent hebraei, habent autem septuaginta, similiter ad capita uersuum iacentibus uirgulis, sicut scribuntur unciae, signauerunt* (compare with item 19a)

ASTERISCOS. *aste ✱ riscus*

VIRGULIS. *obe ÷ lus*

Munich, Bayerische Staatsbibliothek, Clm 14434, fol. 1v (9<sup>th</sup> century, 2/4, Regensburg)<sup>967</sup>

Biblical glosses to Jerome’s preface to Pentateuch with interlinear annotations: *...qui editioni antiquae translationem theodotionis miscuit, asterisco et obelo, id est stella et ueru, opus omne distinguens* (compare with item 17a)

ASTERISCO. *id est stella hoc est similitudo talis signi ✱*, add. inter lin.: *Asteriscus apponitur his quae ommissa sunt ut illucescant per eam nota quae deesse uidentur. Stella enim grece aster dicitur a quo asteriscus dirivatur* (*Etym.* 1.21.2)

OBELO. (*÷* add. sup. lin.) *id est ueru vel virga*, add. inter lin.: *Obelus superne punctatus (sic!) ponitur in his ad quibus dubitatur utrum tolli debeant necne* (*Etym.* 1.21.4)

<sup>965</sup> This manuscript is digitized at: <http://gallica.bnf.fr/ark:/12148/btv1b84490051/f348.item>.

<sup>966</sup> This manuscript is digitized at: [http://bibliotheca-laureshamensis-digital.de/bav/bav\\_pal\\_lat\\_200/0057](http://bibliotheca-laureshamensis-digital.de/bav/bav_pal_lat_200/0057).

<sup>967</sup> This manuscript is digitized at: [http://daten.digitale-sammlungen.de/bsb00006524/image\\_4](http://daten.digitale-sammlungen.de/bsb00006524/image_4).

Karlsruhe, Badische Landesbibliothek, Aug. Perg. 52, fol. 75r (9<sup>th</sup> century, 4/4, perhaps southwestern Germany)<sup>968</sup>  
empty folium with a note: *asteriscus ✖ obelus ±*<sup>969</sup>

Paris, BnF, Lat. 12949, fol. 23bis (10<sup>th</sup> century)<sup>970</sup>  
a slip of parchment bound in the codex: *Oboelus per dyptongon est species ponderis. Sine ea dicitur veru. Unde beatus Ieronimus: Quaedam obelis formans quaedam stellisque reformans. Semioboli duplum est obolus quem pondere duplo gramma.*

#### 41. Atto of Vercelli on *coronis*, *obelus* and *ceraunium*

940 – 961

a) Atto of Vercelli, *Perpendiculum* 47 (ed. Vignodelli)

*Auxilio quo fretus, supplices oriar tum dependere uoces, Ebraicus confirmet uester quas et, una dictione, succentus, eius et extremis cronis aptetur in oris.*

Gloss on *cronis*. *Chronis nota est quae tantum in fine libri apponitur, cuius figura talis esse monstratur* (sign).

b) Atto of Vercelli, *Perpendiculum* 38 (ed. Vignodelli)

*Non diobolaris ad nenias lingua est mihi defluens quaque, iniuriam stilo uestram meo sed si singrafa moueant, ad semnion pagine stat ut nostrę ducantur. | <Mea, quam nec obelus signabit, merebitur \*\*\*\* \* ceranniis esse sedula turrix cuspidis, ne inbereat nocuum> sigim.*

Gloss to *obelus*. *Obelus est nota quae apponitur in uerbis uel sententiis supernacuae iteratis, uel falsitate notatis.*

Gloss to *ceraunius*. *ceraunium rursus <not>a est qua ponitur quo<tiens> multi uersus inpro<bantur.> Ceraunium sane fulmine dicitur.*

#### 42. Eckhart IV. of St. Gall on *require*

first half of the 11th century

St. Gallen, Stiftsbibliothek, MS 174, fol. 1r (9<sup>th</sup> century, perhaps Mainz and St. Gall)<sup>971</sup>

*Liber optimus, nimis autem uitiöse scriptus. Hunc ego quidam corrigere per me exemplar aliud non habens, si poteram temptari. Ergo ubi minus potui, r litteram apposui. Nihil autem nisi ubi certissimum eram abredere uolui. Omnia uerū quae ascripsi, sanioris lectoris arbitrio reliqui.*

<sup>968</sup> This manuscript is digitized at: <http://digital.blb-karlsruhe.de/blbhs/Handschriften/content/pageview/448690/>.

<sup>969</sup> This note was perhaps triggered by Augustine's letters 71 to Jerome referring to critical signs (see item 19b) contained in the same codex on fols. 10r-11r.

<sup>970</sup> This slip was brought to my attention by my colleague Irene van Renswoude.

<sup>971</sup> This manuscript is digitized at: <http://www.e-codices.unifr.ch/en/csg/0174/1/0/Sequence-363>.

### Appendix III: Sign treatises produced from the 1<sup>st</sup> to the 15<sup>th</sup> century

This appendix lists all texts referred to in this dissertation that I identify as sign treatises. As a category of written evidence about technical signs, sign treatises are distinct from the testimonial evidence that I list in Appendix II. The chief difference between sign treatises and testimonies is that in the latter technical signs are not treated as the only or the primary subject of such texts. And even if they are treated, the portions discussing technical signs lack autonomy. It is not always possible to make a sharp distinction between the two categories of evidence. At least some of the texts that I chose to include in this rather than in the previous appendix are borderline cases. The account of the signs used for the annotation of Plato by Diogenes Laertius (item 4), for example, is not a sign treatise but seems to be our only complete record of a lost sign treatise. Cassiodorus' preface to the *Expositio psalmorum* (item 8) may be judged comparable with the technical prefaces to several Carolingian manuscripts included in the previous appendix, and not as an autonomous text since it was part of his Psalm commentary. However, it was transmitted as a self-standing sign treatise in the Early Middle Ages and after, and unlike the early medieval prefaces, it has the form of a list of technical signs, not of a narrative prose text.

In addition to the text of the individual sign treatises (section A), this appendix also includes a comparison of the most important sign treatises (section B).

#### A) Texts of the sign treatises discussed in this dissertation

The text of individual sign treatises in the first section corresponds to the text in the critical edition, if published. If no critical edition was published, I transcribed the text from one of the manuscripts containing it (and I refer to the respective folia of the manuscript). In the case of Greek sign treatises, I provide both the Greek text and a translation into English except for items 3, 4 and 5. For item 3, I used an existing German translation. For items 4 and 5, I provided the text of the Greek version but an English translation of the Syriac version in the absence of a reliable translation from Greek. In the case of the sign treatises in other languages (Syriac, Anglo-Saxon, and Armenian), I provided only the English translation. Translations are taken from extant publications, or if no translation exists, the name of the translator is provided in a footnote. I want to repeat my thanks to Bojana Radovanovic and Francesca Schironi, who translated Greek sign treatises previously not translated into English.

In addition to texts, I also reproduce two other aspects of the ancient and early medieval sign treatises essential for their understanding in the first section of this appendix:

their format and the graphic signs which accompany them. Since I argue in my dissertation that sign treatises underwent re-formatting in the course of their transmission from Antiquity to the Early Middle Ages (see chapter 3) and that a salient feature of the new, medieval format was a list-like arrangement, I arranged the text of individual sign treatises according to how they were formatted in extant manuscript witnesses. If the text survived in several formats in the manuscripts, I reproduced the layout of the oldest manuscripts and included a remark about the existence of alternative formats in a footnote to the text.

To record graphic signs that are part of the sign treatises, I used standardized symbols that I designed myself for the purpose of this dissertation. They do not reflect the degree of fluidity and variability of the depiction of technical signs that can be observed in the early medieval manuscripts. Virtually no two codices contain exactly the same signs, and many even contain several graphic forms for each sign, suggesting that their users were aware of the fluidity. The chief reason why I chose to use a standardized set of signs was to allow for a better comparison of various sign treatises and also for a simpler representation as a computer-typed text.

The sign treatises are presented in chronological order based either on their date of composition if known, or on the date of their oldest witness.

< > emendations by the editor

[] omissions in the text

() editorial comments

## 1. Hephaestion, *Enchiridion* (section Περί σημείων)

2<sup>nd</sup> century

ed. Consbruch, pp. 73-76

Τὰ σημεῖα τὰ παρὰ τοῖς ποιηταῖς ἄλλως παρ' ἄλλοις κεῖται· λέγω δέ, ὅποιά ἐστιν ἢ τε παράγραφος καὶ ἢ κορωνίς καὶ ἢ ἔξω νενευκίᾳ διπλῆ καὶ ὁ ἄστερισκος, καὶ εἴ τι ἄλλο τοιοῦτον.

Παρὰ μὲν τοῖς λυρικοῖς, ἂν μὲν μονόστροφον τὸ ᾄσμα ἦ, καθ' ἐκάστην τίθεται στροφὴν ἢ παράγραφος, εἴτα ἐπὶ τέλος τοῦ ᾄσματος ἢ κορωνίς. ἐὰν δὲ κατὰ περικοπὴν τὰ ᾄσματα ἦ γεγραμμένα, ὥστε εἶναι στροφὴν καὶ ἀντίστροφον καὶ ἐπωδόν, ἢ παράγραφος ἐπὶ μὲν τῷ τέλει τῆς τε στροφῆς καὶ ἀντίστροφου κεῖται, ἐπὶ δὲ τῇ ἐπωδῷ ἢ κορωνίς. — καὶ οὕτως ἢ παράγραφος, ἢ διορίζει τὰ τε ὅμοια καὶ τὰ ἀνόμοια. — Ἐπὶ μέντοι τῷ τέλει ὁ ἄστερισκος τίθεται, γνῶρισμα τοῦ τετελεσθαι τὸ ᾄσμα, ἐπεὶ ἢ κορωνίς ἐπὶ πασῶν τίθεται τῶν ἐπωδῶν.

Καὶ μάλιστα εἴωθεν ὁ ἄστερισκος τίθεσθαι, ἐὰν ἑτερόμετρον ἦ τὸ ᾄσμα τὸ ἐξῆς· ὃ καὶ [μᾶλλον] ἐπὶ τῶν ποιημάτων τῶν μονοστροφικῶν γίνεται Σαπφουῖς τε καὶ Ἀνακρέοντος καὶ Ἀλκαίου· ἐπὶ δὲ τῶν Ἀλκαίου ἰδίως κατὰ μὲν τὴν Ἀριστοφάνειον ἔκδοσιν ἄστερισκος ἐπὶ ἑτερομετρίας ἐτίθετο μόνης, κατὰ δὲ τὴν νῦν τὴν Ἀριστάρχειον καὶ ἐπὶ ποιημάτων μεταβολῆς.

Ἡ δὲ διπλῆ ἢ ἔξω βλέπουσα παρὰ μὲν τοῖς κωμικοῖς καὶ τοῖς τραγικοῖς ἐστὶ πολλή, παρὰ δὲ τοῖς λυρικοῖς σπανία· παρὰ Ἀλκμᾶνι γοῦν εὐρίσκεται· γράφας γὰρ ἐκεῖνος

δεκατεσσάρων στροφῶν ἄσματα [ῶν] τὸ μὲν ἡμισυ τοῦ αὐτοῦ μέτρου ἐποίησεν ἐπτάστροφον, τὸ δὲ ἡμισυ ἐτέρου· καὶ διὰ τοῦτο ἐπὶ ταῖς ἐπτά στροφαῖς ταῖς ἐτέραις τίθεται ἡ διπλῆ σημαίνουσα τὸ μεταβολικῶς τὸ ἄσμα γεγράφθαι. μεταβολικῶς τὸ ἄσμα γεγράφθαι.

Τούτοις τοῖς σημείοις τοῖς προειρημένοις πλήν τοῦ ἀστερισκου καὶ ἐτέροις τισί, περὶ ὧν λέξομεν, <καί> ἐν τοῖς δράμασι χρώμεθα. Τῆ μὲν οὖν κορωνίδι κατὰ τρόπους τρεῖς ἦτοι ὅταν τῶν ὑποκριτῶν εἰπόντων τινὰ καὶ ἀπαλλαγέντων καταλείπεται ἡ χορός· ἢ ἔμπαλιν· ἢ ὅταν μετὰ βασίς ἀπὸ τόπου εἰς τόπον γίνεσθαι δοκῆ τῆς σκηνῆς.

Τῆ δὲ παραγράφῳ ἦτοι κατὰ πρόσωπα ἀμοιβαία, ἐν τε τοῖς ἰαμβικοῖς καὶ τοῖς χορικοῖς, <ἢ> μεταξύ τῆς τε στροφῆς καὶ τῆς ἀντιστροφῆς.

Ἐὰν μέντοι ἡ στροφή ἐξ ἀμοιβαίων τυγχάνη συγκειμένη, οὐκ ἐξαρκεῖ πρὸς τὸ δηλῶσαι, ὅτι πεπλήρωται ἡ στροφή, ἢ παράγραφος ἐπιφερομένης ἄλλης στροφῆς, ἐπεὶ καὶ ἐφ' ἐκάστου κώλου οὐδὲν ἦττον τίθεται· ἀλλὰ κεῖται καὶ ἡ ἔσω νενευκίᾳ διπλῆ τοῦτο δέ, ἐὰν ἀντιστροφος ἐπιφέρηται· ὡς ἐὰν γε μεταβολὴ μόνον ἢ στροφῶν, ἢ ἔξω βλέπουσα τίθεται.

Εἰπόντων δὲ ἡμῶν ὅτι ἐστὶ τινα κατὰ περιορισμοὺς ἀνίσους ἀναπαιστικὰ γεγραμμένα, ἃ δὴ ἐν παρόδῳ ὁ χορὸς λέγει, ἐφ' ἐκάστου περιορισμοῦ τίθεται ἡ παράγραφος.

Τῆς δὲ παραβάσεως μερῶν ὄντων ἐπτά, ἐπὶ ἐν ἕκαστον τῶν ἀπολελυμένων τριῶν τίθεται ἡ παράγραφος, τοῦ κομματίου καὶ τῆς παραβάσεως καὶ τοῦ μακροῦ· οὐδὲν ἦττον δὲ καὶ ἐπὶ τοῦ μέλους καὶ τοῦ ἐπιρρήματος, ἂν μηδὲν ἀνταποδιδῶται. ἐὰν δὲ ἐνῆ τὰ ἀνακυκλούμενα, τὸ τε ἀντιστροφον τοῦ μέλους καὶ τὸ ἀντεπίρρημα, ἐπὶ τοῦ ἐπιρρήματος τίθεται ἡ ἔσω νενευκίᾳ διπλῆ ὑπὲρ τοῦ δηλῶσαι ὅτι ἐστὶ τὰ ἀνταποδιδόμενα, ἐπὶ δὲ τοῦ ἀντεπιρρήματος ἢ ἔξω νενευκίᾳ.

Εἰῶθασι τοίνυν αὐτοὶ οἱ δραματοποιοὶ μεταξύ ἰαμβείων τινῶν γράφειν ἐτέρῳ μέτρῳ ὀποσασοῦν στροφάς· εἶτα πάλιν περᾶναντες δι' ἰαμβείων τὸ προκειμενον κατὰ διέχειαν ἀνταποδίδοναι τὰς στροφάς. ἐφ' ἐκάστης μὲν οὖν στροφῆς τίθεται παράγραφος· ἐν δὲ ταῖς προτέραις στροφαῖς ἐπὶ τοῦ τελευταίου κώλου δύο τίθενται διπλαῖ, ἢ μὲν κατ' ἀρχᾶς ἔξω βλέπουσα, ἢ δὲ κατὰ τὸ τέλος ἔσω νενευκίᾳ, δηλούντων ἡμῶν διὰ τῆς ἔσω βλεπούσης, ὅτι ἀνταποδίδονται τινα αὐτοῖς· ἐν δὲ τοῖς ἀνταποδιδόμενοις πάλιν μὲν ἐφ' ἐκάστης στροφῆς παράγραφος, ἐπὶ δὲ τοῦ τελευταίου κώλου δύο διπλαῖ, ἢ μὲν κατ' ἀρχᾶς, ἢ δὲ κατὰ τὸ τέλος, ἀμφότεραι μέντοι ἔξω νενευκίᾳ, διὰ τούτων δηλούντων ἡμῶν, ὅτι ἀνταποδέδοται.

partial trans. Stephen, pp. 13-14

In lyric poets, where a poem is composed only of strophes, the *paragraphus* is put beside each strophe and then, at the end of the poem, the *coronis*.

But if the poems are based on grouped structure, so as to consist of strophe, antistrophe and epode, the *paragraphus* occurs at the end of the strophe and antistrophe, and the *coronis* at the end of the epode; so, too, does the *paragraphus*, whose function is to divide like from unlike. The *asteriscus*, the sign which indicates the conclusion of a poem, is however put at the end when the *coronis* occurs with all the epodes.

It is also especially the custom to employ the *asteriscus* if the following poem is in a different metre; and this happens chiefly in the monostrophic poems of Sappho and Anacreon and Alcaeus; in the particular case of Alcaeus' poems the *asteriscus* is used in Aristophanes' edition only where there is a change of metre, but in the recent edition of Aristarchus it is employed wherever there is a change of poem. ... We use the foregoing symbols, except for the *asteriscus*, and some others which I shall mention, in plays also. The *coronis* is used in three ways: when the actors have been speaking and have left the stage and the chorus remains; and the other way round; and when a change from one locality to another is imagined to take place upon the stage.

## 2. A fragment of a Platonic sign treatise in PSI 1488

2<sup>nd</sup> century

ed. and trans. Dörrie, pp. 92-95

[...] τὴν Πλατωνικὴν συν|ήθεια|ν·

ἢ δὲ διπλῆ > πρὸς τὰ δόγματα|α λαμβάνε|ται καὶ τὰ ἀρέσκοντα Πλάτωνι·

ὁ δὲ ὀβολ[ὸ]ς [- πρὸς τὰς ἀθετήσεις] λαμβάνεται·

τὸ δε ἀν|τίσιγμα ⊃ πρὸς τὰς] δισσογραφίας καὶ τ[.]·

τὸ δὲ περιστιγμένον χεῖ ✕ [πρὸς τὰς ἐκλογὰς καὶ καλλιγ|ραφίας·

ἢ [δὲ περιστιγμένη διπλῆ > πρὸς τὰς ἐνίων διορθώσεις·

ὁ δὲ π[ε]ριστιγμέν[ο]ς ὀβολός ≍ πρὸς τὰς εἰκα|ίας ἀθετήσεις·

τὸ δὲ περιστιγμένον ἀ|ντίσιγμα ⊃ [πρὸς τὰς δισσὰς χρήσεις καὶ μεταθέσεις τῶν γραφῶν·

τὸ δὲ κεράνιον Τ - |ημε| --- τὴν ἀγωγὴν τῆς φιλοσοφίας·

ὁ δ[ε] ἀστερίσκος ✕ -- τὴν συμφωνίαν τῶν δογμάτων.

... Platons Gewohnheit im Sprachlichen.

Die Doppellinie (*diple*, >) wird verwendet als Hinweis auf die Lehrmeinungen und Lehrentscheidungen Platons.

Der Spieß (*obolós*, -) wird verwendet als Hinweis auf die Feststellung der Unechtheit.

Das verkehrte Sigma (*antisigma*, ⊃): als Hinweis auf Doppelfassungen und...

Das Chi mit Punkten (✕): als Hinweis auf die stilistisch am besten gelungenen Stellen.

Die Doppellinie (*diple*) mit Punkten (≍): als Hinweis auf die Berichtigungen, die manche angebracht haben.

Der Spieß (*obolós*) mit Punkten (+): als Hinweis auf die willkürlichen Feststellungen der Unechtheit.

Das verkehrte Sigma (*antisigma*) mit Punkten (⊃): als Hinweis auf die Wiederholungen und Umstellungen von Textstücken.

Der Donnerkeil (*kerainion*, Τ): ... die Zugkraft der Philosophie (?).

Der Sternchen (*asteriskos*, ✕): ... die Übereinstimmung (Konkordanz) der Lehrmeinungen.

3. Diogenes Laertius, *Lives of Eminent Philosophers* III 65-663<sup>rd</sup> century

ed. and trans. Hicks, pp. 334-35

Ἐπεὶ δὲ καὶ σημεῖα τινὰ τοῖς βιβλίοις αὐτοῦ παρατίθενται, φέρε καὶ περὶ τούτων τι εἶπωμεν. Χῖ λαμβάνεται πρὸς τὰς λέξεις καὶ τὰ σχήματα καὶ ὅλως τὴν Πλατωνικὴν συνήθειαν· διπλῆ πρὸς τὰ δόγματα καὶ τὰ ἀρέσκοντα Πλάτωνι· χῖ περιστιγμένον πρὸς τὰς ἐκλογὰς καὶ καλλιγραφίας· διπλῆ περιστιγμένη πρὸς τὰς ἐνίων διορθώσεις· ὀβελός περιστιγμένος πρὸς τὰς εἰκαίους ἀθετήσεις· ἀντίσιγμα περιστιγμένον πρὸς τὰς διττὰς χρήσεις καὶ μεταθέσεις τῶν γραφῶν· κεράνιον πρὸς τὴν ἀγωγὴν τῆς φιλοσοφίας· ἀστερίσκος πρὸς τὴν συμφωνίαν τῶν δογμάτων· ὀβελός πρὸς τὴν ἀθέτησιν. τὰ μὲν σημεῖα ταῦτα καὶ τὰ βιβλία τοσαῦτα· ἄπερ (Ἀντιγονός φησιν ὁ Καρύστιος ἐν τῷ Περὶ Ζήνωνος) νεωστὶ ἐκδοθέντα εἴ τις ἤθελε διαναγνῶναι, μισθὸν ἐτέλει τοῖς κεκτημένοις.

And since certain critical marks are affixed to his [Plato's] works let us now say a word about these. The cross (✕) is taken to indicate peculiar expressions and figures of speech, and generally any idiom of Platonic usage; the *diple* (>) calls attention to doctrines and opinions characteristic of Plato; the dotted cross (✕) denotes select passages and beauties of style; the dotted *diple* (≍) editors' corrections of the text; the dotted *obelus* (+) passages suspected without reason; the dotted antisigma (⊃) repetitions and proposals for

transpositions; the *ceruunium* the philosophical school; the asterisk (✱) an agreement of doctrine; the *obelus* (—) a spurious passage. So much for the critical marks and his writings in general. As Antigonus of Carystus says in his *Life of Zeno*, when the writings were first edited with critical marks, their possessors charged a certain fee to anyone who wished to consult them.

#### 4. The first sign treatise in Epiphanius's *De mensuris et ponderibus* c. 392

ed. Moutsoulas (1973)<sup>972</sup>

Παράκεινται δὲ ταῖς αὐταῖς προφηταῖς σημεῖα ταῦτα· Ὡς περὶ τῆς ἀποβολῆς τοῦ προτέρου λαοῦ· Ϟ· περὶ τῆς ἀποβολῆς τοῦ κατὰ σάρκα νόμου· Ὡς περὶ τῆς καινῆς διαθήκης· Ε· περὶ τῆς τῶν ἐθνῶν κλήσεως. + περὶ Χριστοῦ. § περὶ ἐπαγγελιῶν τοῦ προτέρου λαοῦ. ζ̄ περὶ τῆς ἐν ταῖς θείαις γραφαῖς ἀσαφείας· Ὡς περὶ μελλόντων προγνώσεως.

trans. from Syriac Dean, p. 15<sup>973</sup>

And these signs are employed in the prophetic writings:

Ϟ for the rejection of the ancient people;

⊥ for the rejection of the law that is in the flesh;

⊃ for the new covenant;

⋈ for the calling of the Gentiles;

Χ for the Messiah;

Ζ for the promises to the ancient people;

Ζ for obscure passages in the Scriptures;

⊃ for foreknowledge of things going to take place.

#### 5. The second sign treatise in Epiphanius's *De mensuris et ponderibus* c. 392

ed. Moutsoulas (1973)<sup>974</sup>

Περὶ ἀστερίσκου καὶ ὀβελοῦ καὶ λιμνίσκου καὶ ὑπολιμνίσκου ἦγουν τῶν ἐν ταῖς θείαις γραφαῖς σημεῖων. Ὁ ἀστερίσκος οὗτος ✱ ἐνθα παράκειται, σημαίνει τὸ ἐμφερόμενον ῥῆμα ἐν τῷ ἐβραϊκῷ κείσθαι καὶ ἐμφέρεσθαι παρὰ Ἀκύλα καὶ Συμμάχῳ, σπανίως δὲ καὶ παρὰ Θεοδοτίων· οἱ δὲ ἐβδομήκοντα δύο ἐρμηνευταὶ παρῆκαν καὶ οὐχ ἠρμήνευσαν, ὡς δισσολογουμένων τῶν τοιοῦτων λογίων καὶ ὡς ἐκ περισσοῦ ἀναγινωσκομένων. Εἰς παράστασιν δὲ τῶν εἰρημένων λεκτέον διὰ βραχείας λέξεως εἰς τὸ ἀπὸ τῆς μιᾶς λέξεως περὶ τῶν λοιπῶν σε γνῶναι. Κεῖται ἐν ἀρχῇ τῆς Γενέσεως «οὐαεεεὶ Ἀδὰμ σαλῶεῖμ σανᾶ οὐαθεσᾶ μηῶθ σανᾶ», ὃ ἐρμηνεύεται, ὡς καὶ Ἀκύλας ἠκολούθησε, «καὶ ἔζησεν Ἀδὰμ τριάκοντα ἔτος καὶ ἐνακόσια ἔτος». Ὅθεν οἱ ἐβδομήκοντα δύο ἐρμηνευταὶ ἐξ Ἑβραίων ὀρμώμενοι καὶ ἐξ ἀπαλῶν ὀνύχων τὴν τε τῶν Ἑβραίων, οὐ μὴν ἀλλὰ καὶ τῶν Ἑλλήνων ἀκριβῶς πεπαιδευμένοι φωνήν, οὐ μόνον τὴν ἐκ τῆς ἐβραϊδος εἰς ἑλληνίδα ἠρμήνευσαν γραφήν, ἀλλὰ καὶ τὴν ἐν τῇ ἐβραϊδί διὰ δισσολογίας ἐκφωνομένην διάλεκτον τῇ τρανότητι ἐρμήνευσαντες παρήγαγον. Καὶ ἀντὶ τοῦ εἰς δύο τόπους κείσθαι τὸ ὄνομα τοῦ ἔτους ἐνὶ τόπῳ παρήγαγον. Καὶ ἀντὶ τοῦ εἰς δύο τόπους κείσθαι τὸ ὄνομα τοῦ ἔτους ἐνὶ τόπῳ χρησάμενοι τὴν δοκοῦσαν εἶναι βόμβησιν εἰς λειότητα μετέβαλον φήσαντες «ἔζησε δὲ Ἀδὰμ τριάκοντα καὶ ἐνακόσια ἔτη», οὕτε ἐλλίπες τι ποιήσαντες τῷ λόγῳ, ἀλλὰ καὶ εἰς τρανότητα κατέστησαν τὴν ἀνάγνωσιν, ὅπερ

<sup>972</sup> I used this edition via the *Thesaurus Linguae Graecae* ([www.tlg.uci.edu](http://www.tlg.uci.edu)), which does not preserve the original pagination.

<sup>973</sup> Formatting of the English text does not follow Dean's translation, but rather the formatting of the oldest manuscript of the Syriac *De mensuris et ponderibus*, London, BL, Add. 17148 (c. 650-60).

<sup>974</sup> I used this edition via the *Thesaurus Linguae Graecae* ([www.tlg.uci.edu](http://www.tlg.uci.edu)), which does not preserve the original pagination.

ἐν μὲν τῇ ἑβραϊδὶ οὐ δύναται διὰ τῆς συντομίας λέγεσθαι οὕτως, ὡς οἱ ἑβδομήκοντα δύο λέγουσιν, ὅτι «ἔζησεν Ἀδὰμ τριάκοντα καὶ ἐνακόσια ἔτη», οὔτε ἐν τῇ ἑλληνίδι, ὡς ὁ Ἀκύλας ἠρμήνευσεν, ἐξ ἐπιπολῆς λέγων «ἔζησεν Ἀδὰμ ἐνακόσια ἔτος καὶ τριάκοντα ἔτος». Ὅρας γάρ, ὦ φιλόλογε, ὡς ἀπρέπειαν παρέχει τῷ λόγῳ, οὐ τῇ τρανότητι τοῦ λόγου προσέχων, ἀλλὰ τῇ τῆς δευτερολογίας ἀκριβείᾳ. Καὶ ἔδοξε τοῦτο πῖσι παρὰ μὲν τοῖς ἑβδομήκοντα δύο ἑλλπῶς κείσθαι, παρὰ δὲ Ἀκύλα καὶ Συμμάχῳ καὶ ἄλλαις ἐκδόσεσιν ἀνελλιπῶς ἠρμηνεῦσθαι, ὅπερ οὐδὲ παρὰ τοῖς ἑβδομήκοντα δύο ἐνέλιπεν, ἀλλὰ καὶ ὑπὸ τῶν περὶ Ἀκύλαν μετὰ καὶ τῆς κακοφωνίας περισσῶς κείται ἐν δυσὶ τόποις ἀνθ' ἑνός, τουτέστιν ἀντὶ τοῦ ἔτη ἔτος καὶ ἔτος. Διὰ τοῦτο ἐν ἐνὶ τόπῳ τὸ τοῦ ἔτους ὄνομα οἱ ἑβδομήκοντα δύο παρέλιπον. Ἐλθόντων δὲ μετ' ἔπειτα τῶν περὶ Ἀκύλαν καὶ τὰ ὑπὸ τῶν ἑβδομήκοντα δύο παραλειφθέντα ἐκδεδωκότων, ἐδόκουν εἶναι περιττότερα. Ὡριγένης μετὰ ταῦτα ἑλθὼν ἀποκατέστησε μὲν ἐκάστῳ τόπῳ τὸν ἐλλείποντα λόγον, παρέθετο δὲ αὐτῷ τὸν ἀστερίσκον, οὐχ ὡς χρείας οὐσης τοῦ πάντως ζητηθῆναι τὸν λόγον, περιττός γάρ ἐστιν, ἀλλ' ἵνα μὴ παραλείψῃ Ἰουδαίους καὶ Σαμαρείταις ἐπιλαμβάνεσθαι τῶν ἐν ταῖς ἀγίαις ἐκκλησίαις θείων γραφῶν, μηδενὸς ἐπιληψίμου πράγματος ὑπάρχοντος κατὰ τῆς πίστεως ἐν τοῖς ἀπηρετισμένοις λόγοις· περιττοὶ γάρ εἰσι καὶ δισσολογοῦμενοι, ὡς ἀπὸ τῆς ἀναγνώσεως εἰδείξαμεν περὶ τοῦ Ἀδὰμ καὶ τῆς αὐτοῦ ζωῆς· ὡς καὶ ἀπὸ τοῦ βραχυτάτου λόγου δυνατὸν σε τοῖς λοιποῖς ἐπιστῆναι λόγοις, ἐνθα οἱ ἀστερίσκοι παράκινετα. Ἴνα δὲ καὶ τοῦτο μάθη, διὰ τί ἀστερίσκους παρέθετο τοῖς λόγοις τούτοις, ἀφθόνως καὶ τοῦτο λέξομεν. Ἐπίστασαι τοῦτο, ὦ ἀκροατά, ὅτι ἐν τῷ στερεώματι τοῦ οὐρανοῦ οἱ ἀστέρες εἰσὶ, κἄν τε ὑπὸ νεφελῶν ἢ ἡλίου καλυφῶσι. Τούτῳ τῷ νοήματι ὁ τοὺς ἀστερίσκους παραθεῖς ἐποίησεν, ἵνα σοὶ δείξῃ ὅτι οἱ λόγοι, οἷς παράκινετα οἱ ἀστερίσκοι, πεπήγασιν μὲν ἐν ταῖς ἑβραϊκαῖς λέξεσιν, ὡς οἱ ἀστέρες ἐν τῷ στερεώματι, πεπήγασιν μὲν ἐν ταῖς ἑβραϊκαῖς λέξεσιν, ὡς οἱ ἀστέρες ἐν τῷ στερεώματι τοῦ οὐρανοῦ, ἐκαλύφθησαν δὲ ὑπὸ τῆς τῶν ἑβδομήκοντα δύο ἑρμηνείας, ὡς οἱ ἀστέρες ὑπὸ τῶν νεφελῶν καλύπτονται. Αὕτη ἢ ὑπόθεσις τοῦ ἀστερίσκου.

Τοῦ δὲ ὀβελοῦ τὸ διήγημα τοῦτον ἔχει τὸν τρόπον. Ὁβελὸς οὗτός ἐστιν ὁ παρακειμένος ✎ παραπλησίως γάρ γράφεται τῇ καλουμένῃ γραμμῇ. Ὁβελὸς δὲ κέκληται κατὰ ἀττικὴν χρῆσιν, ἄλλοις δὲ καλεῖται δόρυ, ὃ ἐστὶ λόγχη, παρετέθη δὲ ταῖς τῆς θείας γραφῆς λέξεσι ταῖς παρὰ μὲν τοῖς ἑβδομήκοντα δύο ἑρμηνευταῖς κειμέναις παρὰ δὲ τοῖς περὶ Ἀκύλαν καὶ Σύμμαχον μὴ ἐμφορομέναις. Ἀφ' ἐαυτῶν γάρ οἱ ἑβδομήκοντα δύο ἑρμηνευταὶ ταύτας τὰς λέξεις προσέθηκαν, οὐκ εἰς μάτην, ἀλλὰ μᾶλλον εἰς ὠφέλειαν. Ταῖς γὰρ ἑλλπῶς ἐχοῦσαι λέξεις προσθετικότες εἰς σαφήνειαν τὴν ἀνάγνωσιν παρήγαγον, ὥσθ' ὑπολαμβάνειν ἡμᾶς οὐκ ἀμοίρους αὐτοὺς γεγενῆσθαι πνεύματος ἀγίου. Ὡν γὰρ οὐκ ἦν χρεῖα δισσολογοῦν παρῆσαν ὄπου δὲ χωλὸν ἐδόκει τὸ ῥῆμα εἶναι εἰς ἑλληνικὴν διάλεκτον μεταφερόμενον, ἐκεῖ τὴν προσθήκην ἐποίησαντο. Θαυμάσαι δὲ ἔστιν ἐπὶ τούτῳ καὶ μὴ τολμᾶν μέμψιν ἐπάγειν, ἀλλὰ μᾶλλον ἔπαινον, ὡς ἐκ βουλῆς Θεοῦ γεγενημένον συνίεναι τὸν εὐλαβῆ. Ἐβδομήκοντα δύο γὰρ ὄντες τὸν ἀριθμὸν καὶ ἐν τῇ Φαρία νήσῳ, καλουμένη δὲ ἄνω γῆ, ἀντικρὺ τῆς Ἀλεξανδρείας ἐν τριάκοντα καὶ ἕξ οἰκίσκοις, ζυγὴ ζυγὴ κατὰ οἰκίσκον, ἀφ' ἑωθεν ἕως ἐσπέρας συγκλειόμενοι, καὶ τὸ ἐσπέρας ἐν τριάκοντα ἕξ σκαφιδίοις περαιούμενοι καὶ ἀντιπεραιούμενοι εἰς τὸ τοῦ Πτολεμαίου τοῦ Φιλαδέλφου παλάτιον καὶ μετ' αὐτοῦ ἐσιτώμενοι καὶ κατὰ ζυγὴν ἐν κοιτῶσι τριάκοντα ἕξ καθεύδοντες εἰς τὸ μὴ συνδυάσαι μετ' ἀλλήλων ἀλλ' ἀνοθεύτως ἑρμηνεῦσαι, οὕτω διετέλουν. Τοὺς γὰρ προειρημένους τριάκοντα ἕξ οἰκίσκους ὁ Πτολεμαῖος κατασκευάσας ἐν τῷ πέραν εἰς τὴν νήσον διπλοῦς τε αὐτοὺς ποιήσας δύο δύο ἐνέκλεισεν, ὡς ἔφην, καὶ παῖδας δύο ὑπηρετεῖν αὐτοῖς ἅμα ἐνέκλειεν ὀψοποιίας ἕνεκεν καὶ ὑπηρεσίας μετὰ καὶ ταχυγράφων. Ἀλλ' οὔτε θυρίδας τοῖς οἰκίσκοις ἐκείνοις ἐκ τῶν τοίχων ἐποίησεν, ἀλλ' ἄνωθεν ἐκ τῶν δωματίων τὰς καλουμένας ἀναφωτίδας ἀνέφξεν. Οἱ δὲ οὕτω διάγοντες ἀπὸ πρωῒθεν ἕως ἐσπέρας ὑπὸ κλειδα συγκλειεσμένοι οὕτω διάγοντες ἀπὸ πρωῒθεν ἕως ἐσπέρας ὑπὸ κλειδα συγκλειεσμένοι οὕτως ἠρμήνευσαν. Ἐκάστη δὲ ζυγὴ βιβλος μία ἐπεδίδοτο, ὡς

εἰπεῖν ἡ βιβλος τῆς τοῦ κόσμου Γενέσεως μιᾶ ζυγῆ, ἡ Ἔξοδος τῶν υἰῶν Ἰσραὴλ τῆ ἄλλῃ ζυγῆ, ≤τὸ> Λευιτικὸν τῆ ἄλλῃ καὶ καθ' ἐξῆς ἄλλῃ βιβλος τῆ ἄλλῃ. Καὶ οὕτως αἱ εἴκοσι ἐπτὰ βιβλοὶ αἱ ῥηταὶ καὶ ἐνδιάθετοι, εἴκοσι δὲ καὶ δύο κατὰ τὴν τοῦ ἀλφαριθμοῦ παρ' Ἑβραίοις στοιχείωσιν ἀριθμοῦμεναι ἠρμηνεύθησαν.

Ἐἴκοσι γὰρ καὶ δύο ἔχουσι στοιχείων ὀνόματα, πέντε δὲ εἰσὶν ἐξ αὐτῶν διπλοῦμεναι. Τὸ γὰρ χάφ ἔστι διπλοῦν καὶ τὸ μέμ καὶ τὸ νοῦν καὶ τὸ φῖ καὶ τὸ σαδέ. Διὸ καὶ αἱ βιβλοὶ κατὰ τοῦτον τὸν τρόπον εἴκοσι δύο μὲν ἀριθμοῦνται, εἴκοσι ἐπτὰ δὲ εὐρίσκονται, διὰ τὸ πέντε ἐξ αὐτῶν διπλοῦσθαι. Συνάπτεται γὰρ ἡ Ρουθ τοῖς Κριταῖς καὶ ἀριθμεῖται παρ' Ἑβραίοις μία βιβλος. Συνάπτεται ἡ πρώτη τῶν Παραλειπομένων τῆ δευτέρᾳ καὶ λέγεται μία βιβλος. Συνάπτεται ἡ πρώτη τῶν Βασιλειῶν τῆ δευτέρᾳ καὶ λέγεται μία βιβλος. Συνάπτεται ἡ τρίτῃ τῆ τετάρτῃ καὶ λέγεται μία βιβλος. Συνάπτεται ἡ πρώτη τοῦ Ἔσδρα τῆ δευτέρᾳ καὶ γίνεται μία βιβλος. Οὕτως οὖν σύγκεινται αἱ βιβλοὶ ἐν πεντατεύχοις τέτταρσι καὶ μένουσιν ἄλλαι δύο ὑστεροῦσαι, ὡς εἶναι τὰς ἐνδιαθέτους βιβλοὺς οὕτως· πέντε μὲν νομικάς, Γένεσιν, Ἔξοδον, Λευιτικόν, Ἀριθμούς, Δευτερονόμιον· αὕτη ἡ πεντάτευχος ἢ καὶ νομοθεσία· πέντε δὲ στιχῆρεις· ἡ τοῦ Ἰὼβ βιβλος, εἶτα τὸ Ψαλτήριον, Παροιμίαι Σολομώντος, Ἐκκλησιαστής, Ἄσμα Ἀσμάτων. Εἶτα ἄλλῃ πεντάτευχος τὰ καλούμενα Γραφεῖα, παρὰ τισὶ δὲ Ἀγιογράφα λεγόμενα, ἅτινά ἐστιν οὕτως· Ἰησοῦ τοῦ Ναυῆ βιβλος, Κριτῶν μετὰ τῆς Ρουθ, Παραλειπομένων πρώτη μετὰ τῆς δευτέρας, Βασιλειῶν πρώτη μετὰ τῆς δευτέρας, Βασιλειῶν τρίτῃ μετὰ τῆς τετάρτης. Αὕτη τρίτῃ πεντάτευχος. Ἄλλῃ πεντάτευχος τὸ δωδεκαπρόφητον, Ἡσαΐας, Ἱερεμίας, Ἰεζεκιήλ, Δανιήλ. Καὶ εἶτα ἐπληρώθη ἡ προφητικὴ πεντάτευχος. Ἐμειναν δὲ ἄλλαι δύο, αἵτινες εἰσὶ τοῦ Ἔσδρα, δύο εἰς μίαν λογιζόμεναι, καὶ ἡ ἄλλῃ βιβλος ἡ τῆς Ἑσθήρ. Καὶ ἐκπληρώθησαν αἱ εἴκοσι δύο βιβλοὶ κατὰ τὸν ἀριθμὸν τῶν εἴκοσι δύο στοιχείων παρ' Ἑβραίοις. Αἱ γὰρ στιχῆρεις δύο βιβλοὶ, ἢ τε τοῦ Σολομώντος, ἢ Πανάρετος λεγομένη, καὶ ἡ τοῦ Ἰησοῦ τοῦ υἱοῦ Σεϊραχ, ἐκγόνου δὲ τοῦ Ἰησοῦ, (ὁ γὰρ πάππος αὐτοῦ Ἰησοῦς ἐκαλεῖτο), τοῦ καὶ τὴν σοφίαν ἐβραϊστί γράψαντος, ἦν ὁ ἔκγονος αὐτοῦ Ἰησοῦς ἐρμηνεύσας ἑλληνιστί ἔγραψε. Καὶ αὗται χρήσιμοι μὲν εἰσι καὶ ὠφέλμοι, ἀλλ' εἰς ἀριθμὸν τῶν ῥητῶν οὐκ ἀναφέρονται. Διὸ οὐδὲ ἐν τῷ ἀκρῶν ἐνετέθησαν, τουτέστιν ἐν τῇ τῆς διαθήκης κιβωτῷ.

Ἀλλὰ καὶ ἔτι τοῦτο σε μὴ παρελθῆ, ὃ φιλόκαλε, ὅτι καὶ τὸ Ψαλτήριον διεῖλον εἰς πέντε βιβλία οἱ Ἑβραῖοι, ὥστε εἶναι καὶ αὐτὸ ἄλλην πεντάτευχον. Ἀπὸ γὰρ πρώτου ψαλμοῦ ἄχρι τεσσαρακοστοῦ μίαν ἐλογίσαντο βιβλον ἀπὸ δὲ τεσσαρακοστοῦ πρώτου ἄχρι τοῦ ἑβδομηκοστοῦ πρώτου δευτέρᾳ ἠγήσαντο· ἀπὸ ἑβδομηκοστοῦ δευτέρου ἕως ὀγδοηκοστοῦ ὀγδόου τρίτῃ βιβλον ἐποίησαντο· ἀπὸ δὲ ὀγδοηκοστοῦ ἐνάτου ἕως ἑκατοστοῦ πέμπτου τετάρτῃ ἐποίησαν· ἀπὸ δὲ ἑκατοστοῦ ἕκτου ἕως τοῦ ἑκατοστοῦ πενηκοστοῦ τὴν πέμπτην συνέθησαν. Ἐκαστον γὰρ ψαλμὸν ἔχοντα ἐν τῷ τέλει τὸ εὐλογητὸς Κύριος, γένοιτο, γένοιτο, τέλος εἶναι βιβλίου ἐδικαίωσαν. Εὐρίσκεται δὲ τοῦτο ἐν τε τῷ τεσσαρακοστῷ καὶ ἐν τῷ ἑβδομηκοστῷ πρώτῳ καὶ ἐν τῷ ὀγδοηκοστῷ ὀγδόῳ καὶ ἐν τῷ ἑκατοστῷ πέμπτῳ. Καὶ ἐπληρώθησαν αἱ τέσσαρες βιβλοὶ. Ἐν δὲ τῷ τέλει τῆς πέμπτης βιβλίου ἀντὶ τοῦ εὐλογητὸς Κύριος γένοιτο γένοιτο τὸ «πᾶσα πνοὴ αἰνεσάτω τὸν Κύριον, ἀλληλοῦσα». Οὕτω γὰρ λογισάμενοι τὴν περὶ τούτου πᾶσαν ὑπόθεσιν ἀνεπλήρωσαν. Αὗται τοίνυν αἱ εἴκοσι καὶ ἐπτὰ εἴκοσι δύο δὲ ἀριθμοῦμεναι μετὰ καὶ τοῦ Ψαλτηρίου καὶ τῶν ὄντων ἐν τῷ Ἱερεμίᾳ φημί δὲ καὶ τῶν Θρήνων καὶ τῶν ἐπιστολῶν Βαρούχ τε καὶ Ἱερεμίου, εἰ καὶ οὐ κεῖνται αἱ ἐπιστολαὶ παρ' Ἑβραίοις, ἢ μόνον ἡ τῶν Θρήνων τῷ Ἱερεμίᾳ συναρθεῖσα, τὸν τρόπον ὃν εἶπομεν ἠρμηνεύθησαν κατὰ περιόδον ἐκάστη ζυγῆ ἐρμηνευτῶν ἐπιδιδόμεναι καὶ ἀπὸ τῆς πρώτης ζυγῆς τῆ δευτέρᾳ καὶ πάλιν ἀπὸ τῆς δευτέρας τῆ τρίτῃ καὶ οὕτω παρηλθον κυκλεύουσαι ἐκάστη τριακοντάκις καὶ ἐξάκις ἐρμηνευθεῖσαι, ὡς δ' ἄδεται λόγος καὶ αἱ εἴκοσι δύο καὶ ἑβδομηκοντα δύο τῶν ἀποκρῶν.

Ὅτε δὲ ἐτελειώθησαν ἐκαθέσθη ὁ βασιλεὺς ἐπὶ θρόνου ὑψηλοῦ καὶ Ὅτε δὲ ἐτελειώθησαν ἐκαθέσθη ὁ βασιλεὺς ἐπὶ θρόνου ὑψηλοῦ καὶ τριάκοντα ἐξ ἀναγνώσται καὶ αὐτοὶ ἐκαθέσθησαν ταπεινότερον, ἔχοντες ἐκάστης βίβλου τὰ τριάκοντα ἐξ ἰσότυπα καὶ εἰς ἔχων τῆς βίβλου τῆς ἐβραϊκῆς ἀντίγραφον. Ἐνὸς δὲ ἀναγινώσκοντος ἀναγνώστου καὶ τῶν ἄλλων ἐπεχόντων οὐκ εὐρέθη διαφωνία, ἀλλὰ Θεοῦ θαυμάσιον ἔργον εἰς τὸ γνωσθῆναι, ὅτι πνεύματος ἁγίου ἔσχον δωρεὰν ἐκεῖνοι οἱ ἄνδρες ὁμοφωνήσαντες ἐν τῇ ἐρμηνείᾳ καὶ ὅπου μὲν προσέθεντο λόγον πάντες ὁμοῦ προσέθεντο, ὅπου δὲ ἀφείλοντο πάντες ἐπ' ἴσης ἀφείλοντο. Καὶ ὧν μὲν ἀφείλοντο οὐκ ἔστι χρεῖα, ὧν δὲ προσέθεντο ἔστι χρεῖα. Εἰς δὲ τὸ γενέσθαι σοι σαφὲς τὸ εἰρημένον, ὅτι θαυμαστῶς κατὰ Θεοῦ οἰκονομίαν καὶ ἐκ συμφωνίας πνεύματος ἁγίου συμφώνως ἤρμηνευσαν, καὶ πρὸς ἀλλήλους οὐ διηρέθησαν, ὅπως ἂν ἐκ τούτου γνοῦς καὶ πειθῆεις συναινεσίης τῷ ἡμετέρῳ λόγῳ παρεξω σοι ἐνταῦθα διὰ μικροῦ λόγου τὴν τούτων ἀπόδειξιν. Ἐν τῷ ἐκατοστῷ τεσσαρακοστῷ ψαλμῷ ἔκειτο ἐν τῷ ἐβραϊκῷ οὕτως «Ἄδωναί ἐλάχ καρθὶ ἰσμαῖλ ἰεβρητὰ ἀκὼλ», ἃ ἐστὶν ἐρμηνευόμενα «Κύριε ἐκέκραξα πρὸς σέ, εἰσάκουσόν μου· πρόσχεε τῇ φωνῇ». Οὐκ ἔχει δὲ τὸ ἐβραϊκὸν «τῆς δεήσεώς μου». Ὅρα οὖν, πῶς χωλὸν εὐρίσκεται. Οἱ δὲ ἐβδομήκοντα δύο ἐρμηνευταὶ προσθετικότες τὸ «τῆς δεήσεώς μου» ἀχώλαντον ἐποίησαν τὸν στίχον καὶ ἤρμηνευσαν «Κύριε ἐκέκραξα πρὸς σέ, εἰσάκουσόν μου· πρόσχεε τῇ φωνῇ τῆς δεήσεώς μου». Καὶ ὅρα πῶς εὐδιόρθωτος ἄδεται ὁ ψαλμός. Ἐπίσθητι τοίνυν ἀπὸ τοῦ βραχυτάτου λόγου τοῖς ὁμοίοις αὐτῶν κατὰ τὴν προσθήκην πανταχοῦ ὑπὸ τῶν αὐτῶν ἐρμηνευτῶν κειμένοις, ὅτι καλῶς οἱ λόγοι προσετέθησαν εἰς φράσιν καὶ ὠφέλειαν τῶν μελλόντων ἐθνῶν εἰς τὴν τοῦ Θεοῦ πίστιν ἄγεσθαι καὶ τὴν ἐκ τῶν θείων λόγων τῆς παλαιᾶς καὶ νέας διαθήκης κτᾶσθαι ζωῆς κληρονομίαν.

Τῷ δ' αὐτῷ τρόπῳ ὁ Ὠριγένης καλῶς ποιῶν, ὡς περὶ τοῦ ἀστερισκοῦ ἐποίησεν, οὕτως καὶ περὶ τοῦ ὄβελου τὴν σημείωσιν ἐποίησατο. Εἶθε οὖν καὶ τὰ ἄλλα οὕτω καλῶς ἐποίησε. Τὰς γὰρ ἐξ ἐρμηνείας καὶ τὴν ἐβραϊκὴν γραφὴν ἐβραϊκοῖς στοιχείοις καὶ ῥήμασιν αὐτοῖς ἐν σελίδι μιᾷ συνθετικῶς, ἄλλην σελίδα ἀντιπαρέθετο δι' ἑλληνικῶν μὲν γραμμάτων ἐβραϊκῶν δὲ λέξεων πρὸς κατέληψιν τῶν μὴ εἰδόντων ἐβραϊκὰ στοιχεῖα εἰς τὸ διὰ τῶν ἐλλήνων εἰδέναι τῶν ἐβραϊκῶν λογίων τὴν δύναμιν. Καὶ οὕτω τοῖς λεγομένοις ὑπ' αὐτοῦ ἐξαπλοῖς ἢ ὀκταπλοῖς τὰς μὲν δύο ἐβραϊκὰς σελίδας καὶ τὰς ἐξ τῶν ἐρμηνευτῶν ἐκ παραλλήλου ἀντιπαράθετεις μεγάλην ὠφέλειαν γνώσεως ἔδωκε τοῖς φιλοκόλοις. Εἶθε δὲ καὶ ἐν τοῖς αὐτοῦ συντάγμασι μὴ παρέπεσε καὶ τὸν κόσμον καὶ ἑαυτὸν ἠδίκησε κακῶς δογματίσας τὰ περὶ πίστεως καὶ τὰ πλεῖστα τῶν γραφῶν κακῶς φράσας. Ἀλλὰ περὶ τοῦ ὄβελου αὐθις ἐπιλήψομαι τῆς διηγήσεως. Ἐφραμεν οὖν, ὅτι ὁ ὄβελος λόγῳ λέγεται· ζῆφος δὲ ἐστὶ τοῦτο ἀναιρετικόν. Ἐνθα τοίνυν ἡ λέξις εὐρίσκεται παρὰ μὲν τοῖς ἐβδομήκοντα δύο κειμένη ἐν δὲ τῷ ἐβραϊκῷ μὴ ἐμφορομένη, ἐκ τῆς τοῦ ὄβελου σημειώσεως τοῦ τῆ λέξις παρακειμένου δηλοῦται ὅτι ἀνήρηται ὁ λόγος ἀπὸ τοῦ γεννητικοῦ τόπου, ἤτοι τοῦ ἐδάφους τῆς γραφῆς, ὡς μὴ ὑπάρχων ἐν τῷ τόπῳ τῆς βίβλου. Καὶ ταῦτα μὲν περὶ τοῦ ἀστερισκοῦ καὶ τοῦ ὄβελου διηγησάμεν.

Λοιπὸν καὶ περὶ τοῦ λιμνίσκου καὶ ὑπολιμνίσκου διηγητέον. Λιμνίσκον γοῦν, τὸν οὕτω γραφόμενον ὡς ἔχει τὸ προκειμένον σημεῖον  $\ddagger$ , ὃ ἐστὶ γραμμὴ μία μεσολαβουμένη ὑπὸ κεντημάτων δύο, εἴτ' οὖν στιγμῶν, μιᾶς μὲν ἐπάνω οὔσης, τῆς δὲ ἄλλης ὑποκάτω, παρὰ ἰατροῖς φυσιολογικῶς ἠδύρησθαι φασι, καὶ ὠνομάσθαι ἀπὸ τῆς κατὰ τὸ σῶμα χειρουργίας, δύο μὲν ἀπλῶν τομῶν διαιρουμένων εἴτ' οὖν τεμνομένων, μέσον δὲ τῶν δύο διαιρέσεων τοῦ τμηθέντος τόπου διὰ τὰς παρ' ἑκατέρας ἀπλάς δύο τομὰς ὄβελου σχῆμα τοῦ σώματος ἀποτελοῦντος. Μοτοῦ δὲ  $\text{∩}$  ἐστὶ λινοῦν ῥάκος, εἰς λεπτὸν καὶ μακρὸν σχῆμα ἀποτμηθὲν) ἐμβαλλομένου ἀπὸ τῆς μιᾶς διαιρέσεως καὶ εἰς τὴν ἄλλην διαπερῶντος, λιμνίσκος ὑπ' αὐτῶν τῶν ἰατρῶν καλῶς ἐκλήθη διὰ τὸ λιμνάζειν κλυζόμενον τὸν μοτὸν ἐν τοῖς τοῦ τόπου ὑγροῖς. Διὸ καὶ τοῦτο τὸ τοῦ σημείου σχῆμα τοῖς θείοις λόγοις παρέθετο, ἵν', ὅτε σπανίως που εὑροῖς ἐν τῇ τῶν ἐβδομήκοντα δύο ἐρμηνείᾳ διαφωνοῦσαν λέξιν, οὐ μὴν δὲ ἐλλείπουσαν οὐδὲ

προστεθειμένην ταῖς ὁμοίαις αὐτῇ λέξεσι, γνοίης ὅτι ὑπὸ μιᾶς ζυγῆς ἢ δύο αὕτη ἡρμηνεύθη ἢ λέξις διὰ τὰ παρακείμενα δύο κεντήματα. Καλεῖται δὲ ταῦτα συναμφοτέρα ἢ ὁμοια. Ἴνα δὲ καὶ τοῦτο λεῖόν σοι εἶη καὶ εὐπερίδροακτον καὶ περὶ τούτου ἐρῶ. Ὅταν εὐρῆς τοῦτο λεῖόν σοι εἶη καὶ εὐπερίδροακτον καὶ περὶ τούτου ἐρῶ. Ὅταν εὐρῆς ὡς ἐν ἑβδομηκοστῷ ψαλμῷ ἐμφέρεται «τὸ στόμα μου ἀναγγελεῖ τὴν δικαιοσύνην σου» ἀντὶ τοῦ «ἀναγγελεῖ τὴν δικαιοσύνην σου», «ἀναγγελεῖ τὰς δικαιοσύνας σου». Πάλιν δὲ ἐν τῷ ἑβδομηκοστῷ πρώτῳ ψαλμῷ «καὶ ἔντιμον τὸ ὄνομα αὐτῶν ἐνώπιον αὐτοῦ». Ἀντὶ δὲ τούτου πρόκειται, καὶ «ἔντιμον τὸ ὄνομα αὐτῶν ἐν ὀφθαλμοῖς αὐτοῦ». Καὶ οὕτως εἰς πολλοὺς τόπους εὐροις οὐδὲν μὲν ἔλλιπες ὑπάρχον οὐδὲ παρηλλαγμένον, ἀλλὰ τὸ αὐτὸ μὲν ὑπάρχον διαφόρως δὲ ὀνομαζόμενον, ὡς εἶναι οὐ παρὰ ταῦτα ἄλλα συναμφοτέρως ἐκφωνούμενα. Οὕτω δὲ τὸν λιμνίσκον ἐσημειώθη ὡς παρὰ μιᾶ ζυγῆς ἢ δυοῖ ζυγαῖς εὐρεθέντος τοῦ οὕτως ἐκφωνηθέντος λόγου. Καὶ ταῦτα πάλιν περὶ λιμνίσκου εἶπομεν. Τὸν αὐτὸν δὲ τρόπον καὶ περὶ τοῦ ὑπολιμνίσκου δηλώσομεν, ὅπως γνῶς, ὅτι ὅπου εὐρίσκεται τὸ σημεῖον τοῦτο ὑποκείμενον, ὃ ἐστὶν ἀπλῆ γραμμῆ, ὀβελοῦ τὸ σχῆμα ἔχουσα, ὑποκείμενην δὲ ἔχουσα στιγμῆν ἤγουν κέντημα, τοῦτο τὸ σημεῖον τοῦ ὑπολιμνίσκου τύπον δηλοῖ. Ὅπου οὖν εὐρεθῆ λέξει τινὶ παρακείμενος, δηλοῦται ὑπὸ μιᾶς που ζυγῆς ἑρμηνευτῶν ἐξενεχοῖς ὁ λόγος, καθ' ὃ ἡ μία στιγμῆ ὑποφαίνει. Καὶ ἐστὶ καὶ αὐτὸ συναμφοτέρον ἢ συνάδελφον τῇ λέξει, ἢ ἐπίκειται. Αὕτη ἐστὶν ἡ ἡμῶν περὶ ἀστερίσκου καὶ ὀβελοῦ καὶ λιμνίσκου καὶ ὑπολιμνίσκου φράσις, φιλοκαλώτατε.

trans. from Syriac Dean, *Epiphanius' Treatise on Weights and Measures: the Syriac version*, pp. 16-18

Concerning the asterisk, the obelus, the lemniscus, and the hypolemniscus, that is, the signs that are in the divine Scriptures. The asterisk is this ✱ and wherever used it indicates that the word used occurs in the Hebrew, and occurs in Aquila and Symmachus, and rarely also in Theodotion. But the seventy-two translators passed it by and did not translate it, because such words were repetitious and superfluous. And in elucidation of the things that have been said, let It be said by means of a brief quotation so that from the one instance you may understand others. There occurs in the first part of Genesis *w)j)j) )dbm shw)jm sn) wths) mjwth sn)*, which is translated, "and Adam lived thirty years and nine hundred years " as Aquila also. agrees. Here the seventy-two translators, being Hebrews and having been carefully instructed from early youth in the language of the Hebrews as well as that of the Greeks, did not merely translate the Hebrew writing into the Greek, but also, translating with insight, they retained the expression that was uttered twice among the Hebrews; but, instead of the word "year" being employed in two places, they used it in but one. ...

But when the followers of Aquila came later and filled in the things that had been omitted by the seventy-two, they seemed altogether superfluous. And Origen, coming after them, restored the word that was lacking in every place, but placed the asterisk by it. Not that the word was of necessity required in all cases -for it was superfluous - but because he would not permit the Jews and Samaritans to find fault with the divine Scriptures in the holy churches, since there is nothing in the words with asterisks disparaging to the faith; for they are (merely) superfluous and repetitious, as we see by reading in the case of Adam and his life, since even from the shorter sentence you are also able to insert the other words by which the asterisks have been placed. But that you may know also why he placed the asterisk I by these words, without malice we have said this also. You know, o reader, that there are stars in the firmament of heaven, even if they are obscured by clouds or the sun. It was with this thought that he acted when he placed the asterisks, that he might show you that the words to which the asterisks are attached are fixed in the Hebrew Scriptures like the stars in the firmament of heaven, but that they have been obscured by the translation

of the seventy-two as the stars are obscured by the clouds. This is the significance of the asterisk. As to the story of the obelus, it goes this way. The obelus is that which is made —, for it is written in the form of what is called the line. But according to Attic usage obelus means spear that is, lance. And in the divine Scriptures it is placed by those words which are used by the seventy-two translators but do not occur among the followers of Aquila or Symmachus. ...

But I will take up the account of the obelus again. Now we have said that obelus means lance, but the sword is the destructive one. Where therefore the word is found to be used by the seventy-two but does not occur in the Hebrew, by the sign of the obelus placed beside the word it is known that the word is to be lifted up from the native place, that is to say, from the soil of the Scriptures, as something that is not in the place in the Hebrew Scripture. And I have explained the things pertaining to the asterisk and the obelus. Concerning the lemniscus. But I must tell the things pertaining to the lemniscus † and the hypolemniscus †-. The lemniscus, as the sign is here placed, is that which is written †. It is a line between two dots, that is to say, points, one being above and one below. And it is found among physicians in physiology, and gets its name from surgery upon the body. When (the flesh) is separated, that is to say, cut apart, by two straight cuts, then in the middle of the two divisions of the cut place, because of the cuttings, each one straight, the figure of the obelus is completed on the body. But when the dressing ---- which is a piece of linen cut off in a form long and narrow----is applied on one side of the cut and crosses to the other, it is well called by physicians the lemniscus, because of the overflowing (pools) when the dressing is flooded by the discharge from the place. Therefore this kind of sign also they attach to the divine words, that when there is found in rare instances in the translation of the seventy-two a dissonant word, neither subtracted from nor added to words similar to it, you may know, because of the two points placed by it, that this word was translated by one or two pairs. But they were read in two ways or similarly. And that this also may be clear to you and easy to understand, I would also say concerning it: When you find that it is said in Psalm 70, "My mouth proclaims thy righteousness," instead of "proclaims thy righteousness" 70 is "proclaims thy righteousnesses." And again in Psalm 71 it says, "And their name is honored before him"; but instead of this it is put, "And their name is honored in his eyes." And so you may find it in many places, where there is nothing taken away or changed but it is the very same (in meaning), though expressed differently, so that it is not foreign to the others; they are read both ways. And they are so indicated by the lemniscus when a word is found thus employed by one or two pairs. Now we have explained sufficiently the things concerning the lemniscus. In like manner also we make explanation concerning the hypolemniscus, so that if you find the sign written †-, which is a simple line having the form of the obelus, with a dot, that is to say, a point, under it, you may know that it is a sign indicating the symbol of the hypolemniscus. Where now it is found placed by a word, it is indicated that by one pair of translators the word was omitted in the place, as the single dot indicates, and there is also a double or consonant reading of the word by which it is placed. This is our explanation of the asterisk, the obelus, the lemniscus, and the hypolemniscus, O lover of the good.

## 6. Sign treatise attached to the *Orationes* of Gregory of Nazianzus 6<sup>th</sup> century

ed. and trans. Montfaucon, pp. 371 and 373

ὁ ἀστερισκος οὗτος τέτακται ἐν οἷς χωρίοις ὁ θεόλογος περὶ τῆς ἐνσάρκου οἰκονομίας τοῦ μεγάλου θεοῦ καὶ σωτῆρος ἡμῶν Ἰησοῦ Χριστοῦ διαλέγεται διὰ τὸν φανέντα τοῖς Μάγοις θεῖον ἀστέρα.

Ὡραῖον, τὸ σημεῖον τοῦτο τέτακται ἐν τοῖς χωρίοις, ἐν οἷς ἡ φράσις κεκαλλώπισται, ἢ τὸ νόημα ἐξῆνθισται, ἢ καὶ ἀμφοτέρω ὑπεραίρεται.

Ἡλιακὸν, τοῦτο τὸ σημεῖον τέτακται ἐν οἷς χωρίοις περὶ θεολογίας ὁ πατὴρ διαλέγεται, διὰ τὸ ἥλιον τῆς δικαιοσύνης ἐν ταῖς θείαις φραφαῖς τὸν θεὸν ὀνομάζεσθαι.

Σημ. τὸ σημεῖον τέτακται ἐν οἷς χωρίοις ἐν οἷς εὐρίσκεται ζένον τι, ἢ κατὰ δόγμα, ἢ καθ' ἰστορίαν, ἢ ὄφελον σημειωθῆναι τῷ ἀναγνώσκοντι.

✠ *Hic asteriscus ponitur in locis ubi Theologus de carnali oeconomia magni Dei et Salvatoris nostri Jesu Christi loquitur: propter divinam stellam, quae Magis apparuit.*

‡ *Horaiōn. Haec nota ponitur in locis ubi phrasis elegans est, aut sententia florida: aut ubi utraque excellit.*

☉ *Heliakōn. Hoc signum solare ponitur in locis, ubi Pater de Theologia disserit, quia in divinis Scripturis Deus Sol iustitiae vocatur.*

☪ *Semeiosai. Hoc signum ponitur in locis, ubi quid singulare est inexpectatum occurit, sive secundum doctrinam, sive secundum historiam, sive quod Lectori sit annotandum.*

## 7. Cassiodorus, first preface to the *Expositio psalmorum*

560s

ed. Adriaen, p. 2<sup>975</sup>

*Diuersas notas more maiorum certis locis aestimauimus affigendas. Has cum explanationibus suis subter adiunximus, ut quidquid lector uoluerit inquirere per similitudines earum sine aliqua difficultate debeat inuenire.*

PP *hoc in idiomatis, id est propriis locutionibus legis diuinae.*

✠ *hoc in dogmatibus ualde necessariis.*

‡ *hoc in definitionibus.*

SCHE *hoc in schematibus.*

ET *hoc in ethymologiis.*

RP *hoc in interpretatione nominum.*

RT *hoc in arte rhetorica.*

TOP *hoc in topicis.*

SYL *hoc in syllogismis.*

R *hoc in arithmetica.*

GO *hoc in geometrica.*

M *hoc in musica.*

✠ *hoc in astronomia.*

## 8. Isidore of Seville, *De notis sententiarum* (Etym. 1.21)

c. 625

ed. Lindsay, (no page numbers)<sup>976</sup>

*DE NOTIS SENTENTLARVM. Praeterea quaedam scripturarum notae apud celeberrimos auctores fuerunt, quasque antiqui ad distinctionem scripturarum carminibus et historiis adposuerunt. Nota est figura propria in litterae modum posita, ad demonstrandam unamquamque uerbi sententiarumque ac uersuum rationem. Notae autem uersibus adponuntur numero uiginti et sex, quae sunt nominibus infra scriptis. ✠ Asteriscus adponitur in his quae ommissa sunt, ut inlucescant per eam notam, quae deesse uidentur. Stella enim ἀστὴρ dicitur Graeco sermone, a quo asteriscus est diriuatus. — Obolus, id est, uirgula iacens, adponitur in uerbis uel sententiis superflue iteratis, sive in his locis, ubi lectio aliqua falsitate*

<sup>975</sup> Formatting of the text is based on its layout in **Schaffhausen, Stadtbibliothek, Min. 78** (8<sup>th</sup> century, 2/2, perhaps St. Gall), fol. 1v. This manuscript is digitized at: <http://www.e-codices.unifr.ch/en/searchresult/list/one/sbs/min0078>.

<sup>976</sup> Formatting of this text is based on the oldest manuscripts of the *Etymologiae*. Some manuscripts provide an alternative, list-like format for this text, in which individual items are presented on separate lines. I discuss this other layout in detail in chapter 5.

notata est, ut quasi sagitta ingulet supervacua atque falsa confodiat. Sagitta enim Graece ὀβελός dicitur. — Obolus superne adpunctus ponitur in hisdem, de quibus dubitatur utrum tolli debeant necne adponi. [Falsitate notatum est.] ÷ Lemniscus, id est, virgula inter geminos punctos iacens, opponitur in his locis, quae sacrae Scripturae interpretes eodem sensu, sed diversis sermonibus transtulerunt. √ Antigraphus cum puncto adponitur, ubi in translationibus diversus sensus habetur. ✱— Asteriscus cum obolo. Hanc proprie Aristarchus utebatur in his versibus, qui non suo loco positi erant. ▮ Paragraphus ponitur ad separandas res a rebus, quae in conexu concurrunt, quemadmodum in Catalogo loca a locis et [regiones a] regionibus, in Agone praemia a praemiis, certamina a diversis certaminibus separantur. ⊔ Positura est figura paragrapho contraria et ideo sic formata, quia sicut ille principia notat, ita ista fines a principijs separat. ♡ Cryphia, circuli pars inferior cum puncto, ponitur in his locis, ubi quaestio dura et obscura aperiri vel solvi non potuit. ⊃ Antisimma ponitur ad eos versus quorum ordo permutandus est. Sic et in antiquis auctoribus positum invenitur. ⊃ Antisimma cum puncto ponitur in his locis ubi in eodem sensu duplices versus sunt, et dubitatur qui potius eligendus sit. > Diple. Hanc scriptores nostri adponunt in libris ecclesiasticorum virorum ad separanda vel [ad] demonstranda testimonia sanctarum Scripturarum. > Diple περι στίχων. Hanc pri[m]us Leogoras Syracusanus posuit Homericis versibus ad separationem Olympi a caelo. > Diple περιεστιγμένη, id est cum geminis punctis. Hanc antiqui in his opponebant quae Zenodotus Ephesius non recte adiecerat, aut detraxerat, aut permutaverat. In his et nostri ea usi sunt. > Diple ὀβολισμένη interponitur ad separandos in comœdiis vel tragoediis periodos. > Aversa ὀβολισμένη, quotiens strophe et antistrophus inferitur. < Adversa cum obolo ad ea ponitur quae ad aliquid respiciunt, ut: Nosne tibi Phrygiae res vertere fundo conamur? nos? an miseros qui Troas Achivis obiecit? > Diple superne obolata ponitur ad conditiones locorum ac temporum personarumque mutatas. > Diple recta et adversa superne obolata ponitur finita loco suo monade, significatque similem sequentem quoque esse. ✱ Ceraunium ponitur quotiens multi versus improbantur, nec per singulos obolatur; κεραυνιον enim fulmen dicitur. ✱ C(h)risimon. Haec sola ex voluntate uniuscuiusque ad aliquid notandum ponitur. ¶ Phi et Ro, id est φροντίς. Haec, ubi aliquid obscuritatis est, ob sollicitudinem ponitur. ¶ Anchora superior ponitur ubi aliqua res magna omnino est. ⚓ Anchora inferior, ubi aliquid vilissime vel inconvenientius denuntiatur est. † Coronis nota tantum in fine libri adponitur. † Alogus nota [quae] ad mendas adhibetur. Fiunt et aliae notulae librorum pro agnoscendis his quae per extremitates paginarum exponuntur, ut, ubi lector in liminare huiusmodi signum invenerit, ad textum recurrens eiusdem sermonis vel versiculi sciat esse expositionem, cuius similem superiacentem notam invenerit.

## 9. The sign treatise *De notis sententiarum* in the *Liber Glossarum* 7<sup>th</sup> century

ed. Steinová (2016)<sup>977</sup>

### DE NOTIS SENTENTLARUM

Nota est figura propria in litterae modum posita ad demonstrandam unamquamque verbi sententiarumque ac versuum rationem. Quaedam autem scripturarum notae apud celeberrimos auctores fuerunt, quasque antiqui ad distinctionem scripturarum carminibus et storiis adposuerunt. Notae autem versibus adponuntur numero viginti et sex, quae sunt nominibus infra scriptis.

- ✱ Asteriscum Arisfanus repperit. Haec autem aposita est ab origine his quae a Septuaginta omissa sunt et in Hebreo habentur, scilicet ut inlucescerent per eam notam quae deesse videbatur. Stella enim aster dicitur Graeco sermone a quo asteriscus est derivatus.
- Obolus id est virgula iacens apponitur in verbis vel sententiis superflue iteratis sive in his locis ubi lectio aliqua falsitata est, ut quasi quaedam sagitta ingulet supervacua atque falsa confodiat. Sagitta enim Graece obolus dicitur.
- Obolus superne adpunctus ponitur in hisdem de quibus dubitatur utrum tolli debeant nec adponi.

<sup>977</sup> Formatting of the text is based on the oldest manuscript, **Paris Lat. 11530** (late 8<sup>th</sup> century, area of Corbie), fols. 98v-99v. This manuscript, just as several of the other ninth-century exemplars of the *Liber Glossarum*, does not contain the graphic symbols of the individual signs, but rather the query sign ζητεῖ (perhaps to indicate that they needed to be checked). The correct graphic symbols are, however, present in some ninth-century manuscripts, such as London, BL, Harley 2735 (9<sup>th</sup> century, 1/2, Fleury).

- ÷ *Limmiscus id est virgula inter gemonis punctos iacens opponitur in his locis quae sacrae scripturae interpretes eodem sensu sed diversis sermonibus transtulerunt.*
- ∨ *Antigrafus autem cum puncto apponitur ubi in translationibus diversus sensus habetur.*
- ✱- *Asteriscus cum obolo. Hac nota proprie Aristarchus utebatur in his versibus qui non suo loco positi erant.*
- ⌈ *Paragrafos inter versus ponitur ad separandas res a rebus quae in quo nexu concurrunt quemadmodum in catalago loca a locis et regionibus, in agone praemia a premiis, certamina a diversis certaminibus separentur.*
- [⌈ *Positura figura paragrafo contraria, et ideo sic formata, quia sicut illa principia notat, ita ista fines a principiis separat.]*
- ⊕ *Anfibolen circuli pars inferior cum puncto. Haec nota ponitur in his locis ubi quaestio dubia vel obscura aperiri vel solvi non potuit.*
- ⊃ *Antisma ponitur ad eos versus quorum ordo permutandus est. Sic et antiquis auctoribus positum invenitur.*
- ⊃ *Antisma cum puncto ponitur in his locis ubi in eodem sensu duplicis versus sunt et dubitatur qui potius eligendus sit.*
- > *Diple sive antilabda. Hanc primus Leogarus Syracusanus posuit Homericis versibus ad separationem Olympi a caelo. Hanc quoque nostri ecclesiastici viri utuntur in codicibus ad designanda testimonia divinarum Scripturarum quae ob dictionum confirmationem exempli causa interponuntur.*
- ∇ *Diple persticon. Hanc primus Leogarus Syracusanus posuit Homericis versibus ad separationem Olympi a caelo.*
- ≡ *Diple prestigmen id est cum geminis punctis. Hanc antiqui in his opponebant quae Zenodotus Ephesius non recte adiecerat aut detraxerat aut permutaverat. In his et nostri ea usi sunt.*
- ≡ *Diple obolismene interponitur ad separandos in comediis vel tragoediis periodos.*
- ↵ *Aversa obolismene. Quotiens strophe et antistrofos infertur.*
- ⚡ *Aversa cum obolo ad ea ponitur quae ad aliquid respiciunt ut: Nosne tibi Frigieres evertere fundo conamus? Nos? Animis heros qui Troas a vivis obiecit?*
- ≡ *Diple superne obolata ponitur ad condiciones locorum ad temporum personarumque mutatas.*
- ≡ *Recta et aversa superne obolata ponitur finita loco suo monade significantes similem sequentem quoque esse.*
- ✱ *Ceraunium ponitur quotiens multi versus improbantur nec per singulos obolantur. Ceraunium enim fulmen dicitur.*
- ⚡ *Crisimon. Haec sola ex voluntate uniuscuiusque ad aliquid notandum ponitur.*
- Ⓟ *Pietro. Haec apponitur quotiens vel emendatio vel sensus versuum sollicitus est inspiciendus.*
- Ⓟ *Pietro id est frontis ubi aliquid obscuritatis est ob sollicitudinem ponitur.*
- [Ⓟ *Ancora superior ponitur ad aliquid praecipue dictum.]*
- Ⓟ *Ancora superior ponitur ubi aliqua res magna omnino est.*
- Ⓟ *Ancora inferior. Ubi aliquid vilissime vel inconvenientius denuntiatur est.*
- Ⓟ *Cronis tantum in fine libri apud omnes positum invenitur.*
- Ⓟ *Alogus nota ad mendas adhibetur.*
- Fiunt et aliae notulae librorum pro agnoscendis his quae per extremitates paginum exponuntur ut, ubi lector in liminare huiusmodi signum invenerit ad textum recurrentis eiusdem sermonis vel versiculi sciat esse expositionem, cuius similem superiacentem notam invenerit.*

## 10. The sign treatise in the *Doctrina patrum de incarnatione Verbi* 7<sup>th</sup>/8<sup>th</sup> century

ed. Diekamp. pp. 248-49

Περὶ τῶν σημείων τῶν κειμένων ἐν τοῖς ἐκ τῶν ἑξαπλῶν Ὠριγένους μεταγραφῆσαι βιβλίοις.

- Ὅσοις οἱ ὄβελοι πρόσκεινται ῥητοῖς, οὗτοι οὐκ ἔκειντο οὔτε παρὰ τοῖς λοιποῖς ἐρμηνευταῖς οὔτε παρὰ τῷ ἑβραϊκῷ ἀλλὰ παρὰ μόνοις τοῖς οὐ σημαίνει οὖν ὁ ὄβελος τὸ μὴ κείσθαι τὴν λέξιν ἐν τῷ ἑβραϊκῷ, ἀλλ' ὑπὸ τῶν οὐ προστεθῆναι κατὰ τὴν δοθεῖσαν αὐτοῖς χάριν εἰς ὠφέλειαν καὶ οὐκ εἰς βλάβην.
- ✱ Ὅσοις ἀστερισκοὶ πρόσκεινται ῥητοῖς, οὗτοι ἐν μὲν τῷ ἑβραϊκῷ καὶ τῷ Ἀκύλα καὶ Συμμάχῳ, σπανίως δὲ καὶ παρὰ Θεοδοτίῳ καὶ τοῖς λοιποῖς ἐρμηνευταῖς ἐφέροντο, ἐν δὲ τοῖς οὐ οὐκέτι· ἀλλὰ παρῆλθον τὴν λέξιν πολλάκις ὡς δισσολογουμένην.
- ÷ Ὁ λημνίσκος δηλοῖ, ὡς μία ζυγὴ ἢ δύο τῶν ἐρμηνευτῶν ἰδίᾳ τινα εἶπον ἢ ἐνηλλαγμένως ἔθραξαν τὸ ῥητόν.  
Ὁ ὑπολημνίσκος δὲ καὶ οὗτος δηλοῖ ἐγκείμενος, ὡς μία ζυγὴ τῶν ἐρμηνευτῶν παρηλλαγμένως τὴν λέξιν εἶπεν.

trans. Bojana Radovanovic

On the signs used in the Hexapla of Origen.

- The *obelus* is placed by those words, that don't lie neither next to the other interpretations, nor next to the Hebrew (words), but only next to the words used by the seventy translators. That means that *obelus* doesn't lie next to the word in the Hebrew language, but was placed by the seventy translators with the purpose of signifying the favour and benefit and not the harmfulness.
- ✱ The *asteriscus* is placed by those words, that are found in Hebrew and in Aquila's and Symmachus's writings, but rarely in Theodotion and other interpretations, and in the seventy translators no longer: but often they disregard the word as having a double sense.
- ÷ *Lemniscos* shows, and stands as a bridge either between the statements of the two interpretations, or of the altered statement.  
*Hypolemniscos* is used, as a bridge of the altered interpretations of the word.

## 11. *Notae XXI quae versibus apponi consuerunt*

779-799

Paris, BnF, Lat. 7530, fols. 28rv

*Notae .XXI. quae versibus apponi consuerunt.* — *obelus.* ✱ *asteriscus.* ✱— *asteriscus cum obelo.* — *simplex ductus.* > *diple.* ≧ *diple periestigmene.* ⊃ *antisigma.* ⊃ *antisigma cum puncto* † *coronis.* >— *diple obelismene.* ≪ *aversa obelismene.* ✱ *ceraunion.* ÷ *obelus adpunctus.* — < *obelus cum aversa.* ≧ *diple superobelata.* ≧— *recta et aversa superne obelata.* † *chi et ro.* † *fi et ro.* † *anchora superior.* † *anchora inferior.* *alogus.* *His solis in adnotationibus Hennii Lucii et historicorum usi sunt. Varros. Hennius. Haelius. aequae. postremo Probus. qui illas in Virgilio et horatio. et Lucretio apposuit, ut Homero Aristarchus. — Obelus versibus apponitur hac causa. Pisisstratus quondam Atheniensium. tyrannus inordinata et confusa adhuc poesi. Homeri praemio sollicitare proposuit eos quia ordinassent.*<sup>978</sup> *iusque praemii nomine in singulos versus singulos obelos constituit. mercede multi inducti pauperes quibus ingenium affluebat. quoniam aut invenire aut disponere debebat. non poterant fingendo plurimos versus operis nobilitatem corruperunt. Unde evenit ut postea prudentiores viri quorum summum in hac re fuit Aristarchus. quotiens inprobaret versus. quasi aut malos aut non homericos obelum potissime notandum existimaret. Nam et ipsius Homeri proprios et non eo dignos eadem hac nota condemnarunt.* ✱

<sup>978</sup> Thus Paris Lat. 7530, Keil has *qui ordinarent* (!)

*Asteriscum Aristofanes apponebat illis locis quibus sensus deesset. Aristarchus autem ad eos qui in hoc puta loco positi erant. cum aliis scilicet non recte ponerentur. Item Probus et antiqui nostri. ✖— Asteriscus cum obelo propria nota est Aristarchi. utebantur autem ea in his versibus qui non suo loco positi erant. Item antiqui nostri et probus. — Simplex ductus inter versus ponebatur ad separandas res a rebus quae in conexu currerent quemammodum catalogo cum loca a locis aut regionibus et in agone premia a praemiis. certamina adversis certaminibus separant. > diiple aperistikton. Primus Leagoras Syracusanus [apposuit] Homericis versibus ad separationem Olympi [a caelo] propriae Olympum ab eo pro monte positum adnotans nusquam pre celo. quod sepaey oyranon eyrin dicat et MAKRON OLYMPON neque et e contrario epitheta permutat ponebat autem tam ad montis significationes quam ad caeli. utrumque manifestatur voluntas eius. usus et in multis Aristarchus nunc ea quae preter consuetudinem tam vitae nostrae quam ipsius poete apud eum invenirentur adnotans. nunc proprias ipsius figuras. interdum ea in quibus copiosus est rursus quae semel apud eum ponerentur similiter in nostris auctoribus Probus. ≅ Diple periestigmene apponebatur quae Zenodotus Efesius non recte adiecerat. aut detraxerat. aut permutaverat. in his et nostri ea usi sunt. ⊃ Antisigma ponebatur ad eos versus quorum ordo permutandus erat. sic et in nostris auctoribus invenitur. ⊃ Antisigma cum puncto ponebatur. cum eiusdem sensus versus duplices essent et dubitaretur qui potius legendi. sic et apud nostros. † Coronis autem in fine libri posita invenitur. ✖ Ceraunium ponitur quotiens multi versus improbantur ne per singulos obelentur. ≪ Aversa obelismene in ore ponitur quae ad aliquid respiciunt ut nos te tibi fluxas frygiae. † Obelus cum puncto. ad ea de quibus dubitatur tolli debeant necne. >— Diple obelismene ad separandas in comoediis et tragediis periodos. —< Aversa quotiens strofe antistrofos inferitur. ≅ Diple superne obelata ponitur ad conditionem locorum vel temporum vel personarum mutatam. ≅≅ Recta et aversa superne obelatae ponuntur cum eadem significant. similemque sequentem esse. † Chi et ro haec sola uix ad voluntatem uniuscuiusque ad aliquid adnotandum ponitur. † Fi et ro. Haec apponuntur quotiens vel emendatio vel eius versus sollicitius est inspiciendus. † Anchora superior ad aliquod precipue dictum. † Anchora inferior ad humilium vel inconvenientius quid enuntiatum.*

## 12. Notae simplices

779-799

Paris, BnF, Lat. 7530, fols. 28v-29r

⊃ Bis dictum. ⊃ Alienus. NOTAE SIMPLICES versus F metafrasis latina. Φ metafrasis greca. M malum metrum aut apraepes. Π contra historiam. ⊕ supervacuus. † repugnans. † [Recte] positus [et] pugnanti contrarius. — Propositum sine consequen[ti]. † consequens sine preposito. ≅ alienus et supervacu[us]. Φ ≅Φ ≅ greca metafrasis et bis dictum et repugnans. ΦP Greca metafrasis et repugnans. ΦF metafrasis greca et latina. F. de notis probianis EXPLICUNT NOTAE

## 13. The abbreviated sign treatise in Zofingen Pa 32 beginning of the 9<sup>th</sup> century

Zofingen, Stadtbibliothek, Pa 32, fol. 12r<sup>979</sup>

DE NOTIS SENTENTLARUM

Preterea quaedam scripturarum notae apud celeberrimos auctores fuerunt. Quasque antiqui ad distinctionem scripturarum carminibus et historiis apposuerunt. Nota est figura propria in litterae modum posita ad demonstrandam unamquamque verbi sententiarum ac versuum rationem. Notae autem versibus adponuntur numero XXVI, quae sunt nominibus infra scriptis. ✖ Asteriscus apponitur in his quae omissa sunt ut inluciscant per ea quae tota deesse videntur. Stella enim aster dicitur greco sermone, a quo asteriscus est derivatus. — Obolus id est virgula iacens adponitur, in verbis vel sententiis superflue iteratis, sive in his locis, ubi lectio aliqua falsitate notata est, ut quasi sagitta inolet supervacua atque falsa confodiat. ✖ Ceraunium ponitur quotiens multi versus improbantur, nec per singulos obolatur. Ceraunium enim fulmen dicitur. † Crisimon haec sola ex voluntate uniuscuiusque ad aliquid notandum ponitur. †

<sup>979</sup> Formatting of this text is based on the layout of the text in the Zofigen manuscript.

*Ancora superior ponitur ubi aliqua res magna omnino est. ⁊ Ancora inferior ubi aliquid vilissime vel inconvenientius denuntiatum est.*

#### 14. Extended sign treatise in the *Expositio psalorum*

9<sup>th</sup> century, 1/2

Munich, BSB, Clm 6253, fols. 1v-3v

*Diversas notas more maiorum certis locis estimavimus affigendas. has cum explanationibus suis subter adiunximus. ut quidquid lector voluerit inquirere. per similitudines earum sine aliqua difficultate debeat invenire.*

##### PAP HOC IN IDIOMATIBUS ID EST PROPRIIS LOCUTIONIBUS

*Exsurge domine salvum me fac deus meus. Non quod deus dormiens aut recubans excitatur. sed scripturis divinis mos est. ad exprimentam causam per tropologiam ex nostra consuetudine aliquid de deo dicere. (Exp. Ps. 3, 7)*

##### ‡ [HOC IN DOGMATIBUS VEL DE NECESSARIIS]

*Nequando rapiat ut leo animam meam. Leoni confertur diabolus. Leoni frequenter comparatur et Christus. Ille quod ad interitum rapit. iste quod deripit ad salutem. (Exp. Ps. 7, 3)*

##### ‡ HOC IN DEFINITIONIBUS

*Neque in furore tuo corripas me. Ira et furor iudicis contra reum damnationis effectus est. Id est motus animi concitatus ad poenam provocans inferendam. sed ira longa indignatio est. Furor repentina mentis accensio. Haec autem<sup>980</sup> allegorice translatis verbis edicta sunt. (Exp. Ps. 6, 1)*

##### SCHE HOC IN SCHEMATIBUS

*Custodi me domine ut pupillam oculi sub umbra alarum tuarum. per schematikon quae latine dicitur imaginatio. Pupillae se oculi dominus comparavit. Pupilla est enim in medio posita perspicua pars oculi. qua corporum colores varia qualitate discernimus. Dicta a parvitate sui pupilla quasi pusilla. (Exp. Ps. 16, 8)*

##### ET HOC IN ETHIMOLOGIIS

*Pluit super peccatores et israhel usque pars calicis eorum. Id est mensura [qua pollutis] actibus ebriantur. Calix his et in bono. ut est calix tuus inebrians quam preclarus est. Calix enim mensura est. qua potantur animae. Calix his dictus est. eo quod assidue calidam solet suscipere potionem. (Exp. Ps. 11, 6)*

##### RAP HOC IN INTERPRETATIONE NOMINUM

*Pone principes eorum sicut Oreb et Zeb et Zebec et Salmana. In eisdem numerationibus perseverat. ubi sola nominum explanatio necessaria est. Ceterum ad quas causas posita sunt. proxime nos dixisse retinemus. Horeb siccitas interpretatur. Zeb lupus. Zebec victima. Salmana. umbra commotionis. Haec omnia exercitui optat anticristi qui nulla conversione salvandi sunt. Quorum in ipsis quoque tenebrosis nominibus detestabilis iam eorum sentitur interitus. (Exp. Ps. 82, 12)*

##### RET HOC IN ARTE RETHORICA

*Hic accipiet benedictionem a domino [et] misericordiam a deo salutari suo. Praemisit pias observationes nunc dicit et premia. accipiet benedictionem non a quolibet alio sed ab ipso domino ipse benedicit qui iudicaturus est. Ipse absolvit qui incommutabiliter damnare potisset. Meritum ergo beneficii prae magnitudine voluit condicentis agnosci. Quod argumentum inter oratores dicitur a persona sequitur misericordia. ut illa benedictio non per merita, sed per indulgentiam domini venisse videatur. (Exp. Ps. 23, 5)*

##### TOP HOC IN TOPICIS

*Sedes tua deus in saeculum saeculi. virga recta est virga regni tui. Venit ad laudationis tertium modum qui recte dicitur a causa iudicii. Hic enim sedes dei ad iudicium pertinet futurum. In quo omnia veraciter aeternus moderator examinat atque diiudicat in saeculum saeculi. Quoniam*

<sup>980</sup> The manuscript reads *is*, which seems to be a misunderstanding of the insular H-shaped *autem* abbreviation.

*quidquid constituerit nulla potest temporis successione dissolvi. Virga vero regulam divinae significat aequitatis quae veraciter recta dicitur. quae nulla pravitate curvatur. (Exp. Ps. 44, 7)*

SYL. HOC IN SYLLOGISMIS

*Sed in lege domini fuit voluntas eius. sed ne ipsam voluntatem putatam. putares otiosam. sequitur operationis effectur. et post pauca in eodem. Hic potest syllogismus categoricus inveniri. quem praetermittere non debemus. Ne qui intellectus est primus incompetenter videatur esse praeteritus. Cuius definitionem partesque dicimus. ut rudibus earum rerum nihil remanere possit ambiguum. Categoricus itaque syllogismus est. quem dialectici summa laude concelebrant oratio in qua positus quibusdam alia. Quaedam ex necessitate veniunt per ea quae posita sunt. Iste ex duabus propositionibus et conclusione formatur. Sicut hic constat effectum. Cuius prima propositio est. Beatus vir cuius voluntas in lege domini est. Secunda propositio. Nullus cuius voluntas in lege domini est abiit in consilio impiorum. Hoc quidem in diversis locis diligens tibi perscrutator invenies. quod nos rarius ponendum esse perspeximus. Quoniam nobis ex diversis artibus atque disciplinis cum expositione proposita multa dicenda sunt. (Exp. Ps. 1, 2)*

AR. HOC IN ARITHMETICIS

*In numero huius praesentis psalmi. et quorundam qui subsequuntur nequaquam potuimus calculorum singularem reperire rationem. scilicet qualis creatura vicesimo sexto. aut vicesimo septimo. aut vicesimo octavo numero legatur aptata. sed studiosis relinquimus. Ut secundum exempla quae dicta sunt. quando non inveniunt rationem in numero singulari. Tunc aliquas similitudines in partito calculo sive bis sive tertio debeat indagare. Verbi gratia XXVI partiantur. in XX et senarium numerum et iterum XXVII inter novenos. Tunc facilis calculus divisio fortasse competens ratio poterit inveniri. Quid enim interest si binas aut ternas metretas capiant vasa psalmorum. Si vero nec ibi aliquid convenienter agnoverit. credere convenit caeli terraeque creatorem operationes. Et dicta sua per diversorum calculorum distribuisse sine ambiguitate virtutes. qui omnia sicut legitur in pondere numero mensuraque perfecit. (Exp. Ps. 26, conclusio)*

GO. HOC [IN GEOMETRICIS]

*Iudicabit orbem terrae in aequitate et populus in veritate sua. Perquirendum est sane. quod et hic orbem terrarum dicat. et in sequenti psalmo ponat. Inlucxerunt fulgora eius orbi terrae. Et in aliis plurimis locis ipso schemate terram perhibeat esse conclusam. Iterum que C et sextus psalmus. quattuor cardinibus terrae spatia conpraehendit dicens. a solis ortu et occasu ab aquilone et mari. Cuius rei evidentissimum quoque evangelii exstat exemplum. Ubi dicitur. Emittet angelos suos cum tuba et voce magna. et congregabit a quattuor angulis terrae. Unde merito testimonio perquirendum quemadmodum terrae possit et quadratio et circulus convenire. Dum schemata ipsa sicut geometrae dicunt. videantur esse diversa. Formam terrae ideo scriptura orbem vocat. eo quod respicientibus extremitatem eius. circulus semper appareat. Quem circulum Graeci orizonta vocant. quattuor his cardinibus et informari dicitur. quae quattuor angulos quadrati significant. Qui intra praedictum terrae circulum continetur. Nam si ab orientis cardine in austrum et in aquilonem singulas rectas lineas ducas. similiter quoque etsi ab occidentis cardine ad predictos cardines id est austrum et aquilonem singulas rectas lineas tendas. facis quadratum terrae intra orbem praedictum. Sed quomodo quadratus iste demonstrantibus intra circulum scribi debeat. Euclides in quarto libro Elementorum evidenter insinuat. Quapropter recte scriptura sacra faciem terrae et orbem vocat. et quattuor eam dicit cardinibus contineri. (Exp. Ps. 95, 13)*

MC. HOC IN MUSICA

*Cobibe linguam tuam a malo et labia tua ne loquantur dolum. Intende vero subtilius quae prins cobiberi dicit linguam. quam cum loqui volumus antequam commovemus. addidit labia ne loquantur dolum. Quae linguae motum protinus consequuntur. et quasi quadam armonia sociata amborum modulamine humanus sermo peragitur. (Exp. Ps. 33, 14)*

✱ HOC IN ASTRONOMIA

*Et permanebit cum sole et ante lunam in saeculum saeculi. Luna enim ecclesiae merito comparatur quae nativum non habet splendorem. Sed a sole certis modis suscipit lumen. quod astronomii inter alia diligenter exponunt. Mirum prorsus et altius stupendum. tot siderum cursus. Tam ingentium*

*rerum arduas subtilesque mensuras munere creatoris usque ad humanam potuisset pervenire notitiam. Sic ergo ecclesia a vero illo creatore mensura te suscipit lumen. quae modo persecutionibus videtur inminui. iterumque recepta tranquillitate clarissimi luminis hilaritate compleitur.* (Exp. Ps. 71, 5)

### 15. The abbreviated sign treatise in Paris Lat. 4841

mid-9<sup>th</sup> century

Paris, BnF, Lat. 4841, fols. 27v-28r

- ✱ *Asteriscum Aristofanes repperit. Ponebatque eum in his locis quibus verus sensus deesse videbatur, propterea ut inlucescant per eam ∟ notam que minus fuerunt.*
- *Obolus est virgula iacens, opponiturque nunc in verbis vel sententiis superflue iteratis sive in his locis ubi lectio aliqua falsitate notata est ut quasi sagitta ingulet supervacua et falsa confodiat. † Limnicus apposita est in his locis ubi sacrae scripturae interpretes aliqua eodem sensu sed diversis sermonibus transtulerunt.*
- Ÿ *Antigraphus autem cum puncto posita est ubi in translationibus diversus sensus habetur. ∟ Paragraphus simplex ductus inter versus ponebatur ad separandas res a rebus que in conexu concurrunt quemadmodum in catalogum cum loca a locis vel regiones a regionibus et in agone praemia primus certamina adversus certaminibus separantur. ☉ Crifa circuli pars inferior cum puncto in medio hec nota ponitur ubicumque ratio dubia vel obscura aperiri vel solvi non potuit. ✱ Cresimon sive Keir ro hec sola ex voluntate uniuscuiusque ad aliquid notandum ponitur. ∟ Ancora superior ponitur ad aliquid praecipue dictum. ∟ Ancora inferior ponitur ad aliquid humilium vel inconvenientius annotatum.*

### 16. The *Anecdoton Romanum*

9<sup>th</sup> century, 2/2

ed. and trans. West, pp. 451-455<sup>981</sup>

Τὰ παρατιθέμενα τοῖς Ὀμηρικοῖς στίχοις Ἀριστάρχεια σημεῖα. ἀναγκαῖον γνῶναι τοὺς ἐντυγχάνοντας.

διπλῆ ἀπερίστικτος	>
διπλῆ περιεστιγμένη	≡
ὀβελός	—
ἀστερίσκος καθ' ἑαυτόν	✱
ἀστερίσκος μετὰ ὀβελοῦ	✱—
ἀντίσιγμα	∟
ἀντίσιγμα περιεστιγμένον	∟
κεραύνιον	∟

- > ἡ μὲν οὖν διπλῆ ἀπερίστικτος παρατίθεται πρὸς τοὺς γλωσσογράφους ἢ ἑτεροδόξως ἐκδεξαμένους τὰ τοῦ ποιητοῦ καὶ μὴ καλῶς ἢ πρὸς τὰς ἅπασι εἰρημέναις λέξεις, ἢ πρὸς τὰ ἐναντία καὶ μαχόμενα, καὶ ἕτερα σχήματα ἀμύπολλα καὶ ζητήματα. ≡ ἢ δὲ περιεστιγμένη διπλῆ πρὸς τὰς γραφὰς τὰς Ζηνοδοτείας καὶ Κράτητος καὶ αὐτοῦ Ἀριστάρχου καὶ τὰς διορθώσεις αὐτοῦ. — ὁ δὲ ὀβελός πρὸς τὰ ἀθετούμενα ἐπὶ τοῦ ποιητοῦ, ἤγουν νενοθευμένα ἢ ὑποβελημένα. ✱ ὁ δὲ ἀστερίσκος καθ' ἑαυτόν, ὡς καλῶς εἰρημένων τῶν ἐπῶν ἐν αὐτῷ τῷ τόπῳ, ἐνθα ἐστὶν ἀστερίσκος μόνος. ✱— ὁ δὲ ἀστερίσκος μετὰ ὀβελοῦ, ὡς ὄντα μὲν τὰ ἐπι τοῦ ποιητοῦ, μὴ καλῶς δὲ κείμενα ἐν αὐτῷ τῷ τόπῳ, ἀλλ' ἐν ἄλλῳ. ∟ τὸ δὲ ἀντίσιγμα καθ' ἑαυτὸ πρὸς τοὺς ἐνηλλαγμένους τόπους καὶ ἀπαιδοντας. ∟ τὸ δὲ ἀντίσιγμα περιεστιγμένον παρατίθεται ὅταν ταυτολογῇ καὶ τὴν αὐτὴν διάνοιαν

<sup>981</sup> Formatting of the text is based on its layout in **Rome, Bib. Naz., Gr. 6** (9<sup>th</sup> century, 2/2), fols. 3rv.

δεύτερον λέγει. Τ τὸ δὲ κεραύνιον ἔστιν μὲν τῶν σπανίως παρατιθεμένων, δηλοῖ δὲ καὶ αὐτὸ πολλὰς ζητήσεις πρὸς ταῖς εἰρημέναις.

τούτων δὲ ἀπάντων τῶν σημείων ἢ ἀκριβεστέρα γνώσις ἐν ταῖς βίβλοις τῶν συγγραμμάτων περὶ τούτων, καὶ εἴ σοι φίλον ἐπιζητεῖ παρὰ τῶν τεχνικῶν.

- > τῆ διπλῆ χρῆται Ἀριστάρχος πρὸς ἱστορίαν καὶ σχηματισμοὺς καὶ ἐτέρας ποικίλας χρείας.
- ≡ τῆ δὲ περιεστιγμένη πρὸς Ζηνόδοτον τὸν διορθωτῆν.
- τῶ δὲ ὀβελῶ πρὸς ἀθέτησιν.
- ※— ἀστερίσκῳ δὲ σὺν ὀβελῶ πρὸς τὸ εἶναι μὲν τοὺς στίχους Ὀμήρου, κεῖσθαι δὲ ἐν ἄλλῳ τόπῳ καλῶς, οἷω καὶ ἀστερίσκος μόνος παράκειται.
- ⋈ τῶ δὲ ἀντίσιγμα καὶ τῆ στιγμῆ, ὅταν δύο ὅσι διάνοιοι τὸ αὐτὸ σημαίνουσαι, τοῦ ποιητοῦ γεγραφὸτος ἀμφοτέρως, ὅπως τὴν ἐτέραν ἔλται· τῶ δὲ χρόνῳ καὶ αἱ δύο εὔρεθησαν, οὐκ ὀρθῶς ἔξουσαι.
- ※ τῶ δὲ ἀστερίσκῳ μόνῳ χρῆται πρὸς τοὺς αὐτοὺς στίχους οἱ κεῖνται ἐν ἄλλοις μέρεσι τῆς ποιήσεως καὶ ὀρθῶς ἔχοντες φέρονται, σημαίνων ὅτι οὗτοι καὶ ἀλλαχοῦ εἰρηνται.

#### THE ARISTARCHEAN SIGNS PLACED BESIDE LINES OF HOMER (MUST BE IDENTIFIED BY THOSE WHO ENCOUNTER THEM)

Diple undotted.	>
Diple dotted.	≡
Obelos.	—
Asterisk by itself.	※
Asterisk with obelos.	※—
Antisigma.	⋈
Antisigma dotted.	⋈
Keraunion.	Τ

- > The diple undotted is placed by a line with reference to the glossographers or others who have interpreted the poet's words in an idiosyncratic and erroneous way; or with reference to words occurring only once, or to contradictions and inconsistencies, or to many other figures and problems. ≡ The dotted diple with reference to readings of Zenotodus and Crates, and of Aristarchus himself and his editions. — The obelos for what is athetized in the text, that is, what is spurious or interpolated. ※ The asterisk by itself, to signify that the verses are apposite in the place where the asterisk alone is put. ※— Whereas the asterisk with obelos signifies that although the verses are Homer's, they are not apposite in that place but in another. ⋈ The antisigma by itself is used for passages that have been transposed and are out of accord. ⋈ The dotted antisigma is placed where he repeats himself and expresses the same idea a second time. Τ The keraunion is one of those that are rarely deployed; it too signifies many sorts of problems besides those already mentioned.

For all these signs, more detailed knowledge is to be found in the volumes of those who have written about them, and if you care to, you can seek it out from the specialists.

- > The diple is used by Aristarchus with reference to mythology, figures of speech, and diverse other purposes.
- ≡ The dotted diple with reference to the editor Zenodotus.
- The obelos for athetesis.
- ※— The asterisk with obelos to signify that the lines are Homer's but are found more appositely in another passage, where the asterisk alone is placed.

- ⊘ The antisigma and the point, when there are two sentiments with the same meaning, the poet having written down both, intending to make his choice between them, but subsequently both were transmitted by mistake.
- ✱ The asterisk alone he uses where the same lines occur in another part of the poem and they are correctly transmitted (in the present place), to indicate that they have been used elsewhere too.

### 17. A fragment of a sign treatise preserved in Venetus A

10<sup>th</sup> century, 1/2

ed. Erbse, *Scholias in Iliadem I*, pp. lxxv-lxxvi.<sup>982</sup>

...ἢ τὸ ἔφη · ὁ δὲ τοῦτο μὴ νοήσας, ἀλλὰ λαβὼν πάλιν τὸ φη ἀντὶ τοῦ ὡς ὑπέταχεν ἐκ πορισσοῦ. (Il. 14, 500) πέφραδε τε Τρώεσσι καὶ εὐχόμενος ἔτος ἡϋδα. Σημειοῦται δὲ πρὸς τὸν αὐτὸν ἀπεριστικῶ διπλῆ τὰς ὁμωνυμίας ἀπάσας, ὅτι οὐ νοήσας τὸ τοιοῦτον ἔγραψεν ὅτε μὲν Πυλαιμένεα, ὅτε δὲ Κυλαιμένεα. Πρὸς μὲν δὴ Ζηνόδοτον αὐτῷ ἢ παραθέσεις τῆς περιεστιγμένης διπλῆς πρὸς ἐκάστην γραφὴν ἀκριβέστερον θεωρεῖται. Τὸν δὲ ὀβελὸν ἔλαβεν ἐκ τῆς Ζηνοδότου διορθώσεως· παρατίθει δὲ αὐτὸν τοῖς ἐκβαλλομένοις ἐκ τῆς ποιήσεως στίχοις ὡς τοῖς νεκροῖς τῶν ἀνθρώπων. Τῆς δὲ ἀθετήσεως διττὸς αὐτῷ ὁ λόγος. ὁ μὲν γὰρ ἐστὶ σημαίων ὅτι οὐχ Ὀμήρου τὸ ἔπος, ὡς ἐλέγετο ἐπὶ τοῦ. (Od. 11, 603.) Πέρεται ἐν θαλίῃ καὶ ἔχει καλλίσφυρον Ἥβην. ἀδύναται γὰρ τὴν διηνεκῶς παρφένον παραδεδομένην γεγαμῆσθαι. ὁ δὲ αἰτίαν ἐπιφέρει ὡς τῶν ποιημάτων ἐν τῇ τάξει διημαρτημένων ὅταν δ' Ὁ Αἰγαίμωνων λέγει πρὸς τοῦ Ἀχιλλεῖα (Il. 1, 177.) αἰεὶ γὰρ τοὶ ἔρις τε φίλη πόλεμοί τε μάχαι τε,

ἐνταῦθα ἠθετῆσθαι φησι, χάριν τοῦ βασιλέως ὀφείλοντος, εἰ τοιοῦτος ἐστὶν ἐν πολέμῳ ὁ κατ' ἐπικουρίαν ἦκων. Διόπερ ἐπὶ μὲν τοῦ λεγομένου ὑπ' Αἰγαίμωνος ὀβελὸς παρακίσειται καὶ πρὸς τούτῳ ἀστερίσκος· δηλοῖ δὲ τοῦτο, ὅπου ἂν ἢ κείμενος σὺν τῷ ὀβελῷ, ὅτι Ὀμήρου μὲν ἐστὶ, φάυλως δ' ἐνταῦθα κείται. ἔστι δὲ καὶ ἕτερος τρόπος τῆς ἀθετήσεως, ὅταν τοῖς αὐτοῖς στίχοις πολλάκις χρῆσθαι, ὅτε μὲν οἰκείους περιτιθεῖς προσώποις τὰ λεγόμενα, ὅτε δὲ οὐ, ὡς ἔχει τὰ τοῦ Κύνλωπος τοῦ ἀνημερωτάτου ῥήματα ὑπὸ τοῦ συνετωτάτου Νέστορος λεγόμενα πρὸς Τηλέμαχον· (Od. 3, 73; 9, 253.) ὦ ξεῖνοι, τίνας ἐστέ; Πόθεν πλεῖθ' ὑγρὰ κέλευθα; ἢ τι κατὰ πρῆξιν, ἢ μαψιδίως ἀλάγησθε, οἷά τε ληστήηρες, ὑπεῖρ ἅα, τοίτ' ἄλῶνται

ψυχὰς παρθέμενοι. Ταῦτα γὰρ ἤρμοζεν ὑπὸ τοῦ Κύνλωπος Ὀυσοσεῖ εἰρησθαι, οὐχ ὑπὸ Νέστορος Τηλεμάχῳ...

trans. Francesca Schironi

[so that] it is the (verb) 'he said'. He (i.e. Zenodotus), however, not understanding this but again taking φη in the sense of 'ὡς' (= like) added superfluously 'showed it to the Trojans and in exultation spoke (ἔπος ἡϋδα) [to them]' (Il. 14.500).<sup>983</sup>

With reference to the same [Zenodotus] he marks every homonymy with the simple dipl because, not understanding it (i.e. the presence of homonymous heroes in Homer), he [Zenodotus] wrote once Pylaemenes and once Kylaemenes (i.e. he abolished homonymous heroes).<sup>984</sup>

<sup>982</sup> Formatting of the text is based on the only surviving manuscript containing this text, **Venice, Biblioteca Marciana, Gr. 822** (10<sup>th</sup> century, 1/2), fol. 8r. The manuscript is digitized at: <http://www.homermultitext.org/hmt-digital/images?request=GetIIPMooViewer&urn=urn:cite:hmt:vaimg.VA008RN-0009>.

<sup>983</sup> See Francesca Schironi, *The Best of the Grammarians: Aristarchus of Samothrace on the Iliad* (Ann Arbor: University of Michigan Press, 2017).

<sup>984</sup> See Ibid.

His [i.e. Aristarchus'] use of the diplo periostigmene against Zenodotus can be observed rather consistently with reference to each reading (i.e., each reading in which Aristarchus does not agree with Zenodotus).

He took the obelos from Zenodotus' recension. He puts it next to the lines that are rejected from the poem like the dead among human beings.

His account for an athetesis is of two types: one is that the line is not by Homer, as it was said about Od. 11.603: 'he [i.e. Heracles] enjoys in banquets and has Hebe as wife'. For it is impossible [for Heracles] to have married someone who is consistently presented [by Homer] as a virgin.<sup>985</sup>

The other [account] assigns as a reason [the fact] that the poems are wrong in the arrangement (i.e. lines are misplaced). When Agamemnon says to Achilles: 'always strife, wars and battles are dear to you' (Il. 1.177), he [Aristarchus] says that the line is here athetized, because a king ought [to love wars] if he is at war, having come to aid. Therefore an obelos will be placed next to the line spoken by Agamemnon and next to it [there will be] an asteriskos (i.e. because the line is repeated from Il. 5.891). It is clear that when [the asteriskos] is placed next to obelos, [the line] is by Homer, but is wrongly placed in that place.

There is also another way [i.e. reason] for an athetesis, when he [Homer] uses the same lines more than once, sometimes putting these lines in the mouth of suitable characters, but sometimes not, as are the words of the savage Cyclops, which are pronounced [also] by the most intelligent Nestor to Telemachus (Od. 3.71-74 = 9.252-255): "Strangers, who are you? Whence do you sail over the watery ways? Is it on some business, or do you wander at random over the sea, like pirates, who wander risking their lives?"

It was fitting for the Cyclops to say these words to Odysseus, not for Nestor to Telemachus.

## 18. The abbreviated sign treatise in Paris Lat. 6810

10<sup>th</sup> century

Paris, BnF, Lat. 6810, fol. 48v

- ✱ *Astericus apponitur in his locis quae ommissa sunt ut illuescant per eam notam quae deesse videntur. Stella enim aster dicitur graeco sermone a quo astericus est derivatus.*
- *Obelus superne punctus apponitur in hisdem locis de quibus dubitatur utrum tolli debeant necne apponi.*
- ⌈ *Paragraphus ponitur ad separandas res a rebus quae in conexu .i. in copulatione partium concurrunt sicut in cathalogo loca a locis et regiones a regionibus, in agone premia a premiis certamina a diversis certaminibus separantur.*
- ⌋ *Positura est figura paragrapho contraria et ideo sic formata quia sicut ille principia notat, ita ista fines a principis separat.*
- ⊕ *Cripta circuli pars inferior cum puncto ponitur in his locis ubi questio dura et obscura aperiri vel solvi non potuit.*
- ⌘ *Crismon haec sola ex voluntate uniuscuiusque ad aliquid notandum ponitur.*
- ⌚ *Phietro id est frontis. haec ubi aliquid obscuritatis est ob sollicitudinem ponitur.*
- ∨ *Anchora superior ponitur ubi aliqua res magna omnino est.*
- ⌚ *Anchora inferior ubi aliquid vilissimae vel inconvenientius denuntiatur est.*
- ∩ *Alogos nota ad mendatia adhibetur.*
- ÷ *Lininiscus id est virgula inter geminos punctos iacens op[po]nitur in his locis quae sacrae scripturae interpretes eodem uno sensu sed diversis sermonibus transtulerunt.*

<sup>985</sup> See Ibid.

*Chronus dicitur brevis grece et haec figura quia brevem habet iam terminum et ultra finem libri protendi non potest. Idcirco taliter adiungitur quasi manum refrenet scribentis. Vel chronos dicitur grece tempus ut legimus in chronica Hieronimi .i. in libro de temporibus.*

**19. Item sicut alibi inventae sunt**

mid-10<sup>th</sup> century

Madrid, Real academia de la historia, MS 25, fols. 32r

ITEM SICVT ALIBI INVENTE SVNT

Obolus figura hac ⚬

Asteriscus figura hac ✱ Asteriscus cum obolo hac ✱

Paragrafus qui inter uersus ponitur figura hac ∞

Diple sine antilanida hac ⚡

Diple peristigmene hac ⚡

Antisigma hac ⊃

Antisigma cum puncto hac ⊃

Choronis hac Z

Diplo obolismene hac ∞

Auersa obolismene hac 4

Ceraunium hac κ

Obolus superne adpunctus hac ∞

Obolus cum auersa hac 4

Diple superne obolata hac 7

Recta et auersa superne obolata hac 7

Chietro ΠΝΣΙΜΟΝ hac ϙ

Phietro hac ϙ

Anchora superior hac ϙ

Anchora inferior hac ϙ

Alagos hac 7

**20. De notis antiquorum**

beginning of the 11<sup>th</sup> century

Cava dei Tirreni, Abbazia di S. Trinita, MS 3, fols. 250v-251r

⊕ *Lemniscus. in acutis. ✱ Asteriscus. in sententiis. Oreon cum palma. invincibilibus in acutis.*

⊕ *Theta. in amputandis.*

*Oreon. in invincibilibus.*

— *Oboelus. in translatis. Asteriscus cum palma. in sententia acuta.*

Z *Zeta. in incertis. Astragalus. in elocutis. √Yfen. in exemplis.*

κ *Kappa. in capitibus sensuum.*

**21. De oboelis et asteriscis platonis**

beginning of the 11<sup>th</sup> century

Cava dei Tirreni, Abbazia di S. Trinita, MS 3, fol. 251r

*De oboelis et asteriscis platonis, que nos ex Graeco transtulimus.*

✱ *Chi grecum purum appositum dictum, scema consuetudinemque platoniam significat. ✱ Chi grecum distinctum bonum et electam conscriptionem significat. < Labda grecum iacens purum, quam ipsa Grecitas a duabus lineis convenientibus diplen nominat, proprium dogma uniuscuiusque philosophi, quod ipsi soli visum est, significat. ≪ Labda grecum iacens distinctum correptionem significat. Iacens media velud linea pura quam Greci obelon dicunt.*

**22. The sign treatise in the *Enchiridion* of Byrhtferth of Ramsey**

before 1016

trans. Lapidge and Baker, pp. 176-179<sup>986</sup>

*Asteriscus* is a well-known sign; one writes it quite often in sacred books if anything is omitted, and it is written thus ✱. A star is called *aster* in Greek. *Obelus* must not be omitted, for Jerome made extensive use of it, as you, O clerk, can find in the psalter: — *Lymniscus* is a stroke between two points, lying thus ÷. It is often written where sacred scriptures are written with one meaning but with different words. *Antigraphus* is found thus Ƴ. It is often written in dissimilar passages. *Paragraphus* is written thus Γ; and with this sign one often separates dissimilar passages. *Positura* is a sign like the one I write here 7. This figure is in part like the previous one and in part different; just as the above sign marks the first half, so this following one separates the end from the beginning. *Criphia* must not be forgotten. It is expounded thus ☉; and it is written where profound things are revealed. *Antisimma* is revealed thus 3; and it is written next to those verses whose order has been changed. *Antisimma cum puncto*, that is, with a point, is written where there are two verses and we are not sure which one to take 2. *Dyple* is honoured thus >. Old writers wrote this sign in ecclesiastical books to set off or indicate the testimony of sacred scriptures. There are five diple; we have spoken of the first one; now we will speak of the others. *Dyple peristichon* is thus >> Leogoras first wrote this mark, and placed this figure next to the verses called *Homerici versus* in Latin. *Dyple peristigmene*, that is, *cum geminis punctis*, is made thus >=. Old scholars placed this figure next to the things that Zenodotus, the Ephesian man, wrote inappropriately. *Dyple obolismene* is made thus >; and it is often written in Virgil's books and marking his poetic devices. *Dyple superne obolata* is signified thus >= *Ceraunium* is written thus ✱. *Crisimon* is thus ✱. *Pi et ro* is thus ƆƆ. *Anchora* is thus Ɔ *Anchora superior* Ɔ *Anchora inferior* is thus Ɔ. *Alogos* is thus J. One may inscribe this sign where one finds something that should be improved or corrected. If any friend wishes to study more things concerning these figures, let him read the book by Isidore called *Etymologies*.

### 23. The abbreviated sign treatise in Oxford D'Orville 158

11<sup>th</sup> century, 2/2

Oxford, Bodleian Library, D'Orville 158, fol. 40v

- ✱ *Asteriscus. id est stella ponitur ubi deest. — Oboelus. id est sagitta ponitur ubi superfluum quod vel falsum est. ÷ Oboelus superne appunctus. ponitur ubi dubitatur. utrum tolli debeat quod vel apponi. ÷ Lymnis eadem virgula inter geminos punctos. ponitur ubi interpretes sacre scripturae eodem sensu. sed diversis sermonibus transtulerunt. Γ Paragraphus. ponitur ad separandas res a rebus. ☉ Criphia. ubi questio dura solvi non potest. ✱ Fulmen ceraunium. ubi multae dictiones improbandae sunt. ✱ Crimon. ubi ex voluntate uniuscuiusque ad aliquod notandum ponitur. Ɔ Phietro. ad sollicitudinem obscuritatis solvendae. Ɔ Anchora. ubi magna res est. Ɔ Anchora inferior. ubi inconvenientius ac vilius quod dictum est. ✱— Asteriscus et oboelus in his versibus ponuntur. qui suo loco non sunt positi. d. Ponitur ad eos versus. quorum ordo permutandus est. >= Diple superne oboelata ponitur ad conditionem locorum vel temporum. sive personarum permutandam. >= Recta et adversa superoboelata ponitur. cum eandem significant rem similemque esse sequentem.*

### 24. *Notae divinae legi necessariae*

end of the 11<sup>th</sup> century

Cambridge, Trinity College, O.4.7, fols. 109r-110v<sup>987</sup>

<sup>986</sup> Formatting of the text is based on its layout in **Oxford, Bodleian Library, Ashmole 328** (mid-11<sup>th</sup> century, possibly from Canterbury), pp. 194-96.

## NOTAE DIVINAE LEGI NECESSARIAE

PP	<i>Hoc in idiomatibus. id est propriis locutionibus legis divinae</i>
‡	<i>Hoc in dogmatibus valde necessariis</i>
‡	<i>Hoc in definitionibus</i>
SCH	<i>Hoc in scematibus. Scema id est figura .x. et vii. species habet. quas barbarismus dinumerat</i>
ET	<i>Hoc in ethimologiis</i>
RP	<i>Hoc in interpretatione nominum</i>
RT	<i>Hoc in rhetorica</i>
TOP	<i>Hoc in topicis</i>
SYL	<i>Hoc in sillogismis</i>
R	<i>Hoc in arithmetica</i>
GO	<i>Hoc in geometrica</i>
M	<i>Hoc in musica</i>
✱	<i>Hoc in astronomia</i>

*Prima nota hoc loco demonstratur. De uultu tuo iudicium meum prodeat: Propria diuinae scripturae, et nobis inusitata locutio est, quia de mente solet manare sententia, sed hoc domino per tropicas locutiones decenter aptatur, quia quod indicat uidet, dum testis est examinis sui. (Exp. Ps. 16, 2)*

*Secunda autem hoc loco. Qui ingreditur sine macula. Cum alii tabernaculum id est domum dei causa purificationis fuerint ingressi, ille solus sine macula introiens ante conspectum patris astitit, ut non illi aliquid lex daret, sed ipse potius, ut legislator legem impletet. (Exp. Ps. 14, 2)*

*Tercia vero hoc loco. Velut somnium surgentium, domine in civitate tua imaginem ipsorum ad nichilum rediges. Imago est alicuius rei existentis similitudo formata. (Exp. Ps. 72, 20)*

*Quarta hoc loco. Tu autem domine susceptor meus es. gloria mea et exaltans caput meum. Factum est autem hic pulcherrimum scema. quod grece dicitur auxesis. quae addendo quaedam nominaper membra singula rerum augmenta congeminat. Ait enim. Tu autem domine susceptor meus es. gloria mea et exaltans caput meum. Hoc enim latius apostolus insinuat dicens. Quis nos separabit a caritate dei? Tribulatio. an angustia. et alia quae sequuntur. Huic vicina est figura quae dicitur climax. latinae gradatio. quando positis quibusdam sive in laude vel in vituperatione semper accrescit. Sed inter utraque scemata hoc interest. quod auxesis sine ulla iteratione nominis rerum procurat augmenta. In climata vero necesse est ut postremum verbum quod est in primo comate positum. in sequenti membro modis omnibus iteretur. sicut est illud apostoli. Scientes quoniam tribulatio patientiam operatur. patientia probationem. probatio spem. spes autem non confundit. (Exp. Ps. 3, 4)*

*Quinta hoc loco. Et possessionem eorum terminos terrae. Termini terrae sunt qui tellurem cingunt atque concludunt. ut non solum arida. verum etiam totius aeris circumvecta substantia et omnium creaturarum significetur integritas. sicut ipse in evangelio dicit. Data est mihi omnis potestas in caelo et in terra. (Exp. Ps. 2, 8)*

*Sexta hoc loco. Constitutus sum rex ab eo super Syon montem sanctum eius. Nomen istud modo ecclesiam. modo ipsum salvatorem. modo Ierusalem futuram significat. Sed hoc loco ecclesiam significat. quam montem appellat propter eminentiam operum. et firmitatem fidei. Syon enim hebraica lingua dicitur specula. quod competenter ecclesiae aptatur. (Exp. Ps. 2, 6)*

*Septima hoc loco. Et nunc reges intelligite. erudimini qui iudicatis terram. Hic commonet propeta ut sacramentis terribilibus patefactis. humanum genus humiliter oboediat creatori. ubi oritur pulcherrimum deliberativum dicendi genus. Nam cum tali sacramento vulgato obstupefacta fuerint corda mortalium. saluberrimus et necessarius suasor accedit. ut cum timore et tremore. vero domino*

<sup>987</sup> Layout of this text is based not on the oldest manuscripts containing *Notae divinae legi necessariae*, which is Durham, Cathedral Library, B.II.11 (11<sup>th</sup> century, ex., Normandy), but on the oldest digitally available manuscript.

*serviatur. ostendens ab utili et honesto. id quod in deliberationibus plurimum valet. expedire quae dicta sunt. Utile est. Ne quando irascatur dominus. et pereatis de via iusta. Honestum. Beati omnes qui condijunt in eo. (Exp. Ps. 2, 10)*

*Octava hoc loco. Ipsi obligati sunt et ceciderunt. Nos aute surreximus et erecti sumus. Quod argumentum in topicis dicitur. a rebus ipsis. quando et adversarios dicimus corruisse. et nos erectos esse testamur. (Exp. Ps. 19, 9)*

*Nona hoc loco. Domine deus meus si feci istud. si est iniquitas in manibus meis. Hic sit hypotheticus sillogismus. Cuius propositionis secundum regulas dialecticorum talis est reciprocatio. si non decidam. si non persequatur. et cetera eodem modo. Deinde assumptio. Attamen non decidam. non persequetur. et cetera. Hanc vero assumptionem sequitur ista conclusio. Igitur domine deus meus non feci istud. non est iniquitas in manibus meis. (Exp. Ps. 7, 4)*

*Decima hoc loco. Octo animae ingressae sunt in arcam. quae mundo pereunte salvatae sunt. Istae est numerus quem arithmetici actu primum. quadrant al appellat. quam filolaus pythagoricus armoniam geometricam vocat. eo quod omnes in ipso vdeantur armonicae convenire rationes. (Exp. Ps. 8, conclusio)*

*Undecima hoc loco. A solis ortu et occasu. ab aquilone et mari. hic psalmus quattuor cardinibus orbis spacia compraeendit. Ipse est enim orbis. qui appellatur et circulus. Circulus autem est ut geometrae definiunt forma plana. quae ex una circumducta linea continentur. (Exp. Ps. 106, 3)*

*Duodecima hoc loco. Psallam tibi in cythara deus sanctus Israel. Duae hic virtutes. spiritualis una ad credendum. altera actualis ad bene agendum. perspecies musicas nobis figurantur. Actualis in cythara in ferro resonanti dominum laudat. psalmus vero de superioribus melos resonat. (Exp. Ps. 71, 22)*

*Tercia decima hoc loco. Et permanebit cum sole et ante lunam. in generationes generationum. Luna nativum non habet splendorem. sed a sole suscipere dicitur. quod astronomii diligenter exponunt. (Exp. Ps. 71, 5)*

## 25. The sign treatise in the *Scutum Bedae* of Geoffrey of Ufford

12<sup>th</sup> century

Lodon, BL, Stowe 57, fol. 4v<sup>988</sup>

*In quibusdam laborare Sensum excedentibus  
 Visum quasi delirare Est discretis mentibus  
 Hinc omisis alphabetis Barbararum gentium  
 Restringamus nostris metis Pace perlegendium  
 Notis veru quis priores Utebantur latius  
 Distinguentes bis colores Scripturarum satius  
 Nunc aut nullus aut quam rarus Fruitur scolasticus  
 Hinc nec multum fore gnarus Sudat quis didascalus  
 De quis dico, stili telum Pinget sive pennula  
 Asteriscum et obelum Binis dando nomina  
 Hinc limniscus iacens more, Nitet cum antigrapho  
 Positura cum rigore Contrastans paragrapho  
 Antisimma, diuple, aversa, Ceraunium, griffia  
 Crissimon, recta et aversa Alogus et anchora  
 Cronis, ciatroque, et plura Notarum signamina  
 Quarum quia sunt obscura Hic tacetur onoma  
 Hoc volumus praebens lumen Primitivis mentibus  
 Plus collegi quam compegi Discere volentibus  
 Condiscendi quam docendi Causa magis fruitor  
 Exemplaris regularis Scedas aptans omnibus*

<sup>988</sup> The text is extensively glossed. I provide the glosses separately below.

LABORARE. *i. in aliquibus studiis exercere*  
 EXCEDENTIBVS. *i. intellectum laborantis*  
 NOTIS VERO QVIS. *i. quibus*  
 PRIORES. *i. doctores*

DE QVIS DICO. Asteriscus adponitur in his quae omissa sunt ut illucescant per eam notam quae deesse videntur. Stella enim aster dicitur Graeco sermone, a quo asteriscus derivatus est. Obelus, id est virgula iacens apponitur in verbis vel in sententiis superflue iteratis, sive in his locis, ubi lectio aliqua falsitate notata est, ut quasi sagitta iugulet supervacua atque confodiat. Sagitta enim Graece obelus est. — Obolus superne et punctus ponitur in hisdem de quibus dubitatur, utrum debeant tolli an apponi. ✱— Asteriscus cum obolo. Hac proprie Aristarcus utebatur in his versibus qui non suo loco positi erant. ⊃ Antisimma cum puncto ponitur in his locis ubi in eodem sensu duplices versus sunt et dubitatur qui potius eligendus sit. Diple scriptores nostri apponunt in libris ecclesiasticorum virorum ad separanda vel demonstranda testimonia sanctarum Scripturarum. ≧ Diple perdisticon primus Leogaras Siracusanus posuit Homericis versibus ad separationem Olympi a caelo. ≧ Diple perdistigmine, id est cum geminis punctis antiqui his opponebant quae Zenodotus Ephesius non recte adiecerat aut detraxerat aut permutaverat. In his et nostri ea usi sunt. Diple obolismene interponitur ad separandos in comediis vel tragediis perhydos. Diple superne obolata ponitur ad conditiones locorum ac temporum personarumque mutatas. Aversa obolismene quotiens strophae et antistrophus infertur. Aversa cum obelo ad ea opponitur quae ad aliquid respiciunt, ut nos ne tibi frigiae res vertere fundo conamur. Nos armis aeros qui Troas Achivis subiecit. Recta et aversa superne obolata ponitur finito loco suo monade, signi[fi]cante similem sequentem quoque esse. Ceraunium ponitur quotiens multi versus inprobantur, nec per singulos obolantur. Dicitur enim fulmen.

ASTERISCVM. ✱

OBELVM. —

BINIS DANDO NOMINA. *s. duabus notis imponendo vocabula.*

LIMNISCVS. ⊕ *Limniscus est virgula inter geminos punctos iacens et apponitur in his locis quae sacrae scripturae interpretes eodem sensu sed diversis sermonibus transtulerunt.*

ANTIGRAPHO. ▼ *Antigraphus cum puncto opponitur ubi in translationibus diversus sensus habetur*

POSITVRA. ⊃ *Positura est figura paragrapho contraria et ideo sic formata quia sicut ille principia notat ita ista fines a principiis separat.*

PARAGRAPHO. ⊃ *Paragraphus ponitur ad separandas res a rebus quaeque in conexa concurrunt, ut quemadmodum in Catalogo loca a locis et regiones a regionibus, in Agone praemia a praemiis, certamina a diversis certaminibus separantur. ♣ Griffia circuli pars inferior cum puncto ponitur in his locis ubi dura quaestio et obscura aperiri vel solvi non potuit. Δ Anchora inferior est, ubi aliquid vilissime vel inconvenientius denuntiatur est. ♪ Alagus nota ad mendas adhibetur.*

ANTISIMMA. ⊃ *Antisimma ponitur ad eos versus quorum ordo permutatus est sicut in antiquis auctoribus positum invenitur.*

CERAUNIUM. ✱

CRISSIMON. ♣ *Crissimon ex sola voluntate ponitur uniuscuiusque ad aliquid notandum // ♣ Anchora superior ponitur ubi aliqua res magna omnino est.*

CRONIS. † *Cronis nota tantum quam in fine libri apponitur // ♣ Ciatro id est frontis ubi aliquid obscuritatis est ob sollicitudinem ponitur.*

QVARVM. *s. notarum*

DISCERE VOLENTIBVS. *Fiunt et aliae notulae librorum pro agnoscendis his quae per extremitates paginarum exponuntur. Vbi lector inluminare huiusmodi signum invenerit, ad textum recurrens eiusdem sermones vel versiculi sciat esse expositionem cuius similem superiacentem notam invenerit.*

## 26. The sign treatise in the Commentary on Psalms of Vardan Arawelc'i c. 1251

trans. Stone and Ervine, p. 89

The asterisk stands above a repetition; Origen put it (to mark) what the Seventy had omitted, and the others translated. Origen inscribed it not as though (what had been omitted) was valuable, but lest the Jews and Samaritans scoff that the ancient scriptures are deficient in the Church, because of the leaving aside of these words.

And it makes it clear that just as the luminaries are really in the firmament and, although they are hidden by the sun and by the cloud, nonetheless they do not fall into nonexistence, so also was the force of the superfluous (words) hidden by the Seventy.

The Obelus is the half of a letter (=line) bearing a slant below the line, and in the Attic language it is translated “pike.” And it was placed over the words which the Seventy added. And it means “release”; that is, the doubt concerning an incompleteness of the text was removed.

And the Lemniscus is a sign above two equivalent translations.

And the Hipiliscus (=Hypolemniscus) us a sign above an ambiguous word, which they translated in various ways.

## 27. The sign treatise in London Royal 13 C IV

14<sup>th</sup> century

London, BL, Royal 13 C IV, fols. 212v-213r

*Quedam scripturarum note apud celeberrimos actores fuerunt, quibus antiqui ad distinctionem scripturarum carminibus et historiis apposuerunt. Nota est figura propria in modum littere posita ad demonstrandam unamquamque uerbi sententiarumque ac versuum rationem. Note autem uersibus apponuntur XXVI, que sunt nominibus infra scriptis. Asteriscus. Obelus. Luriscus. Antigrahus. Paragraphus. Positura. Crifia. Antisima. Antisima cum puncto. Diplesticon. Diple persticon. Diple perstigmene. Diple obelismene. Aversa obelismene. Aversa cum obelo. Diple superne superne obelata. Recta et aduersa superne obelata. Ceraunium. Orismom. Phienfa. Ancora superior. Ancora inferior. Coronis. He et harum species XXVI perficiunt. Asteriscus quando est cum obelo, qua sic Anstarcus (sic!) utebatur in hiis uersibus qui non suo loco positi sunt. Asteriscus autem simplex ponitur in hiis que omissa sunt ut illucescant per eam notam que deesse uidentur. Stella greco sermone astrum dicitur, a quo asteriscus derivatur.*

*Obelos id est uirgula iacens ponitur in uersibus uel sententiis superflue iteratis, sive in hiis locis ubi lectio aliqua falsitate notata est, ut quasi sagitta iugulet superuacua atque falsa confodiat. Sagitta enim grece obelus dicitur. Obelus superne punctatus ponitur in hiis de quibus dubitatur utrum uel li debeant an poni. Luriscus id est uirgula inter geminos punctos iacens ponitur in hiis locis ubi sacre scripture interpretes eodem sensu sed diuersis sermonibus transtulerunt. Antigrahus cum puncto ponitur ubi in translationibus diuersus sensus habetur. Paragraphus ponitur ad separandas res a rebus que res in connexu concurrunt. quemadmodum in cathalogo loca id est a locis regiones. a regionibus et in agone premia a premiis. et certamina a diuersis certaminibus separantur. Positura est figura paragrapho contraria. et uero sic formata est. quia sicut ille principia notat. ita iste fines a principiis separat. Crifia circuli pars inferior cum puncto ponitur. in hiis locis ubi questio dura sive obscura aperiri uel solui non potuit. Antisima ponitur ad eos uersus quorum ordo mutandus est. si quae in antiquis actoribus positum inuenitur. Antisima cum puncto ponitur in hiis locis ubi in eodem sensu duplices uersus sunt. et dubitatur quis potius eligendus sit. Diplesticon scriptores nostri posuerunt in libris ecclesiasticorum uirorum ad separanda uel demonstranda testimonia sanctarum scripturarum. Diplepersticon est quam primum Leogorias Siracusanus posuit homerici uersibus ad separationem Olimpi a celo. Diple perstigmene. cum geminis punctis hunc antiqui in hiis apponebant que tenodotus ephesius non recte adiecerat aut detraxerat. aut permutauerat in hiis et nostri ea ubi sunt. Diple obelismene interponitur ad separandas in commediis et tragediis peribidos. Aduersa obelismene quotiens strophus et antistrophus infertur. Aduersa cum obelo ad ea ponitur que ad aliquid respiciunt. ut nosne tibi Frigiae uertere fundo conamur an miseros qui Troas achivis subiecit. Diple superne*

*obelata ponitur ad condiciones locorum temporum personarumque mutata sunt. Recta et adversa superne obelata ponitur finita. loco suo monade significante similem sequentem quoque esse. Ceraunium ponitur quotiens multi versus improbantur. nec per singulos obelantur. Ceraunium enim dicitur fulmen. Crismon sola est ex voluntate uniuscuiusque magistri ad aliquid notandum. Fienta. id est frontis. haec ubi aliquid obscuritatis ob solitudinem ponitur. Anchora superior ponitur ubi aliqua res omnino magna est. Anchora inferior est ubi aliquid vilissime vel inconveniencius denunciatum est. Cronis nota in fine libri ponitur.*

## 28. The *Anecdoton Venetum*

14<sup>th</sup> century

Osann, pp. 5-8<sup>989</sup>

Ταῦτα εὔρηται ἔν τινι παλαιῷ βιβλίῳ. Τοῖς παρ' Ὀμήρω στίχοις σημεῖα παρὰκειται τάδε· διπλῆ καθαρὰ >, διπλῆ περιεστιγμένη ≋, ὀβελός —, ὀβελός σὺν ἀστερίσκῳ —✱, ἀντίσιγμα ⊃, κεραία α τοῦ α √· πλάγιον Θ. Ἡ μὲν οὖν διπλῆ καθαρὰ παρὰκειται πρὸς τὴν ἄπαξ εἰρημένην λέξιν· πρὸς τὴν τοῦ ποιητοῦ συνήθειαν· πρὸς τοὺς λέγοντας, μὴ εἶναι τοῦ αὐτοῦ ποιητοῦ Ἰλιάδα καὶ Ὀδύσσειαν· πρὸς τὰς τῶν παλαιῶν ἱστορίας· πρὸς τὰς τῶν νέων ἐκδοχάς· πρὸς τὴν Ἀττικὴν σύνταξιν· πρὸς τὴν πολύσημον λέξιν. Πρὸς μὲν οὖν τὴν ἄπαξ εἰρημένην λέξιν· Μάντι κακῶν, οὐ πάποτε μοι τὸ ΚΡΗΠΥΟΝ εἶπες· ἄπαξ γὰρ εἴρηται. Καὶ ἐπὶ τῶν λοιπῶν σημείων ὡσαύτως ἂ δεῖ τιθέσθαι. Ἐν ἄλλῳ οὕτως.

Τὰ παρατιθέμενα τοῖς Ὀμηρικοῖς στίχοις σημεῖα ἀναγκαῖον γνῶναι τοὺς ἐνθιγγάνοντας· εἰσὶ δὲ ταῦτα. > διπλῆ ἀπερίστικτος· ≋ διπλῆ περιεστιγμένη· — ὀβελός· —✱ ὀβελός μετὰ ἀστερίσκου· ✱ ἀστερίσκος καθ' ἑαυτὸν· ⊃ ἀντίσιγμα ἄστικτον· ⊂ ἀντίσιγμα περιεστιγμένον· Ἡ μὲν οὖν ἀπερίστικτω διπλῆ τίθεται πρὸς ἱστορίας καὶ σχηματισμούς καὶ ἐτέρας ποικίλας χρείας, καὶ πρὸς τὰς ἄπαξ εἰρημένας λέξεις, καὶ πρὸς τὰ ἐναντία καὶ μαχόμενα τῶν νοημάτων· ἢ δὲ περιεστιγμένη διπλῆ ≋ πρὸς τὰς Ζηνοδότου καὶ Κράτητος γραφάς, καὶ αὐτοῦ Ἀριστάρχου· ὁ δὲ ὀβελός — πρὸς τὰ νόθα καὶ ἀθετούμενα· ὁ δὲ μετὰ ὀβελοῦ ἀστερίσκος, ἔνθα εἰσὶ μὲν τὰ ἔπη τοῦ ποιητοῦ, οὐ καλῶς δὲ κεῖνται, ἀλλ' ἐν ἄλλῳ, —✱· ὁ δὲ καθ' ἑαυτὸν ἀστερίσκος, ἔνθα καλῶς εἴρηται τὰ ἔπη ἐν αὐτῷ τῷ τόπῳ, ἔνθα κεῖνται ✱· τὸ δὲ καθ' ἑαυτὸ ἀντίσιγμα πρὸς τοὺς ἐνηλλαγμένους τόπους καὶ μὴ συνάδοντας. τὸ δὲ περιεστιγμένον ἀντίσιγμα, ὅταν ταυτολογῇ καὶ τὴν αὐτὴν διάνοιαν δευτέρων λέγῃ.

Ἰστέον ὅτι αἱ ῥαψῳδίαὶ Ὀμήρου παρὰ τῶν παλαιῶν κατὰ συνάγειαν ἠῶντο, κορωνίδι νόνη διαστελλόμεναι, ἄλλῳ δὲ οὐδενί· τῆς δὲ κορωνίδος τοῦτο ἐστὶ τὸ σημεῖον· λέγεται δὲ α[ὶ] μεταφορᾶς τῆς ἐν τοῖς πλοίοις ἀνακεικμμένης κορωνίδος.

trans. Bojana Radovanovic

These [signs] are found in some old books. These signs are placed by the verses of Homer: diple kathara >, diple periestigmene ≋, obelos —, obelos with an asterisk —✱, antistigma ⊃, keraia √, plagion Θ. Diple kathara is used for a word occurring only once, in according with the writer's habit, for parts that are not (composed) by the same author (as) Iliad and Odyssey, for old mythologies, for words received by new (authors), for the Attic disposition, for the plurisemantic words. As for the word occurring only once: you didn't say *kregion*, it occurs only once. And on the other signs of that kind that one should also write in this manner.

One should know the signs encountered, lying next to Homer's verses. They are the following: > diple aperistikos, ≋ diple periestigmene, — obelos, —✱ obelos with asterisk, ✱ asterisk by itself, ⊃ antistigma astikton, ⊂ antistigma periestigmenon. The diple undotted is placed by a line referring to mythologies, figures of speech and various other usages, and referring to words occurring only once, and to contradictions and inconsistencies in

<sup>989</sup> Layout of this text is based on its formatting in **Oxford, Bodleian Library, Auct. T. 4. 9** (15<sup>th</sup> century).

opinion. The dotted dipole is used with reference to readings of Zenodotus and Crates, and of Aristarchus himself. The obelos for what is athetized in the text. The obelos with asterisk signifies that although the verses are of Homer, they are not apposite in that place, but in another. An asterisk by itself signifies that the verses are apposite in the place where this sign is put ✱ Antisigma by itself is used for passages that have been transposed and are out of cohesion. Antisigma dotted is used where the author repeats himself and expresses the same idea for the second time.

The epic works of Homer were joined up continuously, demarcated by only *coronis* and nothing else.

## 29. The *Anecdoton Harleianum*

14<sup>th</sup> century

Osann, p. 8<sup>990</sup>

Περὶ τῶν παρ' Ἀριστάρχου σημείων παρατιθεμένων τῷ Ὀμήρῳ

- Ὀβελός.
- > Διπλῆ ἀπερίστικτος.
- ✱ Διπλῆ περιεστιγμένη.
- ✱ Ἀστερίσκος.
- ✱ Ἀστερίσκος μετὰ ὀβελοῦ.
- ⊃ Ἀντίσιγμα.
- Δύο στιγμαί.
- Ὅ μὲν δὴ ὀβελός παρατίθεται πρὸς ἀθέτησιν·
- > ἢ δὲ ἀπερίστικτος διπλῆ ... πρὸς τὰς Ζηνοδοτεῖους μεταγραφάς·
- ✱ ὁ δὲ ἀστερίσκος πρὸς τὰ Ὀμήρου ἔπη τὰ καλῶς κείμενα·
- ✱— ὁ δὲ ἀστερίσκος μετὰ ὀβελοῦ, ὅπου ἂν τὰ ἔπη Ὀμήρου μὲν ἦ διὰ τοῦ ἀστερίσκου δηλούμενα, ἀκαίρως δὲ κείμενα διὰ τοῦ ὀβελοῦ δηλούμενα.
- ⊃ Τὸ δὲ ἀντίσιγμα καὶ αἱ δύο στιγμαί, ὅταν κατὰ τὸ ἐξῆς δις ἦ τὸ αὐτὸ νόημα κείμενον·
- καὶ ἐπὶ μὲν τοῦ προτέρου τίθεται τὸ ἀντίσιγμα, ἐπὶ δὲ τοῦ δευτέρου αἱ δύο στιγμαί.

trans. Bojana Radovanovic

On the signs used by Aristarchus, placed beside lines of Homer.

- obelos
- > dipole undotted
- ✱ dipole dotted
- ✱ asterisk
- ✱— asterisk with obelos
- ⊃ antisigma
- two dots
- Obelos is placed with reference to athetesis
- > dipole undotted.... for translations of Zenodotus
- ✱ asterisk for Homeric epic
- ✱— asterisk with obelos, when the Homeric epic would signify by the asterisk, what is inappropriate to be marked by obelos.
- ⊃ Antisigma and the two dots are used when referring to the opinion that has been stated for
- the second time, or for the statement by itself: and in the first case the antisigma is put, and in the second, the two dots.

<sup>990</sup> Layout of this text is based on its formatting in **London, BL, Harley 5693** (14<sup>th</sup> century).

## B) Comparison of the most important sign treatises

This appendix section consists of four items. In item 1, I provide a comparative overview of the five independent witnesses of the 21-sign treatise discussed in chapter 2. The order of items in this overview corresponds to their order in the sign treatises. In item 2, I compare the order of the items in *Notae XXI/Item sicut alibi inventae sunt* (i.e., the most authentic order of the 21-sign treatise) with the order of the items in *De notis sententiarum*, the oldest version of the sign treatise in the *Liber Glossarum*, and with two of its Carolingian extended versions. The purpose of this comparison is to show how the compilers of the sign treatises reworked their material, and, in the case of the last items, how the sign treatise in the *Liber Glossarum* was brought into closer alignment with *De notis sententiarum*. In item 3, I compare the abbreviated sign treatises discussed in chapter 2 with their source, *De notis sententiarum*. Names of the signs in all three sections are given in the form in which they are found in the sign treatises. In item 4, I compare the two versions of the separately transmitted sign treatise from Cassiodorus' *Expositio psalmsorum*.

### 1. Order of items in the different witnesses of the 21-sign treatise

*Notae XXI* is represented twice in the following table, since it contains two lists of signs (sections b-i. and b-iii.), each giving a slightly different number and order of items.

#	<i>De notis sententiarum</i>	<i>Liber Glossarum</i>	<i>Notae XXI b-i.</i>	<i>Notae XXI b-iii.</i>	<i>Item sicut alibi</i>	Paris Lat. 4841
1	asteriscus	asteriscus	obelus	obelus	obolus	asteriscus
2	obolus	obolos	asteriscus	asteriscus	asteriscus	obolus
3	obolus superne adpunctus	obolus superne adpunctus	asteriscus cum obelo	asteriscus cum obelo	asteriscus cum obolo	limnicus
4	lemniscus	limnicus	simplex ductus	simplex ductus	paragrafus	antigraphus cum puncto
5	antigraphus cum puncto	antigrafus cum puncto	diple	Diple aperistikton	diple sive antilambda	paragraphus, simplex ductus
6	asteriscus cum obelo	asteriscus cum obolo	diple periestigmene	Diple periestigmene	diple periestigmene	crifa
7	paragraphus	paragrafos	antisigma	Antisigma	antisigma	cresimon, keir ro
8	positura	anfibolen	antisigma cum puncto	Antisigma cum puncto	antisigma cum puncto	ancora superior
9	cryphia	antisma	coronis	Coronis	choronis	ancora inferior
10	antisimma	antisma cum puncto	diple obelismene	Ceraunium	diplo obolismene	
11	antisimma cum puncto	diple sive antilambda	aversa obelismene	Aversa obelismene	aversa obolismene	
12	diple	diple persticon	ceraunion	Obelus cum puncto	ceraunium	
13	diple peri stichon	diple prestigmen	obelus adpunctus	Diple obelismene	obolus superne adpunctus	
14	diple periestigmene	Diple obolismene	obelus cum aversa	Aversa	obolus cum aversa	
15	Diple obolismene	Aversa obolismene	diple superobelata	Diple superne obelata	diple superne obolata	
16	Aversa obolismene	Aversa cum obolo	recta et aversa superne obelata	Recta et aversa superne obelatae	recta et aversa superne obolata	
17	Adversa cum obolo	Diple superne obolata	chi et ro	Chi et ro	chi et ro PΝΣΙΜΟΝ	
18	Diple superne obolata	Recta et versa superne obolatae	fi et ro	Fi et ro	phi et ro	
19	Diple recta et adversa superne obolata	ceraunium	anchora superior	Anchora superior	anchora superior	
20	ceraunium	Crisimon	anchora inferior	Anchora inferior	anchora inferior	
21	C(h)risimon	Pietro I	alogus		alagos	
22	Phi et ro	Pietro II				
23	Anchora superior	Ancora superior I				
24	Anchora inferior	Ancora superior II				
25	coronis	Ancora inferior				
26	alogus	cronis				
27		alogus				

## 2. Changes in the order of the items in the most important sign treatises with respect to the authentic order of the 21-sign treatise

In this comparison, I attempted to respect both the authentic order of the 21-sign treatise, as represented in the first list of signs in *Notae XXI* (here, ‘the authentic order’), and the order of the extended version in *De notis sententiarum* and the *Liber Glossarum*. It was not always possible to reconcile the two, as *De notis sententiarum* changed the order of some of the items. The following table reflects a compromise between the two orders. Numerals in round parentheses indicate the order of the item in the sign treatise. Five framed sections highlighted by colour represent the most important instances of a reworking of the material.

While most of these instances refer to Isidore’s sign treatise *De notis sententiarum*, the first concerns only *Notae XXI*. As is clear from the comparison of the first and the second column of the table, which correspond to the order of items in the first list of signs in *Notae XXI* (in chapter 2 discussed as b-i.) and in the second list of signs in *Notae XXI* (in chapter 2 discussed as b-iii.), items in positions #10-#13 appear in these two sections of the sign treatise in a slightly different order (red). *Item sicut alibi inventae sunt*, which follows the order of b-i., demonstrates that this had been the original order of items in the 21-sign treatise. This is indirectly confirmed also by *De notis sententiarum*, in which *aversa obelismene* (#11, in DNS #16) follows *diple obelismene* (#10, in DNS #15) and not vice versa, as in b-iii.

As mentioned in chapter 2, Isidore added five new signs not originally present in the 21-sign treatise to this tradition (yellow). Two of them, *lemniscus* and *antigraphus cum puncto*, are taken from the account of four signs used by Origen composed by Epiphanius of Salamis (see chapters 2 and 3). The three other signs accurately reflect the scribal *praxis* of Isidore’s days and are invaluable as rare testimonies referring to the scribal use of signs. The position in which the five items were inserted seems to be deliberate. *Lemniscus* (#4) and *antigraphus* (#5) were added after *asteriscus* (#1) and *obelus* (#2) to form the same sequence as in Epiphanius’ sign treatise (see section A, item 5). *Positura* (#8) was added after *paragraphus* (#7), which it complements, and *cryphia* (#9) may have been added after it simply because it did not fit anywhere in particular. Finally, *diple* (#12) was placed before *diple peri stichon* (i.e. *aperistikton*, #13) and *diple periestigmene* (#14).

Isidore also seems to have moved several items upwards or downwards (green). The two *diple* were moved downwards (from #5-6 to #13-14) and adjoined, together with the newly added *diple* (#12), to other items consisting of *diple* (#15-19). *Coronis* was moved to

the end of the treatise (from #9 to #25), perhaps because it was a sign that indicated the end of a text. *Obelus superne adpunctus* was moved upwards (from #13 to #3), perhaps because Isidore saw it fitting to adjoin it to *obelus* (#2). Only the demotion of *ceraunium* (from #12 to #20) does not seem to follow an obvious pattern.

I argued in chapter 3 that the two forms of *diple* (#5-6) may have been originally the first two items of the 21-sign treatise, but that they were replaced in the opening position by *obelus* and *asteriscus* because of the Christian connotation that these two signs had. *De notis sententiarum* and all sign treatise that follow it as a model, however, place *asteriscus* (#2) before *obelus* (#1). This swap (blue) is another effect of the accommodation of material from the sign treatise of Epiphanius of Salamis, in which the two signs are presented in this order before *lemniscus* and *hypolemniscus*.

In the course of reworking the 21-sign treatise, Isidore also rewrote two items, *frontis* and *anchora superior* (orange). The presence of the rewritten version of the two items (here designated by II, #22-23 in DNS) in more recent texts serves as an indication that they are dependent on *De notis sententiarum*, just as the presence of the authentic items (here designated by I, #18-19) discloses that a version of the 21-sign treatise other than *De notis sententiarum* was used in the compilation of a particular derivative sign treatise. Thus, the presence of *frontis* I and *anchora superior* I in the sign treatise in the *Liber Glossarum* clearly shows that it was compiled with the aid of the 21-sign treatise (item *anchora superior* I is similarly present in the sign treatise in **Paris, BnF, Lat. 4841**).

the authentic order <sup>991</sup>	<i>Notae XXI</i> b-iii.	<i>De notis sententiarum</i>	<i>Liber Glossarum</i> (Paris Lat. 11530)	<i>Liber Glossarum</i> (Harley 2735)	<i>Liber Glossarum</i> (Munich Clm 14429)
(1) obelus	(1) obelus	(2) obolus	(2) obolos	(2) obelos	(2) obolus
(2) asteriscus	(2) asteriscus	(1) asteriscus	(1) asteriscus	(1) asteriscus	(1) asteriscus
		(3) obolus superne adpunctus	(3) obolus superne adpunctus	(3) obolus superne adpunctus	(3) obolus superne adpunctum
		(4) lemniscus	(4) limniscus	(4) limnicus (vel limniscus)	(4) limniscus
		(5) antigrahus cum puncto	(5) antigrafus cum puncto	(5) antigrafus cum puncto	(5) antigrafus cum puncto
(3) asteriscus cum obelo	(3) asteriscus cum obelo	(6) asteriscus cum obelo	(6) asteriscus cum obolo	(6) asteriscus cum obelo	(6) asteriscus cum obolo
(4) simplex ductus	(4) simplex ductus	(7) paragraphus	(7) paragrafos	(7) paragrafos	(7) paragrafos
		(8) positura		(8, positurae)	(8) possiturae

<sup>991</sup> This order of items characterized both the first list of signs in *Notae XXI* (section b-i.) and *Item sicut alibi inventae sunt*.

		(9) cryphia	(8) anfibolen	(9) anfibolen (crifia)	(9) anfibolen vel cryphia
(5) diple	(5) diple aperistikton				
(6) diple periestigmene	(6) diple periestigmene				
(7) antisigma	(7) antisigma	(10) antisimma	(9) antisma	(10) antisima	(10) antisimma
(8) antisigma cum puncto	(8) antisigma cum puncto	(11) antisimma cum puncto	(10) antisma cum puncto	(11) antisima cum puncto	(11) antisimma cum puncto
(9) coronis	(9) coronis				
		(12) diple	(11) diple sive antilabda	(12) diple sive antilabda	(12) diple sive antilabda
		(13) diple peristichon	(12) diple persticon	(13) diple persticon	(13) diple prosticon
		(14) diple peristigmene	(13) diple prestigmen	(14) diple prestimen	(14) diple prestigmen
(10) diple obelismene	(13) diple obelismene	(15) diple obolismene	(14) diple obolismene	(15) diple obolismene	(15) diple obolismene
(11) aversa obelismene	(11) aversa obelismene	(16) aversa obolismene	(15) aversa obolismene	(16) aversa obolismene	(16) aversa obolismene
(12) ceraunium	(10) ceraunium				
(13) obelus adpunctus	(12) obelus cum puncto				
(14) obelus cum aversa	(14) aversa	(17) adversa cum obolo	(16) aversa cum obolo	(17) aversa cum obolo	(17) aversa cum obolo
(15) diple superobelata	(15) diple superne obelata	(18) diple superne obolata	(17) diple superne obolata	(18) diple superne obolata	(18) diple superne obolata
(16) recta et aversa superne obelata	(16) recta et aversa superne obelatae	(19) diple recta et adversa superne obolata	(18) recta et aversa superne obolatae	(19) recta et adversa superne obolata	(19) recta et aversa superne obolatae
		(20) ceraunium	(19) ceraunium	(20) ceraunium	(20) ceraunius
(17) chi et ro	(17) chi et ro	(21) c(h)risimon	(20) crisimon	(21) crisimon	(21) crisimon
(18) fi et ro (I)	(18) fi et ro (I)		(21) pietro (I)	(22) pietro (I)	(22) pietro (I)
		(22) phi et ro (II)	(22) pietro (II)	(23) pietro (II)	(23) pietro (II)
(19) anchora superior (I)	(19) anchora superior (I)		(23) ancora superior I	(24) ancora superior (I)	
		(23) anchora superior (II)	(24) ancora superior (II)	(25) ancora superior (II)	(24) ancora superior (II)
(20) anchora inferior	(20) anchora inferior	(24) anchora inferior	(25) ancora inferior	(26) ancora inferior	(25) ancora inferior
		(25) coronis	(26) cronis	(27) cronis	(26) cronis
(21) alogus		(26) alogus	(27) alogus	(28) alogus	(27) alogus

### 3. Comparison of the abbreviated sign treatises with *De notis sententiarum*

Numerals in round parentheses indicate the order of the item in the sign treatise. Items in square brackets were added at the end of sign treatises in **Paris, BnF, Lat. 6810** and **Oxford, Bodleian Library, D'Orville 158** and as can be seen from this overview, they break the sequence of items, which seems to follow *De notis sententiarum*. In both cases, they may have been added secondarily to an originally shorter sign treatise (neither of the manuscripts contains traces of a secondary addition, but they are both relatively recent copies of what seem to be older sign treatises). Light gray fields contain items that are present in all four abbreviated sign treatises. Dark gray fields, on the contrary, indicate items which are absent from all the abbreviated sign treatises (or for which there are reasons to suspect that they were added at a later date). As explained in chapters 2 and 6, the patterns of presence and absence of signs in the abbreviated sign treatise can be correlated to the application of the Isidorian technical signs in the ninth century.

<i>De notis sententiarum</i>	Zofingen Pa 32	Paris Lat. 4841	Paris Lat. 6810	Oxford D'Orville 158
(1) asteriscus	(1) asteriscus	(1) asteriscus	(1) astericus	(1) asteriscus
(2) obolus	(2) obolus	(2) obolus	(2) obelus superne adpunctus <sup>992</sup>	(2) oboelus
(3) obolus superne adpunctus				(3) oboelus superne adpunctus
(4) Lemniscus		(3) limnicus	[(11) lininiscus]	(4) lymnis
(5) Antigraphus cum puncto		(4) antigraphus cum puncto		
(6) asteriscus cum obelo				[(12) asteriscus et oboelus]
(7) paragraphus		(5) paragraphus, simplex ductus	(3) paragraphus	(5) paragraphus
(8) Positura			(4) positura	
(9) Cryphia		(6) crifa	(5) crifa	(6) criphia
(10) antisimma				[(13)] <sup>993</sup>
(11) antisimma cum puncto				
(12) Diple				
(13) diple peri stichon				
(14) diple peristigmene				
(15) Diple obolismene				
(16) Aversa obolismene				
(17) Adversa cum obolo				
(18) Diple superne obolata				[(14) Diple superne oboelata]
(19) Diple recta et adversa superne obolata				[(15) Recta et adversa superoboelata]
(20) ceraunium	(3) ceraunium			(7) fulmen ceraunium
(21) C(h)risimon	(4) crisimon	(7) cresimon, keir ro	(6) crisimon	(8) crimon
(22) Phi et ro II			(7) phietro II	(9) phietro II
(23) Ancora superior II	(5) ancora superior II	(8) ancora superior I	(8) anchora superior II	(10) anchora superior II
(24) Ancora inferior	(6) ancora inferior	(9) ancora inferior	(9) anchora inferior	(11) anchora inferior
(25) coronis			[(12) cronis]	
(26) alogus			(10) alogos	

<sup>992</sup> Should be considered an *obelus*, even though it contains the definition of *obelus superne adpunctus*.

<sup>993</sup> This sign is given no name and its graphic form is corrupted.

#### 4. Comparison of the separately transmitted sign treatises based on the sign treatise in Cassiodorus's *Expositio psalmodum*

In the table below, I compare the examples taken from the *Expositio psalmodum* that were used in the two separately transmitted sign treatises based on the sign treatise in Cassiodorus's *Expositio psalmodum* (items 14 and 24 above). As can be seen, the compilers of the two sign treatises used different examples, which clearly indicates the two sign treatises are unrelated. The only exception from this rule is Ps 71, 5, which was used in both for *hoc in astronomia*.

<i>Expositio psalmodum</i>	9 <sup>th</sup> -century sign treatise	<i>Notae divinae legi necessariae</i>
hoc in idiomatibus	Ps 3, 7	Ps 16, 2
hoc in dogmatibus	Ps 7, 3	Ps 14, 2
hoc in difinitionibus	Ps 6, 1	Ps 72, 20
hoc in scematibus	Ps 16, 8	Ps 3, 4
hoc in ethimologiis	Ps 11, 6	Ps 2, 8
hoc in interpretatione nominum	Ps 82, 12	Ps 2, 6
hoc in arte rhetorica	Ps 23, 5	Ps 2, 10
hoc in topicis	Ps 44, 7	Ps 19, 9
hoc in sollecismis	Ps 1, 2	Ps 7, 4
hoc in arithmetica	Ps 26, conclusio	Ps 8, conclusio
hoc in geometrica	Ps 95, 13	Ps 106, 3
hoc in musica	Ps 33, 14	Ps 71, 22
hoc in astronomia	Ps 71, 5	Ps 71, 5

#### Appendix IV: Overview of manuscripts containing *De notis sententiarum*

In this appendix, I provide an overview of the manuscripts examined in chapter 5. The description of each of the manuscripts consists of four to seven lines of text. The first line contains the shelfmark of the manuscript and in the case of manuscripts that were assigned a siglum, its recognized siglum. The second line records the date and place of origin of the manuscript (if necessary, several dates/places of origin are given together with the source).

Because the first book of the *Etymologiae* survives in several versions, the third and the fourth lines of the manuscript description provide information about two textual elements that allow us to discern the version of the first book of the *Etymologiae* transmitted in that manuscript. In the third line, I record the number of the chapters in the list of the *capitula* preceding book one and in its body. In most cases, the first book has twenty-five or twenty-six, but in some cases, the number is different. Also, the number of the chapters in these two parts of the book can be different because of an error or hybridization between two textual families of book one. In some cases, a particular combination of the number of the chapters in the list of the *capitula* and in the body of the book characterises a sub-version of the first book of the *Etymologiae*. Unless stated otherwise, the number of chapters given in the third line of the description concerns both the number of the chapters in the list of the *capitula* preceding book one and in the body of this book.

The second element that allows us to discern different families and sub-families of book one of the *Etymologiae* concerns the text which is present between the *capitula De interiectione* (1.14) and *De syllaba* (1.16), in place of *Etym.* 1.15. The information concerning these elements of the text is given in the fourth line of the manuscript description. I record first the presence or absence of the *capitulum De voce et littera* in the list of the *capitula* at the beginning of the first book. Then I consider which material is present between *De interiectione* and *De syllaba*. Whenever I mention that sections *De litteris communibus* and *De litteris latinis* (1.3-4), it is assumed that they appear before *De syllaba* (1.16) and not before *De grammatica* (1.5), i.e., they are placed out of their standard order. Unless stated explicitly, the absence of material before *De syllaba* does not imply erasure or purposeful omission.

The fifth and the sixth lines refer to the presence of annotations and glosses and of the list-like layout of *De notis sententiarum* respectively, if the manuscript contains either of them. The last line of my descriptions contains a link to the digital facsimile of the manuscript. If a link is not given, there is no digital facsimile of the manuscript available.

The main sources of the reference for the dating and location of the manuscripts include:

- Bandini Bandini, A. M. *Catalogus codicum latinorum Bibliothecae Mediceae Laurentianae*. 5 vols. Florence: s.n., 1774-78.
- Beeson Beeson, C. H. *Isidor-Studien*. Quellen und Untersuchungen zur lateinischen Philologie des Mittelalters 4.2. Munich: Beck, 1913.
- Bischoff Bischoff, B. 'Die europäische Verbreitung der Werke Isidors von Sevilla'. In *Isidoriana: colección de estudios sobre Isidore de Sevilla*, edited by M. C. Díaz y Díaz, 317–44. León: Centro de estudios San Isidoro, 1961.
- Castro Castro Correa, A. 'Catalog of Visigothic Script Manuscripts'. *Littera Visigothica*. Accessed 16 February 2014. <http://litteravisigothica.wordpress.com/2014/02/16/catalogue/>
- CCFr *Catalogue Collectif de France. Manuscrits et fonds d'archives*. Accessed 16 February 2014. <http://ccfr.bnf.fr/portailccfr/jsp/portal/index.jsp>
- CLA Lowe, E. A. *Codices latini antiquiores: A palaeographical guide to Latin manuscripts prior to the ninth century*, 12 vols. Oxford: Clarendon Press, 1934-66.
- CRL Wilmart, A. *Codices reginenses latini*. Bibliothecae apostolicae Vaticanae codices manu scripti recensiti. Rome: Bibliotheca Vaticana, 1937-45.
- CVL *Codices vaticani latini*. Bibliothecae apostolicae Vaticanae codices manu scripti recensiti. Rome: Typis Polyglottis Vaticanis, 1902-88.
- Ganz Ganz, D. *Corbie in the Carolingian Renaissance*. Beihefte der Francia 20. Sigmaringen: Thorbecke, 1990.
- Hagen Hagen, H. *Catalogus codicum bernensium (Bibliotheca Bongarsiana)*. Bern: Haller, 1878.
- Huglo Huglo, M. 'The *Musica Isidori* Tradition in the Iberian Peninsula'. In *Hispania Vetus: Musical-Liturgical Manuscripts from Visigothic Origins to the Franco-Roman Transition (9th-12th Centuries)*, edited by Susana Zapke, 61–92. Bilbao: Fundacion BBVA, 2007.
- IIMM Gumbert, J. P. *Illustrated Inventory of Medieval Manuscripts in Latin Script in the Netherlands*. Vol. 2. Hilversum: Verloren, 2009.

Katalog	Bischoff, B. <i>Katalog der festländischen Handschriften des neunten Jahrhunderts: (mit Ausnahme der wisigotischen)</i> . 3 vols. Veröffentlichungen der Kommission für die Herausgabe der mittelalterlichen Bibliothekskataloge Deutschlands und der Schweiz. Wiesbaden: Harrassowitz, 1998-2014.
Lorsch	Bischoff, B. <i>Die Abtei Lorsch im Spiegel ihrer Handschriften</i> . Lorsch: Laurissa, 1989.
Millares Carlo	Millares Carlo, A. <i>Corpus de códices visigóticos</i> . Vol. 1. Las Palmas de Gran Canarias: Gobierno de Canarias, 1999.
Reydellet	Reydellet, M. 'La diffusion des <i>Origines</i> d'Isidore de Séville au Haut Moyen Âge'. <i>Mélanges d'archéologie et d'histoire</i> 78, no. 2 (1966): 383–437.
Schmuki	the manuscript descriptions at <a href="http://www.e-codices.unifr.ch/en">http://www.e-codices.unifr.ch/en</a> provided by Karl Schmuki

Where indicated, the date and place of origin were taken from the manuscript catalogue of the respective institution. Other sources of the information about the manuscripts are provided in the footnotes.

## A) Manuscripts of the entire *Etymologiae*

1. **Wolfenbüttel, HAB, Weiss. 64 (K)**  
8<sup>th</sup> century, 1/2, northern Italy (CLA IX 1386)  
pure 25-chapter version  
*V. De voce et litteris* in the *capitula*, but omitted in the body  
DNS in a list-like format  
<http://diglib.hab.de/?db=mss&list=ms&id=64-weiss>
2. **Milan, BA, L 99 sup. (A)**  
8<sup>th</sup> century, 1/2, Bobbio (Bischoff)  
27 chapters (26-chapter version extended with *III. De litteris communibus*)  
*V. De voce et litteris* in the *capitula*, but omitted (erasure) in the body of the text  
contains one gloss to DNS
3. **Vatican, BAV, Vat. Lat. 5763 (L)**  
mid-8<sup>th</sup> century, northern Italy (CLA I 39)  
seems to be pure 25-chapter version  
*V. De voce et litteris* in the *capitula*, the respective section in the body of the text not visible  
contains one marginal note to DNS  
DNS in a list-like format

4. **Cava dei Tirreni, Abbazia di S. Trinita, MS 2 (M)**  
8<sup>th</sup> century, 2/2, Monte Cassino (CLA III 284)  
the chapter-structure unclear  
cropped up to end of 1.10, thus no list of *capitula* present, no section on the *vox* or *litterae* in the body of the text
5. **Modena, Biblioteca capitolare, O.I.17 (t)**  
8<sup>th</sup> century, 2/2, northern Italy (CLA III 370)  
seems to be pure 25-chapter version  
beginning of the manuscript cropped, thus no list of the *capitula* present
6. **Brussels, Koninklijke Bibliotheek, II 4856 (I)**  
8<sup>th</sup> century, ex., St. Hubert (Ganz); 8<sup>th</sup> century, ex., Corbie (CLA X 1554)  
pure 26-chapter version  
*V. De voce et litteris* in the *capitula*, *V. De litteris apud grammaticos* (1.15) in the body of the text  
<http://www.europeanaregia.eu/en/manuscripts/brussels-koninklijke-bibliotheek-belgie-bibliotheque-royale-belgique-ms-ii-4856/en>
7. **El Escorial, Monasterio San Lorenzo, P I 8 (e)**  
8<sup>th</sup> century, ex., Septimania (Huglo); c. 800 (Castro)  
pure 25-chapter version  
*V. De voce et litteris* in the *capitula*, not present in the body of the text  
DNS in a list-like format
8. **Leiden, UB, Voss. Lat. F 82**  
9<sup>th</sup> century, in., Paris (Katalog 2203)  
pure 26-chapter version  
*V. De voce et littera* in the *capitula*, *V. De voce* in the body  
contains one marginal note to DNS
9. **Munich, BSB, Clm 6250 (m)**  
9<sup>th</sup> century, ¼, Freising (Katalog 3006); 810-820, Freising<sup>994</sup>  
29 chapters (extended 26-chapter version)  
*V. De voce et litteris* in the *capitula*, in the body of the text title *De litteris apud grammaticos* before *De syllaba*, but no text  
[http://daten.digitale-sammlungen.de/bsb00009201/image\\_11](http://daten.digitale-sammlungen.de/bsb00009201/image_11)
10. **Valenciennes BM 399 (Y)**  
9<sup>th</sup> century, in., northern France (Katalog 6391)  
pure 26-chapter version  
*V. De voce et litteris* in the *capitula*, *De voce* in the body of the text  
<http://www.europeanaregia.eu/en/manuscripts/valenciennes-bibliotheque-municipale-ms-399/en>
11. **Zofingen, Stadtbibliothek, Pa 32 (Z)**  
9<sup>th</sup> century, in., Germany, perhaps St. Gall (Katalog 7546); 9<sup>th</sup> century, ⅔, St. Gall<sup>995</sup>  
  
eccentric order of the sections in the body of the text, no list of *capitula*  
*De litteris latinis*(1.4) before *De syllaba* and *De voce* before *De accentibus*  
<http://www.e-codices.unifr.ch/en/list/one/zos/pa0032>

<sup>994</sup> Bierbrauer, *Die vorkarolingischen und karolingischen Handschriften*, n. 29.

<sup>995</sup> Bretscher-Gisiger and Gamper, *Katalog der mittelalterlichen Handschriften des Klosters Wettingen*, 230–32.

12. **Vercelli, Biblioteca Capitolare, MS 202 (g)**  
 9<sup>th</sup> century, in., Vercelli (Katalog 7018)  
 29 chapters (extended 26-chapter version)  
 cropped, begins with 1.9, thus no list of *capitula* present, no section on the *vox* or *litterae* before *De syllaba* in the body of the text  
 DNS in a list-like format
13. **Reims BM 426 (n)**  
 9<sup>th</sup> century, ¼, Reims (Katalog 5296)  
 pure 26-chapter version  
*V. De voce et litteris* in the *capitula*, *De voce* in the body of the text  
 contains 19 glosses to *Etym.* 1.21-26  
<http://www.europeana-regia.eu/en/manuscripts/reims-bibliotheque-municipale-ms-426/en>
14. **Bern, Burgerbibliothek, MS 224 (b)**  
 9<sup>th</sup> century, ⅓, France (Katalog 557)  
 pure 26-chapter version  
 DNS in a list-like format  
*V. De voce et litteris* in the *capitula*, in the body of the text title *De litteris apud grammaticos* before *De syllaba*, but no text
15. **Cesena, Biblioteca Maltesiana, S.XXI.5 (c)**  
 9<sup>th</sup> century, ⅓, northern Italy (Katalog 855)  
 30 chapters (an extended 26-chapter version with extra *De historia*) in the *capitula*, 26 chapters in the body  
*V. De voce et litteris* in the *capitula*, in the body of the text title *De litteris apud grammaticos* before *De syllaba*, but no text  
 contains eleven marginal notes to DNS  
<http://www.malatestiana.it/cgi-bin/wxis.exe/?IsisScript=Opcat/imageg.xis&tag7777=sinistri/21.5/001-012>
16. **Leiden, UB, Voss. Lat. F 74 (C)**  
 9<sup>th</sup> century, 2/4, Ferrières or Auxerre (Katalog 2200-2201)  
 29 chapters (extended 26-chapter version)  
*V. De voce et litteris* in the *capitula*, but omitted in the body
17. **London, BL, Harley 2686 (H)**  
 9<sup>th</sup> century, 2/4, western France (Katalog 2447)  
 pure 26-chapter version  
*V. De voce et litteris* in the *capitula*, not present in the body of the text  
[http://www.bl.uk/manuscripts/FullDisplay.aspx?ref=Harley\\_MS\\_2686](http://www.bl.uk/manuscripts/FullDisplay.aspx?ref=Harley_MS_2686)
18. **St. Gallen, Stiftsbibliothek, MS 237 (X)**  
 c. 830 (Huglo); after 800, most probably not St. Gall (Schmuki); 9<sup>th</sup> c., ½, perhaps St. Gall (Katalog 5675)  
 23 chapters in the *capitula* (contracted 25-chapter version, missing *De glossis* and *De differentiis*), but in the body of the text 28 chapters (extended 25-chapter version)  
*V. De voce et litteris* in the *capitula*, *De litteris* (1.3-4) in the body of the text  
<http://www.e-codices.unifr.ch/en/list/one/csg/0237>
19. **Tours BM 844**  
 9<sup>th</sup> century, 2/4, Tours (Katalog 6143)  
 23 chapters in the *capitula* and the body of the text (contracted 25-chapter version,

missing *De glossis* and *De differentiis*)

*V. De voce et litteris* in the *capitula*, *De litteris* (1.3-4) in the body of the text

20. **Vatican, BAV, Reg. Lat. 1953 (a)**

9<sup>th</sup> century, ¼, Orléans (Katalog 6802)

23 chapters in the *capitula* (contracted 25-chapter version, missing *De glossis* and *De differentiis*), but 25-chapter version in the body of the text

*V. De voce et litteris* in the *capitula*, in the body of the text title *De litteris apud grammaticos* and a notice: *Hunc deest quod supra scriptum est de litteris communibus inordinate in quinto folio capitulum ubi figuram istam notatam invenies*<sup>996</sup>

DNS in a list-like format

21. **Vatican, BAV, Pal. Lat. 281 (p)**

9<sup>th</sup> century, ½, Lorsch (Katalog 6518)

29 chapters (extended 26-chapter version)

*V. De voce et litteris* in the *capitula*, in the body of the text title *De litteris apud grammaticos* before *De syllaba*, but no text

[http://bibliotheca-laureshamensis-digital.de/bav/bav\\_pal\\_lat\\_281](http://bibliotheca-laureshamensis-digital.de/bav/bav_pal_lat_281)

22. **Bern, Burgerbibliothek, MS 101 (B)**

9<sup>th</sup> century, ½, France (Reydellet); 9<sup>th</sup> century, 1-2/3, Loire area (Katalog 532)

26-chapter version in the *capitula*, the chapter structure in the body of the text unclear

*V. De voce et litteris* in the *capitula*, not present in the body of the text

23. **Laon BM 447 (q)**

9<sup>th</sup> century, 2/3, Mainz (Katalog 2124)

pure 26-chapter version

*V. De voce et litteris* in the *capitula*, an omission in the body of the text

[http://manuscrit.ville-](http://manuscrit.ville-laon.fr/)

[laon.fr/ app/index.php?type\\_recherche=cote&choix\\_secondaire=Ms%20447&tri=](http://manuscrit.ville-laon.fr/app/index.php?type_recherche=cote&choix_secondaire=Ms%20447&tri=)

24. **Paris, BnF, Lat. 7670**

9<sup>th</sup> century, ½, perhaps area of Paris (Katalog 4493)

27 chapters in the *capitula* (a 25-chapter version extended with *De litteris communibus*, *De litteris latinis* and *De figuris accentuum*, but missing *De voce et litteris*), in the body of the text 25 chapters

no *De voce et litteris* either in the *capitula* or in the body of the text

25. **Schaffhausen, Stadtbibliothek, Min. 42 (S)**

9<sup>th</sup> c., 1-2/4, Mainz + 9<sup>th</sup> c., 2/2, Bodensee (Katalog 5959); 9<sup>th</sup> century, 2/4, Mainz<sup>997</sup>

26 chapters in the *capitula*, but 29 chapters (extended 26-chapter version) in the body of the text

*V. De voce et litteris* in the *capitula*, not present in the body of the text

26. **Vatican, BAV, Vat. Lat. 7803 (r)**

mid-9<sup>th</sup> century, northern Italy (Katalog 6938)

27 chapters (extended 26-chapter version missing *De accentibus* and *De etymologia*)

<sup>996</sup> The sign referred to in this notice is the Isidorian *phi et ro*, which is drawn here and also in the margin next to *De litteris communibus*.

<sup>997</sup> Gampfer, Knoch-Mund, and Stähli, *Katalog der mittelalterlichen Handschriften der Ministerialbibliothek Schaffhausen*, 134–35.

- V. De voce et litteris* in the *capitula*, but omitted in the body
27. **Munich, BSB, Clm 6275**  
mid-9<sup>th</sup> century, perhaps Bavaria (Katalog 3024)  
29 chapters (extended 26-chapter version)  
*V. De voce et litteris* in the *capitula*, in the body of the text title *De litteris apud grammaticos* before *De syllaba*, but no text  
<http://www.europeanaregia.eu/en/manuscripts/munich-bayerische-staatsbibliothek-clm-6275/en>
  28. **Paris, BnF, Lat. 7671**  
mid-9<sup>th</sup> century, perhaps northeastern France (Katalog 4494)  
pure 26-chapter version  
*V. De voce et litteris* in the *capitula*, in the body of the text titles *De voce et litteris* and *De litteris apud grammaticos* before *De syllaba*, but no text  
contains one marginal note to DNS
  29. **Paris, BnF, Lat. 7583 (N)**  
mid-9<sup>th</sup> century, central France (Katalog 4484)  
seems to be pure 26-chapter version  
In the *capitula* III. *De litteris*, no section on the *vox* or *litterae* before *De syllaba* in the body of the text  
contains two glosses to DNS  
<http://gallica.bnf.fr/ark:/12148/btv1b9068413f>
  30. **Madrid, Biblioteca Nacional, Vitr. 14.3 (T)**  
9<sup>th</sup> century, region of Mérida (Huglo); c. 850 (Castro)  
pure 25-chapter version  
*V. De voce et litteris* in the *capitula*, in the body of the text *V. De litteris apud grammaticos* (1.15) + a marginal note: *De voce et litteris iam hoc supra dixit*  
<http://bdh.bne.es/bnearch/detalle/bdh0000051810>
  31. **London, BL, Harley 3941 (h)**  
9<sup>th</sup> century, 2/2, Brittany (Ganz); 9<sup>th</sup>/10<sup>th</sup> century, Brittany (Katalog 2481)  
pure 26-chapter version  
*V. De voce et litteris* in the *capitula*, *De voce* in the body of the text  
contains 67 marginal and interlinear glosses and annotations to *Etym.* 1.21-26  
[http://www.bl.uk/manuscripts/Viewer.aspx?ref=harley\\_ms\\_3941\\_fs001r](http://www.bl.uk/manuscripts/Viewer.aspx?ref=harley_ms_3941_fs001r)
  32. **Paris, BnF, Lat. 7582**  
9<sup>th</sup> c., 2/2, France (Katalog 4483)  
pure 26-chapter version  
*V. De voce et litteris* in the *capitula*, in the body of the text title *De litteris apud grammaticos* before *De syllaba*, but no text
  33. **Munich, BSB, Clm 4541**  
9<sup>th</sup> century, 3/3, Benediktbeuern (Katalog 2964)  
pure 26-chapter version  
*V. De voce et litteris* in the *capitula*, in the body of the text title *De litteris apud grammaticos* before *De syllaba*, but no text  
DNS in a list-like format  
<http://www.europeanaregia.eu/en/manuscripts/munich-bayerische-staatsbibliothek-clm-4541/en>

34. **Paris, BnF, Lat. 10292 (d)**  
 9<sup>th</sup> century, <sup>3</sup>/<sub>4</sub>, eastern France (Katalog 4625)  
 26 chapters (25-chapter version extended with *III. De litteris communibus*)  
*VI. De voce* in the *capitula*, *De voce* in the body of the text  
 DNS in a list-like format  
<http://gallica.bnf.fr/ark:/12148/btv1b90807621>
35. **Paris, BnF, Lat. 7584**  
 9<sup>th</sup> century, <sup>3</sup>/<sub>4</sub>, France (Katalog 4485)  
 pure 26-chapter version  
*V. De voce et litteris* in the *capitula*, in the body of the text title *De litteris apud grammaticos*  
 before *De syllaba*, but no text  
 DNS in a list-like format
36. **Montpellier, Bibliothèque de la faculté de médecine, H 53 (y)**  
 9<sup>th</sup> century, <sup>3</sup>/<sub>4</sub>, perhaps France (Katalog 2821)  
 pure 26-chapter version  
*V. De voce et litteris* in the *capitula*, in the body of the text: *Hic debuisset poni capitulum quod inscribitur De litteris. quintum videlicet*, no text  
 DNS in a list-like format
37. **Bern, Burgerbibliothek, MS 36**  
 9<sup>th</sup> century, <sup>3</sup>/<sub>4</sub>, France, perhaps Auxerre or Fleury (Katalog 493)  
 25 chapters (26-chapter version, perhaps missing *De historia* in the *capitula*), 25 chapters also in the body of the text, unclear which *capitulum* is missing  
*V. De voce et litteris* in the *capitula*, in the body of the text title *De litteris apud grammaticos*  
 before *De syllaba*, but no text  
 DNS in a list-like format
38. **St. Gallen, Stiftsbibliothek, MS 231 (G)**  
 9<sup>th</sup> c., <sup>3</sup>/<sub>4</sub>, St. Gall (Katalog 5670); 880-90, St. Gall (Schmuki)  
 26-chapter version in the *capitula*, 29 chapters (extended 26-chapter version) in the body of the text  
*V. De voce et litteris* in the *capitula*, omission in the body of the text  
<http://www.e-codices.unifr.ch/en/list/one/csg/0231>
39. **Paris, BnF, Lat. 10293**  
 9<sup>th</sup> century, <sup>3</sup>/<sub>4</sub>, Reims (Katalog 4626)  
 seems to be a pure 26-chapter version  
*V. De voce et litteris* in the *capitula*, *De voce* in the body of the text
40. **Vercelli, Biblioteca Capitolare, MS 102 (v)**  
 9<sup>th</sup> century, ex., Lyon (Katalog 6994)  
 25 chapters (26-chapter version missing *De historia* in the *capitula*), 25 chapters also in the body of the text, unclear which *capitulum* is missing  
*V. De voce et litteris* in the *capitula*, in the body of the text title *De litteris apud grammaticos*  
 before *De syllaba* and blank space, but no text  
 DNS in a list-like format
41. **El Escorial, Monasterio San Lorenzo, P I 7 (W)**  
 9<sup>th</sup> century, northern Spain (Huglo); c. 900 (Castro)  
 31 chapters in the *capitula* (each section *de notis* a separate *capitulum*), in the body of the text 25-chapter version  
*V. De voce et litteris* in the *capitula*, in the body of the text title *De litteris apud grammaticos*

- and a notice *Iam in principio huius operis disputatum est*, no text  
DNS in a list-like format
42. **Berlin, Staatsbibliothek, Lat. fol. 641**  
9<sup>th</sup>/10<sup>th</sup> century, northern Italy (Jeudy<sup>998</sup>); 10<sup>th</sup> century, 1/2, northern Italy (Katalog I, p. 78)  
29 chapters (extended 26-chapter version)  
*V. De voce et litteris* in the *capitula*, in the body of the text title *De litteris apud grammaticos* before *De syllaba*, but no text  
DNS in a list-like format
43. **Vercelli, Biblioteca Capitolare, MS 58**  
10<sup>th</sup> century, perhaps Vercelli (Reydellet); 10<sup>th</sup> century (Katalog III, p. 461)  
31 chapters in the *capitula* (26-chapter version extended with four additional sections related to *historia*), 26-chapter version in the body of the text  
*VI. De voce et litteris* in the *capitula*, in the body of the text title *De litteris apud grammaticos* before *De syllaba*, but no text
44. **Einsiedeln, Stiftsbibliothek, MS 167 (z)**  
970-90, Einsiedeln<sup>999</sup>  
eccentric order of the sections in the body of the text, no list of *capitula*  
*De litteris latinis* (1.4) before *De syllaba* and *De voce* before *De accentibus*
45. **Paris, BnF, Lat. 17159**  
10<sup>th</sup> century (CCFr)  
25 chapters (26-chapter version missing *De historia* in the *capitula*), 25 chapters also in the body of the text, unclear which *capitulum* is missing  
*V. De voce et litteris* in the *capitula*, in the body of the text title *De litteris apud grammaticos* before *De syllaba* and a blank space, but no text  
DNS in a list-like format
46. **London, BL, Arundel 129**  
10<sup>th</sup> century<sup>1000</sup>  
29 chapters (extended 26-chapter version)  
*De voce et littera* in the *capitula*, *De voce* in the body of the text
47. **Vatican, BAV, Vat. Lat. 624**  
10<sup>th</sup> century (CVL)  
29 chapters (extended 26-chapter version)  
*V. De voce et littera* in the *capitula*, *De voce* in the body of the text
48. **El Escorial, Monasterio San Lorenzo, T II 24 (U)**  
10<sup>th</sup> century, southern Spain (Huglo), c. 950 (Castro)  
pure 25-chapter version  
*V. De voce et litteris* in the *capitula*, *V. De litteris apud grammaticos* (1.15) in the body of the text

<sup>998</sup> Jeudy, 'Un commentaire anonyme', 134. However, Carmen Cardelle de Hartmann dates the dossier with the *Etymologiae* to the mid-ninth century; Cardelle de Hartmann, 'Uso y reception de las Etymologiae de Isidoro', 484.

<sup>999</sup> This date and origin are taken from an unpublished catalogue of the collection of the Einsiedeln Abbey, which I was able to consult thanks to P. Justinus Pagnamenta OSB, the curator of the manuscript collection of the Einsiedeln Abbey.

<sup>1000</sup> See the catalogue description at:

[http://searcharchives.bl.uk/primo\\_library/libweb/action/display.do?tabs=detailsTab&ct=display&fn=search&doc=IAMS040-002039412](http://searcharchives.bl.uk/primo_library/libweb/action/display.do?tabs=detailsTab&ct=display&fn=search&doc=IAMS040-002039412).

49. **Madrid, Real academia de la historia, MS 25 (s)**  
 c. 946, San Millan de la Cogolla (Huglo), c. 950 (Castro)  
 28 chapters in the *capitula* (26-chapter version extended with *De litteris communibus* and *De litteris latinis*), 25-chapter version in the body of the text  
*VII. De voce et litteris* in the *capitula*, *V. De litteris apud grammaticos* (1.15) in the body of the text  
 DNS in a list-like format  
[http://bibliotecadigital.rah.es/dgbrah/es/catalogo\\_imagenes/grupo.cmd?texto\\_busqueda=&path=1000022&interno=S&presentacion=pagina&posicion=2](http://bibliotecadigital.rah.es/dgbrah/es/catalogo_imagenes/grupo.cmd?texto_busqueda=&path=1000022&interno=S&presentacion=pagina&posicion=2)
50. **Madrid, Real academia de la historia, MS 76**  
 c. 954, San Pedro de Cardena, Castrillo del Val (Huglo); c. 950 (Castro)  
 seems to be 25-chapter version, the list of *capitula* missing  
 no section on the *vox* or *litterae* before *De syllaba* in the body of the text  
 DNS in a list-like format  
[http://bibliotecadigital.rah.es/dgbrah/es/catalogo\\_imagenes/grupo.cmd?texto\\_busqueda=&path=1000121&interno=S&presentacion=pagina&posicion=5](http://bibliotecadigital.rah.es/dgbrah/es/catalogo_imagenes/grupo.cmd?texto_busqueda=&path=1000121&interno=S&presentacion=pagina&posicion=5)
51. **Oxford, Queen's College, MS 320 (Q)**  
 mid-10<sup>th</sup> century or 10<sup>th</sup> century, <sup>3/4</sup>, England<sup>1001</sup>  
 seems to be a 26-chapter version  
*De voce et litteris* in the *capitula*, in the body of the text title *De litteris apud grammaticos* before *De syllaba*, but no text  
 DNS in a list-like format  
 partially at: <http://www.queens.ox.ac.uk/wp-content/uploads/2012/03/320.pdf>
52. **Groningen, Universiteitsbibliotheek, MS 8**  
 10<sup>th</sup> century, ex.<sup>1002</sup>  
 pure 26-chapter version  
*V. De voce et litteris* in the *capitula*, in the body of the text title *De litteris apud grammaticos* before *De syllaba*, but no text
53. **Paris, BnF, Lat. 7585**  
 10<sup>th</sup> century, 2/2, England, perhaps Canterbury<sup>1003</sup>  
 27 chapters in the *capitula* (26-chapter version extended with *III. De litteris communibus*), in the body of the text 38 chapters  
*VI. De voce et litteris* in the *capitula*, no section on the *vox* or *litterae* before *De syllaba* in the body of the text  
 contains 16 annotations to *Etym.* 1.21-26  
<http://gallica.bnf.fr/ark:/12148/btv1b9068430z>
54. **El Escorial, Monasterio San Lorenzo, P I 6**  
 10<sup>th</sup> century, ex./11<sup>th</sup> century, in. (Castro)<sup>1004</sup>  
 pure 25-chapter version  
 DNS in a list-like format  
*capitula* missing, in the body of the text *VII. De litteris apud grammaticos* (1.15)

<sup>1001</sup> The date and localization were taken from the online pre-published catalogue of the medieval manuscripts at Queen's College Oxford provided at the website of the Queen's College Special Collections, at: <http://www.queens.ox.ac.uk/library/special-collections/medieval-manuscripts/>.

<sup>1002</sup> Brugmans, *Catalogus codicum universitatis Groninganae*, 5.

<sup>1003</sup> Bishop, *English Caroline Minuscule*, n. 6.

<sup>1004</sup> According to Huglo from Andalusia, whereas Castro rather opts for an origin in the north of the peninsula.

55. **Florence, Biblioteca Medicea Laurenziana, Plut. 90 sup. 17/2**  
 11<sup>th</sup> century (Bandini)  
 29 chapters (extended 26-chapter version)  
*De voce et litteris* in the *capitula*, in the body of the text title *De litteris apud grammaticos* before *De syllaba*, but no text  
<http://teca.bmlonline.it/ImageViewer/servlet/ImageViewer?idr='TECA0001094223#page/25/mode/1up>
56. **El Escorial, Monasterio San Lorenzo, & I 3 (w)**  
 c. 1047, northern Spain (Huglo)  
 28 chapters in the *capitula* (a 26-chapter version extended with *De litteris communibus* and *De litteris latinis*, 25-chapter version in the body of the text  
*VII. De voce et litteris* in the *capitula*, *V. De litteris apud grammaticos* (1.15) in the body of the text  
 DNS in a list-like format
57. **Paris, BnF, n.a.l. 2169 (u)**  
 c. 1072, Silos (Huglo)  
 28 chapters in the *capitula* (a 26-chapter version extended with *De litteris communibus* and *De litteris latinis*, 25-chapter version in the body of the text  
*VII. De voce et litteris* in the *capitula*, *V. De litteris apud grammaticos* (1.15) in the body of the text  
 DNS in a list-like format
58. **Madrid, Biblioteca Nacional, MS 10008**  
 11<sup>th</sup> century, Castile (Huglo); c. 1050 (Castro)  
 28 chapters in the *capitula* (a 25-chapter version extended with *De litteris communibus*, *De litteris latinis*, second hand also added *De figuris accentuum* and partially re-numbered the *capitula*), the body seems to contain 25 chapters  
*VII. De voce et litteris* in the *capitula*, *VII. De litteris apud grammaticos* (1.15) in the body of the text  
 DNS in a list-like format  
<http://bdh.bne.es/bnearch/detalle/bdh0000043731>
59. **Chartres BM 16**  
 11<sup>th</sup> century (CCFr)  
 23 chapters (contracted 25-chapter version, missing *De glossis* and *De differentiis*)  
*V. De voce et litteris* in the *capitula*, in the body of the text *De litteris* (1.3-4)  
[http://bymm.irht.cnrs.fr/resultRecherche/resultRecherche.php?COMPOSITION\\_ID=13901](http://bymm.irht.cnrs.fr/resultRecherche/resultRecherche.php?COMPOSITION_ID=13901)
60. **Berlin, Staatsbibliothek, Hamilton 689**  
 11<sup>th</sup> century, perhaps northern Italy<sup>1005</sup>  
 29 chapters (extended 26-chapter version)  
*V. De voce et litteris* in the *capitula*, no section on the *vox* or *litterae* before *De syllaba* in the body of the text
61. **Cesena, Biblioteca Maltesiana, D.XXIV.1**  
 10<sup>th</sup>/11<sup>th</sup> century<sup>1006</sup>  
 27 chapters in the *capitula* (29-chapter version missing *De pedibus* and *De accentibus*), in the body 29 chapters (extended 26-chapter version)

<sup>1005</sup> Boese, *Die lateinischen Handschriften der Sammlung Hamilton*, 332–33.

<sup>1006</sup> Domeniconi, *La Biblioteca malatestiana*, 37.

V. *De voce et litteris* in the *capitula*, no section on the *vox* or *litterae* before *De syllaba* in the body of the text

62. **Ivrea, Biblioteca Capitolare, MS 37 (LIII)**  
11<sup>th</sup> century<sup>1007</sup>  
27 chapters in the *capitula* (26-chapter version extended with III. *De litteris communibus*), in the body 26 chapters  
VI. *De voce et litteris* in the *capitula*, in the body of the text title *De litteris apud grammaticos* before *De syllaba*, but no text
63. **Vatican, BAV, Reg. Lat. 112**  
11<sup>th</sup> century (CRL)  
26 chapters (26-chapter version with extended with III. *De litteris*, missing *De voce et littera*)  
no *De voce et litteris* in the *capitula*, *De voce* in the body of the text
64. **Vatican, BAV, Reg. Lat. 294**  
11<sup>th</sup>-12<sup>th</sup> century (CRL)  
pure 26-chapter version  
V. *De voce et litteris* in the *capitula*, *De voce* in the body of the text
65. **Wolfenbüttel, HAB, Weiss. 2**  
11<sup>th</sup> century, perhaps Weissenburg<sup>1008</sup>  
no information, but seems to have a similar eccentric order of the chapters in the body of the text as the Zofingen manuscript
66. **London, BL, Royal 6 C I**  
11<sup>th</sup> century, 4/4, Canterbury<sup>1009</sup>  
pure 26-chapter version  
no *De voce et litteris* either in the *capitula* or in the body of the text  
[http://www.bl.uk/manuscripts/Viewer.aspx?ref=royal\\_ms\\_6\\_c\\_i\\_f004r](http://www.bl.uk/manuscripts/Viewer.aspx?ref=royal_ms_6_c_i_f004r)
67. **London, BL, Harley 2660**  
c. 1136, western Germany<sup>1010</sup>  
eccentric order of the sections in the body of the text, no list of *capitula*  
*De litteris latinis* (1.4) before *De syllaba* and *De voce* before *De accentibus*  
[http://www.bl.uk/manuscripts/FullDisplay.aspx?ref=Harley\\_MS\\_2660&index=2](http://www.bl.uk/manuscripts/FullDisplay.aspx?ref=Harley_MS_2660&index=2)
68. **Stuttgart, Württembergische Landesbibliothek, Poet. et Phil. fol. 33**  
1130-40 (catalogue)  
pure 26-chapter version  
*De voce* both in the *capitula* and in the body of the text  
<http://digital.wlb-stuttgart.de/purl/bsz352950846>
69. **London, BL, Harley 3099**  
1130-74, Munsterbilsen near Maastricht<sup>1011</sup>  
29 chapters (extended 26-chapter version)

<sup>1007</sup> Professione and Vignono, *Inventario dei manoscritti della Biblioteca capitolare di Ivrea*, 39.

<sup>1008</sup> Butzmann, *Die Weissenburger Handschriften*, 86–88.

<sup>1009</sup> See the manuscript description at:  
[http://www.bl.uk/manuscripts/FullDisplay.aspx?ref=Royal\\_MS\\_6\\_C\\_I](http://www.bl.uk/manuscripts/FullDisplay.aspx?ref=Royal_MS_6_C_I).

<sup>1010</sup> See the manuscript description at:  
[http://www.bl.uk/manuscripts/FullDisplay.aspx?ref=Harley\\_MS\\_2660](http://www.bl.uk/manuscripts/FullDisplay.aspx?ref=Harley_MS_2660).

<sup>1011</sup> See the manuscript description at:  
[http://www.bl.uk/manuscripts/FullDisplay.aspx?ref=Harley\\_MS\\_3099](http://www.bl.uk/manuscripts/FullDisplay.aspx?ref=Harley_MS_3099).

V. *De voce et litteris* in the *capitula*, but omitted in the body of the text  
[http://www.bl.uk/manuscripts/FullDisplay.aspx?ref=Harley\\_MS\\_3099](http://www.bl.uk/manuscripts/FullDisplay.aspx?ref=Harley_MS_3099)

70. **Paris, BnF, Lat. 17877**  
 1125-75, perhaps Compiègne (CCFr)  
 31 chapters (25-chapter version with each section *de notis* a separate *capitulum* and with II. *De litteris communibus* and III. *De litteris latinis*)  
 VII. *De voce et litteris* in the *capitula*, VII. *De voce* (*et litteris* eras.) in the body of the text  
<http://gallica.bnf.fr/ark:/12148/btv1b9081037v>
71. **Leiden, UB, Per F 2**  
 12<sup>th</sup> century, <sup>1/2</sup>1012  
 eccentric order of the sections in the body of the text, no list of *capitula*  
*De litteris latinis* (1.4) before *De syllaba* and *De voce* before *De accentibus*
72. **Florence, Biblioteca Medicea Laurenziana, Plut. 27 sin. 10**  
 12<sup>th</sup> century (Bandini)  
 29 chapters (seems to be an extended 26-chapter version)  
 V. *De voce et litteris* in the *capitula*, but omitted in the body of the text  
<http://teca.bmlonline.it/ImageViewer/servlet/ImageViewer?idr=TECA0001254901#page/1/mode/1up>
73. **Leiden, UB, Vulcanius 1**  
 12<sup>th</sup> century<sup>1013</sup>  
 numerization by sections both in *capitula* and in the body of the text  
 XIII. *De voce* in the *capitula*, XIII. *De voce* in the body of the text
74. **Cambridge, Trinity College, O.3.37**  
 12<sup>th</sup> century (James)  
 28 chapters (26-chapter version extended with *De litteris communibus* and *De litteris latinis* instead of *De voce et litteris* and with *De oratione*)  
 III. *De litteris communibus*, III. *De litteris latinis* and VIII. *De voce* in the *capitula*, in the body of the text *De litteris communibus* and *De litteris latinis* (1.3-4) before *De voce*
75. **Charleville BM 264**  
 c. 1170 (CCFr)  
 seems to be a pure 26-chapter version  
 V. *De voce et litteris* in the *capitula*, but omitted in the body of the text
76. **Troyes BM 168**  
 12<sup>th</sup> century (CCFr)  
 24 chapters in the *capitula* (26-chapter version missing *De etymologia* and *De historia*), 26 chapters in the body of the text  
*De voce et litteris* in the *capitula*, *De voce* in the body of the text
77. **Boulogne-sur-Mer BM 1**  
 12<sup>th</sup> century (CCFr)  
 seems to be a pure 26-chapter version  
 V. *De voce et litteris* in the *capitula*, *De voce* in the body of the text
78. **St. Omer BM 642**  
 12<sup>th</sup> century, ex. (CCFr)

<sup>1012</sup> Meyier, *Codices Perizoniani*, 1–2.

<sup>1013</sup> Molhuysen, *Codices Vulcaniani*, 1.

pure 26-chapter version

*V. De voce et litteris* in the *capitula*, *De voce* in the body of the text

79. **Aix-le-Provence BM 25**

12<sup>th</sup> century (CCFr)

32 chapters in the *capitula*, 36 chapters in the body of the text (26-chapter version with each section *de notis* a separate *capitulum* and with *III. De oratione V. De litteris latinis*, *VII. De litteris* and *XI. De figuris accentuum*, missing *De historia* in the *capitula*)

*VI. De voce* and *VII. De litteris* in the *capitula*, in the body of the text *De voce* and *De litteris* (1.3-4)

80. **Vesoul BM 150**

12<sup>th</sup> century (CCFr)

27 chapters in the *capitula* (26-chapter version extended with *III. De litteris*), 26 chapters in the body of the text

*VII. De voce* in the *capitula*, *De voce* in the body of the text

81. **Toulouse BM 177**

12<sup>th</sup> century (CCFr)

seems to be a pure 26-chapter version

*De voce et litteris* in the *capitula*, but omitted in the body of the text

82. **St. Die BM 6**

12<sup>th</sup> century (CCFr)

27 chapters in the *capitula* (26-chapter version extended with *III. De litteris communibus*), 26 chapters in the body of the text

*V. De voce et litteris* in the *capitula*, *De voce* in the body of the text

83. **Amiens BM 221**

12<sup>th</sup> century,  $\frac{3}{4}$  (CCFr)

27 chapters in the *capitula* (26-chapter version extended with *III. De litteris?*), 26 chapters in the body of the text

no *De voce et litteris* in the *capitula*, but *De voce* in the body of the text

84. **Douai BM 318**

12<sup>th</sup> century,  $\frac{3}{4}$  (CCFr)

40 chapters (26-chapter version with each section *de partibus orationis* and *de notis* a separate *capitulum* and with extra *III. De litteris communibus*, *III. De litteris latinis* and *XVIII. De figuris accentuum*)

*XIII. De voce et litteris* in the *capitula*, *De voce* in the body of the text

85. **Auxerre BM 76**

12<sup>th</sup> century (CCFr)

28 chapters (26-chapter version with extra *III. De litteris communibus*, *III. De litteris latinis* and *VI. De oratione* and missing *De voce et littera*)

no *De voce et litteris* in the *capitula*, in the body of the text two sections *De voce* and *De littera* as *De voce diffinitio*

86. **Troyes BM 542**

12<sup>th</sup> century (CCFr)

25 chapters in the *capitula* (26-chapter version with extra *III. De litteris* and missing *De voce et litteris* and *De metaplasms*)

no *De voce et litteris* either in the *capitula* or in the body of the text

87. **Bordeaux BM 709**  
12<sup>th</sup> century (CCFr)  
30 chapters in the *capitula* (29-chapter version with extra III. *De litteris communibus*), 28 chapters in the body of the book (29-chapter version missing *De generibus historiae*)  
  
*VI. De voce et litteris* in the *capitula*, in the body of the text title *De litteris apud grammaticos* before *De syllaba*, but no text
88. **Munich, BSB, Clm 13031**  
1160-65, Prüfening<sup>1014</sup>  
29 chapters (seems to be an extended 26-chapter version, but no chapter numbers either in the *capitula* or in the body of the text)  
*De voce et litteris* in the *capitula*, in the body of the text *De litteris* (1.3-4), in marg. *sive de voce et littera*  
[http://daten.digitale-sammlungen.de/bsb00072196/image\\_1](http://daten.digitale-sammlungen.de/bsb00072196/image_1)
89. **Einsiedeln, Stiftsbibliothek, MS 360**  
1143-78, Engelberg<sup>1015</sup>  
eccentric order of the sections in the body of the text, no list of *capitula*  
*De litteris latinis*(1.4) before *De syllaba* and *De voce* before *De accentibus*  
<http://www.e-codices.unifr.ch/de/list/one/sbe/0360>
90. **Paris, BnF, Lat. 17161**  
mid-12<sup>th</sup> century, France (CCFr)  
28 chapters (26-chapter version extended with *De litteris communibus* and *De litteris latinis* instead of *De voce et litteris* and with *De oratione*)  
no *De voce et litteris* in the *capitula*, in the body of the text two sections *De voce* and *De littera*  
<http://gallica.bnf.fr/ark:/12148/btv1b90777017>
91. **London, BL, Add. 15603**  
mid-12<sup>th</sup> century<sup>1016</sup>  
24 chapters in the *capitula* (26-chapter version missing *De etymologia* and *De historia*), 26 chapters in the body of the text  
*V. De voce et litteris* in the *capitula*, *De voce diffinitionis* and *De littera* before *De syllaba*
92. **Melun BM 46**  
12<sup>th</sup> century (CCFr)  
28 chapters (26-chapter version extended with *De litteris communibus* and *De litteris latinis* instead of *De voce et litteris* and with *De oratione*)  
no *De voce et litteris* in the *capitula*, in the body of the text two sections *De voce* and *De littera*  
[http://bvmm.irht.cnrs.fr/resultRecherche/resultRecherche.php?COMPOSITION\\_ID=15889](http://bvmm.irht.cnrs.fr/resultRecherche/resultRecherche.php?COMPOSITION_ID=15889)
93. **Zwettl, Zisterzienstift, MS 53**  
12<sup>th</sup> century, 2/2, Zwettl (manuscripta.at)  
29 chapters in the *capitula* (extended 26-chapter version), in the body of the text partially all sections numbered

<sup>1014</sup> Klemm, *Die Romanischen Handschriften der Bayerischen Staatsbibliothek*, n. 89.

<sup>1015</sup> Description provided at <http://www.e-codices.unifr.ch/en> by P. Dr. Odo Lang OSB.

<sup>1016</sup> See the manuscript description at:

[http://searcharchives.bl.uk/primo\\_library/libweb/action/display.do?tabs=detailsTab&ct=display&fn=search&doc=IAMS032-002087390](http://searcharchives.bl.uk/primo_library/libweb/action/display.do?tabs=detailsTab&ct=display&fn=search&doc=IAMS032-002087390).

*V. De voce et litteris* in the *capitula*, XV. *De voce* in the body of the text

<http://manuscripta.at/diglit/AT9800-53/0010>

94. **Vienna, ÖNB, Lat. 67**  
12<sup>th</sup> century, 2/2, Gottweig (manuscripta.at)  
29 chapters in the *capitula* (extended 26-chapter version), in the body of the text partially all sections numbered  
*V. De voce et litteris* in the *capitula*, in the body of the text *De voce* contemporary add. in marg. sup.  
<http://data.onb.ac.at/rec/AL00176884>
95. **London, BL, Burney 326**  
12<sup>th</sup> century, 2-3/3<sup>1017</sup>  
31 chapters in the *capitula*, 35 chapters in the body of the text (26-chapter version extended with *De litteris*, *De figuris accentuum* and a separate *capitulum* for each of the *notae*, missing the four sections *De historia* in the *capitula*)  
*V. De voce* and *VI. De litteris* in the *capitula*, in the body of the text *De voce* and *De litteris* (1.3-4)
96. **Bonn, Universitäts- und Landesbibliothek, S 193**  
12<sup>th</sup> century, 3/3, Altenberg<sup>1018</sup>  
32 chapters in the *capitula*, 33 chapters in the body of the text (26-chapter version with each section *de notis* a separate *capitulum* and with *III. De litteris communibus*, *III. De inventoribus grammaticae*, *V. De litteris latinis* and *XI. De figuris accentuum*, missing *De historia* in the *capitula*)  
*III. De litteris communibus*, *III. De inventoribus grammaticae* and *V. De litteris latinis* in the *capitula*, no section on the *vox* or *litterae* before *De syllaba* in the body of the text partially at: <http://www.manuscripta-mediaevalia.de/dokumente/html/obj31275205>
97. **London, BL, Royal 12 F IV**  
12<sup>th</sup> century, 3/4, England<sup>1019</sup>  
pure 26-chapter version  
*III. De litteris* in the *capitula*, no section on the *vox* or *litterae* before *De syllaba* in the body of the text
98. **Paris, BnF, Lat. 14743**  
12<sup>th</sup> century, 4/4 (CCFr)  
no chapter numbers either in the *capitula* or in the body of the text  
*De voce et litteris* in the *capitula*, in the body of the text *De litteris* (1.3-4) and *De voce*  
<http://gallica.bnf.fr/ark:/12148/btv1b90808090>
99. **St. Omer BM 643**  
12<sup>th</sup> century, ex. (CCFr)  
pure 26-chapter version  
no *De voce et litteris* either in the *capitula* or in the body of the text

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<sup>1017</sup> See the manuscript description at:

<http://www.bl.uk/catalogues/illuminatedmanuscripts/record.asp?MSID=1476&CollID=18&NStart=326>.

<sup>1018</sup> This information is provided at: <http://www.manuscripta-mediaevalia.de/dokumente/html/obj31275205>.

<sup>1019</sup> See the manuscript description at:

[http://searcharchives.bl.uk/primo\\_library/libweb/action/display.do?tabs=detailsTab&ct=display&fn=search&doc=IAMS040-002106783](http://searcharchives.bl.uk/primo_library/libweb/action/display.do?tabs=detailsTab&ct=display&fn=search&doc=IAMS040-002106783).

100. **Troyes BM 875**  
 12<sup>th</sup>-13<sup>th</sup> century (CCFr)  
 31 chapters (26-chapter version extended with *De litteris communibus* and *De litteris latinis* and with each section *de notis* a separate *capitulum*)  
*De voce et litteris* in the *capitula*, *De voce* in the body of the text
101. **Bern, Burgerbibliothek, MS 95**  
 12<sup>th</sup>-13<sup>th</sup> century (Hagen)  
 pure 25-chapter version  
*V. De voce et litteris* in the *capitula*, in the body of the text *De litteris* (1.3-4), *De voce* an addition on a separate leaf  
 DNS in a list-like format
102. **Paris, BnF, Lat. 11864**  
 1190-1210 (CCFr)  
 28 chapters (26-chapter version extended with *De litteris communibus* and *De litteris latinis* instead of *De voce et litteris* and with *De oratione*)  
 no *De voce et litteris* either in the *capitula* or in the body of the text  
<http://gallica.bnf.fr/ark:/12148/btv1b9065867f>
103. **London, BL, Add. 22797**  
 13<sup>th</sup> century, in.<sup>1020</sup>  
 seems to be the pure 26-chapter version  
*III. De litteris* in the *capitula*, no section on the *vox* or *litterae* before *De syllaba* in the body of the text
104. **Vatican, BAV, Vat. Lat. 626**  
 13<sup>th</sup> century (CVL)  
 seems to be the pure 26-chapter version  
*VI. De voce et litteris* in the *capitula*, no section on the *vox* or *litterae* before *De syllaba* in the body of the text
105. **Tours BM 845**  
 13<sup>th</sup> century (CCFr)  
 26 chapters in the *capitula*, 43 chapters in the body of the text (each section a separate *capitulum*)  
*De voce et litteris* in the *capitula*, no section on the *vox* or *litterae* before *De syllaba* in the body of the text  
 DNS in a list-like format
106. **Grenoble BM 227**  
 13<sup>th</sup> century (CCFr)  
 32 chapters in the *capitula* (26-chapter version extended with *III. De oratione*, *VII. De litteris*, *XI. De figuris accentuum*, *XV. De notis iuridicis*; *XVI. De notis militaribus*, *XVII. De notis litterarum*, *XVIII. De notis digitorum* and missing *De historia*), 36 chapters in the body (with all subsections of *De historia* present)  
*VI. De voce* and *VII. De litteris* in the *capitula*, in the body of the text *De litteris* (1.3-4) and *De voce*
107. **Rouen BM 1019**  
 13<sup>th</sup> century (CCFr)

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<sup>1020</sup> See the manuscript description at:  
[http://searcharchives.bl.uk/primo\\_library/libweb/action/display.do?tabs=detailsTab&ct=display&fn=search&doc=IAMS040-002096732](http://searcharchives.bl.uk/primo_library/libweb/action/display.do?tabs=detailsTab&ct=display&fn=search&doc=IAMS040-002096732).

- 33 chapters in the *capitula*, 39 chapters in the body of the text  
*De voce* both in the *capitula* and in the body of the text
108. **Montpellier, Bibliothèque de la faculté de médecine, H 150**  
 13<sup>th</sup> century (CCFr)  
 31 chapters (26-chapter version extended with *De litteris communibus* and *De litteris latinis* and with each section *de notis* a separate *capitulum*)  
*VII. De voce et litteris* in the *capitula*, *De voce* in the body of the text
109. **London, BL, Harley 6**  
 13<sup>th</sup> century, med., England<sup>1021</sup>  
 no chapter numbers either in the *capitula* or in the body of the text  
*De voce* both in the *capitula* and in the body of the text  
[http://www.bl.uk/manuscripts/FullDisplay.aspx?ref=Harley\\_MS\\_6&index=1](http://www.bl.uk/manuscripts/FullDisplay.aspx?ref=Harley_MS_6&index=1)
110. **Leiden, UB, BPL 73**  
 13<sup>th</sup> century, 2/4 (IIMM)  
 pure 26-chapter version  
*V. De voce et litteris* in the *capitula*, *De voce* in the body of the text
111. **Florence, Biblioteca Medicea Laurenziana, Plut. 27 sin. 7**  
 13<sup>th</sup> century (Bandini)  
 28 chapters (26-chapter version extended with *De litteris communibus* and *De litteris latinis*), the body of the text originally 25-chapter version re-divided into 28 chapters  
  
*VII. De voce et litteris* in the *capitula*, *V. De litteris apud grammaticos* (1.15) in the body of the text  
<http://teca.bmlonline.it/ImageViewer/servlet/ImageViewer?idr=TECA0001251000#page/24/mode/1up>
112. **Florence, Biblioteca Medicea Laurenziana, Plut. 90 sup. 17/1**  
 13<sup>th</sup> century (Bandini)  
 no list of *capitula*, the body of the text seems to be an extended 26-chapter version  
  
 no section *De voce et litteris* in the *capitula*, but *V. De litteris apud grammaticos* (1.15) in the body of the text  
<http://teca.bmlonline.it/ImageViewer/servlet/ImageViewer?idr=TECA0001091795#page/66/mode/1up>
113. **Florence, Biblioteca Medicea Laurenziana, Plut. 90 sup. 17/3**  
 13<sup>th</sup> century (Bandini)  
 28 chapters (extended 26-chapter version missing *De accentibus*), no chapter numbers in the body of the text  
*De voce et litteris* in the *capitula*, no section on the *vox* or *litterae* before *De syllaba* in the body of the text  
<http://teca.bmlonline.it/ImageViewer/servlet/ImageViewer?idr=TECA0001093383#page/11/mode/1up>
114. **Florence, Biblioteca Medicea Laurenziana, Plut. 52.21**  
 13<sup>th</sup> century (Bandini)  
 28 chapters (extended 26-chapter version missing *De fabula*), no chapter numbers in the body of the text  
*De voce et litteris* in the *capitula*, no section on the *vox* or *litterae* before *De syllaba* in the

<sup>1021</sup> See the manuscript description at: [http://www.bl.uk/manuscripts/FullDisplay.aspx?ref=Harley\\_MS\\_6](http://www.bl.uk/manuscripts/FullDisplay.aspx?ref=Harley_MS_6).

- body of the text  
<http://teca.bmlonline.it/ImageViewer/servlet/ImageViewer?dr=TECA0000592740#page/16/mode/1up>
115. **Madrid, Biblioteca Nacional, MS 490**  
 13<sup>th</sup> century, Spain<sup>1022</sup>  
 no chapter numbers in the *capitula*, the chapter structure unclear  
*De litteris* in the *capitula*, in the body of the text XIII. *De litteris* (1.3-4)  
<http://bdh.bne.es/bnearch/detalle/bdh0000043613>
116. **London, BL, Lansdowne 433**  
 13<sup>th</sup> century, 2/2<sup>1023</sup>  
 27 chapters in the *capitula* (26-chapter version extended with III. *De litteris*), 26 chapters in the body of the text  
*V. De voce et litteris* in the *capitula*, no section on the *vox* or *litterae* present before *De syllaba* in the body of the text
117. **Cologny, Fondation Martin Bodmer, MS 92**  
 13<sup>th</sup> century, ex., perhaps Paris<sup>1024</sup>  
 29 chapters (extended 26-chapter version)  
*V. De voce et litteris* in the *capitula*, no section on the *vox* or *litterae* before *De syllaba* in the body of the text  
<http://www.e-codices.unifr.ch/en/list/one/cb/0092>
118. **Cambridge, Trinity College, R.9.10**  
 13<sup>th</sup>/14<sup>th</sup> century (James)  
 numerization by sections in *capitula*, no numbers in the body of the text  
 III. *De litteris communibus* and IIII. *De litteris latinis* in the *capitula*, *De voce* in the body of the text
119. **Vatican, BAV, Vat. Lat. 623**  
 13<sup>th</sup>/14<sup>th</sup> century (CVL)  
 27 chapters in the *capitula* (25-chapter version with extra III. *De litteris communibus* and IIII. *De litteris latinis*)  
*De voce et litteris* in the *capitula*, no section on the *vox* or *litterae* before *De syllaba* in the body of the text
120. **Cambrai BM 968**  
 13<sup>th</sup>/14<sup>th</sup> century (CCFr)  
 pure 26-chapter version  
*De voce et litteris* in the *capitula*, *De voce* in the body of the text
121. **Bern, Burgerbibliothek, MS 129**  
 1312 (Hagen)  
 numerization by sections both in *capitula* and in the body of the text  
*De voce* and *De litteris* both in the *capitula* and the body of the book
122. **Florence, Biblioteca Medicea Laurenziana, Plut. 27 sin. 9**  
 1384 (Bandini)  
 29 chapters (extended 26-chapter version)  
*V. De voce et litteris* in the *capitula*, omission in the body of the text

<sup>1022</sup> *Inventario general de manuscritos de la Biblioteca Nacional*, vol. 1, 337–38.

<sup>1023</sup> See the manuscript description at:

<http://www.bl.uk/catalogues/illuminatedmanuscripts/record.asp?MSID=5271&CollID=15&NStart=433>.

<sup>1024</sup> Description provided at <http://www.e-codices.unifr.ch/en> by (mes).

<http://teca.bmlonline.it/ImageViewer/servlet/ImageViewer?idr=TECA0001429982#page/36/mode/1up>

123. **Bern, Burgerbibliothek, MS 159**  
14<sup>th</sup> century, perhaps Paris (Hagen)  
numerization by sections both in *capitula* and in the body of the text  
*XIII. De voce* in the *capitula*, the folio with the respective section in the body of the text missing
124. **Paris, BnF, Lat. 7675**  
14<sup>th</sup> century (CCFr)  
no list of *capitula*, no chapter numbers in the body of the text  
*De voce* in the body of the text
125. **Paris, BnF, Lat. 7674**  
14<sup>th</sup> century (CCFr)  
no chapter numbers in the *capitula* or in the body of the text, but seems to be a pure 26-chapter version  
*De voce et litteris* in the *capitula*, *De voce* in the body of the text
126. **Madrid, Biblioteca Nacional, MS 7800**  
14<sup>th</sup> century, perhaps Avila<sup>1025</sup>  
29 chapters (26-chapter version with *III. De oratione*, *VI. De voce*, *VII. De litteris communibus* and *VIII. De litteris latinis*)  
*VI. De voce*, *VII. De litteris communibus* and *VIII. De litteris latinis* in the *capitula* as well as the body of the text  
<http://bdh.bne.es/bnearch/detalle/bdh0000055059>
127. **London, BL, Add. 21998**  
14<sup>th</sup> century<sup>1026</sup>  
seems to be the pure 26-chapter version  
*De voce et litteris* in the *capitula*, *De voce* and *De litteris communibus* and *De litteris latinis* (1.3-4) in the body of the text
128. **London, BL, Add. 22798**  
14<sup>th</sup> century, Italy<sup>1027</sup>  
29 chapters (extended 26-chapter version)  
*V. De voce et litteris*, *De litteris apud grammaticos de syllabis* (content identical with *De voce*) and *De litteris* before *De litteris apud grammaticos de sillabis* (content identical with *De syllabis*)
129. **London, BL, Egerton 2835**  
14<sup>th</sup> century, Italy<sup>1028</sup>  
numerization by sections both in *capitula* and in the body of the text  
*XIII. De litteris*, in the body of the text *De inventoribus litterarum et eorum primordiis* (1.3-4)

<sup>1025</sup> *Inventario general de manuscritos de la Biblioteca Nacional*, vol. 12, 173–74.

<sup>1026</sup> See the manuscript description at:

[http://searcharchives.bl.uk/primo\\_library/libweb/action/display.do?tabs=detailsTab&ct=display&fn=search&doc=IAMS032-002034461](http://searcharchives.bl.uk/primo_library/libweb/action/display.do?tabs=detailsTab&ct=display&fn=search&doc=IAMS032-002034461).

<sup>1027</sup> See the manuscript description at:

[http://searcharchives.bl.uk/primo\\_library/libweb/action/display.do?tabs=detailsTab&ct=display&fn=search&doc=IAMS040-002096733](http://searcharchives.bl.uk/primo_library/libweb/action/display.do?tabs=detailsTab&ct=display&fn=search&doc=IAMS040-002096733).

<sup>1028</sup> See the manuscript description at:

[http://searcharchives.bl.uk/primo\\_library/libweb/action/display.do?tabs=detailsTab&ct=display&fn=search&doc=IAMS032-001984893](http://searcharchives.bl.uk/primo_library/libweb/action/display.do?tabs=detailsTab&ct=display&fn=search&doc=IAMS032-001984893).

130. **London, BL, Burney 328**  
 14<sup>th</sup> century<sup>1029</sup>  
 no list of the *capitula*, the structure of the body of the text unclear  
*De voce* before *De syllaba*
131. **Auch, Bibliothèque municipale, MS 7**  
 14<sup>th</sup> century (CCFr)  
 27 chapters (26-chapter version extended with *III. De litteris*)  
*VI. De sillabis* and *VII. De voce* in the *capitula*, *De voce* in the body of the text  
[http://bymm.irht.cnrs.fr/consult/consult.php?COMPOSITION\\_ID=10031&corpus=decor](http://bymm.irht.cnrs.fr/consult/consult.php?COMPOSITION_ID=10031&corpus=decor)
132. **Prague, Univerzitní knihovna, Lib. I.C.2**  
 15<sup>th</sup> century, 1/2, Bohemia<sup>1030</sup>  
 29 chapters in the *capitula* (extended 26-chapter version), numerization by sections in the body of the text  
*V. De voce et litteris* in the *capitula*, *XV. De voce* in the body of the text  
[http://www.manuscriptorium.com/apps/main/en/index.php?request=show\\_record\\_num&param=0&mode=&client](http://www.manuscriptorium.com/apps/main/en/index.php?request=show_record_num&param=0&mode=&client)
133. **Brno, Moravská zemská knihovna, A 8**  
 1404-5<sup>1031</sup>  
 23 chapters (contracted 25-chapter version, missing *De glossis* and *De differentiis*)  
*V. De voce et litteris* in the *capitula*, in the body of the text *De litteris* (1.3-4)  
[http://www.manuscriptorium.com/apps/main/en/index.php?request=show\\_record\\_num&param=6&client=&ats=1394368278&mode=&testMode=&sf\\_queryLine=&qs\\_field=0](http://www.manuscriptorium.com/apps/main/en/index.php?request=show_record_num&param=6&client=&ats=1394368278&mode=&testMode=&sf_queryLine=&qs_field=0)
134. **Leiden, UB, BPL 11**  
 15<sup>th</sup> century, 1/2 (IIMM)  
 31 chapters in the *capitula* (each section *de notis* a separate *capitulum*), 26-chapter version in the body of the text  
*De voce* and *De litteris* in the *capitula*, *De voce*, *De litteris* and *De latinis litteris* (1.3-4) before *De syllabis*
135. **Leiden, UB, BPL 29**  
 mid-15<sup>th</sup> century (IIMM)  
 25 chapters in the *capitula* (26-chapter version with *III. De litteris* instead of *V. De voce et litteris* and missing *De metaplasmis*), 26-chapter version in the body of the text  
*III. De litteris* in the *capitula*, *De voce et litteris* before *De syllabis* in the body of the text
136. **Paris, BnF, Lat. 7676**  
 15<sup>th</sup> century (CCFr)  
 numerization by sections both in *capitula* and in the body of the text  
*XII. De litteris* in the *capitula*, *XIII. De litteris* (1.3-4) in the body of the text  
<http://gallica.bnf.fr/ark:/12148/btv1b9080975b/f12.item>
137. **London, BL, Harley 3035**  
 1495, western Germany<sup>1032</sup>

<sup>1029</sup> *Catalogue of Manuscripts in the British Museum*, New Series. Vol. 1:89.

<sup>1030</sup> Truhlař, *Catalogus codicum qui in Bibliotheca publica atque Universitatis Pragensis asservantur*, 93.

<sup>1031</sup> Dokoupil, *Soupis rukopisů mikulovské dietrichsteinské knihovny*, 57.

<sup>1032</sup> See the manuscript description at:

[http://searcharchives.bl.uk/primio\\_library/libweb/action/display.do?tabs=detailsTab&ct=display&fn=search&doc=IAMS040-002024116](http://searcharchives.bl.uk/primio_library/libweb/action/display.do?tabs=detailsTab&ct=display&fn=search&doc=IAMS040-002024116).

seems to be pure 26-chapter version

no *De voce et litteris* in the *capitula*, but *De voce* in the body of the text

[http://www.bl.uk/manuscripts/FullDisplay.aspx?ref=Harley\\_MS\\_3035&index=4](http://www.bl.uk/manuscripts/FullDisplay.aspx?ref=Harley_MS_3035&index=4)

138. **Florence, Biblioteca Medicea Laurenziana, Plut. 19.32**

15<sup>th</sup> century (Bandini)

29 chapters (extended 26-chapter version)

*V. De voce et litteris* in the *capitula*, but omitted in the body of the text

<http://teca.bmlonline.it/ImageViewer/servlet/ImageViewer?idr=TECA0000258296#page/13/mode/1up>

139. **Bologna, Collegio di Spagna, MS 9**

15<sup>th</sup> century<sup>1033</sup>

seems to be a pure 26-chapter version

*De litteris* in the *capitula*, no section on the *vox* or *litterae* before *De syllaba* in the body of the text

<http://irnerio.cirsfd.unibo.it/codex/009/>

140. **Lyon BM, MS 125**

15<sup>th</sup> century (CCFr)

pure 26-chapter version

*V. De voce et littera* in the *capitula*, in the body of the text two sections *De voce* and *De littera*

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<sup>1033</sup> Maffei, *I codici del Collegio di Spagna di Bologna*, 8–9.

## B) Manuscripts containing only the first book of the *Etymologiae*

1. **Oxford, Bodleian Library, Junius 25**  
 8<sup>th</sup>/9<sup>th</sup> century, southwestern Germany, prov. Murbach<sup>1034</sup>  
 a composite manuscripts made out of ten codicological units (A-J). Unit H, currently fols. 134r-151v of the manuscript, consists of *Etym.* 1.1-2.2. Some of the other codicological units are also grammatical, for example Donatus (I), others are unrelated, for example Aethicus Ister (B) and Latin hymns with glosses in OHG (F).  
  
 a pure 26-chapter version  
 no *De voce et litteris* in the *capitula*, in the body of the book *De lit*, but no text contains six glosses to DNS  
 partially digitised at <http://bodley30.bodley.ox.ac.uk:8180/luna/servlet/s/31r11i>
2. **Vatican, BAV, Pal. Lat. 1746**  
 c. 800, Lorsch (Lorsch)  
 a grammatical compendium, book one on fols. 40v-58v as *Sancti Isidori de gramatica et partibus eius*  
 no list of the *capitula*, an extended version, but unclear whether of the 25-chapter of the 26-chapter version because of the omitted chapter numbers  
 no section on the *vox* or *litterae* present before *De syllaba* in the body of the text  
[http://bibliotheca-laureshamensis-digital.de/bav/bav\\_pal\\_lat\\_1746](http://bibliotheca-laureshamensis-digital.de/bav/bav_pal_lat_1746)
3. **Munich, BSB, Clm 6411**  
 9<sup>th</sup> century, 1/4, perhaps Passau (Katalog 3078)  
 a grammatical compendium, book one on fols. 23v-41r as *Ars Isidori*  
 23 chapters in the *capitula* (contracted 25-chapter version, missing *De glossis* and *De differentiis*), 25-chapter version in the body of the text  
*V. De voce et litteris* in the *capitula*, in the body of the text title *De litteris apud grammaticos* before *De syllaba*, but no text  
 contains one gloss to DNS  
[http://daten.digitale-sammlungen.de/bsb00012886/image\\_1](http://daten.digitale-sammlungen.de/bsb00012886/image_1)
4. **Orléans BM 296**<sup>1035</sup>  
 9<sup>th</sup> century, 1/4, perhaps area of Paris (Katalog 3738); 9<sup>th</sup> century, 2/4, Fleury (Mostert BF 778)  
 a grammatical compendium, cropped, contains book one only from 1.21.18, title missing  
 the chapter structure unclear  
 contains 69 interlinear glosses to *Etym.* 1.21.18-1.26
5. **Paris, BnF, Lat. 11278**  
 9<sup>th</sup> century, 1/2, perhaps southeastern France (Katalog 4675)  
 a grammatical compendium, book one the only text as *Liber Isidori*  
 pure 25-chapter version  
 in the *capitula III. De litteris*, no information about the body of the text  
 contains eight glosses to DNS

<sup>1034</sup> Falconer, Craster, and Denholm-Young, *A Summary Catalogue of Western Manuscripts in the Bodleian Library at Oxford*, 2.2:969–71. See also Bischoff, *Katalog II*, n. 3806.

<sup>1035</sup> Pages 1-32 of this manuscript form a codicological unit together with **Paris, BnF, Lat. 7520**, fols. 25-45.

6. **London, BL, Harley 2713**  
 9<sup>th</sup> century, northeastern France<sup>1036</sup>  
 a composite manuscript made out of two codicological units, book one the first of these on fols. 1r-34v, cropped after 1.37.9  
 the chapter structure in the body of the text unclear, no list of *capitula*  
*De voce* in the body of the text  
 a sample page digitized at:  
<http://www.bl.uk/catalogues/illuminatedmanuscripts/record.asp?MSID=3870&CollID=8&NStart=2713>
  
7. **St. Gallen, Stiftsbibliothek, MS 882**  
 9<sup>th</sup> century, 2/2, St. Gall (Schmuki); 9<sup>th</sup> century, 3/4, perhaps St. Gall (Katalog 5864)  
  
 a grammatical compendium, book one in pages 143-98 as *Liber Isidori de grammatica*  
  
 seems to be pure 26-chapter version, no list of *capitula*  
 no list of *capitula*, no section on the *vox* or *litterae* before *De syllaba* in the body of the text  
<http://www.e-codices.unifr.ch/en/list/one/csg/0882>
  
8. **Oxford, Bodleian Library, Auct. T. 2. 20**  
 9<sup>th</sup> century, 3/4, Auxerre or perhaps Bourges (Katalog 3778)  
 a grammatical compendium, book one on fols. 93v-123r  
 no list of *capitula*, the structure of the body of the text unclear
  
9. **Leiden, UB, Voss. Lat. O 41**  
 9<sup>th</sup> century, 4/4, northeastern France (Katalog 2248)  
 a grammatical compendium, book one on fols. 34v-63v as *Liber Isidori*  
 seems to be a pure 26-chapter version  
*V. De voce et litteris* in the *capitula*, no *De voce et litteris* in the body of the text  
 contains 74 interlinear glosses to *Etym.* 1.21-26
  
10. **Leiden, UB, BPL 122**  
 9<sup>th</sup> century, 4/4, Lyon or St. Oyan (Katalog 2151)  
 a grammatical compendium, book one cropped and lacunose on fols. 43r-58v, begins from 1.9.4, between 43v and 44r a folio missing containing 1.16.1-1.17.22, title missing  
 seems to be pure 26-chapter version  
 no list of *capitula*, no *De voce et litteris* in the body of the text  
 DNS in a list-like format
  
11. **Trier, Bibliothek des Bischöflichen Priesterseminars, MS 100**  
 9<sup>th</sup>/10<sup>th</sup> century<sup>1037</sup>  
 a grammatical compendium, a selection from book one on fols. 1r-16v, contains 1.21-22, but not 1.23-26, only up to 1.39  
 seems to be based on a pure 26-chapter version  
 no list of *capitula*, no *De voce et litteris* in the body of the text

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<sup>1036</sup> See the manuscript description at:

<http://www.bl.uk/catalogues/illuminatedmanuscripts/record.asp?MSID=3870&CollID=8&NStart=2713>.

<sup>1037</sup> Kentenich, Lager, and Reimer, *Trierisches Archiv*, Ergänzungsheft 13:77–78.

### C) Manuscripts of the *Etymologiae* not containing book one<sup>1038</sup>

1. **El Escorial, Monasterio San Lorenzo, & I 14 (V)**  
8<sup>th</sup>/9<sup>th</sup> century or 9<sup>th</sup> century, in. (Millares Carlo), c. 850 (Castro)<sup>1039</sup>  
cropped, begins with *Etym.* 3.20.12
2. **Basel, Universitätsbibliothek, F III 15 (D)**  
9<sup>th</sup> century, ¼, Upper Rhine area (Katalog 270)  
begins with book two
3. **Paris, BnF, Lat. 10291 (I)**  
9<sup>th</sup> century, ½, eastern France (Reydellet)  
cropped, begins with *Etym.* 3.10.2  
<http://gallica.bnf.fr/ark:/12148/btv1b9080761m>
4. **Reims BM, MS 425 (f)**  
mid-9<sup>th</sup> century, Reims (Reydellet)  
seems to contain 26-chapter version of the book one, but the quire containing *Etym.* 1.17.11-1.37.22 missing  
*V. De voce et litteris* in the *capitula*  
<http://www.europeanaregia.eu/en/manuscripts/reims-bibliotheque-municipale-ms-425/en>
5. **Paris, BnF, Lat. 14085**  
mid-9<sup>th</sup> century, Corbie (Ganz)  
cropped, begins with *Etym.* 2.17.3
6. **Vercelli, Biblioteca Capitolare, MS 128 (k)**  
9<sup>th</sup>/10<sup>th</sup> century, Italy (Reydellet)  
cropped, begins with *Etym.* 5.25.16
7. **Cambridge, Trinity College, B.15.33**  
10<sup>th</sup> century (James)  
contains only books five to ten  
<http://sites.trin.cam.ac.uk/james/viewpage.php?index=234>
8. **Paris, BnF, Lat. 7672**  
12<sup>th</sup> century (CCFr)  
23 chapters in the *capitula* (contracted 25-chapter version, missing *De glossis* and *De differentiis*)  
*V. De voce et litteris* in the *capitula*, *V. De voce et litteris* (contains 1.3-4) in the body of the text  
quire containing *Etym.* 1.17.20-1.39.11 missing  
<http://gallica.bnf.fr/ark:/12148/btv1b90779757>
9. **Bern, Burgerbibliothek, MS 291**  
12<sup>th</sup>-13<sup>th</sup> century, Metz (Hagen)  
cropped, does not contain book one

<sup>1038</sup> I consider here only manuscripts of the *Etymologiae* that might be expected to contain the book one. Manuscripts that, for example, contain only the books ten to twenty or a different incomplete set of books which are not to be expected to contain book one as well are not included. For these, see Beeson, *Isidor-Studien*; and Porzig, 'Die Rezensionen der *Etymologiae*'.

<sup>1039</sup> Huglo mentions that the manuscripts belonged to the church of St. Romain near Toledo in the eighth century; Huglo, 'The *Musica Isidori* Tradition', 68.

## D) Manuscripts containing book one of the *Etymologiae*, but not DNS

1. **Berlin, Staatsbibliothek, Diez. B. Sant. 66**  
c. 800, royal court (CLA VIII 1044)  
a grammatical compendium including the grammar of Peter of Pisa and poetry.<sup>1040</sup> In pages 102-116 a selection from book one of the *Etymologiae* (1.18-20, 1.27, 1.38.1-2, 1.40.2-4, 1.40.7-44.5).
2. **Bern, Burgerbibliothek, MS 207**  
8<sup>th</sup> century, ex., insular script, Fleury (CLA V 568)<sup>1041</sup>  
a grammatical compendium that contains a selection of chapters from book one in order: 5-14 (168r-171r); 1-4 (171r-173v); 16 (173v); *De voce* (173v); 17-20 (173v-176r); 22 (176r); 27-29 (176r-177r); 31 (177r); 30 (177r); 32-35 (177r-178v); and 38-44 (178v-181v)<sup>1042</sup>, followed by additional excerpts from books two, three and four. The excerpts from book one bear title *Ars sancti Isidori de grammatica*.
3. **Karlsruhe, Badische Landesbibliothek, Aug. Perg. 112**  
9<sup>th</sup> c., 1/4, Reichenau (Katalog 1642)  
a grammatical compendium that contains a selection of excerpts from book one of the *Etymologiae* (1.5, 1.4.1, 1.7.27, 1.7.31-33, 1.8.1-4, 1.8.5, 1.10, 1.12, 1.14) and also from books 6, 8, 16 and 17. According to Beeson (p. 41), the title *Ars Isidori* can be found in this manuscript, but I was not able to locate it. The compendium is structured around fragments from *Ars Minor* and *Ars Maior* of Donatus, to which excerpts Sergius's commentary on Donatus and Isidore's *Etymologiae* were added section by section. Other short *grammaticalia* are also present.  
<http://digital.blb-karlsruhe.de/blbhs/Handschriften/content/titleinfo/20141>
4. **Paris, BnF, Lat. 7559**  
9<sup>th</sup> century, 1/2, perhaps area of Paris (Katalog 4474)  
a grammatical compendium that contains *Etym.* 1.32.3-1.44 on fols. 2r-16v. Other texts include grammatical treatises of Priscian, Servius, Phocas, Maximus Victorinus and Alcuin. The manuscript is cropped at the beginning and likely contained the rest of book one, including DNS. The manuscript contains some tenth-century marginalia to Priscian and Phocas.<sup>1043</sup>
5. **Leiden, UB, Voss. Lat. Q 86**  
mid-9<sup>th</sup> century, France, perhaps Fleury (Katalog 6666)  
a collection of Classical and Patristic poetry (Arator, Prosper of Aquitaine, Sedulius, Avitus and Martial), to which book one of the *Etymologiae* is attached at the end, on fols. 145r-150v. Book one bears title *Ars Isidori episcopi de grammatica* and is cropped after 1.17.20. The arrangement of the present *capitula* is 1.1-4 and 1.16-17.  
[https://socrates.leidenuniv.nl/R/?func=dbin-jump-full&object\\_id=2489392](https://socrates.leidenuniv.nl/R/?func=dbin-jump-full&object_id=2489392)
6. **Troyes BM 1328**  
12<sup>th</sup> century (CCFr)  
a compendium containing different Patristic and theological works (Jerome's commentary on Mark, Augustine's *De quattuor virtutibus caritatis*, Hugh of St. Victor's *De arca Noe*, Ivo of Chartres' *Panormia* etc.), includes a selection from the first four

<sup>1040</sup> The full content is described in Winter, *Die Manuscripta Dieziana B Santeniana*, 1:71–75.

<sup>1041</sup> The localization to Fleury by Bischoff; Bischoff, *Katalog I*, n. 551a.

<sup>1042</sup> This order is based on my personal examination and differs from Beeson's; see Beeson, *Isidor-Studien*, 84.

<sup>1043</sup> See Judy, 'L' *Ars de nomine et verbo*', 128–29.

books of the *Etymologiae* on fols. 100r-109v. It contains sections 1.5, 1.6-8, *De voce*, 1.3, 1.29, and 1.32-37.

## Appendix V: Glosses and annotations to *De notis* in the manuscripts of the *Etymologiae*

In this appendix, I provide an overview of the glosses and textual annotations to *De notis sententiarum* (*Etym.* 1.21) or to the *capitulum De notis* (*Etym.* 1.21-26) in the manuscripts of the entire *Etymologiae*, manuscripts containing only the first book of this work, or only excerpts from it. I indicated words from the *Etymologiae* that were used as lemmata by capitalization and where necessary, I added additional words from the text in round brackets for the clarification of the lemma. Words and passages that I was unable to read in the manuscripts or which were obliterated by damage are indicated in square brackets. I also used square brackets for the resolution of Tironian notes in **Orléans BM 296** (item 8). Since glosses in **Cesena, Biblioteca Maltesiana, S.XXI.5** were made to the signs rather than to the text of *De notis sententiarum*, I represented them as the lemmata in item 9. I chose to retain the orthography of the respective manuscripts, both for the lemmata and for the notes.

1. **Milan, BA, L 99 sup., p. 35** (8<sup>th</sup> century, ½, Bobbio)  
*AD MENDAS. deceptio uel fraus*
2. **London, BL, Cotton Caligula A XV, fols. 36r-37r** (c. 743, northeastern France)  
*NOTA EST. primum autem dicitur quid sit nota*  
*QVAE* (deese uidentur). s[*cilicee*]. *ea*  
*DIVERSIS SERMONIBVS.* s[*cilicee*]. *ut ueritas et iustitia*  
*ANTIGRAFFVS. contrarius scriptor*  
(antigraphus cum puncto) *PONITVR. in his locis*  
(asteriscus cum obelo) *HAC.* s[*cilicee*]. *nota*  
*PARAGRAFFVS. similis scriptor + graecum g*  
*SEPARANTVR. ne unum fiat a duobus*
3. **Vatican, BAV, Vat. Lat. 5763, fol. 20r** (mid-8<sup>th</sup> century, northern Italy)  
*OLYMPI. Aut olimpus caelum dicitur qui in narratione separandus est a caelo id est a firmamento uel olimpus mons dicitur quem dicunt ob altitudinem caelum contingetur, sed in narratione haec ponenda est nota ut intellegatur caelum pertingere non posse.*
4. **Oxford, Bodleian Library, Junius 25, fols. 143r-144r** (8<sup>th</sup>/9<sup>th</sup> century, southwestern Germany)  
*CATALOGO. census regni*  
*OLYMPI. mons*  
*STROFE. contrarium*  
*PHRYGLAE RES. homo a Troia*  
*MONADE. unitate*  
*INPROBANTVR. lastrot*<sup>1044</sup>  
*COMMENTATVS. recordatus*  
*VIPSANIVS. ciuitas*

<sup>1044</sup> Compare with the Old High German *lastarôn\** ('to blaspheme, to blame'), in Köbler, *Althochdeutsches Wörterbuch*. This manuscript contains also other OHG glosses.

SANXERVNT. *indicauerunt*

5. **Leiden, UB, Voss. Lat. F 82, fol. 14r** (9<sup>th</sup> century, in., Paris)

STROPHE. *Strofa est species locutionis cum quis uel d[...] aut ingeniose uel a[stute?] loquitur ad alter[um] et econtrario alter[...]. antistrofam. hoc [est] contrariam conu[ers]ionem obicit et he[c] species locutionis s[unt?] uel ad conuitia uel a[d] mina uel inrisio[nem?] aut insult[atio]nem uel ad quamlibet as[utam] locutionem et h[aec] figura obpon[itur] in historiis et in gestibus ubi person[ae] contrarie loq[uen]tes introduce[n]tur.*

6. **Reims BM 426, fol. 11v-12r** (9<sup>th</sup> century, 1/4, Reims)

PARAGRAPHVS. *separatio*  
 CATALOGO. *commemoratio s[...]ndum*  
 OLIMPI. *mons uel caelum*  
 ZENODOTVS. *Graecus*  
 INFERTVR. *scilicet in illis comediis*  
 ACHIVS. *Graecus*  
 MONADE. *una sententia*  
 IN LIMINARI. *in margine*  
 IVRIS (notas). *legis*  
 ABOLENDAS. *delendas*  
 SANXERVNT. *indicauerunt*  
 SVPERESSENT. *remansissent*  
 SVPERSTITEM. *uiuentem*  
 POTIS. *pro potens*  
 PRAEFIGERE. *praesignare*  
 INPERITIAM. *segnicia*  
 MVTVO. *alternatim*  
 BRVTVS. *dux Romanorum*  
 Z (autem littera). *zita*

7. **Munich, BSB, Clm 6411, fol. 37r** (9<sup>th</sup> century, 1/4, perhaps Passau)

CONAMVR. *incipimus*

8. **Orléans BM 296, pp. 1-3** (9<sup>th</sup> century, 1/4, perhaps area of Paris)

MONADE. [Tironian notes: probably *una sententia*]  
 DIPLE SVPERNE OBOLATA. [Tironian notes above *superne*, probably *aduerbium*<sup>1045</sup>]  
 AD CONDITIONES. *ad constructiones*  
 INPROBANTVR. [et?] *probantur*  
 OB SOLLICITVDINEM. *curiosi*  
 OMNINO. *certe*  
 DENVNLTATVM. [Tironian notes?, a word starting with *s*]  
 AD MENDAS. [Tironian notes, probably *mendacia*<sup>1046</sup>]  
 PER EXTREMITATES. [...] *tates*  
 IN LIMINARI. [Tironian notes, probably *hoc est termino*<sup>1047</sup>]  
 DE NOTIS VVLGARIBVS. *uulgares dicte [...] uulgus id est populus [no?]te*  
 ENNIVS. [Tironian notes, probably *proprium nomen*]  
 LIBRARII. *cancellari*

<sup>1045</sup> Suggested by Martin Hellmann.

<sup>1046</sup> Martin Hellmann suggests *miserias*.

<sup>1047</sup> Suggested by Martin Hellmann.

TIRO. *iuuenis uel nouellus miles*  
 CONMENTATVS EST. *mactatus est*  
 MECENATIS. *ciuitatis*  
 ADDIDERVNT. *adiuixerunt*  
 SENECA. [Tironian notes, probably *proprium nomen*]  
 CONTRACTO. *adunato*  
 DIGESTOQVE. *congregato*  
 AVCTO. *multiplicato*  
 PRAEFIXIS. *scriptis*  
 CHARACTERIBVS. *figuris*  
 NOTENT. *designent*  
 AD NOTITIAM. *ad cognitionem*  
 DE NOTIS IVRIDICIS. *in libris legis*  
 QVAEDAM. *aliqua*  
 IVRIS. *legis*  
 CELERIS. *uelox*  
 VERBI GRATIA. *ut puta*  
 A CODICIBVS. *libris*  
 ABOLENDAS. *delendas*  
 SANXERVNT. *constituerunt*  
 IGNORANTES. *inscientes*  
 AMBAGES. *dubietas*  
 AFFERANT. *adportant*  
 VITANDA. *fugianda*  
 APERTE. *manifeste*  
 DEMONSTRARENT. *ostendunt*  
 INSPICERETVR. *uideretur*  
 SVPERESSENT. *uixissent*  
 SVPERSTITEM. [Tironian note for *sic*] *uiuum*  
 PERSIVS. *poeta*  
 ET POTIS EST. *potens*  
 VICIVM. *uel mortem corruptum*  
 PREFIGERE. *demonstrare*  
 IN STIPENDIORVM. *ciborum*  
 LARGITIONE. *dispensatione*  
 OCVLTE. *absconse*  
 MVTVI. *ad inuicem*  
 BRVTVS. [Tironian notes, probably *proprium nomen dux Romanorum*]  
 LITTERIS. [Tironian note for *sic* + another one, a word starting with *sub*<sup>1048</sup>]  
 ACTVRVS. *facturus*  
 NOTABAT. *signabat*  
 IGNORANTIBVS. *nescientibus*  
 INQVIT. [Tironian note?]  
 INCIDVNT. *adueniant*  
 ALTERVTRVM. *inuicem*  
 OPORTEAT. *scire*  
 REDEVNDVM ERIT. *reuertendum e[rit?]*  
 SECVM. *simul*  
 DISTANTES. *stantes*

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<sup>1048</sup> Suggested by Martin Hellmann.

SICVT MOS EST. [Tironian note for *si*] *consuetudo*  
 QVOTIES. *quandocumque*  
 ENNIVS. [Tironian notes, probably *proprium nomen*]  
 INPVDICA. *non casta*  
 LVDENS. *iocans*  
 DADATIM. [Tironian notes, probably *illis dat se*<sup>1049</sup>]  
 OCVPATA. *stricta*  
 PERVELLIT. *percutit*

9. **Cesena, Biblioteca Maltesiana, S.XXI.5, fol. 14r-15r** (9<sup>th</sup> century, Italy) 1/3, northern  
 ✱ *in praetermissis*  
 – *in superfluis*  
 ÷ *in dubiis*  
 ÷ *in sermonum uarietate*  
 √ *in diuersitate sensuum*  
 ✱– *in transmutatis*  
 Γ *in separatione*  
 ⊏ *in finis separatione*  
 ⊕ *in difficili quaestione*  
 ⊃ *in ordine transmutato*  
 ⊃ *in ambiguis*
10. **Paris, BnF, Lat. 11278, fol. 11r-12r** (9<sup>th</sup> century, 1/2, perhaps southeastern France)  
 LIMNISCVS. *finalis*  
 PARAGRAPHVS. [*sim*] *ilis scriptio*  
 CRYFLA. [*in*] *diciale*  
 ANTISIGMA. [*con*] *traria simma*  
 DIPLE PERDISTICON. *duorum uersuum*  
 DIPLE PERDISTVNGMENE. *duplex adnotatio*  
 AVERSA CVM OBOLO. *con*[*tro*] *uersia*  
 MONADE. *una disputatio*
11. **Paris, BnF, Lat. 7671, fol. 15r** (mid-9<sup>th</sup> century, perhaps northeastern France)  
 IN CATALOGO. *ubi con*[*ti*] *nentur nomina locorum uel nomin[a] regionum uel praemia ag*[*o*] *num [...]* *taram uel in <cer>*[*am*] *na bellantium uel nomina plurimorum hominum.*
12. **Paris, BnF, Lat. 7583, fol. 9v** (mid-9<sup>th</sup> century, central France)  
 IVGVLET. *decollet*  
 CONFODLAT. *uulneret*
13. **London, BL, Harley 3941, fol. 10r-11r** (9<sup>th</sup> century, 2/2, Brittany)  
 PRETEREA. *exceptis his posituris*  
 CELEBERRIMOS. *clarissimos*  
 (asteriscus apponitur) *IN HIS. sententiis*  
 VT ILLVDESCANT. *ā*[*d est*] *manifestent et declarant*  
 (a quo) *ASTERISCVS. quasi stellaris*  
 (Obolus) *APPONITVR (in uerbis). apud poetas*  
 VEL SENTENTIIS. *apud oratores*

<sup>1049</sup> Suggested by Martin Hellmann.

ITERATIS. *additis*  
 IVGVLET. *ī[d est] perforet*  
 SVPERNE. *pro supra*  
 LIMNISCVS. *finalis*  
 PARAGRAPHVS. *similis scriptio*  
 IN CATALOGO. *series nominum uel locorum uel iustorum numerus*  
 A PRINCIPIIS SEPARAT. *quia ille ponitur in capite semper et ista in fine*  
 CRYPHIA. *ī[d est] iudicial*  
 ANTISIMMA. *contraria simae [gentiein?]*  
 DIPLE. *ī[d est] duplex*  
 DIPLE PERSTICON. *duc[orum?] uersuum*  
 SIRACVSANVS. *a ciuitate Siracusa*  
 OLIMPHI A CAELO. *quia aliquando Olimphum montem posuit pro caelo propter altitudinem*  
 DIPLE PERSTIGMENE. *duplex annotatio*  
 IN COMEDIIS. *in comessationibus*  
 VEL TRAGOEDIIS. *rusticis*  
 STROPHE. *conuersio*  
 ET ANTISTROPHVS. *iterum reconuersio*  
 (respiciunt) VT. *In prima parte .X. libri Aeneidis alloquens Venerem improbens quod hanc  
 potius causam fuisse periculo Troianis quam se.*  
 FLVXAS FRIGLAE. *haec ait Iuno*  
 RES VERTERE. *Ser. g. status relatiuus per quem ostendit Venerem magis Troianis causam  
 fuisse periculorum (Serv., In Aen. 10.88)*  
 MONADE. *unum*  
 INPROBANTVR. *refutantur*  
 FVLMEN. *fulgur*  
 CRISIMON. *pulcher sermo*  
 OB SOLLICITVDINEM. *propter curam*  
 VILISIME. *turpissime*  
 INCONVENIENTIVS. *ignorabiliter*  
 CRONIS. *circulata*  
 ALOGVS. *non uerbialis*  
 AD MENDAS. *ī[d est] mendacia*  
 ADHIBETVR. *adiungitur*  
 (huiusmodi) SIGNVM. *expositum*

14. **Leiden, UB, Voss. Lat. O 41, fol. 47v-48v** (9<sup>th</sup> century, 4/4, northeastern France)

CELEBERRIMOS. *quasi preclarissimos*  
 ANTIQVI. *hoc est ueteres*  
 AD DISTINCTIONEM. *in separationem*  
 HISTORIIS. *in prosis*  
 ADPOSVERVNT. *quasi adiunxerunt*  
 AD DEMONSTRANDAM. *ad adostendam*  
 INFRA SCRIPTIS. *subtis*  
 OMISSA SVNT. *ī[d est] praetermissa sunt*  
 ITERATIS. *reperatis*  
 NOTATA. *ī[d est] scripta est*  
 IVGVLET. *percutiet uel sernet*  
 CONFODLAT. *hoc est perforare*  
 DVBITATVR. *esitatur*  
 NECNE. *an*

ADPONI. *ī[d est] addi*  
 SACRE. *ī[d est] diuine*  
 EODEM SENSU. *ī[d est] uno intellectu*  
 TRANSLATIONIBVS. *interpretationibus*  
 POSITI. *collocati*  
 AD SEPARANDAS. *hoc est discernendas*  
 IN CONEXV. *in oratione*  
 CONCVRRVNT. *simul*  
 IN CATALOGO. *hoc est in serie et ordo*  
 NOTAT. *monstrat*  
 FINES. *hoc est terminos*  
 SEPARAT. *diuidit*  
 ANTISIGMA. *uocatur [...] littera apud grecos*  
 AD EOS. *iuxta eos*  
 DVPLICES VERSVS. *ī[d est] duos uersus*  
 ECCLESIASTICORVM. *quasi catholicorum*  
 SANCTARVM. *ī[d est] est diuinarum*  
 HOMERICIS. *grecus fuit*  
 AD SEPARATIONEM. *distinctionem*  
 OLIMPHI. *ī[d est] [mon]tis*  
 ZENODOTVS. *proprium nomen*  
 ADIECERAT. *adiderat*  
 AD SEPARANDOS. *adistinguendos*  
 AVERSA. *quasi conuersa*  
 STROFE. *argumentati*  
 INFERTVR. *inmittitur*  
 QVE AD ALIQUID RESPICIVNT. *ī[d est] que ad superiora intendunt*  
 CONAMVR. *et temptamur*  
 ACHIVS. *ī[d est] grecis*  
 INPROBANTVR. *reiciuntur*  
 EXTREMITATE. *ī[d est] in marginibus*  
 IN LIMINARE. *hoc est in margine*

15. **Paris, BnF, Lat. 6810, fol. 58v** (10<sup>th</sup> century)  
*IN CONNEXV. ī[d est] in copulatione partium*
16. **Paris, BnF, Lat. 7585, fol. 10rv** (10th century, 2/2, England, perhaps Canterbury)  
*LIMNISCVS. ī[d est] custodia*  
*EODEM SENSU. ī[d est] ut est ueritas et iustitia*  
*ANTIGRAPHVS. ī[d est] contrarius scriptor uel contraria scriptura*  
*ASTERISCVS CVM OBELO HAC. s[cilicet]. nota*  
*PARAGRAPHVS. ī[d est] similis scriptio*  
*A REGIONIBVS. s[cilicet]. similia nomina locorum separant ne faciat unum de duobus*  
*SEPARANT. s[cilicet]. ne unum fiat de duobus*  
*CRIFLA. ī[d est] circulus*  
*AD EOS VERSVS. ī[d est] non in suis locis ponuntur lineae*  
*DIPLE. ī[d est] duplex*  
*DIPLE PERLESTICON. distinguendo*  
*OLIMPHI. olimpus nomen montis est ne putetur caelum olimpus*  
*ANTISTROPHVS. controuersia*  
*AD EMENDENDA. ī[d est] ad mendacia*

17. **Leiden, UB, Voss. Lat. O 15, fol. 144r** (11<sup>th</sup> century, ½, southern France)  
*OLIMPI A CAELO. nepotis a serpente*<sup>1050</sup>
18. **Oxford, Bodleian Library, Ashmole 328, pp. 194-96** (mid-11<sup>th</sup> century, perhaps Canterbury)  
*LYMNISCVS. finalis*  
*ANTIGRAPHVS. contraria scriptura*  
*CRIPHLA. indicialis*  
*ANTISIMMA. contraria*  
*DYPLE. id est duorum*  
*DYPLE PERI STICON. sensium*  
*DYPLE PERISIGMENE. duplex id notatio*<sup>1051</sup>

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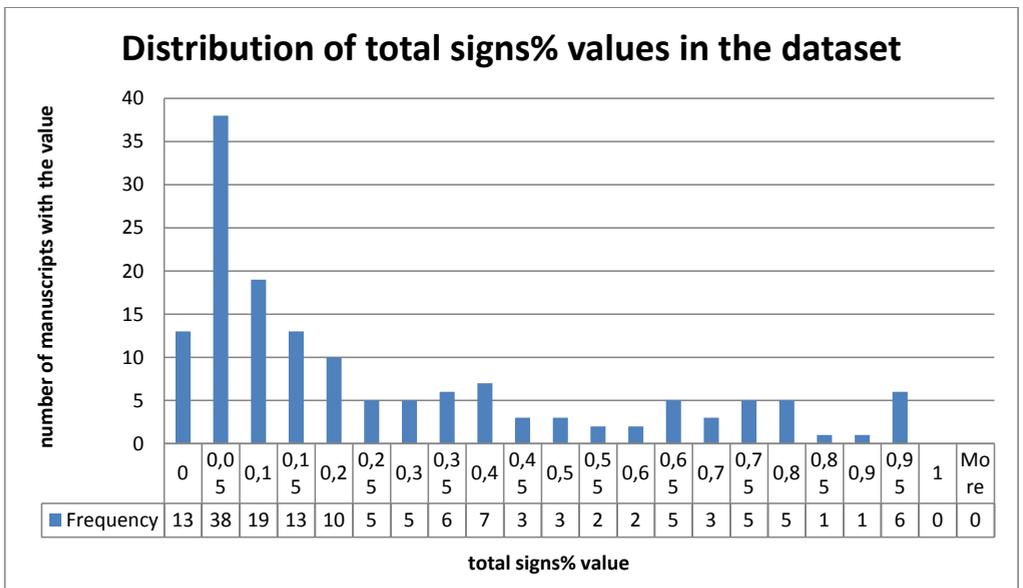
<sup>1050</sup> This gloss has been incorporated into the abbreviated text of the first book of the *Etymologiae* by Ademar of Chabannes. I took it from the edition of his notebooks, in van Els, 'Een leeuw van een handschrift', 963.

<sup>1051</sup> Perhaps, this is an error instead of *adnotatio*.

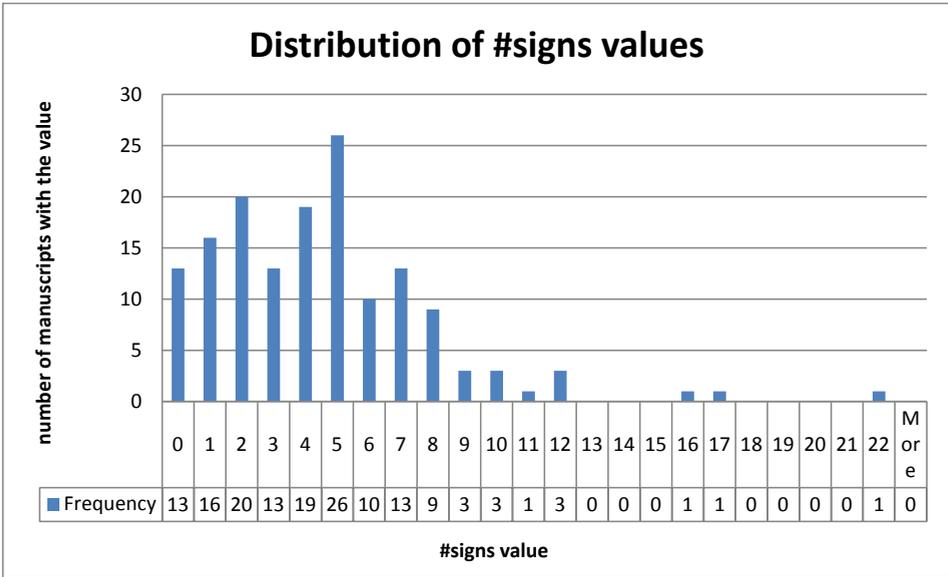
## Appendix VI: The distribution of technical signs in the early medieval manuscripts from Bavaria

In this appendix, I provide the statistical data that I used for the quantitative analysis of technical signs in my dataset: the 152 early medieval manuscripts from Bavaria to which I refer in chapter 6. Figures 1-5 contain tables reflecting the distribution of the set of variables defined in chapter 6. They are based on quantitative data, which I collected in the course of 2013 and 2014. Figures 6a-c contain the information about the distribution of the same variables, but also of the most common sign types in three segments of the dataset: a) the entire set (152 manuscripts); b) the ‘lightly’ annotated manuscripts with a total signs% value of 40% and lower (116 manuscripts); and c) the ‘heavily’ annotated manuscripts with a total signs% value of 65% and higher (26 manuscripts).

**Fig. 1: Distribution of manuscripts based on the total percentage of pages containing technical signs (total signs%) in the dataset**



**Fig. 2: Distribution of manuscripts based on the number of sign types used in them (#signs) in the dataset**



**Fig. 3: Distribution of manuscripts in the dataset based on the balance between the signs at the beginning and in the middle portion of the codex (diff signs)**

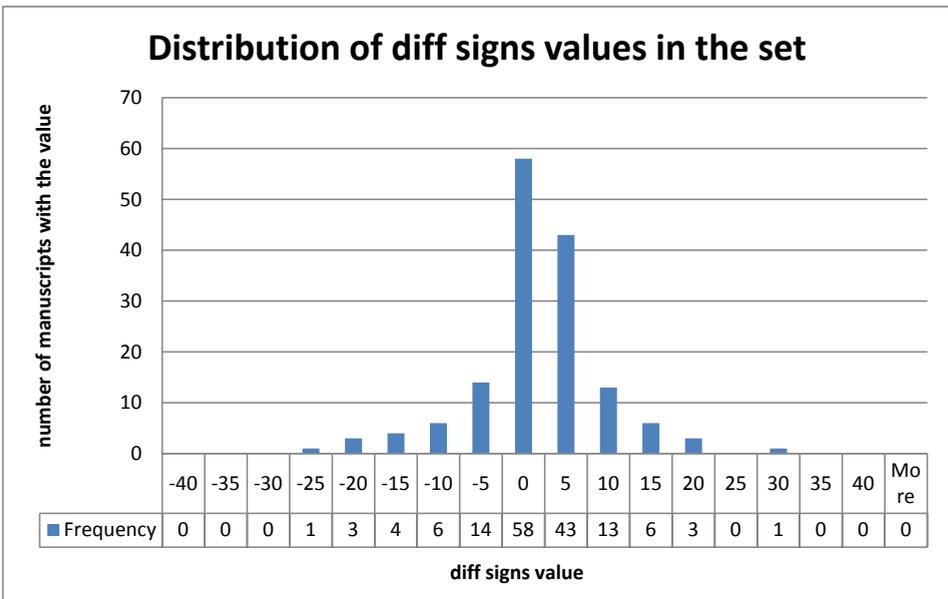


Fig. 4: Distribution of manuscripts based on the total percentage of pages containing marginal annotations (total annotation%) in the dataset

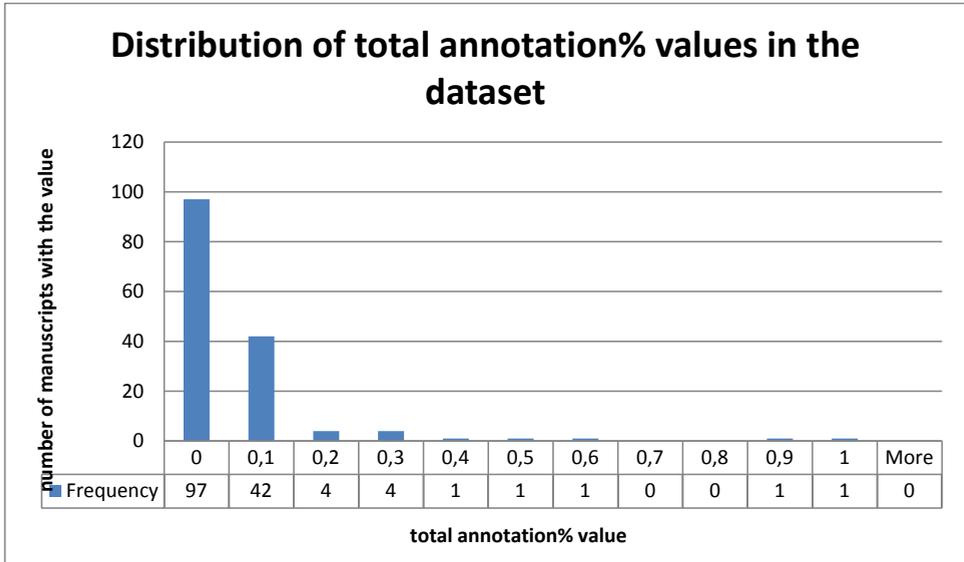
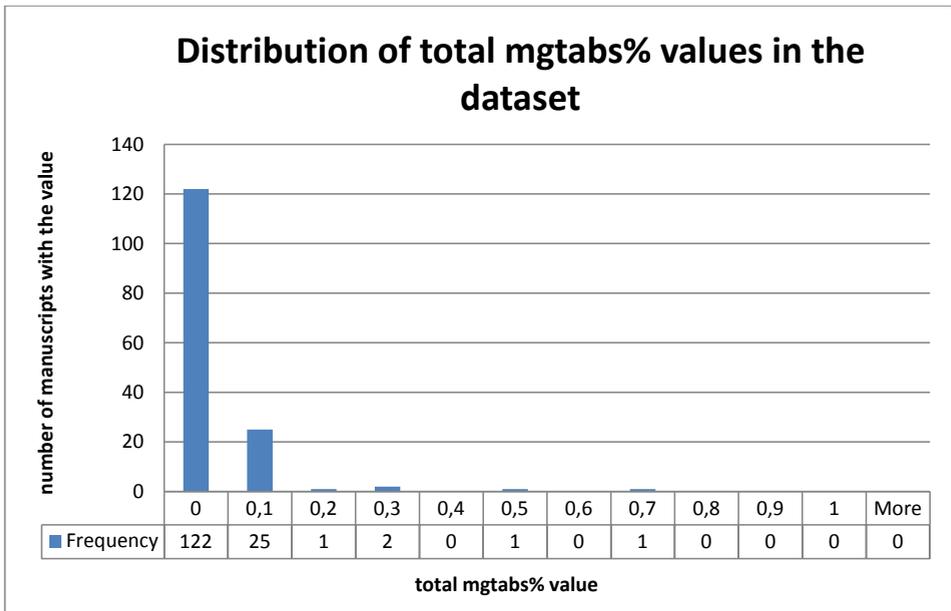


Fig. 5: Distribution of manuscripts based on the total percentage of pages containing marginal tabs (total mgtabs%) in the dataset



**Fig. 6: Average number of pages containing a given sign (average) and a total number of manuscripts containing this sign (#) in different parts of the dataset**

	entire set (152 mss.)		'lightly' annotated manuscripts (116 mss.)		'heavily' annotated manuscripts (26 mss.)	
	average	#	average	#	average	#
total signs%	0.246		0.109		0.764	
total annotation%	0.036		0.042		0.022	
total mgtabs%	0.014		0.009		0.034	
diff signs	0.07		1.24		-2.62	
#signs	4.5		3.8		7.2	
S-shaped flourish	46.9	87	9.3	55	190.1	23
insular quotation sign	2.2	12	1.6	10	4.2	1
<i>yfen</i>	2.1	3	0.9	2	8.7	1
÷ quotation sign	1.5	3	0	0	9	3
<i>require</i>	6	85	5.7	61	7.5	18
ζητεĩ	0.5	24	0.5	17	1	6
<i>cryphia</i>	0.1	5	0.1	4	0.3	1
<i>frontis</i>	0.6	5	0.8	3	0.2	2
<i>nota</i>	10.9	57	3.8	34	36.2	18
<i>chresimon</i>	0.4	8	0.1	5	1.9	3
<i>trigon</i>	2.3	30	0.7	15	9.8	12
<i>asteriscus</i>	0.2	18	0.1	10	0.7	7
<i>obelus</i>	0.1	9	0.1	7	0.04	1
<i>theta</i>	0.1	3	0.01	1	0.3	2
<i>kaput</i>	1.1	6	0.9	5	0	0
cross	8.9	102	6.1	71	21.3	23
<i>anchora superior</i>	0.1	2	0.02	1	0.7	1
<i>anchora inferior</i>	0.1	3	0.03	2	0.3	1
n-f excretion signs	1.8	5	0.05	1	6.8	3

## Appendix VII: Samples of different technical signs from manuscripts in the Bayerische Staatsbibliothek

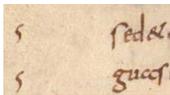
In this appendix, I provide an overview of various graphic forms of technical signs discussed in chapter 6. The overview is only illustrative – I do not include all graphic forms of all technical signs I encountered, but rather I selected those that represent different variants of individual technical signs. You will see, for example, several versions of the S-shaped flourish and of the *nota* attention sign.

This appendix is organized according to the functional categories I outlined in the introduction and to which I refer throughout chapter 6.

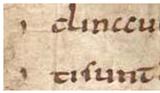
### 1. Quotation signs

#### a) S-shaped flourish

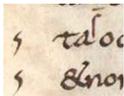
##### i. Bavarian manuscripts (total 87 mss., here just a selection)



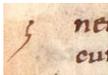
Clm 52, fol. 36v (main hand, Regensburg, 817-47)



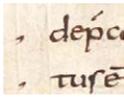
Clm 4577, fol. 8v (main hand, Benediktbeuern, 8<sup>th</sup> c., 3/4)



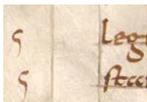
Clm 6252, fol. 36r (main hand and corrector, Freising, 9<sup>th</sup> c., 2/4)



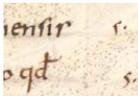
Clm 6267, fol. 35r (main hand, Freising, 9<sup>th</sup> c., 2/4)



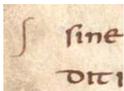
Clm 6276, fol. 6r (main hand, southern Bavaria, 9<sup>th</sup> c., 2/4)



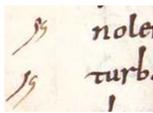
Clm 9543, fol. 9v (main hand, Regensburg, 820-40)



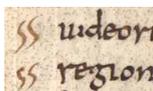
Clm 14200, fol. 38r (main hand?, Regensburg, 9<sup>th</sup> c., med.)



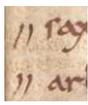
Clm 14537, fol. 171v (main hand, Regensburg, 8<sup>th</sup> c., ex.)



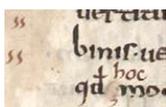
Clm 6223, fol. 21v (main hand and corrector, Freising, 825-35)



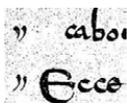
Clm 6270a, fol. 8r (corrector, Freising, 825-35)



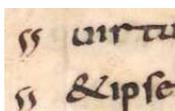
Clm 6305, fol. 8r (main hand, Freising, 8<sup>th</sup> c., 4/4)



Clm 6316, fol. 22v (corrector, Freising, 8<sup>th</sup> c., 3/4)



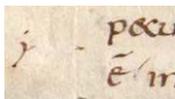
Clm 14457, fol. 33v (Regensburg, c. 800)



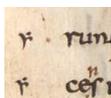
Clm 13038, fol. 18r (main hand, Regensburg, c. 800)

b) *Yfen*

- i. Bavarian manuscripts (total 3 mss., images available only for 2 mss.)



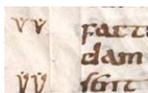
Clm 4541, fol. 21v (main hand, Benediktbeuern, 9<sup>th</sup> c., 3/3)



Clm 14286, fol. 4r (main hand, Regensburg, 9<sup>th</sup> c., 1/4)

(no images) Clm 14425 (Regensburg, 8<sup>th</sup>/9<sup>th</sup> c.)

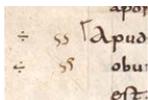
- ii. Non-Bavarian manuscripts (1 ms.)



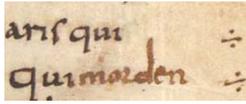
Clm 6300, fol. 12v (main hand and corrector, northern Italy?, 8<sup>th</sup>/9<sup>th</sup> century)

c) ÷ quotation signs

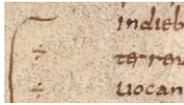
- i. Bavarian manuscripts (3 mss.)



Clm 6284, fol. 7v (main hand, erased or replaced, Freising, 9<sup>th</sup> c., 2/4)



Clm 14385, fol. 3r (main hand, Regensburg, 9<sup>th</sup> c., 2/4)

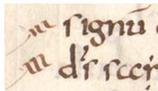


Clm 14393, fol. 6v (main hand, Regensburg, 9<sup>th</sup> c., med.)

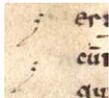
d) Insular quotation signs

i. Bavarian manuscripts (total 11 mss., images available for 7 mss.)

(no images) Clm 4549 (Benediktbeuern, c. 800)



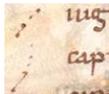
Clm 6286, fol. 27v (main hand,<sup>1052</sup> southern Bavaria, 8<sup>th</sup>/9<sup>th</sup> c.)



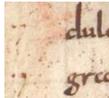
Clm 6307, fol. 7v (main hand, Freising, 8<sup>th</sup> c., 3/4)



Clm 6316, fol. 65r (main hand, Freising, 8<sup>th</sup> c., 3/4)

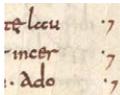


Clm 6319, fol. 68v (main hand, partially erased, Freising, 9<sup>th</sup> c., 2/4)



Clm 14417, fol. 27v (corrector, Regensburg, 9<sup>th</sup> c., 2/4)

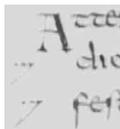
(no images) Clm 14425 (Regensburg, 8<sup>th</sup>/9<sup>th</sup> c.)



Clm 14760, fol. 94r (main hand, Regensburg, 9<sup>th</sup> c., 2/4)

(no images) Clm 15408 (Regensburg, 9<sup>th</sup> c., 2/4)

(no images) Clm 16128 (Salzburg, 8<sup>th</sup> c., ex.)



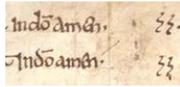
Clm 18092, fol. 191r (Tegernsee, 8<sup>th</sup> c., ex.)

e) 3-shaped quotation signs

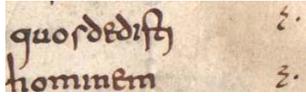
i. Bavarian manuscripts (total 7 mss., images available for 6 mss.)

(no images) Clm 3747 (Regensburg, 9<sup>th</sup> c., 2/4)

<sup>1052</sup> A correcting hand added one pair of S-shaped flourishes on fol. 58r.

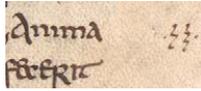


Clm 14080, fol. 48r (main hand, Regensburg, 8<sup>th</sup> c., 4/4)

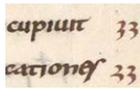


Clm 14166, fol. 77r (main hand, Regensburg, 8<sup>th</sup> c.,

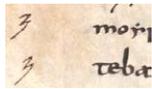
ex.)



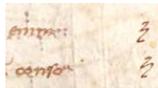
Clm 14197, fol. 19r (main hand, Regensburg, 8<sup>th</sup> c., ex.)



Clm 14248, fol. 35r (main hand, Regensburg, 9<sup>th</sup> c., in.)



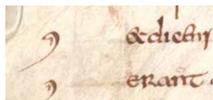
Clm 14286, fol. 29v (corrector, Regensburg, 9<sup>th</sup> c., 1/4)



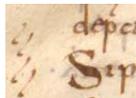
Clm 14314, fol. 85r (corrector, Regensburg, 9<sup>th</sup> c., 2/4)

f) Other types of quotation signs

i. Bavarian manuscripts (2 mss.)



Clm 14653, fol. 12v (main hand, Regensburg, 8<sup>th</sup> c., 3/4)



Clm 14830, fol. 57v (main hand, southern Bavaria, c. 800)

## 2. Correction signs

### a) *Require*

#### i. Bavarian manuscripts (85 mss., here just a selection)



Clm 4541, fol. 88v (corrector, Benediktbeuern, 9<sup>th</sup> c., 3/3)



Clm 6267, fol. 34r (corrector, Freising, 9<sup>th</sup> c., 2/4)



Clm 14050, fol. 22r (corrector, Regensburg, 9<sup>th</sup> c., med.)



Clm 14417, fol. 93v (corrector, Regensburg, 9<sup>th</sup> c., 2/4)



Clm 14461, fol. 39r (corrector, Freising, 820-30)



Clm 5508, fol. 20v (corrector, Salzburg, 8<sup>th</sup> c., ex.)



Clm 6260, fol. 20r (main hand, Freising, 9<sup>th</sup> c., 3/4)



Clm 6320, fol. 30v (corrector, Freising, 9<sup>th</sup> c., 2/4)



Clm 6376, fol. 16r (Regensburg, 9<sup>th</sup> c., 2/4)



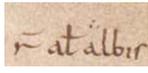
Clm 13038, fol. 115r (corrector, Regensburg, c. 800)



Clm 6261, fol. 96r (corrector, Freising, 3/4)



Clm 6293, fol. 106r (corrector, Freising, c. 800)



Clm 6355, fol. 44r (Freising, 9<sup>th</sup> c., 2/4)



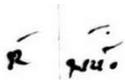
Clm 14384, fol. 21v (main hand, Regensburg, 9<sup>th</sup> c., 3/4)



Clm 14393, fol. 14r (corrector, Regensburg, 9<sup>th</sup> c., med.)



Clm 9543, fol. 56r (main hand?, Regensburg, 820-40)



Clm 14078, fol. 105r (corrector, Regensburg, 9<sup>th</sup> c., 2/4)

 Clm 14200, fol. 25r (corrector, Regensburg, 9<sup>th</sup> c., med.)

 Clm 14368, fol. 4r (Regensburg, 820-40)

 Clm 18550a, fol. 72r (corrector, Tegernsee, 8<sup>th</sup> c., ex.)

 Clm 9543, fol. 48r (main hand?, Regensburg, 820-40)

 Clm 14434, fol. 32r (Regensburg, 9<sup>th</sup> c., 2/4)

 Clm 14368, fol. 19v (Regensburg, 820-40)

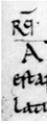
 Clm 14679, fol. 5r (Regensburg, 9<sup>th</sup> c., 2/4)

 Clm 6261, fol. 129r (main hand, Freising, 9<sup>th</sup> c., 3/4)

 Clm 14434, fol. 117v (corrector, Regensburg, 9<sup>th</sup> c., 2/4)

 Clm 18550a, fol. 19r (corrector, Tegernsee, 8<sup>th</sup> c., ex.)

ii. Non-Bavarian manuscripts

 Clm 15818, fol. 87v (corrector, Würzburg, 842-55)

b) ζητεῖ

i. Bavarian manuscripts (24 mss., images available for 23 mss.)

Insular form

 Clm 6250, fol. 6r (Freising, 9<sup>th</sup> c., 1/4)

 Clm 6253, fol. 243v (Freising, 9<sup>th</sup> c., 2/4)

 Clm 6276, fol. 120v (southern Bavaria, 9<sup>th</sup> c., 2/4)

 Clm 14077, fol. 46v (Regensburg, 9<sup>th</sup> c., 2/4)

 Clm 14679, fol. 77v (Regensburg, 9<sup>th</sup> c., 2/4)



Clm 18092, fol. 46r (Tegernsee, 8<sup>th</sup> c., ex.)



Clm 18550a, fol. 122v (Tegernsee, 8<sup>th</sup> c., ex.)

Other forms



Clm 6286, fol. 39v (southern Bavaria, 8<sup>th</sup>/9<sup>th</sup> c.)



Clm 6297, fol. 86r (Freising, 764-84)



Clm 6314, fol. 139v (Freising, 825-35)



Clm 6355, fol. 133r (Freising, 9<sup>th</sup> c., 2/4)



Clm 6376, fol. 55r (Regensburg, 9<sup>th</sup> c., 2/4)



Clm 14078, fol. 94r (Regensburg, 9<sup>th</sup> c., 2/4)



Clm 14492, fol. 27r (Regensburg, 9<sup>th</sup> c., 2/4)



Clm 6267, fol. 182v (Freising, 9<sup>th</sup> c., 2/4)



Clm 6270a, fol. 4v (main hand, Freising, 825-35)



Clm 6270b, fol. 20r (Freising, 825-35)



Clm 6287, fol. 21v (main hand, Freising, 825-35)



Clm 14286, fol. 22r (Regensburg, 9<sup>th</sup> c., 1/4)



Clm 14368, fol. 191v (Regensburg, 820-40)



Clm 14385, fol. 35v (Regensburg, 9<sup>th</sup> c., 2/4)



Clm 14417, fol. 80r (Regensburg, 9<sup>th</sup> c., 2/4)



Clm 14469, fol. 99r (Regensburg, 9<sup>th</sup> c., 2/4)

(no images) Clm 18168 (Tegernsee, 8<sup>th</sup> c., ex.)

ii. Non-Bavarian manuscripts (2 mss., images available for 1 ms.)

(no images) Clm 5255 (France, 8<sup>th</sup>/9<sup>th</sup> c.)



Clm 6375, fol. 2v (northern Italy, 9<sup>th</sup> c., 2/3)

c) *frontis*

i. Bavarian manuscripts (3 mss. as a correction sign, 2 mss. in other functions)



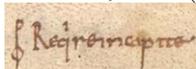
Clm 6250, fol. 51r (corrector, Freising, 9<sup>th</sup> c., 1/4)



fol. 166v (different corrector)



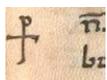
Clm 6272, fol. 1r (omission sign, main hand, 9<sup>th</sup> c., 1/4)



fol. 114r (omission sign, corrector)



Clm 6277, fol. 31v (Freising, 9<sup>th</sup> c., 1/4)



Clm 14197, fol. 100r (lesson mark?, main hand, 8<sup>th</sup> c., ex., Regensburg)



Clm 14386, fol. 29r (Regensburg, 9<sup>th</sup> c., 3/3)

ii. Non-Bavarian manuscripts (2 mss.)



Clm 6375, fol. 3r (main hand, northern Italy, 9<sup>th</sup> c., 2/3)



Clm 15818, fol. 68v (main hand, Würzburg, 842-55)



Clm 15818, fol. 11v (corrector, with small *require*, Würzburg, 842-55)

d) *cyphia*

i. Bavarian manuscripts (5 mss.)



Clm 14386, fol. 129r (Regensburg, 9<sup>th</sup> c., 3/3)



Clm 14434, fol. 91v (Regensburg, 9<sup>th</sup> c., 2/4)



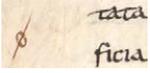
Clm 6261, fol. 141r (corrector, Freising, 9<sup>th</sup> c., 3/4)

 Clm 6281, fol. 78r (Freising, 9<sup>th</sup> c., med.)

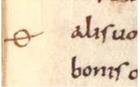
 Clm 6424, fol. 66r (corrector, Freising, 9<sup>th</sup> c., 2/4)

e) *theta* (as a deletion sign)

i. Bavarian manuscripts (3 mss.)

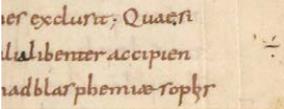
 Clm 14077, fol. 111v (corrector, Regensburg, 9<sup>th</sup> c., 2/4)

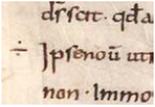
 Clm 14384, fol. 17r (corrector, Regensburg, 9<sup>th</sup> c., 3/4)

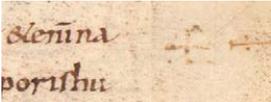
 Clm 6252, fol. 162r (corrector, Freising, 9<sup>th</sup> century, 2/4)

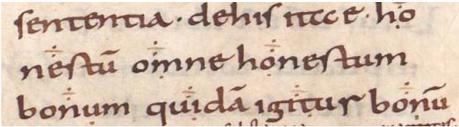
f) *obelus* (as a deletion sign)

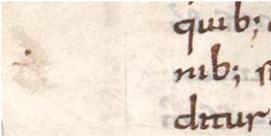
i. Bavarian manuscripts (5 mss.)

 Clm 6376, fol. 120r (Regensburg, 9<sup>th</sup> c., 2/4)

 Clm 13038, fol. 156r (Regensburg, c. 800)

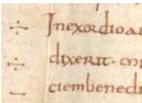
 Clm 14386, fol. 145r (Regensburg, 9<sup>th</sup> c., 3/3)

 Clm 6250, fol. 39v (Freising, 9<sup>th</sup> c., 1/4)

 Clm 6267, fol. 388v (Freising, 9<sup>th</sup> c., 2/4)

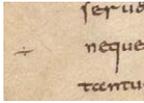
 Clm 6355, fol. 29v (Freising, 9<sup>th</sup> c., 2/4)

ii. Non-Bavaria (4 mss., images available for 2 mss.)

 Clm 3842, fol. 263v (main hand, northern Italy, 9<sup>th</sup> c., 3/4)

(no images) Clm 5255 (France, 8<sup>th</sup>/9<sup>th</sup> c.)

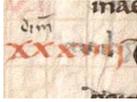
(no images) Clm 6278 (France, 8<sup>th</sup> c., in.)



Clm 14315, fol. 110v (Swabia?, 9<sup>th</sup> c., 1/4)

g) *dimitte* deletion sign

i. Non-Bavarian manuscripts (1 ms.)



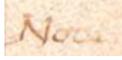
Clm 5508, fol. 9r (post-Carolingian?, Salzburg, 8<sup>th</sup> c., ex.)

### 3. Attention signs

#### a) *nota* signs

##### i. Bavarian manuscripts (57 mss.)

Nota-type (1 ms.)



Clm 14080, fol. 91r (Regensburg, 8<sup>th</sup> c., 4/4)

NOTA-type (15 mss.)



Clm 4541, fol. 162v (corrector, Benediktbeuern, 9<sup>th</sup> c., 3/3)



Clm 6260, fol. 27r (corrector, Freising, 9<sup>th</sup> c., 3/4)



Clm 6265, fol. 66v (corrector, Freising, 9<sup>th</sup> c., 2/4)



Clm 6273, fol. 50v (corrector, Freising, 820-30)



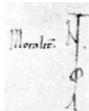
Clm 6316, fol. 72v (corrector, Freising, 8<sup>th</sup> c., 3/4)



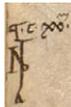
Clm 6321, fol. 16r (corrector, 9<sup>th</sup> c., 2-3/4, Freising)



Clm 9543, fol. 31v (younger corrector, Regensburg, 820-40)



Clm 14050, fol. 10r (younger annotator, Regensburg, 9<sup>th</sup> c., med.)



Clm 14222, fol. 132v (post-Carolingian?, Regensburg, 820-40)



Clm 14368, fol. 70r (Regensburg, 820-40)



Clm 14385, fol. 113r (Regensburg, 9<sup>th</sup> c., 2/4)



Clm 14405, fol. 8r (Regensburg, 9<sup>th</sup> c., 2/4)



Clm 18092, fol. 107r (Tegernsee, 8<sup>th</sup> c., ex.)



Clm 18550a, fol. 145r (Tegernsee, 8<sup>th</sup> c., ex.)



Clm 21525, fol. 9v (Freising, 9<sup>th</sup> c., 1/4)

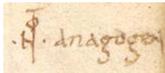
NOT-type (11 mss.)



Clm 52, fol. 28r (Regensburg, 817-47)



fol. 13v



Clm 6286, fol. 20r (southern Bavaria, 8<sup>th</sup>/9<sup>th</sup> c.)



Clm 14253, fol. 40v (9<sup>th</sup> century, 4/4, Regensburg)



fol. 50r



Clm 14314, fol. 150v (corrector, Regensburg, 9<sup>th</sup> c., 2/4)



Clm 6250, fol. 171v (corrector, (Freising, 9<sup>th</sup> c., 1/4)



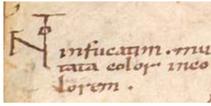
Clm 6279, fol. 18v (corrector, 8<sup>th</sup> century, 4/4, Freising)



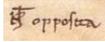
Clm 6287, fol. 28v (corrector, Freising, 825-35)



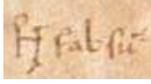
Clm 6316, fol. 39r (main hand, Freising, 8<sup>th</sup> c., 3/4)



Clm 6355, fol. 215v (Freising, 9<sup>th</sup> c., 2/4)



Clm 6374, fol. 24r (corrector, 9<sup>th</sup> century, <sup>3</sup>/<sub>4</sub>, Freising)



fol. 37v

NOT/NT-type (oscillating between NOT- and NT-type, 10 mss.)



Clm 14393, fol. 200r (Regensburg, 9<sup>th</sup> c., med.)



Clm 14393, fol. 203r



Clm 14679, fol. 73r (Regensburg, 9<sup>th</sup> c., 2/4)



fol. 84r



Clm 6223, fol. 38v (Freising, 825-35)



fol. 45v (corrector)



Clm 6252, fol. 10r (corrector, Freising, 9<sup>th</sup> c., 2/4)



fol. 15v



fol. 23v



fol. 63r



fol. 85r



Clm 6271, fol. 103v (Freising, 825-35)



fol. 105r (corrector)



Clm 6274, fol. 11r (Freising, 825-35)



fol. 12r



fol. 18r



Clm 6253, fol. 105r (Freising, 9<sup>th</sup> c., 2/4)



fol. 208v (corrector)



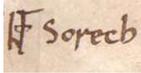
Clm 6254, fol. 2v (corrector, Freising, 9<sup>th</sup> c., 2/4)



fol. 10v



Clm 6270a, fol. 19r (Freising, 825-35)



fol. 37r (main hand?)



Clm 6270b, fol. 14r (Freising, 825-35)

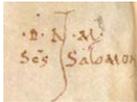


fol. 53v

NT-type (8 mss.)



Clm 6376, fol. 35v (Regensburg, 9<sup>th</sup> c., 2/4)



Clm 9543, fol. 9r (corrector, Regensburg, 820-40)



Clm 14368, fol. 52v (Regensburg, 820-40)



Clm 14386, fol. 82v (corrector, Regensburg, 9<sup>th</sup> c., 3/3)



Clm 6264a, fol. 8v (Freising, 825-35)



Clm 6284, fol. 26v (corrector, Freising, 9<sup>th</sup> c., 2/4)



Clm 6293, fol. 58r (corrector, Freising, c. 800)



Clm 6303, fol. 156r (Freising, c. 800)

NT<sup>A</sup>-type (2 mss.)



Clm 13038, fol. 228v (excerpting hand, Regensburg, c. 800)



fol. 277r



fol. 66v



Clm 14384, fol. 25r (Regensburg, 9<sup>th</sup> c., 3/4)

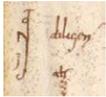
N1<sup>o</sup>-type (2 mss.)



Clm 6267, fol. 12v (younger corrector, Freising, 9<sup>th</sup> c., 2/4)



fol. 55v



fol 120v



Clm 14523, fol. 74v (corrector, Freising, 9<sup>th</sup> c., 3/4)

N-type (9 mss.)



Clm 14050, fol. 4v (older annotator, Regensburg, 9<sup>th</sup> c., med.)



Clm 14077, fol. 291v (Regensburg, 9<sup>th</sup> c., 2/4)



Clm 14253, fol. 14v (9<sup>th</sup> century, 4/4, Regensburg)



Clm 14286, fol. 17v (corrector, Regensburg, 9<sup>th</sup> c., 1/4)



Clm 14386, fol. 33v (corrector, (Regensburg, 9<sup>th</sup> c., 3/3)



Clm 14390, fol. 45v (Regensburg, 9<sup>th</sup> c., 2/4)



Clm 14393, fol. 141v (Regensburg, 9<sup>th</sup> c., med.)

 Clm 14434, fol. 68v (Regensburg, 9<sup>th</sup> c., 2/4)

 Clm 14653, fol. 34v (Regensburg, 8<sup>th</sup> c., 3/4)

N<sup>o</sup>-type (2 mss.)

 Clm 14393, fol. 137r (Regensburg, 9<sup>th</sup> c., med.)

 Clm 6287, fol. 23v (corrector, Freising, 825-35)

ii. Non-Bavarian manuscripts (5 mss., images available for 3 mss.)

 Clm 3842, fol. 9r (main hand and annotator, northern Italy, 9<sup>th</sup> c., 3/4)

(no images) Clm 5255 (France, 8<sup>th</sup>/9<sup>th</sup> c.)

(no images) Clm 6278 (France, 8<sup>th</sup> c., in.)

 Clm 9638, p. 108 (northern Italy, 9<sup>th</sup> c., 3/3)

 p. 109

 Clm 14315, fol. 94r (Swabia?, 9<sup>th</sup> c., 1/4)

b) *trigon*

i. Bavarian manuscripts (30 mss.)

 Clm 4541, fol. 283r (Benediktbeuern, 9<sup>th</sup> c., 3/3)

(no images) Clm 4549 (Benediktbeuern, c. 800)

 Clm 4566, fol. 13v (Benediktbeuern, 820-40)

 Clm 4577, fol. 48v (Benediktbeuern, 8<sup>th</sup> c., 3/4)

 Clm 5508, fol. 180v (Salzburg, 8<sup>th</sup> c., ex.)

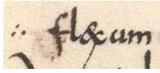
(no images) Clm 9515 (Regensburg, 810-20)

 Clm 13038, fol. 79v (Regensburg, c. 800)

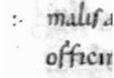
(no images) Clm 14200 (Regensburg, 9<sup>th</sup> c., med.)



Clm 14222, fol. 133v (main hand?, Regensburg, 820-40)



Clm 14252, fol. 18v (Regensburg, 9<sup>th</sup> c., 1/4)



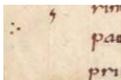
Clm 14253, fol. 41r (Regensburg, 9<sup>th</sup> c., 4/4)



Clm 14386, fol. 7v (Regensburg, 9<sup>th</sup> c., 3/3)

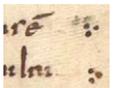


Clm 14390, fol. 55r (Regensburg, 9<sup>th</sup> c., 2/4)

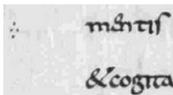


Clm 14393, fol. 45v (Regensburg, 9<sup>th</sup> c., med.)

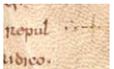
(no images) Clm 14425 (Regensburg, 8<sup>th</sup>/9<sup>th</sup> c.)



Clm 14437, fol. 12r (Regensburg, 9<sup>th</sup> c., 1/4)

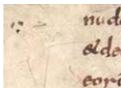


Clm 14457, fol. 47v (Regensburg, c. 800)

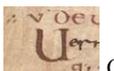


Clm 14653, fol. 82r (Regensburg, 8<sup>th</sup> c., 3/4)

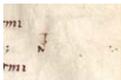
(no images) Clm 16128 (Salzburg, 8<sup>th</sup> c., ex.)



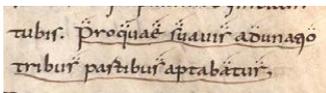
Clm 6225, fol. 59v (main hand, Freising, 9<sup>th</sup> c., 1/4)



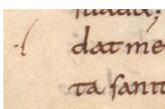
Clm 6250, fol. 189v (main hand, Freising, 9<sup>th</sup> c., 1/4)



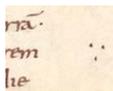
Clm 6252, fol. 141r (Freising, 9<sup>th</sup> c., 2/4)



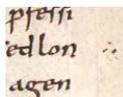
Clm 6253, fol. 7v (Freising, 9<sup>th</sup> c., 2/4)



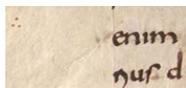
Clm 6265, fol. 17v (Freising, 9<sup>th</sup> c., 2/4)



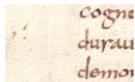
Clm 6270a, fol. 25r (main hand?, Freising, 825-35)



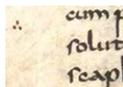
Clm 6274, fol. 106r (Freising, 9<sup>th</sup> c., 2/4)



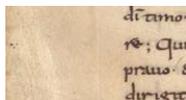
Clm 6277, fol. 88v (Freising, 9<sup>th</sup> c., 1/4)



Clm 6287, fol. 39v (Freising, 825-35)

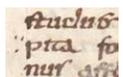


Clm 6308, fol. 50v (Freising, 8<sup>th</sup> c., ex.)

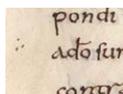


Clm 6314, fol. 21v (Freising, 825-35)

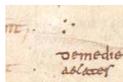
- ii. Non-Bavarian manuscripts (5 mss., images available for 3 mss.)  
(no images) Clm 5255 (France, 8<sup>th</sup>/9<sup>th</sup> c.)



Clm 6300, fol. 23v (main hand, northern Italy?, 8<sup>th</sup>/9<sup>th</sup> century)



Clm 6375, fol. 74v (northern Italy, 9<sup>th</sup> c., 2/3)



Clm 6382, fol. 30r (annotator, Reims, 9<sup>th</sup> c., 2/2)

- (no images) Clm 14734 (southern Germany, 9<sup>th</sup> c., 4/4)

c) *chresimon*

- i. Bavarian manuscripts (8 mss., images available for 7 mss.)



Clm 4585, fol. 3r (Regensburg, 9<sup>th</sup> c., 2/4)



Clm 14386, fol. 84v (Regensburg, 9<sup>th</sup> c., 3/3)  
(no images) Clm 14425 (Regensburg, 8<sup>th</sup>/9<sup>th</sup> c.)



Clm 14679, fol. 73r (Regensburg, 9<sup>th</sup> c., 2/4)



Clm 14716, fol. 96r (Regensburg, 9<sup>th</sup> c., 2/4)



Clm 6250, fol. 50v (Freising, 9<sup>th</sup> c., 1/4)



Clm 6284, fol. 27r (Freising, 9<sup>th</sup> c., 2/4)



Clm 14523, fol. 82v (main hand, Freising, 9<sup>th</sup> c., 3/4)

ii. Non-Bavarian manuscripts (4 mss.)



Clm 3842, fol. 28v (northern Italy, 9<sup>th</sup> c., 3/4)



Clm 6375, fol. 34r (northern Italy, 9<sup>th</sup> c., 2/3)



Clm 14315, fol. 6v (Swabia?, 9<sup>th</sup> c., 1/4)



Clm 15818, fol. 11v (Germany, 842-55)

d) *Dignum memoriae*

i. Bavarian manuscripts (4 mss., images available for 3 mss.)

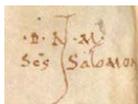


Clm 6265, fol. 91v (Freising, 9<sup>th</sup> c., 2/4)



Clm 6287, fol. 9r (corrector, Freising, 825-35)

(no images) Clm 9515 (Regensburg, 810-20)



Clm 9543, fol. 9r (Regensburg, 820-40)

- ii. Non-Bavarian manuscripts (1 ms., no images available)  
(no images) Clm 6278 (France, 8<sup>th</sup> c., in.)

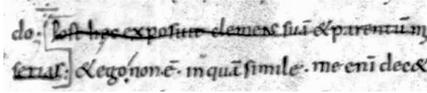
#### 4. Critical signs

##### a) *asterisci, obeli and metobeli*

###### i. Bavarian manuscripts (4 mss.)

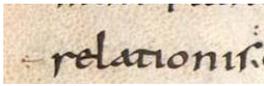


Clm 5508, fol. 37r (Salzburg, 8<sup>th</sup> c., ex.)

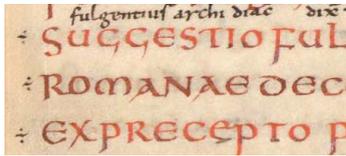


Clm 14253, fol. 60v (Regensburg, 9<sup>th</sup> c.,

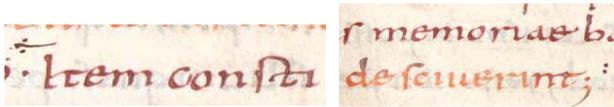
4/4)



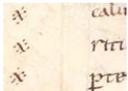
Clm 6242, fol. 174r (Freising, 815-25)



fol. 258r



fol. 265r



Clm 14200, fol. 56v (Regensburg, 9<sup>th</sup> c., med.)

##### b) *anchora superior and anchora inferior*

###### i. Bavarian manuscripts (3 mss.)



Clm 14386, fol. 68r (Regensburg, 9<sup>th</sup> c., 3/3)



Clm 6267, fol. 134v (main hand/annotator, Freising, 9<sup>th</sup> c., 2/4)



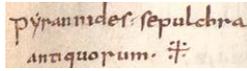
Clm 6284, fol. 62r (Freising, 9<sup>th</sup> c., 2/4)

## 5. Text-structuring signs

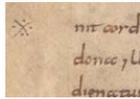
### a) *asteriscus*

i. Bavarian manuscripts (16 mss., images available for 13 mss.)

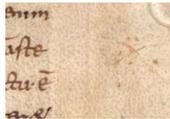
(no images) Clm 9515 (Regensburg, 810-20)



Clm 14252, fol. 138v (Regensburg, 9<sup>th</sup> c., 1/4)

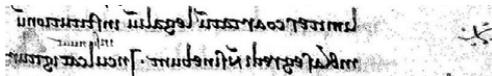


Clm 14368, fol. 67v (Regensburg, 820-40)



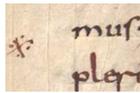
Clm 14393, fol. 220r (Regensburg, 9<sup>th</sup> c., med.)

(no images) Clm 14510 (southern Bavaria, 9<sup>th</sup> c., 1/4)

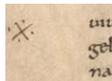


Clm 14679, fol. 29v (Regensburg, 9<sup>th</sup> c., 2/4)

(no images) Clm 18168 (Tegernsee, 8<sup>th</sup> c., ex.)



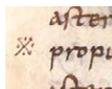
Clm 6250, fol. 169v (Freising, 9<sup>th</sup> c., 1/4)



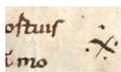
Clm 6264a, fol. 83v (Freising, 825-35)



Clm 6267, fol. 388r (main hand, Freising, 9<sup>th</sup> c., 2/4)



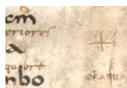
Clm 6270b, fol. 30r (Freising, 825-35)



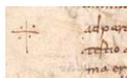
Clm 6273, fol. 68r (corrector, Freising, 820-30)



Clm 6305, fol. 13v (main hand, Freising, 8<sup>th</sup> c., 4/4)



Clm 6308, fol. 4r (Freising, 8<sup>th</sup> c., ex.)



Clm 6389, fol. 58v (main hand, Freising, 850-60)



Clm 6393, fol. 68r (main hand, Freising, 8<sup>th</sup> c., 4/4)

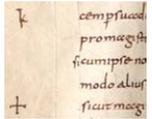
ii. Non-Bavarian manuscripts (1 ms.)



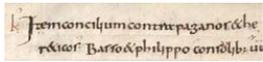
Clm 6382, fol. 31v (Reims, 9<sup>th</sup> c., 2/2)

b) *kaput*

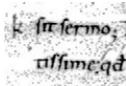
i. Bavarian manuscripts (6 mss.)



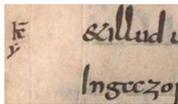
Clm 52, fol. 33v (Regensburg, 817-47)



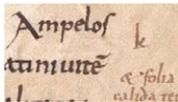
Clm 5508, fol. 38r (Salzburg, 8<sup>th</sup> c., ex.)



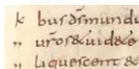
Clm 14253, fol. 23r (Regensburg, 9<sup>th</sup> c., 4/4)



Clm 14286, fol. 26r (Regensburg, 9<sup>th</sup> c., 1/4)

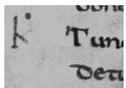


Clm 6250, fol. 253r (Freising, 9<sup>th</sup> c., 1/4)



Clm 6271, fol. 38r (main hand, Freising, 825-35)

ii. Non-Bavarian manuscripts (1 ms.)



Clm 6402, fol. 2v (northern Italy, 8<sup>th</sup>/9<sup>th</sup> c.)

c) *incipit*

i. Bavarian manuscripts (1 ms.)

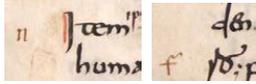


Clm 6269, fol. 24v (Freising, 9<sup>th</sup> c., 3/4)

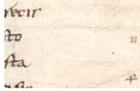
## 6. Excerpt signs

a) *nota* and *finit* convention

i. Bavarian manuscripts (5 mss., images available for 4 mss.)



Clm 13038, fol. 46v (Regensburg, c. 800)



Clm 14200, fol. 40r (Regensburg, 9<sup>th</sup> c., med.)



Clm 14393, fol. 22r (Regensburg, 9<sup>th</sup> c., med.)

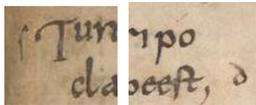


Clm 14417, fol. 118v-119r (Regensburg, 9<sup>th</sup> c., 2/4)

(no images) Clm 14425 (annotator, Regensburg, 8<sup>th</sup>/9<sup>th</sup> c.)

b) *scribe* and *dimitte* convention

i. Bavarian manuscripts (2 mss.)



Clm 6264a, fol. 70r (Freising, 825-35)



Clm 28135, fols. 77r and 78v (Freising, 9<sup>th</sup> c., in.)

c) *nota* and *usque* convention

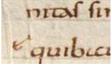
i. Non-Bavarian manuscripts (1 ms.)



Clm 3842, fol. 25v (northern Italy, 9<sup>th</sup> c., 3/4)

## 7. Omission signs

a) *anchora* (2 mss.)



Clm 4541, fol. 24r (Benediktbeuern, 9<sup>th</sup> c., 3/3)



Clm 21525, fol. 1r (Freising, 9<sup>th</sup> c., 1/4)



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## Index of manuscripts

- Aix-le-Provence BM 25**, 366  
**Alençon BM 2**, 101  
**Altenburg, Staatsarchiv misz. z. 89**,  
 202  
**Amiens BM**,  
   **MS 18**, 131  
   **MS 220**, 136, 210, 213, 214  
   **MS 221**, 366  
   **MS 6**, 301  
**Angers BM 493**, 186  
**Arras BM 189**, 146  
**Auch BM 7**, 373  
**Autun BM 24**, 201  
**Auxerre BM 76**, 174, 366  
**Bamberg, Staatsbibliothek**,  
   **Msc. Bibl. 127**, 213  
   **Msc. Bibl. 44 (olim A I 14)**, 125, 129  
   **Msc. Bibl. 56 (olim B.II.15)**, 100  
   **Msc. Patr. 86 (olim B.V.13)**, 144  
   **Ph. 2/1**, 213  
**Barcelona, Biblioteca Capítular, MS**  
   s.n., 201, 215  
**Basel, Universitätsbibliothek**,  
   **A VII 3**, 207, 212, 280  
   **F III 15**, 377  
   **F III 15d**, 207  
   **N I 4 A**, 204  
**Berlin, Staatsbibliothek**,  
   **Diez. B. Sant. 66**, 378  
   **Hamilton 552**, 129  
   **Hamilton 689**, 363  
   **Lat. fol. 421**, 231  
   **Lat. fol. 641**, 173, 175, 361  
   **MS 118 (Phillipps 1841)**, 146  
   **MS 17 (Phillipps 1674)**, 124  
   **Theol. lat. fol. 346**, 202  
   **Theol. lat. fol. 354**, 202, 203  
**Bern, Bürgerbibliothek**,  
   **E 219**, 209, 213  
   **MS 101**, 135, 358  
   **MS 129**, 371  
   **MS 159**, 372  
   **MS 207**, 84, 158, 170, 378  
   **MS 224**, 173, 210, 212, 213, 219, 357  
   **MS 291**, 377  
   **MS 317**, 209  
   **MS 351**, 209  
   **MS 36**, 173, 210, 360  
   **MS 363**, 207, 212, 231, 267, 280  
   **MS 50**, 209  
   **MS 611**, 175  
   **MS 95**, 172, 369  
**Bologna, Archivio della Basilica di**  
   **San Petronio, Cart. 353, no. 3**, 53  
**Bologna, Biblioteca Universitaria, MS**  
   **701**, 206, 211  
**Bologna, Collegio di Spagna, MS 9**,  
 374  
**Bonn, Universitäts- und**  
   **Landesbibliothek, S 193**, 368  
**Bordeaux BM 709**, 367  
**Boulogne-sur-Mer BM**,  
   **MS 1**, 365  
   **MS 32 (37)**, 202  
   **MS 44**, 220, 252  
**Bourges BM 94**, 208, 209, 210, 252  
**Brescia, Biblioteca Queriniana, s.n.**,  
 52  
**Brno, Moravská zemská knihovna,**  
   **A 8**, 373  
**Brussels, Koninklijke Bibliotheek**,  
   **II 4856**, 138, 210, 270, 356  
   **MS 1831-33**, 141  
   **MS 5169**, 145, 267, 269  
**Cambrai BM**,  
   **MS 407**, 264  
   **MS 693**, 82  
   **MS 968**, 371  
**Cambridge, CCC**,  
   **MS 193**, 204  
   **MS 286**, 205  
   **MS 304**, 47  
   **MS 421**, 89  
**Cambridge, Trinity College**,  
   **B.15.33**, 377  
   **B.2.34**, 101, 278  
   **O.3.37**, 365  
   **O.4.7**, 101, 338  
   **R.9.10**, 175, 371  
**Cambridge, University Library**,  
   **Kk. iv.6**, 101  
   **Kk. v.16**, 201, 204  
   **Kk. v.32**, 89  
**Cava dei Tirreni, Abbazia di S.**  
   **Trinita**,  
   **MS 2**, 356

- MS 3**, 104, 105, 159, 175  
**Cesena, Biblioteca Maltesiana,**  
**D.XXIV.1**, 363  
**S.XXI.5**, 102, 164, 166, 357, 380, 383  
**Charleville BM 264**, 365  
**Chartres BM 16**, 363  
**Colmar BM 49**, 201, 202  
**Cologne, Dombibliothek,**  
**MS 193**, 138  
**MS 63**, 208, 209, 256  
**MS 65**, 208  
**MS 67**, 208  
**MS 75**, 220  
**Cologne, Fondation Martin Bodmer,**  
**MS 92**, 371  
**Den Haag, Museum Meermanno-**  
**Westreenianum, 10 A 1**, 215  
**Douai BM,**  
**281.2 + 342**, 202, 203  
**MS 318**, 366  
**MS 748**, 159  
**Dresden, Sächsische**  
**Landesbibliothek, A 145 b**, 201, 207,  
 212  
**Dublin, Trinity College, MS 52**, 207  
**Durham, Cathedral Library,**  
**B.II.11**, 101, 339  
**B.II.30**, 101  
**Düsseldorf, Universitäts- und**  
**Landesbibliothek, D 1**, 137  
**Einsiedeln, Stiftsbibliothek,**  
**MS 148**, 51, 290  
**MS 167**, 84, 361  
**MS 18 (576)**, 206, 213  
**MS 28**, 264  
**MS 326**, 87  
**MS 360**, 84, 367  
**MS 370 (194)**, 206  
**El Escorial, Monasterio San Lorenzo,**  
**& I 14**, 377  
**& I 3**, 65, 172, 363  
**P I 6**, 65, 172, 362  
**P I 7**, 173, 360  
**P I 8**, 173, 177, 356  
**T II 24**, 361  
**Epinal BM, MS 149 (68)**, 202, 212  
**Erfurt, Wissenschaftliche**  
**Allgemeinbibliothek, Ampl. 2<sup>o</sup> 74**,  
 215  
**Florence, Biblioteca Medicea**  
**Laurenziana,**
- Plut. 19.32**, 374  
**Plut. 23.8**, 100  
**Plut. 27 sin. 10**, 365  
**Plut. 27 sin. 7**, 370  
**Plut. 27 sin. 9**, 371  
**Plut. 39.1**, 34, 208, 210, 211  
**Plut. 52.21**, 370  
**Plut. 59.38**, 98  
**Plut. 63.20**, 287  
**Plut. 64.35**, 212  
**Plut. 65.1**, 208  
**Plut. 87.10**, 109  
**Plut. 90 sup. 17/1**, 175, 370  
**Plut. 90 sup. 17/2**, 363  
**Plut. 90 sup. 17/3**, 174, 370  
**Freiburg, Universitätsbibliothek, MS**  
**483, 12**, 204  
**Fulda, Landesbibliothek,**  
**Bonifatianus 1**, 215  
**Fulda, Landesbibliothek,**  
**Bonifatianus 1**, 210  
**Ghent, UB, MS 239**, 146  
**Giessen, P. Iandana 90**, 23  
**Gotha, Forschungsbibliothek, II 193,**  
 186  
**Grenoble BM 227**, 369  
**Groningen, Universitätsbibliothek,**  
**MS 8**, 362  
**Innsbruck, Univ. und**  
**Landesbibliothek Tirol, MS 48**, 160  
**Ivrea, Biblioteca Capitolare,**  
**MS 30**, 127  
**MS 37 (LIII)**, 364  
**Karlsruhe, Badische**  
**Landesbibliothek,**  
**Aug. Perg. 105**, 202  
**Aug. Perg. 111**, 160  
**Aug. Perg. 112**, 158, 186, 378  
**Aug. Perg. 167**, 203  
**Aug. Perg. 37**, 131  
**Aug. Perg. 38**, 125  
**Aug. Perg. 52**, 315  
**Aug. Perg. 72**, 210  
**Kassel, Universitätsbibliothek,**  
**Phil. Fol. 2**, 175  
**Theol. Fol. 22**, 207, 219  
**Theol. Fol. 24**, 215  
**Laon BM,**  
**MS 26**, 100  
**MS 279**, 46  
**MS 447**, 358

- MS 468, 139  
 MS 50, 212  
**Leiden, UB,**  
   **BPL 11,** 175, 373  
   **BPL 12,** 100  
   **BPL 122,** 186, 376  
   **BPL 126,** 209  
   **BPL 29,** 175, 373  
   **BPL 73,** 370  
   **Per F 2,** 84, 365  
   **Voss. Gr. Q 8,** 40  
   **Voss. Lat. F 30,** 214  
   **Voss. Lat. F 74,** 174, 357  
   **Voss. Lat. F 82,** 163, 356, 381  
   **Voss. Lat. O 15,** 160, 386  
   **Voss. Lat. O 41,** 165, 166, 167, 168,  
     376, 384  
   **Voss. Lat. O 79,** 209, 214  
   **Voss. Lat. O 88,** 209  
   **Voss. Lat. O 95,** 100, 159  
   **Voss. Lat. Q 32,** 209  
   **Voss. Lat. Q 86,** 84, 158, 170, 186,  
     378  
   **Vulcanius 1,** 365  
**London, BL,**  
   **Add. 11878,** 202, 203, 212  
   **Add. 14620,** 44  
   **Add. 15603,** 367  
   **Add. 17148,** 44, 320  
   **Add. 21998,** 372  
   **Add. 22797,** 369  
   **Add. 22798,** 372  
   **Add. 31031,** 202, 203  
   **Add. 45025,** 215  
   **Arundel 129,** 361  
   **Burney 326,** 368  
   **Burney 328,** 373  
   **Cotton Caligula A XV,** 160, 161, 162,  
     166, 167, 168, 169, 380  
   **Cotton Caligula A.xv,** 159  
   **Cotton Tiberius A XIV,** 201  
   **Cotton Tiberius C I,** 89  
   **Egerton 2831,** 202  
   **Egerton 2835,** 372  
   **Harley 1775,** 200  
   **Harley 2660,** 84, 174, 364  
   **Harley 2686,** 357  
   **Harley 2713,** 158, 186, 376  
   **Harley 2735,** 82  
   **Harley 2736,** 209, 211  
   **Harley 2793,** 124  
   **Harley 3035,** 373  
   **Harley 3099,** 364  
   **Harley 3667,** 89  
   **Harley 3941,** 163, 164, 165, 166, 167,  
     168, 359, 383  
   **Harley 5693,** 111, 344  
   **Harley 6,** 370  
   **Harley 7653,** 215  
   **Lansdowne 433,** 371  
   **Royal 12 F IV,** 368  
   **Royal 13 C IV,** 91, 95  
   **Royal 15 C XI,** 159  
   **Royal 2 A XX,** 215  
   **Royal 6 C I,** 364  
   **Stowe 57,** 89, 90, 93, 94, 95  
**Lyon BM,**  
   **MS 125,** 374  
   **MS 414,** 262  
   **MS 443,** 51  
   **MS 483,** 43, 205, 206  
   **MS 607,** 204  
**Madrid, Biblioteca Nacional,**  
   **MS 10008,** 65, 88, 172, 363  
   **MS 19,** 104, 138, 313  
   **MS 490,** 371  
   **MS 7800,** 372  
   **Vitr. 14.3,** 215, 359  
**Madrid, Real academia de la historia,**  
   **MS 25,** 65, 172, 362  
   **MS 76,** 65, 172, 362  
**Melun BM 46,** 367  
**Milan, BA,**  
   **C 301 inf.,** 207, 231  
   **Cimelio 1,** 201  
   **D 23 sup.,** 137  
   **E 49 inf.,** 48  
   **E 50 inf.,** 48  
   **F 60 sup.,** 215  
   **L 99 sup.,** 161, 162, 355, 380  
   **M 67 sup.,** 144, 208  
**Modena, Biblioteca capitolare,**  
   **O.I.17,** 356  
**Monte Cassino, Archivio dell'Abbazia,**  
   **MS 150,** 201  
   **MS 299,** 64, 187, 188  
   **MS 439,** 94, 138  
   **MS 580,** 104  
   **MS 90,** 160  
**Montpellier, Bibliothèque de la**  
   **faculté de médecine,**  
   **H 150,** 370

**H 53**, 173, 360

**Munich, BSB,**

**Clm 13031**, 367

**Clm 13038**, 233, 245, 392, 395, 399,  
405, 406, 414

**Clm 1303b**, 227

**Clm 13084**, 146

**Clm 14050**, 244, 247, 395, 401, 405

**Clm 14077**, 100, 230, 231, 396, 399,  
405

**Clm 14078**, 230, 231, 395, 397

**Clm 14080**, 233, 394, 401

**Clm 14166**, 227, 233, 394

**Clm 14197**, 227, 232, 233, 394, 398

**Clm 14200**, 233, 234, 243, 391, 396,  
406, 411, 414

**Clm 14222**, 401, 407

**Clm 14248**, 233, 394

**Clm 14252**, 407, 412

**Clm 14253**, 215, 234, 235, 402, 405,  
407, 411, 413

**Clm 14276**, 125

**Clm 14286**, 203, 233, 243, 244, 392,  
394, 397, 405, 413

**Clm 14314**, 233, 244, 394, 402

**Clm 14315**, 138, 213, 224, 235, 400,  
406, 409

**Clm 14324**, 247

**Clm 14368**, 396, 397, 401, 404, 412

**Clm 14377**, 146, 247, 248, 249

**Clm 14384**, 250, 395, 399, 405

**Clm 14385**, 203, 393, 397, 401

**Clm 14386**, 232, 243, 247, 398, 399,  
404, 405, 407, 409, 411

**Clm 14390**, 405, 407

**Clm 14392**, 231

**Clm 14393**, 203, 233, 393, 395, 403,  
405, 406, 407, 412, 414

**Clm 14405**, 230, 402

**Clm 14417**, 230, 233, 245, 393, 395,  
397, 414

**Clm 14425**, 203, 219, 231, 232, 233,  
235, 245, 267, 392, 393, 407, 409,  
414

**Clm 14426**, 230

**Clm 14429**, 83

**Clm 14434**, 232, 314, 396, 398, 406

**Clm 14437**, 407

**Clm 14457**, 392, 407

**Clm 14461**, 247, 395

**Clm 14469**, 397

**Clm 14492**, 231, 397

**Clm 14510**, 412

**Clm 14523**, 232, 247, 248, 405, 409

**Clm 14537**, 391

**Clm 14540**, 230

**Clm 14653**, 240, 243, 244, 394, 406,  
407

**Clm 14666**, 228, 231, 247, 248

**Clm 14679**, 230, 232, 396, 403, 409,  
412

**Clm 14716**, 232, 409

**Clm 14727**, 227

**Clm 14734**, 408

**Clm 14758**, 240

**Clm 14760**, 230, 393

**Clm 14830**, 394

**Clm 15408**, 230, 393

**Clm 15818**, 209, 213, 396, 398, 409

**Clm 16128**, 230, 393, 407

**Clm 18036**, 227

**Clm 18092**, 227, 230, 393, 397, 402

**Clm 18168**, 227, 230, 243, 397, 412

**Clm 18550a**, 230, 247, 248, 396, 397,  
402

**Clm 19108**, 227

**Clm 19126**, 227

**Clm 19408**, 227

**Clm 21525**, 234, 247, 248, 402, 415

**Clm 28135**, 234, 414

**Clm 29005**, 227

**Clm 29062**, 227

**Clm 29066**, 227

**Clm 29162**, 202

**Clm 343**, 128, 130, 312

**Clm 3747**, 233, 393

**Clm 3842**, 216, 244, 399, 406, 409, 414

**Clm 4541**, 173, 199, 233, 234, 359,  
392, 395, 401, 406, 415

**Clm 4549**, 230, 393, 406

**Clm 4566**, 406

**Clm 4577**, 391, 406

**Clm 4585**, 232, 408

**Clm 52**, 215, 224, 234, 281, 391, 402,  
413

**Clm 5255**, 216, 243, 397, 400, 406, 408

**Clm 5508**, 138, 234, 235, 395, 400,  
406, 411, 413

**Clm 601**, 247

**Clm 6223**, 243, 392, 403

**Clm 6225**, 247, 407

**Clm 6233**, 227

- Clm 6237**, 226  
**Clm 6238**, 213  
**Clm 6242**, 136, 235, 247, 411  
**Clm 6250**, 209, 213, 230, 232, 243, 356, 396, 398, 399, 402, 407, 409, 412, 413  
**Clm 6252**, 210, 229, 244, 391, 399, 403, 407  
**Clm 6253**, 1, 3, 100, 243, 331, 396, 404, 407  
**Clm 6254**, 100, 243, 404  
**Clm 6260**, 226, 395, 401  
**Clm 6261**, 226, 232, 395, 396, 398  
**Clm 6262**, 226  
**Clm 6264a**, 234, 268, 404, 412, 414  
**Clm 6265**, 214, 401, 407, 409  
**Clm 6267**, 232, 391, 395, 397, 399, 405, 411, 412  
**Clm 6269**, 234, 413  
**Clm 6270a**, 392, 397, 404, 408  
**Clm 6270b**, 397, 404, 412  
**Clm 6271**, 234, 403, 413  
**Clm 6272**, 232, 398  
**Clm 6273**, 240, 401, 412  
**Clm 6274**, 244, 403, 408  
**Clm 6275**, 359  
**Clm 6276**, 230, 244, 391, 396  
**Clm 6277**, 209, 232, 247, 398, 408  
**Clm 6278**, 244, 400, 406, 410  
**Clm 6279**, 244, 245, 402  
**Clm 6281**, 232, 399  
**Clm 6284**, 203, 220, 221, 232, 234, 392, 404, 409, 411  
**Clm 6286**, 230, 393, 397, 402  
**Clm 6287**, 397, 402, 406, 408, 409  
**Clm 6293**, 395, 404  
**Clm 6297**, 226, 244, 397  
**Clm 6300**, 203, 214, 221, 233, 234, 244, 250, 290, 392, 408  
**Clm 6303**, 226, 243, 245, 404  
**Clm 6305**, 226, 243, 392, 412  
**Clm 6307**, 393  
**Clm 6308**, 214, 240, 247, 248, 249, 408, 412  
**Clm 6309**, 226  
**Clm 6314**, 238, 240, 397, 408  
**Clm 6316**, 221, 230, 234, 245, 392, 393, 401, 402  
**Clm 6319**, 393  
**Clm 6320**, 395  
**Clm 6321**, 401  
**Clm 6333**, 225  
**Clm 6355**, 230, 247, 395, 397, 399, 403  
**Clm 6374**, 247, 248, 403  
**Clm 6375**, 209, 213, 398, 408, 409  
**Clm 6376**, 249, 395, 397, 399, 404  
**Clm 6382**, 244, 408, 413  
**Clm 6389**, 412  
**Clm 6393**, 413  
**Clm 6402**, 413  
**Clm 6404**, 247, 249  
**Clm 6407**, 146  
**Clm 6411**, 158, 163, 171, 375, 381  
**Clm 6424**, 232, 399  
**Clm 6434**, 238  
**Clm 816a**, 46  
**Clm 9515**, 243, 247, 406, 409, 412  
**Clm 9534**, 227  
**Clm 9543**, 214, 227, 391, 395, 396, 401, 404, 410  
**Clm 9638**, 406
- Munich, Hauptstaatsarchiv,**  
**Raritäten-Selekt 108**, 227
- Naples, Bib. Naz.,**  
**III.B.29**, 38  
**IV.A.34**, 186  
**Lat. 2**, 201, 207
- New York, Pierpont Morgan Library,**  
**MS 334**, 202, 203, 205  
**MS 413**, 100
- Orléans BM,**  
**MS 154 (131)**, 212  
**MS 192**, 200, 201, 212  
**MS 296**, 163, 164, 166, 167, 168, 170, 186, 375, 380, 381
- Oxford, Balliol College, MS 36**, 262
- Oxford, Bodleian Library,**  
**Ashmole 328**, 89, 338, 386  
**Auct. T. 2. 20**, 376  
**Auct. T. 4. 9**, 111, 343  
**Barocci 131**, 109  
**Bodley 426**, 215, 234  
**Bodley 819**, 201  
**Canon. Misc. 353**, 268  
**D'Orville 158**, 88, 350  
**Digby 184**, 101  
**Douce 140**, 204, 215, 234  
**Gr. bibl. d. 4**, 40  
**Junius 25**, 146, 158, 159, 162, 375, 380  
**Laud. Misc. 126**, 207  
**Rawlinson B 502**, 130  
**Rawlinson B 512**, 125

- Oxford, Queen's College, MS 320**, 173, 362
- P. Ant.**  
 1.22, 37  
 3.153, 37
- P. Berol. inv.**  
 11866A-B, 37  
 6758, 37, 198  
 9781, 21  
 9782, 22  
 9875, 272
- P. BL inv.**  
 128, 29  
 729, 39, 200
- P. Bodmer III**, 51
- P. Cologne Theol. 1**, 39, 206
- P. Hawara 59**, 210
- P. Heid. 4.2**, 21
- P. Heid. Lat. 4**, 37
- P. Heid. N.F. 2.188**, 21
- P. Hib. 1.3**, 22
- P. Laur. 3.71**, 22
- P. Lille 73+76+111c**, 22
- P. Lips. inv. 338**, 32
- P. Lit. Pisa 2**, 29
- P. Mich. inv. 6653v**, 29, 32
- P. Oxy.**  
 13.1611, 23, 271  
 13.1619, 22  
 15.1818, 29, 32  
 17.2075, 28  
 2.221, 33, 298  
 3.445, 29  
 44.3151, 23  
 53.3711, 22, 23  
 8.1086, 22, 23, 29, 200  
 9.1174, 22, 206
- P. Par. 2 recto**, 200
- P. Ryl.**  
 3.475, 37  
 3.531, 21
- P. Sorb. inv. 2328**, 21, 23
- P. Strassb. inv. Gr. 2675**, 32
- P. Tebt. 1.4**, 29
- Paris, BnF,**  
 Coislin 242, 48  
 Coislin Gr. 120, 278  
 Gr. 510, 48, 109  
 Lat. 1, 122  
 Lat. 10291, 377
- Lat. 10292**, 173, 209, 210, 213, 220, 360
- Lat. 10293**, 174, 360
- Lat. 10307**, 296
- Lat. 10399**, 202
- Lat. 11278**, 158, 159, 164, 166, 167, 168, 375, 383
- Lat. 11514**, 122
- Lat. 11529**, 82
- Lat. 11530**, 82, 327, 348
- Lat. 11611**, 47, 144, 216
- Lat. 11674**, 209, 243
- Lat. 11864**, 369
- Lat. 12097**, 207
- Lat. 12098**, 51, 290
- Lat. 12141**, 208
- Lat. 12171**, 202
- Lat. 12190**, 207
- Lat. 12214**, 200, 204, 208, 211, 212
- Lat. 12239**, 208, 214, 290
- Lat. 12294**, 213
- Lat. 12296**, 213
- Lat. 12446**, 209
- Lat. 12949**, 315
- Lat. 12964**, 213
- Lat. 13047**, 202
- Lat. 13159**, 126
- Lat. 13174**, 136
- Lat. 13347**, 202
- Lat. 13348**, 202, 207
- Lat. 13363**, 215, 268
- Lat. 13367**, 211
- Lat. 13368**, 200
- Lat. 13759**, 208
- Lat. 13955**, 209
- Lat. 14085**, 377
- Lat. 1458**, 144
- Lat. 14743**, 368
- Lat. 152**, 216
- Lat. 15529**, 208
- Lat. 1572**, 143, 149, 208, 215, 216, 276
- Lat. 1625**, 51
- Lat. 1661**, 214
- Lat. 17159**, 157, 173, 210, 361
- Lat. 17161**, 367
- Lat. 17225**, 215
- Lat. 17361**, 209, 220
- Lat. 17371**, 202
- Lat. 17877**, 365
- Lat. 17959**, 186
- Lat. 1839**, 215

- Lat. 1869**, 213  
**Lat. 2051**, 203, 213  
**Lat. 2196**, 100  
**Lat. 2206**, 202, 203  
**Lat. 2235**, 200, 208, 211, 212  
**Lat. 2445**, 141, 143  
**Lat. 2848**, 208  
**Lat. 3**, 42, 122  
**Lat. 4841**, 65, 66, 67, 86, 87, 88, 92, 93, 94, 95, 117, 175, 178, 191, 333, 348  
**Lat. 528**, 99, 203  
**Lat. 5371**, 99  
**Lat. 6332**, 215, 280  
**Lat. 6810**, 85, 92, 93, 94, 160, 178, 272, 336, 350, 385  
**Lat. 7418**, 104, 159, 175  
**Lat. 7520**, 375  
**Lat. 7530**, 9, 63, 70, 76, 78, 79, 87, 102, 103, 104, 106, 107, 108, 112, 117, 160, 175, 179, 182, 186, 187, 188, 210, 215, 329, 330  
**Lat. 7558**, 209  
**Lat. 7559**, 186, 378  
**Lat. 7582**, 359  
**Lat. 7583**, 164, 359, 383  
**Lat. 7584**, 162, 173, 360  
**Lat. 7585**, 157, 161, 162, 164, 166, 167, 168, 169, 175, 362, 385  
**Lat. 7670**, 358  
**Lat. 7671**, 164, 359, 383  
**Lat. 7672**, 377  
**Lat. 7674**, 174, 372  
**Lat. 7675**, 372  
**Lat. 7676**, 373  
**Lat. 7890**, 159  
**Lat. 7959**, 296  
**Lat. 8067**, 214  
**Lat. 8305**, 209, 213  
**Lat. 8540**, 213  
**Lat. 8779**, 9, 175  
**Lat. 9380**, 42  
**Lat. 9382**, 212  
**Lat. 9538**, 276  
**n.a.l. 1592**, 37, 50, 279  
**n.a.l. 1598**, 212  
**n.a.l. 1599**, 212  
**n.a.l. 1629**, 201  
**n.a.l. 2061**, 202, 203  
**n.a.l. 2169**, 65, 172, 363  
**n.a.l. 2199**, 200  
**n.a.l. 540**, 262  
**Syr. 27**, 98  
**Prague, Univerzitní knihovna, Lib. I.C.2**, 373  
**PSI**  
**1.8**, 29  
**11.1182**, 23, 37  
**14.1449**, 37  
**15.1488**, 38, 106, 116  
**2.113**, 32  
**s.n.**, 200  
**Reims BM,**  
**MS 1**, 122  
**MS 1146**, 146  
**MS 2**, 131  
**MS 408**, 314  
**MS 425**, 377  
**MS 426**, 163, 167, 357, 381  
**Rome, Bib. Cas.,**  
**MS 1086**, 63, 70, 78, 79, 187, 188  
**MS 720-21**, 127  
**MS 722-23**, 127  
**Rome, Bib. Naz.,**  
**Gr. 6**, 109, 110, 333  
**Sessoriano 13**, 207, 208  
**Rouen BM,**  
**MS 1019**, 369  
**MS 27**, 101  
**Schaffhausen, Stadtbibliothek,**  
**Min. 42**, 135, 136, 358  
**Min. 78**, 326  
**St. Die BM 6**, 174, 366  
**St. Gallen, Stiftsbibliothek,**  
**MS 174**, 315  
**St. Gallen, Stiftsbibliothek,**  
**MS 174**, 208, 286  
**MS 199**, 139  
**MS 231**, 360  
**MS 237**, 357  
**MS 257**, 210, 283  
**MS 261**, 125, 210, 283, 313  
**MS 263**, 138  
**MS 276**, 146  
**MS 48**, 201, 207, 212, 231  
**MS 626**, 47, 307  
**MS 670**, 210, 283  
**MS 728**, 210  
**MS 75**, 131  
**MS 87**, 203, 210, 214  
**MS 876**, 87  
**MS 878**, 81, 211, 268  
**MS 882**, 376

- MS 899, 138  
 MS 904, 210, 212, 231, 280  
 MS 905, 83  
 MS 914, 133, 134, 282  
**St. Omer BM,**  
 MS 642, 175, 365  
 MS 643, 174, 368  
**St. Paul in Carinthia, Stiftsbibliothek,**  
 MS 3<sup>1</sup>, 202, 203  
**St. Petersburg, Institute of History of  
 the Academy of Sciences, frag.**  
 1/625, 202  
**St. Petersburg, Public Library,**  
 F.v.I.11, 216  
 F.v.I.2, 204  
 F.v.I.7, 207  
 Q.v.I.12, 215  
 Q.v.I.14, 202, 203  
 Q.v.I.18, 201, 204  
 Q.v.I.2, 51  
 Q.v.I.4, 204  
 Q.v.I.6-10, 51, 80, 140, 204, 205  
 s.n., 202  
**Stuttgart, Württembergische  
 Landesbibliothek,**  
 Bibl. fol. 23, 125, 131  
 Poet. et Phil. fol. 33, 364  
**Toulouse BM** 177, 174, 366  
**Tours BM,**  
 MS 844, 357  
 MS 845, 173, 369  
**Trier, Bibliothek des Bischöflichen  
 Priesterseminars, MS 100,** 376  
**Trier, Stadtbibliothek, MS 22,** 215  
**Troyes BM,**  
 MS 1328, 158, 186, 378  
 MS 168, 365  
 MS 542, 366  
 MS 875, 369  
**Turin, Biblioteca Universitaria, F.IV.1  
 fasc. 5 + 6,** 202  
**University of California, P. 2390,** 210  
**Utrecht, UB, MS 32,** 131  
**Valenciennes BM,**  
 MS 399, 356  
 MS 404, 146  
 MS 405, 146  
**Vatican, BAV,**  
 Archivio di S. Pietro D 182, 52, 218  
 Archivio di Sancto Pietro D 182, 211  
 Ottobonianus 313, 137  
**Pal. Gr. 23,** 267  
**Pal. Gr. 402,** 48  
**Pal. Lat. 1547,** 206, 219  
**Pal. Lat. 1615,** 46  
**Pal. Lat. 1746,** 186, 187, 375  
**Pal. Lat. 177,** 202  
**Pal. Lat. 200,** 314  
**Pal. Lat. 281,** 358  
**Reg. Lat. 11,** 124  
**Reg. Lat. 112,** 364  
**Reg. Lat. 1128,** 184  
**Reg. Lat. 1461,** 146  
**Reg. Lat. 151,** 146, 209, 213  
**Reg. Lat. 191,** 139  
**Reg. Lat. 1953,** 173, 209, 358  
**Reg. Lat. 267,** 212, 220  
**Reg. Lat. 294,** 364  
**Reg. Lat. 324,** 146  
**Reg. Lat. 886,** 37, 50, 211, 218, 279  
**Urb. Lat. 1154,** 199  
**Vat. Gr. 1142,** 44  
**Vat. Gr. 2125,** 40  
**Vat. Gr. 2200,** 98  
**Vat. Lat. 491,** 202  
**Vat. Lat. 5729,** 125, 127  
**Vat. Lat. 5763,** 161, 162, 172, 199,  
 355, 380  
**Vat. Lat. 623,** 172, 175, 371  
**Vat. Lat. 624,** 174, 361  
**Vat. Lat. 626,** 369  
**Vat. Lat. 630,** 208  
**Vat. Lat. 7803,** 358  
**Vat. Lat. 82,** 128  
**Vat. Lat. 83,** 128  
**Venice, Biblioteca Marciana,**  
**Gr. 483,** 111  
**Gr. 822 (olim 454),** 31, 45, 110, 335  
**Vercelli, Biblioteca Capitolare,**  
**MS 1,** 147  
**MS 102,** 173, 360  
**MS 128,** 377  
**MS 202,** 173, 357  
**MS 58,** 361  
**Verona, Biblioteca Capitolare,**  
**MS 1,** 215  
**MS LIII (51),** 52, 143, 201, 203, 211  
**MS XIII (11),** 200, 206, 211  
**MS XL (38),** 46, 202  
**MS XXXIX (37),** 51, 80  
**XL (38),** 203  
**Vesoul BM** 150, 366

**Vienna, ÖNB,****Gr. 314**, 37, 220, 268**Lat. 110**, 215**Lat. 1861**, 131**Lat. 2160**, 47, 200, 206**Lat. 397**, 51, 224, 290**Lat. 67**, 368**Vitry-le-François BM 18**, 264**Wolfenbüttel, HAB,****Weiss. 2**, 84, 364**Weiss. 34**, 204**Weiss. 64**, 171, 172, 355**Weiss. 74**, 203**Weiss. 76**, 215**Würzburg, Universitätsbibliothek,****M.p.th.f.149a**, 215, 234**M.p.th.f.29**, 100**M.p.th.f.64**, 202**M.p.th.f.64a**, 215**M.p.th.q.2**, 200, 205**Mp.th.f.12**, 231**Yerevan, Matenadaran,****MS 4066**, 44**MS 4954**, 44**Zofingen, Stadtbibliothek, Pa 32**, 84,  
93, 94, 95, 107, 175, 176, 191, 210,  
330, 356**Zürich, Zentralbibliothek,****C.12**, 131**Zwettl, Zisterzienstift, MS 53**, 367



## Nederlandse samenvatting

Deze dissertatie gaat over technische tekens: grafische symbolen die, net als glossen en annotaties, in de marge van handschriften worden toegevoegd. Gebruikers van boeken in de oudheid en de middeleeuwen -schrijvers, correctors, annotatoren en lezers- voegden deze tekens toe om de tekst te commentariëren en om een kader te scheppen voor een goede interpretatie of het juiste gebruik van de tekst. Technische tekens kenden een bonte verscheidenheid aan toepassingen, zoals, bijvoorbeeld, het markeren van corrupte passages die gecorrigeerd dienden te worden aan de hand van een tweede exemplaar van de tekst; het markeren van interessante passages; het aangeven van een indeling van de tekst in kleinere eenheden; of het markeren van citaten. In de loop van de oudheid en middeleeuwen werden wel rond de zestig verschillende grafische symbolen gebruikt op al deze verschillende manieren. De functie en de gebruikspatronen van technische tekens werden gedictieerd door conventies die significant konden verschillen per periode, regio of taalomgeving. Door deze diversiteit aan toepassingen is het niet mogelijk om één vaste betekenis te bepalen voor elk teken. De tekens en hun betekenis en functie kunnen alleen beschreven worden in termen van de conventies die zij representeerden, en de specifieke gemeenschappen van gebruikers die die conventies definieerden. De gebruikspatronen van technische tekens kunnen, met andere woorden, alleen begrepen worden door heel precies te kijken naar de gemeenschappen van gebruikers en hun praktijken (*praxis*), en naar de wijze waarop zij op het gebruik van de tekens reflecteerden (*doxa*). Deze twee aspecten van het gebruik van tekens – *praxis* en *doxa* – zijn weerspiegeld in twee typen bronnen die in deze dissertatie bestudeerd worden: voor *praxis* zijn dat de aantekeningen in de marges van middeleeuwse handschriften, en voor *doxa* de teksten die aan technische tekens, hun gebruik en betekenis gewijd zijn. Deze dissertatie, waarin zowel *praxis* als *doxa* bestudeerd en geanalyseerd worden, is de allereerste synthetische studie over het gebruik van technische tekens in vroegmiddeleeuws Europa.

Hoewel het accent van de dissertatie op de vroege Middeleeuwen ligt, is hoofdstuk 1 gewijd aan de Oudheid, de periode waarin de wortels van veel middeleeuwse conventies te vinden zijn en waarin de grote contouren van het gebruik van tekens voor het eerst werden geschetst. Technische tekens, zo is wel gesuggereerd, zouden zich hebben ontwikkeld in nauwe samenhang met de fysieke vorm van het boek in de Oudheid, namelijk die van de papyrus rol. In een rol was de tekst doorgaans verdeeld in kolommen met daartussen zeer beperkte ruimte, die gebruikt werd voor correcties, toevoegingen, annotaties en andere

tekstingrepen. Vanwege de beperkte ruimte lag het voor de hand om symbolen te gebruiken om op de tekst te reflecteren in plaats van woorden of zinnen, vooral wanneer het ging om routinieuze tekstprocessen zoals vergelijking of correctie.

Mogelijk was het gebruik van technische tekens oorspronkelijk een persoonlijke praktijk, waarbij iedere lezer en/of schrijver zijn eigen set tekens gebruikte. Al gauw ontwikkelden zich echter vaster omliggende conventies die wijd werden verbreid. Dit blijkt uit de papyri die in Egypte en in Herculaneum zijn opgegraven. In de loop van de antieke periode ontstonden verschillende, zich van elkaar onderscheidende gemeenschappen van gebruikers die op een professionele manier met geschreven teksten omgingen. Dit waren met name de professionele schrijvers en de geleerden die ik in deze studie ‘scribes’ en ‘scholars’ heb genoemd.

De professionele schrijvers, die boeken produceerden voor een commerciële markt, gebruikten een reeks tekens die het kopiëren van teksten faciliteerden, zoals correctietekens, omissie-tekens, tekens die de tekst structureerden, en attentietekens die naast een belangrijke passage konden worden gezet. De tweede groep gebruikers, de geleerden, behoorde tot de intellectuele elite verbonden aan het Mouseion in Alexandria of gelieerd aan vergelijkbare geleerde instituties. In tegenstelling tot de professionele schrijvers die vaak anoniem bleven, kennen we sommigen van deze geleerden bij naam, en kunnen we ze plaatsen in een opeenvolging van meesters en studenten aan het Mouseion vanaf de derde eeuw voor Christus tot de teloorgang van het instituut in de tweede eeuw voor Christus. Deze geleerden maakten gebruik van specifieke technische tekens, kritische tekens genaamd, voor de tekstkritiek van de werken van Homerus en andere auteurs van de canon. In de tijd van de belangrijkste Homerische geleerde, Aristarchus van Samothrace (d. 144 v.Chr.) ontwikkelden geleerden uit Alexandrië een systeem van kritische tekens, die de basis zou vormen van latere systemen. Dit systeem kunnen we beschouwen als de oudste teken-traditie, in de zin dat deze conventies werden ingebed in een narratief over hun intellectuele achtergrond en ontstaan in de context van het Mouseion.

Een tweede groep van geleerde gebruikers kwam op in de late Oudheid onder christelijke intellectuelen, die het potentieel van de technische tekens zagen en ze gebruikten voor hun eigen geleerde bezigheid: tekstkritiek van het Oude Testament of de beoordeling van de orthodoxie van bepaalde teksten. Het waren deze christelijke geleerden die verantwoordelijk waren voor een tweede grote geschreven traditie met betrekking tot technische tekens, die bepaalde tekens van Origenes (c. 185-254) verbond met zijn Hexapla, een kritische versie van het Griekse Oude Testament. Andere professionele

groepen die technische tekens gebruikten waren studenten filosofie en recht, maar de invloed van deze groepen op het middeleeuwse gebruik van tekens is verwaarloosbaar als we deze vergelijken met die van de professionele schrijvers, de Alexandrijnse geleerden en de christelijke geleerden.

De invloed van de professionele schrijvers is met name zichtbaar in de handschriften zelf. Conventies die we kunnen herleiden naar de boekmakers en boekhandelaars in de Oudheid bleven gangbaar in middeleeuwse kloosterscriptoria. Hoewel er genoeg handschriften zijn overgeleverd die deze conventies laten zien, zijn er haast geen teksten overgeleverd die dergelijke conventies *beschrijven*. De continuïteit van deze praktijken kan worden toegeschreven aan de mondeling instructie in het vak van schrijven; een brede, basale overdracht van de discipline, die lang onveranderd is gebleven. De geleerde conventies van de Alexandrijnse school daarentegen waren juist alleen bij een klein publiek in de Oudheid bekend. Deze geleerde conventies zijn haast volledig afwezig in het handschriftenmateriaal en werden voornamelijk via beschrijvende teksten en overzichtslijsten aan middeleeuwse gebruikers overgedragen. In de eerste eeuwen van onze jaartelling waren er verschillende grammatici werkzaam die hun opleiding hadden genoten in Alexandria en de conventies meebrachten naar Rome. Zij schreven technische traktaten over de tekens, hun gebruik en betekenis, om zo de Alexandrijnse traditie over te dragen. Ook de Christelijke geleerden schreven technische verhandelingen over hun gebruik van tekens. Zoals ik in deze dissertatie betoog waren het deze teksten, zowel hellenistische als patristische, die aan de basis lagen van een aantal middeleeuwse teksten over tekens. De belangrijkste hiervan waren de teken-traktaten, die de vorm hadden van lijsten van technische tekens met hun symbolen en namen, gevolgd door korte beschrijvingen. De teken-traktaten zijn vergelijkbaar met andere technische lijsten of glossaria. De hoofdstukken 2 en 3 van deze dissertatie zijn gewijd aan de bestudering van de vroegmiddeleeuwse teken-traktaten en aan de overlevering van de *doxa* aangaande technische tekens van Oudheid naar vroege Middeleeuwen.

Hoofdstuk 2 is in zijn geheel gewijd aan het meest invloedrijke teken-traktaat: het 21-tekens-traktaat. Dit traktaat is herkenbaar aan een kern van 21 items die in een bepaalde volgorde gepresenteerd worden. Het is echter geen vastomlijnde tekst met een archetype en een stemma: vanwege het pragmatische karakter van de tekst zijn vele versies ervan anoniem overgeleverd in verzamelhandschriften en compendia. Deze versies werden voortdurend aangepast, afhankelijk van de wensen en voorkeuren van de gebruikers. Het 21-tekens-traktaat is een dynamische entiteit, met een oudste laag die terug zou kunnen

gaan op één of meer Hellenistische technische teksten van Alexandrijnse grammatici in Rome, en die zich langs verschillende tussenstadia verder ontwikkelde tot een meer stabiele versie. In de vroege Middeleeuwen bleef deze flexibele tekst zich ook verder transformeren. Isidorus van Sevilla, bijvoorbeeld, kende de tekst en incorporeerde hem in zijn encyclopedie, de *Etymologiae*, als hoofdstuk 1.21: *De notis sententiarum*. Hij voegde er echter vijf items aan toe, her-ordende het geheel en bracht hier en daar wat veranderingen aan. Vanwege de enorme invloed van de *Etymologiae* in de Middeleeuwen (en vooral in de Karolingische periode) raakte het 21-tekens-traktaat in de versie van Isidorus wijd verbreid in de vroegmiddeleeuwse intellectuele cultuur. Telkens opnieuw werd het traktaat herschreven, bijvoorbeeld in de vorm van verschillende verkorte tekstversies, terwijl in Engeland geheel nieuwe versies ontstonden. In Zuid Italië was weer een andere versie bekend in het Beneventaanse gebied, en in Noord Spanje was een derde versie in omloop die tot het midden van de tiende eeuw circuleerde.

In hoofdstuk 3 bespreek ik andere teken-traktaten, die weliswaar niet zo'n grote verspreiding kenden als het 21-tekens-traktaat, maar die overeenkomstige kenmerken en een vergelijkbare transmissiegeschiedenis hebben. Ze werden anoniem overgeleverd in verzamelhandschriften en werden voortdurend herschreven en aangepast; ze bevatten vaak oud materiaal dat wijst op een oorsprong in de Oudheid, ook al duidt hun lijst-format eerder op een laatantieke of vroegmiddeleeuwse oorsprong. Deze ontwikkeling kan goed geïllustreerd worden aan de hand van patristische teksten die technische tekens behandelen. Deze teksten, die veelal oorspronkelijk als voorwoord geschreven waren, werden overgeleverd als onafhankelijke, anonieme teken-traktaten in de loop van de vroege Middeleeuwen. Een goed voorbeeld is het voorwoord van Cassiodorus' *Expositio psalmorum*, dat een set van dertien tekens bevat om bepaalde onderwerpen aan te duiden. Een aantal teken-traktaten die we verder niet kennen is overgeleverd uit Zuid Italië, waar ze bewaard werden door de monniken van Monte Cassino. Een andere categorie vormen de Griekse teken-traktaten die in Byzantium zijn overgeleverd. Deze traktaten reflecteren het Oudgriekse materiaal, dat ook gebruikt werd als basis voor de oudste Latijnse tekentraktaten, en vormen zo een niet te overschatten toevoeging aan het onderzoek naar technische tekens in het Latijnse Westen.

In de hoofdstukken 4, 5 en 6 komt de Karolingische periode meer centraal te staan. Net als in de Oudheid kunnen we verschillende groepen gebruikers identificeren op basis van het handschriftenmateriaal en de teksten. Wederom zijn de belangrijkste groepen die van de 'schrijvers' en de 'geleerden'. Echter, in contrast met de Oudheid zijn deze twee

groepen niet langer twee van elkaar te onderscheiden professionele groepen, met een eigen opleiding, een eigen identiteit en eigen doelen. De Karolingische schrijvers en geleerden zijn leden van één en dezelfde christelijke geletterde elite. Ze kunnen wel onderscheiden worden op basis van de bronnen die ze gebruiken en de mate waarin ze geschreven teksten (*doxa*) of uitsluitend mondeling overgeleverde kennis (*praxis*) gebruiken voor hun gebruik en toepassing van de tekens. Samenvattend kunnen we vaststellen dat alle (of tenminste de meeste) leden van de christelijke geletterde elite tijdens hun opleiding een basispakket van technische tekens kreeg aangeboden. Deze tekens hadden een grotendeels regionaal karakter en kunnen mogelijk verbonden worden aan de regionale schriften. Insulaire tekengebruikers kunnen gemakkelijk onderscheiden worden van Frankische tekengebruikers, zoals ook insulaire schriften zich gemakkelijk laten onderscheiden van Frankische. Conventies die het gebruik van deze technische tekens reguleerden werden, net als in de Oudheid, in de eerste plaats mondeling overgedragen in scriptoria, als onderdeel van een opleiding tot schrijver. Leren door imiteren heeft zeker ook een rol gespeeld. Net als in de Oudheid bestaat het gros van de technische tekens die men in handschriften tegenkomt (ook al zijn het nu perkamenten boeken in plaats van papyrus rollen) uit correcties, attentie-tekens, citatie-tekens en tekst-structurende tekens; tekens die te maken hebben met de productie (het afschrijven) van het boek. Twee belangrijke verschillen tussen de Oudheid en de vroege Middeleeuwen zijn: a) de gebondenheid van bepaalde conventies aan regio's (bijv. Frankisch, insulair, Byzantijns, etc.), in tegenstelling tot de uniformiteit van het materiaal uit de Oudheid; en b) de veranderende voorkeuren voor het gebruik van technische tekens voor bepaalde doeleinden. Het gebruik van tekst-structurende tekens nam bijvoorbeeld in de Middeleeuwen af, terwijl het gebruik van citatie-tekens juist toenam.

Naast een basispakket van tekens lijken sommige leden van de christelijke elite ook een andere set tekens te hebben overgenomen voor eigen gebruik. Deze extra tekens kwamen niet voort uit de schrijfpraktijken van de Oudheid, maar hun oorsprong lijkt eerder te liggen in geleerde Hellenistische en patristische conventies. Teken-traktaten en andere teksten over tekens zijn hiervoor de belangrijkste bron. In hoofdstuk 4 staan deze tekens centraal. Hier bespreek ik de herontdekking van deze geleerde conventies tijdens de Karolingische hervormingen in de laatste decennia van de achtste eeuw. De tekens genoten grote populariteit onder de intellectuele elite van het Karolingische rijk. De opleving van de belangstelling voor tekens werd waarschijnlijk gevoed door de hervorming van het Gallicaanse psalterium, dat in de loop van de achtste eeuw door de Karolingische heersers

naar voren werd geschoven als het enige juiste psalterium. Dit Gallicaanse psalter bevatte kritische tekens die in de derde eeuw door Origenes waren toegevoegd om passages te markeren die alleen in de Hebreeuwse tekst voorkwamen, en niet in de Septuaginta. Deze kritische tekens werden uitvoerig besproken in de werken van patristische auteurs, met name door Hieronymus. De tekens waren echter zeer gebrekkig overgeleverd in de handschriften zelf. In veel van de handschriften die de Karolingische gebruikers tot hun beschikking hadden ontbraken ze geheel, of waren ze op verkeerde plaatsten toegevoegd. Karolingische hervormers bestudeerden teksten over deze kritische tekens als handleiding, maakten zich deze vorm van tekstkritiek eigen en probeerden de kritische tekens op de juiste plaats opnieuw toe te voegen. Ze zagen de potentie van kritische tekens voor een waaier aan toepassingen die niet noodzakelijk gerelateerd waren aan de liturgische hervormingen. Het effect van deze ontwikkeling was dat kritische tekens, die oorspronkelijk bedoeld waren voor de vergelijking van verschillende tekstversies van het Oude Testament, nu gebruikt werden voor tekstkritiek in andere teksten, zoals bijvoorbeeld de Regel van Benedictus en Isidorus' *Etymologiae*, en voor dit doel werden aangepast.

Terwijl de eerste aanzet voor een verdieping van tekstkritiek dus waarschijnlijk in de bestudering van het Gallicaanse psalterium lag, verbreedde de aandacht van de Karolingische geleerden zich al gauw naar kritische tekens in het algemeen. Men herontdekte Isidorus' *De notis sententiarum*, waarin Origenes' gebruik van kritische tekens werd beschreven. De andere informatie die Isidorus' tekst bevatte over tekens uit de Alexandrijnse geleerde traditie (kennis die zo goed als verloren was gegaan vóór de herontdekking van deze tekst) kwam zo in omloop. *De notis sententiarum* staat aan het begin van een nieuwe golf van toepassingen van verschillende antieke conventies en stimuleerde het experimenteren met technische tekens (zoals dat ook door Isidorus beschreven werd) en een zoektocht naar nieuwe teken-traktaten. De invloed van Isidorus is met name zichtbaar onder de meest prominente Karolingische intellectuelen van de achtste en de negende eeuw, die hem regelmatig aanhalen als een autoriteit op het gebied van technische tekens en die inspiratie putten uit *De notis sententiarum* voor hun eigen gebruik van tekens. Alcuin, Hrabanus Maurus, Hincmar van Reims, Prudentius van Troyes en twee anonieme revisoren van het Gallicaanse psalterium gebruikten tekens uit *De notis sententiarum*. Een ander type bewijsmateriaal voor de hernieuwde interesse in tekens zijn de bewerkingen van teken-traktaten die in deze tijd geproduceerd worden, en die Isidorus' lijst, die niet speciaal

op de praktijk was gericht, omvormen tot een praktisch toepasbare lijst, toegesneden op de Karolingische situatie.

Verder bewijsmateriaal, dat Isidorus' *De notis sententiarum* in het hart van de Karolingische intellectuele interesse plaatst, wordt beschreven in hoofdstuk 5 en 6. Hoofdstuk 5 biedt een nauwkeurige analyse van de handschriftenoverlevering van *De notis sententiarum*. De bestudering van de handschriften van deze tekst laat zien dat Karolingische kopieën van de *Etymologiae* sporen vertonen van een actieve receptie van de tekst, met name in het hart van het Karolingische gebied, waar *De notis sententiarum* werd voorzien van glossen en annotaties. Deze actieve omgang met de tekst vinden we niet terug in handschriften van latere periodes. Handschriften uit deze regio bevatten ook veranderingen in de lay-out van de tekst, die wijzen op een poging om het lezen ervan te faciliteren. Tenslotte, alleen in dit gebied vinden we handschriften van het eerste boek van Isidorus' *Etymologiae* (waarvan *De notis sententiarum* een onderdeel is), los van de rest van het werk. Het lijkt gebruikt te zijn als een handboek voor de grammatica, als onderdeel van het onderwijscurriculum. Dit zou meteen een verklaring kunnen bieden voor een fenomeen dat ik bespreek in hoofdstuk 6, namelijk dat bepaalde teken-conventies, die beschreven worden door Isidorus, in de Karolingische *praxis* voorkomen. Deze nieuwe conventies lijken niet gebaseerd te zijn op de schrijfprijktijken van eerdere tijden. Sommige tekens die nieuw geïntroduceerd worden zijn zelfs aantoonbaar nieuwe inventies of corrupties van Isidorus, maar de aanwezigheid van deze tekens moet desondanks oegeschreven worden aan zijn invloed. Meer bewijs voor het toevoegen van het onderwerp 'technische tekens' aan het onderwijscurriculum, zo betoog ik, vinden we bij Alcuin, die in zijn *De grammatica* de technische tekens expliciet vermeldt als onderdeel van de te behandelen stof.

Naast Hieronymus' behandeling van Origenes' kritische tekens en Isidorus' *De notis sententiarum* is Cassiodorus een andere auteur die van invloed is geweest op het Karolingische gebruik van technische tekens. In zijn *Institutiones* beschrijft Cassiodorus technische tekens voor de beoordeling van de orthodoxie van theologische teksten. In zijn *Expositio psalmorum* beschrijft hij technische tekens voor het indexereren van onderwerpen, *topoi*. Technische tekens voor het beoordelen van orthodoxie (of heterodoxie) van theologische statements kunnen we terugvinden in een aantal Karolingische handschriften, met name in akten van concilies, waar ketterse uitspraken gemarkeerd worden, maar ook in de eigentijdse theologische werken die voor de Karolingische theologische controverses geproduceerd werden.

De herintroductie van oude geleerde conventies in de Karolingische periode en de introductie van nieuwe conventies die daarop geïnspireerd waren kan toegeschreven worden aan de bestudering van teken-traktaten en teksten over tekens (*doxa*) door een deel van de Karolingische geletterde elite. Net als het gebruik van technische tekens in de Oudheid, was ook het Karolingische gebruik van dergelijke tekens beperkt tot een klein aantal intellectuelen. De traditie was daarmee breekbaar, vergeleken met de traditie die zetelde in de schrijfconventies (*praxis*). Het lijkt erop dat het ‘geleerde’ gebruik van tekens de Karolingische periode niet lang heeft overleefd en bovendien geen diepe impressie heeft nagelaten in de *praxis*, op een paar technische tekens uit *De notis sententiarum* na. Niettemin zou ik de Karolingische periode willen karakteriseren als de ‘derde gouden eeuw’ van technische tekens, naast de Hellenistische periode en de laatantieke periode. In de Karolingische periode vermengden geleerden de twee strengen van geleerd teken-gebruik, die uit de Oudheid waren overgeleverd via geschreven teksten: de Hellenistische conventies zoals beschreven in Isidorus’ *De notis sententiarum* en andere teken-traktaten en daarnaast de patristische conventies uit de werken van Hieronymus en Cassiodorus.

De bestudering van het Karolingische handschriftelijke materiaal (*praxis*) in hoofdstuk 6, tenslotte, brengt verschillende aspecten van vroegmiddeleeuws tekengebruik aan het licht. In de eerste plaats heb ik de twee corpora van handschriften die centraal stonden in mijn onderzoek met elkaar vergeleken: de Latijnse handschriften die vóór 800 geproduceerd zijn en beschreven zijn in Lowe’s *Codices Latini Antiquiores*, en een set van 150 handschriften die in de loop van de periode ca. 850-900 geproduceerd zijn in Bavaria. Deze handschriften kenmerken zich door een stabiele geschiedenis en hebben nauwelijks rondgezworven door Europa. De handschriften waren toegankelijk als digitale facsimile’s via de website van de Bayerische Staatsbibliothek in München. De vergelijking toonde een sterke toename van het aantal technische tekens in handschriften in de latere periode, met name voor sommige types van tekens. Citatie-tekens sprongen eruit. Het gebruik hiervan nam zodanig toe, dat ze gezien kunnen worden als een onlosmakelijk onderdeel van de boekproductie, en niet als een persoonlijke toevoeging van een lezer of gebruiker. Een tweede observatie is dat er in Bavaria in deze periode twee regionale schrijfconventies gangbaar waren: een oudere, insulaire conventie, die vervangen werd door een Frankische in de loop van de negende eeuw. We moeten deze transformatie zien in het licht van het veranderende schrift in deze regio en de groeiende culturele en intellectuele invloed van de Karolingische centra. Ten derde: hoewel sommige handschriften uit Bavaria de invloed van Isidorus en zijn *De notis sententiarum* laten zien, is het algemene beeld toch dat ‘Isidorianse’

tekens pas laat in Bavaria geïntroduceerd werden. De aantallen waarin ze gevonden worden zijn bijzonder klein, zeker in vergelijking met handschriften uit Noord Frankrijk. Samen met het bewijsmateriaal van de handschriften van de *Etymologiae*, dat ik in hoofdstuk 5 gepresenteerd heb, wijst dit in de richting van de hypothese dat de introductie van nieuwe technische tekens begon in Noord Frankrijk, het hart van het Karolingische rijk, en van daaruit een verspreiding kende naar regio's zoals Bavaria, waar ze met een vertraging en met minder kracht aankwamen. Ten vierde heeft de bestudering van de handschriften uit Bavaria aangetoond dat het leeuwendeel van de handschriften (75% in mijn case studie) tenminste enkele technische tekens bevatten. De meeste handschriften waren licht geannoteerd met slechts vier of vijf types tekens (bijvoorbeeld met correctie-, attentie- en citatie-tekens), maar toch is het hoge percentage significant, met name in het licht van een heel beperkte toepassing van tekstuele annotaties in dezelfde handschriften. Tekens waren veruit de meest gebruikelijke vorm van marginale annotatie. Ten vijfde liet een klein deel van de handschriften (ca. 17% van mijn set) een relatief dichte annotatie-activiteit zien, die verder ging dan het standaard patroon. Vijf handschriften uit het klooster van St. Emmeram in Regensburg waren zeer uitzonderlijk. Deze handschriften weerspiegelden een lokaal intellectueel project op basis van excerptie-tekens dat misschien nooit is voltooid, en één handschrift dat uitzonderlijk rijk geannoteerd was door een Keltische annotator, ook in Regensburg. Andere handschriften uit dezelfde groep zijn moeilijker te duiden, maar alle tonen een gebruik van tekens dat een programma of een intellectueel project suggereert. Mijn laatste observatie, tenslotte, is dat slechts een heel klein deel van de handschriften uit dit gebied technische tekens bevatte uit de 'geleerde conventies'. Daarvoor moeten we in Frankrijk zijn.

Tot slot: de belangrijkste conclusie van deze dissertatie is dat het gebruik van technische tekens niet ophield na het einde van de laatantieke periode, zoals sommige wetenschappers nog steeds beweren. Het gebruik van technische tekens was niet eens in verval. Integendeel: de Karolingische periode laat een heropleving van het gebruik van technische tekens zien, die verbonden kan worden aan de activiteiten van invloedrijke geleerden. Wellicht zijn deze vroegmiddeleeuwse technische tekens moeilijker in beeld te krijgen dan hun antieke tegenhangers, vanwege het omvangrijke aantal handschriften uit de vroege Middeleeuwen dat nog niet bestudeerd is en vanwege de marginale vorm van een deel van het materiaal. De vroegmiddeleeuwse omvorming van de antieke *doxa* heeft soms de vorm gekregen van glossen en annotaties (bijv. in het geval van de *Etymologiae*) of bewerkingen van bestaande teksten (bijv. in het geval van het 21-tekens-traktaat) – vormen

die traditioneel weinig aandacht hebben gekregen van filologen. Het bestuderen van deze tekens is echter cruciaal, omdat zij de activiteiten van geleerden onthullen waarvoor wij verder heel weinig bewijsmateriaal hebben. In sommige gevallen kunnen wij hun omzwervingen documenteren, veranderende intellectuele trends aanwijzen en regionale intellectuele projecten identificeren.

## Curriculum vitae

Eva Steinová was born on the 29<sup>th</sup> of March 1986 in Bratislava, Slovakia. She obtained a BA in English and Latin from Masaryk University in Brno in 2008 and an MA in Classical and Medieval Latin (*cum laude*) from the same university in 2011. Her thesis prepared for Masaryk University was concerned with the Prague Easter pogrom of 1389 and included a critical edition of *Passio Iudeorum Pragensium*, a set of prose texts devoted to the pogrom. From September 2009, she was also enrolled in the Research Master Medieval Studies at the Utrecht University and received a Research MA (*cum laude*) in 2011. Her thesis prepared for Utrecht University dealt with the use of biblical material in the Latin apocryphal Acts of the apostles. From 2011 to 2015, she carried out research as a PhD in the NWO VIDI project *Marginal Scholarship. The Practice of Learning in the Early Middle Ages* under the supervision of prof. Mariken Teeuwen. She published on a variety of topics including Latin liturgical fragments, Latin apocryphal Acts of the apostles, Latin glossaries and biblical glosses, Judeo-Christian relations in medieval Europe, and annotation practices in the Early Middle Ages. She is also writing for several history-related blogs and magazines.

