## AN AUTOGRAPH LETTER OF JOSEPH SCALIGER TO SIR HENRY SAVILE

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Two manuscripts in the Bodleian Library contain a letter from Joseph Scaliger to Sir Henry Savile, written in April 1595. To the best of my knowledge, this letter has never been published, and its contents have never been known to any of Scaliger's (or Savile's) biographers .I give the text of the letter in the Appendix to this article. In what follows I hope to be able to clarify a few palaeographical points and to discuss in some detail the background to this letter and put it in its historical context.

The letter is found in two Bodleian manuscripts. One of them is SMITH 74, and it contains a copy of this letter on pp. 241-3. In the other SAVILE 41, a copy of this letter is included on p.23r.-v., and is followed, on pp. 24-26, by a detailed refutation of the first proposition of Archimedes, De Circuli Quadratione, written by the same hand. In Madan's Summary Catalogue of Western Manuscripts in the Bodleian Library, the letter as it appears in Savile 41 (1) is described as «copy of a letter and geometrical notes sent by Scaliger to Savile, April 7 (sic!), 1595». The same letter in Smith 74 (2) is catalogued unter the general description «copies of Latin letters, among which are: ............g. (p.241) one from I.I. Scaliger to Casaubon (3), 1595».

No indication is given in the Catalogue as to whether any of these is an autograph copy. But it is easy to prove that the copy of this letter in Savile 41 is not only the more complete document-containing also the geometrical Diatribe (of which more later)-but that it is, in fact, also the original, autograph letter. One has only to compare Plate 1, which contains the first page of this letter in Savile 41 (p. 23 r.) -especially its first line- with Scaliger's handwritten dedication of his Appendix ad Cyclometrica to Savile, on the title-page of the copy which he sent him some

<sup>1.</sup> Madan No. 6587.

<sup>2.</sup> Madan No. 15680.

<sup>3.</sup> I have told the Assistant Librarian in the Duke Humphrey Reading Room, and it has been corrected to «Savile» in the copy of Madan's Catalogue there. How «Casaubon» was inserted instead of «Savile», whose name appears in the very first line of this letter, I cannot explain.

time before our letter, and which is now part of the Bodleian MS Savile E.E.1. (See Plate 2). Both are clearly by the same hand (4). The whole document is folded in three; p. 27 r. is empty. The middle part of p. 27 v.—which is much darker than the other two thirds, and was probably the «envelope» of the original letter—bears, in the same hand (that is, in Scaliger's hand), the address: «Nobilissimo ac doctissimo /viro/ Henrico Savile/ Londini».

Close to it, in Savile's hand, one can read: «Saligers to mee». This, therefore, is the original letter in Scaliger's hand which he sent to Savile.

It would now be sufficient to say that letter in Smith 74 is clearly in a different hand, in order to prove that it is a copy-and, anyhow, why should Scaliger himself bother to make two copies? But as if to make sure, there was at the end of this copy of the letter a subscription, which, although it is now covered by a scrawl in darker ink than that of the letter itself, is still partly legible. What I could decipher of it reads: «Ex apographo quod in (musaeo?) Saviliano reperitur inter (Savillii? -followed by two or three words which are now illegible). Why anyone would want to delete this subscription is anybody's guess: mine is that one of the possessors of this letter wanted his copy to pass for an autograph, and therefore a subscription which says clearly that this is an apograph had to be eliminated. Be this as it may, it is clear from all I have said that this is only a copy of the original autograph in Savile 41 (5), and there let this matter rest.

As we said before, the autograph copy in Savile 41 contains not only the text of the letter itself, but also, on pp. 24-26, the «Diatriba» referred to in the letter. It is entitled (p. 24 r.) «ELENCHUS PRIMAE PROPOSITATIONIS ARCHIMEDIS περὶ κύκλου μετρήσεως. The text of

<sup>4.</sup> Other published facsimiles of Scaliger's handwriting can be found in Bernays' Joseph Justus Scaliger (facing the title-page: this one reproduced in Sandys' History of Classical Scholarship, vol. II, p. 200), and in Gerge W. Robinson's Autobiography of Joseph Scaliger, Harvard 1927, facing p. 37.

<sup>5.</sup> The handwriting is not unlike that of Isaac Casaubon (as, for example, on pp. 8-9 of the Bodleian MS Casaubon 28-dated later than 1611, that is, at least two years after Scaliger's death). But it looks to me a much more careful hand than Casaubon's, and the general layout of the page is stikingly different. If I were forced to reach a decision now, I would be inclined to think that, most probably, this is not Casaubon's hand, or that, if it is, the letter was copied out with special care. Historically, of course, it is not unlikely that Savile, whom Casaubon came to know in his last years in England, gave him the letter from his friend Scaliger to transcribe.

the Proposition itsef-in Latin-follows, with a diagram to illustrate it. Both are taken from the Aldine edition of 1558 (6). On this follows Scaliger's refuation of Archimedes' proposition-as one was made to expect from the letter. This refutation probably ends on p.26 r., with the words: «Non igitur circulus est aequalis Triangulo, cuius altitudo est aequalis semidiametro ipsius circuli, basis autem peripheriae eiusdem circulli, quod erat demonstrandum.» Page 26 v. is entitled THEOREMA, and is probably Scaliger's own solution, which he mentions in the letter and on which he is asking for Savile's comments. But I do not consider myself competent to deal with the mathematical side of this document, and would rather leave it to historians of mathematics-that is, if they find it interesting (7). I shall restrict myself to the discussion of palaeographical and historical problems.

No detailed study of Scaliger's Cyclometrica and the controversy it aroused has been published (8), but some of the main facts are now a matter of common knowledge, and one may as well begin with them.

In 1594 Scaliger published his Cyclometrica Elementa (followed by the Mesolabium, which is nothing more than its second part) -an attempt to produce a new solution to the old problem of squaring the circle. The book, which was published by Raphelengius in Leyden, where Scaliger has just settled down, soon became known and severely criticized by some mathematicians, chief among them Adrianus Romanus and Clavius. The critics of this work did not only object to it in principle, but also detected a great number of mathematical errors. Scaliger had by now come to occupy his place of eminence in the scholarship of his age, and had already published his Manilius (1579) and his masterpiece, De Emendatione Temporum (1583), and was now engaged on his edition of Eusebius, which was to be published two years later. He was now used to the fact that every new work of his was hailed on its publication by the few competent judges and shouted down by a croud of «semidocti» He has by now

<sup>6.</sup> As shown by comparing the text of the Proposition and the diagram as quoted by Scaliger with the Aldine. All other Latin editions available in 1595 give different texts and use different letters in the diagram.

<sup>7.</sup> Except the discussion in Montucla, Histoire des recherches sur la quadrature du cercle, 1831, pp. 205-7, I know of no discussion of this attempt by a historian of mathematics. Montucla supplies some historical details, but there is no mathematical examination of Scaliger's theory and its shortcomings. As I suggest, it may not interest the historian of mathematics.

<sup>8.</sup> Bernays had a short discussion, p. 188-193. See also Montucla, loc. cit. note 7 above, and Nisard, Le Triumvirat littéraire au XVI Siécle, Paris 1852, pp. 231-5.

grown used to being misunderstood, and almost immune to criticism on most people's part, which he would simply consider as «ignorantia recti aut invidia». He therefore took it for granted that, in principle, his solution was right. He could not, however, ignore the errors: they were clearly there, and had to be eliminated. He now issued (at the end of the same year, 1594, and printed by the same publisher), his Appendix ad Cyclometrica, «In qua» (as the title-page says) «asseritur Quadriatio Circuli, contra oblatrationes quorundam, & castigantur quaedam errata in DE-MONSTRATIONIBUS CYCLOMETRICIS!»

These are the main facts mentioned by biographers, who sometimes add that, eventually, Scaliger had to give way and to admit the error of his theory. We know that he did not do this with a light heart. His letters of the years 1594-1595, especially those to Casaubon, are full of complaints against the harsh treatment of his theory at the hands of its critics and assurances that, in the long run, all will come to recognize its truth (9). One may quote a typical passage: «Nobis plane constat de circuli quadratione, tametsi omnes obgannitant. Quum omnium furor detumuerit, tunc dicemus poscimur Aonides. Et sane quod perperam demonstravimus, nunc certum est, ita demonstratum iri, ut obtrectationi amplius locus non sit». (10).

But his letters also reveal another aspect. During March and April 1595, Scaliger sent copies of his Appendix ad Cyclometrica and the written «Diatriba» we have seen enclosed in his letter to Savile also to other mathematicians, imploring their «patrocinium». One of these letters is addressed to Adrianus Romanus of Würzburg, one of the chief, and most famous, critics of the Cyclometrica, and is dated March 31, 1595. The letter is available in the printed editions of Scaliger's letters (11), and there is no need to quote it at length. Two passages may be quoted to illustrate the similarity between it and the letter to Savile: «Accipe in-

<sup>9.</sup> Illustrissimi Viri Iosephi Scaligeri Iulii Caessaris F. Epistolae Omnes quae reperiri potuerunt...... Lugduni Batavorum MDCXXVII. References to Scaliger's Latin letters are all to this 1627 edition. On the subject of the Cyclometrica see, for example, Ep. XXIX, pp. 134-5 (Iano Dousae F.), Ep. XXXVII, p. 148 (Isacio Casaubono), Ep. XL, p. 154 (eidem), Ep. XLI, pp. 156-7 (eidem), Ep. CXCIV, p.433 (Iano Koterittio) Ep. CLXXVI, p. 425 (Nicolao Nansellio) and many others, some of which will be quoted later in this article.

Ep. XLII, pp. 159-160, Isacio Casaubono, dated Lugd. Batav. 3 Eid. Febr. Iul. 1597.

<sup>11.</sup> Ep. CCXXX, pp. 494-6 in the 1627 edition.

terea hanc Diatribam, quam tibi mitto: in qua non solum videbis, quam falsi sunt, qui Archimede magistro, circulum aequalem faciunt rectangulo sub semidiametro & semisphaeria contento; sed etiam quam male existimationi suae consuluisse videantur, qui non capere potuerunt quod & puero planum fecimus». The other passage is even more relevant: «& non solum tibi, sed & alijs scriptam esse scias. Propterea eam illis communica».

A few weeks earlier, he had written in French to the mathematician Henri de Monanteuil. The letter (12) is dated «le 4 Mars 1595». In contents, it is very similar to the letters to Savile and to Adrianus Romanus. Like them, Monanteuil is called in as expert to defend Scaliger's theory and vindicate it: «J'estime tant de votre savoir, et, qui plus est, de votre candeur, que vous défendrés la vérité. Tu eris patronus non meus, sed veritatis». He encloses something which may have been only the Appendix ad Cyclometrica, but was perhaps the same «Diatribe» sent to Savile and Adrianus Romanus. (13).

We know that Adrianus Romanus did not change his mind. In the case of Monanteuil, Scaliger seems to have been, for some time, a little more successful. Colomesius cites (14) the following passage: «Fr. Balbus in vita Nic. Fabri ejusdem opusculis praefixa, Paris, 1614. In Mathematicis disciplinis excolendis ea animi acie fuit, ut doctissimi Scaligeri ingeniosum de circuli demensione conatum (cum ejus demonstrationem coram J.A. Thuano, Gul. Vario, Pet. Pithaeo, Ant. Oiselio, in ipsis Thuani aedibus Monantholius faceret, & finem suum feliciter assecutum Scaligerum contenderet) errore non carere primus anumadverterit, quod & in-

<sup>12.</sup> Lettres françaises inédites de Joseph Scaliger, ed. Tamizey de Larroque, Agen-Paris 1881. Lettre CIII, pp. 308-310.

<sup>13.</sup> This point is not quite clear. Scaliger says in the letter: «Je vous envoie un escrit, lequel à mon advis rompra le col aus medisans». The editor, in Footnote 3 to this letter, suggests that this is a reference to the Appendix ad Cyclometrica. Perhaps. But «escrit» could mean a written document, something like the «Diatriba». According to the printed Catalogue of the Colection Dupuy (ed. L. Dorez, Tome I, pp. 484-5), there are five letters from Scaliger to Monanteuil in tke MS Dupuy 496. Apart from the letter just quoted, there is another one (225), dated Easter 1595. Only a short passage from it is quoted by de Larroque (p. 310, Footnete 2). Either of these two letters could have had the «Diatriba» enclosed. There is, however, no indication of this in the printed Catalogue (which may, of course, mean that it was originally enclosed, but that Monanteuil had taken it out of its original place). I have so far been unable to check this in the Bibliothèque Nationale.

<sup>14.</sup> Gallia Orientalis (MDCLXV), p. 127.

genue postea Scaliger ipse, quo erat candore, agnovit» (15). What, if any, was Savile's reaction to Scaliger's letter and the Cyclometrica itself?

Once again, the materials exist in abundance, and all one has to do is look for them. A convenient starting point is Savile's reaction to the book itself. John Aubrey supplies the first clue. In his life of Savile (16), he says: «I have heard Dr. Wallis say, that Sir H. Savile has sufficiently confuted Joseph Scaliger de Quadratura Circuli in the very margent of the booke: and that sometimes when J. Scaliger says «AB=CD ex constructione», Sir H. Savile writes sometimes in the margent «Et dominatio vestra est asinus ex constructione».

Dr. Wallis is, of course, John Wallis, D.D., Savilian Professor of Geometry, who later on published a refutation of yet another attempt to square the circle, made by Thomas Hobbes. Of this later. As a Savilian Professor he had access to Savile's Library («He gave his collection of Mathematicall Bookes to a peculiar little Library belonging to the Savilian Professors», says Aubrey in his life of Savile). But fortunately, we do not need to rely only on his evidence. The Savilian Library has long been part of the Bodleian Library, and the «Booke» which Wallis refers to exists. It is one of the books and pamphlets now bound together in the MS Savile E.E.1. This is Savile's own copy of the Cyclometrica and Mesolabium, followed by the complimentary copy of the Appendix ad Cyclometrica, with a dedication in Scaliger's hand. (This, as we have mentioned, is almost certainly the copy referred to in our letter. Its titlepage is reproduced in Plate 2).

Savile's text of the Cyclometrica and the Mesolabium is full of notes «in the margent» in what is indisputably Savile's handwriting. Most of these notes correct errors of detail, and they are written mostly in Latin, but for the odd note in Italian or English. Their general tone is far from flattering, to say the least. Scaliger is called «Iosephus». On p. 76 he is told in a note «Insanis Iosephe», and on p. 77 «erras Iosephe»; on p. 122 Savile lapses into English and writes in the margin: «This ma had a good

<sup>15.</sup> On the lifelong friendship between Thuanus and Scaliger see Pattison's Essays, vol. I, Oxford 1889, p. 153, and Thuani De Vita Sua Liber, p.8 in vol. VII of Thuani Opera, London 1733. At the time, Monanteuil was convinced of the truth of Scaliger's theory and Thuanus himself seems to have taken the same view. See pp. 182-3 of Scaliger's Epistres Francoises of 1624. But when he came to talk of the whole episode in retrospect in his Histories (Lib. CXXIX, to the year 1603; p. 181 in vol. VI of the London edition), he gives one the impression that he has never been involved in it seriously.

<sup>16.</sup> Aubrey's Brief Lives, ed. Andrew Clark, Oxford 1898, vol. II, p. 215.

meanig, but speakes like a foole». These are only a few examples. The marginal notes are very long in places and go into much technical detail. The note «in the very margent» referred to by Dr. Wallis is to be found on p. 67. Scaliger says in the text: imo CNO est perpetua ex constructione», to which Savile replies in the margin: «et vestra dominatio asinus ex hypothesi, quia id voliut probare quod vestra opinione in constructione viderat». Wallis and Aubrey-were quoting from memory.

But this is far from being the whole story. Savile did actually answer Scaliger's letter, and although the letter itself has not so far been published, Savile's answer to it has been available in a printed form since 1621. That it has escaped notice at the right quarters is probably due to the fact that it was published in the wrong place: not in a collection of letters, but in a series of lectures. It is quoted in full by Savile in his Praelectiones in Principium Elementorum Euclidis, printed in Oxford in that year. In the Twelfth Lecture, pp. 230-231, he says: «Iosephus Scaliger, Grammaticus melior, quam logicus, cum intellexerit post editum a se libellum κυκλομετοικής, multos incommodos rumores in Gallia, Germania & Anglia disseminari, audissetque multos confutationem meditari, meque inter caeteros, vel prae caeteris, suspectum haberet, antea sibi cognitum familariter Lutetiae: missa ad me confutatione, ut sibi videbatur probabili Archimedae demonstrationis in illo libello de mensura circuli, cum esset hominis Logicam omnem nescientis, rejectis sc. ἀπανωναῖς, deductionibus ad absurdum, ut paralogismis & falsis, hoc a me tulit responsum». Here follows a full-lenght quotation of Savile's letter to Scaliger. I find it unnecessary to quote it, both because it is purely technical, and since it is available in the Praelectiones of 1621 (17), pp. 231-4.

Even this is not yet the end of our story, and Dr. Wallis has been kind enough to provide us with yet another clue. In his Elenchus Geometriae Hobbianae (18), he says, addressing his victim: «Crede mihi si D. Henricus Savilius tua Geometrica legisset, numquam illud de Iosepho Scaligero Elogium (in suis ad Euclidem Praelectionibus) pronunciasset, quod sit omnium mortalium, ne Orontio quidem excepto ἀγεωμετρητότατος

. Nempe, te laus illa maneret». He is again quoting-this time more faith-

<sup>17.</sup> To the best of my knowledge, the book has not been reprinted. The MS of the lecture notes which served as basis to this book is now among the Saivle MSS in the Bodleian Library.

<sup>18.</sup> Oxonii 1655, Cap. 16, Art. 17, p. 60.

fully, and perhaps with an open text before him-Savile's precise words on Scaliger on p. 71 of the Praelectiones (19).

All this, however, happened much later than the date of our letter. The Praelectiones were printed in 1621, after Scaliger's death, and, if Savile's letter to Scaliger just mentioned can serve as a «terminus post quem», even the original series of lectures on which it is based were delivered after both letters had been written and dispatched. Saliger, however, seems to have possessed some knowledge of Savile's criticisms of his Cyclometrica as early as 1595. We have seen him saying in the letter: «allatum est mihi, te in Cyclometrica nostra animadversionem adornare». About eight years later, in 1603, he writes to Casaubon, advising him against emigrating to England, and says (20) among other things: «O miserum te, si in illius δοκησισόφο cancellos incidisses. οἶος πέπνηται (21). τοὶ δὲ σκιαὶ αἰσσονσιν. Scin quomodo? Omnes asini sunt, si illi credimus; etiam nos, qui credimus illi». So it looks as though, by this time, even the famous «asinus ex hypothesi» remark has reached him.

Who could have been his «source» in England? Here one can only guess. But a very probable candidate is Richard Thomson, that «Englishborn Dutchman», who served as the mediator between many a continental scholar and his English colleagues. Scaliger was corresponding with him regularly during the period of the Cyclometrica and the controverry around it. One passage, from a letter of December 1594, is particularly important (22): «Etiam Appendicem ad Cyclometrica nostra tibi mitto. Sed etiam ad Savilium, virum doctissimum. Cujus nomen ne apponem, causa fuit, quod ignoro illud. Audio in ipsa Cyclometrica quosdam scribere an sit ipse Savilius, nescio. tamen ex hac Appendice scire poterunt, quam inciviliter de meo opere judicaverint». In another letter, of June 1595, he

<sup>19.</sup> Short, epigrammanic judgements of people, like Quintilian's, have the quality of being easily remembered. Especially so when they contain some cutting criticisms. Who can forget some of Housman's remarks on other scholars, especially the famous tirade on Elias Stoeber? It is a nice piece of historical irony to find that Scaliger and Savile are in complete agreement as to Orontius «qualifications. «Durandus in Theologia, Bartolus in jure, Orontius in Mathematicis, sont faiseurs de quolibets» - Scaligerana (1695), p. 132.

<sup>20.</sup> Ep. LXXXVII, p. 246, dated VII Kal. Novembris Iuliani MDCIII.

<sup>21.</sup> This is how it is printed. I have not seen the manuscript, but I have no doubt that Scaliger wrote: οloς and πεπνύταί: in this context, an excellent parody of the phrase in Odyssey X, 495, applied to Savile's pride.

<sup>22.</sup> Ep. CCXXXII, pp. 500-1; dated XIII Kal. Ianuar. MDXCIV.

says (23): «Nondum legi quae ad me Hen. Savilius misit. Scio mihi multa aliud agenti in Cyclometricis excidisse. & sane, dolet, piget taedetque. Sed post omnium latratus aliquando respirandi dabitur locus. & habemus quod correctores nostros doceamus».

It is an attractive conjecture that Thomson was the man who told Scaliger of Savile's intentions (and probably told him Savile's Christian name, so that he would be able to write to him!) In both letters he is addressed in terms of confidence, as befitting "our Man in England". In the first letter he is virtually requested to find out about Savile's attitude to Scaliger's theory. It may have been Thomson himself, again, who told him later on about Savile's famous remark «in the margent» And if one may venture yet another guess, it may have been Thomson who informed him of Thomas Oliver's intention to write aginst the Cyclometrica (or. at least, of Oliver's critical attitude to it). Oliver is mentioned in our letters as one of Savile's countymen whom Scaliger asks Savile to convince of the truth of his Cyclometrica. We know, however, that only in 1597 did Oliver write his «De Circuli Quadratura» (24), and it was only printed a few years later. How could Scaliger know in 1595 that Oliver was one of his critics? It is not unlikely that Thomson, himself a Cambridge man, informed him of what another Cambridge man was thinking about his book.

One should perhaps finish this episode with two more quotations of later date. The first is from p. 82 of the Scaligerana (25), s.v. Monsieur Casaubon: «On faisoit escrire a Monsieur Casaubon que le Roy d'Angleterre le demandoit, & c'estoit un Secretaire qui escrivoit les lettres ,inscio Rege. Je lui predis qu'il ne feroit rien d'y aller, quand il n'y auroit qu'un certain orgeuilleux sot, qui ne le voudroit pas endurer; qui est Savile». I could not trace a precise equivalent of this phrase in any printed letter of Scaliger to Casaubon, but the letter just quoted comes very near to it. So also does the following passage (26): «Denique in illis partibus est homo, doctus ille quidem, sed omnium, quos caelum tegit, impudentissimus, & cui nemo adhuc doctus visus est». In the light of the episode we have investigated here (and of some of its possible consequences which can only be guessed), these remarks become a little more human and much more concrete.

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<sup>23.</sup> Ep. CCXXXIII, p. 501; dated XVIII Kal. Iulias MDXCV.

<sup>24.</sup> DNB vol. XLII, p. 151, Oliver or Olyuer Thomas.

<sup>25.</sup> Colomies' edition, 1695.

<sup>26.</sup> Ep. LXXXV, pp. 241-2 (to Casaubon); dated XIII Kal. Oct. Iuliani MDCIII.

## APPENDIX

## TEXT OF SCALIGER'S LETTER TO SAVILE, FROM MS SAVILE 41, p. 23.

Nobilissimo et doctiss. viro Henrico Savilio Josephus Scaliger Iul. Caes. F.S. Etsi Vir nobiliss, et doctiss, usus amicitiae inter nos vetus non est admodum, amicitia tamen vetus interest: quam quidem non minoris facio, quam si diuturna consuetudo voluntates nostras conglutinasset. Non enim repentinus casus olim nos Lutetiae coniunxit sed me quidem tibi admiratio virtutis tuae atque eruditionis (so in MS): te autem mihi similitudo studiorum, et literarum societas, quod est humaniorum ingeniorum coagulum. Ab co tempore quanti ego te fecerim, sciunt et populares tui, apud quos numq; tui mentionem feci sine praedicatione laudum tuarum, sed et (so in MS) alij, apud quos verba de literis serere consuevimus. Neg; enim quicquà aut libenius, aut crebrius, quam summos viros, atq; eorum laudes commemoro. De tua vero in me benevolentia ne dubitem, facit, non solum animus tuus, quem certus sum esse candidissimum, sed etiam ego ipse mihi persuasi; quod mihi conscius sim, nihil a me commissum esse umquam, quod aut tuum, aut boni cuiusdam animum laederet. Postq; igitur sive incogitantia mea, sive properantia, sive nescio quis pruritus extudit festinatam editionem Cyclometricorum, nihil acerbius mihi contingere memini, quam dolorem, quem ex erroribus nostris percepi, simul ac illos ventilare institui. Quid dicam tibi? quid non dicam? merito vapulo. neq; infitior culpam commeruisse. Sed postq; allatum est mihi, te in Cyclometrica nostra animadversionem adornare, coepi animam erigere, et bene de fortunis nostris sperare. Certus enim eram te non nisi cum summa animi moderatione de nobis verba facturum, ut homines et nobiles et probos inter se agere oportet. Deinde si primus scibere occupares, videbam viam alijs ad idem conandum obseptam, qui neq; ea erudtione sunt, qua tu, neq; eodem in me animo. Quicquid igitur scripseris, scito illud nobis et gratissimum et carissimum fore:eoq; nomine magnam te a nobis gratiam initurum. Sentio me classicum cecinesse. omnes ad signa conveniunt. Mirum tamen est. si tot sunt, tantig; errores nostri, ut eos (corrected in the MS to «eorum») pudeat, cur igitur tanti faciunt de illis triumphare? quanto nobiliora opima de Archimede? An ego primus, an solus omnium τὸν τετρανω viouov frustra tentavi? Quid? Hippocrates Chius, Heraclides Ponticus an eam rem tangere potuerint, ut non se potius paralogismis suis traduxerint, quam aliquid utile in lucem ediderint, praeter Lunulae tetragonismum? De paralogismis utriusque consulant Eutocium liceret (so in MS). De aliorum summorum virorum paralogismis meminit Archimedes, quibus tamen pootizos non insultat, ut solent isti Critici. De ipsius Archimedis paralogismo videbis postea. de alijs aiusdem erit fortasse alius dicendi locus. Quid igitur proderit illis ulceribus nostris ungues inicere, si quidem nos parati sumus non solum, ut facimus, errores nostros fateri, sed etiam, quod fiet, castigare! Quod, inquam, fiet, neq; tam infeliciter, quam isti putant. Accipe igitur diatribam, quam tibi mitto, si tanti ea tibi est, aut potius si tanti nostra vetus amicitia. Ex uno iudicio tuo stant aut cadunt vigiliae nostrae. Certum est, quicquid iudicaveris, ne verbum quidem mutat (sic in MS) commutaturum. Suspectam igitur nobis reddidit primam Archimedis propositionem longitudo perimetri extensae, quam constat nobis tripla sesqiseptima diametro maiorem ess. Hoc nos in tot, tamque diversis circulis totfariam ep (sic in MS) periclitati sumus, ut non raro admirari subeat, quid, causae, fuerit, ut hoc perspicacem

Archimedem fugerit. Nam per  $\varepsilon \vartheta \theta \varepsilon \iota \alpha \zeta \ \mathring{a} \lambda \acute{o} \gamma o v \zeta$ , earumque subinde in multas partes sectionem indagare, scimus quá periculosum sit. Quod nunc non tangimus. Sane multi numeri effecerint, ut quod nobis longius constat esse, id brevius iusto persuaderi possit. Nam ut in astrologia quae @airouéroi adversatur merito suspecta sunt, sic in Geometria, quae τῆ χειρουργία καὶ τῆ ὀφθαλμοφανία obviam eunt, merito reijcienda. Quare cum hac suspicione coepimus paralogismum investigare: qui sane adeo manifectus est, ut manifesto periturus fuerit, tamquam sorex. (here begins p. 23 v.) si ego eius auctor fuissem, quae est hominum prave diligentum in me invidiae, et odij cacoethes. Sed summi illi Critici soli Archimedi dormiunt; quem sua existimatio tuetur. Me ne veritatis quidem vis a contumelia vindicabit, nisi tu succurris, nobilissime et doctissime Savili. Quid igitur de hac diatriba, quam tibi mitto, sentis, oro te per amicitiam nostram veterem, ut et mihi indices, et si illam probas, ut doctissimis popularibus tuis. Thomae Olivero, et alijs communices. Iam veteres avias ex pectore evulsimus, circulum esse acqualem triangulo rectangulo, cuius altitudo sit acqualis simidiametro, basis perimetro: quod demonstrasse conamur Archimedes παραλογίζεται. Rectam viam τοῦ τετρα γωνισμού indicavimus per quatuor magnitudines circulo ipsi et sibi invicem aut commensurabiles, quas cum inter se aequales ostendimus, necessario aut rectlineum aut quadratum circulo aequales damus. De hoc, tantum expecto iudicium tuum: de reliquo postea te absolvam. Sed hoc πότερον τῆ ἀξία καὶ πότερον τῆ τάξει sto. Nam de Voluta Dinostrati quae mendose quadratrix vocatur, postea et loco suo, et tempore. Tu, nobilissime et doctissime vir, hoc lege, et boni consule, at nos ama. Vale. Nonis Aprilibus, stilo novo. Misi tibi iamdudum Appendicem nostram, et Canomen Hippolyti Episcopi. Scire aveo, an acceperis. 1595.