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Essay Review: Collecting *naturalia*, *simplicia* and *pigmenta* in the Netherlands

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Raymond van der Ham en Annette Bierman, *Van gildekast tot schoenendoos: Nederlandse simplicia verzamelingen* (Leiden: Erato, 2017), 156 pp., ill., ISBN 9789492165176. € 20; Paul van Duin (red.), *De verzamelaarskast met miniatuurapotheek* (Amsterdam: Rijksmuseum Afdeling Publicaties, 2017), 113 pp., ill., ISBN 9789491714610. € 40; [*The collector's cabinet with miniature apothecary's shop*, ISBN 978-94-91714-72-6]. Ineke Pey en Ernst Homburg, *Een kabinet vol kleur: de collectie schildersmaterialen van de Amsterdamse verfhandelaar Michiel Hafkenscheid (1772–1846)* (Nijmegen: Vantilt, 2018), 303 pp., ill., ISBN 9789460043758. € 29,95.

ABSTRACT

For centuries, medical practitioners and artisans have shared a keen interest in *naturalia*: naturally occurring, (mostly dried) materials deriving from plants or animals, that were sourced locally or imported into Europe via global trade routes. Many of these drugs (Dutch: 'drogerijen'), paint- and dyestuff were commonly known among physicians and apothecaries as simples, *simplicia,* or *materia medica*. International scholarship has shown an increasing interest in the study of simples, natural colorants and the entangled histories of historical *simplicia* and *naturalia* collections with an inter- or multidisciplinary approach. In this review essay, I will spotlight three important Dutch contributions in this field. All of these recent publications make collections of *simplicia*, *naturalia* and art materials in the Netherlands accessible to a broader readership and pave the way for more multi-coloured histories of this rich cultural heritage.

A guidebook for the study of historical simplicia collections in the Netherlands

Raymond van der Ham and Annette Bierman's *Van gildekast tot schoenendoos: Nederlandse simplicia verzamelingen* provides a chronological overview of *simplicia* collections dating from the late seventeenth to the twentieth century. The publication includes a comprehensive illustrated inventory of all known 74 cabinets and collections that have survived in

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different public institutions and private homes in the Netherlands. On the basis of these data, the authors trace historical developments in the collection history of *simplicia*, starting with a wooden cabinet from 1660 with 587 – now empty – open drawers and ending with twentieth century collections in closed plastic containers from a pharmaceutical university laboratory. The illustrated inventory comprises short descriptions of each collection with information on its provenance, reception history and current location. A colour coded table on p. 17 provides a concise overview of collected data and visualises how the housing systems of Dutch collections changed over time. The authors distinguish four different ways of maintaining *simplicia* collections that can overlap chronologically. Housed in elaborate wooden cabinets, simple chests, or cardboard boxes, the collections were traditionally kept in open wooden drawers, and later also in closed glass containers. From the twentieth century onwards, they were occasionally preserved in paper bags, but most commonly in plastic containers. In 1891 the first *simplicia* collections produced in series came on the market. They were sold as complete examination sets with printed catalogues. This marks an important development as collections before this date were mostly unique and by nature extendable. At least since the eighteenth century, examination collections had to be consistent with simples listed in current pharmacopoeia, but the content of material collections was not standardised in the Netherlands before the nineteenth century. While it went beyond the scope of this study to include detailed information on the contents of all 74 surviving *simplicia* collections, the authors indicate in each case if catalogues or listings of their contents are available. In addition, the authors reproduced four complete catalogues of twentieth century collections in an appendix.

The book also includes a helpful brief etymology of the term *simplicia* and its use in Dutch sources. The oldest cited textual source, a Middle Dutch translation of a compilation of pharmaceutical texts that was known throughout Medieval Europe as a standard work for the preparation of medicinal drugs, the *Antidotarium Nicolaï,* refers to 'simpelre medicinen ende substancien' and 'specien' that can be dispensed or mixed. The same terminology can be found in the first Dutch printed 'dispensatory' *Dlicht d'apothekers* (1515) that distinguishes simples from more complex therapeutics consisting of more than one substance, here referred to as *composicien*. Interestingly, we learn that the Latinised terms *simplicia* and *composita* might only have become popular in the Low Countries at a later date, from the sixteenth century onwards. Understanding simples in the sense of 'considered or taken by itself, with nothing (yet) added', one of the definitions in the Oxford English Dictionary, is perhaps closest to the use of this term in historical (pre-modern) sources. Nineteenth-century more concise descriptions define simples as naturally occurring plant-, animal- or mineral-based therapeutics, ready-to-use without the need of being prepared or processed. These definitions are, however, deceptive given that most of the substances referred to had been harvested, dried, sometimes washed or cleaned, packed or bottled, frequently shipped over long distances, and in any case often handled by many hands before they were sold as simples or *simplicia* in a pharmacy. In medieval times *pigmenta* apparently simply referred to stuff that could be pounded in a mortar.[1]

Pey and Homburg emphasise how difficult it is to draw a clear distinction between *naturalia* and *simplicia* collections. The former are often more wide-ranging, and were, in general,

1 Lea Olsan, '*Pigmenta*: Materials for writing, painting and healing', in: Stella Panayotova and Paola Ricciardi (eds.), *Manuscripts in the making: Art & science, vol. 2* (London 2018) 107.

studied in privacy with like-minded peers or presented to visitors. Van der Ham and Bierman's survey shows for the Dutch context that *simplicia* collections, in contrast to *naturalia* cabinets, have a long history as didactic tools for the training and examination of apothecaries, though it should be noted that collections might have served more purposes throughout their long lives. The oldest *simplicia* chest in the Netherlands (1690), today in Museum Boerhaave in Leiden, is the only surviving example from the seventeenth century. The authors included in their inventory a detailed description of its provenance and reception history, with photographs that show a splendid cabinet in the form of a book, 215 cm high, its left side designed as bookbinding, its forefront a book cover with two locks looking like clasps found on medieval books to keep them closed. The unconventional design of this chest aptly illustrates its former function as a reference and examination tool in the education of apothecaries. Apprenticing apothecaries studied and handled *simplicia* to gain organoleptic knowledge by sight, touch, smell and taste of all simples a pharmacy was required to have in stock. Unfortunately, the historical content of this oldest extant *simplicia* cabinet has not survived.

However, what makes this book appealing for historians of science interested in absent and forgotten knowledge is the detailed study of lost collections that the authors have included. Based on an extensive study of auction catalogues and advertisements, the authors were able to detect fluctuations in supply and demand of *simplicia* collections over a period of almost 300 years (c. 1690–2015). The findings are visualised in a series of graphs that show that today's surviving collections represent only a fraction of the many collections documented in textual sources. Examples of the detailed descriptions they found in auction catalogues and advertisements demonstrate the value of these primary sources for the study of past and vanished material cultures, such as this listing of the contents of an eighteenth-century 'Kabinetje' filled with 'seeds, fruits, some woods, barks, and too much to mention here' (p. 9). The sources also provided more data on the owners of such collections and their professions, mostly medical doctors, apothecaries, and surgeons, healers and midwifes. Published as a slim and portable A4 paperback, this clearly structured and easy-to-use handbook is an excellent starting point for further comparative and systematic research on the history and content of *simplicia* cabinets and collections in the Netherlands.

An anatomy of an eighteenth-century collector's cabinet with miniature apothecary's shop

By comparison, the Rijksmuseum publication on a collector's cabinet with miniature pharmacy, *De verzamelaarskast met miniatuurapotheek,* is rather wieldy with its unconventional oversized A3 format. Designed by Irma Boom as a collector's item in its own right, this book is published in a Dutch and English edition. It presents the detailed examination of an exceptional cabinet that has been in the collections of the Rijksmuseum Amsterdam since the 1950s. This cabinet is the only surviving example from the eighteenth century with a completely furnished and extraordinarily detailed miniature apothecary's shop and a hitherto hidden secret inner life of more than 2000 preserved *naturalia*. The mini-pharmacy had already been subject of an earlier study (and is also listed in Van der Ham and Bierman on p. 26–27), but this is the first publication that makes the extensive *naturalia* collection, concealed inside this cunningly designed piece of furniture, visible and accessible to a broader international readership.[2] It is the result of a major multidisciplinary research

2 The earlier study is Th.H. Lunsingh Scheurleer and D.A. Wittop Koning, 'De simpliciakast van het Collegium Medico-Pharmaceuticum te Delft', *Bulletin van het Rijksmuseum* 8 (1960) 69–82.

project that involved researchers from different Dutch institutions, including the Rijksmuseum, the Leiden University, the Royal Netherlands Institute for Sea Research (NIOZ), and Naturalis Biodiversity Center. Van der Ham and Bierman also contributed to this study.

At the heart of this project lay the scientific identification of the more than 2000 *naturalia* that were found in its 55 secret drawers and the complex conservation work that was carried out on the elaborately decorated cabinet that involved virtually all of the museum's conservation departments (paper, wood, glass & ceramics, painting and metal objects). This collaborative effort is manifest in the six essays by curators, historians, scientists, and conservators. Furniture conservator Dave van Gompel shows that the restoration was not only vital in making this *naturalia* collection accessible for further research, but also provided important contributions to a better historical understanding of this multi-media object. Historian Roelof van Gelder provides more insights into the unknown original owner of this collection. He places the cabinet and its collection 'within the social circle of the moneyed, urban *burgers*, the bourgeoisie who paired an interest in nature with an extremely popular pursuit of the time: collecting' (p. 10) and provides a historical context with a discussion of the largest contemporary *naturalia* collections in the Netherlands, among which the wide-ranging collections of Albertus Seba and Simon Schijnvoet. As most collectors, Schijnvoet took great care in displaying his collection, that was housed in specially commissioned wooden cabinets. His impressive shell collection was displayed according to 'aesthetic and geometric principles as well as rational systematics' that prompted a contemporary to marvel not only at its visual splendours, but also at the heuristic and scientific value of this exhibit for acquiring a most accurate understanding of the natural history of shells (p. 11). The hidden drawers of the Rijksmuseum cabinet designed in decorative geometric patterns (drawer 1–4) testify to a similar taste for an aesthetically pleasing systematic arrangement.

Reinier Baarsen, curator and Professor of the History of Decorative Arts at Leiden University, discusses the cabinet's significance in context of stylistic developments of wood furniture and links its virtuosic design to the tradition of *kunstkammer* collections and the famous doll houses produced in the Netherlands at the same time. Annette Bierman provides a description of the miniature apothecary's shop and its decorative programme, including an iconographic interpretation of the tiny oil paintings that appear to depict the well-known ancient aphorism about medicine 'Art is long, life is short, opportunity fleeting, experiment dangerous, judgement difficult'. The marine and paleobiologist Gerhard Cadée presents the content of the *naturalia* collection, which he divides into three main groups: products emanating from animals (two drawers, 91 compartments), from plants (fourteen drawers, 661 compartments) and from the earth (thirty-nine drawers, 1,246 compartments). Cadée brings to attention the many substances that were mentioned in contemporary pharmacopoeia *and* were used by artists and artisans. The empty drawer on the very top most probably comprised a now lost catalogue of the collection's content.

The second part of the book is fully devoted to the presentation of the contents of the miniature pharmacy and the *naturalia* collection on paper, including full colour images of all 55 open drawers photographed from above on an 87% scale of the original size. The immense identification efforts have been translated by the graphic designer into a special book layout featuring inserted semi-transparent leafs on which the content of the photographed drawers can be identified by number. On the opposite page the reader finds a numbered index with explanations and chemical formula of the (main) identified substances, which have newly been established on the basis of scientific analyses. For vegetable and

animal materials, the index also mentions the scientific names currently used. The names from the pharmacopoeia are only listed in some cases. What I miss, though, in this grand presentation of the 'rediscovered' *naturalia* with a newly established index, is a more elaborate discussion of the translation work involved in making a modern index or catalogue for a historical collection. It would have been of interest to reflect on the problems and challenges that a determination with modern nomenclature and molecular formulas of historical substances pose. The unorthodox book design works best for the presentation of the *naturalia* drawers, while other illustrations became too small in order to be fitted into the graphic designer's page layout of the essay texts. That the page numbers became virtually invisible in this layout is a nuisance.

Trading art materials in nineteenth-century Amsterdam: The Hafkenscheid collection

Ineke Pey and Ernst Homburg's *Een kabinet vol kleur: De collectie schildersmaterialen van de Amsterdamse verfhandelaar Michiel Hafkenscheid (1772–1846)* provides the first substantial study combining historical and chemical analysis of this well-preserved historical collection of 'unprepared paint materials and dyestuff in the broadest sense' (p. 11). The collection was compiled by the dealer in artists' materials Michiel Hafkenscheid (1772–1846), who kept it in a mahogany chest which perhaps predates its mostly nineteenth-century content. The immense value of this collection as reference material for technical examinations of historical paintings, polychrome objects, dyed textiles, papers, and tanned leathers is undisputed today and this study will therefore be of interest to many art professionals, not only in the Netherlands.

In contrast to the Rijksmuseum cabinet, an inventory has been preserved with the Hafkenscheid collection. Carefully calligraphed in black ink on quality paper in folio format, the list comprises material names and Arabic numbers that refer to 15 of the cabinet's 19 drawers with numbered compartments. Together with the preserved *materialia*, this inventory with the then current names provides an invaluable source of information for historical research on Dutch nomenclature for artists' materials. The lost content of two drawers is described in a second inventory, indicating that the family apparently also kept personal belongings in the chest. The handwritten inventory of the preserved content is reproduced in an appendix and complemented by a transcription in print. The entire collection is preserved in its original housing at Teylers Museum in Haarlem.

The Hafkenscheid collection attracted an academic interest already in its early history. Purchased by the Dutch State at the end of the 1920s, the cabinet with its well-preserved collection was moved to the Delft Institute of Technology (today Technical University Delft), where parts of its content was examined for a study of historical paintings with methods from the natural sciences. Martin de Wild's (1899–1969) analyses of paint samples with microscopy, X-radiography and UV radiation resulted into an important dissertation published in The Hague in 1928.[3] De Wild came to embody a new form of combined expertise as a well-trained restorer with a PhD in chemistry.

A similar combination of multi-disciplinary talents lies also at the core of this publication about the Hafkenscheid collection, co-authored by an art historian (Pey) who also trained as a chemical analyst, and an Emeritus Professor of History of Science and Technology at the University of Maastricht (Homburg), who studied chemistry. The book is the result of

3 Martin de Wild, Het natuurwetenschappelijke onderzoek van schilderijen (The Hague 1928).

roughly three decades of research – Pey's first article on this collection appeared already in 1987.[4] To a certain extent, Pey and Homburg's comprehensive analysis is a continuation of De Wild's earlier work with current scientific methods and tools. Their findings show that most of the collection has been compiled in the first decades of the nineteenth century (c. 1800–1832), while the oldest sample most likely dates from the eighteenth century. The latter has been identified as an organic green substance deriving from the *Rhamnus* plant. In the inventory the sample is listed as *sap green* (Dutch: *sapgroen*). This name appears already in medieval records for a green extracted from buckthorn berries, a common variety in most of Europe with fruits that were used as a purgative drug and for colour making. The nomenclature for this colorant changed significantly in modern times: *Sap green* used to refer to a painters' colour made from vegetal juices. Later, in the nineteenth century, *sap green* becomes a colour name that simply indicates a specific shade or hue of green; the name can now refer to a pigment or paint made from vegetal or mineral as well as synthetic colorants. This case is exemplary for many historical colour names that originally referred to the substances the colours were made of or to processes with which dyes and pigments were produced. Pey and Homburg's glossary entry is informative, but it also contains shortcomings that are worth pointing out. *Sap green* could not only refer to a pigment, but also to the plant juices that were used for making green lake pigments. Vegetal green paints were also known in the European vernaculars as *vert de vessie* and *bladder green*, referring to the way the colorants were stored for use in animal bladders, as described in Boltz von Ruffach's *Illuminierbuch* (1549). That the nomenclature for sap green was 'simple' up to the nineteenth century, as the authors state, is simply not true, as the many explanatory entries relating to *sap green* in current scholarship and authoritative colour/pigment glossaries show.[5] Relevant literature of a more recent date is missing in more glossary entries and I recommend to complement its information with more recent literature.[6]

The question arises what the added value is of this Dutch glossary in light of the current abundance of scholarly publications on (historical) pigments, natural dyes and colorants, and given that the authors refer in many entries to an English standard work from 1966.[7] Without doubt, though, Pey and Homburg's extensive analysis of historical pigments and the related glossary provides a welcome addition for Dutch readers to English standard works used in technical art history, conservation and restoration. It is a helpful resource on historical pigments, dyestuff and other artist's materials (still) in use in the early nineteenth century with explanations and technical terminology in Dutch. Moreover, many entries do reference recent scientific studies conducted in the Netherlands, thus providing the reader with numerous examples of paint analyses from Dutch collections. The entry on

4 Ineke Pey, 'The Hafkenscheid Collection. A collection of pigments and painting materials dating from the first half of the 19th century', *Maltechnik Restauro* 93 (1987) 23–33.

5 Cf. Nicholas Eastaugh (ed.), *Pigment compendium: A dictionary and optical microscopy of historical pigments* (Amsterdam 2008); Jo Kirby, Susie Nash and Joanna Louise Cannon (eds.), *Trade in artists' materials: Markets and commerce in Europe to 1700* (London 2010) glossary 445–459 and Erma Hermens and Arie Wallert, 'The Pekstok Papers: Lake pigments, prisons and paintmills', in: Erma Hermens et al. (eds.), *Looking through paintings* (London 1998) 283–285.

6 E.g. Lara Broecke, Cennino Cennini's Il Libro Dell'Arte: A new English language translation and commentary and Italian transcription (London 2015).

7 E.g. Dominique Cardon, *Le monde des teintures naturelles* (new ed. Paris 2014) and Jo Kirby, Martin van Bommel, and André Verhecken (eds.), *Natural colorants for dyeing and lake pigments. Practical recipes and their historical sources* (London 2014).

ultramarine for example cites an analysis of Abraham Bloemaert's (1566–1651) *Adoration of the three kings*, today in the collections of the Centraal Museum Utrecht. Bloemaert's oil painting is a beautiful example of the economic use of this most precious pigment that was only applied as a thin top layer on Mary's blue mantle while a ground layer was painted with a less expensive blue pigment, indigo in this case.

Note that the glossary entries do not only comprise new technical and chemical information of all analysed samples, but that the authors also carefully composed them as readable mini-essays with a general introduction to materials, historical information on chemical identifications, use histories, and further references to primary and secondary literature. It is this kind of added information that makes this thorough study of the Hafkenscheid collection also attractive for a broader audience with an interest in cultural history, material culture studies, historical technologies and linguistics. The discussions of changes in historical nomenclature are especially valuable, like the post-1850 classification of resins and gums according to water-solubility. It is surprising, then, that the reader also finds frequent complaints about the unbearable 'inconsistencies' of terminology in historical sources. Pre-1800 nomenclature is more than once criticized for its unreliable obscurity, and in the worst case assessed as 'utterly confusing and inconsequent' (p. 178). For a historian of (pre-modern) historical recipe literature, this sounds like someone reading poetry and lamenting the ambivalences and multi-layered meanings of words. Of course, historical names and materials can be confusing *to us today* but this is rather a sign of our limited understanding of pre-modern taxonomies and should not be judged or dismissed by twenty-first century standards. Fortunately, these glitches are balanced out by the wealth of historical information that the authors have gathered from contemporary and secondary sources to illuminate 370 historical samples, which are now made accessible for lays and professionals. This neat hard copy edition in square format with many colourful illustrations will appeal to many *liefhebbers* of polychromed works, inviting a non-linear reading according to one's own interest in colour history and art materials.