The Meaning of *Flora*

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The term *Flora* usually refers to the natural vegetation of a particular geographic region or a scientific work that catalogues such vegetation. These meanings have evolved from a metonymy of the Roman goddess Flora. It was previously assumed that this metonymic use began in the seventeenth century and was initially limited to book titles. However, the present article challenges these assumptions and demonstrates that the metonymic use of Flora was employed much earlier, and not in book titles, but in poetry and letters.

According to the *Oxford English Dictionary* [henceforth *OED*], in modern times the term *Flora*¹ often denotes “a descriptive catalogue of the plants of any geographical area, geological period, etc.” or “the plants or plant life of any particular region or epoch”, that is either a certain type of scientific literature or the content of such a scientific work.² The term is, of course, derived from the Roman goddess Flora, but its use in the aforementioned sense is likely a neologism of sense coined in the early modern period.³

In this article, I firstly give an overview of how the term was used in the seventeenth century and how it got the meanings it has today. Secondly, I discuss three texts – two letters and a liminary poem – from the end of the sixteenth and the beginning of the seventeenth century, which seem to have been largely overlooked for the historical etymology of *Flora*, but challenge the current state of research.

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² I have capitalised the term throughout this article in order to highlight the fact that it is a metonymy and acquired the more technical meaning only gradually, as I show in the following.

³ All citations of the *OED* refer to its online edition, available at www.oed.com.

³ One can speak of a neologism of sense if a new meaning is assigned to a pre-existing word.

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1. Different Meanings of Flora

As authoritative works of reference, such as the OED, the Etymologisches Wörterbuch der deutschen Sprache, and the Historisches Wörterbuch der Biologie show, it is commonly assumed that the modern meanings of Flora developed during the seventeenth century. Giovanni Battista Ferrari (1584-1655) is identified as the first to use the term Flora as a metonymic title for his work Flora seu De florum cultura libri quattuor. The Flora was first published in Rome in 1633 and deals with horticulture and the cultivation of ornamental plants and not with natural vegetation or medicinal plants. To name a work of literature after an ancient deity, hero, or historical person under whose field of expertise the topic falls was common in the early modern period, as similar titles such as Giovanni Pontano’s Urania sive De stellis (printed together with other poems by Aldus Manutius in Venice in 1505 [USTC 850308]), Conrad Gessner’s Mithridates. De differentiis linguarum tum veterum tum quae hodie apud diversas nationes in toto orbe terrarum in usu sunt (Tiguri, 1555 [USTC 305141, 676278]), or Daniel Souter’s Palamedes sive De tabula lusoria, alea et variis ludis (Lugduni Batavorum, 1622 [USTC 1035232]) prove. The most striking parallel is, of course, Atlas, whose name similarly became a term for a certain kind of scientific work though not — as in the case of Flora — for the content of such works.

Battista’s work became somewhat popular and was reprinted several times, in addition to being translated into Italian in 1638. Moreover, it

4 OED: “The earliest known example [i.e., of a descriptive catalogue of plants] is Simon Pauli’s Flora Danica 1647 [sic].” E. Seebold, Kluge. Etymologisches Wörterbuch der deutschen Sprache (Berlin – Boston, MA, 2011), 305; G. Toepfer, Historisches Wörterbuch der Biologie. Geschichte und Theorie der biologischen Grundbegriffe. Band 1: Analogie – Ganzheit (Stuttgart – Weimar, 2011), 237. Under the heading “First Known Use of flora”, the Merriam-Webster.com Dictionary even states: “1777, in the meaning defined at sense 1 [i.e., treatise on or list of the plants of an area or period].” See also the references cited in the following notes (especially in n. 8 and 15).

5 E.g., J. Lange, V. Møller-Christensen (ed.), Simon Pauli Flora Danica. Det er: Dansk urtebog, 1648. Udgivet med indledning og kommentarer, vol. 1 (Roskilde og Bagger, 1971), 37-38; H. Knudsen, Fortællingen om Flora Danica (København, 2014), 9. K. Wein, “Die Wandlungen im Sinne des Wortes ‘Flora’”, Fedde. Repertorium specierum novarum regni vegetabilis. Beihefte 66 (1932), 74-87, at 76, and Toepfer 2011 (as in n. 4), 237, cite some earlier instances, but also state that Flora as metonymy is attested first (and exclusively) in the context of gardening at the beginning of the seventeenth century.

6 See, e.g., Wein 1932 (as in n. 5), 76-77; S. Anagnostou, “The International Transfer of Medicinal Drugs by the Society of Jesus (Sixteenth to Eighteenth Centuries) and Connections with the Work of Carolus Clusius”, in F. Egmond, P. Hofijzer, R.P.W. Visser...
inspired similar works such as John Rea’s (died 1681) *Flora seu De florum cultura, or A complete florilege* that was published for the first time in London in 1665. Its frontispiece bears the second title *Flora, Ceres et Pomona* and features these three goddesses with their respective attributes. Flora is depicted as sitting on a higher level in the middle while the other two goddesses stand beneath her on either side, which could indicate the status attributed to them by John Rea.\(^7\) In his letter to the reader, he informs his audience that the work comprises three books, each bearing the title of one of these goddesses. The book titled *Flora* is the first book and not only covers flowers but also some fruits, though the aesthetic value of these plants is highlighted (“choicest plants” [sig. bv]). Works such as those of Ferrari and Rea thus have a slightly different content when compared to a *Flora* in the modern sense because they do not deal with the natural vegetation but with artful horticulture and the cultivation of ornamental plants.

According to the *OED*, Simon Paulli’s *Flora Danica* from 1648 is the first work to use *Flora* in the modern sense of “a descriptive catalogue of the plants of any geographical area, geological period, etc.”\(^8\) This work contains descriptions of medicinal plants growing in Denmark.\(^9\) The main body of text is written in Danish throughout (with Latin synonyms of the plants) as it was meant to serve common people who could not afford to

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\(^7\) See A.B. Shteir, “Iconographies of Flora. The Goddess of Flowers in the Cultural History of Botany”, in Ead., B. Lightman (ed.), *Figuring it Out. Science, Gender, and Visual Culture* (Hanover, NH, 2006), 3-27, for a more detailed discussion of the goddess Flora in frontispieces in general, and 14-15, for this frontispiece in particular. She argues, however, that the pictorial form of Flora featuring on frontispieces precedes the term *Flora* and that the depiction paved the way for the technical term (6 and 14). While there are certainly connections between the iconography and the metonymic use of *Flora*, the claim is unlikely to be supported as there is, for instance, no depiction of the goddess in Ferrari’s work and there are earlier attestations of the term as a metonymy without a depiction of the goddess, as is shown in this article.

\(^8\) See quotation in n. 4. Cf. also, e.g., Wein 1932 (as in n. 5), 79, 81; H. Walravens, “Der Jesuit Michael Boym (1612-1659) und seine *Flora Sinensis*,” in I. Kästner, J. Kiefer et al. (ed.), *Erkunden, Sammeln, Notieren und Vermitteln. Wissenschaften im Gepäck von Handelsleuten, Diplomaten und Missionaren* (Aachen, 2014), 289-306, at 292 n. 8. Seebold 2011 (as in n. 4), 305, states: “*Flora* wird seit dem 17. Jh. in Titel von Pflanzenbeschreibungen verwendet, z.B. *Flora Danica* (1647) [sic] für eine Beschreibung der dänischen Pflanzenwelt. Daraus dann die appellativische Verwendung.”

\(^9\) However, the work also contains some introduced species. See Wein 1932 (as in n. 5), 79.
consult a doctor and buy expensive drugs.\textsuperscript{10} The goddess Flora is depicted on the frontispiece, which indicates that the title is meant to be a metonymy denoting the realm of the goddess, that is, flowers and plants in general.\textsuperscript{11} The name is not explained in this work, but it seems more likely – in contrast to the claim of the \textit{OED} – that the term instead refers to the vegetation of Denmark and that the meaning “descriptive catalogue of plants” is only second to this (a metonymy, in fact, of the second degree). The interpretation of \textit{Flora} in the sense of the natural vegetation of a geographical area is supported by a liminary poem to the \textit{Flora Danica} by Johann Lauremberg, where a “Balthica Flora” occurs.\textsuperscript{12} In the hexametrical poem, the goddess Fama ("rumour") corrects rumours about the countries of the North, especially Denmark. While she has described them as inhospitable in antiquity, Fama now has to confess that it was all a lie and Denmark is a rich, cultivated, and beautiful country. As the poem is quite long (39 verses), I only quote the verses relevant to the topic in question:

\begin{verbatim}
Non tot Thessaliae producit vallis odores  
nec tot parturiunt Zephyris mulcentibus herbas  
Idalii colles luci, quot Balthica Flora\textsuperscript{13}  
e loculate sinu turgentia germina prodit,  
dum gemmata novo vernant iuga despit, per quae  
Selandae glomerantur Oreades atque Napaeae  
estivas agitant choreas, queis Phoebus Apollo  
instillat medicas vires, ut grata salubri  
pharmaca sint succo et properantia fata retartent.
\end{verbatim}

No valley in Thessaly brings forth so many odours nor give the hills of a sacred grove in Cyprus birth to so many herbs gently touched by the Zephyrs, as the Baltic Flora brings forth swelling sprouts from her fertile bosom, while the heights flourish adorned with new turf, where the mountain nymphs of Zealand gather and nymphs of the valleys joyously dance, in which Phoebus Apollo instils healing powers, so that they are welcome remedies through their health-giving sap and delay the hastening fates.

\begin{footnotes}
\item[10] This aim was proposed by King Christian IV. Paulli took up this task but Christian died before the work was finished and it is thus dedicated to King Frederick III. See Knudsen 2014 (as in n. 5), 10.
\item[11] See Shteir 2006 (as in n. 7), 13-14.
\item[12] It is the first of three liminary poems, printed on sig. \textit{(r-)-(2r}.
\item[13] It is surely no coincidence that “Balthica Flora” appears right at the centre of the poem with 19 verses preceding it and 19 verses following it.
\end{footnotes}
Flora is a metonymy in this poem, but clearly used in the sense of the natural vegetation of a region. The “Balthica Flora” represents the plants of Denmark and is plainly distinguished from the vegetation of other such regions like Thessaly and Cyprus. Flora is portrayed as the goddess of spring together with her usual “entourage”, Zephyr and nymphs, but notably also Apollo, who is here presented as the god of health and medicine; a fitting combination for the scope of the work. If this interpretation is correct and if we can assume that Lauremberg had roughly the same conception of Flora as his friend Paulli, this proves that “catalogue of plants” is only a secondary meaning and that Flora in Paulli’s title is instead meant to represent the plants of this specific region, that is Denmark. In their edition of Paulli’s Flora Danica Lange and Møller-Christensen question that Paulli was even aware that he was using Flora in this allegedly new sense. They argue that Paulli might have been inspired by Ferrari’s work and that the meaning “vegetation of a certain region” was only established at a later time when the term became common for titles of books dealing with plants in a certain area. Although this connection cannot entirely be ruled out, Lauremberg’s poem seems to refute it.

The Flora Sinensis, written by the Polish Jesuit and missionary Michal Boym and published by the order’s convent in Vienna a few years later in 1656, could be characterised as a mixture of both kinds of Flora. In this small book, Boym describes about twenty kinds of plants and some animals, not only from China, but also from India. In this respect, it is comparable to the Flora Danica as it describes plants of a certain geographical area. Many of these plants are, however, cultivated in gardens; moreover, Boym speaks in his Proloquium Florae Sinensis lectori of the “hortus Sinensis”, that is, “the Chinese garden”, when referring to the scope of his work, and calls China “hortus meus”, “my garden”, in the dedicatory letter to Leopold I. Walravens therefore thinks that Boym could have been inspired by Ferrari’s Flora as Boym finished

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14 According to Ov. Fast. 5.195-212, Flora was a nymph who was raped and then wed by Zephyr, the god of the (mild) west wind. In addition, he made her the goddess of flowers (“arbitrium tu, dea, floris habe”, 5.212). Flora and this episode in particular are also common themes in art and depicted, e.g., in Sandro Botticelli’s famous painting Primavera.

15 See Lange, Møller-Christensen 1971 (as in n. 5), 37-38. Cf. also Wein 1932 (as in n. 5), 80; Knudsen 2014 (as in n. 5), 9.

16 More on this work in Walravens 2014 (as in n. 8), 289-306.

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his work in Rome, where Ferrari’s work had been published some years before.\textsuperscript{17} The goddess Flora appears as an “allegorical person” in one of the chronograms that accompany the work (sig. cv): “Flora dixit” (“Flora has spoken”).\textsuperscript{18}

In general, it can be observed that \textit{Flora} as a genre of scientific literature in its present form only emerged in the course of the seventeenth and the beginning of the eighteenth century – meaning, that only the natural vegetation is catalogued, but not species of cultivated plants. Therefore, many works of the seventeenth century do not yet distinguish between these two kinds of plants.\textsuperscript{19} The development of \textit{Flora} into a technical term with the two meanings it still has today is thus a gradual process that is completed in the eighteenth century.\textsuperscript{20} During this process, \textit{Flora} gradually replaced more traditional titles such as \textit{Historia plantarum} or \textit{Historia stirpium}. In this way, the metonymy and the connection to the Roman goddess fade.\textsuperscript{21} Such a use of metonymies or metaphors for abstract concepts is a common cause for lexical semantic change according to Andreas Blank’s typology.\textsuperscript{22} He also states that “it can happen that, with time, metaphors (or metonymies) lose their concrete sense and become opaque.”\textsuperscript{23} This seems partly to be the case

\textsuperscript{17} See ibid., 292.
\textsuperscript{18} Ibid. (“allegorische Person”).
\textsuperscript{19} An interesting example is Johann Sigismund Elsholtz, \textit{Flora Marchica sive Catalogus plantarum quae partim in hortis Electoralibus Marchiae Brandenburgiae primariis, Berolinensi, Aurangiburgico et Postamensi excoluntur; partim sua sponte passim proveniunt} (Berolini, 1663), as it is a catalogue of flowers growing in the gardens of the Margrave of Brandenburg as well as of the natural vegetation. A similar work was released by Caspar Commelin, \textit{Flora Malabria sive Horti Malabrici catalogus exhibens omnium eiusdem plantarum nomina, quae e variis, tum veteribus botanicis collegit et in ordinem alphabeticum digessit} (Lugduni Batavorum, 1696). See also Wein 1932 (as in n. 5), 80; A. Cooper, \textit{Inventing the Indigenous. Local Knowledge and Natural History in Early Modern Europe} (Cambridge, 2007), 53-54, 66; Toepfer 2011 (as in n. 4), 237. B.W. Ogilvie, \textit{The Science of Describing. Natural History in Renaissance Europe} (Chicago, IL – London, 2006), 46-47, highlights the differences between books on gardening (florilegia) and catalogues of the local vegetation that developed in the seventeenth century.
\textsuperscript{20} Eminent examples of \textit{Florae} that only comprise the natural vegetation of a region are Johannes Loesel, \textit{Flora Prussica sive Plantae in regno Prussiae sponte nascentes} (Regiomonti, 1703) and Carolus Linnaeus, \textit{Flora Suecica exhibens plantas per regnum Suecicae crescentes} (Stockholmiae, 1745). See also Wein 1932 (as in n. 5), 81-84.
\textsuperscript{21} See Shteir 2006 (as in n. 7), 14-19.
\textsuperscript{22} A. Blank, “Why Do New Meanings Occur? A Cognitive Typology of the Motivations for Lexical Semantic Change”, in Id., P. Koch (ed.), \textit{Historical Semantics and Cognition} (Berlin – New York, NY, 1999), 61-89, at 71-72.
\textsuperscript{23} Ibid., 72.
with *Flora*, where the meanings “natural vegetation of an area” and “catalogue of plants” have become much more common than its use as a name for the Roman goddess.

To sum up this section: the term *Flora* has at least two different metonymical meanings in the seventeenth century (these are not the same as the two modern meanings); *Flora* either serves as a metonymy for the beautiful flowers of an artificial garden, or for the natural vegetation of a certain region. Consequently, *Flora* features as a book title for works of both kinds, with the *Flora Sinensis*, for example, being arguably a mixture of both. Moreover, *Flora* gets the secondary meaning “catalogue of plants” both for those of the garden and of the natural vegetation at first, and, with time, only for those of the natural vegetation.

### 2. Earlier Instances of the Metonymic Use of *Flora*

With regard to book titles, it might be true that Ferrari’s work is the first to bear the title *Flora* in a metonymical sense. One could assume, however, that such a linguistic feature is more likely to appear in poetry and other texts first, which allow for some *licentia* and figurative language, rather than in a book title. These instances are considerably more difficult to find, given the fact that there is no comprehensive computer searchable corpus of Neo-Latin literature (even huge corpora like the *Corpus Corporum* or the EMLO database for early modern letters are far from complete) and many texts are not even digitised. Apart from text corpora and databases, liminary poems and other paratexts of botanical works can be a good starting point to look for

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24 At least my own search for earlier works titled *Flora* in this sense in several databases (VD 16, VD 17, USTC, Gallica, E-Rara) and online catalogues of (university) libraries (Oxford, Cambridge, Leuven, Heidelberg, Freiburg, Munich, Wolfenbüttel) did not lead to any other results. There is, however, a *Theatrum Florae* (Paris, 1622 [USTC 6002431]), that deals with the flowers of gardens in Paris. See, e.g., Wein 1932 (as in n. 5), 76, for this work. An even earlier work is a hexametrical eulogy by Hermann von dem Busche on the city of Cologne titled *In amplissimae clarissimaeque urbis Coloniae laudem Hermanni Buschii Pasiphili Sylva*, cui titulus *Flora*. It was printed for the first time with Quentel in Cologne in 1508 [USTC 661423]. The title *Flora* was, however, only applied to it because the poem was first presented on 1 May 1508 as the distiches preceding the actual poem state. It is therefore less relevant to the scope of this article. See J. Stohlmann, “Zum Lobe Kölns. Die Stadtansicht von 1531 und die *Flora* des Hermann von dem Busche”, *Jahrbuch des Kölnischen Geschichtsvereins* 51 (1980), 1-56, for a detailed discussion of this poem.

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earlier instances of the metonymical use of Flora, as the examples of Lauremberg’s poem and Boym’s chronogram have shown. Naturally, such a search cannot be exhaustive or complete, but it led, in this case, to three interesting texts.25

The first is a letter dated 28 June 1603 by the physician Henrik Høyer (ca. 1565-1615/16), who wrote to the famous Dutch botanist Charles de l’Écluse or Carolus Clusius (1526-1609) from Norway.26 At the end of

25 Apart from the texts discussed in this article, I have checked the following botanical works (in a broad sense) published before 1633: Caspar Bauhin, Ἀποθεραπεία ἰατρική quam medicae laureae causa Casparus Bauhimus Basiliensis Asclepiadei Basil. A.D. XIII. Kl. Māti subibit (Basileae, 1581 [USTC 550036]); Id., Φυτοτοξικά σεü Enumeratio plantarum ab herbariis nostro secula descriptarum (Basileae, 1596 [USTC 601157]); Id., Πρόδρομος theatri botanici (Francofurti ad Moenum, 1620 [USTC 2135791]); Id., Catalogus plantarum circa Basileam sponte nascentium (Basileae, 1622 [USTC 2045368]); Id., Ιλίνα theatri botanici (Basileae, 1623 [USTC 2045504]); Johann Bauhin, De plantis a dīvis sancitse nomen habentibus (Basileae, 1591 [USTC 601164]); Hieronymus Bock, New Kreüter buch (Straßburg, 1539 [USTC 677115]); Id., Kreüter Buch (Straßburg, 1546 [USTC 670199]); Id., De stirpium differentis (Argentorati, 1552 [USTC 662799]); Id., Verae atque ad vivum expressae imagines (Argentorati, 1553 [USTC 700563]); Otto Brunfels, Herbarum vivae eicones (Argentorati, 1530 [vol. 1; USTC 662093], 1532 [vol. 2; USTC 709319], 1536 [vol. 3; USTC 698653]); Id., De simplicibus medicinis opus (Argentorati, 1531 [USTC 665852]); Id., Ὀνοµαστικόν medicinae (Argentorati, 1534 [USTC 679561]); Andrea Cesalpino, De plantis (Florentiae, 1583 [USTC 821740]) [the personified Natura marvels at this work in the first liminary poem (sig. bv) by Christoforo Paganelli]; Carolus Clusius, Rariorum aliquot stirpium per Hispanias observatarum historia (Antwerpiae, 1576 [USTC 401699]); Id., Rariorum plantarum historia (Antwerpiae, 1601 [USTC 1003396]) [the second last liminary poem in the unpaginated paratexts by Johan van Hoghelande mentions Flora and Phoebus who will praise Clusius]; Id., Exoticorum libri decem (Lugduni Batavorum, 1605 [USTC 1011506]); Jacques Daléchamps, Historia generalis plantarum (Lugduni, 1586 [vol. 2; USTC 142347], 1587 [vol. 1; USTC 156645]); Leonhart Fuchs, De historia stirpium (Basileae, 1542 [USTC 602520]); Id., New Kreüterbuch (Basel, 1543 [USTC 602521]); Id., De stirpium historia commentariorum tomi (Basileae, 1549 [USTC 602523]); Id., Herbarum ac stirpium historia (Parisii, 1549 [USTC 203888]); Pietro Andrea Mattioli, Commentarii in sex libros Pedacii Dioscoridis Anazarbei de medica materia (Venetiis, 1554 [USTC 841564]); Id., Commentarii secundo aucti in libros sex Pedacii Dioscoridis Anazarbei de medicina materia (Venetiis, 1558 [USTC 841568]); Id., Opusculum de simplicium medicamentorum facultatibus secundum locos et genera (Venetiis, 1569 [USTC 841581]); Id., Compendium de plantis omnibus (Venetiis, 1571 [USTC 841584]); Jean Ruel, Pedacii Dioscuridis Anazarbei de medicinali materia libri quinque (Parisii, 1516 [USTC 144550]); Id., De natura stirpium (Parisii, 1536 [USTC 147052]); Id., P. Dioscuridae pharmacorum simplicium reiqueste medicae libri (Argentorati, 1529 [USTC 681876]).

26 See K. Lundquist, “Lilies to Norway and Cloudberry Jam to the Netherlands. On the Correspondence between Carolus Clusius and Henrik Høyer, 1597-1604”, in Egmond, Hoftijzer, Visser 2007 (as in n. 6), 145-169, for the correspondence in general, and 165-166, for this letter in particular. Lundquist does not address the issue of the meaning of Flora. A digitised version of the letter can be found in the Clusius Correspondence database (http://clusiuscorrespondence.huygens.knaw.nl/edition/entry/1001).
this letter, Høyer addresses Clusius as “Herbarum pater et Florae praeses clarissime” – “Father of herbs and Flora’s illustrious captain”.  

Høyer then goes on to complain that bulbs of precious flowers have been stolen from his garden. The meaning of Flora in this letter is not easy to define, but it is obviously used as a metonymy and could – in light of the context – mean not plant life in general but “flowers of the garden” more specifically. Clusius was a well-known expert in horticulture and inter alia established the imperial medical garden in Vienna and the Hortus academicus in Leiden. Hence, the courtesy titles “Herbarum pater” and “Florae praeses” could be suitable designations for him. In this case, Flora is a metonymy for garden flowers and – as a result – Ferrari is not the first to use Flora in this sense. This is not, however, to suggest that Ferrari was inspired by this letter, but the fact that the metonymy is not explained and used straight away by Høyer might indicate that such a metonymical use was more common before the publication of Ferrari’s work than is largely assumed. A letter written by Caspar Bauhin (1560-1624) to Ludwig Jungermann (1572-1653) dated 17 March 1616 probably supports this claim. At the beginning of this letter, Bauhin mentions that Jungermann wanted to write him about his Flora (“te de Flora tua ad me scripturum”). Again, it is not entirely clear what is meant by Flora, but Bauhin probably speaks about Jungermann’s garden. It is at least unlikely that Flora denotes Jungermann’s catalogue of plants around Altdorf because Bauhin refers to it in the following sentence as Catalogus Altorffianus: “Interim ego Catalogum tuum Altorffianum semel atque iterum perlegi.”

27 Lundquist 2007 (as in n. 26), 166.

28 See, e.g., Ogilvie 2006 (as in n. 19), 146, and E. van Gelder, Tussen hof en keizerkroon. Carolus Clusius en de ontwikkeling van de botanie aan Midden-Europese hoven (1573-1593) (Leiden, 2011), 29-98, for the imperial medical garden in Vienna; F. Egmond, The World of Carolus Clusius. Natural History in the Making, 1550-1610 (London, 2010), 157-159, for Clusius’ eminent role in the creation of the Hortus academicus in Leiden.

29 A similar German expression can be found in Martin Opitz’ Buch von der deutschen Poeterey (Breslau, 1624), cap. 3, where he refers to ancient authorities who have written didactic poems as “der Philosophie obristen”.

30 K. Wein, “Caspar Bauhin an Ludwig Jungermann. Ein Beitrag zur Geschichte der Botanik des 17. Jahrhunderts”, Sudhoffs Archiv für Geschichte der Medizin und der Naturwissenschaften 30.3 (1937), 152-166, for a transcription, translation, and discussion of this letter. Cf. also Id. 1932 (as in n. 5), 76.

31 Wein 1937 (as in n. 30), 165, translates it as “Blumengarten”.

32 See Cooper 2007 (as in n. 19), 62, on Ludwig Jungermann’s Catalogus plantarum, quae circa Altorffium Noricum et vicinis quibusdam locis (Altorfi, 1615 [USTC 2143520]).
An even more interesting and earlier example of the metonymical use of *Flora* can be found in a eulogy by Justus Lipsius (1547-1606) on Clusius. It is contained in the latter’s comprehensive work *Rariorum aliquot stirpium per Pannoniam et Austriam observatarum historia, quatuor libris expressa ad Rudolphum II Imperatorem* printed with Plantin in Antwerp in 1583 [USTC 401990, 414617, 414618], at f. 3r. As the title indicates, it discusses rare plant species in Hungary and Austria. The hendecasyllabic poem is as follows:

**JUSTI LIPSI DE HOC LIBRO EULOGIUM**

Qui solus veterem novamque Floram
et solus veterem novamque Hygeiam
pernovisti et ad intimos recessus
naturae penetrasti, amice Clusi,
qui, quod noster habet, quod alter orbis,
solus mente capis, stilo recludis,
quam nos Pannonici tui labores
iuvant! Pannonicas quibus per oras
herbarum agmina mille, mille florum
sedulus legis et legenda nobis,
nec legenda modo, sed et videnda,
istoc porrigis in brevi libello,
docto, Iupiter, et bono libello!
Quem qui non amat aestimatque lector,
non amat veterem novamque Floram,
non amat veterem novamque Hygeiam.

**JUSTUS LIPIUS’ EULOGY ON THIS BOOK**

You, my friend Clusius, are the only one, who knows thoroughly the old and the new Flora, and the old and the new Hygieia and has penetrated the innermost retreats of nature, who has grasped with his mind and disclosed with his pen what our part of the world and the new world possess, how happy make us your Pannonian toils!

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33 For the friendship between Lipsius and Clusius and their mutual love for flowers and gardening, see J. De Landtsheer, “Justus Lipsius and Carolus Clusius. A Flourishing Friendship”, in M. Laureys (ed.), *The World of Justus Lipsius. A Contribution towards his Intellectual Biography* (Bruxelles – Rome, 1998), 273-295. She discusses a number of the letters exchanged between Lipsius and Clusius, but not this liminary poem.

34 This is probably meant ironically as the work comprises, in fact, some 800 octavo pages. It became, however, common to refer to a catalogue of the local vegetation in the diminutive. See Cooper 2007 (as in n. 19), 73.
Through which you have industriously collected herbs by the thousands and thousands of flowers roaming from border to border of Pannonia and hold them to us to read in this short little book, a learned, by Jove, and a good book, but not only to read, but also to see. The reader who does not love and value it, does not love the old and the new Flora, does not love the old and the new Hygieia.

The poem features a ring composition as the “vetus novaque Flora” and the “vetus novaque Hygieia” appear in the two first and the two last verses. It becomes clear from the rest of the text that the “vetus Flora” denotes the plants of the Old World, meaning Europe, and the “nova Flora” those of the New World, meaning the Indies, both of the Far East and America (“noster” and “alter orbis” in v. 5). Clusius is an expert on the plants in both worlds, as Lipsius claims. He is likely alluding to Clusius’ expert knowledge of exotic plant species, which was made public in several works during his lifetime. Contrary to Clusius’ achievements in the botany of Europe, his knowledge of plant species from other parts of the world is not so much based on personal experience, but rather on translating works of other scholars into Latin, visits to (botanical) gardens, and studies of (plant) material sent to him by colleagues from overseas.

In Lipsius’ poem, Flora is clearly used as a metonymy for the vegetation of two – in this case, huge – geographical areas; otherwise, the adjectives “vetus” and “nova” would not make sense. Thus, Flora seems to be even less conceptualised as a specific goddess than is the case in Ferrari’s Flora, for instance, because there is not a single person but a “vetus” and a “nova Flora”. As Lipsius furthermore does not explain the metonymy, this could hint at the fact that this metonymical use of Flora was already established by this time and not only introduced in the seventeenth century. The separate consideration of vegetation in different geographical areas is also reflected in the emergence of numerous catalogues of the local vegetation especially in the seventeenth and eighteenth century, although, of course, on a much smaller geographical scale.\textsuperscript{35} Clusius himself was especially interested in the habitat of a plant species, and usually noted it down.\textsuperscript{36}

\textsuperscript{35} Cooper 2007 (as in n. 19), \textit{passim} and at 51-86, on such “local floras” – as she names them – in particular.
\textsuperscript{36} Ogilvie 2006 (as in n. 19), 148-149; Cooper 2007 (as in n. 19), 81 with n. 95.
Moreover, it is important to note that Lipsius closely links Flora to Hygieia, the goddess of health and the daughter of the god Asclepius. In this respect, the concept of *Flora* in Lipsius’ poem corresponds to Paulli’s and Lauremberg’s concept in the *Flora Danica*. Interestingly, unlike in many of his other books, Clusius does not treat medicinal properties of plants in this work. But there was, of course, a close connection between botany and medicine throughout history, and Clusius too was interested in plants as *materia medica* and translated, for example, medical works from Spanish into Latin.

3. Conclusion

It has been shown that the term *Flora* had different metonymical meanings in the sixteenth and seventeenth century that were in use simultaneously. *Flora* could *inter alia* represent the cultivated flowers of the garden and the plant life of a certain geographical area. Moreover, *Flora* could – probably as a secondary meaning – refer to a catalogue containing either the plants of a garden or the natural vegetation of an area, and at times also a mixture of both. While it is largely assumed that *Flora* as a metonymy is first used in a book title, namely in Giovanni Battista Ferrari’s work on horticulture, and that Simon Paulli in his *Flora Danica*, inspired by Ferrari’s work, introduced the modern meaning of a catalogue of plants of a certain area, it seems that actually neither of these is true.

Clusius is addressed as “praeses Florae” by Høyer; this could already imply that the meaning “cultivated flowers of the garden” predates Ferrari’s work by some thirty years and is, furthermore, not first attested in a book title. Bauhin’s letter probably supports this. Simon Paulli’s *Flora Danica* seems to refer to the natural vegetation of Denmark rather than to a catalogue of this vegetation as Lauremberg’s poem also demonstrates. Paulli is, however, not the first to refer to the plants of a certain region with the word *Flora* as a similar metonymy can already be found in Lipsius’ poem. Additionally, the connection to the Roman goddess is somewhat flimsy in this poem, as there are several such “god-

37 Ogilvie 2006 (as in n. 19), 44.
38 For Clusius’ medical works and their connection to the activities of the Jesuits see, e.g., Anagnostou 2007 (as in n. 6). Of course, the gardens in Vienna and in Leiden (the latter to a lesser extent) were also used as medical gardens. See the references in n. 26.

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desses” in the various regions of the world. Therefore, it would not be surprising if there were even texts predating the ones presented here that already employ a metonymic use. Given the fact that poetry in particular is prone to figurative language, it is no wonder that the metonymical use of *Flora* probably originated there.

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