



Plants, Pictures, and People

Andrew Griebeler, *Botanical Icons: Critical Practices of Illustration in the Premodern Mediterranean*, Chicago: University of Chicago Press, 2024, ISBN: 9780226826790, 344 pp.

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The book *Botanical Icons* places premodern botanical illustrations from the Mediterranean region—one of the earth’s biodiversity hotspots in the present era (Medail and Quezel 1997; Comes 2004; Kougiumoutzis et al. 2024)—in scientific, cultural, and intellectual context. Pursued for both knowledge and delectation, the craft of botanical illustration in the ancient, medieval, and early modern Mediterranean requires meticulous and rigorous scientific and historical analysis. The book therefore emphasizes the links between the evolution of botanical icons and developments in cultures around the Mediterranean Sea. It also celebrates the illustrated botanical tradition with a selection of a millennium’s worth of outstanding works, from Byzantine manuscripts through to 19th-century editions.

Richly illustrated with ninety-six color plates, the book covers the history of botanical representation from many angles. Illustration, after all, was an important way (along with plant names and descriptions) for people to convey plant knowledge visually ever since late antiquity. Griebeler analyzes interactions between texts and illustrations using selected manuscripts, and demonstrates the advantages of exploring the “visual knowledge” of plants through an interdisciplinary approach. The botanical icons have their own tales to tell.

The first chapter, entitled “Rulers and Root-Cutters” discusses the relationship between the medical value of botany and political power. In the pre-printing era, herbal manuscripts represented a chain across generations, centuries, and cultures, constituting an enduring witness to botanical knowledge. The ancestors of medieval herbals, commonplace throughout Europe, were ancient Greek manuscripts recopied countless times (Touwaide 2009). Ancient herbals portraying practical botany, pharmacopoeia and medicine were originally crucial tools of root cutters or rhizotomoi

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(ρίζοτόμοι),¹ Griebeler mentions several sources, which cast light on some of the murkier and cryptic aspects of rhizotomia (ρίζοτομία, i.e., cutting roots) in this chapter, among them Sophocles (5th century BCE),² Theophrastus (4th century BCE), Diocles of Carystos (c. 300 BCE), Crateuas (100–60 BCE),³ Dioscorides (40–90 CE), and Pliny the Elder (23–79 CE). Focusing on the interest and the (probable) circulation of illustrated herbals across particular levels of Roman society, this chapter features five illustrations from the famous Vindobonensis Med. Gr. 1 illustrated codex, known as “Περὶ ὕλης ἰατρικῆς” or *De materia medica* (written in Greek and preserved in the National Library of Austria in Vienna). Numerous reproductions (copies) of Vindobonensis Med. Gr. 1, the oldest surviving copied manuscript of a lost original Dioscorides text, once spread the knowledge of medicinal plants far and wide through its frequent recopying. Thus, through the pharmaceutical activity of root-cutters, Greek expertise and illustrated works like Vindobonensis Med. Gr. 1 reached Pliny and influenced the long-term advancement of western plant lore.

The second chapter starts with a discussion of the Roman Gaius Plinius Secundus or Pliny the Elder, particularly his herbal *Natularis Historia*. It is now widely known that this work (comprising thirty-seven volumes) was, by Pliny’s own admission, a compilation that drew substantially from earlier Greek and Roman authors (Nauert 1979; Rydberg-Cox 2021; French and Greenaway 2024). Griebeler reassesses Pliny’s treatment of the descriptions, depictions, and names of plants. However, many plants had no names, especially uncommon plants and plants without known uses—as one might expect, given that people were unlikely to care about plants that they did not know. Probably, the ideal way to learn about plants was through first-hand and repeated observation (*autopsia*, αὐτοψία), as a root-cutter might experience.⁴ Over 2000 years ago Theophrastus mentioned that people named the plants according to the properties attributed to them (Rhizopoulou 2004; Negbi 2010; Caston 2019). In line with this, Griebeler suggests that ancient herbals constructed a system of reference, linking plant names and medicinal properties with identifiable plant species.

This chapter also discusses the library of Mithridates of Pontus (120–63 BCE),⁵ a Persian king notorious both for his effective opposition to Rome and his interest in poisons, a collection that included not only treatises but also *exemplaria* cataloging plant samples and properties, paired with effects (*effectus*), and visual proofs or representations, *pinakes* and *sanides* (πίνακες and σάνιδες: painted wooden surfaces). A motivation for Mithridates’ plant collection was plant rarity; for example, the cultivation of several medicinal Mediterranean plants in his southern Black Sea

¹ In this review, Greek and transliterated words are presented.

² Fragment “κίσται ῥιζῶν κρόπτοουσι τομάς” quotes practices associated with root-cutting. See http://www.poesialatina.it/_ns/greek/testi/Sophocles/Fragmenta.html.

³ Several fragments attributed to Crateuas (Κρατεῦσος) are included in the manuscript Vindobonensis Med. Gr. 1.

⁴ That is, seeing with one’s own eyes, personal examination.

⁵ Mithridates VI Eupator is said to have lived in fear of being poisoned, and not only tested poisonous substances on criminals and slaves, but also regularly ingested poisons and their antidotes himself (known as Mithridatism). These included Mithridatium and Theriac, containing approximately 50 and 70 ingredients, respectively (Totelin 2004).

kingdom would have been impossible, given the climatic conditions of that region. Mithridates' *exemplaria* probably included samples of drugs and dried plant specimens to aid in their further acquisition. In this context, Griebeler argues that botanical icons replicated a part of the *exemplaria* and secured association between a plant name and (its) medicinal properties. Thus, herbal illustrations may have emerged as exemplars within a text and in connection to practices of gathering herbs and antidotes.

In the third chapter Griebeler explores the pictorial conventions, didactic quality, and botanical abstraction of premodern botanical illustrations, framing them as icons resembling the corresponding living plants. The guiding concept is that a botanical illustration was (and is) a representation of a plant that, first and foremost, distinguishes it from other plants. Griebeler provides interesting information about different pictorial approaches, linked either to a plant's temporality (e.g., illustrating seasonal floral traits) or permanent traits (e.g., illustrating long-lived plant tissues such as roots). Citing examples from Dioscorides that impart information about plants beyond their appearance (e.g., habitat, substrate), Griebeler argues that ancient botanical illustrations may be seen as aspiring to the portrayal of causes and principles of botanical life, and probably also to other philosophical or practical discourses within the ancient botanical tradition. For example, an illustration not depicting flowers might be designed to indicate the ideal phenophase of plant harvesting for medicinal use.

The fourth chapter concerns Dioscorides' work entitled "Περὶ ὕλης ἰατρικῆς," better known by the Latin title *De materia medica*. The oldest known manuscript is a copy dated in mid-6th century CE. This illustrated codex was found in Constantinople by Ogier Ghislain de Busbecq (Sarton 1942; Weber 1953),⁶ in the mid-16th century. It has since been preserved in the National Library of Austria in Vienna (Janick and Hummer 2012), classified as Vindobonensis Medicus Graecus 1 (Vindobonensis Med. Gr. 1);⁷ this codex is also cited in literature by other names, such as Constantinopolitanus Codex, Vienna Dioscorides, Wiener Dioskurides, Byzantinus Codex, Juliana Anicia Codex,⁸ or Anicia Juliana Codex.⁹ It is noteworthy that on the folio 6v of the Vienna Dioscorides, the personification of the princess Anicia Juliana was illustrated as associated with moral principles, i.e., "σοφίαν" (wisdom), "φρόνησις" (prudence), "μεγαλοψυχίαν" (magnanimity), and "πόθος τῆς σοφίας" (desire for wisdom).

The original untitled (archetype) text of Dioscorides, arranged in five books according to drug action, does not exist today. Plant descriptions derived from Dioscorides' work, copied repeatedly and preserved in manuscripts, codices and herbals, had mainly been placed in alphabetical order. One of these treatises is the early-7th century Greek manuscript known as the Naples Dioscorides (preserved in

⁶ Ambassador of the Emperor Ferdinand I to the Ottoman court of Süleyman.

⁷ Vindobona: old name for Vienna.

⁸ See the following: <https://www.unesco.at/en/communication/documentary-heritage/memory-of-the-world-in-austria/vienna-dioscurides-manuscript>.

⁹ It has been suggested that Juliana received the Vienna Dioscorides in gratitude for her having acted as an imperial donor for the construction of a church (Kiilerich 2001).

the National Library of Naples in Italy and classified as Codex Neapolitanus Ms. Ex Vindob. Gr. 1). In the Naples Dioscorides the supposedly related plant kinds (currently taxa and species) had been illustrated side by side on the same folio. Griebeler explores the expansion of the “original” text in manuscripts, where varying additions, disjunctions, innovations, and diverse illustrating styles have all been identified. These variations indicate a diversity of traditions that took up plant lore, embedding it in divergent cultural connections. Also, in this chapter a 9th-century Greek parchment codex (preserved in the National Library of France in Paris and classified as Parisinus MS. Gr. 2179) is mentioned. This so-called Old Paris Dioscorides is the earliest surviving illustrated manuscript containing plants arranged according to drug action; the illustrations in this manuscript seem streamlined and elegant, as detail extraneous to its medical purpose had been removed. In the discussion of this Dioscorides’ text, which served as a conduit for the dissemination of botanical knowledge, Griebeler provides extraordinary information about the cross-cultural circulation of visual knowledge about plants derived from medieval manuscripts.

The fifth chapter deals with the continuation of the botanical tradition from late antiquity into the Middle Ages. Illustrated manuscripts adapted to medieval circumstances, becoming part of a long-term record and tradition in Europe. Griebeler provides evidence for the separation of text and icons in distinct folios, as well as medieval botanical atlases that probably conveyed visual knowledge. The main reason for describing and illustrating plants in the Middle Ages was related to preserving knowledge about their valued medicinal properties (Leonti 2011), but scholars of the periodists also made corrections and innovations. Furthermore, monastic gardens in medieval Mediterranean cloisters represented a (new) way to manage the transmission of botanical, medical knowledge that coincided with powerful repertoires of symbolism, reflecting cultural, moral and social conditions (Rhizopoulou 2014; Kyle 2023).

In the early Middle Ages, Dioscorides’ text was translated, as a whole or in parts, into Latin and thus made available to the Western medieval world (Hoffman 2012). The endeavor of copying and translating Dioscorides’ text also flourished in Islamic science centers (Yildirim 2013). The significance of translations and the role of compilers have been discussed in works on cultural history, philosophy, and science (Touwaide 2014; Mavroudi 2015). For Griebeler the botanical tradition (including botanical illustration) conserved and transmitted in medieval manuscripts offers a window to understand transitions and transformations around courtly patronage and medical practices in the Mediterranean region.

The sixth chapter deals with the medieval copying and distribution practices that can be adduced by attention to the many manuscripts and illustrated codices derived from Dioscorides and preserved in European libraries (Touwaide 2016; Marchetti 2018). Particularly revealing are the different ways in which Dioscorides’ text has been formatted in surviving copied manuscripts, because a copying procedure may lead to either loss or addition of information. Botanical illustrations also demonstrate interest in the visual as a way of knowing. According to Griebeler, the act of modifying earlier pictures and/or the replacement of an illustration with another indicates critical engagement with the visual content of a manuscript. In the folios of

various manuscripts, a relatively similar mode of word-image relationships, which first appeared in Alphabetical codices, was maintained and transmitted. In scriptoria, located in medieval monasteries, full-page illustrations were painted on large parchment folios by skilled manuscript illuminators specialized in copying practices and particular techniques (Petrucelli 1994; Lardos 2006; Stones 2014; Thomas 2019). Anonymous copyists and painters, pigments used for illustrations, and the organization of copying practices could have all potentially contributed to the value of a copied manuscript.

The seventh chapter explores *ex novo* or original and novel plant illustrations, mostly generated in reaction to perceived gaps of knowledge within the manuscript tradition. The focus is on four medieval manuscripts containing such *ex novo* botanical illustrations. Among them, a Greek illuminated manuscript of the 10th century, described as Morgan Dioscorides,¹⁰ contains the earliest surviving version of Dioscorides, combining an alphabetical codex and versions of the original Dioscorides text (i.e., plants arranged according to drug action). Griebeler argues that the Morgan Dioscorides' emphasis on illustrations showing distinguishing features, such as fruits at different stages of maturation, might also indicate philosophical and medicinal purposes. The depicted multiple stages of a plant's life cycle, e.g., flowering and fruiting, could also be linked to an artist's experience with living plants and trees.

Griebeler also introduces us to the illustrated manuscript *Tractatus de Herbis*, produced in northern Italy c. 1440, based on an earlier, unillustrated herbal known as *Circa instans*. A manuscript known as Egerton MS 74 7 in the British Library may be the earliest copy of *Tractatus de Herbis*, which has been attributed to 13th century copyist Bartholomeus Mini de Senis (his signature is preserved on a folio of the treatise). The size and the colors of the botanical illustrations in Egerton MS 747, which contains a compilation of texts including the above mentioned *Tractatus de Herbis* (folios 1–106), do vary significantly. Multiple pictorial sources of plants (*ex novo*, *ex situ*, *in situ*, and illustrating traits and timing of flowering and fruiting) confirm that differently illustrated version of certain manuscripts were in circulation in Europe during the later Middle Ages. It seems therefore possible that some illustrations were based on plants as encountered *ad vivum* in a market, in a garden and/or a habitat.

According to Griebeler, the study of Arabic, Byzantine and Latin medieval illustrated botanical manuscripts presents similar interests, methodological tools and techniques not only because of a common inheritance of the ancient botanical tradition, but also because they were frequently in dialogue with each other, a point that to me seems very interesting and worth further investigation.

The eighth chapter explores how plant drawings have changed over time. Here Griebeler follows botanical illustrations through a fascinating journey across manuscripts. For example, artists sometimes created marginal plant sketches, outside or inside certain boundaries of a folio, to accompany texts as they were copied. This compositional technique, indicating important changes in manuscript production, is visible in the illustrated herbal *Herbarius* (c. 1445) made for the Venetian physician

¹⁰ MS M. 652. The Morgan Library and Museum, New York City, New York.

Nicolò Roccabonella, and now preserved in Biblioteca Marciana in Venice (Camille 1992; Pardo-Tomás 2025). While much current scholarship about plant representation emphasizes empiricism and exploration rather than the elucidation of classical ideas about nature, Griebeler emphasizes how the early modern scholars continued to consult medieval treatises and botanical icons (εἰκόνες). However, by the 18th century, painters, draughtsmen, collectors, and botanists adopted a combination of features related to multiple life-cycle stages of plants, privileging an *ad vivum* view and approach (Mulholland 2019; Rhizopoulou and Pouris 2024). The advance of typography also heralded new, more accurate and detailed depiction of plants. Thus, this chapter ends with a reference to the magnificent, illustrated *Flora Graeca Sibthorpiana* (1806–1840) as the direct descendant of the *De materia medica* of Dioscorides (Arber 1986; Harris 2007; Lack 2019; Chimona et al. 2022). It is noteworthy that the Greek names of plants were among Sibthorp's constant preoccupations during his 18th-century botanical expedition in the Eastern Mediterranean, predating as it was the establishment of the Linnaean, Latin binomial classification, and most of them were (and still are in Greece) unaltered from the names recorded by Dioscorides.

Although on the whole I found the book valuable, as a plant biologist I feel obliged to comment further on the topic of plant names. For example, *Rosa canina* (dog rose) is erroneously written in Figure 8.6 (p. 209) as *rosa canina* (rockrose); in fact, the vernacular name rockrose corresponds to wild species of the genus *Cistus*. It is noteworthy that the tree name *karya pontica* (Figure 7.6, p. 172) is a transliterated form of the Greek plant name “κάρυα Ποντική” recorded in Dioscorides' text;¹¹ it is currently known with the vernacular name hazel and the scientific name *Corylus avellana*, and the ancient name indicated both a trait (i.e., *karya* [κάρυα], a word for nuts with hard pericarp) and a geographical locality (i.e., *pontica* [Ποντική] from the region of Pontos).¹² Plant names can be sources of curious information related to locality, habitat, usage and certain plant traits; in this context, plant names convey aspects of cultural botany. Plants referenced in medieval manuscripts were mostly transliterated by ancient Greek vernacular names and matching these names with either modern vernacular or proper scientific names is a demanding project (Raven 1990; Cristofolini and Mossetti 1998; Beck 2005; Rhizopoulou 2008; Harris 2010).

Botanical Icons is a beautifully produced book and a worthwhile read for scholars, researchers, postgraduate students, botany enthusiasts, and anyone interested in the scientific potential and the cultural dimensions of botanical images. With comprehensive referencing and indexing Griebeler presents a multiplicity of factors that contributed to the preservation and dissemination of plant icons in the premodern Mediterranean. The chronological and geographical framework of this book is logical and effective, considering its scope and the complex relationships between illustrative and textual analyses. The book ably conveys the aesthetic and scientific interest in Mediterranean plant discovery across centuries, and deserves an enthusiastic welcome. Ably filling a lacuna in the literature about premodern botanical

¹¹ See http://www.poesialatina.it/_ns/greek/testi/Dioscorides/De_materia_medica01.html [125, 1 & 3].

¹² A region on the southern coast of the Black Sea.

illustration practices, *Botanical Icons* also serves to explain traditions, the cultural meanings of plants, and the roles of visionary early scholars.

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