

Identifying the Plant Illustrated on Yerevan Dioscorides Greek Fragment. Some Remarks on the Illustrative Tradition of *De materia medica*

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/ Abstract

In MS Armenian 141 from the Matenadaran Library, Yerevan, one flyleaf is a fragment of an antique Greek manuscript of Dioscorides in capital letters (6th century?): it contains two chapters of *De materia medica* and an illustration. Highly stylised, the illustration does not lend itself easily to identification. The article argues that it illustrates not to the following chapter (*koris*) but the previous one (*androsaimon*). This arrangement, where the image comes after the chapter it exemplifies, is not attested in other Greek manuscripts of *De materia medica*. However, it occurs in a large number of manuscripts of Arabic translations and must also have been found in a (now lost) Syriac translation. The article argues that it can be traced back to a late antique Greek manuscript of Dioscorides, a distant ancestor of both our Greek fragment in Yerevan and the Arabic and Syriac tradition of Dioscorides.

Nel ms. Armeno 141 dalla Biblioteca Matenadaran, Erevan, un foglio di guardia è un frammento di un antico manoscritto greco di Dioscoride in lettere maiuscole (VI secolo?): contiene due capitoli del Sulla materia medica e un'illustrazione. Altamente stilizzata, l'illustrazione non si presta facilmente all'identificazione. L'articolo sostiene che illustra non il capitolo successivo (koris) ma quello precedente (androsaimon). Questa disposizione, in cui l'immagine viene dopo il capitolo cui si riferisce, non è attestata in altri manoscritti greci del Sulla materia medica. Tuttavia, si trova in un gran numero di manoscritti di traduzioni arabe e si doveva trovare anche in una traduzione siriana (ora perduta). L'articolo ipotizza che questa disposizione possa essere ricondotta ad un manoscritto greco tardoantico di Dioscoride, lontano antenato sia del nostro frammento greco di Erevan che della tradizione araba e siriana di Dioscoride.

/ Keywords

Dioscorides; Greek manuscripts; Materia medica; Matenadaran (Yerevan); Botanical illustrations; St John's wort.

Among the challenges faced by any modern reader of Dioscorides' text is that of naming the simples mentioned in *De materia medica* (mostly plants, but also animals and minerals), especially when it comes to using current scientific nomenclature. This is obviously not specific to Dioscorides' treatise, as the same issues arise for virtually all ancient – and medieval – texts dealing with plants, since very few people – regrettably, I am not one of them – have the skills of both a philologist and a botanist. As a result, modern translations of Dioscorides generally offer plant identifications based on earlier works, most of which date back to the 19th or early 20th century, with virtually no arguments.¹ Nevertheless, a major step forward has been achieved in recent years by Suzanne Amigues' work, specifically – in addition to individual studies on particular ancient plant names – with her edition of Theophrastus' botanical treatises, *Enquiries into Plants* and *On the Causes of Plants*, whose extensive commentary supports each suggested identification.²

We should also mention the more recent publication by our colleague Maximilian Haars entitled: *Die allgemeinen Wirkungspotenziale*.³ It includes a German translation of Book XV of Oribasius' *Medical Collections*, an alphabetical catalogue of medicinal simples derived from Galen's treatise *On Simples*. Most importantly, for each simple, Maximilian Haars offers a detailed commentary on the possible (or impossible) identification, based on the ancient texts, whenever the plant is described, i.e. generally by referring to Dioscorides, or even Theophrastus and Pliny, since Galen, and Oribasius after him, provide virtually no description, referring instead to Dioscorides.⁴ Where possible, Maximilian Haars bases his analysis on plant illustrations found in various manuscripts. We should nevertheless point out that these illustrations do not occur in the manuscripts of Oribasius or Galen, but only in some manuscripts of Dioscorides. Their adequacy to the corresponding text is sometimes questionable, especially in the case of the "Vienna Dioscorides" and the "Naples Dioscorides" – we shall come back to each of them soon – both of which preserve a highly reworked textual form known as the "Alphabetical Herbarium", where images and texts have different origins and have sometimes been artificially associated.⁵

¹ For example: Manuela García Valdés, *Dioscórides. Plantas y remedios medicinales (De materia medica)*, 2 vol. (Madrid: Gredos, 1998); Max Aufmesser, *Pedanius Dioscurides aus Anazarba: fünf Bücher über die Heilkunde* (Hildesheim/Zurich/New York: Olms, 2002); and Lily Y. Beck, *Pedanius Dioscorides of Anazarbus. De materia medica* (Hildesheim/Zürich/New York: Olms, 2005).

² Suzanne Amigues, *Théophraste. Recherches sur les plantes*, 5 vol. (Paris: Les Belles Lettres, 1988–2006); Ead., *Théophraste. Les causes des phénomènes végétaux*, 3 vol. (Paris: Les Belles Lettres, 2012–2017).

³ Maximilian Haars, *Die allgemeinen Wirkungspotenziale der einfachen Arzneimittel bei Galen. Oreibasios, Collectiones medicae XV. Einleitung, Übersetzung und pharmazeutischer Kommentar* (Stuttgart: Wissenschaftliche Verlagsgesellschaft, 2018).

⁴ On Galen's use of Dioscorides, see Caterina Manco, "Dioscoride dans les *Simples* de Galien", *Revue des études grecques* 135 (2022): 65–101.

⁵ On this textual form, see Marie Cronier, "L'Herbier alphabétique grec de Dioscoride: quelques remarques sur sa genèse et ses sources textuelles", in *Fito-zooterapia antigua y altomedieval: textos y doctrinas*, ed. Arsenio Ferraces Rodríguez (A Coruña: Universidade da Coruña, 2009), 33–59.

Whether we can, and above all whether we should, use the manuscript illustrations to identify the plants mentioned by Dioscorides is a tricky question. From a methodological point of view, this raises more than one problem, first and foremost: which manuscripts should be taken into account? Indeed, there is a wide variety of illustrations for the same chapter in Dioscorides' manuscripts, even within the Greek tradition. Naturally, one would tend to rely on the most celebrated witness, that is the "Vienna Dioscorides", whose illustrations – at least most of them – are highly naturalistic. But is the manuscript that offers the most realistic image necessarily the one that best corresponds to Dioscorides' text? In fact, it is now generally accepted that Dioscorides' *De materia medica* did not include illustrations in its original form, as it was written in the second half of the 1st century AD.⁶ Without going into too much detail now, we will merely point out that, on the one hand, Dioscorides never refers to any illustrations, nor indeed does any later author who mentions Dioscorides, especially Galen, who nevertheless draws heavily on the treatise *De materia medica*.⁷ Moreover, only a fraction of the surviving manuscripts of Dioscorides include illustrations (in Greek, the percentage is around one-third, but it changes significantly depending on the period and the textual family, with the majority of 'recent' manuscripts, from the 14th century onwards, not being illustrated) and none of the papyri of *De materia medica* are illustrated.⁸ Last but not least, the illustrations of the same plant sometimes show major variations from one manuscript to another.

It is thus certain that illustrations were sometimes added to Dioscorides' text, but in ways that clearly differed, undoubtedly at different times and in several stages. In some cases, for example, it seems more likely that Dioscorides' text was added to a pre-existing collection of images: this is just what happened in the case of the above mentioned Greek Alphabetical Herbarium, which is transmitted by the two most famous Dioscorides witnesses, the one in Naples and the one in Vienna. This is a highly complex issue that requires a thorough knowledge not only of the illustrations – which goes without saying – but also of the manuscripts themselves and of the text and its history. Finally, while Greek is obviously the primary source, we cannot ignore the evidence of Latin⁹ and Oriental translations (into Arabic, Syriac

⁶ An update on this issue can be found in Joshua J. Thomas, "The Illustrated Dioscorides Codices and the Transmission of Images during Antiquity", *The Journal of Roman Studies* 109 (2019): 242.

⁷ One exception is Cassiodorus, who refers to an illustrated herbarium by Dioscorides, a passage whose interpretation is moreover problematic and which, in my opinion, relates not to the Greek text but to a Latin version; see Minta Collins, *Medieval Herbals. The illustrative Traditions* (Toronto/London: The British Library and University of Toronto Press, 2000), 163–165, with previous bibliography.

⁸ A list of papyri of Dioscorides can be found, for example, in the Mertens-Pack3 database of the CeDoPaL of the University of Liège (<http://www.cedopalmp3.uliege.be/>, accessed March 12, 2025, as the following links), with references to descriptions and bibliographies for each papyrus.

⁹ On the highly complex Latin tradition of Dioscorides (of the three translations made in late Antiquity or early Middle Ages, only the most recent has been preserved in its entirety, in particular in the Munich manuscript discussed below), see the recent synthesis by Peter L. Schmidt, "Dioscorides Latinus", in *Die Literatur im Zeitalter*

and Persian)¹⁰ which, in some cases, reflects an earlier state of the text and illustrations than that preserved in Greek, as we shall see later in this article.¹¹

While in no way claiming to deal exhaustively with this matter, in this contribution I would like to discuss the example of a little-known Greek fragment of Dioscorides, which preserves two illustrations (in fact one complete illustration and the remains of a second). Starting from the questions raised by the identification of the illustrated plant, it will be possible to offer new considerations on the phenomenon of adding illustrations to Dioscorides' text.

1. The Yerevan fragment

The fragment in question is now held in Armenia, in Yerevan's Matenadaran library. It is a single leaf used as a flyleaf for manuscript 141 in the Armenian collection of the Matenadaran, a 328-leaves book on paper, measuring 222 × 170 mm. The manuscript contains various excerpts from the Old Testament in Armenian and can be dated to the 14th century based on palaeographic analysis. As stated in a note (f. 327v), the book was compiled by a certain Abraham on 8 June 1447 by bringing together various older parts.¹² The current binding, which may date back to this date (but this is uncertain), incorporates as initial flyleaves a leaf from a Greek manuscript on parchment (A), followed by double leaf from an Armenian manuscript on paper (B–C). The final flyleaves consist of a double leaf from another Armenian manuscript on parchment (D–E).

des Theodosius (374–430 n. Chr.). Erster Teil. Fachprosa, Dichtung, Kunstprosa, ed. Jean-Denis Berger, Jacques Fontaine and Peter Lebrecht Schmidt (München: Beck, 2020), 135–140.

¹⁰ There existed at least four Arabic translations of Dioscorides (from which the Persian translations derive), on which see the outstanding philological and linguistic analysis by Manfred Ullmann, *Untersuchungen zur arabischen Überlieferung der Materia medica des Dioskurides* (Wiesbaden: Harrassowitz, 2009). For an overview of Arabic manuscripts, see Marie Cronier, "Bizans'tan Araplara Dioskorides'in *De Materia Medica*'sının Elyazması Geleneği. The Manuscript Tradition of Dioscorides' *De Materia Medica* from Byzantium to the Arabs", in *Hayat Kısa, Sanat Uzun. Bizans'ta Şifa Sanatı. Life Is Short, Art Long. The Art of Healing in Byzantium*, ed. Brigitte Pitarakis (Istanbul: Pera Müzesi Yayınları, 2015), 148–151.

¹¹ Collins' *Medieval Herbals* is one of the best attempts to take all three linguistic traditions into account, although her approach is basically Westernist. This is a remarkable undertaking, even if some of its findings may require considerable revision in light of studies carried out since its publication. See more recently Andrew Griebeler, *Botanical Icons. Critical Practices of Illustration in the Premodern Mediterranean* (Chicago/London: University of Chicago Press, 2024), which provides a highly inspiring discussion on botanical illustration, with a deliberate focus on the Byzantine and Oriental traditions, but which is not strictly speaking a book devoted to the manuscripts themselves.

¹² Description of the Armenian manuscript in: Ȫ<nnik> Eganyan, A<ndranik> Zeyt'unyan and P'<ajlak> Ant'abyan (redaction: A<satur> Mnac'akanyan and Ȫ<nnik> Eganyan), *Mayr' c'uc'ak hayer'en jer'agrac' Maštoc' i anuan Matenadaran* [= Analytic catalogue of Armenian manuscripts in the "Maštoc" Matenadaran], I (Yerevan: Haykakan S<ovetakan> S<oc'ialistakan> H<anrapetut'yan> G<itut'yunneri> A<kademiayi> Hratarak'ut'yun, 1984): col. 579–582 (including reproduction of part of the Greek folio).

Fig. 1. Yerevan, Matenadaran
 "Maštoc", 141, flyleave Uv
 (recto of original folio). ©
 Matenadaran.



The leaf we are interested in is the first (Fig. 1): it bears the foliation “U” (= A).¹³ Originating from a Greek manuscript of Dioscorides, it was described – briefly and not without some approximations – in the catalogue of the Greek manuscripts in Yerevan published in 2008 by Rose Varteni Chétanian.¹⁴ Unknown to Max Wellmann, the author of the reference edition of Dioscorides,¹⁵ it has never been taken into account in published studies on the Greek text of Dioscorides.¹⁶ I gave a first analysis of it in my dissertation, which demonstrated that it is very isolated from a philological point of view (it does not closely resemble any of the other surviving witnesses).¹⁷ In fact, what interests us most here is its illustration.

¹³ Diktyon (Réseau numérique pour les manuscrits grecs, <http://www.diktyon.org/>) 14227 in the Pinakes online database (<https://pinakes.irht.cnrs.fr/>). I accessed this fragment as high-quality colour reproductions obtained from the Matenadaran Library in November 2022 through the intermediary of Brigitte Maire (University of Lausanne), to whom I would like to express my warmest thanks.

¹⁴ Rose Varteni Chétanian, *Catalogue des fragments et manuscrits grecs du Matenadaran d'Erevan* (Turnhout: Brepols, 2008), 69–70 et 229 (colour plate showing the current recto).

¹⁵ Max Wellmann, *Pedanii Dioscuridis Anazarbei, De materia medica, libri quinque*, 3 vol. (Berlin: Weidmann, 1906–1914).

¹⁶ It was discovered by F.C. Conybeare during one of his two trips to the East (either in 1888 or 1891), in the Etchmiadzin library where it was then kept. The English philologist made a transcription (with correspondence in the edition by K. Sprengel, 1829–1830), a copy of the layout of the letters and two photographs, which he donated to the Bodleian Library in Oxford. These now form MS Oxford, Bodleian Library, *Greek Class. E 19* (Diktyon 47974). The transcription is, however, rather confused and not free of errors; the photographs, for their part, are of unsatisfactory quality and difficult to read. The fragment is only mentioned incidentally by Collins, *Medieval Herbals*, 84, 112 n. 322, and Griebeler, *Botanical Icons*, 99, which seem to be based solely on previous bibliography.

¹⁷ Marie Cronier, *Recherches sur l'histoire du texte du De materia medica de Dioscoride* (PhD diss., École pratique des Hautes Études, 2007), 200–213.

It is a sheet of parchment that now measures 215–220 × 152 mm, but it comes from an originally much larger manuscript: in fact, all that remains is the upper part of the original leaf, which was cut and turned 90° to fit the dimensions of the Armenian manuscript it was intended to protect. In addition, the current recto (f. Ur) is actually the verso of the folio as it stood in the original Greek manuscript. Most of its upper margin (now in the sewing, in the middle of the book) has been preserved, but the two original side margins (now at the top and bottom) have been largely trimmed, and the entire bottom of the leaf (about a half) has also been cut off. This modification dates back to the last binding, possibly carried out in 1447, as mentioned above, which also made use of Armenian manuscript fragments as flyleaves. Unfortunately, we have no information about the context of this operation, which is not without interest from a historical point of view: an Armenian environment where, alongside Armenian books, there were the remains of at least one very ancient Greek book, that was no longer being read.

The text is written in full-page script (the lines measure around 200 mm and comprise around forty letters) in an ogival capital letter slanted to the right. It is a sober, unrefined *scriptio continua*, lacking spirits and accents. Within the generally regular script, a few larger strokes clearly stand out, such as *phi*. The text and titles are written in the same light brown ink, with no evidence of rubrication. The only surviving initial (a *chi*, on the current recto) is a simple larger letter projecting into the margin, without any ornamentation. In the absence of a reference work on this style of writing, for which there are very few dated or datable manuscripts, all from the late period (between 861–862 and 995–996),¹⁸ it is not easy to suggest a dating for this fragment. Yet its handwriting displays none of the features of late developments; on the contrary, it can be likened to the handwriting of some papyrus codex fragments, for which a date of around the 6th century is generally suggested – although the latter is not easy to argue. We can therefore cautiously suggest that the Greek manuscript from which the Yerevan fragment originates was produced at a fairly early date, perhaps the 6th century.¹⁹ Its simple script and sober workmanship hardly make it a very refined object, and there is no reason to believe that it was made in Constantinople rather than in another part of the Byzantine world, which at that time was very vast. In fact, a provincial and oriental origin seems quite likely – but this of course remains hypothetical.

¹⁸ See Pasquale Orsini, *Studies on Greek and Coptic Majuscule Scripts and Books* (Berlin/Boston: De Gruyter, 2019), 133–164 (the Yerevan fragment is not mentioned).

¹⁹ See similar handwritings in Guglielmo Cavallo and Herwig Maehler, *Greek Bookhands of the Early Byzantine Period, A. D. 300–800* (London: University of London/Institute of Classical Studies, 1987), pl. 23a (5th–6th c.), 28a (mid-6th c.), 39ab (late 6th c.), 42a (late 6th c.). Stella A. Vardanian, *Histoire de la médecine en Arménie de l'Antiquité à nos jours*, trad. française par Raymond H. Kévorkian (Paris: Union médicale arménienne de France, 1999), 100–102, 363, dates the Greek fragment to the 6th–7th centuries, “probably in Constantinople”, without going into further detail. Chétanian, *Catalogue*, 69, places it in the 7th–8th century.



[III, 157] ΟΙ ΔΕ ΚΑΕ ΤΟΥΤΟ ΥΠΕΡΙΚΟΝ ΚΑΛΟΥΣΙ. ΦΥΛΛΟΝ ΕΧΕΙ ΠΑΡΑΠΛΗΣΙΟΝ
ΤΩ ΤΗΣ ΕΡΕΙΚΗΣ, ΜΙΚΡΟΤΕΡΟΝ ΔΕ ΚΑΙ ΛΙΠΑΡΩΤΕΡΟΝ ΚΑΙ ΕΡΥΘΡΟΝ ΘΑΜΝΟΣ
ΔΕ ΣΠΙΘΑΜΒΙΟΣ, ΕΥΣΤΟΜΟΣ ΔΡΙΜΥΣ, ΕΥΩΔΗΣ ΤΟΥΤΟΥ Ο ΚΑΡΠΟΣ ΠΙΝΟΜΕ
ΝΟΣ ΟΥΡΑ ΚΑΙ ΚΑΤΑΜΗΝΙΑ ΑΓΕΙ· ΒΟΗΘΕΙ ΚΑΙ ΦΑΛΑΓΓΙΟΛΗΚΤΟΙΣ ΚΑΙ ΙΣΧΙΑΔΙ
ΚΟΙΣ ΚΑΙ ΟΠΙΣΘΟ ΤΟΝΙΚΟΙΣ ΣΥΝ ΟΙΝΩ ΠΙΝΟΜΕΝΟΣ, ΠΡΟΣ ΔΕ ΡΙΓΗ ΣΥΝ
ΠΕΠΕΡΕΙ· ΕΠΙ ΔΕ ΟΠΙΣΘΟΤΟΝΙΚΩΝ ΚΑΙ ΣΥΓΧΡΙΣΜΑ ΣΥΝ ΕΛΑΙΩ ΑΡΜΟΔΙΟΝ.

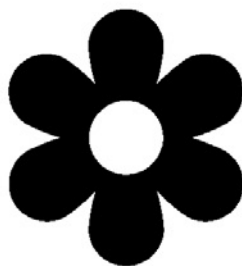
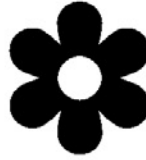


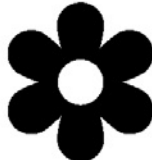
Fig. 2. A proposal to reconstitute the original recto (from f. Uv).



[III, 158, chapter continued] ΕΣΤΙ ΔΕ ΚΑΙ ΕΤΕΡΑ ΧΑΜΑΙΠΙΤΥΣ ΚΑΛΟΥΣ
ΕΧΟΥΣΑ ΠΗΧΥΑΙΟΥΣ ΑΓΚΥΡΟΕΙΔΕΙΣ ΛΕΠΤΟΚΑΡΦΟΥΣ ΚΟΜΗΝ ΔΕ ΕΟΙΚΥΙΑΝ ΤΗ
ΠΡΟ ΑΥΤΗΣ ΚΑΙ ΑΝΘΟΣ ΣΠΕΡΜΑ ΔΕ ΜΕΛΑΝ ΟΖΕΙ ΔΕ ΚΑΙ ΑΥΤΗ ΠΙΤΥΟΣ.



[III, 158, end of chapter] ΚΑΙ ΤΡΙΤΗ ΤΙΣ ΕΣΤΙΝ ΑΡΡΗΝ ΚΑΛΟΥΜΕΝΗ ΕΣΤΙ ΔΕ
ΒΟΤΑΝΙΟΝ ΕΧΟΝ ΦΥΛΛΑΡΙΑ ΛΕΠΤΑ ΛΕΥΚΑ ΔΑΣΕΑ ΚΑΥΛΟΝ ΔΕ ΤΡΑΧΥΝ ΛΕΥΚΟΝ
ΑΝΘΥΛΙΑ ΜΗΛΙΝΑ ΣΠΕΡΜΑΤΙΑ ΔΕ ΠΑΡΑ ΤΑΣ ΜΑΣΧΑΛΑΣ ΟΖΕΙ ΔΕ ΚΑΙ ΤΟΥΤΟ
ΠΙΤΥΟΣ ΔΥΝΑΜΙΝ ΔΕ ΕΧΟΥΣΙ ΚΑΙ ΑΥΤΑΙ ΟΜΟΙΑΝ ΤΗ ΠΡΟΕΙΡΗΜΕΝΗ ΟΥ ΜΗΝ
ΟΥΤΩΣ ΠΡΑΚΤΙΚΗΝ.



[End of Book III]

Fig. 3. A proposal to reconstitute the original verso (from f. Ur).

On what was originally the recto (now verso), we read the end of Dioscorides' chapter on the *androsaimon* (ἀνδρόσαιμον: *De materia medica*, Book III, chap. 156) followed by an image – we will shortly come back to the identification of this image – and then a title, *koris* (κόρις), which is that of the following chapter in Dioscorides (III, 157). The text of this last chapter would have been on the lower part of the page, now lost. On the verso (now recto), in the upper margin the heading *chamaipitys* (χαμαίπιτυς) is found, followed by the text of the corresponding chapter (III, 158: beginning). Just below, the upper part of an image can be made out, almost entirely lost (see Fig. 2–3 for a tentative reconstitution).

So what is the plant illustrated on the original recto? We should point out at the outset that the Armenian note written next to this figure does not provide its name. According to Anna Sirinian and Francesco D'Aiuto, it dates back to the modern period (16th–17th century) and, although it remains enigmatic, it probably corresponds to an early library shelfmark or to a reader's "visa" – relating to the Armenian manuscript and not to the Greek one.²⁰

2. Layout of illustrations and text

Let us look again at our plant illustration. Before delving into the question of its identification, we should first consider the placement of the illustrations in relation to the text in Dioscorides' manuscripts. Among those that contain the Greek text with accompanying illustrations, we can observe a wide range of possible page layouts, with the following as the main ones.

The first type consists of a full-page layout, with the image and accompanying text facing each other on one verso and the next recto (sometimes the text is on one verso and thus precedes the image on the next recto). This is the layout in use in the well-known Vienna Dioscorides (Wien, Österreichische Nationalbibliothek, cod. med. gr. 1, early 6th century), which is famous for its botanical illustrations, which are many in number (almost 400 today, despite numerous *lacunae*) and mostly – but not always – of the highest quality and naturalism.²¹ This layout, far from economical (since large parts of the pages are left blank and a plant takes up at least one recto and one verso, sometimes more if the text is long), places great emphasis on botanical figures. To avoid any ambiguity, the image generally comes with its own title, duplicating the title of the facing chapter. However, many images have no title, and this has led to frequent confusion, especially when a text covers several successive pages

²⁰ Personal communication by e-mail of February 4, 2023. My sincere thanks go to both colleagues and friends for their generous and invaluable help.

²¹ Diktyon 71026, with a link to (unfortunately only partial) online digitalization. In addition to the non-exhaustive bibliography provided on this page, see the bibliography available on the ÖNB website (<https://www.onb.ac.at/sammlungen/sammlung-von-handschriften-und-alten-drucken/literaturdokumentation>).

(so the reader does not immediately understand whether it is illustrated by the image that precedes it or by the one that follows it) or when leaves have been lost.

A second option is to have the image at the top of the page and the text below. This is the layout of the famous Naples Dioscorides (which is less celebrated but probably older than its twin, the Vienna Dioscorides: 2nd half of the 4th or 5th century).²² There are several plants placed side by side on the same page, usually two or three (or even four). The width of the writing column is adjusted to suit the width of the figure (which was drawn first) and the amount of text to be copied.

In a third type of page layout, the width of the writing column is reduced for a few lines, allowing the image to fit within the text, while sparing the medium (paper or parchment). An example of this arrangement can be found in MS grec 2179 from the Bibliothèque nationale de France, which was completed in the Syro-Palestinian area towards the end of the 8th century or the 9th, and which displays a strong Arabic influence.²³ In any case, we find the same layout in many of the manuscripts preserving an Arabic translation of Dioscorides (though not in all of them, as we shall see): for example, in manuscript 2954 in the Bologna University Library, dated AH 642 (AD 1245),²⁴ but also in the oldest Arabic witness to Dioscorides, MS Or. 289 in the Leiden University Library, dated AH 475 (AD 1083).²⁵

²² Diktyon 45957, with a link to the online reproduction. I agree with the dating suggested by Boris L. Fonkič: Борис Л. Фонкич, “ΔΙΟΣΚΟΥΡΙΔΗΣ. ΠΕΡΙ ΥΓΗΣ ΙΑΤΡΙΚΗΣ. *Dioscurides. De materia medica. Codex Neapolitanus graecus 1 of the National Library of Naples*, Athens (Fac-sim.)”, *ΜΟΝΟΦΟΚΟΝ. Исследования по палеографии, кодикологии и дипломатике* 1 (2007): 530–534, rather than the late 6th or 7th century dating generally adopted in the bibliography; for a discussion, see Marie Cronier, “Dioscorides in Southern Italy (11th–13th c.)”, in *Die griechische Gelehrsamkeit in Süditalien. Manuskripte, Texte und Wissenstransfer im 10.–13. Jahrhundert*, ed. Christian Brockmann, Alessandro Musino, Stefano Valente and Eva Wöckener-Gade (Göttingen: Vandenhoeck & Ruprecht, 2025), 87–119: 90–91.

²³ Diktyon 51808, with a link to full online digitalization. On its dating, location and history (particularly as regards the question of Arab influence), may I refer readers to Marie Cronier, “Transcrire l’arabe en grec. À propos des annotations du *Parisinus gr.* 2179 (Dioscoride)”, in *Manuscripta Graeca et Orientalia. Mélanges en l’honneur de Paul Géhin*, ed. André Binggeli, Anne Boud’hors and Matthieu Cassin (Leuven/Paris: Peeters, 2016), 247–265; Ead., “À l’origine du *Breviarium medicaminum omnium* de Stéphane d’Antioche: un manuscrit de Dioscoride (*Par. gr.* 2179)”, *Rivista di Studi Bizantini e Neoellenici* n.s. 59–2022 (2023): 249–288; and Ead., “Dioscorides in Southern Italy”: 102.

²⁴ Bologna, Biblioteca Universitaria, 2954. Full online digitalization: <http://hdl.handle.net/20.500.14008/78130>. Description in Orazgozel Machaeva, *Catalogo dei manoscritti islamici conservati nella Biblioteca Universitaria di Bologna* (Bologna: Persiani Editore, 2017), v. 1, 206–210; see also Collins, *Medieval Herbals*, 129–130. It contains the most widely used Arabic translation of Dioscorides, the one made in Baghdad in the mid-9th c. by Iṣṭifān b. Bāsil, a disciple of the famous translator Ḥunayn b. Iṣḥāq.

²⁵ Leiden, Universiteitsbibliotheek, Or. 289. Full online digitalization: <https://digitalcollections.universiteitleiden.nl/view/item/3641201>. About is, see: Pieter de Jong and Michael J. de Goeje, *Catalogus codicum orientalium Bibliothecae Academiae Lugduno Batavae*, III (Lugduni Batavorum: Brill, 1865), 227–229; Petrus Voorhoeve, *Handlist of Arabic manuscripts in the Library of the University of Leiden and other collections in The Netherlands* (Lugdunum Batavorum: in Bibliotheca Universitatis, 1957), 109; Mahmoud M. Sadek, “Notes on the introduction and colophon of the Leiden manuscript of Dioscorides’ *De Materia medica*”, *International Jour-*

Another possible layout is to insert the image before the corresponding chapter, not on a full page but only a few lines high. In this way, the text can follow the image on one and the same page. This is a cheaper variant of the layout used in the Vienna Dioscorides. The finest example is a Greek manuscript of Dioscorides held in New York, The Morgan Library and Museum, MS M. 652,²⁶ where the space provided for each image fills the whole page width. A similar form is found in München, Bayerische Staatsbibliothek, *Codex latinus monacensis* (*Clm*) 337, which palaeographers and art historians place in southern Italy in the second half of the 10th century;²⁷ it includes a Latin translation of Dioscorides of uncertain date (6th or 7th century?), of which it is the only illustrated witness.²⁸ In this manuscript, the layout is the same as in the New York Greek manuscript, except that the text is arranged in two columns and the illustrations are very small.

Still in the Latin field, incidentally, but departing from Dioscorides, the same layout (with the image preceding the text) is consistently found in the most famous Latin herbarium of the early Middle Ages, pseudo-Apuleius' *Herbarius*, most often on full page (e.g. in the oldest witness: Leiden, Universiteitsbibliothek, Vossius lat. Q. 9, from the 7th century)²⁹ but sometimes also in two-column format (especially in late manuscripts).³⁰

3. *Koris*?

In our Yerevan fragment, the picture fills the whole page width, as it does in the New York and in the Latin manuscripts. As has been seen, it is found between the end of chapter 156, *androsaimon* (ἀνδρόσαιμον) and the title of chapter 157, *koris* (κόρις) of Book III of *De materia medica*. Therefore, it is fully legitimate to consider it a layout similar to that of the New York manuscript, where the image comes before the text, and in this case the depicted plant would be *koris* (κόρις). As mentioned above, the fragment does not preserve this chapter of Dioscorides, but we can refer to the text of M. Wellmann's edition, which provides the following

nal of Middle East Studies 10 (1979): 345–354; Collins, *Medieval Herbals*, 118–124; on the textual form it preserves, a revision by the Persian scholar al-Nātīlī (2nd half of the 10th c.) of the translation by Iṣṭifān b. Bāsil, see Ullmann, *Untersuchungen*, 319–338.

²⁶ Diktyon 46634, with a link to full online digitalization.

²⁷ Full online digitalization: <https://www.digitale-sammlungen.de/de/view/bsb00147803>. On this MS, see Collins, *Medieval Herbals*, 149–154, with previous bibliography.

²⁸ On this translation and the other manuscripts that have preserved it, see Peter Christian Jacobsen, “Dioscorides latinus, *De materia medica*. Alte und Neue Fragmente der ältesten handschrift (Codices Latini Antiquiores VIII 1191)”, *Scriptorium* 64 (2010): 185–226 and pl. 26–36.

²⁹ Full online digitalization: <http://hdl.handle.net/1887.1/item:4151654>. On this manuscript, see Collins, *Medieval Herbals*, 167–168, 177–179, with previous bibliography.

³⁰ On pseudo-Apuleius' *Herbarius*, see the synthesis by Peter L. Schmidt, “Das Herbarienecorpus”, in *Die Literatur im Zeitalter des Theodosius (374–430 n. Chr.). Erster Teil. Fachprosa, Dichtung, Kunstprosa*, ed. Jean-Denis Berger, Jacques Fontaine and Peter Lebrecht Schmidt (München: Beck, 2020), 124–135.

description in the first part of the chapter (before the account on its therapeutic properties): “St John’s wort: but some call this plant also *hyperikon*. It has a leaf nearly resembling that of heath, except it is smaller and shinier and red. It is a shrub a span tall, tasty, pungent, and fragrant”.³¹

In the treatise *De materia medica*, this chapter follows a group of plants corresponding to different varieties of St John’s wort: *hyperikon* (ὑπερικόν: III, 154); *askyron* (ἄσκυρον: III, 155) and *androsaimon* (ἀνδρόσαιμον: III, 156).³² Since our *koris* is also referred to (as Dioscorides tells us) by the name of the first of these (*hyperikon*), we are allowed to consider that this plant is a variety of St John’s wort. In his German translation published in 1902, J. Berendes suggests identifying it with *Hypericum coris* L.³³ For her part, in her Spanish translation of Dioscorides published in 1998, Manuela García Valdés proposes an identification with *Hypericum empetrifolium* Willd. or also with *Hypericum coris* L.³⁴ Max Aufmesser, the author of a German translation published in 2002, retains the identification with *Hypericum empetrifolium*, “Johanniskraut”.³⁵ Finally, in her English translation published shortly afterwards (2005), Lily Beck also offers the two alternative identifications, *Hypericum empetrifolium* and *Hypericum coris* L. “St. John’s wort”.³⁶

Of course, Dioscorides’ description is far too concise to allow precise identification under current scientific nomenclature. Nevertheless, a comparison of the leaves with those of the heather does match *Hypericum empetrifolium* and *Hypericum coris* L., which are St John’s wort species featuring whorled leaves in groups of three to five. Likewise, both are between 10 and 30 cm tall, which may be consistent with the height of a span reported by Dioscorides. At first glance, the reference to the leaf being “red” would seem problematic,³⁷ as both *Hypericum coris* L. and *Hypericum empetrifolium* have green leaves, but in the case of *Hypericum empetrifolium* at least, the leaf turns reddish-orange in winter, a characteristic that Dioscorides may have found decisive.³⁸

³¹ Dsc., *MM* III, 157 (= II, 163.13–16 W.): κόρις·οἱ δὲ καὶ τοῦτο ὑπερικόν καλοῦσι. Φύλλον ἔχει παραπλήσιον τῷ τῆς ἐρείκης, μικρότερον δὲ καὶ λιπαρώτερον καὶ ἐρυθρόν· θάμνος δὲ σπιθαμιαίος, εὐστομος, δριμύς, εὐώδης; English translation by Beck, *Pedanius Dioscorides*, 250 (καὶ ἐρυθρόν “and red” is not translated by Beck).

³² Regarding the fact that these plants correspond to different varieties of St John’s wort (*Hypericum*), see Haars, *Die allgemeinen Wirkungspotenziale*, 176 (ἀνδρόσαιμον/*androsaimon* and ἄσκυρον/*askyron*) and 403 (ὑπερικόν/*hyperikon*), which states that more precise identifications are uncertain: *askyron* may be *Hypericum perforatum* L. and *androsaimon* (also called Διονυσιάς/*Dionysias*) may be *Hypericum perforatum* L.

³³ Julius Berendes (transl.), *Des Pedanios Dioskurides aus Anazarbos Arzneimittellehre in fünf Büchern* (Stuttgart: Enke, 1902), 363, chap. 164 (174).

³⁴ Translation by García Valdés, *Dioscórides*, 341 n. 210.

³⁵ Translation by Aufmesser, *Pedanius Dioscurides*, 218.

³⁶ Translation by Beck, *Pedanius Dioscorides*, 250.

³⁷ In fact, Lily Beck has left this word out of her translation, perhaps revealing some uncertainty.

³⁸ As this simple is not dealt with by Theophrastus or Oribasius, we cannot rely on the works of Susanne Amigues or Maximilian Haars. It also does not occur in the catalogue of simple plants provided by Galen in books VI–VIII of his treatise *On Simples*, and therefore it is not analysed in: Caterina Manco, *Les livres VI à VIII*

Let us now turn to the illustrations that go with the *koris* chapter in Dioscorides' manuscripts. Unfortunately, the "finest" manuscripts, namely the Vienna Dioscorides and the Naples Dioscorides, omit this chapter (they retain only a selection corresponding to a large half of the entire treatise). In addition, this chapter was lost in the New York Dioscorides.³⁹ The most significant evidence is that of the already mentioned *Par. gr.* 2179 (copied at the end of the 8th century or in the 9th century in the Syro-Palestinian area): the picture closely matches Dioscorides' description, with a bushy plant with thin red leaves (f. 69v: Fig. 4). The presence of yellow flowers, which are not referred to by Dioscorides, is consistent with the two suggested identifications (*Hypericum coris* L. and *Hypericum empetrifolium*).

A very basic illustration is provided in manuscript A 95 sup. in the Biblioteca Ambrosiana in Milan (f. 107v), a descendant of the New York Dioscorides (probably a direct copy) copied in Constantinople at the beginning of the 14th century by a physician for his personal use, in a clear concern for economy.⁴⁰ It was certainly the copyist himself who drew the figure, which looks so sketchy (as do all the illustrations in this manuscript) that it can only give us a very flawed image of the one (now lost) that was in its model.

Finally, in the Paris manuscript, BNF, grec 2183, copied in Constantinople in the mid-14th century but whose illustrations are slightly later, probably from the 15th century, *koris* is depicted on f. 92r (Fig. 5).⁴¹ The basic picture does not seem to be linked to any other illustrative tradition. It is possible, and even probable, that it was executed by the miniaturist based solely on Dioscorides' description.

In Latin, the only illustrated manuscript of a translation of Dioscorides, *Clm* 337 (already mentioned), provides a rough picture (f. 108v: Fig. 6).⁴² However, it is clearly related to that

du traité des Simples de Galien. Histoire du texte et traduction annotée (PhD diss., Université Paul-Valéry de Montpellier 3/Università di Bologna, 2020).

³⁹ In fact, *koris* is not included among the chapters selected in the textual form known as the 'Alphabetical Herbarium'. In MS M. 652 in the Morgan Library, this chapter has been lost in a lacuna between f. 86 and f. 87. In manuscript Ω 75 from the Monastery of the Great Lavra on Mount Athos (on which see *infra*, n. 61), this chapter is not illustrated (f. 70r).

⁴⁰ Diktyon 42206, with a link to full online digitization and bibliography. More specifically on its history, see Marie Cronier and Patrick Gautier Dalché, "A Map of Cyprus in Two Fourteenth-Century Byzantine Manuscripts", *Imago Mundi. The International Journal for the History of Cartography* 69 (2017): 176–187, and Marie Cronier, "Quelques manuscrits médicaux grecs liés à Chypre", in *Griechisch-byzantinische Handschriftenforschung. Traditionen, Entwicklungen, neue Wege*, ed. Christian Brockmann, Daniel Deckers, Dieter Harlfinger and Stefano Valente (Berlin/Boston: De Gruyter, 2020), 131–144 and 756–758 (plates): 131–136.

⁴¹ Diktyon 51812, with a link to full online digitalization and bibliography. On this manuscript and the (tricky) question of the addition of its illustrations, see more specifically Marie Cronier, "Comment Dioscoride est-il arrivé en Occident? À propos d'un manuscrit byzantin, de Constantinople à Fontainebleau", *Nέα Ῥώμη. Rivista di ricerche bizantinistiche* 10 (2013): 185–209.

⁴² This chapter is not preserved in any of the two Latin treatises which preserve fragments of the two earliest translations of Dioscorides, sometimes with illustrations: *De herbis feminis* (or *femininis*) and *Curae herbarum*; on these see Schmidt, "Dioscorides Latinus".



Fig. 4. Paris, BNF, grec 2179, f. 69v (detail): illustration of *koris*.



Fig. 5. Paris, BNF, grec 2183, f. 92r (detail): illustration of *koris*.



Fig. 6. München, Bayerische Staatsbibliothek, Clm 337, f. 108v (detail): illustration of *koris*.

of *Par. gr.* 2179, especially in terms of the yellow floral endings at the upper ends of the stems and the reddish-brown colour of the plant as a whole. To the left of the plant is depicted a big insect, which is probably an interpretation of the Greek name *koris*, which refers not only to the plant but also to the bug (although this does not occur in Dioscorides).

Arabic manuscripts definitely provide the largest number of *koris* illustrations, but there are significant differences between them. The main group consists of illustrations related to that of *Par. gr.* 2179. Firstly, there is MS arabe 4947 of the Bibliothèque nationale de France (Paris), which was made in northern Syria in the second half of the 12th century (this is the original exemplar of an Arabic translation based on a Syriac translation that has now been lost).⁴³ It includes (f. 77r: Fig. 7, bottom) an illustration in every respect resembling that of *Par. gr.* 2179. Unquestionably related forms, but becoming increasingly simple, especially lacking flowers – and sometimes being green rather than reddish-brown – are found in later manuscripts, all of which provide Işţifân's translation: Oxford, Bodleian Library, MS. Arab. d. 138 (f. 88r), dated AH 637 (AD 1240);⁴⁴ Bologna, Bibl. Univ., 2954 (f. 186r: Fig. 8), dated AH 642 (AD 1245);⁴⁵ Istanbul, Süleymaniye Yazma Eser Kütüphanesi, *Ayasofya* 3702 (f. 67v), 13th century;⁴⁶ and London, British Library, Or. 3366 (f. 113r), dated AH 735 (AD 1334).⁴⁷

For its part, the oldest Arabic copy of Dioscorides, manuscript Or. 289 of Leiden University Library (dated AH 475/AD 1083), already mentioned, displays a rudimentary but fairly accurate illustration (f. 140r: Fig. 9): it shares similarities with both that of *Par. gr.* 2179 and that of *Clm* 337.

On the other hand, manuscript *Ahmet III* 2127 from Topkapı Palace Museum Library in Istanbul, dated 1227 and whose text faithfully copies *Par. ar.* 4947,⁴⁸ gives a completely

⁴³ Full online digitalization: <https://gallica.bnf.fr/ark:/12148/btv1b84229648>. About the origin of this manuscript, see Collins, *Medieval Herbals*, 124–126; for a philological analysis of the translation it preserves, see Ullmann, *Untersuchungen*, 339–340. The close relationship between the illustrations in the two manuscripts has already been pointed out by Edmond Bonnet, “Étude sur les figures de plantes et d’animaux peintes dans une version arabe, manuscrite, de la *Matière médicale* de Dioscoride conservée à la Bibliothèque nationale de Paris”, *Janus* 14 (1909): 294–303, but it should be stressed that in reality it is not limited, for Arabic, to *Par. ar.* 4947 alone; the Mashhad manuscript, for example, which will be dealt with later, also has images which are very close to those of the two Paris manuscripts, *gr.* 2179 and *ar.* 4947.

⁴⁴ Full online digitalization with description: <https://digital.bodleian.ox.ac.uk/objects/4f104fd5-16b5-4cd6-99b3-9a8f8868d7ff/>. On this ms., see Collins, *Medieval Herbals*, 135.

⁴⁵ About it, see *supra* n. 24.

⁴⁶ Online facsimile: <http://ekitap.yek.gov.tr/Uploads/ProductsFiles/da7275bd-ed21-48e7-ba1f-0cf7b3b35db0.pdf>. About it, see Ekmeleddin İhsanoğlu, *Catalogue of Islamic Medical Manuscripts (in Arabic, Turkish and Persian) in the Libraries of Turkey* (Istanbul: Research Centre for Islamic History, Art and Culture, 1984), 235.

⁴⁷ Full online digitalization with description: http://www.qdl.qa/en/archive/81055/vdc_100022531380.0x000001. On this manuscript, see Ullmann, *Untersuchungen*, 26–28.

⁴⁸ On this manuscript, see Collins, *Medieval Herbals*, 127–129. On the fact that the Istanbul manuscript is an apograph of the Paris manuscript, see, most recently, Ullmann, *Untersuchungen*, 339.



Fig. 7. Paris, BNF, arabe 4947, f. 77r: illustration of *androsaimon* (top) and of *koris* (bottom).



Fig. 8. Bologna, Biblioteca Universitaria, 2954, f. 186r (detail): illustration of *koris*.



Fig. 9. Leiden, Universiteitsbibliotheek, Or. 289, f. 140r (detail): illustration of *koris*.

different image of *koris* (f. 182v) from that of its model: it shows a fairly dense bush, horizontally lying, with many intertwined branches, from which arise numerous outgrowths that might be flowers.⁴⁹ Finally, mention should be made of the *Ayasofya* 3704 manuscript in the Süleymaniye Kütüphanesi, Istanbul, which dates from the 13th century and is the only direct surviving evidence of a very early Arabic translation:⁵⁰ for the end of Book III of Dioscorides, it has a very altered text in which, notably, the chapter titles (the names of the plants) are omitted and the text is severely abbreviated. The *koris* may correspond to the chapter at the bottom of f. 95r, limited to a few words: “good for the mouth, pungent, pleasant”.⁵¹ The corresponding image (Fig. 10), which is very simple, is similar to that of *Ahmet III* 2127 in terms of structure, but is much simpler (a stem starting from the root and separating into two) and there are definitely leaves on either side of the stems (17 in all): the overall colour is monochrome (green).

Most of these illustrations (with the exception of those in *Ahmet III* 2127 and *Ayasofya* 3704, which are somewhat problematic) could match the *koris* as described by Dioscorides,

⁴⁹ I have accessed this manuscript in the form of scans of a black and white microfilm, kindly provided by Prof. Fabian Käs, to whom I would like to express my warmest thanks. The quality of the reproduction makes it impossible to distinguish with certainty whether leaves or flowers are represented on either side of the branches.

⁵⁰ Online facsimile: <https://www.quranicthought.com/ar/books/3704-ترجمة-كتاب-حشائش>. On this manuscript and the translation it includes, known as the *Vetus translation*, dating from around the late 8th or early 9th century and based on a Greek original perhaps through an unpreserved Syriac intermediary, see Ullmann, *Untersuchungen*, 69–78 and 149 (who hypothetically suggests attributing it to al-Bitrīq).

⁵¹ For translations of these Arabic words and their Greek equivalents, see the glossary compiled by Ullmann, *Untersuchungen*, 201 (طبيب), 256, (حرف) and 272 (فم).



Fig. 10. Istanbul, Süleymaniye Yazma Eser Kütüphanesi, Ayasofya 3704, f. 94v (detail): possible illustration of *koris* (untitled).

specifically with regard to the thin leaves (except in the Latin manuscript), their red colour (except in a few Arabic manuscripts) and the bush-like general pattern. The flowers' yellow colour, always documented when flowers are shown, is consistent with St John's wort, although it is not specified by Dioscorides for this plant.

However, it should be emphasised that no illustration comes close to that of our Yerevan fragment, which has no flowers and whose leaves are green, smooth and broad (but not toothed, as in the Latin manuscript, nor bristling with prickles or hairs, as in *Ayasofya* 3704). Therefore, the image in the

fragment may not correspond to Dioscorides' *koris*, and it is legitimate to consider another possible identification.

4. Another layout

Indeed, in some Arabic manuscripts there is yet another arrangement of images and text, different from those we have reviewed so far: in these, the image fills the complete page width but follows the text to which it relates.

This layout can be found in several manuscripts already mentioned: *Ayasofya* 3704 (where the layout is variable with sometimes a single column and sometimes two columns) but also *Par. ar.* 4947 and its copy (*Ahmet III* 2127). Most significantly, it is also found in a manuscript that I have not yet mentioned as I have not been able to access it: it is now in Mashhad, Iran, at the museum of Imam Riza's Shrine (Astan Qods-e Razavi). It is believed to be the original copy of a new Arabic translation of Dioscorides, based on the same intermediate Syriac translation as *Par. ar.* 4947 and completed shortly thereafter, in the second half of the 12th century.⁵² From the few available reproductions, it is clear that each image follows the chapter

⁵² On this manuscript, see Collins, *Medieval Herbals*, 126–127 (who knows it only through the reproductions provided in the previous bibliography) and lastly Mehran Sadeghi, "The *Ketab al-Hashayesh* in Safavid Iran and the Changes in its Style of Illustration Painting during the Period 1629–1658 A.D.", *Persica* 25 (2014–2016): 69–95, specifically for its use in the modern era, where several copies were taken of it. For a philological analysis of this translation, see Ullmann, *Untersuchungen*, 341–356; Hüšang A'lam, "The Arabic Translation of Dioscorides' *De materia medica* by Mihran b. Mansur in comparison with the older translation by Stephanos and Hunayn b. Ishaq", in *Proceedings of the Arabic and Islamic Sections of the 35th International Congress of Asian and*

it illustrates: this must therefore have been the layout of the (now lost) Syriac translation and, perhaps, of the Greek model of this Syriac translation. This layout is also to be found in the manuscripts of the Persian translations (made between the second half of the 15th century and the beginning of the 17th, the surviving translations probably all being based on the Mashhad manuscript).⁵³

Although this layout has not yet been found in any Greek witness to the treatise *De materia medica*, it does occur in manuscript M. 652 from the Morgan Library in New York, which we have already mentioned, but not for the authentic text by Dioscorides (books I to V, in which as we have seen the image is placed before each chapter – with the exception of Book V, which has virtually no illustrations). However, in the same manuscript, for Books VI (*Alexipharmaca*) and VII (*Theriaca*) placed under Dioscorides' name, which are in fact two apocryphal treatises on toxicology, the image of each chapter is found after it (see the example of chapter *doryknion* [δορύκνιον] followed by its illustration, on f. 311r: Fig. 11). To avoid any ambiguity, here the figure is given its own name (written in a simple capital letter, using rubrication ink), distinguished from the chapter title (in a distinctive capital letter, using the brown ink of the text).

We can therefore consider the idea that the Yerevan fragment uses the same layout, i.e. that the image depicts not the *koris* chapter (which follows) but the *androsaimon* chapter (which precedes).

5. *Androsaimon*?

Let us now look at what Dioscorides tells us about *androsaimon* (ἀνδρόσαιμον): “St. John’s wort: but others call it *Dionysias*, and others call this plant, too, *ascyron*. It is different from *hypericon* and *ascyron* in that it is a thin-stemmed and twiggy bush; its little stems are red. The leaves are three times the size of rue releasing a wine colored juice when brayed. It has many branches that have many pinnatifid leaves at the end and that are surrounded by small quince-yellow flowers. The seed, in capsules, is like that of corn poppy, striped as it were; the foliage releases a resinous smell when rubbed”.⁵⁴

North African Studies (ICANAS). Part one, ed. Kinga Dévényi and Tamás Iványi (Budapest: Eötvös Loránd University Chair for Arabic Studies & Csoma de Körös Society Section of Islamic Studies, 1998), 123–130.

⁵³ For example, in MS Philadelphia, University of Pennsylvania, Rare Book & Manuscript Library, Lawrence J. Schoenberg collection, 278 (full online digitalization: <https://archive.org/details/ljs278>). On the Persian translations of Dioscorides, see Sadeghi, “The *Ketab al-Hashayesh*”.

⁵⁴ Dsc. MMIII, 156 (= II, 163.1–8 W.): ἀνδρόσαιμον· οἱ δὲ Διονυσιάδα, οἱ δὲ καὶ τοῦτο ἄσκυρον καλοῦσι. διαφέρει δὲ τοῦ ὑπερικοῦ καὶ τοῦ ἄσκυρου θάμνος ὦν λεπτόκαρφος, φρυγανώδης, πεφοινιγμένος τὰ ῥαβδία-φύλλα τριπλασίονα πηγάνου, ἃ τριφθέντα οἰνώδη χυλὸν ἀνίστη, μασχάλας τε ἔχει πλείονας ἐπ’ ἄκρῳ τεταρσωμένας, περὶ ἃς ἀνθύλλια μικρά, μῆλινα· καρπὸς ἐν κάλυκι ὅμοιος τῷ τῆς μελαινης μήκωνος, οἶονε κατάγραφος· ἀνατριφθεῖσα δὲ ἡ κόμη ῥητινώδη ὁσμὴν προσδίδωσι. Translation by Beck, *Pedanius Dioscorides*, 249.



Fig. 12. Paris, BNF, grec 2179, f. 69r (detail): illustration of *androsaimon*.



Fig. 13. Paris, BNF, grec 2183, f. 92r (detail): illustration of *androsaimon*.

J. Berendes records his predecessors' identifications with *Hypericum ciliatum* Lam. (Sibthorp and Sprengel) and *Hypericum perforatum* L. (Fraas).⁵⁵ The latter identification is taken up by Manuela García Valdés,⁵⁶ Max Aufmesser⁵⁷ and Lily Beck.⁵⁸ It is also supported by Maximilian Haars.⁵⁹

Let us now consider the illustrations we find for *androsaimon* (ἀνδρόσαιμον) in Dioscorides manuscripts. In Greek, we first find *Par. gr.* 2179 (f. 69r: Fig. 12), which depicts a bushy shrub, with oval green leaves grouped in twos on either side of the stems, with some small yellow flowers also starting from the stems; at the ends, some sort of black capsules with white borders. For its part, *Par. gr.* 2183 (f. 92r: Fig. 13) displays a figure which, like that of the above-mentioned *koris*, was most likely conceived by the miniaturist solely on the basis of Dioscorides' text. Fortunately, we also have two further witnesses:⁶⁰ manuscript M. 652 from the

⁵⁵ Translation by Berendes, *Des Pedanios Dioskurides aus Anazarbos Arzneimittellehre*, 363, chap. 163 (173).

⁵⁶ Translation by García Valdés, *Dioscorides*, 341, n. 209.

⁵⁷ Translation by Aufmesser, *Pedanius Dioscurides*, 217.

⁵⁸ Translation by Beck, *Pedanius Dioscorides*, 249.

⁵⁹ Haars, *Die allgemeinen Wirkungspotenziale*, 176.

⁶⁰ Once again, this chapter is not included in the textual family known as the "Alphabetical Herbarium", preserved in the Vienna and Naples Dioscorides.



Fig. 14. New York, The Morgan Library and Museum, MS M. 652, f. 12r (detail): illustration of *androsaimon*.



Fig. 15. Mont Athos, Ἱερὰ Μονὴ Μεγίστης Λαύρας, Ω 75, f. 22v (detail): illustration of *androsaimon*. © IRHT

Morgan Library (f. 12r: Fig. 14) and manuscript Ω 75 from the Ἱερὰ Μονὴ μεγίστης Λαύρας (Holy Monastery of Great Laura) on Mount Athos, which was copied towards the end of the 10th or the beginning of the 11th century, taking the New York manuscript as its main textual model (but not for its illustrations, which come from its second textual model), and therefore most likely in Constantinople⁶¹ (f. 22v: Fig. 15). The striking thing about these four illustra-

⁶¹ Diktyon 28937. Accessed in the form of a black and white microfilm made by Marcel Richard and held by the Institut de recherche et d'histoire des textes. On this manuscript and its two models, see Marie Cronier, "Quelques aspects de l'histoire du texte du *De materia medica* de Dioscoride: forme d'origine, remaniements et révisions à Constantinople aux X^e et XI^e siècles", in *Ecdotica e ricezione dei testi medici greci. Atti del V Convegno Internazionale. Napoli, 1-2 ottobre 2004*, ed. Véronique Boudon-Millot, Antonio Garzya, Jacques Jouanna and Amneris Roselli (Napoli: D'Auria, 2006), 43–65, with previous bibliography.

tions, which are supposed to depict the same plant, is how different they are. They have little in common apart from the small leaves on either side of the stems.

In Latin, *Clm* 337 shows a figure (f. 108v: Fig. 16) which, once again, shares characteristics with its equivalents in both Greek and Arabic. In the Arabic manuscripts of Dioscorides, an image very similar to that of *Par. gr.* 2179 can be found not only in *Par. ar.* 4947 (f. 77r: Fig. 7, at the top), but also, to some extent, in *Ahmet III* 2127 (f. 182r). The illustration in MS *Or.* 289 from Leiden (f. 137v: Fig. 17) also comes close, but with a simplified structure that is undeniably reminiscent of the image of the abovementioned Latin manuscript. An even more simplified shape can be found in *Bodl. Arab. d.* 138 in Oxford (f. 87v), in *Bonon.* 2954 (f. 185v: Fig. 18), in *Ayasofya* 3702 (f. 67r) and in *Lond. Or.* 3366 (f. 112v).

The illustration on the folio kept in Armenia, which shows a shrubby plant, lying horizontally, without flowers but with small oval green leaves distributed on either side of the stems, could to some extent be more consistent with *androsaimon* (ἀνδρόσαιμον) than with *koris* (κόρις) of Dioscorides. Particularly, its very schematic appearance brings it closer to the image of the *androsaimon* from Morgan M. 652 (Fig. 14), although the latter has some brown leaves while the leaves on the Yerevan fragment are all green, with lighter or darker shades.

Needless to say, the highly schematic nature of the illustration precludes any definitive identification. Nevertheless, I believe the hypothesis that it relates to the chapter that precedes it rather than to the following one deserves serious consideration. In particular, this hypothesis is further supported by the fact that, on the verso (Fig. 3), the text of the chapter entitled *chamaipitys* (χαμαίπιτυς; Diosc. III, 158) begins at the very top of the page (in fact, we have kept the upper margin virtually untouched).⁶² It is preceded by its title, ΧΑΜΑΙΠΙΤΥΣ, which is placed roughly in the middle of the line and highlighted by the same small horizontal fillets, above and below it, as the title ΚΟΠΙΣ (on the recto, Fig. 1–2), which follows the image. If we were dealing with a page layout in which the image preceded the corresponding chapter, the illustration of *chamaipitys* would necessarily have been at the bottom of the preceding verso, which would have been unsightly: this arrangement, in which text and image are dissociated on one recto and the following verso, is in fact avoided as much as possible. On the contrary, in books where the image follows the text, it is usual to start a chapter at the top of a page, as is the case for the *chamaipitys* (χαμαίπιτυς) in the Yerevan fragment and as is generally the case in *Par. ar.* 4947 (e.g. f. 77r, Fig. 7) and in Books VI and VII of Morgan M. 652 (e.g. f. 311r, Fig. 11). Thus, the rudimentary image of which only a few remnants can be seen at the bottom of the verso would, in my opinion, correspond to the first variety of *chamaipitys* (χαμαίπιτυς), the one described in the paragraph that can be read (III, 158, first

⁶² On the recto (Fig. 1–2), the fact that the chapter on *androsaimon* (ἀνδρόσαιμον) begins halfway through a word, while a large portion of (empty) folio is preserved above first line, clearly shows that we are dealing with the upper part of the original folio and that no significantly larger portion is conceivable to have ever been above it.



Fig. 16. München, Bayerische Staatsbibliothek, Cm 337, f. 108v (detail): illustration of *androsaimon*.



Fig. 17. Leiden, Universiteitsbibliotheek, Or. 289, f. 139v (detail): illustration of *androsaimon*.



Fig. 18. Bologna, Biblioteca Universitaria, 2954, f. 185v (detail): illustration of *androsaimon*.

part) as two other varieties are then presented by Dioscorides (III, 158, end). The proposed reconstruction (Fig. 2–3), which is admittedly based on the text of Wellmann's edition (but the text of the surviving fragment generally corresponds to it, with only minor variants), also allows the end of Book III to coincide with the bottom of a verso (since chapter 158 is the last of this book), which is consistent with the canons of a careful manuscript.

6. Consequences for Dioscorides' illustrative tradition

It has already been said that the Yerevan fragment, which can be dated to around the 6th century, is the oldest evidence of a manuscript preserving *De materia medica* in its original arrangement with illustrations. But there is more: if the above assumption is confirmed, it would also provide the only evidence in Greek (and the oldest in any language) of a page layout of Dioscorides in which illustrations follow the corresponding chapters.

Given that this layout is fairly common in the manuscripts of Arabic translations,⁶³ especially those closest to the Greek or Syriac originals (ms. of Masshad, *Par. ar.* 4947, *Ahmet III* 2127 and *Ayasofya* 3704), this would seem to be the layout of their remote Greek ancestors.⁶⁴ Such Greek ancestors necessarily predate the period when the first Arabic translations were completed, i.e. the end of the 8th century and the middle of the 9th.⁶⁵ However, since this layout may be found in the Yerevan fragment, we could date its emergence back to Late Antiquity, to the 5th or 6th century at the latest, since it is not an innovation of its own, but must already have been present in its model.

In this respect, it is worth going back to the relationship of the Yerevan image with that of the *androsaimon* (ἀνδρόσαιμον) in manuscript M. 652 of the Morgan Library (Fig. 14). The latter was in fact created using several models, probably three for Dioscorides, of which it offers a new edition in a completely new order, called the “Alphabetical five-book recension” (the New York Dioscorides is its original exemplar). In this textual form, Book I – which includes *androsaimon* – is devoted to plants, which are arranged in alphabetical order according to their names: the main model for Book I is an “Alphabetical Herbarium” very similar to (but different from) the Vienna Dioscorides, with an adapted page layout, as we have seen:

⁶³ Incidentally, the very usual layout in the Arabic manuscripts further removed from the originals (e.g. *Leid. Or.* 289, *Bonon.* 2954, *Bodl. Arab.* d. 138, or *Lond. Or.* 3366), where the width of the writing column is reduced over a few lines within the chapter to make room for an illustration, seems to be an economical variation on this original layout. It is also found, from time to time, in *Ayasofya* 3704.

⁶⁴ It is not proven that the four Arabic translations, at least two of which used as an intermediary a Syriac translation – which has not been preserved and is of uncertain date – can be traced back to a single Greek copy, and in fact it is quite unlikely.

⁶⁵ As mentioned above, the main Arabic translation was made by a disciple of the famous translator Ḥunayn b. Ishāq and can therefore be dated back to around the middle of the 9th century. On the dating to around 800 of the *Vetus translatio*, see *supra* n. 50.

each image precedes the corresponding chapter, with its own title, but it does not fill a whole page (rather half, or even a third or a quarter of the page). In addition to the chapters from the Alphabetical Herbarium, Book I includes chapters from a copy of the treatise *De materia medica* in the original order, which the copyist marks as τοῦ Ἀναζαρβέως, “of the Anazarbian”.⁶⁶ Yet precisely the chapter on *androsaimon* in Morgan M. 652 is marked as coming “from the Anazarbian” (Fig. 14). For Books II (on animals), III (on oils and related products) and IV (on trees), this manuscript “of the Anazarbian” is used in Morgan M. 652 as a supplement to an earlier alphabetical compilation, provided with very beautiful illustrations and of which no further evidence has come down to us. On the other hand, Book V of Dioscorides in the New York manuscript comes entirely, and with virtually no reworking, from this manuscript “of the Anazarbian”, as do the two apocryphal treatises (*Alexipharmaca*, Book VI, and *Theriaca*, Book VII).⁶⁷

Book V in the New York Dioscorides has only three illustrations, for the first three chapters: these illustrations probably come from another source as none of the other chapters are illustrated. On the other hand, it seems significant to point out that, as mentioned above, for Books VI and VII Morgan M. 652 features a page layout in which the image follows the corresponding chapter (Fig. 11). Moreover, in general, the illustrations “from the Anazarbian” in this manuscript are marked by a strong schematism and a very rudimentary appearance, reminiscent both of the image in the Yerevan fragment and, more generally, of those in *Ayasofya* 3704 but also, to some extent, of those in the only illustrated manuscript of the Latin translation (*Clm* 337).

7. Concluding remarks

All these observations point to the hypothesis that, as early as the last centuries of Antiquity (by the 6th century at the latest), there existed a Greek version of Dioscorides’ *De materia medica* in the original order, containing illustrations that were probably rather stylised and rudimentary, following on from the corresponding chapter: this was probably a new edition of Dioscorides, in which the intention was to set down the text, which already circulated in a wide variety of forms. The New York manuscript and the Arabic translations (which all contain seven books) might lead us to believe that this occurred when Book VII was added

⁶⁶ This is a way of referring to Dioscorides, a native of Anazarba, Cilicia, which is found only in certain manuscripts.

⁶⁷ See Marie Cronier, “Un manuscrit méconnu du *De materia medica* de Dioscoride: New York, Pierpont Morgan Library, M. 652”, *Revue des Études grecques* 125 (2012): 93–138.

(after Book VI)⁶⁸ but the truth is that nothing allows us to confirm this – we do not know, for example, whether the Yerevan fragment comes from a five-book or six- or seven-book form.

Finally, the Yerevan fragment is the only remnant of a manuscript of Dioscorides written around the 6th century, perhaps in an eastern region of the Byzantine world, whose text (insofar as a philological analysis of such a short excerpt is possible) is not clearly related to any other surviving copy, and neither is the illustration that appears on its recto. However, the highly stylised nature of the illustration and its layout are reminiscent of certain manuscripts of the Arabic translations of Dioscorides (those closest to their Greek or Syriac ancestors) and of one of the models used in 10th-century Constantinople to produce manuscript M. 652 in the Morgan Library (the manuscript “of the Anazarbian”). This fragment is therefore an additional element in the reconstruction of a Late Antique manuscript – undoubtedly an edition – of the original Greek form of Dioscorides with illustrations, the best evidence for which is to be found in the Arabic translations. Thus, even if Dioscorides’ treatise as originally compiled in the second half of the 1st century was not illustrated, and even if the earliest illustrated manuscripts (Naples Dioscorides, 4th–5th century, and Vienna Dioscorides, early 6th century) feature a much altered form, we can now be certain that the original form was provided with illustrations – obviously stylised – no later than the 6th century.

⁶⁸ See Alain Touwaide, “Les deux traités de toxicologie attribués à Dioscoride : tradition manuscrite, établissement du texte et critique d’authenticité”, in *Tradizione e ecdotica dei testi medici tardoantichi e bizantini. Atti del Convegno Internazionale, Anacapri 29-31 ottobre 1990*, ed. Antonio Garzya (Napoli: D’Auria, 1992), 291–335, with previous bibliography.