Vlasta Radan

Manuscript Analysis

Manuscript:	Clm 337, parchment, ff. 177[1]
Depository Library:	Bayerishe Staatsbibliothek, München, Germany
MSS title:	Dioscorides, *De materia medica* (Five-Book Recension)
Year:	approximately late 10th century
Created:	South Italy
Size:	245 x 200(205) mm (Collins 2000, p. 149)

Bayerishe Staatsbibliothek (BS) catalog entry:

337 membr. 4o. s. X (?). 177 fol.
Dioschorides Dioscoridis de simplici medicina libri V. Codex litteris longobardicis scriptus, plurimis delineationibus pictis plantarum, serpentum, aliorum animalium, vasorum medicinalium et paucis hominum (scribentis f. 39, aegrotorum f. 123, regis f. 137, rupem scindentis f. 146) ornatus. Exciderunt f. 1 quaternionis primi, quaternionis 15 fol. 3-8, quaternionis 16 fol. 1-3 et 6-8; quaternionis 22 nil restat nisi fol. 4 et 5 (ultima codicis), quae exeunt in caput 161 libri V, qui continet 188 capita. Liber I editus est in 'Romanische Forschungen' I (1882) p. 49-105. Codice usus est Marcellus Virgilius (c. 1518) Florentiae; deinde eum 'Cardinalis Capuanus a Salnuccio Sangeminianense dono acceptum mihi in testamento reliquit' J. A. Widmestadius in tegumento scripsit. Addidit alia manus 'Ego Joannes Rebhauer pharmacopola Lanndshutensis ab orbatae prolis Widmanstadianae curatoribus dono accepi a. 1557' (BS 1).

October 10, 2005

[1] Collins (2000, p. 149) states that the book has 157 folios.

Introduction

The codex with shelfmark *Codici latini manuscripti* (Clm) 337 is a quarto-sized book containing the full five book Latin version of *De materia medica* written by Greek medico and herbalist Pedanius Dioscorides of Anazarbus (40-90 CE). As its name indicates, the text deals with medicinal uses of various substances—minerals, animal products, oils—including information about approximately 600 plants and their medicinal uses. The codex is moderately illustrated depicting plants, animals, and humans.

There is no monograph detailing the Clm 337 codex, presumably because of its humble visual appearance. Although, neglected by art historians, the codex is often mentioned in books about the history of medicine, botany, and herbals. Through that literature, it is possible to gain quite interesting information, if not about the appearance of the codex, then about the role of herbals in Medieval life and the ways of transmission of the knowledge between cultures.

The book on medieval herbals by Minta Collins (2000) was a source that provided the most information on the physical appearance and making of the codex and interesting insights about the debate surrounding the genealogy of herbals. Besides two black and white pictures (f.146v and f.39), her book had the only color picture of a page in the codex (f.66v) that could be obtained. John Riddle (1985) was extremely informative about the text of *De materia medica*, ancient medicinal practices, and in addition of botanical and medical information, contains the chapter about different manuscripts of Dioscorides' text. Unfortunately it has only two small (3x3in) reproductions of photostats of pages from the codex (f108v[2]) and details of folios 123v and 39, all in black and white. The book about health and medicine in medieval Southern Italy by Patricia Skinner (1997) has two black and white pictures showing only a fragment of a page. The only two digital images that are available are on the web page of a Columbia University

[2] The two photostats, one on p. 197 and other on p. 200 show tow different verso pages, but captions identify both as folio 108 verso.

site, and they are the scans of black and white plates from E. A. Lowe, *Scriptura Beneventana* published in 1929 (Beneventan 2005).

The Beneventan Script by E.A. Lowe (1914/1980) is probably the most comprehensive book on the beneventan script, its development, historical background, and paleography. It shows examples of the beneventan script, but unfortunately none from Clm 337. The book gives some information about the technical characteristics of manuscripts produced in South Italy, but the book is the first of all a paleographic study. There are some other books that contain reproductions from the codex; however, they were not accessible at this time. The BS has a very helpful catalog of books that are cross-referenced with the manuscripts in their depository (BS 2).

Most of the texts that deal with herbal genealogy discuss the origin of Clm 337, but do not interest themselves with its provenance in later centuries. Only three sources that could provide any information on the provenance were the BS catalog, and in passim Collins (2000, p. 153) and Godman (1998, p. 218). At the end of the 19th century, the codex was described for the first time in any detail in *Romanische Forschungen,* vol I (1882), edited by K. Hofmann and T. M. Auracher. On the turn of the century, the codex, or rather its script, often appears in paleographic texts and debates in connection with identification of the beneventan script (Lowe 1914/1980, p. 22-40). Later, the codex was recognized as important element in transmission of the Greek scientific thought and for understanding the genealogy of herbals (Singer 1927, p. 20) and especially as one of the crucial sources for collating the modern Latin version of the Dioscorides (Sigerist 1941).

Manuscript[3]

The Clm 337, is written in *lettera beneventana,* i.e., beneventan minuscule, the script used almost exclusively in Southern Italy and Benedictine monasteries on the Dalmatian coast. The codex is the only surviving illustrated copy of the complete—five book recension—text of Dioscorides in Old Latin translation.

[3] Description of the manuscript is exclusively from Collins 2000, p.149-153, unless noted otherwise.

The codex in copied onto poor quality parchment. The text is arranged in two columns with wide margins and small illustrations. Illustrations do not take more than the width of each column and accompany the beginning of the chapters.

Each of the five books starts with a list of the chapter titles. This is a unique feature common only to a Latin version of this recension[4] of Dioscorides manuscript. The text is written in light brown ink, by the same hand, but not by the best of scribes. The initials are simple, mostly just three or two line calligraphic capitals in colors different from the body of the text. There are also some very simple zoomorphic initials. The initials and illustrations are painted in pale yellow, red, blue, and a clear blue-green with traces of white. The coloration of the illustrations does not follow the natural coloration of the objects (blue dogs, blue-leafed plants, green scorpions, red snakes). The chapter titles and the chapter numbers are in Greek and written in red ink. They also tend to slant uncharacteristically from the rest of the text, what can indicate a different hand (probably illuminator or rubricator), or latter addition.

Besides plants, the figures show different kinds of animals, mostly associated with the cures against bites or stings inflicted by these animals. There are seventeen illustrations with human figures. They are nude or draped in cloth, illustrating various symptoms or cures. In the illustrations very often plant roots extend into gaps left in the text, area and spaces on the top and bottom of the columns were left for later illustrations. In the book V, scribe did not leave place for the illustrations, so pictures are dispersed on the margins or squeezed between lines of chapters. The images of the scorpions, snakes, dragons, dogs and insects are scattered haphazardly on the margins of the codex.

There are three compositions that are more elaborate. On folio 94, the pictures show a human figure piercing the stem of the plant with arrows and collecting the sap. On folio

[4] There are two other codices that contain what is defined as Old Latin translation of five books, non-alphabetic recension of Dioscorides: Paris lat. 9332 from the 8th/9th century and Paris lat. 12995 from the early 9th century. But beside the text itself, they have different general appearance and they are not considered as the possible exemplars for Clm 337 (Collins 2000, p. 149).

137, there is a picture of a person in a vine press with a sick person lying below; and on folio 146, a man pokes a stick into the mountainside in order to extract the ore. On folio 39, it is also a framed half-column high picture of a scribe writing the book. Based on the type of the clothing decoration and contemporary regional visual formula, the figure is identified as Adam counting the animals (sic).

According Lowe (1914/1980), the older manuscripts written in the beneventan script tend to be written across the page in long lines, however when looking for higher calligraphic results scribe would write text in two columns. Most often two column systems would be applied for the manuscripts that were intended for recitations so the reader would have easier time navigating the text. With maturing of the script, sometimes around 9th century, two columns become standard (p. 289). Up to the 12th century, pages were ruled with a plummet, and after that time with a dry or hard point. On the picture of the f108v (Riddle 1985, p. 200) it is possible to see the horizontal ruling of individual lines in the column. The layout of the pages included two sets of lines—one that bound the body text and one that lined up the calligraphic letters (rubrics) which protruded out form the rest of the text. Ruling was guided by pricking through the parchment after sheets were gathered in the quires (Lowe 1914/1980, p. 293).

Quires of the beneventan manuscripts are usually made of quaternion (four folded sheets or sixteen pages), but the number of the sheets vary considerably depending on the position of the quire in the codex, and condition of the parchment. Lowe (1914/1980) also observes that the beneventan manuscript very rarely had any colophons or titles written in rustic capitals, although that was common tradition in the North Italian scriptoria. In other ways, the South Italian scriptoriums followed common practices of that time. Signing of the quires was usually written in roman numerals, but most of the extant manuscripts were rebound multiple times and their margins suffered dearly from the bookbinder's knife (p. 290-291).

The volume is of rather smaller size—245x200 mm—what would indicate its utilitarian purpose. None of the sources available mentions anything specific about binding, but that it is bound in one volume.

Text

Experience, the most efficient teacher of all things especially in medicine, gradually degenerated into mere words and verbiage. For it was pleasanter to sit diligently listening in lecture-rooms than to go out into the fields and look for different plants at the different seasons of the year.

Pliny, Natural History XXVI, 11 (from Morton 1981, p. 58)

Herbals copied in Europe during the Middle Ages almost all come from three Greek originals: Herbal of Krateuas (also Crateuas, ca. 1st century BC), Herbal part of Dioscorides (40-60 CE) *De Materia Medica*, and Herbal of Apuleius Platonicus (also Apuleius Barbarus, ca. 4th century CE). But even they are not the "original" herbals; they were rather "definite" compilation of older information and drawings. Krateuas and Dioscorides were in Greek, while Apuleius Platonicus wrote in Latin. The text of Dioscorides was translated in Latin sometime in the 6th century. The translation did not add new value to the knowledge of the medicinal proprieties of the plants or quality of the figures who already suffered from "an inadequate basis of actual fact" (Arber 1938, p. 6). In the further centuries up to the 15th century, scribes and illuminators were more concerned with current manuscript fashion than "scientific" quality of their herbals. This practice of mechanical copying from the exemplars however enabled the researchers to create the some kind of lineage chart of different manuscripts.

No to go too deep into the genealogy of the Dioscorides' *De materia medica* it is sufficient to say that this medical compilation was a last remnant of achievements of the Greek pharmacology. It incorporates the parts of Theophrastus' *Peri phyton historia* (Inquiry into Plants), Createus' *Rhizotomikon,* and the herbal of Sextius Niger (Morton 1981, p.67). However, Dioscorides also added to it a text based on its own observation

and field research. Apparently, Dioscorides was doctor in Roman army[5] (Nero region) and therefore had many opportunities to travel across the Mediterranean basin and do the field observations (Singer 1927, Morton 1981 and majority of encyclopedic sources).

The text of the treatise was written sometimes around 60 CE, and strictly speaking, *De materia medica* is not a herbal, or rather, it is not a book that deals only with the pharmacology of the plants. In the preface of the text, Dioscorides points out that the function of the books is to assist in "the preparation, properties, and testing of drugs," not just recognizing and collecting herbs. The text is divided in five books[6] and contains recipes for almost 1000 drugs, and only three-fifths of them are based on substance from the plants. The treatise contains description of nearly 600 plants, however, descriptions of the plants are very brief and most of the space if devoted to the description of the application. Singer (1927) also points out that description were originally more detailed, but could be that they were abbreviated during the centuries of copying, with scribes editing out "boring" or "unimportant" details (p. 19).

Although Dioscorides incorporates the works of others in his treatise, he did so with a critical approach toward his sources, and was honestly trying to wed out all superstitions and hearsays. He abandoned alphabetical arrangement of the entries, as established by Theophrastus, arguing that it arbitrarily separated related information. He preferred grouping entries by their pharmacological significance, which made text much easier to use as a medical manual. Sometimes in the 2nd century AD, the treatise was enhanced with numerous illustrations, which, as one may expect, tremendously increased its popularity. In addition, physician Galen (129-216) expressed high praise for the quality of this text. The significance of *De materia medica* by Dioscorides and state of the mind of post-Greek society on the West is best illustrated with the words of Morton (1981): "so

[5] Riddle (1985) oppose this widely accepted interpretation pointing (1) how little attention in the text is given to treatment of wounds and fighting related injuries and diseases; (2) that there was no officially recognized position of the doctor in Roman army—anybody who had any medical knowledge helped anybody who needed medical attention; (3) none of the places which Dioscorides specifically mentioned as one visited are military posts but the mercantile centers (p. 2-3).

[6] Book I: Aromatics, oils, ointments, trees; Book II: Living creatures, milk and dairy produce, cereals and sharp herbs; Book III: Roots, juices, herbs; Book IV: Herbs and roots; Book V: Vines and wines, metallic ores.

great was its medical renown and so narrow had the bounds of scientific interest in plants become, that for centuries the work of Dioscorides become synonymous with botany" (p. 67).

Sometime in 6th century, the full text of all five books was translated into Latin as a manual "for use by barbarian doctors in Italy" (Morton 1981). The treatise become the standard work on pharmacology used by the medical profession and that ensured the copying (i.e. preserving) the text throughout the centuries. With time, various excerpts from this text were made (*Liber medicinae ex herbis femininis* and *Curae herbarum,* for example), mostly adding to the deterioration of the quality of the texts and illustrations.

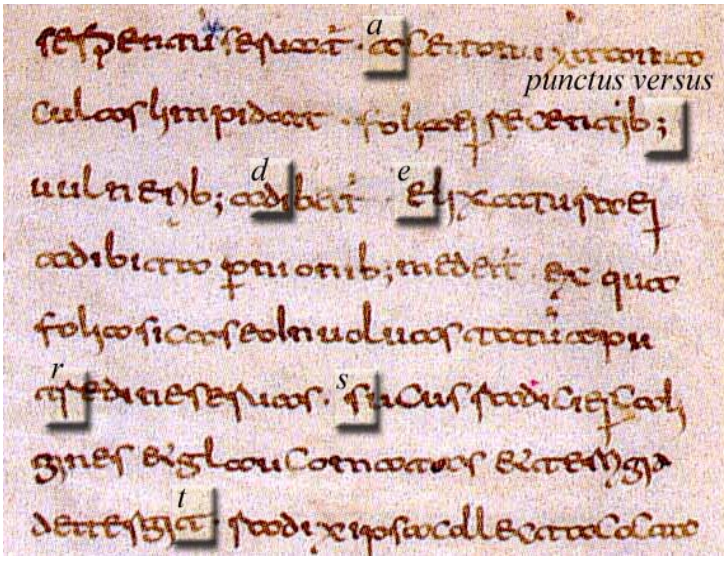
Script

We do not know the exact place of the origin of codex Clm 337, but it is almost certain that it is produced in the southern part of the Italian peninsula. Between the 6th and 8th centuries, the whole territory of today's Italy was under the rule of Lombard kingdom (584-774). The Lombards were a Germanic tribe with origins somewhere in the region of northwestern Germany, which took the opportunity of a power vacuum created after Byzantine defeat of Ostrogothic kingdom (489-552) in Italy. In the 8th century, Charlemagne conquered northern to central Italy and stabilized the border of the Frankish kingdom on (roughly) the Gaeta-Pescara line. The Italian territories south of that line were ruled by Beneventan dukes (774-1000) who claimed continuity with the Lombard tradition.

On the territory of that dukedom during the 8th century, local scriptoriums developed the script today known as the beneventan. The script it is particularly associated with the Benedictine monastery of Monte Cassino and was used by scribes from 8th up until 13th century. It must be noted that this territory never belonged to the Frankish kingdom or Holy Roman Empire, and therefore, they were outside the direct influence of cultural effects of the linguistic and writing reforms developed there.

During the Renaissance and the script was labeled *scriptura longobardica* in the wrong assumption that the script was brought to the Italy by the Lombards from the Germany. In that context, the name has the same derogative meaning as expression "gothic" have in description of the North European art. In addition, it was long assumed that the beneventan developed from Vizigothic hand and that the Early Corbie and the beneventana are the same script. However, Lowe (1914/1980) argues that the script was for the long time called *littera Beneventana* and that name much better describe the origin (Benevento region) of the script clearing the muddled waters of prejudice and misconceptions (p. 22-40). Most of the latter authors accepted this arguments and the script is in all newer sources named the beneventan script.

One must admit that the beneventan script is not one of the most legible scripts to read. It is vertically compressed with long club shaped ascenders and descanters. The line of the script look like two strings of beads connected with zigzag of thread, with loose ends hanging up and down. Donald Anderson (1969) describes the script having appearance as if "supported by the heavy initial strokes and endings" (p. 88) The influence of Irish and British missionaries, founders of many Italian monasteries, like Bobbio and Monte Cassino, is very much evident in the forming of certain letters, for example: a, e, d and t. The beneventan script have very peculiar form of letters a and t. The letter s resembles our lover case f with much abbreviated cross stroke. The letter r has long descender hanging below the baseline. The ovals of the letters are almost perfect little circles and even minims of the m or u are rounded with heavy pen strokes on the top and with prominent serifs. This script rounds and connects with the visual feel of colonnades spanning through the streets of Italian towns.



Unfortunately, the text of codex Clm 337 is not written in the best of the beneventan scripts, probably because of its utilitarian nature. It appears that is written by one hand, but the script is not always legible or well formed (Collins 2000, p. 150). However, it exhibits all idiosyncrasies of the script as described before, maybe with exception that pen slant is very minimal and that there is not much difference between thick and thin lines in letter forms. The abbreviations do not occur so often as in more formal (liturgical) texts, however they are still used in some number. The bottoms of the letters are not so stressed as is common for this script and adherence to the line is not particularly followed. Overall, the ductus of Clm 337 benventana have almost cursive appearance, indicating that the codex was probably not the product of a high quality scriptorium like Monte Cassino.

Users of herbals

It is difficult to be short and clear in explaining the medieval history of Italy, especially of its southern part. Throughout the middle ages, the peninsula had a very important geopolitical position in the wider context of culture and trade in the Mediterranean region. Southern Italy was one of the few places in Europe (other than Spain) which we could call "multicultural" in modern sense. Besides the native Italian (Latin Roman) population, there were significant communities of Greeks, Jews, and Arabs. Although the medieval world was overall local in the character, the coastal lands preserved some of the cosmopolitanism of the classical past. The arrival of Arabs or, rather, the development of the Dar-al-Islam, brought a major new player into the game, but it did not extinguish the traditional trade and cultural exchange.

Besides this cultural mixture, south Italy had a long tradition of medical learning and compilation of medical texts started with Pliny continued into Christian tradition. In the 6th century, St. Benedict founded the monastery of Monte Cassino and wrote his *Regula* for the Benedictine order, which laid down the foundations for monastic scriptoriums. Cassiodorus (490-585) and his literary activities in Vivarium made "the writing of books, the preservation of authors, a sacred duty and an act of piety" (Lowe 1914/1980, p. 3). In his *Institutiones,* he explicitly encouraged the study of medicine and "if you cannot read

Greek easily, above all else consult the Herbarium of Dioscorides, who described and illustrated the herbs of the fields with amazing exactness"[7] (Stannard 1999, p. IX-4)

The documents and sources show that profession of medicos was well respected and that they were often asked to be witnesses at the property sales or devotional gifts. In the city of Naples, there was a physicians' guild and its members held quite high social positions. The secular physicians held their practice predominantly in the towns, while the country was served by the monasteries and their monk-physicians. It is also interesting that all hospices and infirmatories were organized as parts of the monasteries. There are no documents that would indicate that secular physicians practiced in them in any way (Skinner 1997, p. 79-107).

Although this area did not produce any further "scientific" development in the field of medicine or herbals, the preservation of the previous tradition and input of Islamic writers building on Greek tradition was stronger than anywhere else in Europe was. In the 12th century, this would result in establishment of the Medical School of Salerno (town south of Naples), one of oldest universities in Europe. The school owed much to the enlightened Holy Roman emperor Frederick II (1194-1250), who decreed in 1221 that no one should practice medicine until he had been publicly approved by the masters of Salerno. There are some questions how formal was this institution (Skinner 1997, p. 127), but regardless of that—Salerno was a medieval medical center and it drew scholars from near and far.

De materia medica was up to the 15th century one of very few medical handbooks and held an almost "infallible authority" (Arber 1938, p. 10). In letter, written in 1562, diplomat Ogier Ghiselin de Busbecq on a mission in Constantinople talks about seeing the *Juliana Anicia Codex* and mentions "it belongs to a Jew, the son of Hamon, who,

[7] Quid si vobis non fuerit Graecarum litterarum nota facundia, in primis habetis Herbarium Dioscoridis, qui herbas agrorum mirabili proprietate disserut atque depinxit. Post haec legite Hippocratem atque Galienum Latina lingua conversos, id est Tharapeutica Galieni ad philosophum Galucenem destinata, et anonymum quendam, qu ex diversis auctoribus probatur esse collectus. Deinde Caeli Aureli de Medicina et Hippocratis de Herbis et Curis diversosque alios medendi arte compositos, quos vogis in bibliothecae nostrae sinibus reconiditos Deo auxiliante dereliqui. (Cassiodori senatoris, Institutiones, ed. By R.A.B. Myners, Oxford, 1937, I, xxxi 2 quoted in Collins 2000 p. 163)

while he was still alive, was physician to Soleiman" (Arber 1938, p. 9). Beside the writings of Pliny and Galen, there were no other practical "guide for perplexed" physicians that would help in determining what to use to cure a particular malady. However, the importance of the books and medical texts should not be overestimated, because the most of the knowledge about medicine, herbs, and its pharmacopeias was transmitted orally and by following family tradition.

The physicians would not be the only ones that would consult the *materia medica* like codex Clm 337 in their daily life. Herbals were consulted and utilized also by *pharmakopoles* (apothecaries), *rhizotomoi* (root-cutters) and all sort of herb-gatherers. Although Galen insisted that a physician should do collecting and processing herbs by himself to ensure quality and purity of the substances used, apothecaries or druggists where as widespread then as they are today (Arber 1938, p. 7; Riddle 1985, p. 5). The apothecaries' trade would require at least some literacy to read recipes to prepare various drugs and potions. So, they could use a book like Dioscorides' *De materia medica* in their daily life. Besides apothecaries, the gathering and knowledge of pharmacology of herbs was often associated with the knowledge of the magical and supernatural, which was usually connected with pagan past (Stannard 1999, p. III-30). However, it would be very doubtful that village herb-gatherers would be sufficiently literate to make use of an herbal like Clm 337.

In respect to quality and size of the codex, it would be more probable that some well established doctor would use codex Clm 337 to find out what ingredient he (at this point in history, almost certainly he) needed to cure a particular illness. Although the text of De materia medica is mainly account of the names and healing proprieties of the substances enumerated, the description of plants are very slight and only most characteristic plants could be identified using the codex. But, we should not forget that medieval illustrations are more symbolic or mnemonic devices than an illustration of reality (Collins 2000, p. 153).

Sometimes a doctor would order some exotic ingredient from a merchant (Stannard 1999, p. III-28) and the herbal would help to explain what exactly was wanted and what local name at the place of origin was. It would be interesting to know how they dealt with the fact that through the countries of copying many names and synonyms of plants and ingredients was garbled and in passing centuries, many languages and countries disappeared from the face of the earth (Morton 1981, p. 68). We can presume that translation of names and subsequent finding of "right" ingredient required some inventiveness on the side of the trader, and, presumably, good faith on the side of physician that things brought from distant places were the right things. Regarding that problem, the Jewish physicians, very common in this region, had an extremely advantageous position because they could relay on shared language and well established trade connections of Jewish community across Mediterranean (Skinner 1997, p. 81). They also had the advantage of information exchange with the minimal cultural and language barriers, where they could be reasonably sure that information did not "lose in translation" some essential part.

However, codex Clm 337 could also fit well in the library of many monasteries that dotted south Italy. The care for the sick, as Levi (1988) put "it seems to belong naturally to their role as wise men, readers of books deeply embedded in their rural surroundings" and to the idea of "the benevolence" (p. 143) associated with monasteries. Some monasteries, like Monte Cassino, become well known centers of medicinal knowledge and renown for quality and number of medicinal books in their libraries (Skinner 1997, p.128; Morton 1981, p. 89). That was one of the reasons why many authors assume that Clm 337 was written in the Monte Cassino scriptorium. Beside the Christian duty for poor and sick, it was very common, in the time of early Middle Ages that upon becoming seriously ill, one would go to the monastery to die. This was even encouraged by monasteries, especially if patient had something of value to contribute (Sinner 1995, p. 98-104). It was not that patients expected to be cured by the pure power of faith and holiness of their surrounding (lot of that too), but it was rather that they would seek spiritual cleansing before they would die and it was also considered particularly fortunate to be buried in monastic ground.

As Levi (1988) put in his book about monks and monasteries, in the Middle Ages "you either recovered or you died, or you survived as a cripple" (p. 144) therefore expectations of patients were much more different than today. However, that forced monasteries to establish infirmaries, have on hand monks trained as physicians as well as keeping themselves well supplied with all necessary medicinal ingredients. Because of the nature of the monasteries, they would be more inclined to practice herb growing and gathering for themselves than to go and shop at the marketplace. Peter Levi (1988) relates the story of 1934 visit of the director of Kew Gardens to the Greece. While perusing the then still pristine meadows of the Greece countryside he encountered local monk, which carried with him in the bag the four folio manuscript volumes copied from Dioscorides. "By consulting these great tomes, he identified the plants as he discovered them" (p. 145).

Provenance

When translated in English, the catalog entry for the Clm 337 that deals with provenance, reads:

> *Codex is mentioned for the first time in "Romanische Forschungen" vol I (1882). Manuscript was in possession of Marcellus Virgilius (c.1518), Florentine; also see note "[From] Cardinalis Capuanus a Salnuccio Sangeminianense given as bequest" written on the cloth by J.A.Widmestadius. There is also note in different hand "I, Joannes Rebhauer pharmacist from Lanndshutensis, a descendent of Widmanstadianae guard this gift received in year 1557."*

Unfortunately, there is nothing beyond the script that would point to the origin of the codex Clm 337. Most of the newer[8] sources as well as BS catalog entry go along with the opinion of E.A. Lowe (Lowe 1914/1980, p. 19) that paleography of the beneventan script points to the late 10th century (*seac.x*).

[8]In his 1938 book about Latin Dioscorides H. Mihăescu date book in 8th century and produced in Monte Cassino (Sigerist 1941). Also, see Collins 2000 p.222 footnote 20. Singer (1927) on page 34 refers to codex as "a South Italian MS. of the 9th century, in the Beneventan script." Stannard (1999) in his article on Dioscorides in Renaissance refers to late 19th century sources and date manuscript "the eight/ninth century" (see p. IX-4 and p. IX-17 footnote 22)

Based on the geographic usage of the script, scriptorium that produced the codex would be somewhere in southern Italy.[9] In spite all the upheavals of early middle ages, this region never really lost contact with Greek culture, in later ages fostered in Constantinople. We know that in the 6th century there was at least one five-book version of Dioscorides' *De materia medica* in Constantinople. This was a beautifully illustrated Greek language edition[10], with very life-like depiction of plants. However, all indications are that the earliest versions of Dioscorides were unillustrated and that pictures used in Juliana Anicia Codex were derived from herbal of Krateuas (Arber 1938, p. 9, Singer 1927) and those Latin translations of Dioscorides used some other exemplar.

In one of his *Institutiones* Cassiodorus advice to "consult the Herbarium of Dioscorides" and there are arguments that maybe he refers to the Dioscorides' book in full recension, what would also point to the possibility that Clm 337 was copied from the exemplar obtained from Vivarium. Collins (2000, p. 163-165) puts forward arguments and different sources which would indicate that this is very unlikely because Clm 337 is full edition of *De materia medica* and not just a herbal as the quote would indicate. Moreover, there was more than one Latin version of the Dioscorides that floated around and Cassiodorus could refer to any number of them, probably one of the excerpts that concentrated only on herbal remedies.

But, if the script could tell us when and where approximately the codex is produced, there is nothing pointing toward a particular scriptorium. The monastery of Monte Cassino would be one of the natural choices, especially in respect to their long tradition of translating and copying medicinal texts and strong connection with Salerno medical school (Skinner 1997, p. 127). However, Collins (2000, p. 153) suggests that this is purely executed manuscript with inferior pictures and hasty ductus, and bad quality

[9]Although script was used in the Benedictine monasteries on Dalmatian coast, based on later provenance of the codex, it is very unlikely that it is produced there.

[10]The codex was produced for imperial princess Juliana Ancia and now is in Österreichische Nationalbibliothek, Vienna, shelf mark Cod. med. gr. I. The codex is popularly known as *Juliana Ancia Codex*.

parchment, which would all indicate a scriptorium of much lesser renown or maybe even that job is done outside a monastery. Regardless of all this, bad quality or not, commission of this text would still cost a pretty penny. Besides the cost of the parchment (bad as it is), writing material, and scribe, the patron also needed to provide the exemplar of relatively rare text. Only three known surviving examples of the old Latin translation of the complete *De materia medica,* the Clm 337 was the only illustrated one. This indicated that the patron needed to know, or had the opportunity to see illustrated editions of the text. However, all theories on original producers or executors of the codex are pure speculations.

In the 15th century codex, Clm 337 enters in historical sources as one of the manuscripts in the possession of the Marcello Adriani Virgilio (1464-1521) dignitary of the Florentine republic in the time of the Medici family. According the web site Mille Anni di Scienza in Italia (2000), Marcello Adriani Virgilio was:

> *Erudito e antiquario, succeduto a Poliziano nel 1494 nella lettura di poetica e oratoria presso lo Studio florentino. Tra le sue opere, la traduzione di Dioscoride (De medica materia, 1518).*

Peter Godman (1998) describes this translation and publishing of Dioscorides as a riveting Renaissance story full of rivalry and deceit, bringing interesting insights into the relationship between publishers and scholars. However, for the provenance of codex Clm 337 it is important that, in introduction to his translation of Dioscorides, Marcello Virgilio mentions "most ancient codex written in 'Lombard' letters." The codex was in his possession since c. 1490, and he used it (as exemplar?) for his translation. It is significant that Marcello Virgilio's edition of Dioscorides is without illustrations, which Godman argues is "not only because the drawings in Munich Clm. 337 were of little use" but also because "reminder of the tradition of the illustrated Dioscorides [was then to Marcello Virgilio] inaccessible" (p. 225). Therefore, for its first 500 years codex was put to the good use, if not only medicinal, but it did not travel much.

Catalog entry "[From] *Cardinalis Capuanus a Salnuccio Sangeminianense given as bequest" written on the cloth by J.A.Widmestadius*, bring us from Italy to the Germany and how the codex end up in the possession of the Bayerische Staatsbibliothek.

According to the Biographisch-Bibliographisches Kirchenlexikon (1999), Johann Albrech Widmannstetter (1506-1557), known also as Widmanstetter or Widmestadius, was an "orientalist, philolog, theologian and diplomat, and important humanist." He married an illegimite daughter of Ludwig X., duke of Bavaria (1495-1545). Windmannstetter studied eastern languages, first in Germany and then, from 1527 in northern Italy. From there he went to Naples and Rome to continue his studies of Arabic and Syriac. In 1533, he become a secretary of the Popes Clemens VII and Paul III, and 1535 secretary of the archbishop of Capua.[11] By the year 1539, Widmannstetter return to Bavaria, and hold various positions on Bavarian as well as Austrian court. During his lifetime, he assembled a sizable library with the subjects ranging from the classical philology, theology, natural science to medicine. The collection had over 800 volumes among them more than 300 manuscripts in Hebrew and Arabic. The collection was brought from his heirs and incorporated into the library of Bavarian court (established 1558) which later reconstituted as the Bavarian State Library (BS 3).

[11] Could inscription 'Cardinalis Capuanus a Salnuccio Sangeminianense' refer to him? Did he bequeath Clm 337 to Widmannstetter's in gratitude for his service?

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Bayerische Staatsbibliothek (BS):

BS1 The nineteenth-century catalogues of BS collection have been converted into a database available on CD-Rom and in an internet version
Vollman K.B. and Rauner E. (2001-2005) *Catalogi codicum Latinorum Monacensium, Halmii aliorumque*. Augsburg:
http://webserver.erwin-rauner.de/halm/catalogi_clm.asp
Printed source: *Catalogus codicum manu scriptorum Bibliothecae Regiae Monacensis*, T. I, pars 1 (editio altera), Monachii 1892, p. 86.

BS2 The catalog on secondary sources on manuscripts (Forschungsdokumentation Handschriften) in BS, category Hss-Signatur
http://elektra.bsb-muenchen.de/servlet/Top/searchtest?language=de (link is not stable)

BS3 Bayerische Staatsbibliothek
http://www.cerl.org/HPB/bayerische_staatsbibliothek.htm

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