

The Lists of Plant Synonyms in De materia medica of Dioscorides

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Abstract-The purpose of this research is to formulate viable answers to the most important questions surrounding the lists of plant synonyms appearing in some editions of Dioscorides' De materia medica: Who included these synonyms into Dioscorides' work, when and why did this happen, and which is the most probable source for these lists?

I. INTRODUCTION: ABOUT DIOSCORIDES AND HIS DE MATERIA MEDICA

Dioscorides was a Cilician Greek born in Anazarbos (or Anazarba) and therefore known as Dioscorides Anazarbeus. When Greeks worked for Romans, they adopted the name of a Roman gens: Dioscorides took the name of the gens Pedania, thus calling himself Dioscorides Pedanios Anazarbeus.

It is most likely that he lived somewhere around the middle of the first century A.D., during the reigns of the emperors Claudius and Nero. Dioscorides was a learned physician, who probably studied in Tarsos and Alexandria, the capitals of science in those times. It is believed that in Tarsos he was taught by Areios, to whom he dedicated his De materia medica.

Dioscorides practiced medicine as a physician of the Roman army, serving under Claudius and Nero, or under Nero and Vespasian. As such, he had the opportunity to accumulate extensive knowledge regarding the flora of foreign countries and it is generally believed that his interest in plants started to develop at a young age.

In De materia medica, a work consisting of five volumes, Dioscorides shortly describes the aspect, mentions the occurrence and points out the properties and effects of about 700 plants and vegetal products, more than anyone before him. It is for the first time in botanical history that the succession of remedies follows practical and pharmacological criteria.

Dioscorides' work remained the standard medical botany and pharmacology of the West until Renaissance. Starting with the 5th century, De materia medica was translated into Latin, Syrian, and Arabic. The Greek version was printed in 1499 in Venice by Aldus Manutius and afterwards five more times in the 16th century. This famous herbal has been translated into many languages during Renaissance, and it has exercised its influence on drug therapy as late as the beginning of the 19th century.

II. THE PRESENCE OF SYNONYMS IN SOME DE MATERIA MEDICA MANUSCRIPTS

Difficulties in identifying the plants of Dioscorides' herbal

have led to the preparation of copies of his work, provided with pictures of plants (e.g. the Juliana Anicia MS. of 515 at Vienna, the earliest surviving complete Greek herbal). Another change that was made to the original version was the alphabetic rearrangement of the succession of remedies for educational purposes and for easier consultation. The alphabetic

It is interesting though that Dioscorides is scarcely familiar with the flora growing in regions where the Roman army was mainly stationed, i.e. along the Rhine and Danube, in Spain or Northern Africa. Vivian Nutton (2004, 175) believes Dioscorides may have served in Syria, Egypt or Armenia

Dioscorides himself reveals this aspect of his life in the preface to De materia medica (see also Singer, 1927, 19). Berendes (1902), 1-12; Morton (1981), 67-68; Greene (1983), 218-223.

Touwaide (2000), 464.

The Oxford Classical Dictionary, s.v. Dioscorides Pedanios and s.v. Botany, pgf. 6-8.

In the Preface to his work, Dioscorides tells us that some of his peers have used the alphabetical arrangement, which he does not find appropriate: "[...] Moreover, they have offended in the classification of medicines: some

versions that were abbreviated or completed as needed, contain some addings of exceptional value, i.e. the Latin and often also Gallic, Etruscan, Sicilian, Dacian, Dardanian, Egyptian, Spanish, African, Armenian, and Syrian synonyms of the plants.

There are no such detailed lists of synonyms in the best manuscripts of the so-called "genuine" Dioscorides (Parisinus 2179, Laurentianus LXXIV, 23). In the Vaticano-Palatinus 77, the oldest pages contain synonyms written on their margins. Wellmann believes that the source of these lists was most likely the work of Pamphilos (end of the 1st century A.D.), and that at least some of the 12 Latin synonyms (with Greek endings) found in this "genuine" Dioscorides are original.

III. OPINIONS ON THE ORIGIN OF THE SYNONYMS

There are three different opinions regarding the provenience of the synonyms:

1. All synonyms are original, having been added to the text by Dioscorides himself.
2. Only some of the synonyms are original, the others were added later on.
3. All synonyms have been added to the text by peers of the author or later copyists.

The first assumption is found in just a few scholars, of which the most representative appears to be Kurt Sprengel. In the preface to his Dioscorides-edition as well as in his History

couple together those of quite contrary faculties, others follow an alphabetical arrangement in their writing, and have separated both the kinds and the operations of things that are closely related, so that thereby they come to be harder to remember.” (Translation of J. Goodyer, in R. T. Gunther, *The Greek Herbal of Dioscorides*, 1933 and 1959). Wellmann (1898), 363-364.

Wissowa (1905), V, cols. 1138-1139; Wellmann (1898), 364-365.

Sprengel (1829-1830), XVI. See also comments on this preface in Meyer (1855), II, 102-107; Berendes (1902), 5-7; Tomaschek (1975), 152.

of Botany, Sprengel claims that Dioscorides himself would have gathered the various synonyms by means of the good relationship of the Romans to other peoples. He also believed that the many Celtic and Old-Thracian phytonymes should have been familiar to Dioscorides, because given the fact that Cilicia was his country of birth, his first language consisted of rests of Thracian mixed up with Celtic language. Therefore, the pure Attic dialect should have been foreign to him.

Most researchers believe that only the Greek and some of the Latin synonyms are original, and that the rest of synonyms were taken either from the work of Apuleius Platonicus (Pseudo-Apuleius) or from Xenokrates and/or Pamphilos, and have been introduced into *De materia medica* either during the 3rd century or in the period between the 5th and the 7th centuries A.D. In the following, I will review the most relevant evidence sustaining these theses.

According to scientific tradition, Lambeck (or Lambecius) was the first scholar, who believed that the synonyms were added to Dioscorides' work later on, and that they were most probably copied from the work of Pamphilos.

As previously mentioned, there were also other possible sources for the synonyms. Ackermann thinks they were borrowed from Apuleius Platonicus, whereas Berendes considers beside Pamphilos also the work of Xenokrates as a potential source for the synonyms.

In his *Geschichte der Botanik*, Meyer excludes the hypothesis according to which Dioscorides alone would have gathered all the synonyms, and he concludes that their provenience should be the registers of phytonymes. But, in his opinion, it is impossible to decide whether the

Sprengel (1817), I, 135-136.

For the complete and, at the same time, chronological review see Meyer (1855), II, 102-107 and Váczy (1969), 116-118.

Tomaschek (1975), 152.

Fabricii *Bibliotheca graeca* (1795), IV, 681.

(1902), *Einleitung zu De materia medica*, 5-7.

(1855), II, 106-107.

synonyms were introduced from the start by Dioscorides himself or later on, by the copyists of his work.

The most thorough examination of the synonym-issue was undertaken by Wellmann in 1898. After analyzing the manuscripts, he came to the conclusion that the alphabetical rearrangement of the succession of plants in *De materia medica* (the so-called “alphabetic Dioscorides”) must have taken place during the 3rd century A.D. Wellmann also tried to prove that the synonyms had been taken from the work of Pamphilos, and that the only “genuine” ones are those appearing in the “non-alphabetic” Dioscorides (considered to be the closest to the original manuscript, as shown above), i.e. the 12 Latin synonyms with Greek endings. Of these 12 Latin synonyms, Wellmann found that just 1-7 of them might have been introduced by Dioscorides himself.

In 1927, Charles Singer, while commenting on the large variety of Greek manuscripts of Dioscorides, referred also to the issue of the synonyms. He believes they could have been added to the text before the end of the 3rd century, and perhaps before the end of the 2nd. Singer too mentions the Alexandrian lexicographer Pamphilos as a possible source for the synonyms, of which he gives the full list: “African, ‘Andreae medici’, Armenian, ‘Bessicum’, Boeotian, Cappadocian, Dacian, ‘Dardana’, ‘Democriti’, Egyptian, Ethiopian, Gaulish, Spanish, ‘Istrici’, ‘Lucanica’, ‘Marsum’, Osthianis, ‘Prophetae’, Pythagoreans, Romans, Tuscans, and Zoroastrians”.

Due to the “static character of mediaeval thought”, these synonyms have been copied in Greek and Latin herbals as late as the 16th century, although the languages, to which they belonged, had been extinct for more than a thousand years. Singer also believes that those, who

¹ 363-375.

¹ Singer (1927), 22-24

added the synonyms, wanted to show their knowledge of the market. “In the vast and polyglot Roman Empire”, there were no scientific botanists, who would have been able to preserve a standard, so the presence of the synonyms was therefore justified.

Wellmann's opinion seems to have prevailed, because it is found even in more recent works. Riddle considers that the Latin synonyms have been given by Dioscorides himself, but recommends caution concerning the other ones: He believes that they were added to the text by someone else “sometime before the 5th century”, that they increased the work's usefulness and certainly did not distract from Dioscorides' authority. The original name, the description, and the picture of the plant identified it well enough, Dioscorides' work having above all a practical purpose.

In 2004, Vivian Nutton clearly shows that due to the fact that the organization of *De materia medica* was difficult to follow, “some copyists reverted to familiar practice and rewrote the whole book with the substances in alphabetical order within the larger divisions. Others assembled lists of synonyms or added the names for the plants in a variety of languages, such as Dacian. All this helped Dioscorides and his herbal to become the bible of medical botany and to

exercise an enormous influence on pharmacology and botany well into the 17th century”.

After all, why would Dioscorides have used any other language but Greek? Even if, according to Sprengel, he might not have been familiar with the pure Attic dialect due to the fact that he grew up in Cilicia, in Rome he certainly had the opportunity to improve his knowledge of such, for in his time, the language of Roman medicine was Greek beyond any doubt. .

Singer (1927), 33.
(1985), 28.

Nutton (2004), 174-177.

Jackson (1988), 56-57; Scarborough (1969), 109-121.

Dioscorides could have been easily read by his peers as well as by educated Romans, who enjoyed bilingual education. Under these circumstances, any other synonyms, except for the Latin ones, would have been of little importance. Beside this, a list of synonyms for every plant name would have “imbalanced” the description, putting too much weight on the name. Since *De materia medica* was indeed exhaustive for those times, Dioscorides’ successors could probably not have had much more to add to it beside these lists of names and the pictures of the plants, for easier identification

IV. THE PREFACE TO DE MATERIA MEDICA

One main idea pervades the whole preface, i.e. the fact that the treatise was written by a specialist for his peers. Dioscorides dedicated *De materia medica* to his teacher, Areios, who, as shown above, is believed to be a famous pharmacologist of Tarsos.

There are three distinct parts in the preface to *De materia medica*:

1. A review of the positive and negative features of the works of Dioscorides’ predecessors.
2. The merits of *De materia medica*, presented in contrast to the negative aspects of the previously mentioned works.
3. The most important principles to be followed in the gathering and storing of plants.

If the author himself had added any synonyms to his work, it is most likely that he would have mentioned this fact in part two of this preface. Such synonyms would have been a quite important feature of the treatise, and as such it would be hard to believe that Dioscorides could have forgotten to mention it as a useful particularity of his work. Therefore, even the originality of the 1-7 Latin synonyms, which Wellmann believes they were added by Dioscorides himself,

becomes questionable. Why would Dioscorides have added only these Latin synonyms, and not all of them?

On the other hand, the detailed description accompanied only by the Greek name of the plant could not have led to its doubtless identification. In his article on the semantics of Greek names for plants, R. M. Dawkins (1936) clearly demonstrates the fact that in Ancient Greece, the same name was often used for different plants. Thus, it is

understandable that posterity considered it necessary to add drawings and/or synonyms to the text. And indeed, in the polyglot Roman Empire, the “internationalization” of such a valuable treatise like *De materia medica* by means of synonyms in various languages must have been a necessity.

IV. CONCLUSIONS

Dioscorides is the author of *De materia medica*, the standard medical botany and pharmacology of the West until Renaissance. Among the changes that posterity has performed on this famous work, is also the adding of the lists of plant synonyms in various languages. Their provenience and the period, in which they were added to *De materia medica*, have been subjected to debates especially during the 19th and 20th centuries.

Modern scholars believe that all synonyms were added to the text by Dioscorides’ successors, and this research tried to focus on the evidence in favor of this opinion. The origin of the synonyms and the time frame, in which they became part of *De materia medica*, remain uncertain. Nevertheless, there is no doubt that in the polyglot Roman Empire, the use of synonyms became a necessity.

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