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Galen’s Pharmacological Concepts and Terminology in Simon of Genoa’s *Clavis sanationis*

Among the many works on plants from antiquity and the middle ages that have come down to us, Galen’s treatise *Simple Medicines*, in eleven books, stands out not only because of its length (about a thousand pages in the standard Kühn edition), but also because it lays special emphasis on the properties of plants, animals, and minerals used as simple medicines. Instead of merely describing simples, as many of his predecessors and followers did, Galen devoted five books out of eleven to defining the correct method in using drugs. Books VI-XI then examine the *materia medica* in alphabetical order, highlighting the properties of each substance, instead of providing a detailed description and a full list of synonyms. In the Islamic world, *Simple Medicines* was widely used and its method for classifying medicines according to their power and action was reinforced and systematized. The works of Avicenna, Al-Jazzar, and Al-Razi, to mention but a few, show evidence of Galen’s influence in this respect. As Simon of Genoa relied heavily on Islamic medical works and their translations, I had initially anticipated to find at least indirect evidence of Galenic ideas on pharmacology in the *Clavis Sanationis*; it soon appeared that Simon used directly several Galenic works, including the treatise *Simple Medicines*. Simon, however, used Galen’s treatise but paid little attention to Galen’s method. In fact, Simon’s debt to Galen is not as overwhelming as one could be tempted to believe: I found a number of words quoted from Galen, but not the words I expected. I was hoping to find evidence of Galenic methodology in the use of drugs; instead I found considerations on the naming of plants, where Galen is only one of the many sources used by Simon. Therefore Galen’s place in the *Clavis Sanationis* is not as prominent as I had hoped. The aim of this paper is to try and explain why, by reviewing Simon’s Galenic sources, and in turn to examine whether the *Clavis Sanationis* is of any use for the edition of Galen’s text.

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1 *De simpl. med. fac. ac. temp.*, in Claudii Galeni Opera Omnia (1821-1833), vol. XI, 379-XII, 372.

Reading through the *Clavis Sanationis*’ entries, it quickly occurred to me that Simon was particularly interested in the names and descriptions of plants more than their healing properties. Whenever possible, he provides synonyms and tells us of the many ways in which a plant can be named according to authors and places. Indeed, Simon’s preface is very clear that linguistic variation around the names of the *materia medica* is an important factor of the transmission of texts, and one of the main difficulties for the readers and users of such books. For the sake of both clarity and the history of medicine, Simon provided as much information as he could, even when a particular name did not seem to be in use any more: for he feared that some technical terms might be lost forever. This explains in great part why Simon’s work, in theory at least, is so precious to historians of pharmacy and pharmacology: the *Clavis sanationis* may in some cases contain evidence of lost manuscripts, or of earlier recensions of medical treatises that we know. It also shows how the pharmacological texts of the past were read, understood, and used for the sake of therapeutics or simply for the sake of increasing knowledge. In the case of Galen, however, the particular case of the treatise on *Simple medicines* shows that Simon could not make much use of this text, and that the *Clavis*, in turn, has little to tell us about the textual history and for the edition of the text.

**Galenic Sources in Simon’s *Clavis***:

There is no evidence that Simon had access to Galen’s works in the Greek original. Rather, it seems that he had to rely on a variety of Latin translations; those were made either from a Greek original or from its Arabic translation. In addition, the material is a curious mix of authentic and spurious works; some were transmitted in Latin as early as late antiquity, through Latin translations that were probably made in Italy, although not all can be traced back to the famous

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3 Simon, *Clavis*, Praef.: *Sunt medicinarum simplicium ciborum ve multa peregrina vocabula: quorum quedam a greca: quedam vero ab arabica lingua deducta sunt. Nonulla et quamquam latina varietate idiomatum dubia: ad quorum omnium agnitionem non opus est assertione facili sed deliberato iudicio: ne ut neglectu medico grave et irreparabile occurat dispendium. There are many foreign terms for simple medicines and foodstuffs. Some of these are derived from the Greek language, some from the Arabic language. A few words are also unclear in the Latin language. To recognise all of these, we do not need easy claims, but reasoned judgement, so that a physician does not meet grave and irreparable damage through negligence.*
school of Ravenna – such is the case, however, of the treatise *Ad Glauconem* in two books, mentioned and quoted several times by Simon.4

In the following, I list Galenic works mentioned in the preface, and works mentioned elsewhere in the text. Naturally, this survey is based on partial research in the *Clavis* and more titles could eventually appear. The difficulty lies in Simon’s method of quotation: usually, Galen appears simply as ‘Gal.’, ‘Gali.’ or even ‘G.’ The latter makes searching the online edition of the *Clavis* slightly difficult, as the same abbreviation could be used for various other words. The same applies to work titles, which are not quoted consistently throughout the *Clavis*. Another problem is that Simon may not have cited his sources systematically; thus quotations of Galen could lie undetected in the text. But this is unlikely, given his usually scrupulous manner in referencing the material he used. Simon also specifies in the preface that some works, such as the *Ad Glauconem*, were not of great use to him when composing the *Clavis sanationis*. Thus it is certainly possible that he doesn’t quote or mention works that he did not believe to be valuable.

**Galenic Works Explicitly Mentioned in the *Clavis sanationis*:**

N.B.: for each work I specify the language I surmise the text was translated from, whether Simon is explicit or not on this matter; I also provide examples from Simon’s quotations to support each hypothesis.

- in the preface § 4:

* *ad Glauconem* (‘for Glaucon’), in two books, one on fevers, one on abscesses (late antique Latin translation from the Greek)
* *de alimentis* (‘on food’, *De alim. facultatibus*? *De alimentis* is no standard title5), translated from the Greek (see for ex. *arkeutidas*) – see below *de cibis*

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Arkeutidas vocant grece fructum iuniperi, secundum Gali. in liber de alimentis. Arkeutidas they call in Greek the fruit of juniper trees, according to Galen in his book on food.

³ liber sextus de simplicibus medicinis (‘the sixth book on simple medicines’), translated from the Arabic (see below)

³ ad Paternianum (‘for Paternianus’, ps. Gal), translated from the Greek.

- elsewhere:

³ de ingenio sanatatis (‘on the method of healing’, = De Methodo Medendi), translated from the Greek, see for example:

Calastica [...] exponitur tamen in libro Gali. de ingenio sanatatis de greco translato quod est remissiva. [...] Calastica [...] is also furthering remission, as it is outlined in Galen’s book on the method of healing, in the translation from the Greek.

³ de cibus (‘on food’, this is the standard title of De alim. fac. in Latin), translated from the Greek, see for example:

Candarusium [...] D. vero vocat ipsum condros: et sic vocatur grece et in libro de cibus Gali. ca. proprium scribit [...] Candarusium [...] but Dioscorides calls it condros: and it is called thus in Greek, and Galen writes a dedicated chapter on it in the book on food.

Condros [...] Gal. in li. de alimentis genus frumenti est condros sufficienter nutritivum viscosum habens chimum [...] Condros [...] Galen says in the book on food that condros is a type of cereal, that is sufficiently nutritious and has a sticky juice.

³ de virtutibus naturalibus (‘on natural faculties’), translated from the Greek, see for example:

Emagogum sanguis eductivum Gal. in li. de virtutibus naturalibus. Emagogum is an agent that expels blood, Galen in the book on natural faculties.

³ de secretis Galieni (‘Galen’s book on secrets’, = liber secretorum ad Monteum)

Translated from the Arabic, as shown by the following examples (I have compared Simon’s text with an early printed edition from 1550 systematically):

Ciminum carmenum exponitur in secretis .G. in medicina quam fecit Herodi ad stomachum quod est siseleos [...] Ciminum carmenum is described in Galen’s book on secrets in a medicine which he attributes to Herodes for the stomach, that is siseleos [...]’

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6 The quotations from the Clavis follow the transcription on the Simon Online website. Meaningful variant readings are discussed in footnotes.

7 Cf. Lyon 1550 edition, tom. IV, 1145-46. cymini
Felenia Gal. in secretis in confectione quadam ad debilitatem anime vide si est idem quod felemenusch. But Felenia, Galen in the book on secrets in a recipe for the weakness of the soul, see whether it is the same as felemenusch.

Rubie [...] in secretis vero Gal. in sief conservatio visus rubien inventur. Rubie [...] but in Galen’s book on secrets in sief one can find that rubien is an agent that preserves vision.

Birenum vas est de lapide s. lebes sustinens ignem, in secretis G. in descriptione rob de fructibus. Birenum is a vessel made of stone such as a bowl for fire, in Galen’s book on secrets it appears in the description of rob made from fruits.

Massacumia [...] vel potius Gal. in secretis unde ipsum extrahit exponunt eum quod est aqua vitri quod quidem ignoror quid sit [...] More likely is here Galen in his book on secrets on where he extracts it from: ‘they explain that it is glass water’. But I don’t know what it is.

Some of the Galenic works used and cited by Simon of Genoa belong to the famous ‘Alexandrian Canon’, such as the Therapeutic method and the Natural faculties; others are spurious texts which became more or less popular in the middle ages, such as the treatise preserved only in Latin and titled Ad Paternianum, sometimes called Alphabetum Galieni. Carmelia Opsomer has devoted a substantial study to that text, its sources, and its textual history, in the wider context of ancient pharmacological works transmitted in the Middle Ages.
in the West. The presence of genuinely Galenic material in that very popular text remains to be properly assessed.

Simon is often very clear that he used a translation from the Arabic or from the Greek; even when he is not explicit, it is relatively easy to spot a translation made from either language, as I hope the examples above make clear for each of the ‘Galenic’ works mentioned by Simon.

Due to variation in works’ titles in the medieval period, the book called De secretis Galieni (‘Galen’s book on secrets’), translated from the Arabic, could have been one of two works, either the Liber secretorum ad Monteum (‘The book on secrets for Monteus’, in the form of a letter), or the De secretis virorum/mulierorum (‘On the secrets of men/women’). But a quick comparison between the passages cited by Simon and one of the editions of the Liber secretorum ad Monteum shows that Simon used that work, and not the other.

What source did Simon exactly use for each of these texts is of course difficult to state: it would be necessary to know of the textual transmission of each text in detail. Sometimes, as in the case of the treatise Natural faculties, there is a single mention of the text, and it makes it virtually impossible to make an attempted reconstitution of Simon’s source. The relative lack of manuscripts transmitting Galenic works around the thirteenth century makes this task impossible. In the case of Galen’s treatise on Simple medicines, it is particularly clear that Simon had little at hand when he wrote the Clavis. A simple hypothesis, however, is that he may have had access to a collection of Galenic works in Latin, perhaps bound with yet other texts by different authors. For some of the works he barely quotes (once or twice), he may even have used an intermediary source. At any rate, Galen’s Simple medicines provide an interesting, if frustrating, case study.

Galen’s Eleven Books *On simple medicines* and Simon’s *Clavis sanationis*

The examples presented below show that Simon used exclusively a Latin translation of that text, and that it was made from the Arabic. For various reasons, it is very unlikely that he also viewed Greek manuscripts.

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16 On which see Fichtner, *Corpus Galenicum*.
The Improbable Greek Manuscript.

In principle, Simon could have accessed Greek manuscripts in Italy. Some of Galen’s books were produced in Southern Italy even before Simon’s lifetime. But in the case of Galen’s *Simple medicines*, this hypothesis is difficult to back up. The Greek manuscript material is frustrating, because it is either in a poor condition, or fragmentary, or late and corrupt. Nevertheless, we do have some relatively old manuscripts (the oldest dating from the tenth century). Their current condition and their usefulness for the edition vary. At any rate, they are likely to have remained in Constantinople from their creation in the tenth to fourteenth century until the fifteenth century, when they were re-used and sometimes restored by the likes of Demetrios Angelos and then brought to Italy. Such is the pattern for the manuscripts concerning the first part of the text, Books I-V: they have their origins in Constantinople. But Books I-V on the one hand, and VI-XI on the other hand, have had a different fate. Each half of the text was transmitted in different manuscripts; the existence of copies of the full text is due to relatively late (fifteenth century) combination of manuscripts of both sections of the text. This bipartition of the Greek tradition is in part reflected in the indirect tradition, especially in Latin. Concerning the Greek manuscripts that are of interest for the edition of the second part of *Simple medicines*, the *Palatinus gr. 31*, for example, deserves further study: it is perhaps older than the fourteenth century date given by the catalogue, and I cannot prove at present that it never was in Italy, as it would require extensive research and direct

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19 When I worked on the textual transmission of Galen’s *Simple medicines* several years ago, I focussed my attention on this first part of the text and did less research on books VI-XI, which are precisely the books that Simon may have used.
inspection of the manuscript. Therefore we cannot rule out the possibility of a Greek manuscript accessed by Simon of Genoa, but Simon himself does not give a hint of that, and I think that what we know of the manuscript tradition makes it difficult to give credit to this hypothesis.

I do not intend to describe at length the Greek tradition but, because it is of relevance later, I want to emphasize that, due to the dimensions of the text, too big perhaps for a single codex, the manuscripts each only have half of the text, either Books I-V or Books VI-XI, with the single exception of a fragmentary manuscript now in Milan, which has bits and pieces of Books V to IX and was perhaps our only old manuscript containing the entire text. This bipartition had consequences for the history of the text: in the first place, the two parts of the treatise, the theoretical and the practical, are transmitted by different manuscripts and have two distinct textual histories. They were presumably not read together, or by the same people. The complete texts printed in the sixteenth century arise from reconstitutions made in the fifteenth to sixteenth century, when the two parts of the text were eventually – and artificially – brought together from separate manuscripts.

Later on, the various translation movements in the East and in the West were influenced by this bipartition – in the medieval West, in particular, the Latin manuscripts usually display either Part I (Book I-V), or Part II (Books VI-XI). When the two parts appear together in a manuscript, it is not an indication that they belong to the same translation. Moreover, individual books may reflect several different translations, and the situation is not as clear as we might wish, as I will explain shortly. It is commonplace to distinguish between old, twelfth century translations made from the Arabic or, more rarely, from the Greek; and the second, bigger wave of translations in the fourteenth century, with a majority of Latin versions made from the Greek, for example by Niccolò da Reggio. This schematic approach does not do justice to the complexity of the transmission of all Galenic works, but in the case of Galen’s treatise on Simple medicines, it works relatively well.

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20 There is no scholarship on this manuscript. The style of the handwriting, to me, looks similar to that of George Galesiotes; but this old-fashioned style remained popular for decades, which makes perilous any attempt at giving a secure date. The paper is oriental, hence bears no filigranes that would help locate the making of this manuscript in time and place.


22 My study of the Latin tradition of Galen’s Simple medicines, will appear in the proceedings of the conference organised by S. Fortuna on the Latin translations of Galen’s works (Ancona, 31 May-1 June 2012).
The Latin Translation(s).

The examples that I append clearly show that Simon’s explicit quotations from Galen’s text come from a Latin translation made from a manuscript in Arabic. At the beginning of each of the entries in the Latin translation of Book VI, as it appears in two different sources, a printed edition of 1490 (the famous two-volume complete edition curated by Diomedes Bonardus, Venice) and a fourteenth century Latin manuscript (Vatican, BAV Pal. lat. 1094), the text has an Arabic name (spelled in Latin characters) next to the Latin one. The printed edition, however, has chapter numbers and headings that are not found in the Pal. lat. 1094; there are also some slight orthographic differences. I presume that the editor used a different manuscript, not the Pal. lat. 1094, but it is the only one that I was able to check for the purpose of this study. Most of the time, it is in fact inaccurate to talk of ‘quotations’ from Galen’s text: indeed, Simon only mentions occurrences of plant names as found in Galen’s text, or abruptly summarizes one of its brief chapters. Hence my study merely consists in identifying the relevant passages in the Latin translation ascribed to Gerard of Cremona, both in the 1490 edition and in ms. Pal. lat. 1094. Wherever possible, I also mention the Arabic word that corresponds to the Latin term, as provided by M. Ullmann in his Greco-Arabic dictionary. On some occasions, the two translations of Book VI (one ascribed to Hunain, one by Al-Bitriq) studied by Ullmann differ, but the Latin word usually shows which model was used, and it is most certainly Hunain’s.

Quotations from Galen’s *Simple medicines*, Book VI:

(1) Berengesif [...] veritas est quod berengesif est artemisia, nam in vi. de simplici medicina G. exponit quod .g. dicitur artemisia, poro si conparas ca. eius cum ca. de artemisia apud D. videbis quod idem dicunt [...] Berengesif [...] the truth is that berengesif is artemisia, for Galen writes in the sixth book of *Simple Medicines* that it is called artemisia in Greek, moreover, if you compare his chapter with the chapter on artemisia in Dioscoride, you will see that they say the same [...]  
*Gal. lat. 1490 belengesif, cap. 58 De artemisia*  
*Pal. lat. 1094 f. 557r: belengresif – arthemesia*  
Arabic: cf. Ullmann, p. 136 (Hunain: belengresif; Al-Bitriq: artemisia)

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23 Whenever the Pal. lat. 1094 reading is not mentioned, it means that I could not read the (poor) photocopies at my disposal properly.  
(2) Achavẽ [...] ut in .vi. G. de simplicibus medicinis ubi alachoën scribitur [...] Achavẽ [...] as in the sixth book of Galen’s Simple medicines where he writes alachoën [...] Gal. lat. 1490 alchohen (cap. 26, de alchohen).

(3) Alfadgi [...] Rasis [...] exponit quod agnus castus idem est in libro G. de simplici medicina liber .vi. capitulo de agno casto. Alfadgi [...] Rhazes [...] explains that it is agnus castus, and it is the same in Galen’s book on Simple Medicines, book six, chapter on agnus castus.

In this case the Latin translation has a different term (glossed by agnus castus) in cap. 2 (de agno casto), but I am too uncertain of the spelling to provide a transliteration here.

(4) Alguasen [...]. Et etiam G. i.vi. de simplici medicina, ubi dicit quod sic vocatur propter iuventum quod efficit in morsu canis rabiosi [...] Alguasen [...]. And also Galen, in the sixth book of Simple medicines where he says that it is called thus in the context of it treating the bite of a rabid dog [...] (Gal. alusson K. XI, 823) Gal. lat. 1490 alusen, under cap. 24 de alusen. Pal. lat. 1094 f. 554v alusen Cf. Ullmann, p. 96 (same term for Al-Bitriq and Hunain, translit. from the Greek)

(5) Anchusa [...]. Alia ancusa quam multi albucidion vocant supradicta parvior est [...] G. in .vi. de simplici medicina quattuor eius ponit species, una vocatur ibi simiar, alia locasus, tertia abugelabus quartam dicit carere nomine, et omnia ista nomina sunt greco corrupta [...] Anchusa [...]. Another ancusa, which is often called albucidion, is smaller than the one mentioned above [...] Galen mentions four species of it in the sixth book of Simple Medicines, one is called simiar there, the other locasus, the third abugelabus. He says that the fourth does not have a name, and all these names are corrupt in the Greek [...] Gal. lat. 1490 vol. 2 (119) has all the words cited here under cap. 4 de lactuca asini. Pal. lat. 1094 f. 552v (same except for locassus, instead of locasus). See below n. 9 (lactuca asini) and section 3 with the Greek text on anchusa.

(6) Almalke in .vi. G. de simplicibus medicinis est [...] Almalke is in the sixth book of Galen’s Simple medicines [...] Gal. lat. 1490 vol. 2: almalhe, cap. 22 de almalhe

25 Simar AC | syniar B | stimar e | simax f.
(7) Canicalnemer in vi. Ga. de simplicibus medicis, est inquit strangulator leopardi et cetera, est species achoniti. Canicalnemer is mentioned in the sixth book of Galen’s Simple medicines, and he says: ‘it is strangulator leopardi’ and so on, it is a species of achonitum.

Gal. lat. 1490 vol. 2 (120) cap. 19 de strangulatore leopardi sive achonito.

Canichalnemer or Chainchalnemer

Missing in Pal. lat. 1094

Wrong transcription from the Arabic, see Ullmann p. 501.

(8) Sibar in vi. Gal. in simplicibus medicinis scribitur pro sarb quod est aloes. Sibar is written in the sixth book of Galen’s Simple Medicines for sarb, which is aloes.

Gal. Simple medicines XI, 821 aloes

Gal. lat. 1490 vol. 2 (120) cap. 23 de aloe. Sybar.

Pal. lat. 1094 (s. XIV) f. 554r Cibar.

Cf. Ullmann p. 95

(9) Lactuca asini [...] Gal. vero in sexto de simplicibus medicinis .iii. dicit esse eius species, quaram unam vocat onocalia, secundam locasus, tertiam abugelabus quartam dicit carere nomine et omnes dicit esse species asinar, de his supra in abugilisse.26 Lactuca asini [...] but Galen in the sixth book of Simple Medicines says that there are four species, one of which he calls onocalia, the second locasus, the third abugelabus. He says the fourth does not have a name, and he says that all are a type of asinar, on these see above under abugilisse.

Gal. lat. 1490 vol. 2 (119) has all the words cited here unde cap. 4 de lactuca asini

Pal. lat. 1094 f. 552v (same except for locassus).

Cf. Ullmann p. 72

(10) Melha [...] Galie in libro de simplici medicina in sexto vocat almalhe. Melha [...] in the sixth book of Simple Medicines calls it alhalhe."

Gal. Simple medicines XI, 821 alimon

Gal. lat. 1490 vol. 2 (120) has almalhe under cap. 22 de almalhe

Pal. lat. 1094 f. 554r almalhe

Cf. Ullmann p. 94 (Hunain vs. Al-Bitriq)

(11) Suchaha [...] G. vero in sexto de simplici medicina dicit suchaha habere virtutem bedorad [...] Suchaha [...] but Galen in the sixth book on Simple Medicines says that suchaha has the same properties as bedorad [...]

Gal. Simple med. XI, 819 akanthos aiguptias

26 Asinar AC | asiniar B e | i add. supra lineam f.
Sentix est rubus Gal. li. de simplici medicina radicem eius inter medicinas frangentes lapidem enumerat et est rubus s. batus. Sentix is blackberry, Galen in Simple Medicines lists its root amongst the medicines that break up stones, and it is blackberry, that is batus.

Galen provides no definition of salamandra in his treatise Simple medicines.

Iantum vel ientum ut in iiii. Gal. de simplici medicina, ubi numerat quedam que non licet gustare est psia ut apparet per Sera. ca. de tapsia et infra vocant ipsum gingizerd. Iantum or ientum as in the fourth book of Galen's Simple Medicines, where he lists things one should not taste, says it is psia, as it appears from Serapion, chapter on tapsia, and below they call it gingizerd.

The origin of the Latin translation is unclear. Richard Durling, who has studied in depth the Latin Galen, changed his mind over time about the translation of Galen’s Simple medicines. He ascribed first the translation to Constantinus Africanus, then to Gerard of Cremona. The evidence for such an attribution is, in fact, thin: one of the manuscripts (Pal. lat. 1092, f. 22ra) ascribes the translation to Gerard. But this mention belongs to the first part of the text, and we cannot be certain that the same authorship applies to the second part, Books VI-XI. An in-depth study of this Latin translation from book one to eleven would certainly be illuminating. However remote this prospect may be, even a preliminary study of this translation yields interesting results. First of all, the translation of Book VI (unlike other books) specifies one thing: the name of the author of the Arabic translation, Hunain son of Isaac, thus supporting the common opinion, also apparent in Arabic manuscripts, that Hunain translated Simple medicines, not his...
nephew Hubaish – but that is a debated question. As it happens, the material gathered by Durling (kindly put at my disposal by Stefania Fortuna) shows that a wealth of manuscripts have the Arabo-Latin translation of Books I-V, but very few contain Book VI and none have a full translation from the Arabic. In fact, Durling mentions manuscripts transmitting Books I-VI, or parts of Book VI alone, but no additional books. It is one of those few manuscripts (the *Pal. lat.* 1094) that I consulted next to the printed edition of 1490 to gain an insight of this translation. This manuscript is usually dated from the fourteenth century and has a lot of marginal annotations (unfortunately, they are illegible on the poor printouts from microfilm which I have at my disposal). The other three manuscripts mentioned by Durling are of a similar date; they are Kues Hospital 297 (s. XIII-XIV), *Par. lat.* 9331 (s. XIV), and *Vat. lat.* 2385 (s. ?). I consulted the *Par. lat.* 9331 on microfilm.

In fact, the translation of Books VII-XI published by Bonardus in 1490 is based on a Greek rather than an Arabic source. It is thus clear that Bonardus followed two different sources: one for Books I-VI (an Arabo-Latin translation), one for Books VII-XI (a Greco-Latin translation). He may have simply brought together two different translations: one made after a model in Arabic (Books I-VI), one made after a Greek one (VII-XI), probably later. He may also have used a Latin manuscript in which such a combination was made, as in the *Par. lat.* 9331. The second section (Books VII-XI) is perhaps a part of the translation of Books VI-XI ascribed to Niccolo da Reggio. At any rate, Simon cannot have used the Greco-Latin translation, which was probably made decades after his death. But it is a fact that some manuscripts contain only Book VI of Galen’s *Simple medicines* in the Arabo-Latin translation ascribed to Gerardus of Cremona. It is therefore no wonder that Simon of Genoa should quote and even mention only Book VI

30 Galeni opera, Flippo Pinzi, 1490. The edition was curated by Diomedes Bonardus.
31 I owe additional information on these manuscripts and others to Stefania Fortuna, who is preparing the online catalogue of the Latin Galen; see my forthcoming article mentioned note 16. My inspection of a microfilm of Kues Hospital 297 shows that the manuscript contains books I-V of Gerardus’ translation only.
32 According to my provisional observations, Bonardus could have used the *Par lat.* 9331, which displays exactly the same pattern; but some differences between the manuscript and the edition show that it wasn’t his only source.
33 I. Ventura gives evidence to date the translation of Galen’s Simples before 1332, based on Matteo Silvatico’s *Liber pandectarum*; see Ventura Iolanda, *Cultura medica a Napoli nel XIV secolo*. In: *Boccaccio Angioino*. (Bruxelles, Lang, 2012), 251-288 (esp. p. 286).
of Galen’s *Simple medicines*: it is possible that he accessed only Book VI in the Latin manuscripts at his disposal. It looks as if only Books I-VI were available in the thirteenth century; it is even possible that the translation of Book VI was available in separate manuscripts, as an excerpt; moreover, it may have been made separately from the other first five books. There is a notable difference in the Latin translation between Book VI and the other five books: it is only at the beginning of Book VI that Hunain is named as a translator; no such mention appears in the earlier books. Only a detailed stylistic study will help decide whether we deal with a distinct translation for Book VI. At any rate, the fact that Book VI circulated separately could explain why Simon seems unaware of the rest of the text.

The last two examples above (thirteen and fourteen), however, pose me a problem: I could not identify a mention of *salamandra* in Book VI in Greek; and I don’t understand the topic of the last example, which refers to either Book IV, or Chapter IV in Book VI (cf. ex. 9). Of course, it would be helpful to be able to decide whether Simon actually also read Book IV. But overall, our evidence points to Book VI as the sole source used by Simon.

Looking at the evidence from the textual transmission of *Simple medicines*, it is clear that Simon used an older, but similar source to the Latin edition and manuscript I was able to check. Little variation is found between the ‘quotations’ in the *Clavis* and the Latin translation of *Simple medicines* Book VI as we know it, apart from slight variations in the spelling. This variation may be due to textual transmission problems, or to unstable methods in transliterating Arabic words. The Arabic terms studied by Ullmann in two different Arabic translations of Book VI, one by Al-Bitriq and one by Hunain, show that there can be slight spelling differences for the same word even in Arabic. Also, a comparison between the terms appearing in the Latin translation and the two Arabic versions shows that the Latin translator used the translation ascribed to Hunain and not Al-Bitriq (who relies more heavily on transliterations from the Greek). The latter probably never reached the West.

Simon’s occasional quotations of Galen’s *Simple medicines* do not contribute to our knowledge of its transmission. Indeed, we have several Arabic manuscripts and a few reliable Greek ones of roughly the same period as Simon: the Latin translation and Simon’s quotations thus look like secondary material. As for Galen’s place in Simon’s project: it seems to be quite limited. There are less than fifteen explicit mentions of *Simple Medicines* Book VI in the *Clavis*. As is clear from the examples provided, Galen’s text is usually abruptly summarized and used along other sources that feature more prominently in the *Clavis*, such as Pliny, Avicenna, Serapion, or Dioscorides. Simon actually states clearly in his preface that he disagrees with Galen about the importance of plant names (for all his philological sense, Galen did not want to put nomenclature forward in his treatise on simples). As I have shown in this brief study, however, the poor
availability of Galen’s text at the time explains in great part Simon’s apparent lack of interest in his terminology and method. The theoretical part (Books I-V) of Galen’s treatise may never have reached him in any language, and Books VII-XI certainly didn’t.

It is important to realize that the Latin translation made from the Arabic was at times fairly remote from the original Greek text; there could be a number of reasons for this, such as the manifold stages of translation (from Greek to Syriac, then Arabic, then Latin), or the problems of transliteration and copying. At any rate, the relative rarity of many a plant name in Galen’s catalogue certainly proved an aggravating factor. In order to illustrate what must have been an additional difficulty for Simon’s enterprise, I would like to compare more closely a Greek passage from Book VI with Simon’s reading of the Latin translation. I have selected Chapter VI, 4 about a kind of bugloss, a plant from the family of the Boraginaceae of which the various species have entailed confusion even in modern nomenclature. This brief case study shows that such confusion was already strong in ancient texts.

I append (see annexe) a small sample edition of the Greek (namely Chapter 4 of Book VI, on anchusa). Naturally, this is all provisional, based on the essential manuscripts at our disposal. It is tempting to contrast the Greek chapter with Simon’s Lemmas 5 and 9 (above) about anchusa and lactuca asini or asinar. In Lemma 5, Simon points out the four species of anchusa mentioned by Galen together with their names, but ends up saying that all those names are ‘corrupt in Greek’ (greco corrupta). Where the Greek has ὀνόκλεια, λυκαψὸς, ὀνόχειλος, and Ἀλκιβιαδείον, in Latin Simon mentions (Lemma 5) simar, locasus, abugelabus, and one anonymous species (but he also adds the name of albucidion); in another lemma (9), he provides in addition onocalia next to locasus and abugelabus as species of asinar. Indeed, the terms simar, locasus, and abugelabus (and even onocalia, albeit closer to the Greek) transferred from Arabic and did not necessarily ring a bell for someone familiar with Greek pharmacopeia, Simon prefers to use Avicenna’s terms, which he deemed more reliable, probably because they had grown more common and were widely used; unlike the terms used in Galen’s Book VI as transmitted in a Latin version. When you read this chapter in Greek in the Kühn edition, you may indeed believe at first sight, like Simon, that the names are corrupt: twice in the same chapter, one can read λύκοψις, instead of the original form λυκαψὸς. But in this case, as the apparatus shows, the Greek manuscripts provide all the necessary material to edit the text correctly; neither the Arabic, nor the Latin are of any help. At any

rate, the Arabo-Latin translation gives a poor rendering of the Greek terms; it is no wonder that Simon should have found the plant names ‘corrupt’. For Simon, the Latin translation obscured the original text more than it revealed it; and even Avicenna got the Greek *alkibiadeion* wrong, if we are to trust the mixed-up form *albucidon* cited by Simon in the same passage. The various species of *anchusa* (and their names) are an example of poor transmission via the medieval Arabic and Latin translations. The correct names of the four *anchusai* actually appear in Dioscorides, not just in Galen, but this fact, too, escaped Simon’s research. One century later, he could have read a more complete text. But even then, the Latin translation of Galen’s treatise *Simple Medicines* in its entirety could barely be completed, and it certainly failed to become widely available. 35 Contrary to what I would have expected then, Galen’s treatise *Simple medicines*, which had become a classic in the Islamic world, may have reached a similar status in the medieval West only later.

35 Virtually all medieval Latin manuscripts have only a partial text, unless the treatise was artificially completed by using two different translations (Books I-V or I-VI from the Arabic, the remaining books from the Greek). An exception lies in ms. *Urbinas lat. 248*, which, according to R. Durling (information courtesy of Stefania Fortuna), has preserved a complete Latin translation from the Greek: six manuscripts provide a combination of both the Arabo-Latin and the Greco-Latin translations: they are *Par. lat. 9331*, Paris, *Académie de médecine 52 and 53*, *Vat. lat. 2388*, Dresden, *SLUB Db 92-93*, Erfurt, *Universitätsbibliothek 278*. On the importance of this translation, ascribed to Niccolò da Reggio: see my forthcoming study (mentioned note 16) of the Latin tradition of Galen’s *Simple medicines*. 
Bibliography


Claudii Galenii Opera Omnia (1821-1833), edited by C.G. Kühn.


Appendix:


Sigla:
Vatican, BAV Urbinas gr. 67 = U, s. XIII (f. 192v-193r)
Vatican, BAV Pal. gr. 31 = Pal, s. XIV (?) (f. 80 rv)
Vatican, BAV Barberinus I, 127 = Barb, s. XV (f. 209rv)
N.B.: readings here ascribed to Kühn sometimes date back to earlier printed editions, such as Chartier’s 1639 edition (vol. XIII).

VI. 4. 1δ’. Περὶ ἀγχούσης [καὶ τεττάρων ἀγχουσῶν]. 2. Τῆς δὲ ἀγχούσης τέτταρα ἐστὶν εἶδος, ὡς ἡ μὲν ὀνομαζομένη ὀνόκλεια ψύχουσα ἱκανῶς καὶ ξηραίνουσαν ἔχει τὴν ρίζαν, στύφουσαν τα ἀμα καὶ υπόπικρου, ἱκανή δὲ [καὶ] λεπτύναι καὶ ἀπορρύψαι τοὺς χολώδεις χυμοὺς καὶ πυκνώσαι τὰ σώματα. τὰ δὲ φύλλα ἀσθενέστερα μὲν ἔχει τῆς ρίζης, στύφει δὲ αὐτὰ καὶ ξηραίνει. 3. καὶ ἡ λυκαψός δὲ προσαγορευμένη ψύχει μὲν καὶ ξηραίνει, ρίζαν δ’ ἔχει στυπτικωτέραν τῆς ὀνοκλείας. 4. ἡ δ’ ὀνόχειλος θερμοτέρα τέ ἐστι καὶ φαρμακωδεστέρα. Πλέον γὰρ ἔχει καὶ πρὸς τὴν γεῦσιν εὐθὺς τὸ δριμ. ταῦτης δ’ ἔτι θερμοτέρα, ἡ τετάρτη καὶ μικρὰ καὶ πικροτέρα καὶ πλέον ἐτι φαρμακωδεστέρα τυγχάνει. 5. ἀγχουσαι δὲ ὡς τῆς αὐτῆς ἀπασαι δυνάμεως, ἢ μὲν γὰρ ὀνόκλεια προσαγορευμένη στύφουσαν τα ἀμα καὶ υπόπικρου ἔχει τὴν ρίζαν, ἱκανή καὶ πυκνώσαι τα σώματα καὶ μετριῶς λεπτύναι καὶ ἀπορρύψαι καὶ ἀποπλῦσαι τοὺς χολώδεις χυμοὺς. 6. ἔρρεθη γὰρ ἐν τοῖς ἐμπρόσθεν ως ἡ στρυφνὴ ποιότης ἐπιμεμιγμένη τῇ πικρᾷ ταῦτα ἐργάζεσθαι πέφυκεν. οὕτω τέ τοι καὶ ἰκτερικοῖς καὶ σπληνικοῖς καὶ νεφριτικοῖς ὑφέλει. ἔστι δὲ καὶ ψύχειν μὲν ἱκανὴ καὶ καταπλασσομένη γε σὺν ἀλφίτοις ἐρυσιπέλασι ὡφελεῖ, καὶ ἀπορρύπτει δὲ οὐ πινομένη μόνον, ἀλλὰ καὶ ἐξωθεῖν ἐπιτιθεμένη, καὶ διὰ τοῦτο καὶ ἀλφοὺς καὶ λέπρας ἰᾶται σὺν ὀξεῖ. 7. τὰ μὲν τῆς ρίζης ἔργα ταῦτα καὶ αἱ τῶν ἔργων δυνάμεις αἱ εἰρημέναι. τὰ δὲ φύλλα τῆς βοτάνης ἐστὶν μὲν ἀσθενέστερα τῆς ρίζης, οὐκ ἀπήλλακται δὲ τοῦ ξηραίνειν τε καὶ στύφειν, ὡστε καὶ διάρροις ἰᾶται σὺν ὄξει. 8. καὶ ἡ λυκαψός δὲ προσαγορευμένη τοῖς ἐρυσιπέλασιν ὡμοίως ἀρμόττει καὶ ρίζαν ἔχει στυπτικωτέραν τῆς ὀνοκλείας. 9. τῆς δὲ ὀνόχειλος τε καὶ Ἀλκιβιαδεῖον καλουμένης ἡ μὲν δύναμίς ἐστὶ φαρμακωδεστέρα. πλέον γοῦν ἔχει καὶ πρὸς τὴν γεῦσιν εὐθὺς τὸ δριμ. καὶ ἀρμόττει καταπλαττομένη καὶ καταπλαττομένη καὶ ἐσθιομένη. 10. λοιπὴ δὲ ἡ τετάρτη καὶ μικρὰ καὶ καταπλαττομένη ἡνύμως ἐξ αὐτῶν μόνη, παραπλησία μὲν ἐστὶ τῇ Ἀλκιβιαδείῳ, καὶ πικροτέρα δὲ καὶ πλέον ἐστὶ φαρμακωδεστέρα, καὶ διὰ τοῦτο πρὸς τὰς πλατείας ἑλμίνθας ἐπιτηδεία, πλῆθος δὲ ὑσσώπου σὺν Ὀξωῖ τε καὶ καρδάμῳ πινομένη.
Appendix VI. 4. 1-4 def. in Pal