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TWO TEXTS, ONE PROBLEM:
THE AUTHORSHIP OF THE *ANTIDOTARIUM* AND *DE VENENIS*
ATTRIBUTED TO ARNAU DE VILANOVA¹

The authenticity of many of the medical works attributed to Arnau de Vilanova in the manuscript tradition can be independently guaranteed by internal cross-referencing as well as by their presence in his library, as indicated in the inventory of his possessions drawn up after his death. But not all the writings traditionally assigned to him can be confirmed so easily. I want here to discuss —as a pair— two works attributed to Arnau in his medical *Opera* of 1504 (and thereafter) as well as in many manuscript copies, which Juan Antonio Paniagua has hesitantly concluded are likely (on stylistic grounds) to have been composed by Arnau,² but for which no conclusive case can be made. To discuss these works —the *Antidotarium* and *De venenis*— together is natural enough, for they are thematically linked through their common concern with poison and antidotes, but there is a further reason to do so: in each of these two works there exists, as an apparently gratuitous insertion, one and the same passage, which appears to identify each work as a compilation by one Petrus Cellerarii. I hope to show that treating them as a pair in fact allows further conclusions to be drawn regarding the manner of their composition as well as their authenticity.

1. I am grateful to Luke Demaitre for his careful and very valuable criticism of an earlier draft of this paper, and to the participants in the I Trobada Internacional d'Estudis sobre Arnau de Vilanova (Barcelona, 6-8 April 1994) for their many helpful comments made at the time of its presentation.

2. Juan A. PANIAGUA, *El Maestro Arnau de Vilanova médico* (Valencia, 1969), pp. 65-67.

I. PETRUS CELLERARI

We must begin by examining closely the passage that seems to indicate Petrus Cellerarii's association with these two works. It made little sense to manuscript copyists and so underwent early deformation in the manuscript tradition, but a not implausible reconstruction is possible. In both of the works the passage has been inserted as a commentary upon the drug *athanasia* when taken in combination with plantain juice:

this was of great value to me, Petrus Cellerarii, the editor of this work, as a treatment for blood in the urine, at the time when I was being persecuted like Uriah [cf. II Samuel 11] by the demands of Barsaba in Daroca.³

This passage is of enormous interest. Petrus Cellerarii is a historical personage who can be identified from archival materials as having practiced medicine in Daroca and briefly Teruel (Aragon) during the years

3. comperi conferre [*Antid.*: contulit] valde mihi Petro Cellerarii editori huius contra mictum sanguinis cum persequerer ut urias ab amonitis bersabe daroco.

I offer this reconstruction of the text with some hesitation; the final words are particularly problematic, and I supply below the variant readings for those words found in the manuscripts I have been able to study in microfilm (for sigla, see nn. 8 and 14 below):

persequerer *LM²PV* persequarer *B* persequeretur *M¹* sequerer *S*/ut urias *LM²* ut urinas *M¹PV* inurias *S*/ab amonitis *LRS* amonitis *BM²PV* amortis *M¹*/bersabe *M²V* ba bersabe *M¹* bersabie *P* bersabee *LR* barsabe *S* per barsabee *B*/daroco *BLM²PRS* darochee *V* darofe *M¹*

My reconstruction follows the reading of virtually all these manuscripts in assuming that the author understood the deponent verb *persequor* to be passive not only in form but also in meaning. But this is an awkward assumption. In classical usage *persequor* is almost invariably understood as an active verb, meaning «to pursue» or «to persecute» rather than (as my reconstruction requires) «to be persecuted», and the same is true of its use in the Latin Vulgate or by late Latin authors like Augustine or even Bede. While this pattern had certainly begun to weaken by 1100 AD, it is still not clear to me how widespread the use of *persequor* as a passive verb was in the later Middle Ages.

The reading of *S* suggests that a conceivable alternative reading to the one I have offered would be «cum persequerer inurias...», «even as I was pursuing satisfaction for injuries...» Indeed, just this phrase —“persequari iniurias”— is attested in this sense in, e.g., Cicero, *Red. Pop.* 22 («...quemadmodum inimicorum iniurias crudelitatemque persequar...») or Justinian, *Digest* 48.16.1.10.9-10. Neither reading seems entirely satisfactory, especially since both require a somewhat forced understanding of «a(d)monitis» (or «a monitis»?) as «rebukes» or «demands» or perhaps even «threats». Nevertheless, the general tenor of the passage is unmistakable: Petrus Cellerarii became acquainted with *athanasia*'s virtues at a time when he was somehow at odds with a certain «Barsaba» in Daroca.

My attention was first drawn to this curious passage by the reference in Guy BEAUJOUAN, *Manuscrits médicaux du moyen âge conservés en Espagne*, «Mélanges de la Casa de Velázquez», 8 (1972), 194.

1310-1318; he then provided occasional medical attention to two of the children of King Jaume II, Jaume and Maria, and finally for fourteen years acted as personal physician to a third child, the Infante Joan, Archbishop of Tarragona.⁴ The little evidence that has survived pertaining to Petrus's early years in Daroca shows him party to a number of acrimonious lawsuits, some involving members of the town's Jewish community. Petrus almost certainly was trained in a medical faculty, for in later life he made clear his belief in the importance of formal medical education; however, the surviving archival materials never give him the title "magister in medicina," and so probably he stopped his studies short of that point. We can perhaps assume, therefore, that at the moment when he appears in Daroca in 1310 and his career begins, he had had a preparatory training in the liberal arts and some degree of medical training; he can then scarcely have been much younger than thirty years old. On this assumption, Petrus was in his late fifties in 1337, when certain privileges were confirmed to him by King Pere III; his daughter received a reconfirmation of the same privileges in 1350 after his death, and it is plausible that he had died recently, perhaps in the plague, aged about seventy.

A second, equally intriguing reference to a "Petrus Cellerarius" has been identified in an early manuscript of Arnau's *Speculum medicine*, in a fourteenth-century gloss that identifies Arnau as having been born (*oriundus*) in the vicinity of Daroca, and that concludes by saying "cuius discipulus fuit magister P. Cellerarius [*sic*] Darocensis".⁵ The concluding statement is entirely independent of the glossator's claim about Arnau's origins, and differences of opinion on the latter subject should not induce us to reject it: we have to admit, beyond any doubt, that in the mid-fourteenth century a Petrus Cellerarii of Daroca was remembered as a disciple of Arnau's.⁶ I think we must accept that this is the same man who was beginning to practice in Daroca in 1310; it follows, therefore, that his association with Arnau is likely to have been in the first decade of the fourteenth century, while he was launching upon the medical training that he never finished. Such an association could easily have brought him to

4. Much, though not all, of the documentation concerning Petrus (all in the Archivo de la Corona de Aragón, Barcelona) will be published in my article, *Petrus Cellerarius discipulus Arnaldi de Villanova*, in «Mélanges Guy Beaujouan», forthcoming.

5. John F. BENTON, *The Birthplace of Arnau de Vilanova: A Case for Villanueva de Jiloca near Daroca*, «Viator» 13 (1982), 249.

6. The combination of sources offering independent testimony to Petrus's association with Arnau responds to the warning expressed by John Benton on a closely related point that «Unus testis, nullus testis» (quoted by Francesco SANTI, *Arnau de Vilanova: L'obra espiritual* [València, 1987], p. 66 n. 66).

the attention of the royal family, and would help explain how he could have so rapidly established his career even without a degree.

Knowing what we now know, to find a passage associating the name of Petrus Cellerarii with Daroca inserted into both the *Antidotarium* and *De venenis* strengthens the case that these two works are somehow connected with Arnau. But the same knowledge makes it seem entirely conceivable that Petrus's claim to have had an "editorial" role in the completion of these works is well founded. Medieval scholars worried about precisely this problem, and the sixteenth-century publisher of *De venenis* incorporated a comment of his own into the *athanasia*-passage there so as to reassure anxious readers about the authenticity of the *Antidotarium*:

Note that in the *Antidotarium* ascribed to Arnau a similar phrase occurs in the chapter on *athanasia*, from which many suppose that that *Antidotarium* is by Petrus Cellerarii and not Arnau, but this should not be inferred.⁷

If we examine both works closely, we can provide the modern reader with a more systematically reasoned assurance on precisely this point.

II. THE ANTIDOTARIUM

The *Antidotarium* printed under Arnau's name (inc., "Lamentabatur Ypocras...") divides, on examination, into two very different and arguably even unrelated parts.⁸ The first, much shorter portion (about ten percent

7. «Nota quod in antidotario quod dicitur Arnaldi reperitur in capitulo de athanasia simile dictum, ex quo inferunt multi quod illud antidotarium fuit Petri Cellerarii et non Arnaldi, quod non est inferendum» (*Opera Arnaldi* [Lyons, 1520], fol. 221rb).

8. I know of the following manuscripts:

- B* = Basel D.II.7, fols. 87-119v
- E*¹ = Erfurt F. 236, fols. 116-140v
- K* = Krakow Jag. 799, fols. 207-243v
- L* = Leipzig Univ. 1161, fols. 24v-56
- M*¹ = Munich, CLM 7576, fols. 98-140
- N* = Munich, CLM 257, fols. 44v-110v
- Q* = Madrid 3370, fols. 3-47
- R* = Escorial M.II.17, fols. 124-156v
- S* = Escorial O.II.19, fols. 6-66v
- T* = Vat. Palat. 1108, fols. 188-230
- U* = Vat. Palat. 1176, fols. 84 (86)-133
- V* = Vat. Palat. 1180, fols. 274-330
- Wi* = Wiesbaden 61, fols. 5-50.

In the 1520 edition of Arnau's works, the *Antidotarium* is printed on fols. 243va-262rb.

of the whole) is a self-contained essay that seems to bear the stamp of his interests and personality: the elaborate, involuted preface, for example, invoking *eterna sapientia* as it prepares to redress the faults of present-day medicine. In it the author explains in detail the issues to be considered in an activity that we know preoccupied the historical Arnau, namely, compounding a medicine —not necessarily an antidote, one aimed at countering a poison, for compounds can accomplish a variety of ends as a result of the occult power that can arise from the mixture of their components (a theme that again is a favorite Arnaldian one). In compounding such medicines, the author continues, the physician or apothecary must ideally know the source of the ingredients, where they grew, whether they were cultivated or wild, whether they might have been contaminated. He must know when and where different kinds of ingredients may best be collected; how they should be stored, and whether they deteriorate with age; and how to modify or temper their effect by reducing them to an infusion or a powder, or by heating them —as when “ex vino rubicundo antiquo distillatur aqua ardens pellens potenter paralyisim plectoria diminuta et vulnera recentia celeriter sanat, in cuius alambico immituntur aliquando medicine varie prout invitat necessitas morbi curandi.”⁹ It is noteworthy that this first part of the *Antidotarium* does not really address the compounding of medicines at all; rather, as the example of *aqua ardens* shows, it instead talks about the preparation of simple medicines that are effective in their own right, though they may eventually be incorporated into a compound medicine as well. The subject-matter and the concreteness of the procedures described (paralleled, e.g., in Arnau’s *Vita brevis* commentary) suggest that the attribution to Arnau is correct;¹⁰ and this suggestion seems confirmed when the author tells not one but two anecdotes told elsewhere by Arnau (again, in his *Vita brevis* commentary), followed here by an allusion to apothecaries’ dishonest practices at Montpellier.¹¹

9. *Opera Arnaldi*, fol. 245va.

10. For example, the author’s praise of the effectiveness of *aqua ardens* in treating fresh wounds, just quoted, closely echoes Arnau’s own words in *Medicationis parabole* V.83: «Recentia vulnera cum aqua ardenti lota sanationis effectum citissime consequuntur» (*Arnaldi de Villanova Opera Medica Omnia* [Granada-Barcelona, 1975; henceforth *AVOMO*], VI/1, 107).

11. «Compertum est etiam quod colirium suaviter dolorum mitigativum oculorum tritum ab apothecario induto veste qua die precedente indutus triuerat viride eris immissum oculo patientem cruciabat et aqua decoctionis capilli veneris collecti in cisterna in qua buffo submersus putruerat potanti terribiliter sincopim inducebat et palam quod componunt in montepessulano succum liquiritie ex amido et medulla cassiefistule quem vendunt occidentalibus cunctis ad quam fraudem evitandam salubriter ponitur pro eo liquiritia recens» (*Opera Arnaldi*, fol. 244rb). Cf. the text of the *Repetitio sup. canonem vita brevis*, in *Opera Arnaldi*, fol. 281rb.

This first, short, discursive section of the *Antidotarium* passes abruptly and with no transitional material into what is in effect a list of recipes for compound medicines, some two hundred of them, grouped roughly into categories: electuaries (70 of them are described), pills and laxative powders (20), syrups (19), opiates (22, including several long chapters on various kinds of theriac, the great panacea of the Middle Ages), miscellaneous remedies (12), trochees (8), vomitives (5), hieras (6), plasters and ointments (16), and oils (21). Paniagua has suggested that these recipes were drawn from contemporary sources, and this is entirely possible; I have not been able to identify any specific work from which they were culled, but certainly many of them show a marked similarity to the corresponding recipes in the *Antidotarium Nicolai*.¹² With one exception, there is no personal element whatsoever in these recipes, which are entirely businesslike: they explain the conditions to which a particular compound is appropriate, and list its ingredients and their proportions, but they cite no authorities; they convey no hint of Arnau's characteristic Latin style, and no personal anecdotes —except one. Significantly, it is in this longer impersonal listing of drugs that we find the testimony of Petrus Cellerrarii "editor huius" to the effectiveness of *athanasia* —the only passage reflecting an authorial personality in the whole section.¹³ The evidence available thus suggests that while the first discursive part of the *Antidotarium* is certainly Arnau's, the second may not be; it is at least equally likely to have been compiled from other authorities and attached to Arnau's essay by the work's self-proclaimed "editor," Arnau's *discipulus*: Petrus Cellerrarii.

12. Typically, the *Antidotarium's* general account of a medicine's effects has been loosely paraphrased from the *Antidotarium Nicolai*; it then gives a list of ways in which the medicine can be administered that has no parallel in the earlier work. It concludes with a recipe for the compound that, in its ingredients and their weights, is virtually identical with that of the *Antidotarium Nicolai*.

13. The passage is inserted into the text following instructions that «Detur [athanasie] cum succo plantaginis contra fluxum eiusdem [sanguinis]: iniiciatur per inferiora cum succo plantaginis regione conveniente, et etiam emplastrentur renes et umbilicus cum ea mastice et olibano et sanguine draconis additis et distemperatis cum albumine ovorum et modico aceti. Et contulit valde mihi...» (*Opera Arnaldi*, fol. 253vb). Perhaps it is worth pointing out here that *athanasia* (probably the plant today called *Tanacetum vulgare* L.; Engl. "tansy") appears in the *De simplicibus* attributed to Arnau only once, as one of several simples recommended for the treatment of hemorrhoids (cap. 43; it appears as *aranaxia* in the edition of 1505, but this has been changed to *athanasia* by 1520). There is no reason to believe, therefore, that the historical Arnau felt any unusual confidence in the medicinal powers of this plant.

III. *DE VENENIS*

Unlike the *Antidotarium*, *De venenis* (inc., "Creator omnium deus...") has no significant discursive element anywhere in it, and never develops an extended argument. It is not easy at first to see that it has any structure.¹⁴ But it has, although not a thoughtfully planned one. We can recognize, broadly, four parts to this work. The first one (A) begins with a classification of theriacal medicines, only to degenerate suddenly into a listing of specific remedies for particular poisons, once or twice referring the reader to the source of its statement. Then a new division (B) begins—separated off in manuscripts and in the sixteenth-century editions with an enlarged capital—describing theriac and its virtues. However, this discussion lasts only a short time before it suddenly comes to an end, and without any attempt at transition the text takes up a wholly different subject; at great length—over half of *De venenis* is contained in this one section (C)—it lists plants, animals, and minerals reported to be harmful or poisonous, almost always identifying its authority for these reports. Then, equally suddenly, the text turns back to consider theriac, and, in its final portion (D), lists the dosage of the drug and the particular manner of its administration that is appropriate to each of a long string, not of poisons, but of illnesses.¹⁵ *De venenis* appears to be not a carefully constructed work but one hastily and haphazardly thrown together from preexisting fragments; and the title of the whole is really applicable to just one of those fragments, part C.

Part C is not only the longest but also the most distinctive section of *De venenis*, and it is therefore the best starting point for trying to understand the background of this peculiar text. Its list of poisonous materials is remarkable for the dozens of geographical places and scientific authorities cited, the latter ranging from classical authors like Aristotle and Galen, to Arabic authorities like Ibn al-Jazzār and Ibn Wafid, to medieval Latin wri-

14. I know of the following manuscripts:

*E*² = Erfurt F. 236, fols. 61-63

*M*² = Munich, CLM 7576, fols. 87-96v

O = Munich, CLM 5315, fols. 82-83v

P = Paris BN 6971, fols. 78-102

W = Vat. Palat. 1100, fols. 267-281v ("Cyrothenus de tyriaca optimus")

Wr = Wrocław III.F.12(1), fols. 16v-24v

In the 1520 edition of Arnau's works, *De venenis* is printed at fols. 216vb-221ra. In my quotations below, I cite the text provided by *P*, usually without editorial emendations.

15. The sections are as follows: A, beginning, «Creator omnium deus...» (*Opera Arnaldi*, 1520, fol. 216vb); B, «Tiria interpretatur domina...» (fol. 217va); C, «Radix etiam nigri terribilis...» (fol. 217vb); D, «Offeratur ipsa tyriaca magna...» (fol. 220va).

ters like "Albertus" (perhaps Albertus Magnus) and even Arnau de Vilanova's own younger contemporary, Niccolò da Reggio.¹⁶ These authorities tend to be clustered in groups, in a way that suggests the work was produced by consulting preexisting references to a series of authorities, one after another: Galen and Dioscorides early in the work; Albertus Magnus, theological materials, and Aristotle late. More than anything else, this material suggests a kind of *florilegium*, an ongoing dossier built up over time, from a broad range of sources, by a widely read physician with a particular interest in the specific properties of medicinal substances.¹⁷

What can we say about the compiler? Could he have been Arnau de Vilanova, or his disciple Petrus Cellerarii? We might begin by remarking on the text's explicit citation of books 6 and 8 of Galen's *De simplicibus medicinis*, for this material was translated into Latin by Niccolò da Reggio at some point in the first half of the fourteenth century. Niccolò spent the years 1308-1345 (and perhaps more) in Naples and Southern Italy translating more than fifty works of Galen directly from the Greek, dedicating his translations to King Robert of Naples and others.¹⁸ Only a few of his translations can be precisely dated, and *De simplicibus medicinis* is not among them; hence we cannot use these references in *De venenis* to rule out Arnau's authorship. On the contrary: we happen to know that the translation of *De simplicibus medicinis* had been completed by 1319, since it was given chapter headings by Francisco de Pedemonte, who died in that year.¹⁹ Thus it is not at all impossible that it was among Niccolò's very first translations, available for Arnau to study in the last years of his life in the

16. A superficial attempt to list these references follows, with citation of each one's first occurrence in the 1520 edition: Galen (fol. 217ra and 27 other passages); Palladius (217ra); Dioscorides (217ra, 19 others); Albertus (217ra, 14 others); Philaretus (217rb); Gilbertus (217vb), *Gilbertus super Almans. IX* (217vb); Rogerius (217vb); Jacobus Alkindus (217vb); Avicenna (217vb, 11 others); Rasis (219ra, 2 others), *Totum continens* (219ra), *Almansor* (218rb, 3 others); Serapion (221rb), *Aggregator* (217vb); Nicholas of Reggio (217vb); Ysaac (218ra); Bengezar (218ra, 1 other); Benguafit (218va); Algefiki (218ra, 1 other); Pliny (218va, 14 others); *De proprietatibus rerum* (219vb, 2 others); Simon (220rb, 2 others); Aristotle (218vb, 12 others); Berzenar (219ra); Ben Mesue (219ra, 1 other); Democritus (219rb); Hugo (219rb, 4 others); Apollonides (219rb); *Sinonima* (219rb); Isidore (219va, 6 others); Genesis (219vb); Comm. Deuteronomy (219vb, 1 other); Maritius (219va); Lucan (219va); Comm. Ysaia (219vb, 1 other); Brito, *Expos. nom. bibl.* (220ra); Averroes (220ra, 1 other); *Epistola ad Alexandrum* (220rb).

17. On the *florilegium* as a genre, see the article in *Dictionary of the Middle Ages* (New York, 1982-89), V, 109-10, and references there.

18. Lynn THORNDIKE, *Translations of Works of Galen from the Greek by Niccolò da Reggio (c. 1308-1345)*, «Byzantina Metabyzantina», 1 (1946), 213-35.

19. Richard J. DURLING, *Corrigenda and Addenda to Diels' Galenica*, «Traditio», 23 (1967), 471. I am grateful to Dr. Durling for calling my attention to the significance of this evidence.

course of a voyage to Sicily—one need not accept the authenticity of works sometimes attributed to Arnau that bear dedications to King Robert (like *De vinis* or *De conservanda iuventute*) to realize that Arnau might have had the opportunity to study these Galenic treatises. But—if we hypothesize that Arnau's *discipulus* Petrus Cellerarii was with him on some of his travels in the first decade of the fourteenth century—this is equally true of Petrus.

Since I have made it no secret that there must be a hypothetical element in this reconstruction, I will not apologize for carrying this idea a little further and attempting to develop its plausibility. If Arnau really had chosen to dedicate a medical work (like *De vinis*) to King Robert, it would have been a wholly understandable tribute, for Robert appears to have been an eager consumer of medical knowledge.²⁰ The king's patronage of Niccolò da Reggio's medical translations is only one manifestation of a deep interest that would certainly have made Arnau a welcome visitor at his court, notwithstanding Arnau's close relations with the Angevin's rival across the Straits of Messina, Frederic III of Sicily.²¹ Indeed, a seventeenth-century tradition actually places Arnau at Robert's court in 1309, seeking his cession of the title "King of Jerusalem" in favor of Frederic, although there is still no direct documentary evidence for this visit.²²

If Arnau *had* come to Robert's court, for whatever reason, it is unthinkable that he would not have seized the opportunity to talk to Niccolò about the Galenic translations that the latter was beginning to produce, because Arnau was conspicuous as a protagonist of Galen in an academic world still very much dominated by Avicenna. In the very year that Robert succeeded to his crown, 1309, Arnau guided Pope Clement V to a formal redefinition of the Montpellier curriculum that required students thenceforth to master half-a-dozen of Galen's own works before graduation—the "new Galen," as it has appropriately been called, though of course it had been available for a century.²³ Surely Arnau would have been particularly intrigued to learn that one of those newly required Galenic texts, *De simplicibus medicina*, only five of whose eleven books had been translated from Arabic by Gerard of Cremona, had just been completed from Greek by

20. See Roberto WEISS, *Medieval and Humanist Greek* (Padua, 1977), esp. pp. 119-28.

21. PANIAGUA agrees that the friendly relations between King Robert and Arnau were such that the latter might well have dedicated a work to the king; he rejects the authenticity of *De conservanda iuventute* and *De vinis* (*El Maestro*, pp. 51, 67-68) on different grounds.

22. Josep PERARNAU I ESPELT, *Noves dades biogràfiques de mestre Arnau de Vilanova*, «Arxiu de Textos Catalans Antics», 7-8 (1988-89), 281-82.

23. Luis GARCÍA BALLESTER, *Arnau de Vilanova (c. 1240-1311) y la reforma de los estudios médicos en Montpellier (1309): El Hipócrates latino y la introducción del nuevo Galeno*, «Dynamis», 2 (1982), 97-158.

Niccolò, and I can easily imagine him excitedly taking notes from the new material on the spot, as my hypothesis requires him to have done.

We know from independent sources, as a matter of fact, how opportunistic Arnau could be in making rapid use of newly translated medical texts. Averroes' *Colliget* was translated into Latin in 1285, and Arnau was already using it ten years later in his *Aphorismi de gradibus*; the *Aggregator* of [pseudo-]Serapion in Simon of Genoa's translation, probably completed (in Rome) even later, in the 1290s, was an important source for the *De simplicibus* attributed to Arnau.²⁴ As it happens, Averroes and Serapion are both among the authorities cited in *De venenis*. So is one other book that was made available to the West after Arnau was launched in a professional career: the *Totum continens* or *Ḥāwī* of Rhazes, whose translation was completed in Naples in February 1279 by Faraj ben Sālim. The reference to the *Continens* is remarkable not merely because of its recent date but because its enormous size meant that it was rarely copied and that it circulated very little; we cannot help but wonder whether Arnau—if the reference is his—might have seen the beautiful copy that had been commissioned by Charles of Anjou during his rule in Naples (1282), when Arnau visited the Angevin court at Naples in the last years of his life.²⁵ (Once again, a disciple traveling with him would of course have had the same opportunity.)

Of the remaining works cited in *De venenis*, a number are quoted by Arnau elsewhere in his authentic medical writings. These include works by authorities who were widely cited by other medieval physicians (e.g., Avicenna) but also works by those who were not—the late-Roman agricultural author Palladius was scarcely a standard medical authority in the Middle Ages, which is why it is perhaps significant to find him referred to by the author of *De venenis* as well as by the real Arnau de Vilanova.²⁶ Certainly the most suggestive in this latter group are the scriptural and theological references,²⁷ for the compiler was clearly familiar with and drew on

24. PANIAGUA, *El Maestro*, p. 63, accepts the work's authenticity; Pedro GIL-SOTRES, in *AVOMO* IV, 91-92, is less convinced.

25. The manuscript is today Paris, BN lat. 6912. See Leopold DELISLE, *Recherches sur la librairie de Charles V* (Paris, 1907), I, 270-72.

26. *De venenis*, P80r; *De humido radicali*, II.2 (*Opera Arnaldi*, 1520, fol. 39va).

27. A few examples may be of interest.

From the Vulgate:

«Ysidorus serpentum tot sunt venena quot sunt eorum genera, qui [serpentes] 3° Genesis asseruntur sapientiores cunctis animalibus» (P92r, alluding to Isidore, *Etymologiarum* XII.4.3, as well as to Gen. 3:1).

From an anonymous commentator on Deuteronomy:

«[Dypsas] ... vel esu eius primat siti validissima adeo ut antea crepent quam desinant bibere ut asseritur supra octavum deuteronomii [presumably Deut. 8:15] est

a considerable number of biblical commentaries and glosses for his references to plants and animals. I have not identified all these sources, but they include, among others, the *glossa ordinaria*, St. Jerome's commentary on Isaiah, and —perhaps most interestingly— the *Expositio vocabulorum biblie* of the Minorite Guillelmus Brito, a compilation finished between 1250 and 1270. The *Expositio* admittedly did achieve a wide circulation—more than 130 manuscripts are known today— but it is at least remarkable that a medical writer should have known of it and chosen to consult it (as well as the other glosses) so early in its history; the fact suggests that the compiler was accustomed to read widely in theological as well as scientific and natural-philosophical materials.

What other hints about its compiler does section C of *De venenis* offer? For one thing, it makes numerous references to European geography that may indicate something of the lands he knew best. There are none to Ger-

palme unius exiguus ut calcatus vix videatur super corpus sunt nigra» (P93v; the italicized words are modified from Isidore, *Etymologiae*, XII.4.32).

«[Cetula] ... vel quod vulneratum inflando veneno inebriant tumorem et ruborem igneum letalem quod spiritus sanctus non aperuit supra 8^a Deuteronomii [again, Deut. 8:15] de serpentis flatu adurente in deserto ego aperire nequeo» (P94r-v).

From St. Jerome's commentary on Isaiah:

«Asseruntur [sirena] supra ysaiam fore animalia seu serpentes cristati ac alati. Brito libro expositionum nominum biblie asserit esse fabulosum» (P94v). Although unattributed, the commentary on Isaiah appears to be that of St. Jerome, from his discussion (in Book V) of Is. 13:22; see S. Hieronymi ... in *Esaiam*, ed. M. Adriaen, *Corpus Christianorum, Series Latina* 73 (Turnhout, 1963), p. 166. And see too Lloyd W. DALY and Bernadine A. DALY, *Summa Britonis sive Guillelmi Britonis Expositiones Vocabulorum Biblie* (Padua, 1975), which treats sirens at II, 728, though curiously it does not label them «fabulous».

[dracho marinus] «Ieronimus super Ysaiam leviatam id est additamenta eorum vel adversarium dracho fat' ut supra 103^m psalmum [Ps. 103:26] esse piscem in aquis repere in terram volare in aere» (P94v). St. Jerome is commenting on Isaiah 27:1; the italicized words are from the *glossa ordinaria*. See S. Hieronymi ... in *Esaiam*, ed. Adriaen, pp. 344-46; and cf. Daly and Daly, *Summa Britonis*, I, 380-81.

From «Hugo»:

«Inquit Hugo: aspis dictus ab yos venenum vel ab eo quod morsu venena aspergat vel ab asperitate cutis est ex surdis» (P93r-v).

«Lepusculum diminutivum a lepus secundum Hugonem» (P95r). The character of these and similar references to «Hugo» suggests that a work of Hugo de Sancto Charo (de St. Cher) may be in question, perhaps his *Concordantie*. Given my restricted purposes in this paper, I have not tried to identify these citations in Hugo's dauntingly large oeuvre (for a recent bibliography, see Agostino PARAVICINI BAGLIANI, *Cardinali de curia e 'familiae' cardinalizie* [Padua, 1972], pp. 256-65). Verification of this hypothesis will have to await a more systematic investigation of *De venenis*'s sources.

many, northern France, or northern Italy; a few to Sardinia,²⁸ Provence,²⁹ and southern Italy;³⁰ but the overwhelming majority are to Spain.³¹ Some of the Spanish references are to al-Andalus, Cordoba in particular; these may have been copied by the compiler from a Cordoban writer like Avenzoar or Averroes, for they are usually relatively superficial.³² Most of them,

28. «Secunda [species apii] habet longiorem tirsum et folia ita pluribus locis inscisa; nascitur multa ... in Sardinia, dicta apium agreste» (P86). I know of no evidence that Arnau was ever in Sardinia, though we might remember his dedication of *De amore heroico* to a friend who was practicing there (AVOMO III, 12 and 43 n. 9).

29. «Inspice enim tanacetum habens flores citrinos et albos, et videbis tanacetum (dic-tum in Provincia madrigual) ut patet per descriptionem Dyascoridis et per Aggregatorem —non Serapionem sed Ben Gaffit est, per Symonem— malum stomacho» (P86v).

This passage is interesting for other reasons as well. The plant it refers to as «tanacetum» (today *Tanacetum* sp.) is likely to have been the same plant as that called «athanasia» by Petrus Cellerarii —which begins to suggest that the author of this section may have been someone else. The conclusion of the passage is no less interesting. Modern historians of Arabic medicine have come to recognize that the *Aggregator* cannot be a work by Serapion (Yaḥyā ibn Sarābiyūn), even though its translator (Simon of Genoa) attributed it to him and it regularly passed under his name in the Middle Ages; but they have been unable to identify its source (Manfred ULLMANN, *Die Medizin in Islam* [Leiden/Köln, 1970], pp. 283-84; Danielle JACQUART and Françoise MICHEAU, *La médecine arabe et l'occident médiévale* [Paris, 1990], p. 216). Uniquely among medieval scholars, the compiler of *De venenis* seems to have recognized the falsity of the current attribution to Serapion and even to have tried to identify its true author as Ibn Wāfid. If we accept Ullmann's dating of the Arabic original as of the thirteenth century, the compiler's attribution cannot be correct, but his very attempt is a strong indication that he was familiar with a wide range of Arabic as well as Latin medical sources.

30. Reference to «boas [1520 edition reads "Goas"] immensus calabrie» (P94).

31. «Katilkeb id est interficiens patrem seu tomarus [Gr. komaros?] secundum Ga. et Dioscoridem seu ficus lupi dicti in Hyspania maduoyhos (alias sorbos), malum stomacho» (P85v); or «Bruchem arbor similiter scilicet Hispanie venenum mortale est adustum et putrefactivum» (P86v); or again «Species omnes titimalli ut solben seu sene Hyspanie seu mesaira ulcerativa ac necativa...» (P83v); or yet again, «Granum de harmel dicitur in Hyspania alharma, alias escatim seu scataro sui» (P84).

I have been able to identify two of these terms. In the first example, «katilkeb» probably transliterates Ar. *qātil abihī*, today applied to *Arbutus unedo* L., the strawberry tree, called «madroño» in Castilian (cf. "maduoyhos"); see Edouard GHALEB, *Dictionnaire des sciences de la nature*, II (Beirut, 1966), 307, and Oleg POLUNIN and B. E. SMYTHIES, *Flowers of South-West Europe: A Field Guide* (Oxford, 1973), p. 284. In the final example, «harmel» transliterates Ar. *ḥarmal* (= *Peganum harmala* L.), on which see Martin LEVEY, *The Medical Formulary or Aqrābādīn of al-Kindī* (Madison, 1966), p. 258, and Polunin and Smythies, p. 252. On the equivalence of Ar. *ḥarmal* and Cast. *alharma*, see Joan COROMINAS and José A. PASCAL, *Diccionario crítico etimológico castellano e hispánico*, I (Madrid, 1980), 166.

32. «Corehar animal parvulum quod cum tangitur emittit sanguinem; necat subito quod repertum vadvkibie id est fluvio magno scilicet et cordubie dicitur belkach» (P89v; the last word reads «belzat» in the *Opera Arnaldi* of 1520). I suggest that «vadvkibie» is a copyist's error for «vadvkibir», transliterating Ar. *uādi al-kabīr*, «the great river» —or, as the Latin should be understood as explaining, «fluvio magno.»

however, are to Catalunya and Valencia, and they show an intimate acquaintance with the geography and natural history of these regions. Speaking of *napellus* or aconite (*Aconitum* sp.), for example, the compiler comments "it grows in the mountains, in the Pyrenees, near Puigcerdà" —and indeed aconite is a strictly Pyrenean species in Spain.³³ One or two passages even reveal a familiarity with Catalan folkways, like the reference to the "reptiles like a blackish lizard, called *vasga* in Arabic but known in Catalunya as household dragons [*dracones domorum*]"³⁴

As the passage just quoted shows, the compiler not infrequently displays some interest in and knowledge of terminology in Arabic and other languages.³⁵ His Arabic words were not merely transcribed mechanically

Cordova is cited again at P86: "Karfatin venenum quo inest malicia et destructio complexionis innominabiliter. algaziki id est a loco prope cordubam sic dictus. Asseritur ipsum fore gummam opponaco similem".

33. «Urchs arabice napellus seu thora; habet folia longiora incisiora petrosillo, radiceque duram asperam summitatemque grossam et frondes quasi trium palmarum quasi flores purpureos et pulcherrimos; nascitur in montanis vel in montibus pirineis puta prope podium ceridanum» (P85). Here and subsequently my authorities for botanical information are Oriol DE BOLÒS et al., *Flora manual dels països catalans* (Barcelona, 1990), and POLUNIN and SMYTHIES, *Flowers* (above, n. 31). Another reference to the Pyrenees is found on P92: «Asseritur in montibus pireneis serpens interfectus fuisset triceps in cuius ventre miles invenit filios suos vi. voratos.»

34. «Vasga arabice sunt reptilia ut stellio subnigra dicta in cathalonia drachones domorum. Cum mordent, inflatur locus usque denticuli infixi extrahantur ...» (P95v).

35. The Arabic terms were unfamiliar to copyists, and many have become so deformed by the Latin manuscript tradition that they are difficult to identify. Even so, it may be of interest to supply some further examples beyond those provided in the previous notes:

«Radix condex id est condisi scilicet strution secundum Gal.in 8^o de simplicibus medicinis [Cf. Galen, *De simp. med.* VIII.20] grece habemus strucii radicem, in arabico habemus condex, grece strution seu obstructum mar'm seu lanaria quod fumigando cum radice ipsius limpedetur lana ut in Hispania vomica valde perneat in die esu dr. i et s. de radice ipsius ...» (P83v). [«Condex» is Ar. *kundus* (on which see Levey, *Formulary*, p. 328). Avicenna discusses *condisi* in his *Liber canonis* or *Canon* at IV.vi.i.ii.16 (Venice, 1507; rpt. Hildesheim, 1964, fol. 472va).]

«Hutaran arabice seu cauros secundum Dyascoridem seu cicuta venenum inebrians fluxat membra, facit effluere spumam de ore, necatque frigiditate nisi superbibatur vinum fortem ...» (P88).

«Harbe arabice id est hupupa in Avicenna necat» (P90). [The references in *Liber canonis* II (fol. 122vb) and IV (fol. 475va) do not make the Latin identification].

«Pediculus elephantis secundum alios aquile dictus arabice artha animal parvulum simile pediculo generatum inter corticem et lignum pini; effundit sanguinem forte irremediabiliter» (P94v).

«Zabor arabice seu azalus seu tobanus formice volatiles et non volatiles effundunt humorem venosum pustulantem hominem solum» (P96v). [«Zabor» probably transliterates Ar. *dabūr*, «wasp»; see COROMINAS and PASCAL, *Diccionario*, V

from other authorities, for he occasionally offers spontaneous translations of proper names, as when he explains (correctly) that "ben gessar" [= Ibn al-Jazzār] means "son of the butcher".³⁶ Moreover, he evidently knew Arabic not just as a written but as a spoken language, for at one point he says of "nux methel" that "methel ought to be spoken with a consonant sounding between `r' and `c'".³⁷

But the compiler refers at least as often to the common names of plants and animals in the Romance vernaculars of "Hispania" and Catalunya, sometimes even linking Latin, Arabic, and vernacular names together in a single account. Two examples in particular can serve to illuminate his approach—and his underlying familiarity with the Iberian coast:

Nerron seu nereland seu rosa lauri secundum Dioscoridem, secundum vero landrum ut Neapoli, arabice adafra, et communiter oleander ut soli valentie [nominatum baladie], crescens prope aquas; habet plures frondes rectos et roseos flores capitellis subrubeis foliaque oblongiora et albidiora foliis lauri, corpula cooperiuntur non granis sed lanugine; venenum etiam animalibusque ceteris, aqua etiam in qua crescit nocet eis valde.³⁸

Here, while he quotes Dioscorides, the compiler is going far beyond the Dioscoridean description of *nerion* to identify it with a plant (evidently

(Madrid, 1983), 356, who discuss the possible etymological relationship between *Ar. dabūr* and Cast. *tábano*.]

Any or all of these items—which do not exhaust the compiler's references to Arabic names—may, of course, be derived directly from written sources, although (as I have indicated) in the one instance where Avicenna is cited the passage in question from the *Liber canonis* does not identify the bird as the European hoopoe.

I am deeply grateful to Professor Julio Cortés and Dr. Henry Azar for assistance with the identification of Arabic terms.

36. P90r.

37. «Nux metel debet pronunciari per litteram presentem t inventam autem porqueto habentem sonum inter t et c venenum putrefactivum ac soli valentie vel sibilie fructus figure avellane maior palmacristi sed minor foliis ac stipitibus cum foliis grossis, spinis brevibus» (P87v-88). The reference in *Liber canonis* IIII.vi.i.iii.2 (fol. 473vb) does not describe the plant. The Arabic text of the *Canon* (Rome, 1593) reads «jauz mātil» (p. 167), but in *Al-Biruni's Book on Pharmacy and Materia Medica*, ed. Hakim Mohammed SAID (Karachi, 1973), it is spelled «jauz māṭil» (I, 114), and as such it is still applied to the fruit of *Datura metel* L. (Ghaleb, *Dictionnaire*, I [Beirut, 1965], 279). The latter spelling—with a *ṭā'* rather than a *tā'*—helps make sense out of the Latin author's advice about pronunciation.

See too Friedrich FLÜCKIGER and Daniel HANBURY, *Pharmacographia: A History of the Principal Drugs of Vegetable Origin* (London, 1879), p. 462.

38. P85-85v. The phrase «nominatum baladie» is not in *P* but is given in the text of the 1520 edition at fol. 218rb. The manuscript's «adafra» is a corruption of *Ar. al-diflā* (see LEVEY, *Formulary*, pp. 267-68). COROMINAS and PASCAL, *Diccionario*, I, 52, discussing the Castilian word *adelfa* (= oleander), comment: "También port. adelfa, pero en este idioma es

Nerium oleander L.) that he himself clearly knows well from Valencia.³⁹ Again:

Species laureole —id est cameleone, secundum Nicolaum de Regio, et dicta in Cathalania matapoyl et bufobega— ignem habentis plurimum de veneno maxime subnigra habens colorem pavonis ut Hispanie necat esu dr. ii.⁴⁰

Once more the compiler has tried to bring various terms together —Catalan, Latin, and Greek. The personal reference to Niccolò da Reggio is unique, sounding more like an informal communication from Niccolò than like a citation of Galen, and it should perhaps be pointed out that while Niccolò's translation of *De simplicibus medicina* does include a chapter on *camelea*, the plant is not there referred to as a species of laurel.⁴¹ At one point the compiler seems to want to suggest his own understanding of Greek, when he explains that "databutius [Gr. *dryopteris*] secundum grecam" means "filius querci," though his etymology is only half right.⁴²

más corriente lo endro, alteración del grecolatino RHODODENDRON; el catalán ha conservado el céltico BALADRE, que pasó también a las hablas españolas orientales".

39. Compare the compiler's description of the plant —"it has many upright branches and red flowers in reddish clusters, and leaves longer and paler than the leaves of the laurel"— with the modern description of the genus: «Arbust de branques erectes amb fulles estretament lanceolades...; flors rosades in inflorescències corimboses terminals» (*Flora manual*, p. 640).

There is at least one additional reference to the flora of Valencia: «Colloquintida [*Citrullus colocynthis* L.] violenta valde, ut terre valentie maxime crescens; sola planta sua venenum est, et prope aquam similiter vel perniciosior necans solvendo esu granorum 6 ordei ex ea» (P83v).

40. P83r. «Matapoll» was probably *Daphne gnidium* L., a species to which the name is still applied today. ALCOVER-MOLL (*Diccionari Català-Valencià-Balear*, VII [Palma de Mallorca, 1956], 298) say it can also refer to *Delphinium staphisagria* L., and suggest that this is what the word means when it occurs in Berenguer çà Riera's translation of Arnau's *Regimen sanitatis* (*Obres Catalanes*, ed. M. BATLLORI [Barcelona, 1947], II, 198), while Batllori in his glossary identifies the name broadly as referring to something in the Ranunculaceae. This seems to me a less probable identification than *Daphne*, which comes closer to resembling a laurel. In any case, a precise identification is not really important for our purposes here. The Latin text of Arnau's *Regimen sanitatis* reads, «Si vero accipiatur cortex laureole que vulgariter dicitur matapol et fiant ex eo fila ex quibus excrescencie [hemorrhoids] ligentur radicitus, moderata strictura, celeriter abscondantur» —that is, the real Arnau identified «laureola» (whatever that may be) with «matapoll», just like the author of *De venenis*; so whatever the correct identification, the usage still bears out the possibility of Arnau's authorship. (I have taken the text of this passage from the forthcoming Latin edition of the *Regimen* in the *Opera Arnaldi*.) «Bufabega» has not yet been identified. Neither has «rabador» or «rahador», referred to at P86v: "Crescit in Cathalonia frutex dicta rabador maior, stipitibus ac foliis lentibus". Another reference, to caterpillars, on P96r, says «dicitur in ca[t]halano» but then does not supply the Catalan term.

41. *De simpl. med.* VIII.166; Galen, *Opera* (1490), fol. 288ra.

42. P86v.

All in all, the picture that section C provides of the compiler of *De venenis* appears to correspond remarkably well to Arnau de Vilanova: the wide reading in medical literature, the use of a variety of theological works as authorities, the circumstantial familiarity with Catalunya and Valencia, the knowledge of Arabic language and perhaps medical literature, even the hesitant attempts at Greek.⁴³ The inventory of Arnau's possessions included a work "de concordanciis biblie," which might well be one of the reference works he consulted for the identification of poisonous animals.⁴⁴ It is harder (though not impossible) to see the young Petrus Cellerarii in these details, because we know so little about him personally; but if it were his experiences that had shaped these references, would we not expect to see some allusions here to Aragon? The only problem with accepting Arnau's role in compiling this section seems to be the compiler's familiarity with Niccolò da Reggio's translation, and this problem is not an insuperable one if we imagine that it was among Niccolò's earliest efforts, and that Arnau encountered it—and perhaps its translator—in Naples, late in life.

Let us now turn to consider the remainder of *De venenis*. A quite different case can be made for connecting section A of this work with Arnau. Its first few sentences are characteristic of his style and interests, declaring that "natura et ars graduavit tyriacalia simplicia composita" and beginning to sketch out a classification of these medicines, even though the classification quickly becomes a mere list. This list of remedies is shorter than, but very similar in character to, the list of poisons set out in section C, often referring to the same kinds of sources—for example, to another of Niccolò da Reggio's translations (of Galen's *De theriaca ad cesarem*, also undatable)—and it might well have been compiled from the same kind of *florilegium*. More tellingly, several of the medicines listed in this section can also be found referred to in Arnau's *De dosi medicinarum tyriacalium*, where they are described in almost identical language.⁴⁵ This is the only

43. Cf. the assessment by Joaquín CARRERAS ARTAU, «Arnau de Vilanova y las culturas orientales», *Homenaje a Millás-Vallicrosa* (Barcelona, 1954), I, 316-21.

44. Roque CHABÀS, *Inventario de los libros, ropas y demás efectos de Arnau de Vilanova*, «Rev. Arch. Bibl. Mus.», tercera época, 9 (1903), 189-203 (#60). I have inspected the original, which reads *biblie*, not *bibliis* as Chabàs thought. Millàs guessed this might be a reference to the *Concordancie* of Hugo of St. Cher, which is not at all impossible; but note that *De venenis* also includes «Hugo»—perhaps Hugo of St. Cher—among its authorities (see n. 16 above).

45. «Scorpio montanus oleo frifixus vel oleum putrefactionis ipsius aut ipsemet conquisatus suppositus puncture liberat ab yctu illius [sc. scorpionis] expellendo venenum. Fasiarius comestus curat proprie amputationem memorie illatam esu medulle arietis non castrati» (P79v; 1520 edition, fol. 217ra).

part of *De venenis* that repeats demonstrably Arnaldian ideas, and of course while the parallel is intriguing it proves nothing about authorship: it is precisely such material from a genuinely Arnaldian work that a disciple like Petrus Cellerarii would be expected to include in a compilation bearing his master's name.

If we now examine the other two sections of this work, B and D, which deal respectively with the powers and proper doses of theriac, we discover a new and surprising fact about the way in which it was assembled. It seems never before to have been remarked that these two sections from *De venenis*, when put together into one, are essentially identical to the account of "the great theriac" contained in Arnau's *Antidotarium*; the discovery is an unexpected by-product of choosing to consider the two works as a pair. Someone has extracted the chapter on *tyriaca magna* from the *Antidotarium*, originally composed as a single unit, and broken it into two parts, which he has then sandwiched around the list of poisons in *De venenis*; occasionally he has elaborated slightly on a terse statement in the original, less often he has added or eliminated an entire entry, but in general he has remained faithful to the presentation in the earlier work.⁴⁶ By far the most

«Quedam liberat attrahendo venenum ad se (sicut scorpio frigus aut oleum putrefactionis ipsorum superpositum puncture scorpionis)» (*AVOMO* III, 77.6-8). «Sicut de auro dicitur et iacinctis aut melius de carnibus fasiani, que cum suo temperamento nihilominus comeste proprietatem habent pellendi nocumentum causatum ex esu medulle arietis non castrati. Hec enim tanta venenositate contrariatur humane nature ut memoriam amputet» (*ibid.*, 87.17-21).

46. To illustrate his manner of working, I give below the comparable passage in each work as printed in the 1520 edition, marking in italics the additions made in *De venenis*. I have not bothered to emend the obvious errors, but this should not impede an appreciation of their relationship:

«Data cum succo menthe confert lienterie ex utraque causa. Data cum ponticis est decoctio nucis cypressi in pluviali confert fluxui ventris epatico debilitate contentive et expulsive. Data pondere duorum lupinorum sistit fluxum superfluum plantarum solutivarum. Et ipsa data cum vino decoctionis anisi confert puncture ex ventositate et emissionem ipsius involuntarie. Data cum decoctione asari confert ycteritie cronice cum urina alba ex opilatione vel venenis et curat ycteritiam nigram frigiditate epatis proprie. Unus lupinus ex ea datus cum decoctione diureticorum confert ydropicis et confert valde in declinatione ipsius. Data cum decoctione apii post clistere mollitivum subvenit yliosis ex humoribus viscosis aut ex venenis. Supposita in muscellino cum bombace profunde vel cum clisteri confert colice tenasmoni. Data cum vino decoctionis ruthe et salvie confert colice ventose vel debilitate expulsive sensus. Data cum decoctione abrotani interficit ascarides pluries ipsa retinens adhuc vini opii» (*Antidotarium*, fol. 256va).

«Data cum succo menthe confert lienterie ex utraque causa. Data cum ponticis et cum decoctione nucis cypressi in pluviali confert fluxui ventris epatico debilitatis contentive. Data pondere lupinorum .v. post vomitum ac potum aque ordeacee ac drome-

likely person to have treated the material in this way is Petrus Cellerarii, who "signed" both works with a reference to his *athanasia*-cure. It is important to recognize that that signature comes in different places in the two works. In *De venenis*, Petrus's authorial claim is attached to a passing reference to *athanasia* in the discussion of theriac that its section D shares with the *Antidotarium*, whereas in the *Antidotarium* it is not found in the theriac chapter but is instead inserted into a separate chapter on *athanasia*. Hence the claim in *De venenis* was not just transcribed mechanically from the earlier work, it was incorporated consciously at an appropriate moment in the new text.⁴⁷

IV. A RECONSTRUCTION

What can we make of all this evidence? What do these various pieces of information tell us about the composition of these two works? Let me

*Illis sistit statim fluxum superfluum medicinarum sumptuarum ex humore venenoso. Lupinus .i. ex ea datus cum decoctione anisi confert puncture intestinorum ex ventositate emissionisque ipsius immissionis. Data cum decoctione assari confert ictericie cronice cum urina al's ex opilatione vel venenis curatque ictericiam nigram proprie frigiditatis epatis. Lupinus .i. vel dr. .i. secundum Averroym ex ea data cum decoctione diureticorum vel cum dr. .i. et s. aceti commixti confert ydropisi confert in declinatione ipsius. Data cum decoctione opii post clystere mollitivum subvenit hylas ex humoribus viscosis vel venenosis. Supposita profunde cum bombace et oleo dicto arabice de ben latine balam vel muscatellini aut cum clystere confert colice ac tenasmoni. Dando dr. .i. ex ea cum vino decoctionis salvie et ruthe confert colice ventose vel debilitati sensus expulsive. Data pluries cum vino stiptico liberat a periculo et a lesione laniationis ac rupturę viscerum. Dando pluries dr. .s. ex ea famelico cum decoctione abrotani necat ascariides lumbricos et cucurbitinos ipsa retinens adhuc vim opii» (*De venenis*, fol. 221ra-b). *De venenis* has also supplied a considerable amount of new material on dosage at the end.*

47. For the context in which it is inserted into the *Antidotarium*, see n. 13 above. In *De venenis*, the context is: «Datur [tyriaca] infanti cum lacte matris vel etiam ipsi matri accipiēdo dr. .s. ex ea cum dr. i. arthemisie [sic] triduo cum succo scilicet plantaginis quo emathites in aqua fuerat fricatus. Comperitur conferre valde...» (P100r).

That the *Antidotarium* preceded *De venenis* has already been suggested by the fact that the chapter on theriac is a coherent whole in the former work, and is broken up in the latter. Note that if *De venenis* had been prepared first, then when section D was used to construct the chapter on theriac in the *Antidotarium* the reference to *athanasia* and to Petrus's authorship would have been carried over, and there would have been no need to introduce it in another context; so for this reason, too, it seems most probable that the *Antidotarium* preceded *De venenis*.

put the information together into a single narrative that may be speculative but is at least coherent and internally consistent, as well as all-inclusive. I suggest that at Arnau's death his *discipulus*, Petrus Cellerarii, became responsible for certain of his master's medical notes and other materials. He found among them a nearly complete work on the preparation of medicines, which he rounded off a little inappropriately by compiling a catalogue of standard medicinal compounds, and he published the combination as Arnau's *Antidotarium*. Petrus also found some more fragmentary materials: the beginning of a work on theriacal medicines—perhaps it was a false start on what became *De dosi medicinarum tyriacalium*—and a kind of *florilegium* of notes that Arnau had collected over many years on a subject that had always particularly fascinated him, the occult power of various materials, theriac among them, to bring about poisoning or to cure it. Poisons were the object of particular interest in Western medicine at just this moment,⁴⁸ and therefore Petrus decided to try to develop his master's materials into a new and very topical work, *De venenis*; he did so by weaving Arnau's fragments together around portions of the chapter on theriac that he had already used in the *Antidotarium*. Having indicated his editorial role in the production of both works, Petrus put them into circulation.

My study of these two works has necessarily been only a superficial one, a preliminary survey that leaves many problems for closer investigation by future editors. It would not surprise me to learn that this reconstruction of their origin will prove mistaken in one or more of its details. Yet I believe nevertheless that its broad core has to be accepted. Some but probably not all of the *Antidotarium* was written by Arnau de Vilanova; part but probably not all of *De venenis* may also have originated with Arnau, as notes on reading if not as deliberate composition; but the final form of each is due to a later editor, evidently Petrus Cellerarii.

This poses a serious problem to the editors of Arnau's *Opera Medica*. Assuming that this interpretation is essentially sound, how much of these two works deserves to be included in the collection of his medical writings? Personally, I would argue that all of both should be included, for by my hypothesis even the material that is not demonstrably Arnaldian was prepared by someone who had been trained by and closely associated with Arnau de Vilanova, and in that sense it is at least loosely Arnaldian. And—assuming specifically that section C of *De venenis* represents a kind of Arnaldian *florilegium*—that particular work deserves to be edited very soon, for it is likely to provide us with unexpected information about Arnau's reading, his manner of working, and perhaps even his biography.

48. *AVOMO* III, 57-73.

In a sense, therefore, I am arguing that it may sometimes be profitable to define "authorship" loosely rather than strictly, to broaden our use of the word so as to include materials that give us access to an individual's thought even though they were completed—or even created—by someone else, as is the case with the *Antidotarium* and *De venenis* attributed to Arnau. Let me conclude with a parallel that will make clearer why I would argue for the edition of both these works in the *Opera Medica Arnaldi*. I would suggest that we might think of Petrus Cellerarii as playing the role of F.X. Süssmayer to Arnau's Mozart. When we hear the Mozart *Requiem* today, much of what we hear is Süssmayer's completion of a work that Mozart left unfinished. Musicological purists do not insist on trying to root this out; they accept that Süssmayer was indeed working with genuinely Mozartean material, even though the orchestration is all his own. The same thing, I think, can be said of Petrus Cellerarii as editor of these two works, which in this sense we must now accept as "Arnaldian".