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THE WRITING OF THE *SPECULUM MEDICINE*
AND ITS PLACE IN ARNAU DE VILANOVA'S LAST YEARS

For much of the last five years of his life before he died in October 1311, Arnau de Vilanova's movements are difficult to trace. This is particularly true of the earliest part of that period, 1306-8. However, a close examination of the textual tradition of his *Speculum medicine*, the text of the work itself, and contemporary references to it, allows us to draw a number of inferences about the genesis of this work, and of other Arnaldian medical writings, in these "silent years."

1. THE *SPECULUM MEDICINE*

It has long seemed obvious that Arnau must have composed the *Speculum* towards the end of his career, because he refers in it to so many of his other works. Since we now know that one of those works that he mentions, his commentary on the first Hippocratic aphorism, was completed in the spring of 1301, we can date it definitively to the last decade of his life. But one of the surviving manuscripts of the work helps us further narrow down the period of its composition. The colophon to the work in MS. Vat. Palat. 1211, fols. 100r-179r, reads:

Explicit speculum pericie thoricalis medicine magistri Arnoldi de villa nova
magistri in eadem Anno domini M° CCC° X.° Ego magister Jacobus Egidii hoc
scripsi, compilatus vero fuit a magistro predicto anno domini M.°

The manuscript itself dates to c. 1400, and the ending of the original entry has evidently been lost in transmission, but what is left would seem to establish that the *Speculum* had already been written and was in circulation by 1310. Not only that, it was available by then in Montpellier, for "master Jacobus Egidii" is known independently to us as a Montpellier master who was teaching at that school in 1319 and served as chancellor of the medical faculty 1324-32;¹ thus in 1310 he would have been a relatively young man, perhaps 25-35 years old. Can we combine this information with what we

1. Ernest WICKERSHEIMER, *Dictionnaire biographique des médecins en France au Moyen Age* (Paris, 1936), 329.

already know to help us reconstruct the particular circumstances of the composition of Arnau's great work?

Writing the *Speculum* would certainly have required a long period of thoughtful and concentrated labor. In the light of our knowledge of Arnau's career in the decade of the 1300s, that conclusion already places some restrictions on the date when it could have been composed. We know that between the spring of 1301 and the end of 1305 Arnau was caught up in almost unremitting theological debate, traveling back and forth between Catalunya and the papal court; it is difficult to believe that in these years he was able to reserve a significant period of time for tranquil medical thought – or, indeed, that he would have wanted to. For the next few years after 1305, however, we have very little documentary evidence for his activities or his whereabouts, though all of it puts him in various parts of southern France. In 1306 he was almost certainly in Montpellier when he testified before a notary (at an indeterminate date) as to the usages of that university forty-five years earlier.² Another tantalizing piece of evidence is the statement at the end of a work long accepted as his, the *Expositio super Antichristi*, that it was completed in 1306 at the monastery of St. Victor in Marseille – indeed, there is independent evidence that he had ties to some members of that monastic community. Arnau's authorship of the *Expositio* has recently been vigorously challenged, and this is not the place to enter into the debate, but it might at least be said that there would be no biographical inconsistency in placing Arnau in Marseille in that year.³ He was assuredly in Marseille during February and March 1308, when he wrote to King Jaume II of Catalunya-Aragó and later signed a codicil to his will.⁴ Again, in the summer of 1308 procurators were purchasing properties in his name in the region about Marseille, but this time there is no evidence in the documentation of his physical presence in the city.⁵ Only

2. *Cartulaire de l'Université de Montpellier*, vol. 2 (Montpellier, 1912), 61-2.

3. For the work and its date, see Joaquim CARRERAS I ARTAU, *L'Expositio super Apocalypsi d'Arnau de Vilanova: autenticitat, data i lloc de composició*, «Estudis romànics», 8 (1961), 49-55; Arnaldi de Villanova, *Expositio super Apocalypsi*, ed. J. CARRERAS ARTAU (Barcelona, 1971), xv-xvi. For the arguments against its authenticity, see the articles by J. PERARNAU, J. MENSA, and F. SANTI, in *Actes de la I Trobada Internacional d'Estudis sobre Arnau de Vilanova*, 1 (Barcelona, 1995), 25-205, 345-76, and the comments by Mensa and Perarnau at 383-8; a counter-argument by G. L. POTESTÀ follows at 388-92. Whoever its author, a copy was evidently in Arnau's possession at his death five years later, as well as personal copies of the *Speculum medicine* and of many other of his medical and theological writings; J. CARRERAS ARTAU, *La llibreria d'Arnau de Vilanova*, «*Analecta Sacra Tarraconensia*», 11 (1935), esp. 77-83.

4. Heinrich FINKE, *Acta Aragonensia*, 3 vols. (Berlin, 1908-22; rpt. Aalen, 1966), iii.176; for the letter of 18 Feb. 1308, see Antoni RUBIÓ Y LLUCH, *Documents per l'història de la cultura catalana mig-aval*, 2 vols (Barcelona, 1908-21), i.42-4.

5. The documentation has recently come to light in the Archives départementales des Bouches-du-Rhône; Joseph Shatzmiller and I are preparing a publication of the relevant texts.

in 1309 do we again begin to have reasonably consistent evidence of Arnau's movements.

Exactly where was he based, then, during those largely silent years, 1306-1308? Let me approach this question by pointing out that just three months after Arnau added that Marseille codicil to his will, on 1 July 1308, Jaume II wrote to Arnau urgently requesting

novellum opus per vos conditum, medicine speculum nuncupatum, pro conservacione salutis nostre mittere deberitis... iterato precamur quatenus opus predictum seu speculum medicine ad nos pro conservacione nostre salutis ... transmitatis

and pointing out testily that he had already asked his physician for the book once before, with no answer.⁶ It has been questioned whether this is in fact a reference to the work that is ordinarily referred to by that name, but in the light of what we now know about his circumstances it seems certain that it is (as I will argue below), and that therefore Arnau had been at work on the *Speculum* for some time by the middle of 1308. By mid-August of 1308 the king still had not received the book.⁷ Yet by the spring of 1309 Arnau had returned to a very visible activity as an agent in royal diplomacy, and he would have had no further opportunity to work on it; hence we might reasonably suppose that in late 1308 or early 1309 he had finished the book. Evidently he spent some part of those silent years 1306-1308 in planning and writing the *Speculum medicine*. But how much time?

The *Speculum* is a very long work: by my count, about 88,000 words. It is also a highly structured, carefully organized book. It is well known that it is designed broadly around the structure of Johannitius' *Isagoge*, but within that structure Arnau has incorporated discussions of new subjects not referred to in the *Isagoge*, including what amounts to a huge independent treatise on *complexionata* that combines clinical information with a theoretical substructure that closely follows contemporary natural-philosophical teaching on the nature of *mixtiones*. One sign of the care with which it was planned is the frequency of its cross-references, both to subjects already treated in the work and to subjects yet to come. It also makes use of a broad range of medical literature, Galen and above all Avicenna, rarely quoting directly from their writings but frequently following the sequence of their arguments: Arnau was evidently referring constantly to other books as he wrote. Given all this, it seems to me plainly impossible that the *Speculum* could have been thrown together quickly in a month or two, and I see no reason why he should not

6. RUBIÓ Y LLUCH, *Documents*, i.45.

7. See the letter published by FINKE, *Acta Aragonensia*, ii. 877-8; the text of the letter is slightly revised in M. R. McVAUGH, *Medicine before the Plague* (Cambridge, 1993), 15.

have devoted a large part of the two years from late 1306 to late 1308 to planning and writing his great work. This would fit well enough with Jaume II's evident feeling in July 1308 that he had already waited quite long enough for the book.

And where during those years might he have found the tranquility, and the resources, necessary for its completion? We have seen that the surviving documents suggest two possibilities, Marseille and Montpellier, and a case might be made that either one could have provided him with a suitable base for reflection. In Marseille a supportive presence for the emergence of the *Speculum* might have been his nephew Joan Blasi. Like his older brother Ermengol, Joan apparently studied medicine at Montpellier; he was established at Marseille, married, by 1305, but soon entered the service of King Robert of Naples as physician and surgeon. By 1320 he had returned to Marseille, now increasingly involved in commercial activities; he died in 1341. We know that he became something of a disciple of Arnaldian medicine, for an inventory of his possessions shows that he owned 18 astrological seals (seven of gold, eleven of copper) of the kind that Arnau had used to cure the pope of the pain produced by renal calculus as well as a copy of the *Speculum medicine* itself, part of a small medical library.⁸ If Arnau had based himself in Marseille in 1306-1308, he could have been assured of a sympathetic sounding-board for his ideas – *if* Joan Blasi had been in the city at the time. But there is reasonably sound evidence that Joan was not in Marseille but in Naples with King Robert during most of the year 1307, which obviously makes the case for Marseille less compelling.⁹

8. The inventory is undated. In the volume in which it is contained (Joan Blasi's account book) it immediately precedes his will of 1329, the earliest item included there; the other items in that volume carry dates as late as 1337. The contents of the book are transcribed and discussed by Dietrich HAUCK, *Das Kaufmannsbuch des Joban Blasi (1329-1337): Ausgabe mit sprachlichem und wirtschaftsgeschichtlichem Kommentar*, Inaug.-Diss., Universität des Saarlandes (Saarbrücken, 1965). Though there is thus no real proof that Blasi's "Arnaldian" orientation began early in his medical career, Hauck suggests (p. 164) that the relative scantiness of Blasi's inventoried medical possessions indicates that he abandoned his medical activities and devoted himself entirely to commerce once he returned to Marseille from Naples. See also René VERRIER, *Études sur Arnaud de Villeneuve*, v. 1 (Brill: Leiden, 1947), esp. 31-48; and Miguel [sic] BATLLORI, *La documentación de Marsella sobre Arnau de Vilanova y Joan Blasi*, «*Analecta Sacra Tarraconensia*», 21 (1948), 75-119.

9. R. CALVANICO, *Fonti per la storia della medicina e della chirurgia per il regno di Napoli nel periodo angioino (a. 1273-1410)* (Naples, 1952), nos. 961-962, reveals that a "Giovanni di Blasio, chirurgo del Duca," was examining the qualifications of surgeons for Robert in Naples in late 1307, and a *magister Johannes chirurgicus et familiaris domini ducis*, who is almost surely the same person, is recorded as doing the same thing in January of that year (nos. 841, 853). Calvanico's documents (nos. 1473, 1476, 1504) place him in Naples in 1312/13 as well. Here a set of coincidences is worth commenting on. In a paper presented to the *I Trobada sobre Arnau de Vilanova* I pointed out that the *De venenis* attributed to Arnau surprisingly makes reference

There is a much stronger case to be made for Montpellier, because while teaching there in the decade of the 1290s Arnau had made that city his home. He may have had financial interests in Valencia, he may have made trips to Barcelona to see the king, but he always came back to Montpellier. When he appealed to the Holy See in October 1300 against the actions of the Paris theologians, he called himself *habitor Montispessulani*, and he immediately returned there to continue teaching. When he decided to leave the city in the spring of 1301 in order to defend himself in person before the Pope, he left behind a wife – Agnes, the sister of Joan and Ermengol Blasi's father. Events ensured that it would be a long time before he was able to return to her, but she was evidently on his mind, for when he drew up his will in July 1305 (he was then temporarily in Barcelona) the first bequest he made was to her, leaving her “omnia bona mea tam immobilia quam mobilia que habeo in monte pessulano.”¹⁰ Not only was Montpellier his physical home, however, it had become his intellectual one as well; the wide range of medical literature that the *Speculum* synthesizes (including his own writings from the previous decade) would have been easier to find and to consult there than anywhere else in Europe. It thus seems most probable that after 1305, with theological controversy temporarily set aside, Arnau returned to his home of long standing in Montpellier and for the next few years continued to make that city his base for the composition of the *Speculum*, though as we have seen he certainly visited Marseille (175 km. away) at least once during that time. The fact that the colophon of the best surviving copy of the *Speculum* identifies the work as “compilatum in monte pessulano” means little by itself – it could perfectly well be a natural scribal assumption, and the manuscript only dates from the early fifteenth century – but in conjunction with

to books 6 and 8 of GALEN's *De simplicibus medicina* – “surprisingly,” since books 6-12 of this work were first translated into Latin between 1308 and 1319, by Niccolò da Reggio at the court of Robert of Naples – and I suggested that Arnau could have visited the court and met Niccolò and seen these books in the course of a trip to Sicily in the years 1309-1311; Michael R. McVAUGH, *Two Texts, One Problem: The Authorship of the Antidotarium and De venenis attributed to Arnau de Vilanova*, «Arxiu de Textos Catalans Antics», 14 (1995), 75-94, at 82-84 (also published in *Actes de la I Trobada Internacional d'Estudis sobre Arnau de Vilanova*, 2:75-94). I was then not yet aware of his nephew Joan's possible presence at the court in those same years, but if he was there, he must certainly have known Niccolò da Reggio, and we know from Joan's inventory that he himself owned some of the very translations that Arnau referred to: “tres cazerns de pargamin en que son los VII libres derries de cimpla medecina de Gualian” (HAUCK, p. 55)! Whether all this might be more than a series of coincidences must remain a matter of speculation – but might it not be that Arnau became acquainted with Niccolò's translations through his nephew Joan, rather than directly from Niccolò himself?

10. Roque CHABÁS, *Testamento de Arnaldo de Vilanova*, «Boletín de la Real Academia de la Historia», 28 (1896), 87-92, at 88.

the other evidence it reinforces the likelihood that Arnau prepared his great work in Montpellier.¹¹

One further advantage that Montpellier would have had for Arnau was the availability, not perhaps of a respectful nephew,¹² but of a community of medical academics with whom he could have discussed the ideas he was working out in the *Speculum*. Arnau never underestimated his own medical understanding, and he was often harshly critical of contemporary masters, but he was not uncollegial either; he could imagine discussing professional issues with sympathetic colleagues,¹³ and there were certainly some such to be found in Montpellier. Remember, too, that master Jacques Egidii of Montpellier was able to have a copy made of this long work in 1310. This might at first seem surprisingly early: the *Speculum* had been completed only a year or so before, after all. Yet if it had been completed in Montpellier and was copied in Montpellier, this short span of time is not really so surprising – especially when we realize that the medical community there could surely not have been unaware of Arnau's great project; Arnau's sympathizers in the faculty, young Jacques Egidii no doubt among them, would have heard about the work as it progressed and, like Jaume II, would have been waiting eagerly for it to finally appear so that they could study it for themselves.

2. OTHER ARNALDIAN MEDICAL WRITINGS

Arnau concludes the *Speculum* with a quasi-biographical or bibliographical remark, when he gives thanks to Christ

qui considerationes introductorias prime partis medicine que dicitur theorica adimplevit et qui iam in regimento sanitatis nostro et amporismis de ingenio sanitatis abundanter inchoavit considerationes practice necessarias

11. The manuscript is Paris, Bibliothèque Nationale lat. 14732, whose colophon (fol. 69ra) reads "explicit speculum medicine compilatum in monte pessulano per M. Arnaldum de Villanova completum 29^a Jan. Anni 1412'." My judgment of the relative quality of this manuscript is based on a sample collation of all the twenty-five copies I have so far been able to identify.

12. Arnau's other Blasi nephew, Ermengol (whom Arnau once seems to have referred to as the only intelligent master he knew at Montpellier; see *AVOMO* V.2, 278), had left the service of Jaume II at the end of 1306. Subsequently he took up service with Pope Clement V, but we do not know when he actually came to the papal court (Ermengol was dead by 1312), and it is not at all inconceivable that he could have returned for a time to Montpellier while Arnau was there.

13. For example, the concluding section of Arnau's *Repetitio super Vita brevis* contains a number of vignettes of medical care that make clear his assumption that physicians would routinely consult one another on matters of diagnosis and therapeutics. The text of the *Repetitio*, edited by M. R. McVAUGH and F. SALMÓN, is forthcoming in *Arnaldi de Villanova Opera Medica Omnia* (hereafter *AVOMO*) (2012).

and goes on to express his hope

quod ipse perficiet in commento predictorum amphorismorum et in aliis amphorismis particulariter experimentibus que per medicum sapientem consideranda sunt in morbis quorundam membrorum particularium.

These references, brief as they are, will help us appreciate that the *Speculum* was not the only work that was commanding Arnau's attention in these years.

We may begin by pointing out that Arnau here seems to speak of two works of his as books already (*iam*) finished, both dealing with medical practice and thus providing an intellectual contrast to the *Speculum*: a *Regimentum sanitatis* and a set of *aphorismi de ingenio sanitatis*. Juan Antonio Paniagua argued convincingly that these "aphorismi" should be identified with the work now known as the *Medicationis parabole*, which Arnau had composed at Montpellier in 1300 and presented to Philippe IV of France;¹⁴ this is indeed a collection of aphorisms dealing with aspects of medical practice. He concluded, however, that the "regimentum sanitatis nostrum" had never passed beyond the planning stage, despite the fact that Arnau's language certainly implies that it, like the *aphorismi*, already existed. Though it might seem natural to identify this *regimentum* with the well-known *Regimen sanitatis* that Arnau composed for Jaume II, Paniagua was unwilling to take this step because he felt that that *Regimen sanitatis* had to be identified instead with the work Jaume II had been referring to, in the summer of 1308, when he asked Arnau so insistently for the *medicines speculum nuncupatum pro conservacione salutis*.¹⁵

To me, however, this seems somewhat unlikely, for a number of reasons. If it was really the *Regimen sanitatis* that was still not ready to be sent to Jaume II in July 1308, then the *Speculum medicine* (which certainly appears to refer to it) must have been completed even later, and in that case it is not easy to see when it could have been written. And I simply cannot believe that the work that Jacques Egidii was already calling the "Speculum medicine" in 1310 should be a *different* work from the work that Jaume II spoke of as "medicine speculum nuncupatum": the coincidence of names, indeed the deliberate insistence on the name (*nuncupatum*), is just too great. Paniagua was forced to his conclusion by Jaume's phrase "pro conservacione salutis nostre", which he felt had personal overtones that obviously applied to the *Regimen*

14. See the discussion by Juan A. PANIAGUA and Pedro GIL-SOTRES in *AVOMO* VI.2 (Barcelona, 1993), 251-252.

15. *AVOMO* X.1 (Barcelona, 1996), 868-870. Paul DIEPGEN had previously come to the same judgment: *Der Lebens- und Bildungsgang Arnalds von Villanova*, «Archiv für Geschichte der Medizin», 3 (1909-10), 115-130.

but not to the very broad theoretical treatment provided by the *Speculum*. Yet Jaume's language does not necessarily mean that Arnau composed the work specifically to keep the king healthy, it can quite naturally be read as meaning that the king had learned of the work and imagined that it might keep him healthy if he could get hold of it. Indeed, both the king's letters that summer suggest that he knew perfectly well that it was a work that Arnau was trying to keep to himself: Jaume promises that no one shall see the book except the royal physician, Martí de Calça Roja, as Arnau has already conceded he might (*previo consensu vestro*). Thus it seems most natural, and most fully consistent with the documentary evidence, to conclude that the *Speculum medicine* was indeed the work that Jaume II was referring to in 1308, and that means that the *Regimen sanitatis* is likely to be the "regimentum sanitatis nostrum" that Arnau spoke of as complete at the end of the *Speculum*. In that case, when would the *Regimen* have been composed? It is by no means as long and complicated a work as the *Speculum*, perhaps only one-eighth its length, but it is carefully organized, and Arnau would have taken some time in its composition precisely because it was to be tailored to an important patron's needs: indeed, its final chapter on hemorrhoids was surely a response to Jaume's own particular concerns.¹⁶ Tentatively I would propose that this work too was written, not in the tumultuous years down to 1305, but in Arnau's period of relative calm at Montpellier,¹⁷ 1306-1038, and that its composition immediately preceded the writing of the *Speculum medicine* – taking place, say, in 1306-1307.¹⁸

The passages quoted just above from the conclusion of the *Speculum* make it clear that, like many another scholar, Arnau was juggling several other smaller projects while he worked on the major treatise. His enthusiasm for

16. Marilyn NICLOUD, *Les régimes de santé au moyen âge*, 2 vols. (Rome, 2007), i.162-164.

17. Diepgen ("Lebens- und Bildungsgang") had already supposed the work to have been written at Montpellier, on the basis of the assertion made in the copy in MS Cambridge, Gonville and Caius College 462.

18. Curiously, for quite different reasons Moritz STEINSCHNEIDER concluded a century ago that the *Regimen sanitatis* must have been written in 1307: he reported that Israel Caslari's Hebrew translation of the work contained a prologue declaring that the translation had been made in 1327, twenty years after Arnau's composition of the work (*Die Hebraische Übersetzungen des Mittelalters und die Juden als Dolmetscher* [Berlin, 1893; rpt. Graz, 1956], 779). This argument no longer seems tenable: a reexamination by Eduard Feliu of all the manuscripts containing a Hebrew translation of the *Regimen* has established that *Israel Caslari's* prologue is undated (though it does indeed state that Arnau had written the work twenty years earlier), and that Steinschneider had apparently conflated that prologue with the colophon by *Crescas Caslari* to his translation of a different "Arnaldian" regimen (the original has not yet been identified), in which colophon a date of composition of 1327 is actually to be found (a full discussion is in *AVOMO* X.1, 880-4). Intriguingly, therefore, though Steinschneider's argument is evidently mistaken, the date he proposed for the *Regimen* is very close to the date of 1306-7 that seems likely on other grounds.

the aphoristic approach to medicine had by no means been exhausted by his composition of the *Medicationis parabole*, but five years of controversy and travel had prevented him from doing all he had planned. Now in the *Speculum*'s last lines he makes it clear that at the same time he is also engaged in composing a commentary on the "aforesaid aphorisms" (that is, on the *Parabole*) as well as yet another work, a set of aphorisms on illnesses of particular bodily members that would have complemented the *Parabole*. Perhaps he had begun these compositions immediately after his return from Paris to Montpellier in 1300, only to have to set them aside for the time being. In any case, though they were obviously still very much on his mind in 1308, his plan to finish them was never realized; both survive, but incomplete, presumably as he left them.¹⁹

One other passage, earlier in the *Speculum*, indicates that he had yet another project in mind. It occurs in chapter 88 of that work, where Arnau is discussing the concept of medical neutrality:

Et omnes has differentias neutri considerat medicus, quia saltem in inventionem causarum salubrium iuvant eum, quemamodum patebit in parte operativa.

It is once again Juan Antonio Paniagua who pointed out, many years ago, that this might well be a reference to the apparently fragmentary work that was included under the title *De parte operativa* in the sixteenth-century editions of Arnau's works; his one concern was that no manuscript copy had ever been found of that work, and that it might be apocryphal, but Fernando Salmón has now identified a copy of the *De parte operativa* in MS Munich, CLM 7576, fols. 39r-55r, and the text is surely authentically Arnaldian.²⁰ It seems very likely, as Paniagua suggested, that this was meant to be a counterpart to the *Speculum*: that as the *Speculum* was explicitly designed to treat the theoretical part of medicine, *De parte operativa* was being planned to survey operative medicine. The text as we have it deals only with illnesses of the head, as though Arnau had been intending to treat pathology and therapeutics in the traditional order, from head to foot, but for some reason had not been able to carry his design much past its initial stages. It would be consistent with Arnau's remark in the *Speculum* to suppose that *De parte operativa* was part of his future plans as he drew up the *Speculum* in 1307-1308, that he was already reflecting on its content and organization, and that he made a start on it once the former work was finished (or even that he was writing the two concurrently), but that he had to abandon the project when he was called

19. The unfinished texts have been edited by Juan A. PANIAGUA and Pedro GIL-SOTRES in *AVOMO VI.2* (Barcelona, 1993), 329-62.

20. See the contribution by Fernando Salmón elsewhere in this volume.

back to royal service. Indeed, the last chapters of the completed *Speculum* too seem to show the growing pressure of time on Arnau, written as they increasingly are in an almost telegraphic, contracted, language.

And when *De parte* and the *Speculum* are studied together, it is easy to recognize that they share common themes. A good example of their interdependence occurs in their treatment of the causes of illness, the *cause morbi*. In the *Speculum*, these are presented as one of the contra-naturals, which (Arnau explains) can be understood from more than one point of view: We can describe them according to their role in producing the illness – as material, efficient, or distributive causes; or according to their proximity to the moment when the illness begins – as primitive, antecedent, or conjunct causes. In *De parte*, however, Arnau's purposes are practical rather than theoretical, and he is analyzing particular illnesses, not discussing illness in general. In whatever illness he is discussing, one part of his treatment is always focused on the specific causative factors that produce it – yet he carefully presents them exactly according to the theoretical structure that he was blocking out at the same time in the *Speculum*. In the case of *scotomia*, for example, he distinguishes not only between its “antecedent” and “conjunct” causes (the former an unnatural motion of spirits, the latter a vapor trapped in those spirits), but between its “material”, “efficient,” and “dispositive” causes. It would seem that while writing the *Speculum* Arnau was drafting *De parte* in order to show readers how to relate that detailed causal network of medical theory to the phenomena that they would collect in their clinical encounters.

Finally, there are hints in the *Speculum* of one more Arnaldian work still to come. In the *Speculum*, Arnau devoted a quite disproportionate amount of attention to explaining the nature and activity of complexional substances, or medicines, on the human body, and he devoted one entire chapter to explaining how medicinal complexions could be artificially changed in a number of different ways – for example, by heating, by cooling, by washing, or by grinding into powder – and illustrated these changes in relation to specific medicines. Many of these illustrations can be found repeated in the same order and in much the same language in another work attributed to Arnau de Vilanova, the *Antidotarium* beginning “Lamentabatur Ypocras,” whose first long section actually devotes an entire chapter each to the changes brought about by washing, grinding, and heating medicines. Compare, for instance, the following passages illustrating the benefits to be gained from heating medicines:

ut acquirat ... unctuositatem, qua ratione assantur avellane in passionibus pectoris ... interdum autem ut acquirat subtilitatem ut quando assantur semina frigida diuretica in ardore urine cum epatis opilatione vel cornu cervinum in ictericia (*Speculum*, cap. 22)

quatenus caliditatem acquirat necessariam ut assantur avellane in passionibus pectoralium quatenus unctuositatem ac linitatem acquirat . . . interdum ut sub-

tilitatem acquirat, unde assantur quatuor semina in ardore urine cum opilacione epatis aut corni cervium in ictericia (*Antidotarium*, cap. 10)

In an earlier study I suggested tentatively that the *Antidotarium* might be a very late work of Arnau's which was unfinished at his death and was completed by someone else, perhaps his disciple Petrus Cellerarius,²¹ and this would suggest that it emerged somehow from the prior *Speculum*.

There are two immediately obvious ways in which this could have come about. Arnau himself, while he was composing the *Speculum*'s already disproportionately long treatment of medicines, might have decided to treat the subject of medicinal preparation in still greater detail in a later work, which, like *De parte operativa*, he began subsequently to draft, incorporating material from his earlier works, but never managed to complete. Alternatively, a disciple might have drawn up, not only the list of compound medicines at the end of the *Antidotarium*, as my earlier study has already proposed, but some or all of the work's long introductory discussion of the various techniques used by physicians and apothecaries in making up drugs of different properties, and given his master's name to the whole in order to lend it authority; if so, he too, like Arnau, must have been a product of Montpellier, as his off-hand remark (cap. 2) about the fraudulent practices of apothecaries there reveals. Until a modern edition of the full *Antidotarium* has been prepared, this question is likely to remain unanswered.²² In any case, whoever the author of the *Antidotarium* was, he certainly had the *Speculum medicine* before him as he wrote.

To summarize: between 1301 and 1305 Arnau was wholly preoccupied with non-medical issues, but the evidence suggests that from 1306 until the end of 1308 there was a period when he seems to have dropped out of "public life;" then from 1309 to 1311 he was once again involved in political tasks and theological controversy. There is reason to think that he might have been in Montpellier for much if not all of this period of calm, from 1306 to 1308, and that it enabled him for a time to return to and again focus on medical

21. McVAUGH, "Two Texts, One Problem" (above, n. 9).

22. The issue of authorship and dating is further complicated by the fact that the opening line of the *Antidotarium* quotes verbatim the beginning of HIPPOCRATES' *De lege* in its medieval Latin translation. As it happens, *De lege* was another of the works translated from Greek by Niccolò da Reggìo in Naples; the colophon to the copy in MS Vienna, ÖNB 2328, says that it was "*scripta*" in Naples in 1314. Does that refer to the date of translation, or merely to the date of this particular copy of the work? If the former, Arnau could not have seen the work before his death, and the *Antidotarium* is not genuine but was assembled by someone else. If the latter, the translation itself could have been made at any time before 1314 and could have been available to Arnau to see on a trip to Naples in 1309-11. My examination of the manuscript (on microfilm) has not allowed me to resolve the question.

themes. Arnau's enforced absence from the medical faculty may have helped him accumulate projects to pursue some day, which now all competed for his attention and energy: rounding out the *Medicationis parabole* with other works that he had long planned to complement it; composing an individualized *Regimen sanitatis* for his patron, Jaume II; composing the *Speculum medicine* as a greatly ambitious survey of the medical theory of which he was an acknowledged master; and beginning work on *De parte operativa* as a planned practical counterpart to the *Speculum*. Though he could not finish them all, it is amazing that he was able to do as much as he did.