

# What's Wrong with Early Medieval Medicine?

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**Summary.** The medical writings of early medieval western Europe c. 700 – c. 1000 have often been derided for their disorganised appearance, poor Latin, nebulous conceptual framework, admixtures of magic and folklore, and general lack of those positive features that historians attribute to ancient or later medieval medicine. This paper attempts to rescue the period from its negative image. It examines a number of superficially bizarre writings so as to place them in an intellectual and sociological context, and to suggest that the presumed contrast between them and their ancient and later medieval counterparts has been wrongly drawn.

**Keywords:** early Middle Ages; manuscripts; prognosis; *materia medica*

'If one surveys the state of medical knowledge in late antiquity and in the early Middle Ages in Western Europe, it is deplorable.'<sup>1</sup>

How to tell if a sick person will die? One way was copied somewhere in France around the year 800.<sup>2</sup> 'Take the tick of a black dog in the left hand and go into the sick room, and if, when the sick man sees you, he turns himself towards you, *non euadit* [he's "a goner"]'. Alternative techniques immediately follow. One of them requires wiping the sick person with a lump of lard and throwing it to a dog in an unfamiliar neighbourhood (or an unfamiliar dog: the Latin is ambiguous). If the dog eats the lard, the patient will live.

What is wrong with early medieval medicine? Such material might perpetuate its 'eye-of-newt' image among the general public.<sup>3</sup> But why does it elicit epithets like 'deplorable' from scholars? In the essay quoted above, Gerhard Baader's exposition is dotted with verdicts such as 'primitive' and 'unsophisticated' and references to 'low standards'. These are 'anonymous Vulgar Latin texts' (though, mercifully, not the one just summarised) 'full of superstition and folk medicine'. Baader is only a few degrees milder in his vocabulary than those historians of the last century who saw in early medieval medical texts, with their supposedly mindless copying of sterile formulae, clear signs of cultural deliquescence.<sup>4</sup> This medicine still needs defending.

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<sup>1</sup>Baader 1984, p. 251.

<sup>2</sup>Beccaria 1956, pp. 161–6 (no. 34), item 24 (p. 165); Wickersheimer 1966, pp. 100–12, at p. 110 (item 29). K.-D. Fischer kindly sent me an unpublished lecture in which he briefly discusses this passage. The present paper is intended to be accessible to non-specialists. Footnotes have been kept to a minimum. I also omit manuscript call numbers, referring to the fundamental catalogues of Wickersheimer and, especially, Beccaria.

<sup>3</sup>Van Arsdall in Bowers (ed.) 2007, p. 195.

<sup>4</sup>See Van Arsdall in Lane Furdell (ed.) 2005.

Definitions first. By early medieval medicine, I mean the medicine of western Europe in the period c. 700–1000; that is, predominantly, Carolingian and post-Carolingian Europe. Its texts come to us in Latin. With the important exception of the Old English, the vernacular material is negligible in size.<sup>5</sup> Among the Latin texts are our canine oracles. Any discussion of early medieval medicine must face the challenges that they and their kind present—newts and all.

Those challenges take three forms: textual, sociological, conceptual. The main one comes from the surviving manuscripts—well over 160 of them.<sup>6</sup> These manuscripts seem to be the fullest representation we have of the medicine of the age. And yet, as we shall see, their texts so often resist our attempts to work with them as individuals, and to generalise about them as a corpus. Unsurprisingly, then, we do not quite know how to edit or read them.<sup>7</sup> This is, secondly, because it is hard to reconstruct the conditions in which the manuscripts were produced and read. We cannot readily supply any given text with a clear personal context in the wider history of medicine and healing. We lack that kind of ‘sociological’ evidence. The third challenge is conceptual. The most basic terms we want to deploy—‘text’, ‘use’, even ‘medicine’—are all problematic. In addition, what we read often raises in acute form such vexed categories as ‘magic’, ‘science’, ‘religion’ and their interrelations.

The outcome of all this is a field in which, by comparison with classical antiquity or the later Middle Ages, few scholars work; a field (I shall suggest) detached from wider currents in the historiography of the period; above all, a field that has no master narrative, however provisional, except a negative one defined in such prejudicial terms as ‘decline’ or ‘lack’, and coloured by nostalgia. This is a speciality in which there has been no accessible synthesis since 1937.<sup>8</sup> It is easy to feel disorientated.

What follows is not a replacement narrative. But it is an attempt to address some problems of interpretation. My inspiration has been the Anglo-Saxonists. There is an instructive contrast between the vigour of work on medicine in Old English and the more diffused efforts of those dealing with continental European medicine. Stray fragments apart, Anglo-Saxonists have to work with a substantial corpus of around 500 folios but embodying only five major works, three of which survive in unique manuscripts. Many difficulties remain, but the focus is at least clear. And the result has been a coherent set of revisionist interpretations. In contra-distinction to earlier talk of deliquescence, these interpretations have recalibrated the magical elements that had loomed large in older historiography.<sup>9</sup> The medicine in the vernacular has been shown to have widespread roots in continental Latin writings (although this validation of the vernacular by reference to the Latin reads ironically in the light of what is said elsewhere about the Latin itself).<sup>10</sup> The elves who populate some medical texts have been given a cultural

<sup>5</sup>For example, Falileyev and Owen 2005.

<sup>6</sup>See Contreni in Gibson and Nelson (eds) 1990, p. 269; Glaze 1999, pp. 66–8.

<sup>7</sup>Wallis in Bates (ed.) 1995. For introductions to and editions of the medical writings referred to below, see Sabbah *et al.* (eds) 1987, and Fischer (ed.) 2000 with supplements.

<sup>8</sup>MacKinney 1937, essentially lectures. Glaze 1999 is a masterly thesis, the book of which is eagerly awaited.

<sup>9</sup>Meaney 2000, pp. 229–36; Pettit (ed.) 2001, vol. 1, p. xlvii.

<sup>10</sup>D’Aronco in Burnett and Mann (eds) 2005; Cameron 1983.

context.<sup>11</sup> Even 'wild and woolly' writing such as *Lacnunga* (*Remedies*) has been domesticated (perhaps excessively) into a working physician's manual.<sup>12</sup> Plant remedies have been shown to represent adaptations to local conditions.<sup>13</sup> And Old English *materia medica* have in general been defended as biologically efficacious, with the magical and religious aspects glossed as contributors to the placebo effect.<sup>14</sup> In short, Anglo-Saxon medicine has become real medicine, not scribal ignorance.

This line of defence, which partly relies on biochemistry, has been applied to the early medieval Latin writings as well.<sup>15</sup> Yet it is not the one that I shall adopt here. Rather, at the risk of unveiling a cabinet of curiosities, I shall look at a selection of texts or particular moments in texts. These will exemplify the interpretative challenges that are too quickly sidestepped by concentrating on 'sensible' herbal remedies.<sup>16</sup> I shall come back to the introductory example and the uses of dogs in the sickroom. First let us try a topic on which modern pharmacology has little bearing. We must stare the newt in the eye—or, on this occasion, the vulture.

### Vulture Medicine

Around the same time as our opening example, another Carolingian scribe faced a blank page in a large manuscript.<sup>17</sup> It fell not between texts but towards the end of only Book 1 of the great treatise by Dioscorides, *De materia medica*. A blank was too rare and expensive to leave, and there was no shortage of herbal remedies to fill it.<sup>18</sup> Instead, our scribe copied out an epistle on vulture medicine.<sup>19</sup> This was not veterinary matter, but the remedies to be derived from the body of a newly captured vulture. 'Here begins the Letter of the Vulture' is the heading, in not altogether standard Latin. The text is framed as a letter from the King of Rome to the province of Alexandria and Babylon (presumably Babylon-in-Egypt).<sup>20</sup>

'The human race does not know how much efficacy [*virtus*] the vulture has in it and how much it promotes health.'<sup>21</sup> No explanation of this *virtus* is given. We are told only that the bird should be killed with a sharp reed, and within an hour of capture. Before decapitating it one should say: 'Angelus Adonai Abraham, on your account the prophecy is fulfilled.' This should be repeated when it is cut open to begin the harvest

<sup>11</sup>Hall 2007.

<sup>12</sup>Pettit (ed.) 2001, vol. 1, pp. xlvi, li–liv; also Nokes 2004, p. 74.

<sup>13</sup>Voigts 1979.

<sup>14</sup>Riddle in Bowers (ed.) 2007; Van Arsdall in Bowers (ed.) 2007. Contrast Jolly 1996.

<sup>15</sup>Riddle 1974; Riddle in Bowers (ed.) 2007.

<sup>16</sup>See also Glaze 1999, pp. 5–6. Fischer 1988 performs a similar exercise to those I shall undertake with a literally hare-brained remedy.

<sup>17</sup>Beccaria 1956, pp. 157–9 (item 4); Wickersheimer 1966, p. 93.

<sup>18</sup>Wallis in Bates (ed.) 1995, p. 112 n. 30, offers some approximate statistics for the contents of the surviving manuscripts.

<sup>19</sup>Transcribed and translated MacKinney 1943. Möhler 1990 includes an edition based also on later witnesses.

<sup>20</sup>Möhler 1990, p. 180, with pp. 230–8, 'straightens out' the text into a letter from Alexander the Great. For the pairing of Alexandria and Babylon-in-Egypt in a ninth-century travel narrative, see McCormick 2001, p. 134.

<sup>21</sup>All translations, modified, from MacKinney 1943, pp. 495–6.

of remedies: head bones wrapped in deer skin for migraine; eyes wrapped in wolf skin for eye problems; heart in lion or wolf skin against possession; and so on. The vulture does not only promote health in these ways; it can aid social and economic well-being. Put its tongue in your right shoe and your enemies will adore you. Rub its grease into a traction animal you are selling and you will receive the asking price. There ended the list from which the scribe was copying. He wrote 'finit finit' to leave no doubt. Overleaf, Dioscorides resumes.

Conceptual questions are immediately raised. 'Angelus adonai abraham': such a ritual utterance, with its implied coercion, its air of mechanical efficacy, bears the supposed hallmarks of the magical. Yet how then do we interpret the Biblical character of the invocation? Is this Christianised magic or 'magicalised' Christianity, some outgrowth of proper observance? The invocation could have been enunciated in a prayerful way, as ideally was the liturgy, rather than in a mechanical way that paid no attention to meaning.<sup>22</sup>

The only path through these difficulties is to be found in respecting local definitions and categories, so far as we can. For early medieval sufferers, the real contrast was less between incompatible systems of ideas—religion, medicine, magic—or between the orthodox and the deviant, than between different authorities.<sup>23</sup> Few disputed that ritual words and gestures had power over invisible forces. That was seen by most Christians in the mass. The question was: whose words, which forces?<sup>24</sup> Our vulturologist presumably thought he knew. So perhaps did the scribe who copied his work.

Did that scribe expect to use the letter to achieve practical results? His setting is likely to have been a monastery, but is this monastic medicine? Monastic labourers might be interested in selling an animal for a good price. Yet what about the following passage? 'You dry and beat [the vulture's] kidneys and testicles and give it with wine to the man unable to have intercourse with his wife.' Useful general information? For future 'pastoral' advice? Would it in any case have been easy to implement the recommendations, inside or outside a religious house? Vultures can, I assume, be caught, as can wolves and deer—but easily? Or did the mere possession of the information confer a certain advantage? That raises the question of whether the epistle is to be taken as medicine or as a 'secret of nature', tucked away in a manuscript the size of which (over 320 folios) would make it more a work of reference than a book for any bedside.<sup>25</sup>

In default of a personal setting for our vulture lore, we can look only to the context supplied by the manuscript. How should we conceive this short text's relationship to the larger surrounding treatise of Dioscorides? We must begin by acknowledging our preferences. Dioscorides is 'the real thing', ancient medicine that we can respect; vulture medicine is not. Dioscorides's work is full (nearly 600 species of plants) and systematic. His 'drug affinity' classification bears comparison with modern pharmacognosy.<sup>26</sup> The Latin translation in our manuscript is not quite up to the original. None the less we can see it, and its successors, as cleaving a path from antiquity to the early seventeenth

<sup>22</sup>Jolly 1996, pp. 115–16.

<sup>23</sup>Flint 1991; Olsan 2003.

<sup>24</sup>Jolly in Jolly *et al.* (eds) 2002, p. 16.

<sup>25</sup>See Eamon 1994, pp. 15–30.

<sup>26</sup>Riddle 1985.

century: a durable authority on, above all, herbal medicaments.<sup>27</sup> It is almost always the plants that are discussed and the medieval botanical illustrations that are reproduced in modern scholarship, not the significant minority of remedies from animals in book 2 or those from minerals in book 5. 'Real medicine', biomedicine, comes mostly from flora. Flora are thus privileged in historical discussion.

Pre-modern preferences differed. Dioscorides's work itself is hardly free of elements that some might label superstitious and magical.<sup>28</sup> Among his animal-derived prescriptions in the old Latin translations is the deployment of the entrails of the bearded vulture in remedies for colic and stones.<sup>29</sup> He is not, however, especially eccentric in that. Vulture medicine has a long history in ancient and medieval writings. The evidence was assembled by MacKinney, who showed that over 35 vulture-based remedies thread their way through ancient medical literature.<sup>30</sup> And the point is not to engage in the familiar philological pastime of source hunting,<sup>31</sup> but to recover the meaning of the text as it emerges around the year 800.

Pursuing that meaning, we have to reckon with another way in which early medieval values were the converse of our own. We prefer the complete Dioscorides, albeit here in Latin. In this monumental company the vulture text, even though its 'animal magic' is not as outlandish as might be supposed, could still seem an intrusion. Yet the early Middle Ages preferred the short work, often in epistolary form, to the larger treatise. Relatively few manuscripts transmit the (more or less) full Latin versions of Dioscorides. To that extent our codex with the vulture letter is not representative. Readers of Carolingian manuscripts liked shorter versions. Some of these handier texts were ascribed to Dioscorides but not actually written by him. They displayed novel classifications. For instance, 'Dioscorides', in pseudonymous, reworked form, was held to have written 'on feminine herbs', by contrast with 'Apuleius', to whom was attributed a work on 'masculine' ones.<sup>32</sup>

Our vulturologist was therefore interpolating his brief epistle into a special collection; and we may hypothesise that he perceived it as special because of the very length of the other texts. His vulture material was ancient, for him probably at least as ancient as Dioscorides since it was a letter from the 'king of Rome'. Perhaps it was not that the 'scientific' setting of Dioscorides validated the vulture lore but the other way round. And the epistolary form of the vulture remedies, far from being a sign of fakery, guaranteed its authenticity.

Questions about the definition of magic, religion and medicine, and especially of *materia medica*; about the social setting and use of therapies; about the nature of medical authorship and texts; about the boundaries between ancient and medieval medicine—all these seem raised by our vulture. No amount of contextualising can, indeed should, 'normalise' such material. It partakes of that powerful medicine of the

<sup>27</sup>For example, Riddle 1984; Collins 2000, pp. 32–5, 148–54.

<sup>28</sup>Riddle 1981, p. 63.

<sup>29</sup>Stadler (ed.) 1899, p. 193.

<sup>30</sup>MacKinney 1942a, 1942b.

<sup>31</sup>For which see Möhler 1990; Barb 1950.

<sup>32</sup>Riddle 1981; Collins 2000, pp. 154–6.

excremental (and generally repulsive) for which the German 'Dreckapotheke' is so appropriate.<sup>33</sup> Yet we can at least begin to explain it.

For a second example, from the end of our period, let us turn from treatment back to prediction, and to one of its main vectors in medieval medicine, not at all repulsive.

## Urine

Around the year 1000, one of the most famous doctors in Europe was Notker, a monk of St Gall in Switzerland. Stories circulated of his learning in medicines and antidotes, and in 'Hippocratic prognostications'.<sup>34</sup> There was no perceived conflict between monastic and medical callings. The duke of Bavaria, presumably having decided to consult him, first tried to catch him out. As a test, he sent him some urine, not his own but a servant girl's. On examining the specimen, Notker proclaimed a miracle. In 30 days the duke would give birth to a son—and the girl did indeed give birth. As with the vulture, no explanation is offered in the monastic history that reports Notker's success. Notker was '*instructus*', but that is all we are told.

The first aspect of the story to register is its artfulness. Notker's quasi-divinatory talent is being shown off.<sup>35</sup> Most prognosticating, like the canine variety in our opening example, aimed to tell whether an illness was terminal. Predicting birth was probably held to require higher sensitivity. It would be nice to think that the great Holmes-like Galen, as depicted in his autobiographical *On prognosis*,<sup>36</sup> would have recognised in Notker a kindred virtuoso.<sup>37</sup> Secondly, the story helps create the impression that the post-Carolingian world was rather bereft of trustworthy healers, for St Gall lay some 150 miles from the Bavarian court. Yet, then as now, the elite will travel, or send a specimen, any distance to secure the very best.

Notker apart, moreover, St Gall was still notable as a medical centre. It was hard to supply a context for our vulture medicine. In contrast, St Gall can be given a quite 'thick' medical description. So I shall use that example to bring out several aspects of the period and area in which Notker shone. His house was the home of the St Gall plan, a famous ninth-century blueprint for a monastery, with sizeable infirmary and herb garden.<sup>38</sup> It was also the home of an important manuscript of the sixth-century monastic *Rule* of St Benedict, in which the abbot's pastoral role is likened to that of 'a wise physician', some testimony to the esteem in which the best doctors were held.<sup>39</sup> The ninth-century library catalogue of St Gall lists six medical codices, and two more were added later.<sup>40</sup> Manuscripts survive that can be associated with the library or scriptorium and that include prognostic material and uroscopy as well as a basic introduction to humoral theory.<sup>41</sup> Finally, the contents of some manuscripts brought to St Gall from

<sup>33</sup> von Staden 1992. The classic is Bourke 1891; for vulture dung, see p. 235.

<sup>34</sup> Haefele (ed. and trans.) 1980, pp. 238–40.

<sup>35</sup> For this aspect of prognosis, and comment on Notker, see Wallis 2000, pp. 277–8.

<sup>36</sup> Nutton (ed. and trans.) 1979.

<sup>37</sup> Nutton 2004, pp. 237–8.

<sup>38</sup> D'Aronco in Bowers (ed.) 2007.

<sup>39</sup> Probst (ed.) 1983, pp. 79–81.

<sup>40</sup> Glaze 1999, pp. 71 n. 23, 270–1, with McKitterick 1989, pp. 182–5.

<sup>41</sup> Beccaria 1956, pp. 364–83 (nos. 129–34).

Italy attest the vigour of trade with the eastern Mediterranean in the Carolingian period, and the arrival, in western Europe, of exotic culinary/medicinal ingredients such as pepper—well before European medicine is supposed to have been reinvigorated by Islamic remedies.<sup>42</sup> One manuscript was also originally folded for greater portability before being brought north. That folding could suggest practicality, either in the field for collecting plants or at the bedside.<sup>43</sup>

Herbs, humours, Hippocrates: it all seems very approachable. Here is a centre of educated yet practical, Greek-inspired, healing, which we can, if only through the colourful vignette of Notker, witness in action. Not all monasteries will have been anything like as 'medicalised'.<sup>44</sup> Still, even on its own St Gall does seem to challenge the stereotype of the early Middle Ages. Once again, however, there is a more perplexing side to the evidence. First, one of the codices that perhaps came to St Gall from Italy included a version of our vulture text, in a miscellany that also embraces writings ascribed to Hippocrates, Apuleius and Galen (among them 'Galen' on urine).<sup>45</sup>

The same codex has in addition a version of the introduction to humoral medicine just mentioned. This too is disquieting. It is a variable cluster of short items. In some manuscripts it is grandly entitled 'The Wisdom of the Art of Medicine', but is here given, Pauline-style, as 'The First Epistle of Hippocrates'.<sup>46</sup> We should not be surprised to find a modicum of humoral aetiology in Latin texts, just as we do in their Old English counterparts.<sup>47</sup> The start of the collection, moreover, reassures.<sup>48</sup> The four humours are immediately placed in cosmological context: four winds, four seasons, four corners of heaven. Yet later on we are also given the four parts of the body and the four angles at which the head can be placed (apart from upright). These humours are not quite the classical ones; they are assigned to specific places: 'yellow bile resides in the right hand part of the body under the liver, black bile in the left, under the spleen.' It is all more specific than the main detectible source for this odd treatise, a medical epistle ascribed to the fourth-century physician Vindicianus.<sup>49</sup>

In a final part of the collection, present in only two manuscripts, a 'question-and-answer session' explains a number of ailments in one sentence each. Here the humours are very loosely defined: 'from which humour does frenzy arise? From too much wine.' More detail is given of the number of cures available than of what those cures consist in. And, in a sentence on anatomy, we are told that women have two fewer bones than men but eunuchs only one fewer (the difference was probably to be found in the teeth).<sup>50</sup> Should we reckon this strange humoralism and zeal for

<sup>42</sup>Voigts 1979, pp. 259–61; McCormick 2001, pp. 711–12.

<sup>43</sup>Bischoff 1966, p. 99.

<sup>44</sup>Glaze 1999, p. 103.

<sup>45</sup>Beccaria 1956, p. 379 (item 32).

<sup>46</sup>Beccaria 1956, p. 380 (item 36).

<sup>47</sup>Ayoub 1995. Wallis in Bates (ed.) 1995, pp. 117–24, argues (controversially) that such naturalistic theory was eliminated on theological grounds.

<sup>48</sup>For what follows, see Wlaschky (ed.) 1928, pp. 104–6, 108–9, with, on his editorial method, Wallis in Bates (ed.) 1995, p. 111. For a further manuscript, see Glaze 1999, p. 132 n. 45.

<sup>49</sup>For context, see Klibansky *et al.* 1964, pp. 60–6.

<sup>50</sup>Fischer 1985. For contemporary medical views of eunuchs, see Ringrose 2003, pp. 51–66.

enumeration to be part of a grounding in ‘natural philosophy’, or a rhetorical training in how to dazzle patients with statistics?<sup>51</sup>

Such writing resists categorising. So, in a different way, does the final set of St Gall material I want to look at.

### Womb Conjuring

‘That a woman may conceive. Item, that you may bring about an abortion.’ That is the sort of heading found in a group of medical receipts in a ninth-century manuscript possibly copied at St Gall.<sup>52</sup> In another manuscript which may have been assembled at St Gall we find two kinds of gynaecological material.<sup>53</sup> The larger (almost 150 pages) is a medical digest also preserved elsewhere.<sup>54</sup> In the St Gall copy, it is given the imposing title, ‘Acute and Chronic Diseases according to Hippocrates, Galen and Soranus’. It ends with chapters on women’s health, especially suffocation of the womb, and adds that ‘in bringing on menstruation it is very useful for a woman to go riding’. A few folios earlier, though originally in a separate volume, perhaps again filling up blank pages, we find a different approach to the wandering, suffocating, womb: a formula of exorcism:

I conjure you, womb, by our Lord Jesus Christ . . . not to harm the maidservant of God . . . not to hold on to her head, neck, throat, chest, ears, teeth, eyes, nostrils, shoulders, arms, hands, heart, stomach, liver, spleen, kidneys, back, sides, joints, navel, viscera, bladder, thighs, shins, ankles, feet, or toes, but to remain quietly in the place which God delegated to you.<sup>55</sup>

No surviving ancient medical writer thought that the womb wandered as far as the feet.<sup>56</sup> But, as with the vulture letter and Dioscorides, no one involved in assembling the codex thought the conjuration unfit to consort with a treatise headed by the great triumvirate of ancient learned medicine, Hippocrates, Galen and Soranus. There remains, though, the question, not peculiar to St Gall:<sup>57</sup> what did monks have to do with gynaecology, even with abortion?<sup>58</sup> Discarding the notion of collective lewdness, which the nature of the evidence will hardly sustain, we are left with five possibilities. First, the material was copied alongside other types of medicine because its sources were just as ancient. It was an act of preservation, although not an unthinking one. Second, there is no good reason for our surprise: the literature on women’s bodies had almost always been, and would remain, in increasing measure, a matter for husbands, fathers, male physicians.<sup>59</sup> There was no sudden masculine takeover. There had been some literate midwives in

<sup>51</sup>Wallis in Bates (ed.) 1995, pp. 121–2, relates it to *computus*, to which I return below; Glaze 1999, p. 132 n. 45, disagrees.

<sup>52</sup>Beccaria 1956, p. 370 (item 2a)

<sup>53</sup>Beccaria 1956, p. 381.

<sup>54</sup>Beccaria 1956, p. 383 (item 8). See also Fischer 2000, p. 240.

<sup>55</sup>Beccaria 1956, pp. 382–3 (item 1b), trans. Green 1985, pp. 170–1.

<sup>56</sup>For a summary of early medieval Latin gynaecology and its ancient sources, see Green 2001 (ed. and trans.), pp. 14–17, and for the wandering womb, King 1998, pp. 214–38.

<sup>57</sup>Fischer 2000, pp. 240–2.

<sup>58</sup>Perhaps also contraception, although the arguments of Riddle (e.g. 1997) are controversial.

<sup>59</sup>Green 2008, esp. pp. 34–6. I am especially grateful to Monica Green for discussion.

antiquity but we hear nothing of early medieval descendants. Women assisted at births using orally transmitted and practically acquired techniques, in almost total separation from the written tradition. Third, some of the scriptoria that copied texts on gynaecology, as on medicine generally, could have belonged to religious houses of women.<sup>60</sup> The role of nunneries in Carolingian 'scriptomania' is likely to have been greater than the direct evidence of codices suggests. We are not necessarily looking at a male intellectual preserve. Fourth, what now looks to us like medicine was seen by monastic librarians of either sex as natural history, not least because of the unquestionable importance of its underlying subject matter, the generation of life. On the other hand, fifth, some of the brief items of information at least read as if they were intended as practical advice: 'if the woman's milk dries up, celandine should be drunk with wine'.<sup>61</sup>

What woman? Early medieval European monasteries were not Mount Athos. They witnessed the comings and goings of elite patronesses; of the mothers, sisters, daughters and former wives of monks; of labourers on the monastery's estates. Perhaps it was with patronesses in mind that the recommendation about riding seemed worth recording. Perhaps those to benefit from drinking celandine included servant girls such as the one whose urine Notker so impressively 'read'.

There is something in all these possibilities. Overall, we can perhaps conclude that what has often been called monks' medicine was not especially monastic. It simply comes to us from monastic manuscripts. The 'problem' of monastic gynaecology is of our own making.

### The Black Dog

To round off the collection of examples, we should return to the ones with which we began. Again we may want to ask: is this 'cynomancy' in any sense medicine? No treatment seems to be in prospect. Unlike the challenge to Notker, the question is simply whether the patient will live. Why can dogs and their ticks be used in the ways described? As with the vulture, no explanation is given. The general form of these, like much else in the manuscripts, is 'for this, do that (and don't ask questions)'. We might want to gloss the second canine technique in terms of disease transference, from the sick person to the dog, via the lard. In trying to establish a rationale, it is tempting also to resort to the label 'folklore' and to search the encyclopaedias and motif-indexes. Doing so seems to help with the first technique mentioned. The association of black dogs with death is common enough—as with the hound of the Baskervilles.<sup>62</sup> In turning towards the dog's tick, held in the visitor's inauspicious left hand, the sick man turns towards death. But leaving it at that is really an admission of defeat because folklore is a catch-all for what cannot be explained historically.

Our 'cynomancer' and copyist probably did have some sense that these techniques were part of a tradition. But it did not derive from 'folk' practice. Consider the following examples of disease transference. For a cough, spit into the mouth of a tree-climbing frog and release it. For spleen complaints, apply a live fish and then return it to the sea. And,

<sup>60</sup>McKitterick 1989, 1992.

<sup>61</sup>Green 1985, p. 169; Beccaria 1956, p. 367 (item 26).

<sup>62</sup>Bächtold-Stäubli (ed.) 1927–42, vol. 4, cols 470–2.

closer to our dog procedures, for pain in any of the body's major organs, hold a sucking puppy to the affected part; the puppy must be killed and in an autopsy its organs will reveal the source of the human patient's pain.<sup>63</sup> There is hardly an apparent 'superstition' for which some source or analogue cannot be found in the voluminous information assembled by the Elder Pliny (d. 79 CE) in his *Historia naturalis*. A *historia* is an enquiry into what is notable or unusual. Vulture medicine is both. So it should be no surprise that Pliny records some 16 vulture remedies and precautions, several of which also find their way, however indirectly, to that Carolingian epistle.<sup>64</sup>

Take another example that again resists our separation of flora from fauna. A strange collection of remedies survives in at least two manuscripts of our period where it keeps company with herbals. It ranges across the therapeutic (not just prognostic) virtues of human urine, of womens' hair and milk, and even, despite the ancient tradition warning of its dangerous effects, of menstrual blood. A little of the strangeness is removed when the text emerges as a probably late antique reworking of sections of Pliny.<sup>65</sup>

It is thus Pliny who supplies a clue to the first of our two canine puzzles, involving the dog's tick:

The Magi say that the gall of a black male dog . . . acts as a talisman protecting a house from evil medicines. It is the same if the inner walls are sprinkled with the dog's blood or his genital organ is buried under the threshold. . . . People would wonder less at this if they knew how highly the Magi extol that very loathsome animal the tick. . . . A tick from the left ear of a dog, worn as an amulet, relieves all pains. The Magi also consider the tick an augury of life or death, for if the patient responds when he who has brought in with him a tick, standing at his feet, inquires about the illness, there is sure hope of recovery; if no reply is made the patient will die. The Magi add that the tick must be taken from the left ear of a dog that is black all over.<sup>66</sup>

Pliny is good at having and eating his cake. He has more than once denounced the Magi's fraudulent *vanitates*.<sup>67</sup> Yet he continues to report their prescriptions and to lend some of them credibility by adding yet more extravagant claims. That subtlety has disappeared from our early medieval version of the tick oracle. So has its purported source in Persian magic, and the importance of taking the tick from the dog's left ear (the participant's left hand must now be used to introduce the parasite into the sickroom). Above all, at some point between the Roman and the Carolingian empires, the outcomes have been reversed. In Pliny, as we might have intuited—even without Persian wisdom—the responsive patient is the one likely to recover. In c. 800, turning towards the flea signifies the inevitable.

<sup>63</sup>Pliny, *Natural History*, e.g. XXX.42, Jones (ed. and trans.) 1963, pp. 304–5, with French 1994, p. 244.

<sup>64</sup>MacKinney 1942a, pp. 1263–4.

<sup>65</sup>Ferraces Rodríguez (ed. and trans.) 2006.

<sup>66</sup>Pliny, *Natural History*, XXX.82–3, Jones (ed. and trans.) 1963, pp. 330–2.

<sup>67</sup>Pliny, *Natural History*, XXX.1, Jones (ed. and trans.) 1963, pp. 278–9. For context, see Beagon 1992, pp. 101–13, 202–39.

Our scribe—or his exemplar—was not deliberately bowdlerising. To judge by the paucity of surviving manuscripts, he is unlikely to have been working from anything like an extensive, let alone a complete, copy of the *Natural History*. For the most part, Pliny's medical 'enquiries' travelled from antiquity into the early Middle Ages in highly selective digests—digests in which his authorship was by no means necessarily preserved and into which extraneous material was freely interpolated.<sup>68</sup>

### Danger of Death

The question of categories obtrudes once more. Is 'cynomancy' medicine? We are offered means of prognosis, and today, as beneficiaries of biomedicine with its interventionist bias, may find it hard to recapture the extent to which pre-modern doctors said much more than they did and concentrated on prediction.<sup>69</sup> Prognosis and diagnosis were inextricable, as the example of Notker has already begun to show. To judge by the surviving medical manuscripts, prognosis was as important as therapy and dietetics.<sup>70</sup> The rationale for its prominence had been given centuries earlier, in the opening of the Hippocratic *Prognosis*.<sup>71</sup> Successful prognosis fills in the gaps in the patient's own account and increases the doctor's reputation. Foretelling the course of a disease makes curing it easier. Alternatively it absolves the doctor from blame should the condition be pronounced incurable. That sounds balanced, but the next few pages of *Prognosis* are often about signs of death, starting with those on the face, and such was the emphasis resumed in the Middle Ages.

Again, as with Pliny, the transmission is partial and indirect.<sup>72</sup> The Hippocratic text was translated into Latin in late antiquity, and was probably available at some scriptoria when our 'canine' scribe was active. Yet, far more widely disseminated were various shorter pieces of writing. These circulated under the names of Hippocrates, Democritus or Galen. Distant relations of the Hippocratic treatise, many of them described the *signa mortifera*, literally the death-bearing signs, as if they themselves were active: small eyes, sunken cheeks, dryness of the face, sharpening of the nose, distortion of the earlobes, insomnia, diarrhoea and vomiting. Among these texts was the so-called *capsula eburnea* or 'ivory casket'. This was a piece of advice about the (mostly dermatological) signs of approaching death. The casket was the container in which Hippocrates (or in some traditions Democritus) had the text buried with him in his tomb. There, 'Caesar' would later discover it and pass it to his personal physician.

Such forms of prognostication can be adjudged medical because they depended on the interpretation of the patient's body. But there were other, rather different, techniques available. Some, called *lunaria*, involved predicting the outcome of the disease according to the day of the lunar cycle on which the patient fell sick: 'who falls ill on day 2 will quickly recover', and so forth.<sup>73</sup> Others required converting the sufferer's name into a numerical value, a technique (onomancy) that can be traced back to Babylonia.<sup>74</sup>

<sup>68</sup>Önnerfors 1963.

<sup>69</sup>Demaitre 2003.

<sup>70</sup>Wallis in Bates (ed.) 1995, p. 112 n. 30.

<sup>71</sup>Lloyd (ed.) 1978, p. 170.

<sup>72</sup>For what follows, see Paxton 1993.

<sup>73</sup>Wallis in Schleissner (ed.) 1995, p. 116, translation modified.

<sup>74</sup>Wallis in Schleissner (ed.) 1995, pp. 126–7; Wallis 2000, p. 274.

The available forms of prognosis thus spanned what we might nowadays categorise as clinical observation, astrology and divination. Our black dog's ticks are (I believe) found nowhere else among surviving early medieval codices. Yet they were hardly an aberration from the medical mainstream. Nor was their deployment for prognosis a 'folk' invention. (Far earlier than Pliny, from the eleventh century BCE, we find a not dissimilar piece of Babylonian prognostics: if the learned 'exorcist' sees a multi-coloured pig on his way to the sick room, the patient has dropsy and to go near him is dangerous.)<sup>75</sup> In the early Middle Ages, the different techniques were not seen as mutually exclusive. One manuscript might juxtapose the genuine *Prognosis* and the fanciful *capsula eburnea*.<sup>76</sup> The codex with our dog material includes a *lunare*, but its section of prognostic techniques also follows up the one requiring lard with some characterisations of the moribund patient's face that are reminiscent of their Hippocratic original.<sup>77</sup>

### The Triumph of the Miscellany

Seen as a whole, that same 'canine' manuscript has more to tell us.<sup>78</sup> Its various prognostic recommendations are only a few small parts of an extensive miscellany. The codex is quite small, which suggests portability and practicality. Its 126 folios contain over 25 different pieces. One purports to represent the basic teachings of Hippocrates, Galen and Soranus. Like that St Gall tract mentioned earlier, it thus yokes two quite different schools of ancient medical thinking, the Galenic and the 'Methodist',<sup>79</sup> although this part of the collection soon turns into a series of remedies with no particular theoretical slant. There is a dietetic calendar that tells the reader what to eat and drink month by month. There is the spurious third book of the introductory text on therapeutics attributed to Galen; some lines on medicinal weights and measures; gynaecological information of a kind we have already encountered; material in letter form, on such matters as blood-letting; the short epistle of Vindicianus which was the partial source for that 'Wisdom of the Art of Medicine' described above; a supposed dialogue between Plato and Aristotle on the soul; and much else besides. And, at the head of all this, we find an account of the lives and deaths, a *passio*, of the physician-saints Cosmas and Damian, with a message of comfort that has little to do with secular healing. 'To whoever is sick and has this passion read over him, the Lord will show pity'.<sup>80</sup>

That headline may be some indication of the milieu in which this particular collection took shape: the monastic infirmary. There, divine and saintly medicine complemented prescriptions and blood-letting. And, in serious cases, nothing was of greater importance than predicting the hour of death. Forewarned of a monk's demise, the rest of the community could gather to conduct the rites for the dying that were being elaborated in the eighth and ninth centuries, the period during which our manuscript was put together.<sup>81</sup>

<sup>75</sup>Heeßel in Horstmanshoff and Stol (eds) 2004, p. 102.

<sup>76</sup>For example, Beccaria 1956, pp. 169 (item 23), 171 (31), 365 (9, 10).

<sup>77</sup>Paxton 1993, p. 646.

<sup>78</sup>For what follows, Beccaria 1956, pp. 161–6; Wickersheimer 1966, pp. 100–12.

<sup>79</sup>Nutton 2004, chs 13, 14, 16.

<sup>80</sup>See also Paxton 1993, p. 645, and, for what follows, 631–2.

<sup>81</sup>Paxton 1990.

Yet what if there is no such thing as monastic medicine? We must seek more widely for context, in the process making some attempt to generalise.

### A General View of Early Medieval Medicine

I return to the three headings: concepts, texts, sociology. On the conceptual front, the big point is simple. We have to blur boundaries, even abandon categories. Magic, religion, science; theological, scientific, practical; diagnosis and prognosis; monastic and 'lay'; even plants and animals—these are not helpful distinctions to impose on our evidence. Throughout, we have seen them confounded.

As for the texts: the miscellany, not the full-scale treatise, is the characteristic product—a mixture of letters, lists and excerpts. Small attention is given to anatomy and aetiology. The philosophical underpinnings have been dropped. Humoral theory, though quite often mentioned, is only briefly set out and takes unexpected forms. Pharmacy, *materia medica*, dietetics and diagnosis/prognosis predominate. There is little surgery apart from blood-letting. By classical standards, the Latin can be very poor. These manuscripts are probably the work of scribes who know little medicine and less Greek, and are thus baffled by transliterated technical terms.<sup>82</sup>

Even the manuscripts that most resemble the systematic treatise are still essentially anthologies. The so-called 'Lorsch Book of Medicines', put together in the early ninth century, begins with a celebrated 'defence of medicine'.<sup>83</sup> It sets out at some length to demonstrate the compatibility of Christianity and healing, and the place of medicine, as a subdivision of *physica*, within the hierarchy of the 'sciences'. It is none the less an often poorly written patchwork of Biblical and patristic quotations. And after this lofty opening the codex still turns to miscellaneous types of writing: a *lunare*, month-by-month dietetics, weights and measures, remedy lists. The Lorsch 'defence' and the superficial orderliness of its collection are, moreover, both highly unusual. More representative is the strange 'Wisdom of the Art of Medicine'.

Overall, it is easy to see why excerpting and reworking into miscellanies seemed necessary. As papyrus ceased to be available north of the Alps around 700, and parchment became the writing medium, so the cost of copying may well have increased.<sup>84</sup> Only what was perceived to be really worth preserving justified the expense and time. Medical philosophy seldom cleared that hurdle. Nor were there any institutions of sufficient prestige and influence to impose a common form on what did make it through the scriptorium. There was no Carolingian Renaissance in medicine comparable to those that, for example, standardised liturgy or monastic usage.<sup>85</sup> The interest shown in medicine at the centre of the Carolingian world comes from learned 'amateurs', not reforming practitioners implementing some imperial policy.<sup>86</sup> No medical work is known to have found a place in Charlemagne's library, the beacon of the Renaissance. And his early commissioning of a copy of Quintus Serenus's *Liber medicinalis* (which incidentally contains

<sup>82</sup>Fischer 1994; Glaze 1999, pp. 122–43.

<sup>83</sup>Stoll (ed.) 1992.

<sup>84</sup>McCormick 2001, pp. 704–8.

<sup>85</sup>For what follows, see Glaze 1999, pp. 69–92; Contreni in McKitterick (ed.) 1995, esp. p. 747.

<sup>86</sup>Contreni in Gibson and Nelson (eds) 1990.

several vulture formulae) probably owed more to the interest of its verse than to its medicine.<sup>87</sup>

The Carolingian achievement in medicine was to increase the volume of manuscript production more than its quality, and to render earlier codices redundant. Far from being standardised, the over 160 medical manuscripts that survive are each unique.<sup>88</sup> Some texts were copied in clusters, but again often with variations in content and arrangement and, as we have seen, in ascribed authorship. That makes them very hard to edit in the established way.<sup>89</sup> Each manuscript is the best witness to its particular content, because it is the sole witness, and the only appropriate kind of 'editing' may be transcription. To generalise about the manuscripts is therefore hard. There are no clear evolutions in the relative popularity of one component text over another (although the surviving manuscripts may be a very oblique guide to the range of what once existed). Perhaps, as we have earlier noted, new *materia medica* was introduced from the eastern Mediterranean. Dietary advice came to be organised by month rather than by season.<sup>90</sup> Beyond that it cannot be said that any one kind of philosophy or approach came to dominate. There were no such philosophies around.

'Sociology' is no easier a heading than 'texts'. The manuscripts can quite often be associated with particular centres of production, and in a few cases with particular patrons.<sup>91</sup> Yet of no Carolingian codex can we say why it was copied or for what purpose or readership. The surviving books come almost entirely from the institutions best able to preserve them: monasteries and, in the later part of the period, cathedral schools. Yet some of these books may have been intended for 'lay' (non-monastic and non-clerical) households or have been copied from lay-owned exemplars.<sup>92</sup>

Perhaps the intended audience of such information was wider still. Priests needed to have some knowledge of the Christian calendar, not only for the date of Easter but for all other feasts. And the *computus* manuscripts that diffused such information often came encrusted with medical information.<sup>93</sup> A manual produced at the Abbey of Lorsch *circa* 900, perhaps for parish priests being sent out on to its estates, includes, alongside pastoral and computistic material, the 'Egyptian days', on which one should not be bled or given medicine, and preventive regimes for each month of the year.<sup>94</sup> It also has a *lunare* and one of those tables for predicting the outcome of an illness from the numerical equivalent of the patient's name. The emphasis is on prognosis, so as to offer appropriate ritual support to the terminally ill. And we should not imagine that priests routinely acted as unofficial community doctors.<sup>95</sup> None the less, the only lightly Christianised rural world in which some priests were moving in the early tenth

<sup>87</sup>Bullough 1985, p. 280; MacKinney 1942a, p. 1266.

<sup>88</sup>Glaze 1999, p. 78.

<sup>89</sup>Wallis in Bates (ed.) 1995.

<sup>90</sup>Groenke 1986.

<sup>91</sup>Glaze 1999, e.g. pp. 79, 100.

<sup>92</sup>Pilsworth unpublished, on Beccaria 1956, p. 217 (no. 57), as a manuscript for a lay household; compare Bricout 2006.

<sup>93</sup>Wallis in Schleissner (ed.) 1995.

<sup>94</sup>Paxton in Mayali and Tibbetts (eds) 1990.

<sup>95</sup>Paxton 1995.

century could still have required them to compete for attention with the (probably more numerous) local 'witch-doctors'.<sup>96</sup>

There was a wider therapeutic culture beyond the monastic precinct. The problem is that its nature and scale must be matters of conjecture.<sup>97</sup> We know of only a small number of individual doctors. Hagiography provides our best evidence for the 'everyday life' of the period, and thus for healing practices, but does not take us beyond didactic vignettes.<sup>98</sup> We do not have the inscriptions and papyri that elucidate the lower reaches of the medical 'profession' in the classical world. Legal texts, charters, penitentials and historical narratives offer only glimpses. 'Magical' healers are yet more obscure. Overall, the relative scale that we can attribute to each type of healing is in inverse proportion to the volume of evidence.

The special case of healing saints apart, how exactly these various healers acquired their skill is irrecoverable. All we can say with confidence is that little of it involved schools.<sup>99</sup> Some gentlemen amateurs will have derived their medical knowledge primarily from reading. But, for practitioners of all other kinds, most techniques were transmitted orally and through clinical experience. The role of texts was limited and oblique, even in the most literate settings. The texts we have been looking at nearly all required completion by the reader, as an active user.<sup>100</sup> They furnished reminders of how to proceed, aspects of knowledge and practice already in part assimilated orally. That, of course, imposes limits on how much these texts can now tell us about the healer's formation or clinical behaviour.

For all these reasons, medical historians have found it difficult to develop any grand narrative of early medieval medicine. The only narrative available seems to be one of lack. It reflects a scarcely disguised nostalgia for a classical past, or a future of which the early Middle Ages could have no inkling: a future of university medicine as the gold standard of education and practice.<sup>101</sup>

### Period Pieces?

In questioning such negativity, it is worth remarking first that in few other areas of early medieval scholarship is there so much pessimism. The historiographies of, for example, law or agriculture do not seem to be comparably afflicted by the difficulty of reconstructing practice on the basis of recalcitrant texts. Nor do early medievalists generally subscribe to a Gibbonian narrative in which 'the fall of Rome' entailed 'the end of civilisation'. Rather they emphasise the balance of continuity and creativity.<sup>102</sup>

A second point to make in our period's favour is this. Early medieval medicine is ancient medicine. It derives substantially from ancient sources. These are often older Roman

<sup>96</sup>Flint 1991, pp. 314–16.

<sup>97</sup>For bibliography on what follows, see Horden in Noble and Smith (eds) 2008.

<sup>98</sup>Flint 1989.

<sup>99</sup>Baader 1972.

<sup>100</sup>Wallis 2000, pp. 272 (drawing an analogy with connoisseurship), 278; Van Arsdall in Bowers (ed.) 2007, pp. 201–2 (offering comparison with modern *curanderos*).

<sup>101</sup>Not even such masterly students of the period as Wallis and Glaze are immune to this 'nostalgia' for the future.

<sup>102</sup>Contrast Ward-Perkins 2005.

writers such as Pliny or late antique epitomisers of the fourth or fifth centuries. The early medieval textual tradition of the excerpt and the anthology is really the ancient tradition that goes back to Pliny.

A similar argument applies to education. With the exception of northern Italy, the early Middle Ages in the West lacked the urban institutions that could sustain secular schooling, in medicine as in other subjects. But the West had always been the poorer, less urbanised half of the Roman world, and in antiquity its medical practitioners were socially obscure by comparison with those of the East.<sup>103</sup> Medical historians sometimes write as if all ancient doctors were trained in Alexandria. In East and West alike, however, healers were usually self-taught or informally apprenticed. They 'may have owned at best a few brief handbooks or digests of earlier doctrines to supplement what they had learned by word of mouth or simply by watching others'.<sup>104</sup> That describes the early Middle Ages too.

Of course there were differences between the two periods, but they should not be exaggerated. Nor must we overdraw the presumed synchronic contrast between East and West in the early Middle Ages. In the Byzantine empire medicine continued to be written in Greek tinged with philosophy—up to a point. Its great encyclopaedias and compendia are more systematic than anything produced in the contemporary West.<sup>105</sup> Yet it too had its 'deplorable' aspects. The medical writings associated with hospitals or 'small town' private practice are hardly lacking in confusion and obscurity, and in their limited aetiology bear comparison with western texts.<sup>106</sup>

### Brave New World?

For critics, the major contrast is between early medieval western medicine and that of the later Middle Ages in Europe; between medicine without schools and university medicine, with its regular syllabi of new translations from the Arabic.<sup>107</sup>

What exactly is the effect of this contrast supposed to have been? That the first did not work but the second did? Let us concede that early medieval medicine did not work. It is, to borrow David Wootton's title, 'bad medicine', at best a placebo.<sup>108</sup> To say that is to deny the claims of the 'biological realists', for whom early medieval remedies were copied because they were efficacious. Laboratory tests on Old English remedies provide no confirmation.<sup>109</sup> Instead of looking for biomedical efficacy we should perhaps think, as anthropologists do, in terms of therapeutic success: a matter of overall patient satisfaction with the therapeutic encounter rather than altered pathology.<sup>110</sup> And on that score there is no reason to deny the early Middle Ages its probable successes, even if achieved with vultures.

What changes with universities? The medicine of the later Middle Ages was also bad medicine. The difference has been located in the new rhetoric of the 'rational and learned

<sup>103</sup>Nutton in Wear (ed.) 1992.

<sup>104</sup>Nutton 2004, p. 4.

<sup>105</sup>Nutton 1984, and for what follows, Nutton 2004, pp. 5–7.

<sup>106</sup>Bennett 2000, 2003; Zipser (ed.) 2009, kindly shown to me in advance by the author.

<sup>107</sup>Of which a convenient and authoritative sketch is Siraisi 1990, ch. 3.

<sup>108</sup>Wootton 2006.

<sup>109</sup>Brennessel *et al.* 2006.

<sup>110</sup>Hsu in Baker and Carr (eds) 2002, pp. 9–10.

doctor', who impresses clients with his Aristotle as well as his Galen.<sup>111</sup> Yet this new medicine took a long time to establish itself, far longer than standard accounts suggest. At first, the translations from the Arabic sat in libraries alongside older material, as if there were no essential difference between them.<sup>112</sup>

Undeniably, during the thirteenth century and after, there was a growing demand for university-style medical learning. A 'wise woman' living near Barcelona in the early 1300s could spout pretentious uroscopy.<sup>113</sup> But was her vocabulary inevitably superior to the rhetoric of a Notker? For many wealthier patients, patrons of university masters, it clearly would have been. But anyone tempted to set later medieval education on a pedestal should read Cornelius O'Boyle's reconstruction of the mindless formalism of lectures on the introductory *Articella* in fourteenth-century Paris.<sup>114</sup>

Moreover, very little of early medieval medicine was judged so deficient that it was superseded by the philosophically-orientated material. Early medieval medicine is not only ancient medicine; it is also (later) medieval medicine. To recall an earlier example: the therapeutics of menstrual blood seems to have had only a limited future after the early Middle Ages.<sup>115</sup> But in most cases, the manuscripts of the Carolingian era that we have been looking at were not the end of the codicological trail. Similar texts reappear in thirteenth to fourteenth-century manuscripts. Vulture medicine continues to circulate throughout the Middle Ages, not least in the vernacular. One thirteenth-century German text affords us the crucial information that we must catch our vulture unawares. Forewarned, it may swallow its own brain.<sup>116</sup>

In our post-postmodern age, the fragmented, conceptually labile, pseudonymous medical writing of the early Middle Ages ought to appeal rather than repel. Early medieval medicine is just one type of pre-modern medicine. We should get used to it.

### Acknowledgments

For advice and references, I am grateful to Patricia Baker, Eliza Glaze, Clare Pilsworth, Nicholas Purcell and Linda Voigts. My greatest debt is to Klaus-Dietrich Fischer and Monica Green for their scrutiny of this paper in draft. My research has been generously supported by the Wellcome Trust, grant reference nos. 044962, 082296.

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<sup>111</sup>French 2003, chs 3–4.

<sup>112</sup>Glaze 1999, p. 163; Green in Jacquot and Paravicini Bagliani (eds) 2008, with thanks to the author for a preview.

<sup>113</sup>McVaugh 1993, pp. 139–42.

<sup>114</sup>O'Boyle 1998. See also Riddle 1974.

<sup>115</sup>Green in Shail and Howie (eds) 2005.

<sup>116</sup>Brévar 2008, p. 40 (no. 2).

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