

MEROVINGIAN MEDICINE BETWEEN PRACTICAL ART AND PHILOSOPHY

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This essay offers a new examination of medical knowledge in Merovingian Gaul (c. 500–c.750), the ways that it became part of non-specialized learning, and its continuities with Carolingian medicine. In most histories of medicine, the Merovingian world is portrayed as providing a hostile environment for medicine due to the Christianization of knowledge. A significant problem, however, is that there has been no study of what medicine was known or how it was treated since 1937, and even that study can now be seen to be built on false premises. The first part of the present paper offers a new conspectus of Merovingian medical knowledge based on the earliest manuscripts and argues that this new overview changes where we can see continuities in content and practice with Carolingian medicine. The second part builds on this to explore the intersections between religious and secular study, and how medicine fitted within a generalist rather than specialist education. The final section looks at how this learning complemented understandings of the miraculous and nature and in the process helped to deal with challenges from folk practice and the failures of medicine to offer effective aid during pandemics. It is concluded that medicine was in good health in the Merovingian period as it contributed useful ways to see natural order in Creation.

Medicine in the Merovingian world could be a contested business. Once, in the region of Paris in the mid-sixth century, a man named Daningus sought respite from dropsy, a swelling of the body from the accumulation of fluids.¹ It was a condition well discussed in medicine since the days of Hippocrates, but there was no agreement on either the cause or the best cure. Daningus turned to local physicians (*medici*), but found their efforts wanting. In despair, he appealed to Bishop Germanus of Paris (d. 576), who had begun to gain a reputation for his powers of healing. The holy man duly anointed the supplicant with oil and the condition was relieved. Yet it was not exactly the miraculous cure one might expect from a work of hagiography.

The following abbreviations will be used: Beccaria = Augusto Beccaria, *I codici di medicina del periodo presalernitano (secoli ix, x e xi)* (Rome, 1956); CLA = *Codices latini antiquiores: A Palaeographical Guide to Latin Manuscripts Prior to the Ninth Century*, ed. Elias A. Lowe, 11 vols. and supplement (Oxford, 1934–71); and KHNJ = Bernhard Bischoff, *Katalog der festländischen Handschriften des neunten Jahrhunderts*, 4 vols. (Wiesbaden, 1998–2014).

¹ Venantius Fortunatus, *Vita Germani Parisiaci* 54, ed. Wilhelm Levison, MGH, *Scriptores rerum Merovingicarum* 7 (Hanover, 1920), 405.

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The narrator of our tale, the learned writer and bishop Venantius Fortunatus (d. 610), proclaimed that the oil infusion Germanus used was capable of absorbing liquid and drying it out, rebalancing the humours, as one might expect if one knew the warming properties of oil in Hippocratic medicine and its descendants.² Germanus's impressive skill was that he knew an effective remedy from among the many recipes one found in medical books. For effective care of the body, a physician might not be enough: what one needed was someone learned and well-read enough to know what worked. Germanus joined a long list of exemplars stretching back to the Bible who were not only healers of souls, but also healers of bodies.

The nature of Germanus's medical wisdom can appear obscure. The closest sustained early medieval exposition of how medicine might intersect with Christian learning is in the encyclopedic *Etymologiae* of Isidore of Seville (d. 636). There, Isidore offered an impressively compressed digest of Hippocratic-Galenic ideas before he waxed lyrical about how medicine was a "second philosophy," a counterpart to spiritual learning that gained vibrancy from the way it demanded people draw on insights from all seven liberal arts.³ This kind of talk has impressed few modern commentators, many of whom would prefer to see medicine as a science rather than as a philosophy. It has been seen as typical of early medieval *Mönchsmedizin* or "monkish medicine" that diluted medical learning with concerns for practicality and piety over theory and specialization.⁴ Gundolf Keil, in 1991, went further and bluntly stated that people in the Merovingian kingdoms simply rejected their Roman medical heritage because it was incompatible with their religious sentiment.⁵ Yet Germanus and Fortunatus suggest something quite different, with concern for effective medicine in pastoral contexts emerging

² For example, Hippocrates, *De diaeta* 2.65, ed. Robert Joly and Simon Byl, *Corpus Medicorum Graecorum* 1.2.4 (Berlin, 2003), 189; and Dioscorides, *De materia medica* 1.29, ed. Konrad Hofmann and T. Auracher, "Der Longobardische Dioskorides des Marcellus Virgilius," *Romanische Forschungen* 1 (1883): 49–105, at 69. On Fortunatus's writings and career generally, see Judith George, *Venantius Fortunatus: A Latin Poet in Merovingian Gaul* (Oxford, 1992).

³ Isidore of Seville, *Etymologiae* 4.13.5, ed. Wallace Lindsay (Oxford, 1911), n.p.

⁴ Julius Pagel, *Einführung in die Geschichte der Medizin* (Berlin, 1898), 138–39, later expanded and revised as Karl Sudhoff, *Kurzes Handbuch der Geschichte der Medizin*, 4th ed. (Berlin, 1922), 157–59; Charles Singer, "A Review of Medical Literature of the Dark Ages, with a New Text of about 1110," *Journal of the Royal Society of Medicine* 10 (1917): 107–60, at 107–13; Charles Singer and Edgar Ashworth Underwood, *A Short History of Medicine*, 2nd ed. (Oxford, 1962), 61–64; Gerhard Baader, "Early Medieval Adaptations of Byzantine Medicine in Western Europe," *Dumbarton Oaks Papers* 38 (1984): 251–59; and Vivian Nutton, "Early-Medieval Medicine and Natural Science," in *The Cambridge History of Science, Volume 2: Medieval Science*, ed. David Lindberg and Michael Shank (Cambridge, 2011), 323–40.

⁵ Gundolf Keil, "Möglichkeiten und Grenzen frühmittelalterlicher Medizin," in *Das Lorscher Arzneibuch und die frühmittelalterliche Medizin*, ed. Gundolf Keil and Paul Schnitzer (Lorsch, 1991), 219–52, at 226.

from non-specialists who were still engaged critically with medical learning. As we shall see below, so much is now evident even in Gregory of Tours's famously cool comments on doctors.⁶ Moreover, there remains an almost untapped treasure trove of medical texts in Merovingian manuscripts that could allow us to delve deeper into that early medieval learning. The only previous study, by Loren MacKinney in 1937, unfortunately rested on manuscripts no longer considered "Merovingian" and was pursued in unfortunate ignorance of those that more certainly were.⁷ As Charles Daremberg asserted in 1870, until we have actually studied the texts and manuscripts of the period, we cannot assess it.⁸

To understand medicine as a philosophy requires a shift in focus from traditional histories of medicine. There is little to be gained by trying to argue that there was profound progress in the period because, by any absolute standard, there was none. There is, however, much value in looking at the cultural contexts and resonances of medicine, as Peregrine Horden has argued.⁹ To study early medieval culture in general, as Julia Smith put it, is to study "the expression of meanings, perceptions, and values by means of which people construct their understanding of reality, organize their experiences, and determine their actions."¹⁰ Such an approach stresses human agency and language as well as, by implication, the resources with which people could work. It demands seeing idea and action as situational and as part of interconnected webs of practices. Tight focus on subject-specific technicalities will not do. Medical knowledge, as we shall see, can often be hard to separate from attitudes towards belief, power, and process that are not about medicine itself, but which still affect how it developed and was understood. Meg Leja has productively shown exactly that with her recent explorations of Carolingian medicine, exposing how medical knowledge intersected with debates about body and soul.¹¹ There have been good studies of attitudes towards medicine and physicians in the Merovingian period by Edward James, Valerie Flint, and Allen Jones, all inspired by more

⁶ Faith Wallis, "Gregory of Tours' Nosebleed," in *Une traversée des savoirs*, ed. Philippe Heuzé and Yves Herant (Laval, 2008), 417–36.

⁷ Loren MacKinney, *Early Medieval Medicine* (Baltimore, 1937), 60–80. His two key manuscripts were Paris, BnF, lat. 10233 (on which, see n. 33, below), now associated with Spain; and Paris, BnF, lat. 9332 (*KHNJ*, no. 4569), now dated to the ninth century. Both had been in the cathedral library at Chartres later in the Middle Ages.

⁸ Charles Daremberg, *Histoire de sciences médicales* 1 (Paris, 1870), 255.

⁹ Peregrine Horden, "What's Wrong with Early Medieval Medicine?" *Social History of Medicine* 24 (2007): 5–25, esp. 5–7.

¹⁰ Julia Smith, *Europe after Rome: A New Cultural History 500–1000* (Oxford, 2005), 6.

¹¹ Meg Leja, "The Sacred Art: Medicine in the Carolingian Renaissance," *Viator* 47 (2016): 1–34; and Meg Leja, *Embodying the Soul: Medicine and Religion in Carolingian Europe* (Philadelphia, 2022).

anthropological-textual approaches to Merovingian history.¹² Matters can be pushed further. In recent years, the complexity of a Merovingian culture once thought resolutely “barbarous” has been brought into focus on almost every possible front, including its historiography, law, liturgy, and art.¹³ Merovingian medicine needs to be reassessed within this revised context.

Such a study also requires us to rethink how to understand what an early medieval medical text is. Many foundational historians of medicine such as Karl Sudhoff (d. 1938) were involved in medical practice too and so they sought coherent treatises with recognizable purpose and theorization that fitted their ideals.¹⁴ From this perspective, the many inconsistencies of content and language in the material they encountered seemed chaotic. This was no less true in a second stream of foundational scholarship from classical philologists such as Valentin Rose (d. 1916). Rose labored to establish the authoritative versions of texts in critical editions for the *Bibliotheca Teubneriana*, much as scholars did for any ancient texts.¹⁵ The idiosyncrasies in many medical manuscripts frequently worked against such a task, however, notably when the so-called *Gynaecia* attributed to the fourth-century physician Vindicianus forced him to print five different versions in parallel columns.¹⁶ The aims of the project strained against the evidence

¹² Valerie Flint, “The Early Medieval *medicus*, the Saint — and the Enchanter,” *Social History of Medicine* 2 (1989): 127–45; Edward James, “A Sense of Wonder: Gregory of Tours, Medicine, and Science,” in *The Culture of Christendom*, ed. Marc E. Meyer (London, 1993), 45–60; and Allen Jones, *Social Mobility in Late Antiquity: Strategies and Opportunities for the Non-Elite* (Cambridge, 2009), 250–82.

¹³ Among only the most recent works, see *The Oxford Handbook of the Merovingian World*, ed. Bonnie Effros and Isabel Moreira (Oxford, 2020); *East and West in the Early Middle Ages: The Merovingian Kingdom in Mediterranean Perspective*, ed. Stefan Esders et al. (Cambridge, 2019); Ian Wood, “The Problem of Late Merovingian Culture,” in *Exzerpieren — Kompilieren — Tradieren: Transformationen des Wissens zwischen Spätantike und Frühmittelalter*, ed. S. Dusil, G. Schwedler, and R. Schwitter (Berlin and Boston, 2017), 199–222; and *Les temps mérovingiens: Trois siècles d’art et de culture (451–751)*, ed. Isabelle Bardiès-Fronty, Charlotte Denoël, and Ines Villela-Petit (Paris, 2016).

¹⁴ On Sudhoff specifically, see Henry Sigerist, “Karl Sudhoff, the Man and the Historian,” *Bulletin of the Institute of the History of Medicine* 2 (1934): 3–6. The implications of his approach are discussed in MacKinney, *Early Medieval Medicine* (n. 7 above), 1–5; and John Riddle, “Theory and Practice in Medieval Medicine,” *Viator* 5 (1974): 157–84, at 157–58.

¹⁵ Especially relevant to the present study are: Valentin Rose, *Anecdota Graeca et Graecolatina* (Berlin, 1870); Valentin Rose, *Anthimi De observatione ciborum epistula ad Theudericum regem Francorum* (Leipzig, 1877); and Valentin Rose, *Theodori Prisciani Euporiston libri III* (Leipzig, 1894). On the problem of canonization of medical texts, see Faith Wallis, “The Experience of the Book: Manuscripts, Texts, and the Role of Epistemology in Early Medieval Medicine,” in *Knowledge and the Scholarly Medical Traditions*, ed. Donald Bates (Cambridge, 1995), 101–26 at 102–104.

¹⁶ *Gynaecia*, ed. Rose, in *Theodori Prisciani Euporiston*, 426–62. Two further versions were printed in parallel columns in Karl Sudhoff, “Zur Anatomie des Vindicianus:

itself, which seemed more organic in form than modern editors liked. In both streams of scholarship, the medical and philological, we are presented with the same problem: the scholars who established the field processed evidence in line with transhistorical standards that meant their judgments were frequently shaped by what their sources seemed to lack. In such a context, manuscripts were treated as incidental and often degenerate witnesses to lost perfection, rather than as the creative cultural products of their scribes and communities that they were. This is a situation familiar in many areas of Merovingian and Carolingian studies, where it has slowly forced a “return to the manuscripts” to reassess raw textual data and its many different uses across time and space.¹⁷ To understand Merovingian medicine, we need to follow suit: return to the manuscripts and work outwards to establish what it meant to the people who used such knowledge as they moved between the creation and reception of ideas to find order and wisdom.¹⁸

IN SEARCH OF MEROVINGIAN MEDICAL BOOKS

We begin with the problem of establishing what medicine was known and what shape it took in Merovingian books. Latin medicine before the Merovingian period was already something of a curate’s egg, dominated by variable translations of key Greek works — particularly those attributed to Hippocrates and Galen — and large-scale assemblages of pharmaceutical material. There was a strong interest in lay digests of practical medicine (*euporista*), most readily represented by the *Medicina Plinii*, which provided a collection of cures organized by ailment, so that a traveler could avoid being defrauded by unscrupulous physicians (and also, no doubt, find alternative cures if specific ingredients were not available).¹⁹

Handschriftenstudie.” *Archiv für Geschichte der Medizin* 8 (1915): 414–23; and another in Louise Cilliers, “Vindicianus’s *Gynaecia*: Text and Translation of Codex Monacensis (Clm 4622),” *Journal of Medieval Latin* 15 (2005): 153–236.

¹⁷ Telling examples include Rosamond McKitterick, *History and Memory in the Carolingian World* (Cambridge, 2004); Alice Rio, *Legal Practice and the Written Word in the Early Middle Ages: Frankish Formulae 500–1000* (Cambridge, 2009); *L’hagiographie mérovingienne à travers ses réécritures*, ed. Monique Goulet, Martin Heinzelmann, and Christiane Veyrard-Cosme (Ostfildern, 2010); and Helmut Reimitz, *History, Frankish Identity, and the Framing of Western Ethnicity 550–850* (Cambridge, 2014).

¹⁸ In addition to Horden, “What’s Wrong with Early Medieval Medicine?” (n. 9 above), see Leja, “A Sacred Art”; and Wallis, “The Experience of the Book.” For advocating this kind of approach, see Nicholas Everett, “The Manuscript Evidence for Pharmacy in the Early Middle Ages,” in *Writing the Early Medieval West*, ed. Elina Screen and Charles West (Cambridge, 2018), 115–30.

¹⁹ *Medicina Plinii*, prol. 1, ed. and trans. Yvonne Hunt (London, 2019), 14–15. Similarly, see Pseudo-Apuleius, *Herbarius*, pref., ed. Ernest Howald and Henry Sigerist, *Corpus Medicorum Latinorum* 4 (Leipzig and Berlin, 1927), 15; and Everett, “The Manuscript Evidence,” 117–19.

In Gaul, a particularly full digest was Marcellus of Bordeaux's *De medicamentis liber*, produced in retirement by a figure who had once worked in Constantinople for Emperor Theodosius.²⁰ The region offered little more to the pre-Merovingian history of medicine. Merovingian Gaul itself could boast only one named medical writer: Anthimus, a Greek legate who offered King Theuderic I (d. 533/34) dietary advice to assist the king to avoid the need for physicians, partly based on general medical knowledge and partly based on what the legate had seen at court.²¹ We do not, however, know anything about Anthimus or his training. When the Carolingian "revival" took off in the late eighth century, it was dominated by old handbooks and treatises, but these were frequently excerpted or adapted to create new ones.²² This revival is sometimes even considered to have relied on the importing of resources from Italy rather than from books already in circulation north of the Alps on the assumption that the cultural situation had become so bleak.²³ Merovingian medicine seems at best to have been in a holding pattern and at worst to have ceased almost altogether.

Yet the evidence of Merovingian medical manuscripts suggests that there was at least more medical knowledge in circulation than just Marcellus and Anthimus. The richest example is a general educational miscellany, likely produced at the cathedral school of Bourges in the 720s, which contains the short Galenic treatise *De febribus*, a medical lunar prognostic, and a substantial but hardly comprehensive composite text entitled *De arte medica*, comprised mostly of short recipes.²⁴

²⁰ Marcellus, *De medicamentis liber*, ed. Eduard Liechtenhan, *Corpus Medicorum Latinorum* 5 (Berlin, 1963).

²¹ Anthimus, *De observatione ciborum*, ed. Eduard Liechtenhan, *Corpus Medicorum Latinorum* 8.1 (Berlin, 1963). On the text, see Carl Deroux, "Anthime, un médecin gourmet du début des temps mérovingiens," *Revue belge de philologie et d'histoire* 80 (2002): 1107–24; Bonnie Effros, *Creating Community with Food and Drink in Merovingian Gaul* (London, 2002), 63–66; and Leja, *Embodying the Soul* (n. 11 above), 199–202. It is generally assumed that he was legate for the Ostrogothic king Theuderic I because he would have had Greek-speakers working for him, but, as Leja has stressed, there is nothing to confirm this.

²² Leja, "A Sacred Art" (n. 11 above); Leja, *Embodying the Soul* (n. 11 above); and John Contreni, "Masters and Medicine in Northern France during the Reign of Charles the Bald," in *Charles the Bald: Court and Kingdom*, ed. Margaret T. Gibson and Janet L. Nelson, 2nd ed. (Aldershot, 1990), 267–82.

²³ For example, Michael McCormick, *The Origins of the European Economy: Commerce and Communication AD 300–900* (Cambridge, 2001), 711–12.

²⁴ Bern, Burgerbibliothek MS 611 + Paris, BnF, lat. 10756, fols. 62–69 (*CLA*, nos. 604–604e), available online at <https://www.ecodices.ch/en/list/one/bbb/0611> (accessed 20 June 2023) with a detailed catalogue entry by Florian Mittenhuber, Gerald Schwedler, and David Ganz. On the manuscript, see David Ganz, "In the Circle of the Bishop of Bourges: Bern 611 and Late Merovingian Culture," in *East and West in the Early Middle Ages* (n. 13 above), 265–80; David Ganz, "Bureaucratic Shorthand and Merovingian Learning," in *Ideal and Reality in Frankish and Anglo-Saxon Society*, ed. Patrick Wormald, Donald Bullock and Roger Collins (Oxford, 1983), 34–57; and Anna Dorofeeva, "Visualizing

De arte medica, moreover, contains identifiable borrowings from a “Hippocratic” *Dynamidia* on the properties of nuts and fruits, part of a theoretical preface to the *Old Commentary on the Hippocratic Aphorisms*, and a rich collection of short recipes from a *Teraupetica*, Pseudo-Apuleius’s popular *Herbarius* (hitherto unnoticed), and more from as-yet unidentified sources.²⁵ It was, in short, a well-resourced assemblage that hints of a multitude of exemplars now lost to us. To this could be added another short collection of recipes appended to a Latin-Greek glossary from around the same time, now in London (and hereafter the *Harley Antidotarium*).²⁶ A small fragment of a text, possibly from Lyon but now in Paris, concerns the use of purgatives for treating conditions and balancing the humours, something altogether more explicitly in the Hippocratic-Galenic mould than the two recipe books.²⁷ Finally, there is a partial capitula and few words from a lost medical book rescued from the bindings of a manuscript now in Sélestat.²⁸ It is a poor tally compared to the seventy or so medieval manuscripts for the Carolingian period noted by Augusto Beccaria.²⁹ There are, however, many structural differences between the two periods that make true comparison difficult, such as a shift away from using fragile papyrus and the importance of monastic centers with little-to-no Merovingian history for the new Carolingian commitment to the written word.³⁰ Even as a fragment of what there once was, however, the

Codicologically and Textually Complex Manuscripts,” *Manuscript Studies* 4 (2019): 334–60, esp. 347.

²⁵ For details on these borrowings, see nn. 36, 50–51, and 53, below. In addition to the readily-identifiable sources used, it seems that the compiler had access to a source that also incorporated borrowings from Pseudo-Apuleius to judge by isolated use of 35.2 and 1.13, ed. Howald and Sigerist, 79–80 and 24 (at Bern, Burgerbibliothek MS 611, fol. 147v). An isolated borrowing from Marcellus, *De medicamentis liber* 20.82, ed. Liechtenhan, 348 (at fol. 151r) might be a direct borrowing or transmitted through an intermediary.

²⁶ London, British Library, MS Harley 5792 (*CLA*, no. 203, where it is designated “Italy or France,” but most recently accepted as Merovingian in Wood, “The Problem of Late Merovingian Culture” [n. 13 above], 217). Most of the collection is printed as *Das Londoner Antidotarium* in Henry Sigerist, *Studien und Texte zur frühmittelalterlichen Rezeptliteratur* (Leipzig, 1923), 17–21.

²⁷ Paris, BnF, Baluze 270, fols. 95r–v (*CLA*, no. 519: southern France or at least “under Spanish influence,” s. vii or s. viii; treatise on humours plus recipes). For the Lyon connection for many of Baluze’s fragments, see Pierre Chambert-Protat, “A Seventeenth-Century Treasure Hunter in the Rubble of a Ninth-Century Library: Gathering Fragments and the History of Libraries,” *Fragmentology* 1 (2018): 65–81.

²⁸ Sélestat, Bibliothèque Humaniste MS 1B (*CLA*, no. 830: second half of s. vii; capitula for an otherwise lost medical book).

²⁹ Beccaria, 22. Revised datings and new discoveries do not produce a radically different tally of dedicated medical manuscripts, but we do now know of significantly more manuscripts with shorter medical texts and extracts.

³⁰ On the effects of the shift from papyrus, see now Dario Internullo, “Du papyrus au parchemin: Les origines médiévales de la mémoire archivistique en Europe occidentale,” *Annales: Histoire, Sciences Sociales* 74 (2019): 523–57. On the importance of new foundations

Merovingian manuscripts start to reveal something of a distinctive and surprisingly rich profile for medical knowledge in the region.

Comparison with early evidence from elsewhere highlights the distinctiveness. None of the material is obviously close to the much-cited list of recommended readings for monks provided by Cassiodorus (d. c. 585) in Italy nor does it seem to have derived from the translation efforts of the school of late-antique Ravenna.³¹ Of the contents of the seven or so extant pre-750 medical manuscripts from Italy, the only major text shared with Frankish manuscripts is Pseudo-Apuleius's *Herbarius*.³² In Spain, Isidore must have had a few books available to judge by the *Etymologiae*, although the only obvious text shared with the northern manuscripts is the *Old Commentary on the Hippocratic Aphorisms*.³³ Nothing from the Merovingian manuscripts immediately connects to the North African cluster of late-antique texts from Augustine's friend Vindicianus, his pupil Theodore Priscianus, and Cassius Felix, which collectively marked a strength of medical learning there, although, as we shall see, some indirect connections might be discernible on other evidence.³⁴

for Carolingian culture, see Rosamond McKitterick, "Eighth-Century Foundations," in *The New Cambridge Medieval History, Volume 2: c. 700–c. 900*, ed. Rosamond McKitterick (Cambridge, 1995), 681–94, esp. 690. Such structural differences make it hard to trust estimates of relative Merovingian/ Carolingian productivity such as Eltjo Buringh, *Medieval Manuscript Production in the Latin West: Explorations with a Global Database* (Leiden, 2011), 316 and 329.

³¹ Cassiodorus, *Institutiones* 1.31.2, ed. R.A.B. Mynors (Oxford, 1961), 78. On Ravenna, see Henning Mørland, *Die lateinischen Oribasius übersetzungen* (Oslo, 1932); Innocenzo Mazzini and Nicoletta Palmieri, "L'école médicale de Ravenna," in *Les écoles médicales à Rome*, ed. Philippe Mudry and Jackie Pigeaud (Geneva, 1991), 286–310; and Judith Herrin, *Ravenna: Capital of Empire, Crucible of Europe* (Princeton, 2020), 239–44, but bearing in mind the problems raised already in Manuel Vázquez Buján, "Problemas generales de las antiguas traducciones médicas latinas," *Studi medievali* 25 (1984): 641–80; and Nicholas Everett, *The Alphabet of Galen* (Toronto, 2011), 21–25.

³² (1) Vatican, Biblioteca Apostolica Vaticana, Pal. lat. 187, fols. 8–66 (*CLA*, no. 81: c. 700, *Alphabet of Galen* plus recipes); (2) Ivrea, Biblioteca Capitolare MS 94 (XCII), frag. A (*CLA*, no. 301: s. vii, Ps.-Apuleius); (3) Paris, BnF, lat. 10318 (*CLA*, no. 593: c. 700, fragment of Ps.-Hippocratic *Letter to King Antigones*); (4) Berlin, Staatsbibliothek zu Berlin, Preußischer Kulturbesitz MS lat. 381 no. 1 + Hildesheim, Dombibliothek, MS 658 (*CLA*, no. 1050: c. 600, Ps.-Apuleius); (5) Halberstadt, Domschatz MS 465 (*CLA*, no. 1211: c. 700, Ps.-Apuleius); (6) Munich, BSB Clm 15028 + Clm 29688 (*CLA*, no. 1312: first quarter of s. vii, Ps.-Apuleius and *Dogma Hippocratis*); and (7) Leiden, Universiteitsbibliotheek VLQ 9 (*CLA*, no. 1582: second half of s. vi, Ps.-Apuleius and an untitled *medicina*).

³³ On Isidore's use of the *Old Commentary* and other sources, see Klaus-Dietrich Fischer, "Neue oder vernachlässigte Quellen der Etymologien Isidoros von Sevilla (Buch 4 und 11)," in *Isidorus Medicus: Isidoro de Sevilla los textos de medicina*, ed. Arsenio Ferraces Rodríguez (La Coruña, 2005), 131–74, at 134–46. The only early manuscript from Spain contains texts associated with the Ravenna school: Paris, BnF, lat. 10233 + Bern, Burgerbibliothek, F 219. 3 (*CLA*, no. 592: last quarter of s. vii, Oribasian *Synopsis* and Rufus's *De podagra*).

³⁴ *Theodori Prisciani Euporiston* (n. 15 above); and Cassius Felix, *De medicina*, ed. Anne Fraisse (Paris, 2002). A useful overview of the medical texts can be found in Louise Cilliers, *Roman North Africa: Environment, Society and Medical Contribution* (Amsterdam, 2019).

Medical knowledge in the English kingdoms seems different again to judge by citations associated with Theodore of Canterbury, Aldhelm, and Bede, much of which seems related to the North African writers or Isidore.³⁵ One cannot, of course, rule out the possibility of many more points of connection, given the demonstrable loss of so many early manuscripts. It does, however, highlight how problematic it can be to generalize about the vitality of early medieval medicine, given that the resources and evidence we do have varied from place to place.

The Bourges miscellany provides several possible leads for identifying where Carolingian manuscripts built on Merovingian foundations or at least a shared heritage. There are, for instance, important connections with the contents of two Carolingian manuscripts from the Paris region. In one, from Saint-Germain-des-Prés, dated c. 800, there is a full copy of the *Dynamidia* which shows a closer textual affinity with the Bourges extracts than with other early versions.³⁶ That it happened to be copied alongside Anthimus's *De observatione ciborum* might hint further at the Merovingian provenance of an underlying exemplar. Meanwhile, Arsenio Ferraces Rodríguez has recently shown that the compiler of *De arte medica* had access to a rare *Teraupetica*, known in two full but slightly different versions in two northern Carolingian manuscripts.³⁷ The *Teraupetica* may itself have originated in the Frankish kingdoms to judge by some linguistic quirks and an associated dietic calendar that mentions the consumption of mead and beer.³⁸ In one of the two, from Saint-Denis, it is juxtaposed with a

³⁵ Michael Lapidge, "The School of Theodore and Hadrian," *Anglo-Saxon England* 15 (1986): 45–72, at 50; and Malcolm Cameron, *Anglo-Saxon Medicine* (Cambridge, 1993), 27–28.

³⁶ Compare the text on Bern, Burgerbibliothek MS 611, fols. 146v–147r and St. Gallen, Stiftsbibliothek, Cod. Sang. 762, pp. 72–73 (*KHNJ*, no. 5848; Saint-Germain-des-Prés, c. 800). For a partial edition, excluding the key passage, see *Anecdota Graeca*, ed. Rose (n. 15 above), 131–56. The text is different in the version published by Angelo Mai in *Classicum auctorum e Vaticanis codicibus editorum* 7 (Rome, 1835), 428. On the text, see John Riddle, "The Pseudo-Hippocratic *Dynamidia*," in *Die Hippokratischen Epidemien: Theorie — Praxis — Tradition*, ed. Gerhard Baader and Rolf Winrau (Stuttgart, 1989), 283–311.

³⁷ Arsenio Ferraces Rodríguez, "Un recetario medico inexplorado: Los *Teraupetica* (con una tentativa de restitución y traducción des prefacio)," *Revue des études tardo-antiques* 8 (2018–19): 25–65. The two Carolingian manuscripts are Paris, BnF, lat. 11219, fols. 104r–170r (*KHNJ*, no. 4670; Saint-Denis, s. ix med.), and London, BL Arundel MS 166, fols. 14r–90v (*KHNJ*, no. 2412: 'Ostfrankenreich (?)', s. ix¹).

³⁸ Among the linguistic quirks are the uses of *galoxina* for a measure of wheat (see A. Thomas, "Galoxina, 'jointée'," *Bulletin du Cange* 4 [1928]: 93–103) and *aloxinum* for *absintium* (see James Adams, *The Regional Diversification of Latin 200 BC–AD 600* [Cambridge, 2007], 333–34, but not using this example). The calendar is Paris, BnF, lat. 11219, fol. 169r. Bruno Krusch printed a version of the calendar as "ein Gesundheitskalendar aus Merowingischer Zeit" in his "Reise nach Frankreich im Frühjahr und Sommer 1892," *Neues Archiv der Gesellschaft für ältere deutsche Geschichtskunde* 18 (1893): 549–649, at 579–80. More recently, see Klaus-Dietrich Fischer, "Gesund durchs Jahr mit Dr Hippokrates —

compilation known as the *Tereoperica* (or *Practica Petrocelli*), the preface of which seems to have been a model for the preface to the *Teraupetica*.³⁹ The work's most recent editor, Laura López Figueroa, has speculated that that work too might be from Merovingian Gaul, given its limited and exclusively northern European early circulation plus the fact that it cites nothing later than the sixth-century Trallianus.⁴⁰ The last sentence of the preface, meanwhile, connects to a letter contained within a medical *Liber epistolarum* which surely not coincidentally is also included in the Saint-Denis manuscript.⁴¹ Given the *Teraupetica*'s compilatory nature, it seems most likely that it borrows from the letter rather than the other way around. Whatever the precise relationship between the three texts, that they should intersect textually and be included together suggests that Saint-Denis had access to traditions that had been entwined in Gaul for a long time already.

A further set of affinities points to connections between Bourges and the Narbonne region. The strength of cultural continuities in the south has long been

Monat für Monat!" in *The Frontiers of Ancient Science*, ed. Brooke Holmers and Klaus-Dietrich Fischer (Berlin, 2015), 111–37.

³⁹ *Tereoperica*, pref., ed. Laura López Figueroa, "Estudio y edición crítica de la compilación médica Latina denominada *Tereoperica*" (Ph.D. diss., University of Santiago de Compostela, 2011), 153: "Incipit Tereoperica hoc est liber medicinalis scriptus specialiter secundum philosophorum auctorum inquisitiones. Ex tunc et nunc et usque in eternum confitebimur cum Dei auxilio esse manifestum certantis studium fructuosum opus ad omnes egritudines mitigandas et cum Dei gratia curandas corporum vexatas." Compare *Teraupetica* in Paris, BnF, lat. 11219, fol. 104r; and London, BL Arundel 166, fol. 15r: "Incipit liber medicinalis de omni corpore hominis *Teraupetica* hoc est collectum ex libris multis philosophorum auctorum specialiter a capite ad omnes aegrotos certandi studium fructuosis operis ad omnes naturalibusque remediis." Both allude to Theodore Priscianus, *Euporiston* 1.3, ed. Rose (n. 15 above), 3–4. See Ferraces Rodríguez, "Un recetario medico inexplorado," 35–39, but without reference to the *Tereoperica*, and also n. 41, below.

⁴⁰ López Figueroa, "Estudio y edición crítica," 88–89. On the circulation of the Trallianus otherwise, see Derek Langslow, *The Latin Alexander Trallianus: The Text and Transmission of the Late Latin Medical Book* (London, 2006).

⁴¹ Paris, BnF, lat. 11219, fol. 12r (and see n. 115, below). This connection is missed by Ferraces Rodríguez, which makes his reconstruction of the preface of *Teraupetica* less convincing as he has to split the relevant sentence ("Un recetario medico inexplorado," 37). The *Liber epistolarum* is defined by Loren MacKinney as loosely "early medieval," possibly predating the ninth century, in "Medical Ethics and Etiquette in the Early Middle Ages: The Persistence of Hippocratic Ideals," *Bulletin of the History of Medicine* 26 (1952): 1–31, at 6–9; and as a more firmly Carolingian assemblage in Leja, "A Sacred Art" (n. 11 above), 20–21; and Leja, *Embodying the Soul* (n. 11 above), 155–60. It may be Carolingian in the sequence encountered in Paris, BnF, lat. 11219, but at least some of the contents must be earlier on the basis of the evidence supplied here. That there was more than one line of transmission is attested by a different version of the assemblage in the near contemporary manuscript Brussels, KBR MS 3701–15 (*KHNJ*, no. 708; and Beccaria, no. 6), on which see Walter Wiedemann, *Untersuchungen zu dem frühmittelalterlichen medizinischen Briefbuch des Codex Bruxellensis 3701–15* (Berlin, 1976).

hypothesized because of distance from the Frankish heartlands and developments there such as the “monasticization” of Frankish ideals.⁴² It is from this area that we find one of the earliest “Carolingian” medical books: the wide-ranging two-book *De arte medicina omne*.⁴³ Like the Bourges *De arte medica*, its information on herbs is built around extracts from the *Dynamidia* (fols. 27v–34r), Pseudo-Apuleius (fols. 40r–47v), and *Teraupetica* (fols. 116r–132r + 177r–v). Its most “theoretical” inclusion, as with *De arte medica*, is a long extract from the preface to the *Old Commentary on the Hippocratic Aphorisms* (fols. 98v–102v). The compiler was interested in prognostic material too and included a medical lunary (fol. 18r), although different from the one copied in Bourges. A small manuscript related to the same center, dominated by a mislabeled copy of (Pseudo-)Vindicianus’s *Gynaecia*, also offers another sliver of a connection by sharing a treatment for scabies with *De arte medica*.⁴⁴ The same recipe can be found alongside Anthimus’s work in the famous Lorsch *Arzneibuch* (c. 795), which illustrates how Carolingian medicine drew on traditions already established in Gaul in the Merovingian period.⁴⁵ In none of these cases are we confronted by a direct relationship between the Bourges miscellany and the early Carolingian medical books. That they were all able to draw on the same or similar compilations, however, proves that the relevant medical traditions were in wide circulation since at least the early eighth century, if not before.

The Harley Antidotarium suggests further continuities of networks of medical knowledge stretching through the Frankish world from the south. Its first text is a long medical recipe called the *acharistum*, which claimed to be useful for an array of things from stomach ache via asthma to neutralizing spider venom.⁴⁶ The same text, give or take corruptions, was copied into two of the earliest Carolingian medical manuscripts: the Lorsch *Arzneibuch* and a compendium from Dijon.⁴⁷

⁴² Pierre Riché, *Education and Culture in the Barbarian West from the Sixth through the Eighth Century*, trans. John Contreni (Columbia, SC, 1976), 189, 208–209, and 422–23. On the monasticization of Frankish politics, see now Rutger Kramer, *Rethinking Authority in the Carolingian Empire: Ideals and Expectations during the Reign of Louis the Pious (813–28)* (Amsterdam, 2019), esp. 51–53 and the further references given there.

⁴³ Glasgow, University Library MS Hunter 96 (*KHNJ*, no. 1396: late s. viii or early s. ix, Narbonne region).

⁴⁴ Paris, BnF, nouv. acq. lat. 203, fol. 1v (compare *CLA*, no. 676, and *KHNJ*, no. 5063).

⁴⁵ *Das Lorsch Arzneibuch* 2.165, ed. Ulrich Stoll (Stuttgart, 1991), 198.

⁴⁶ Klaus-Dietrich Fischer, “*Antidotum cui nomen est acharistum*,” in *Between Text and Patient: The Medical Enterprise in Medieval and Early Modern Europe*, ed. Florence Glaze and Brian Nance (Florence, 2011), 173–99; and Klaus-Dietrich Fischer, “The *Acharistum* in a Manuscript from the Library of Nicholas of Cues,” in *Asklepios: Studies on Ancient Medicine*, ed. Louise Cilliers (Bloemfontein, 2008), 74–85.

⁴⁷ Paris, BnF, lat. 11218, fols. 42v–43v (*KHNJ*, no. 4669: Saint-Bénigne, Dijon, s. viii⁴/ix¹); and *Das Lorsch Arzneibuch* 3.27, ed. Stoll, 254–56. For a full overview of the contents of the Paris manuscript, see Manuel Vázquez Buján, “La transmisión Latina de los *Aforimos*

The Dijon manuscript is notable for having various connections with the web of texts illuminated by the Bourges miscellany, including a variation of *De febribus* and an *Epistula Flebotomie* known from the Saint-Denis *Liber epistolarum* (as well as from elsewhere).⁴⁸ It also contains an extract from Cassius Felix on dysentery not far removed from the rare recension known to Bede (d. 735), who cited it paired with a story from Gregory of Tours on an outbreak of disease in 580.⁴⁹ Again, if we analyze the evidence in terms of networks and associations of texts, rather than individual canonical compositions, it is clear that the Carolingian “revival” of medicine drew on learning that had already circulated widely in different ways throughout the Latin-reading West. As some of those early networks seem to have included readers in or connected to the Merovingian kingdoms, we may want to be cautious about assuming medical knowledge was radically lost or rejected in Gaul between the Roman and Carolingian periods.

Continuity did not mean fossilization. The *Teraupetica* and *Tereoperica* both show engaged and considered efforts to generate new *euporista* through a process of mining multiple texts to generate lists of potential cures organized by condition. *De arte medica* frequently offered the same feature, if less steadily, with its groupings of recipes on jaundice, gout, ergotism, and then renal and stomach complaints taken from different sources.⁵⁰ The author-compiler also put effort into rearranging borrowings from Pseudo-Apuleius’s *Herbarius*, in the process refashioning entries so that they were organized by condition rather than, as had originally been the case, by herb.⁵¹ In both *De arte medica* and the Harley antidotarium, scribes made considerable use of texts for which we have no known authoritative original text. This reinforces how, even before the

Hipocráticos en el código Paris, BnF, Latin 11218.” *Revue d’histoire des textes*, n.s. 13 (2018): 195–243 at 196–205.

⁴⁸ Paris, BnF, lat. 11218, fols. 34v–37r; and Paris, BnF, lat. 11219, fols. 32v–33v. MacKinney, *Early Medieval Medicine* (n. 7 above), 98–99 uses the *Gynaecia*’s shared presence in Paris, BnF, nouv. acq. lat. 203 and Paris, BnF, lat. 11218 to suggest continuity between Merovingian and Carolingian learning too, although on the mistaken assumption that the first manuscript is from the seventh century. For other witnesses to the *Epistula Flebotomie*, see Beccaria, 451.

⁴⁹ Paris, BnF, lat. 11218, fol. 105r; and Bede, *Retractio in Actus apostolorum* 28.8, ed. M. L. W. Laistner, CCSL 121 (Turnhout, 1983), 162–63. Compare Cassius, *De medicina* 48.1, ed. Fraisse (n. 34 above), 136. Note in particular the shared phrase “. . . sed noxia a veteribus indicatur. . .” where the standard version has “. . . et illa noxia a veteribus nuncupatur. . .” Bede’s borrowing from Gregory is from Gregory of Tours, *Historiarum liber decem* 5.34, ed. Bruno Krusch and Wilhelm Levison, MGH, *Scriptores rerum Merovingicarum* 1.1 (Hanover, 1951), 239.

⁵⁰ Bern, Burgerbibliothek MS 611, fols. 147r–148v.

⁵¹ Bern, Burgerbibliothek MS 611, fols. 152r–153r. In manuscript sequence: Pseudo-Apuleius 105.1; 106.1; 110.1; 111.1; 116.1; 119.1; 93.2, 11–13, 15, 17–18; 96.2; 99.7; 101.2; 121.1; 122.3; 125.1; 89.1–4; and 88.5, ed. Howald and Sigerist (n. 19 above), 188, 189, 194, 196, 201, 168–70, 173, 179, 182, 207, 208, 212, 159–60, and 158, respectively.

Carolingian period, writers compiled medical texts from a much richer and less stable set of textual traditions than any standard checklist of canonical texts would suggest. Where MacKinney, Riddle, and others have envisaged continuities that revolved around passive copying, we can perhaps see something a little more restless and intermittently creative.⁵²

What drove that creativity may have come from both practical and intellectual trends. A feature of *De arte medica* is that the ingredients are generally not exotic apart from frequent use of black pepper and a single call for cinnamon in a long general-purpose recipe.⁵³ This could speak of the poor availability of spices and herbs in the wake of disruption to trade patterns in the seventh century. A practical approach to the imperfect availability of ingredients, however, had always been part of late-antique *euporista*, in the way that they had offered multiple potential recipes to address the same conditions. It remains unclear, therefore, what might have been affected and why, especially as few people now accept that the Arab conquests of the seventh century led to quite the harsh break in trade continuities once proposed by Pirenne.⁵⁴ One cannot rule out the influence of taste on the spice trade as old Roman habits gave way to new ones.⁵⁵ An aversion to spices is, however, not a feature of the Harley Antidotarium's collection, which has a richer selection of ingredients such as cinnamon (mostly from Sri Lanka), spikenard (mostly from the Himalayas), and saffron (mostly from Greece to Persia); nor is it apparent in the very many early Carolingian recipe miscellanies which demanded a broad range of exotic ingredients.⁵⁶ One Merovingian

⁵² MacKinney, *Early Medieval Medicine* (n. 7 above), 103–104; and Riddle, “Theory and Practice” (n. 14 above), 169–70.

⁵³ Bern, Burgerbibliothek MS 611, fol. 150v.

⁵⁴ Henri Pirenne, *Mohammad and Charlemagne*, trans. Bernard Miall (London, 1939), esp. 170–71 on the disappearance of spices needed for pharmacy. John Riddle, “The Introduction and Use of Eastern Drugs in the Early Middle Ages,” *Sudhoffs Archiv* 49 (1965): 185–98; McCormick, *Origins of the European Economy* (n. 23 above), 708–16; and Everett, “The Manuscript Evidence” (n. 18 above), 127–30 suggest a slower decline of availability into the Carolingian period with exchanges with the Arab world. For a historiographical critique of Pirenne's ideas, see Bonnie Effros, “The Enduring Attraction of the Pirenne Thesis,” *Speculum* 92 (2017): 184–208. On the slow decline of Marseilles, a crucial port for the spice trade, see Simon Loseby, “Marseille and the Pirenne Thesis II: ‘Ville morte,’” in *The Long Eighth Century*, ed. Inge Lyse Hansen and Chris Wickham (Leiden, 2000), 167–93, esp. 190–92, discussing the famous 716 charter of Corbie; *Die Urkunden der Merowinger*, no. 171, ed. Theo Kölzer, MGH, *Die Urkunden der Merowinger* 1 (Hanover, 2001), 425.

⁵⁵ Robert S. Lopez, “Mohammed and Charlemagne: A Revision,” *Speculum* 18 (1943): 14–38, at 37; and McCormick, *Origins of the European Economy* (n. 23 above), 711.

⁵⁶ Riddle, “The Introduction and Use of Eastern Drugs”; and McCormick, *Origins of the European Economy* (n. 23 above), 708–16. For a useful recent study of the origins of medical ingredients, see Zohar Lev and Efraim Levy, *Arabian Drugs in Early Medieval European Medicine* (Edinburgh, 2017).

document that has survived in exemplar form even demanded provision for royal *missi* with options for the supply of cumin, pepper, costum, cloves, nard, and cinnamon.⁵⁷ Supply may have been inconsistent, but demand remained.

The compilation of multiple recipes in *euporista* fitted the tendency of early medieval scribes to excerpt and refashion even notionally authoritative Christian texts. The Bourges miscellany alone bore witness to disembodied, deauthorized extracts from Jerome, Gregory the Great, and Isidore of Seville on various aspects of history, sin, penance, and (in the case of Isidore) measurement.⁵⁸ Extracts from secular and canon law were treated similarly, as scribes purposefully appropriated useful material for the classroom.⁵⁹ There are telling parallels with computistical materials, too, which were typically compiled from multiple sources with more concern for content than authorial authority.⁶⁰ In the Bourges miscellany, this is represented by two separate sets of notes supporting the fifth-century reckoning of Victorius of Aquitaine without direct copying of his work or naming the supplementary works used.⁶¹ Medicine was not a special case and it does not seem to have been deliberately “deauthorized” by the way it was treated as is sometimes claimed.⁶² Medicine, in short, was constantly being reshaped and reimagined according to need and taste just like other subjects, but not out of some putative “monkish” indifference to the texts.

⁵⁷ *Marculfi formulae* 1.11, ed. Karl Zeumer, MGH, *Formulae Merovingici et Karolini aevi* (Hanover, 1886), 49.

⁵⁸ On some of the patristic extracts, see Ganz, “In the Circle of the Bishop of Bourges” (n. 24 above), 268, 270, 272, and 273.

⁵⁹ For the *Collectio Bernensis*, see Bern, Burgerbibliothek MS 611, fols. 138v–140r; and Hubert Mordek, “Bischofsabsetzungen in spätmerowingischer Zeit: Justelliana, Bernensis und das Konzil von Málay,” in *Papsttum, Kirche und Recht im Mittelalter*, ed. Hubert Mordek (Tübingen, 1991), 31–53. The legal formulary is Paris, BnF, lat. 10756, fols. 62r–64r, edited as *Formulae Bituricensis* 1–6, ed. Karl Zeumer, MGH, *Formulae Merovingici et Karolini aevi* (Hanover, 1886), 169–71, but see Rio, *Legal Practice and the Written Word* (n. 17 above), 111–12 for problems with Zeumer’s construction.

⁶⁰ A good near-contemporary parallel is the *Computus Cottonianus* in London, British Library, MS Cotton Caligula A xv, fols. 73r–80r (*CLA*, no.183; there is no reason to doubt the stated *annus praesens* of 743 on fol. 107r). On this, see Immo Warntjes, “The *Computus Cottonianus* of AD 689: A Computistical Formulary Written for Willibrord’s Frisian Mission,” in *The Easter Controversy of Late Antiquity and the Early Middle Ages*, ed. Dáibhí Ó Cróinín and Immo Warntjes (Turnhout, 2011), 173–212; and for context, see James T. Palmer, “*Computus* after the Paschal Controversy of 740,” in *The Easter Controversy of Late Antiquity*, 213–41, at 234–40.

⁶¹ Paris, BnF, lat. 10756, fols. 64v–67r; and Bern, Burgerbibliothek MS 611, fols. 94r–96v. The second is published with commentary in Arno Borst, *Schriften zur Komputistik im Frankenreich von 721 bis 818*, MGH, *Quellen zur Geistesgeschichte des Mittelalters* 21 (Hanover, 2006), 348–74. See also nn. 126–27, below.

⁶² See Wallis, “Experience of the Book” (n. 15 above), 107–10.

BETWEEN PROFESSIONAL AND MONKISH MEDICINE

The basic creativity of Merovingian medicine invites further consideration of how medical knowledge was used and what its social environment was. A key feature of the *euporista* was that while they were not necessarily all for professional use, because they often drew on books that were, many were likely utilized by physicians in practice. Theodore Priscianus imagined precisely such a situation, in fact, with his extant Latin *euporiston* explicitly intended as the accessible recapitulation of a longer (now-lost) Greek work.⁶³ The earliest example of a *vade mecum* thought to have been owned by a physician is slightly later than the Merovingian period, dating to c. 800, but it too is predominantly a reference book of recipes plus the ubiquitous *Epistula Flebotomie*.⁶⁴ In the context of any supposed monastic hostility towards medicine, matters become more definitionally imprecise still. All extant early medieval medicine survives because the success of efforts by cathedral and monastic libraries to preserve knowledge developed significantly outside an enclosed religious environment and involving non-Christian authority. This means that we should expect fundamental continuities between the medicine learned in professional, lay, and religious contexts.⁶⁵ If there were such a thing as “monkish medicine,” it was defined more by its context than by its content, even if such a conclusion would offend the secularized sensibilities of most historians of medicine since the nineteenth century.

A difficult issue here is the extent to which one imagines there were alternative contexts for any specialized medical training in Merovingian Gaul. Gerhard Baader, in a 1972 article, argued that there was no evidence of medical training in Gaul after the sixth century at all.⁶⁶ In part this is simply because there is no explicit evidence stating that there was, beyond the growing evidence for it becoming part of education in clerical or monastic settings.⁶⁷ There were, however, still *medici* mentioned in narrative sources and, as we have seen, there were still medical books, so we should perhaps not get carried away with any

⁶³ Theodore Priscianus, *Euporiston*, ed. Rose (n. 15 above), 1.

⁶⁴ St. Gallen, Stiftsbibliothek, Cod. Sang. 217, pp. 251–342 + St. Gallen, Stiftsbibliothek, Cod. Sang. 1395, pp. 467a–468b + St. Gallen, Stiftsbibliothek, Cod. Sang. 1396 III, pp. 9–16 and 19–22 (*KHN.J*, no. 5663; and Beccaria, no. 131). It is published as Peter Köpp, *Vademecum eines frühmittelalterlichen Arztes* (Aarau, 1980). On the folding of the manuscript, perhaps indicating practical use, see Bernhard Bischoff, “Über gefaltete Handschriften, vornehmlich hagiographischen Inhalts,” in Bernard Bischoff, *Mittelalterliche Studien* 1 (Stuttgart, 1966), 95–100, at 99.

⁶⁵ See also Riddle, “Theory and Practice” (n. 14 above), 165–67.

⁶⁶ Gerhard Baader, “Die Anfänge der medizinischen Ausbildung im Abendland bis 1100,” in *La scuola nell’Occidente latino dell’alto medioevo*, Settimane di studio del Centro italiano di studi sull’alto medioevo 19 (Spoleto, 1972), 669–718, at 679.

⁶⁷ Loren MacKinney, “Medical Education in the Middle Ages,” *Cahiers d’histoire Mondiale* 2 (1954/55): 835–61, at 843–47.

skepticism. Baader's most suggestive piece of evidence was that Reoval of Poitiers, a friend of St. Radegund, received some surgical training in Constantinople in the late sixth century.⁶⁸ This could suggest that such training was unavailable in Gaul, but, before we exaggerate this too, we know from other sources that Reoval travelled east primarily to obtain relics and, more importantly, what he observed was a castration operation, which were rarely performed in the west.⁶⁹ One would anyway expect to find people of means attracted to the best medical education of major Greek-speaking cities rather than relying on Latin training that was only ever considered second best. But assuming that most physicians did not travel to the east, they must have received training from somewhere.

Sadly, we do not know enough about these physicians. Away from religious institutions, education surely looked different in many respects and must have changed over time. Some physicians may still have had recourse to the Greek books there must once have been in the Latin world even just to have supported basic translation efforts there. Only one palimpsested partial copy of Galen survives.⁷⁰ MacKinney provides a couple of examples from Gregory of Tours in which Jews offered medical advice of a sort, one in Bourges and one in Bordeaux (who in fact is only reported to have been disparaging about the healing properties of relics).⁷¹ The basis of their professed expertise and any books they might have used, however, must remain a matter of speculation. We also assume that training involved significant oral transmission of material and probably not a little hands-on instruction. At no point, however, was there an institutional continuity of something like a medical school with a library that allowed for the long-term preservation of materials.

For the Latin-speaking West, the best evidence of specialized training is likely texts geared towards outlining technical matters that transferred into ecclesiastical and monastic libraries. The *Liber epistolarum* in the Saint-Denis manuscript, if the contents do reflect earlier compilations, perhaps offers the best case from those encountered so far, as it contains classroom dialogues, an *isogoge* (introductory overview) that covers serious conditions, and practical advice on surgical matters, much of which goes beyond everyday basics. This is the kind of

⁶⁸ Gregory of Tours, *Historiarum liber decem* 10.15, ed. Krusch and Levison (n. 49 above), 504.

⁶⁹ Baudonivia, *Vita Radegundis* 14, ed. Bruno Krusch, MGH, *Scriptores rerum Merovingicarum* 2 (Hanover, 1888), 386.

⁷⁰ Vatican, Biblioteca Apostolica Vaticana, Vat. lat. 5763, fols. 30r–v (*CLA*, no. 39). See Cassiodorus's assumption that his monks could read Greek medical books for advanced study: Cassiodorus, *Institutiones* 1.31.2, ed. Mynors (n. 31 above), 78.

⁷¹ MacKinney, *Early Medieval Medicine* (n. 7 above), 70; Gregory of Tours, *Historiarum libri decem* 5.6, ed. Krusch and Levison (n. 49 above), 203; and Gregory of Tours, *Virtutes sancti Martini* 3.50, ed. Bruno Krusch, MGH, *Scriptores rerum Merovingicarum* 1.2 (Hanover, 1885), 194.

anonymous short-form material that Baader considered central to the early medieval degradation of medicine because of the ways it minimized philosophical discussion and authority.⁷² How deliberately hostile the production of such texts was may be doubted given the extent to which most subjects could be treated in such a manner, as we have seen above. Moreover, it is not clear that there ever was an extensive array of more sophisticated Latin training texts or that access to longer-form works became more restricted. Only some Ravenna lecture notes on Galen's *On the Sects* suggest extended philosophical reflection in a Latin-speaking context, perhaps alongside the *Old Commentary on the Aphorisms*, but these seem exceptional rather than typical.⁷³ Even access to such texts did not necessarily count for much. The scribe of *De arte medica* either abandoned copying from the *Old Commentary* mid-sentence after only six-and-a-half lines or else his exemplar was faulty.⁷⁴ What people valued was practical medicine.

Hospices (*xenodochia*) may have presented one point of contact between practical medicine and any intellectual appropriations of it in a more strictly religious setting. There remains much doubt whether hospices would have been fully dedicated to medical practice, because of the way that they were generally established as charitable institutions with liturgical functions to provide support for the weak and sick.⁷⁵ Moreover, there were likely very few to be found, with the earliest perhaps only established in Arles early in the sixth century and the idea spreading only slowly up the Rhône thereafter.⁷⁶ Even the most pessimistic estimate of a few tens of institutions still provides some potential crossover points. The author of the *Passio Praejecti*, for example, considered those employed at a *xenodochium* founded in Clermont to be physicians (*medici*).⁷⁷ He may just have meant “healers” in a more generic, if not spiritual sense. Such an interpretation seems forced, however, especially given wider interest in healing. There is no reason to doubt that physicians were working alongside people in religious institutions

⁷² Gerhard Baader, “Lehrbrief und Kurztraktat in der medizinischen Wissensvermittlung des Früh- und Hoch-Mittelalters,” in *Wissenorganisierende und wissensvermittelnde Literatur im Mittelalter*, ed. Norbert Wolf (Wiesbaden, 1987), 246–54; and Wallis, “Experience of the Book” (n. 15 above), 118–19.

⁷³ Agnellus of Ravenna, *Lectures on Galen's De sectis* (Buffalo, 1981). There is no critical edition of the *Old Commentary on the Hippocratic Aphorisms*.

⁷⁴ Bern, Burgerbibliothek MS 611, fol. 148v.

⁷⁵ MacKinney, *Early Medieval Medicine* (n. 7 above), 76; Peregrine Horden, “Public Health, Hospitals, and Charity,” in *The Oxford Handbook of the Merovingian World*, ed. Effros and Moreira (n. 13 above), 299–319, at 304–306; and Sethina Watson, *On Hospitals: Welfare, Law, and Christianity in Western Europe, 400–1320* (Oxford, 2020), 64–72.

⁷⁶ *Vita Caesaris* 1.20, ed. Bruno Krusch, MGH, *Scriptores rerum Merovingicarum* 3 (Hanover, 1896), 464; *Concilium Aurelianense* 15, ed. Carolus Declercq, *Concilia Galliae 511–695*, CCSL 148A (Turnhout, 1963), 153; and Horden, “Public Health,” 304–10.

⁷⁷ *Passio Praejecti* 16, ed. Bruno Krusch, MGH, *Scriptores rerum Merovingicarum* 5 (Hanover, 1910), 235.

who were interested in healthcare. It would also be an obvious institutional setting in which relevant books could be copied and circulated.

The interconnectedness of knowledge in its many forms was a common aspect of Christianized education in the period more generally. This is well recognized, but has frequently been a cause for despair by those who would want to see evidence of more specialization in the pursuit of medicine.⁷⁸ Not, of course, that many of the beneficiaries of a general education were seeking to become physicians. In Cassiodorus's *Institutiones* and Isidore of Seville's *Etymologiae*, the traditional seven liberal disciplines together established a foundation of logic and reason which could then be applied to the successful investigation of other subjects, including history and scripture. Medicine had an ambiguous position in such models, to be sure. It had at times been considered one of nine disciplines — with architecture being the ninth — but it was commonly left out of the smaller scheme because it pertained more to earthly than celestial matters. In Martianus Capella's *The Marriage of Philology and Mercury*, a work mentioned by Gregory of Tours as a touchstone of good learning, the personification of medicine had to remain silent in a debate before the senate of the gods.⁷⁹ Many historians have considered this to be representative of a denigration of the art and it may have been seen as such by some at the time as it positioned medicine as a trade rather than a science.⁸⁰ Medicine, however, was still envisaged to be part of a wider course of study both for the benefit of the soul and for anyone with ambition. As we saw at the outset, Isidore considered medicine a “second philosophy,” but he also considered it one of the seven disciplines of *physica*, the natural “sciences.”⁸¹ This was affirmed in studies of the liberal arts by two grammars produced in the period.⁸² One of the letters of the *Liber epistolarum* expressed such a sentiment too, which reinforces the early circulation of the idea in specifically medical contexts if we accept a Merovingian provenance for material in that compilation.⁸³ We also find it in an interpolated version of the *Old Latin Commentary on Aphorisms*, in which an additional passage encouraged medical students to pay

⁷⁸ For example, MacKinney, *Early Medieval Medicine* (n. 7 above), 96.

⁷⁹ Martianus Capella, *De nuptiis Philologiae et Mercurii* 8.807, ed. James Willis (Leipzig, 1983), 305. Gregory mentions the work in *Historiarum libri decem* 10.31, ed. Krusch and Levison (n. 49 above), 536.

⁸⁰ Riddle, “Theory and Practice” (n. 14 above), 160.

⁸¹ Isidore of Seville, *Etymologiae* 4.13.5, ed. Lindsay (n. 3 above); and Isidore of Seville, *De differentiis rerum* 38, ed. María Adelaida Andrés Sanz, CCSL 111A (Turnhout, 2006), 96. This is quoted in *Das Lorscher Arzneibuch*, ed. Stoll (n. 45 above), 48 and 50.

⁸² *Ad Cuimnanum*, ed. Berhard Bischoff and Bengt Löstedt, CCSL 133D (Turnhout, 1992), 9; and Pseudo-Dynamius, ed. Angelo Mai, in *Novae patrum bibliotheca* 1.2 (Rome, 1852), 184.

⁸³ Paris, BnF, lat. 11219, fols. 13v–14r; and Chartres, Bibliothèque municipale 62, fols. 1v–2r. A similar passage appears in Pseudo-Soranus, *Quaestiones*, ed. Rose, in *Anecdota Graeca* (n. 15), 244–45.

attention to “philosophy, geometry, and arithmetic,” and to “grammar, rhetoric, music, and mathematics,” although the principal witnesses to the interpolation are Carolingian and Italian, so it is difficult to know how early or widely that version circulated.⁸⁴ Collectively, anyway, these threads seem to hint at a continuity of late Roman educational ideals through to the Carolingian period in which Christian religious and physicians could be expected to share an appreciation of the fundamental building blocks of knowledge including medicine, even if we might expect emphases to be different according to school or vocation.

The Merovingian Bourges miscellany illustrates one local variation of such an interconnected knowledge. It is important that this was a product of a cathedral school rather than a medical school because this helps us to understand the perceived logic of medical texts. In practice, the miscellany was once six units, with the Galenic *Epistula de febribus* in Part III and *De arte medica* taking up all of Part VI. In its isolated position *De febribus* may seem an underwhelming choice of text to copy.⁸⁵ It outlines the nature, causes, and cures for different kinds of fever: quotidian, tertian, quartan, and the more persistent *sunacus*. In terms of theory, it uses ideas about the influence of the humors in the body and the effects of lifestyle, so quotidian fever could be caused by overwork or tertian fever by the warmth of red bile. The letter offers a rule of thumb for identifying cures, such as using warm foods if the cause is a cold climate or an overabundance of cool melancholy. This is basic Galenism. But it is not included in the manuscript to represent the heights of medicine or to contribute to a deep medical education. It was numbered as the twenty-first and last item in a book that included (among other things) Asper’s *Ars grammatica*, extracts from Isidore on measurement, some exemplar legal documents, and a collection of riddles.⁸⁶ To these, other scribes added a table of lunar epacts (the age of the moon on the first day of the calendar month across the nineteen-year lunar cycle), computistical notes, and the medical lunary. In such a context, *De febribus* represented part of a general education which emphasized ordered structures in language and nature, structures that might be useful for the students at Bourges in many different walks of life, from theological study to administrative work. The Harley

⁸⁴ Paris, BnF, lat. 7027, fol. 66r (*KHNJ*, no. 4421: southern Tuscany, s. ix²). The relevant passage is not in Giuseppe Flammini, “Le strutture prefatorie del commento all’antica traduzione Latina degli ‘Aforismi’,” in *Prefazioni, Prologhi, Proemi di opera tecnico-scientifiche latine 2*, ed. Carlo Santini and Nino Scivoletto (Rome, 1998), 579–616 at 591–92, but it is carefully incorporated in Faith Wallis, *Medieval Medicine: A Reader* (Toronto, 2010), 23–24. The version in Bern, Burgerbibliothek MS 611, fol. 148v starts the same as the interpolated version, but ends before where the interpolation would be.

⁸⁵ Printed as *Galenii epistula de febribus*, ed. Hermann Hagen, in *De Oribasii versione latina Bernensi commentatio* (Bern, 1875), 22–24. For a critical edition, see Giuseppe Flammini, “L’epistula pseudogalenica de febribus,” in *Prefazioni, Prologhi, Proemi*, 237–57.

⁸⁶ Bern, Burgerbibliothek MS 611, fols. 92v–93r.

Antidotarium, following grammatical texts as it does, may have been copied in a similar context. The structures of medical knowledge were fully in keeping with how knowledge generally was envisaged in the period.

The status of medicine-as-wisdom offers a useful context for understanding Anthimus's letter to King Theuderic. Taken purely in terms of its contents, Anthimus offered the king little more than some dietary advice that encouraged him to find health through moderate living, extending even to thoughts on how the Franks should boil rather than fry bacon — the most distinctive part of a Frankish diet according to Anthimus — to ensure that it maintained moisture.⁸⁷ The advice was framed by anxiety about balancing the humours in keeping with Hippocratic thought, although with adjustments and the medical theory pushed just below the surface and with no stress on learned medical writers, Latin or Greek.⁸⁸ Such dietary advice to kings had a pedigree within medicine, as exemplified by the popular pseudo-Hippocratic *Epistula ad Antiochum*.⁸⁹ Epistolary gifts of knowledge, meanwhile, were a staple of post-Roman political culture to reinforce diplomacy through culture.⁹⁰ Our evidence for Merovingian kingship more-or-less begins with Bishop Remigius of Rheims offering character advice to the young new king Clovis, much as philosophers and prophets had often done to the powerful.⁹¹ His contemporary, Theoderic the Great, employed Cassiodorus to write sophisticated letters which often spilled over into philosophical musings.⁹² As Yitzhak Hen has shown, royal patronage of culture was big business in the early Middle Ages, and this culture could be very eclectic indeed.⁹³ In an

⁸⁷ For the famous maxim “everything in excess is harmful,” see *De observatione ciborum*, pref., ed. Liechtenhan (n. 21 above), 3. On the cooking of bacon, see *De observatione ciborum* 14, ed. Liechtenhan (n. 21 above), 8–9.

⁸⁸ Deroux, “Anthime” (n. 21 above), 1119.

⁸⁹ The original Greek is Diocles, *Epistula ad Antiochum*, ed. Philip van der Eijk, in *Diocles of Carystus: A Collection of the Fragments with Translation and Commentary* (Leiden, 2000), 310–21. In Latin it circulated in several early variations including (but not limited to): Marcellus, *De medicamentis liber*, ed. Liechtenhan (n. 21 above), 18–25; Rudolf Laux, “*Ars medicinae*: Ein frühmittelalterliches Kompendium der Medizin,” *Kyklos* 3 (1930): 417–34, at 430–32; Hermann Stadler, “*Epistola Pseudohippocratis*,” *Archiv für lateinische Lexicographie und Grammatik* 12 (1902): 21–25; and Axel Nelson, “Zur pseudohippokratischen *Epistula ad Antiochum regem*,” in *Symbolae philologicae: O. A. Danielsson octogenario dicatae*, ed. Axel Nelson (Uppsala, 1932), 203–17.

⁹⁰ Effros, *Creating Community* (n. 21 above), 65.

⁹¹ Interpretation of the letter has been seriously affected by modern emendations to the text, but see now Graham Barrett and George Woudhuysen, “Remigius and the ‘Important News’ of Clovis Rewritten,” *Antiquité tardive* 24 (2016): 471–500.

⁹² Cassiodorus, *Variarum libri XII*, ed. Åke Fridh, CCSL 96 (Turnhout, 1973). On some of the diplomatic dynamics, see Shane Bjornlie, *Politics and Tradition between Rome, Ravenna and Constantinople: A Study of Cassiodorus and the Variarum* (Cambridge, 2013).

⁹³ Yitzhak Hen, *Roman Barbarians: The Royal Court and Culture in the Early Medieval West* (London, 2006), esp. 94–123 on Merovingian kings.

environment that valued knowledge, medicine was in no imminent danger of being suppressed, because people recognized its power and usefulness.

AUTHORITY AND ACCEPTABLE MEDICINE

The theoretical and practical framings for medicine draw us further into medicine's early medieval religious-cultural environment. It is this environment, of course, which generated the derogatory label *Mönchsmedizin* ("monkish medicine") and the common assumption that somehow religious sensibilities undermined serious pursuit of the medical art. Yet explicit evidence that Christians were actively suppressing medicine is thin, to say the least. The most common point of reference is the preface to the Lorsch *Arzneibuch* (c. 795), in which the author defended his labors against those who accused him of writing "foolishly" (*inaniter*).⁹⁴ In his defense, the author cited medicine's well-recognized place in learning and praise for it in both biblical and patristic texts, including Cassiodorus and Isidore. The preface stands as ambiguous evidence for hostility: a defense was clearly necessary against critics, but it was also not difficult to make a case that drew on considerable, established authority (and before then producing a sizeable and well-resourced medical book that included at least some texts known in Merovingian Gaul). The example is, of course, too late and too isolated to reflect Merovingian attitudes. As we shall see, however, such defenses of medicine were hardly new.

The most common forum in which one finds any Merovingian anxiety about medicine is in tales of the miraculous. Healing at tombs and through relics were a staple part of the Merovingian hagiographical repertoire as they helped to express the on-going spiritual power of the saint to heal the community at large. In Bourges, the tomb of Bishop Austrigisil (d. 624) was said to have drawn people from as far as Brittany seeking bodily restoration.⁹⁵ The tomb of his successor St. Sulpicius (d. 644) quickly became a place where people were cured of withered limbs, blindness, and impaired hearing, too.⁹⁶ In neither hagiographical account were physicians themselves disparaged, perhaps fittingly given the evidence of medical teaching at the cathedral school, but nor were they actually mentioned. It was not like that everywhere. Fortunatus's account of

⁹⁴ *Das Lorsch Arzneibuch*, ed. Stoll (n. 45 above), 48. Interest in the preface goes back to Karl Sudhoff, "Eine Verteidigung der Heilkunde aus den Zeiten der *Mönchsmedizin*," *Archiv für Geschichte der Medizin* 7 (1914): 223–27. On the preface, see now Joel Gamble, "A Defense of the Carolingian 'Defense of Medicine': Introduction, Translation, and Notes," *Traditio* 75 (2020): 87–125.

⁹⁵ *Vita Austrigisili Biturgi* 1.9–2.18, ed. Bruno Krusch, MGH, *Scriptores rerum Merovingicarum* 4 (Hanover, 1902), 197–208.

⁹⁶ *Vita Sulpici Biturgi* 9–11, ed. Bruno Krusch, MGH, *Scriptores rerum Merovingicarum* 4 (Hanover, 1902), 378–80.

Germanus of Paris, for instance, included three healing miracles in which the saint was explicitly said to have succeeded where physicians had failed miserably, including the story of Daningus.⁹⁷ The *Passio Praeiectionis* pointedly recounted how a man named Ursio broke his arm and other parts and, after doctors had failed him, he received his health back at Praeiectionis's tomb.⁹⁸ In Laon, a nun's wound was healed by sitting on the chair of St. Anstrude after doctors had declared there was nothing they could do.⁹⁹ As Valerie Flint observed, the very fact of these stories proves not that medicine was rejected, but that a physician was a high-status professional with whom it was worth religious figures competing.¹⁰⁰ Medicine was good; faith could be better.

The famous case of Gregory of Tours challenging his own *archiater* ('master physician') Armentarius suggests that the problem was often a matter of who was presiding over the healing rather than a matter of medical practice per se.¹⁰¹ Gregory related how he had suffered with dysentery shortly after becoming bishop in 573 and how, despite Armentarius's best efforts, his suffering had led him to question the efficacy of earthly medicine. Eventually he sent for dust from the tomb of St. Martin and mixed it with water, so that he could show Armentarius a more effective remedy (and, with that sense of demonstration, suggesting that Armentarius himself was curious to hear about alternative cures). Having drunk the potion, Gregory claimed, he was able to eat a full meal shortly afterwards, and he hailed the dust as more effective than all the physician's "ingenious artifices" (*ingenia artificia*). In the process, as Raymond Van Dam observed, the healing had validated the authority of the new bishop.¹⁰² Indeed, Gregory then took the dust and its healing power on a journey, so that others could share in that healing with him, and he proclaimed again that it "overwhelmed the sophistry of physicians" (*medicorum vincit argutias*).¹⁰³ His friend Venantius Fortunatus celebrated this by calling him *Gregorius Medicus* in a poem.¹⁰⁴ Gregory saw association with healing

⁹⁷ Venantius Fortunatus, *Vita Germani Parisiaci* 38, 53, and 60, ed. Wilhelm Levison, MGH, *Scriptores rerum Merovingicarum* 7 (Hanover, 1920), 396, 405, and 408.

⁹⁸ *Passio Praeiectionis* 38, ed. Krusch (n. 77 above), 247.

⁹⁹ *Vita Anstrudis* 35, ed. Wilhelm Levison, MGH, *Scriptores rerum Merovingicarum* 6 (Hanover, 1913), 77.

¹⁰⁰ Flint, "The Early Medieval 'Medicus'" (n. 12 above), 132–35.

¹⁰¹ Gregory of Tours, *Virtutes sancti Martini* 2.1, ed. Krusch (n. 71 above), 159. For other barbed comments about *medici*, see Gregory of Tours, *Historiarum libri decem* 5.35 and 8.31, ed. Krusch and Levison (n. 49 above), 241–42 and 398, on which see Jones, *Social Mobility in Late Antiquity* (n. 12 above), 250–52.

¹⁰² Raymond Van Dam, *Saints and their Miracles in Late Antique Gaul* (Princeton, 1993), 92.

¹⁰³ Gregory of Tours, *Virtutes sancti Martini* 3.60, ed. Krusch (n. 71 above), 197.

¹⁰⁴ Venantius Fortunatus, *Poems* 8.11, ed. and trans. Michael Roberts (Cambridge, MA, 2017), 536–37.

as a way to strengthen his reputation as a community leader in an environment which was highly contested on many fronts.¹⁰⁵

Gregory's assault on the authority of medicine appears to have been no matter of rude ignorance or distaste for earthly wisdom. He had, after all, still submitted his care to Armentarius in the first place until he felt moved to try a different approach with the physician's assistance. Moreover, he gave away something of his own medical knowledge in the course of his stories. Faith Wallis has detailed how many of his descriptions of illness coincided with prevailing ideas in medical books.¹⁰⁶ He hints at pharmaceutical knowledge too in his story about St. Martin's dust when he claims that the dust rivalled *agridium* (= scammony) as a laxative, hyssop for soothing pulmonary issues, and pyrethrum for clearing the head.¹⁰⁷ These were relatively exotic medical ingredients and ones that suggest he knew a good herbal, likely Dioscorides' *De materia medica* or a derivative.¹⁰⁸ The dust of St. Martin did not replace medicine, but rather functioned exactly in accordance with how medicine should work.¹⁰⁹ Gregory was, after all, a "careful observer of the natural world" and rarely prone to simple credulity.¹¹⁰ He did, however, seek advantage in his own narratives where he could.¹¹¹

¹⁰⁵ See, for instance, Bernhard Jussen, "Liturgy and Legitimation, or How the Gallo-Romans Ended the Roman Empire," in *Ordering Medieval Society: Perspectives on Intellectual and Practical Modes of Shaping Social Relations*, ed. Bernhard Jussen and trans. Pamela Selwyn (Philadelphia, 1995), 147–99.

¹⁰⁶ Wallis, "Gregory of Tours' Nosebleed" (n. 6 above). See also James, "A Sense of Wonder" (n. 12 above), 57.

¹⁰⁷ Gregory, *De virtutibus sancti Martini* 2.60, ed. Krusch (n. 71 above), 197; and Riché, *Education and Culture* (n. 42 above), 206.

¹⁰⁸ On scammony, see Dioscorides Longobardus, *De materia medica* 4.165, ed. Hermann Stadler, in "Dioscorides Longobardus (Cod. Lat. Monacensis 337): Aus T. M. Aurachers Nachlass herausgegeben und ergänzt," *Romanische Forschungen* 11 (1901): 1–121, at 81 ("virtus est ei diagridio: acceptus cum mulsa .ζ ii colera et fleuma deponet, solutione ventri obuli duo sufficient ita, ut leviter purget"); and *The Alphabet of Galen* 252, ed. Everett (n. 31 above), 338–41. Most early Latin texts use the term "scammonium" instead, although Isidore of Seville, *Etymologiae* 17.9.64, ed. Jacques André (Paris, 1981), 201, notes "acridium" as a Latin alternative. On hyssop, see Dioscorides Longobardus, *De materia medica*, 3.26, ed. Hermann Stadler, in "Dioscorides Longobardus (Cod. Lat. Monacensis 337): Aus T. M. Aurachers Nachlass herausgegeben und ergänzt," *Romanische Forschungen* 10 (1899): 369–446, at 389; and *The Alphabet of Galen*, 297, ed. Everett (n. 31 above), 376–77. On pyrethrum (or pellitory), see Dioscorides Longobardus, *De materia medica* 3.79, ed. Stadler, 410. None of the three are listed in Ps.-Apuleius. Pliny's *Historia naturalis* is also clearly not the source. See, for example, on hyssop: *Historia naturalis* 25.87, ed. Karl Mayhoff (Leipzig, 1897), 4:160.

¹⁰⁹ Wallis, "Gregory of Tours' Nosebleed" (n. 6 above), 433.

¹¹⁰ James, "A Sense of Wonder" (n. 12 above), 60.

¹¹¹ There is a wealth of literature on Gregory's narrative-as-argument, notably Walter Goffart, *The Narrators of Barbarian History (AD 500–800)* (Princeton, 1988), 112–234; Martin Heinzelmann, *Gregor von Tours (538–594): Zehn Bücher Geschichte — Historiographie*

Beyond the critical polemics of Gregory and the hagiographers, medicine crept into Merovingian imaginations in positive ways. St. Columbanus, the famous Irish wandering saint, compared the struggles of learning wisdom to the “fatigues and sorrows” endured by medical students to show that worthy knowledge never came easily.¹¹² Defensor of Ligugé, around 700, assembled a number of positive quotations about medicine for his *Liber scintillarum*, as part of his rich collection of thoughts to assist with navigating issues of virtue and vice.¹¹³ These included several from Ecclesiasticus chosen specifically to emphasize how one should welcome physicians as workers for God. This hints at how the good ethics of physicians were supposed to be a decisive factor in their favor. More than one letter in the *Liber epistolarum* we encountered earlier commented on how physicians were to be moderate, trustworthy, sober, and well-read, loosely expanding on ideas descended from Hippocratic ideals.¹¹⁴ Such praise was not new and could be found, for instance, in the works of Jerome and Augustine.¹¹⁵ Ethics, discipline, and learning had long provided a shared playing field for people pursuing medicine and the Christian faith.

There was little doubt that pharmacy was potentially good, too, because it depended on natural resources created by God for people to use. The preface to the *Teraupetica*, when it quoted the letter in the *Liber epistolarum*, declared that “the remedies of God are to be applied through all cures, because divine power deigns to revive dying bodies.”¹¹⁶ The full letter continued to explain that God had created the world precisely for human uses, including herbs for medicine and trees for unguents. Such thinking chimed well with the prevailing attitudes towards cosmology and science in the seventh and eighth centuries. As is plentifully evident from Isidore, Hiberno-Augustine, or Bede, there was a strong belief in the orderliness and rationality of nature stretching throughout Creation.¹¹⁷ Medical knowledge supported this way of seeing the world and was

und Gesellschaftskonzept im 6. Jahrhundert (Darmstadt, 1994); and Reimitz, *History, Frankish Identity and the Framing of Western Ethnicity* (n. 17 above), 25–97.

¹¹² Columbanus, *Instructio* 4.1, ed. G. S. M. Walker, *Columbani opera* (Dublin, 1958), 80–81.

¹¹³ Defensor, *Liber scintillarum*, ed. Henri-Maire Rochais, CCSL 117 (Turnhout, 1957), 218. On the text, see Yitzhak Hen, “Defensor of Ligugé’s *Liber scintillarum* and the Migration of Knowledge,” in *East and West in the Early Middle Ages* (n. 13 above), 218–29.

¹¹⁴ MacKinney, “Medical Ethics” (n. 41 above), 16, 18–21, and 23–24.

¹¹⁵ For still-useful overviews of the relevant passages, see Anthony Pease, “Medical Allusions in the Works of St. Jerome,” *Harvard Studies in Classical Philology* 25 (1914): 73–86; and Rudolf Arbesmann, “The Concept of *Christus medicus* in St. Augustine,” *Traditio* 10 (1956): 1–28.

¹¹⁶ Paris, BnF, lat. 11219, fol. 12r: “Per omnes curas adhibenda sunt Dei medicamenta, quia divina potentia dignata est revivificare corpora mortificata.” The *Teraupetica* adds “enim” after “adhibenda sunt.”

¹¹⁷ On Isidore, see the introduction to Isidore of Seville, *On the Nature of Things*, trans. Faith Wallis (Liverpool, 2016); and Faith Wallis, “Isidore of Seville and Science,” in *A*

cited accordingly. Indeed, scribes readily Christianized it.¹¹⁸ The ascetic rejection of earthly things, seen through a specifically moral prism, did not necessarily involve the rejection of natural things, because God's Creation was accepted as good and rational.

Acceptance of medicine as natural can be contrasted with attitudes towards amulets in Merovingian Gaul. Use of such items, often for healing and protection, are modestly well-attested in the material evidence for the period, as recently highlighted by Genevra Kornbluth.¹¹⁹ In our written sources, we generally only have the words of critics, eager to persuade people from using amulets because those people saw them as acceptable within a Christian worldview and the critics disagreed, although how close we can get to actual popular belief from such sources remains doubtful.¹²⁰ Caesarius of Arles complained in a sermon about the sick placing more faith in phylacteries than in the healing power of Christ.¹²¹ Eligius of Noyon condemned phylacteries too alongside pendants using amber or herbs, all as part of anxiety about the encroachment of polytheistic practice into Christian culture.¹²² The anxiety was still evident in a reference to phylacteries and ligatures in the *Indiculus superstitionum*, likely drawn up in the circle of St. Boniface for discussion at Les Éstignes in 742.¹²³ In each case, hardliners feared that belief in the efficacy of amulets threatened the

Companion to Isidore of Seville, ed. Andrew Fear and Jamie Wood (Leiden, 2020), 182–221. On Hiberno-Augustine and other Irish texts, see Marina Smyth, *Understanding the Universe in Seventh-Century Ireland* (Woodbridge, 1996). On Bede, see Faith Wallis, “*Si naturam quæras*: Reframing Bede’s Science,” in *Innovation and Tradition in the Writing of the Venerable Bede*, ed. Scott DeGregorio (Morgantown, 2006), 65–99; and Eoghan Ahern, *Bede and the Cosmos: Theology and Nature in the Eighth Century* (London, 2020).

¹¹⁸ See Leja, “A Sacred Art” (n. 11 above); Leja, *Embodying the Soul* (n. 11 above); and Claire Burridge, “Healing Body and Soul in Early Medieval Europe: Medical Remedies with Christian Elements,” *Studies in Church History* 58 (2022): 46–67.

¹¹⁹ Genevra Kornbluth, “Amulets and Identity in the Merovingian World,” in *The Oxford Handbook to the Merovingian World*, ed. Effros and Moreira (n. 13 above), 941–67. For wider context, see William Klingshirn, “Magic and Divination in the Merovingian World,” in *The Oxford Handbook to the Merovingian World*, ed. Effros and Moreira (n. 13 above), 968–87.

¹²⁰ Robert A. Markus, *The End of Ancient Christianity* (Cambridge, 1990), 206; Yitzhak Hen, “Paganism and Superstitions in the Time of Gregory of Tours: *une question mal posée!*” in *The World of Gregory of Tours*, ed. Kathleen Mitchell and Ian Wood (Leiden, 2002), 229–40; Karl Brunner, “Publikumskonstruktionen in den Predigten des Caesarius von Arles,” in *Sermo Doctorum: Compilers, Preachers, and their Audiences in the Early Medieval West* (Turnhout, 2013), 99–126; and Lucy Grig, “Caesarius of Arles and the Campaign against Popular Culture in Late Antiquity,” *Early Medieval Europe* 26 (2018): 61–81.

¹²¹ Caesarius, *Sermones* 50.1 and 52.5, ed. Germain Morin, CCSL 103 (Turnhout, 1953), 225 and 232.

¹²² Audoin of Rouen, *Vita Eligii* 2.16, ed. Bruno Krusch, MGH, *Scriptores rerum Merovingicarum* 4 (Hanover, 1902), 706–707.

¹²³ *Indiculus superstitionum*, ed. Georg Heinrich Pertz, MGH, *Leges* 1 (Hanover, 1835), 19; and Alain Dierkens, “Superstitions, christianisme et paganisme à la fin de l’époque

normalization of demonic influences among otherwise Christian communities. Healing was not a natural function of the objects, but rather an assumed one that invited agencies external to a Christian cosmology. Most medicine in the Hippocratic-Galenic mode had a very different ontological status.

Anxieties here were closely related to concerns over prediction and prognosis. Prognostics had always been controversial in medicine. Galen himself had faced sharp criticism over interest in the field and had had to conceptualize it as something that worked in parallel to proper medicine.¹²⁴ Predicting the outcome of any human condition ran the risk of seeming to claim divine foresight. In Gaul, Gregory had dismissed the value of astrology for predicting the future in his *De cursu stellarum*, preferring instead to use astronomy rationally (*rationabiliter*) for the purpose of calculating the timing of the night offices.¹²⁵ Sufficiently well-evidenced cycles and well-known examples of cause and effect were not divinatory because they did not make a mockery of chance. This is where the inclusion of a medical lunary in the Bourges miscellany is striking for showing that people were open at least to the possibility that it might be worthy of scrutiny. That text itself simply listed the days of the lunar month and the likely outcome of falling ill on one of those days (for example, “*luna I*, a long infirmity . . . *luna x*, without peril . . . *luna xxvi*, they will die swiftly”).¹²⁶ In the miscellany, it had not only a medical context, but also computistical and eschatological resonances. It followed lunar and paschal tables, which meant that its own lunar framing fitted within an accepted astronomical mathematical model for the organization of liturgical time and history. In a space after the lunary, a scribe added a note on how leap years were caused by the discrepancy between the calculated and astronomical solar cycle rather than by Joshua ordering the sun to stand still (Josh.1.10), further emphasizing the dominance of a rational, natural, and predictable framework.¹²⁷ Certainty about the future, in one sense at least, was also provided by the inclusion of the poem *Cantemus Domino* in

mérovingienne: A propos de l’*Indiculus superstitionum et paganiarum*,” in *Magie, sorcellerie, parapsychologie*, ed. Hervé Hasquin (Brussels, 1984), 9–26.

¹²⁴ Peter Van Nuffelen, “Galen, Divination, and the Status of Medicine,” *The Classical Quarterly* 64 (2014): 337–52.

¹²⁵ Gregory of Tours, *De cursu stellarum ratio* 16, ed. Bruno Krusch, MGH, *Scriptores rerum Merovingicarum* 1.2 (Hanover, 1885), 413.

¹²⁶ Paris, BnF, lat. 10756, fol. 68v.

¹²⁷ The text is edited as Dionysius Exiguus, *Argumentum* 16, ed. Bruno Krusch, *Studien zur christlich-mittelalterlichen Chronologie: Die Entstehung unserer heutigen Zeitrechnung* (Berlin, 1938), 80, but it is certainly a later addition to the Dionysian corpus. See Immo Warntjes, “The Argumenta of Dionysius Exiguus and their Early Recensions,” in *Computus and its Cultural Context in the Latin West AD 300–1200*, ed. Dáibhí O Cróinín and Immo Warntjes (Turnhout, 2010), 40–111, at 79 (with earlier scholarly scepticism noted at 55–61). For a similar treatment of Joshua, see Hiberno-Augustine, *De mirabilibus sacrae scripturae*, PL 35, cols. 2175–76; and Smyth, *Understanding the Universe* (n. 116 above), 167–70.

the middle of the lunar materials, a poem which celebrated God's creation of the natural world and the promise of the world's inevitable future destruction after Judgment Day.¹²⁸ Speculation about the earthly future may have been discouraged, but one could be certain about the suffering to come for many people and the structures of time and salvation in which that would occur. A good Christian could engage with prognostics if they took time to understand these matters properly and in a broad, learned context.¹²⁹ In the meantime, medicine at least offered some respite and a field of knowledge for contemplating Creation's patterns.

The evidential precarity of prognosis brings us back once more to Gregory of Tours and Armentarius. The problem as expressed by Gregory was not that he did not believe in medicine, but that, after a long suffering, he could see and document its limitations. Armentarius had failed by putting his faith in ideas that did not bring about the promised future healing and at least in Gregory's telling seemed open to learning about alternatives. There were many other failures of medicine in Gregory's day. On several occasions, outbreaks of *Yersinia pestis* devastated towns such as Marseilles in different waves of the Justinianic pandemic.¹³⁰ Gregory also told a story of how in 580 an outbreak of what he claimed was dysentery had killed many people in Gaul. Some people had taken herbs to combat poison, but nothing could stop a high infant mortality. "We lost our little ones, so dear and sweet," he lamented, "whom we had cherished in our bosoms and carried in our arms, whom we had fed by our own hand and nurtured with such care."¹³¹ Such moments could provide genuine epistemological crises made more powerful by emotion. Gregory's near-contemporary Procopius of Caesarea, for example, gave a dramatic account of mass mortality and social crisis caused by plague in Constantinople in 542. He prefaced this with an attack on Hippocratic-Galenic ideas about disease being determined by personal and environmental factors because, in the face of the disease, such matters clearly explained

¹²⁸ *Cantemus Domino*, transcribed in Emile Chatelain, *Introduction à la lecture des notes tironiennes* (Paris, 1900), 226–29.

¹²⁹ Carine Van Rhijn, "Pastoral Care and Prognostics in the Carolingian Period: The Case of El Escorial, Real Biblioteca di San Lorenzo, MS L III 8," *Revue bénédictine* 127 (2017): 272–97, esp. 296–97.

¹³⁰ Michael McCormick, "Gregory of Tours on Sixth-Century Plague and Other Epidemics," *Speculum* 96 (2021): 38–96. For a critical survey of recent debates and discoveries about the pandemic, see Peter Sarris, "New Approaches to the 'Plague of Justinian'," *Past & Present* 254 (2022): 315–46. On the potential for palaeopathological evidence to reshape the debate, see Monica Green, "When Numbers Don't Count: Changing Perspectives on the Justinianic Plague," *Eidolon* (2018); published online at <https://eidolon.pub/when-numbers-dont-count-56a2b3c3d07> (accessed 15 July 2023).

¹³¹ Gregory of Tours, *Historiarum libri decem* 5.34, ed. Krusch and Levison (n. 49 above), 239: "Perdedemus dulcis et caros nobis infantulos, quos aut gremiis fovimus aut ulnis baiulavimus aut propria manu ministratis cibus, ipsos studio sagaciore nutritivimus."

little.¹³² *Y. pestis* was new to the late Roman world and medical knowledge was poorly set to make sense of it. Understanding did come eventually, although, in the first instance, it came from cosmological and grammatical thought rather than medicine, starting with Isidore of Seville's catalogues of nature and disease.¹³³ There it became part of understanding the grammars of the natural world alongside eclipses, earthquakes or bad weather, as people sought to combat superstition and read potential signs on the basis of certain knowledge.¹³⁴ Once more, the interconnectedness of early medieval knowledge provided the space in which challenges to medicine could be weathered and indeed a space in which people critically sought wisdom in all its forms.

To conclude, Gregory of Tours never wanted an end to medical knowledge when he criticized Armentarius. It was too useful, if nothing else, as a body of thought that helped people to understand Creation critically. Knowledge was a key weapon against superstition and credulity. The principal problem for him was physicians and their social charisma, which impinged upon how Gregory viewed his own social leadership as a healer of souls. The spiritual challenge was heightened by a difficult period in which the certainty of medicine had been repeatedly challenged by mass mortality events. It no doubt helped little that Latin cultures had increasingly infrequent contact with Greek learning, when Greek was the primary language of scholarly and efficacious medicine in Antiquity. Latin medicine had never had a Golden Age and the many crises of the fifth and sixth centuries did not make it easier for one to begin. Merovingian medicine was on a difficult footing. One can perhaps sympathize with historians of medicine who turned from the philosophical world of Galen, to the fragments of the post-Roman world, and then onto the more richly detailed world of the Salerno school of the eleventh century. To define medicine on the basis of what it lacked, however, misses the wider value of medicine as part of philosophy. Gregory, Germanus, and many others still believed that medicine could work within a Christian framework, even if it did not always bring relief alone and sometimes physicians could not help. Despite the crises, communities in the Merovingian world still saw the value in the art, still engaged with its learning, and still adapted it to make it useful. In the process, it became entangled with many other forms of knowledge. Gregory was a misleading guide to his times, as he is so often.

¹³² Procopius, *Bella* 2.22.1–5, ed. Gerhard Wirth (Leipzig, 1963), 249–50.

¹³³ Isidore of Seville, *De natura rerum* 39, ed. Jacques Fontaine (Bordeaux, 1960), 303 and 305; and Isidore of Seville, *Etymologiae* 4.6.17–19, ed. Lindsay (n. 3 above).

¹³⁴ In addition to the literature in n. 117, on some of the intersections and tensions between philosophical and theological readings of nature, see James T. Palmer, "Climates of Crisis: Apocalypse, Nature, and Rhetoric in the Early Medieval World," *Viator* 48 (2017): 1–20.

Merovingian medicine, caught between practice and philosophy, was far from sterile. There were richer and more distinctive resources available for the study of medicine than Keil and others supposed. These were not passively copied, but rearranged and reappropriated to form new handbooks of practical medicine, actively connecting late antique *euporista* and the eclectic productions more clearly in evidence in the more numerous manuscripts of the Carolingian “revival.” The content of these books may not have been radical or progressive, but the restless and creative use of what was available at least meant that Latin medicine grew and diversified. This fitted with how other areas of learning were treated as Christian schools embraced medicine as part of a broad syllabus, both for its practical healing aspects that could support charitable deeds, and for its evidence for the orderliness of nature and the good of Creation. It was an important cultural framing device for how people could understand the world and act within it. As such, it intersected with and complemented other areas of philosophy, with their concerns for critical epistemologies and authority. In both the volume and contexts of Merovingian medicine, there remains much direct evidence that is lost, which makes it hard to say much about dedicated professional training, the attitudes of physicians to bishops, and many other aspects of medicine. A limited volume of evidence, however, does not mean that not much was happening. In this particular case, the profile of the manuscript evidence and the comments about medicine only make sense as the tip of an iceberg. For all its defects, people engaged with Merovingian medicine as both philosophy and practice in ways that developed foundations for the new medical cultures that followed and flowered under Carolingian care. It represents yet another area in which the Merovingian world has been underestimated.

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