

Books as a Source of Medical Education for Women in the Middle Ages

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SUMMARY

1.—Professional female practitioners and their books. 2.—Religious women and their books. 3.—Conclusions and speculations: the role of gender.

ABSTRACT

The development of philosophical medicine in the high and late Middle Ages brought with it a powerful association of medical knowledge with the written word. To possess books, or at least to have access to books, was both a prerequisite for and a symbol of the kind of theoretical learning that distinguished the learned practitioner from the empiric. This study examines evidence for women's access to medical books, raising the question of what difference gender made. I argue that, for the most part, women did not own medical books, whether they were laywomen or religious. I suggest that this was largely due to the limits on advanced education for women, a factor that would have effected both laywomen and nuns.

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A few legendary accounts notwithstanding, it is well known that women were excluded from the newly-founded universities of high and later medieval Europe (1). Had medical education been provided exclusively within the bounds of university culture, then we could readily assume women's complete exclusion from the scientific (philosophical) medicine being developed and taught by university masters. But as historians of medicine (especially those who study medieval vernacular traditions) are increasingly showing, formal medical knowledge was by no means strictly bound within the confines of the universities even if it was, of necessity, very intimately linked with the written word. In this essay, I would like to explore the degree to which medical books may have functioned as an alternate source of medical education to women who, because of their sex, could not move within the same social and intellectual circles as men.

I have examined the role of books in the education of laywomen in another context (2). Here I wish to gather together evidence for the possession or use of written medical texts by professional female practitioners, on the one hand, and cloistered communities of women on the other. The inclusion of female practitioners needs no explanation, though perhaps the inclusion of nuns does. The very fact of enclosure created communities that were almost entirely female and that were expected to strive for some level of self-sufficiency (3). Since, moreover, these communities generally had higher levels of female literacy than the rest of the populace, they might be a prime locus for engagement

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- (1) See, for example, SHANK, Michael. A Female University Student in Late Medieval Kraków. *Signs*, 1986-87, 12, 373-80.
 - (2) GREEN, Monica H. The Possibilities of Literacy and the Limits of Reading: Women and the Gendering of Medical Literacy in Later Medieval Europe. *In: Women's Healthcare in the Medieval West: Texts and Contexts*, Aldershot, Ashgate, 2000, Essay VII.
 - (3) Since women could not perform priestly functions (including confession and the administration of the Eucharist), women's communities always required at least the occasional presence of male clerics. On the question of the presence of other males in these houses, see below. I omit from this discussion hospitals and hospices, since they are less likely to be single-sex either in their clientele or their administration.

with medical literature. The evidence I have gathered relates primarily to the High and later Middle Ages (twelfth through early sixteenth centuries), which is precisely the same period, as more and more scholars are documenting, that saw a striking upsurge in the levels of female literacy. Nevertheless, women seem to have stayed largely on the margins of literate medical culture. This essay is an initial attempt to explain why.

1. *PROFESSIONAL FEMALE PRACTITIONERS AND THEIR BOOKS*

There is no question that throughout medieval Europe women practised as medical professionals (by which I mean simply that they earned some kind of living off their medical practices or were acknowledged as healers by their communities) (4). How many of these female surgeons, apothecaries, and other practitioners were literate, however, and how many used medical texts in their education or practice is unclear. The Jewish physician Mayrona in the small French town of Manosque in the early fourteenth century may well have been literate, given the needs of her alternate profession of money-lender (5). Likewise, it would be reasonable to assume that the *medica* Euphemia (d. 1257), abbess of Wherell, was literate, probably even in Latin (6). More often, however, our evidence is ambiguous. In early fifteenth-century Paris, Phelipe La Chomete was deemed to be «ingenious and inclined to do medicine» and so she was «put in a place to learn it and there she became very

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- (4) GREEN, Monica H. Women's Medical Practice and Health Care in Medieval Europe. *In: Judith Bennett et al. (eds.), Sisters and Workers in the Middle Ages*, Chicago, University of Chicago Press, 1989, pp. 39-78; GREEN, Monica H. Documenting Medieval Women's Medical Practice. *In: Luis García-Ballester et al. (eds.), Practical Medicine from Salerno to the Black Death*, Cambridge, Cambridge University Press, 1994, pp. 322-352. Both essays are reprinted in GREEN, note 2, as Essay I and Essay II, respectively.
- (5) SHATZMILLER, Joseph. *Médecine et justice en Provence médiévale: Documents de Manosque, 1262-1348*, Aix-en-Provence, Publications de l'Université de Provence, 1989, p. 6.
- (6) KEALEY, Edward J. England's Earliest Women Doctors. *Journal of the History of Medicine and the Allied Sciences*, 1985, 40, 473-477.

experienced»; whether this training involved book learning we do not know (7). Six of twenty-three licensed women surgeons practising in the southern Italian kingdom of Naples are explicitly referred to as *ydiota* in the documents, reflecting their inability to read Latin if not the vernacular as well (8). None of the other seventeen is explicitly called *litterata*, nor are there any references to their ownership or use of books. In her famous trial in Paris in 1322, the healer Jacoba Felicie insists that she is indeed learned in medical theory and not one of those «illiterates and empty-headed ignoramuses» (*ydiotas et fatuos ignaros*) to whom medical practice is legitimately forbidden. Her accusers, the physicians, likewise tie literacy to proper knowledge of medicine but they throw this back at Jacoba as an accusation: she is, according to them, «totally ignorant of the art of medicine and illiterate» (*totaliter est ignara artis medicine et non litterata*) (9). While it may be that Jacoba and the university physicians are arguing at cross-purposes—she understanding *ydiota* as «completely illiterate,» they understanding *illiterata* as «not literate in Latin»—the fact remains that at no point in the trial does Jacoba explicitly claim that she has learned her medicine from books or that she owns any.

Even ownership of a medical book might not guarantee ability to use it. In 1410, again in Paris, Perretta Petonne was prosecuted by the master surgeons for unlicensed practice. She brought before the court a French book «full of excellent remedies.» According to the physicians who examined her for her medical competence, she «didn't know an A from a bundle of sticks»; she was, in other words, completely illiterate. Perretta, in response, insisted that she did know the contents of her

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- (7) THOMPSON, Guy Llewelyn. *Paris and its People Under English Rule: The Anglo-Burgundian Regime 1420-1436*, Oxford Historical Monographs, Oxford, Clarendon, 1991, p. 153, n. 19.
- (8) CALVANICO, Raffaele. *Fonti per la storia della medicina e della chirurgia per il regno di Napoli nel periodo angioino (a. 1273-1410)*, Naples, L'Arte Tipografica, 1962, items 1413, 1451 and 1872, 3071 (cf. 3195), 3226, 3598, and 3643.
- (9) DENIFLE, Henri (ed.). *Chartularium universitatis Parisiensis*, Paris, Delalain, 1891-1899; repr. Brussels, Culture et Civilisation, 1964, vol. 2, pp. 255-267. See also CABRÉ I PAIRET, Montserrat; SALMÓN MUÑIZ, Fernando. Poder académico versus autoridad femenina: La Facultad de Medicina de Paris contra Jacoba Félicie (1322). *Dynamis*, 1999, 19, 55-78.

book; the reason she was not able to read it at the time of the examination was that the physicians «kept turning and re- turning the pages in front of her, all the while interrogating her together out of order» (10).

Obviously, in the absence of any clear signals such as the designation *ydiota* (and even then, as the case of Perretta Petonne shows, an assertion of illiteracy may be rhetorical, part of a larger political agenda) (11), we cannot assume that all these female practitioners were illiterate. But neither can we assume that they were literate. We cannot assume that literacy *necessarily* played the same role in the development of female practitioners as it did for males who functioned within or on the margins of university culture. Moreover, even when female practitioners were literate, it is not always clear that that literacy was directed toward their medical pursuits. We know, for example, both that Elizabeth, Lady Zouche (d. 1380/81) was a book-owner and that she practised medicine (the Dominican friar Henry Daniel praises her as «the best healer in England among women»), yet there is nothing in her will to confirm that she owned medical books (12).

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- (10) DUMAS, Geneviève. Les femmes et les pratiques de la santé, dans le «Registre des plaidoiries du Parlement de Paris», 1364-1427. *Canadian Bulletin of Medical History/Bulletin canadien d'histoire de la médecine*, 1996, 13, 3-27, quotation on p. 22.
- (11) On this larger rhetorical context, see AGRIMI, Jole; CRISCIANI, Chiara. Immagini e ruoli della 'vetula' tra sapere medico e antropologia religiosa (secoli XIII-XV). In: Agostino Paravicini Bagliani and André Vauchez (eds.), *Poteri carismatici e informali: chiesa e società medioevali*, Palermo, Sellerio Editore, 1992, pp. 224-261. French trans.: Savoir médical et anthropologie religieuse: Les représentations et les fonctions de la *vetula* (XIIIe-XVe siècle). *Annales: E.S.C.*, 1993, 48, 1281-1308.
- (12) In her will, Elizabeth mentions two books, both Arthurian texts, which she leaves to her husband, plus a portiforium, a psalter, «and other books» which she gives to Henry Hudde, her chaplain. GIBBONS, Alfred. *Early Lincoln Wills: An Abstract of all the Wills and Administrations Recorded in the Episcopal Registers of the Old Diocese of Lincoln... 1280-1547*, Lincoln, James Williamson, 1888, pp. 91-92. Even if we imagine that medical books might have been among those «other books,» we are left with the question of why she doesn't give them to her daughters or to some other woman. Daniel's assessment of her— «the best God's leech of Brightland in women» (cited in HARVEY, John. *Medieval Gardens*, rev. ed., London, Garden Society, 1990, p. 130)—is significant. Even if it is unclear whether he saying that she is the best woman physician or the best physician of women (i.e., gynecologist), either way he implies that her knowledge was gender-specific. We might expect,

Another example of a medical practitioner who owned a book suggests how indirect the association between written medical knowledge and functional duties of medical practice might be. In 1398, the French queen dowager, Blanche of Navarre, willed to Symmonete, a servant in her household, one of her two books of «surgery». This 1398 codicil to her will was in fact the second time Blanche had stated her wishes for the dispersal of her property. Earlier, in 1396, she had identified Symmonete as a woman *qui sert les malades* («who attends to the sick»); at that time Blanche willed her 60 francs and «one of our short robes.» In 1398, however, after Blanche had suffered a severe illness, we find Symmonete identified as Blanche's chambermaid. And it is only now, now that this woman has become an intimate of Blanche (and, no doubt, proved her therapeutic skill to good effect) that Blanche thinks to give her a medical book (13). In this case, ownership of a medical book follows medical practice; it is not a propaedeutic to it.

Women's tenuous association with literate medicine also seems to be reflected in the paucity of female medical writers in medieval Europe. Beyond the rightly famous twelfth-century figures Trota of Salerno and Hildegard of Bingen (14), women usually appear only in male-authored writings as the sources of individual remedies: the so-called *mulieres Salernitanae* are many times credited with unique herbal practices in works coming out of the twelfth-century medical Mecca, Salerno (15); a certain «woman of Tesingen» is credited with a small collection of

therefore, that were her precepts written down, they would be passed on directly to another woman.

- (13) DELISLE, Léopold. Testament de Blanche de Navarre, Reine de France. *Mémoires de la Société de l'Histoire de Paris et de l'Ile-de-France*, 1886, 12, 1-64, items 312 and 427. Since Blanche mentions this same book in her will of 1396, it is clear that it is not a recent acquisition.
- (14) For bibliography on these two figures, see GREEN, Monica H. In Search of an «Authentic» Women's Medicine: The Strange Fates of Trota of Salerno and Hildegard of Bingen. *Dynamis*, 1999, 19, 25-54. Montserrat Cabré has recently discovered a work on pulses said to have been composed by a Saracen woman (Erfurt, Wissenschaftliche Bibliothek, MS Amplonian Q 320, ff. 187v-189v); my thanks to Dr Cabré for this information.
- (15) I am preparing a study on the *mulieres Salernitanae* where I collect all the pertinent evidence.

recipes for ear disorders in a late thirteenth-century German manuscript (16); a *gratia dei* (a salve for wounds) is attributed to Lady Beauchamp, wife of the earl of Warwick (17); a self-treatment for dropsy is credited to an unnamed woman in London (18); a recipe for «wark» (?) on a woman's back is ascribed to «Clawdius the wif de Cottyngham» while another recipe is said to have been «per B wif proved» (19). Count Palatine Ludwig V frequently cited the remedies of five women healers in his massive twelve-volume medical compendium composed in Heidelberg in the early sixteenth century (20), as did Anton Trutmann in his own medical compendium produced a few years earlier in southwest Germany (21). Such woman-authored treatments (which will no doubt

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- (16) KEIL, Gundolf. Frau von Tesingen. In: Kurt Ruh (ed.), *Die deutschen Literatur des Mittelalters: Verfasserlexikon*, 2nd ed., in progress, Berlin/New York, Walter de Gruyter, 1978, vol. 9, p. 717.
- (17) It is unclear which countess is being referred to. For the text, see HEINRICH, Fritz (ed.). *Ein mittelenglisches Medizinbuch*, Halle, Max Niemeyer, 1896, pp. 187-89; my thanks to George Keiser for this reference. In addition to the manuscripts listed by Heinrich, Oxford, Bodleian Library, MS Digby 29, f. 32v, has a *vera compositio domine Beauchamp*.
- (18) ROWLAND, Beryl (ed.). *Medieval Woman's Guide to Health: The First English Gynecological Handbook*, Kent, Ohio, Kent State University Press, 1981, pp. 110-112.
- (19) Cambridge, Trinity College, MS R.14.52; see MOONEY, Linne R. *The Index of Middle English Prose. Handlist XI: Manuscripts in the Library of Trinity College, Cambridge*, Cambridge, D. S. Brewer, 1995, p. 63. In some cases, however, the woman mentioned may be the patient, not the inventor of the remedy. A remedy «proued by a lady of yorke» cited in a Middle English gynaecological text (Cambridge, University Library, MS Ii.VI.33, f. 24r-v) was taught *to her* by a male physician.
- (20) See Gundolf Keil's article on Ludwig in RUH *et al.*, note 16, vol. 5, pp. 1016-1030, at col. 1025. At least two of these women appear quite extensively: Debra Stoudt counts approximately 400 entries for Anna Gremsin and more than 900 for Regina Hurlweg; Hurlweg, at least, seems to have authored a text and given the corpus of her remedies, this seems likely for Gremsin as well. See STOUTD, Debra L. *Medieval German Women and the Power of Healing*. In: Lilian R. Furst (ed.), *Women Healers and Physicians: Climbing a Long Hill*, Lexington, University of Kentucky Press, 1997, pp. 13-42, at p. 15.
- (21) KEIL, Gundolf. Der Hausvater als Arzt. In: Trude Ehlert, *et al.* (eds.), *Haushalt und Familie in Mittelalter und fruher Neuzeit*, Sigmaringen, Jan Thorbecke, 1991, pp. 219-243, at p. 238.

continue to be discovered) prove that female practitioners were frequently credited for their medicinal preparations. It is unclear, however, how often they themselves collected them in writing and put them into public circulation. Obviously, the majority of male practitioners never authored medical texts either, but for those male practitioners who had the benefit of not only basic literacy but also formal training in the arts of composition (*ars dictaminis*), the production of formal written records of their theories and practices was at least a possibility (22).

The situation for midwives is more ambiguous. In Europe generally, literacy and book ownership are no better documented for midwives than for other female practitioners. Midwives are not normally depicted with books (23), nor does the archdeacon Jean Mouchard seem concerned to determine midwives' literacy when he surveys the various parishes in the suburbs of Paris in the mid- fifteenth century asking *Quis est obstetrix* («Who is the midwife»)? (24) Thomas de Cantimpré, writing in the

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- (22) JACQUART, Danielle. *Le milieu médical en France du XIIe au XVe siècle: En annexe 2e supplément au «Dictionnaire» d'Ernest Wickersheimer*, Geneva, Librairie Droz, 1981, pp. 199-205. Jacquart identifies some 67 French male authors of medical writings who seem to have had no university training.
- (23) In surveying all twelfth- through fourteenth-century depictions of midwives in western illuminated manuscripts in the Index of Christian Art (nearly 200 different images), I found only one instance of a midwife holding or situated near written material: Berlin, Staatsbibliothek, germ. oct. 109, f. 69v, where one of the two midwives Salome and Rachel is holding a descriptive scroll. My thanks to the staff of the Center for Byzantine Studies at Dumbarton Oaks for allowing me to consult their copy of the Index.
- (24) MOUCHARD, Jean. *Visites archidiaconales de Josas*, Paris, A. Picard, 1902; see also SAUNIER, Annie. Le visiteur, les femmes et les 'obstetrices' des paroisses de l'archidiaconé de Josas de 1458 à 1470. In: *Santé, médecine et assistance au moyen âge, Actes du 110e Congrès National des Sociétés Savantes*, Montpellier, 1985, Section d'histoire médiévale et de philologie, 2 vols., Paris, Editions du C.T.H.S., 1987, vol. 1, pp. 43-62. Mouchard mentions midwives' «letters,» but these are letters certifying that they have taken an oath before the bishop; there is nothing in his accounts to indicate that they could (or were expected to) read the letters themselves. For further information on ecclesiastical involvement in the appointment of midwives, see TAGLIA, Kathryn. Delivering a Christian Identity: Midwives in Northern French Synodal Legislation, c. 1200-1500, forthcoming in a collection of essays on medicine and religion edited by Peter Biller and Joseph Ziegler.

thirteenth century, provides obstetrical instructions to priests so that they may take «the more discerning» midwives aside and instruct them orally on how to deliver babies. Thomas's brief instructions were excerpted and circulated in other contexts, but it is unlikely that midwives were the direct reading audience (25). The French, English, and Dutch gynaecological and obstetrical texts of the thirteenth through fifteenth centuries that were addressed to female audiences were directed to laywomen in general, not midwives (26).

The situation was somewhat different in central Europe. The Low Countries and Germany moved more quickly than other parts of Europe toward developing a regulated corps of midwives with specified professional duties and competencies. Literacy certainly would have been of benefit to them, if only for reading the oaths they were expected to swear and the ordinances they were expected to follow. An ordinance for midwives in the countryside surrounding Nuremberg actually specifies that «a midwife should diligently read the books pertaining to her profession, and in the summer she should attend the Wednesday lectures given by the instructor in Nuremberg» (27). Georg Burckhard, who published

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- (25) CANTIMPRÉ, Thomas de. *Liber de natura rerum*, H. Boese (ed.), Berlin/New York, Walter de Gruyter, 1973, vol. 1, Book 1, cap. 76, p. 76. On the circulation of this excerpt in French and Dutch texts, see GREEN, Monica H. *Traittié tout de mençonges: The *Secrés des dames*, Trotula, and Attitudes Towards Women's Medicine in Fourteenth- and Early Fifteenth-Century France*. In: Marilyn Desmond (ed.), *Christine de Pizan and the Categories of Difference*, Minneapolis, University of Minnesota Press, 1998, pp. 146-178, at pp. 151, 172 n. 15, and 173 n. 30. G. H. Russell offers the intriguing argument that certain texts meant for parish priests included brief imbedded vernacular texts meant to be taught to the parishioner for memorization; see RUSSELL, G. H. *Vernacular Instruction of the Laity: The Later Middle Ages in England. Some Notes and Texts*. *Journal of Religious History*, 1962, 2, 98-119. Such a scenario might explain why the French and Dutch versions of the Cantimpré excerpt are couched in direct second-person address to pregnant women and midwives.
- (26) See GREEN, Monica H. *A Handlist of the Latin and Vernacular Manuscripts of the So-Called Trotula Texts. Part II: The Vernacular Texts and Latin Re-Writings*. *Scriptorium*, 1997, 51, 80-104.
- (27) BURCKHARD, Georg. *Die deutschen Hebammenordnungen von ihren ersten Anfängen bis auf die Neuzeit*, Leipzig, W. Engelmann, 1912, p. 109. Why these stipulations for reading are not repeated in the ordinance for midwives in Nuremberg proper

this undated document, attributes it to the late fifteenth century, the first moment at which we have evidence for any «professional books» in German dealing solely with the obstetrical art. It is important to note, however, that while the development of professional controls on midwifery seems to have prompted this concern about their technical reading, the two known German books on obstetrics from this period, the *Frauenbüchlein* and the *Rosengarten*, are in fact directed as much to pregnant women and the so-called *ehrbare Frauen* («upright, honorable women») who supervised midwives as to the midwives themselves (28). Indeed, in their only known manuscript versions, the texts are not addressed to midwives at all. Nor did a description of the duties of the midwife coming from Württemberg around 1480 say anything that hinted at midwives' expected literacy; on the contrary, the *ordinatio* is written in Latin and seems to lay out practices and responsibilities that will be dictated to the midwife by a physician or latinate overseer (29). With increasing regulation, German midwives were more and more circumscribed into a narrow realm of practice, often being prohibited from performing any surgical manoeuvres or prescribing medicines (30). Although the *Frauenbüchlein*

is unclear to me. A Heilbronn ordinance, probably from the same period, says much the same thing (*ibid.*, p. 124), and the injunction to own and read midwifery texts became common in the sixteenth century.

- (28) MARCH-LONG, Caroline G. Early Modern German Obstetrical Manuals: *Das Frauenbüchlein* (c. 1495) and *Der Rosengarten* (1513). M.A. thesis, Department of Germanic Languages and Literature, Duke University, Durham, North Carolina, 1993.
- (29) PFEILSTICKER, Walther. Eine württembergische Hebammenordnung von ca. 1480. *Archiv für Geschichte der Medizin* 1920, 20, 95-98. Unlike almost all oaths from the fifteenth or sixteenth century, this *ordinatio* is extremely specific on therapeutic matters (including caesarean section). It begins by stating that midwives will take an oath four or at least two times a year promising correct care of the parturient.
- (30) Notably, material on general gynaecology is almost totally lacking from the *Frauenbüchlein* and the *Rosengarten* aside from the listing of postpartum symptoms which should prompt the midwife or the woman herself to call a physician. On other German gynaecological texts from this period (most of which seem to be directed at male audiences), see KRUSE, Britta-Juliane. *Verborgene Heilkünste: Geschichte der Frauenmedizin im Spätmittelalter*, Berlin, Walter de Gruyter [Quellen und Forschungen zur Literatur- und Kulturgeschichte, 5], 1996; and my review of it, *Bulletin of the History of Medicine*, 1997, 71, 333-335.

and the *Rosengarten* no doubt served as important sources for the edification of midwives, therefore, the fact that they were directed at several sectors of the general female populace suggests that rather than furthering the integration of midwives into the medical professions (which of course depended on esoteric knowledge as their stock in trade), these «professional books» kept midwives confined to the realm of the birthing room where, because of social custom, men were not normally permitted.

2. RELIGIOUS WOMEN AND THEIR BOOKS

Most enclosed religious foundations for women made, at least in theory, some kind of provision for medical care (31). St Augustine, writing to a group of nuns in Hippo (in modern-day Tunisia) in the late fourth or early fifth century, urged them to consult male physicians when necessary (32). In the High Middle Ages, there seems to have

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- (31) The medical provisions in medieval nunneries have never been thoroughly studied. They are only sketchily addressed by POWER, Eileen. *Medieval English Nunneries c. 1275 to 1535*, Cambridge, Cambridge University Press, 1922, pp. 134, 258-260, 316, 322, and 649; FLEMMING, Percy. *The Medical Aspects of the Mediaeval Monastery in England. Proceedings of the Royal Society of Medicine*, 1928-1929, 22, 771-782; and COLDICOTT, Diana. *Hampshire Nunneries*, Sussex, Phillimore, 1989, pp. 94-95. The several recent studies on the architecture of nunneries either do not mention the infirmary or make only passing reference to its existence: special issue of *Gesta* (Monastic Architecture for Women), 1992, 31 (no. 2), 73-134; and GILCHRIST, Roberta. *Gender and Material Culture: The Archaeology of Religious Women*, London & New York, Routledge, 1994. Even highly focused studies of particular communities, such as OLIVA, Marilyn. *The Convent and the Community in Late Medieval England*, Woodbridge, Boydell Press, 1998, which examines in minute detail the functioning of eleven houses in the diocese of Norwich, have nothing to say about the delivery of medical care other than to note the existence of occasional infirmaresses.
- (32) St. AUGUSTINE, Rule for Nuns. In: George Lawless, *Augustine of Hippo and His Monastic Rule*, Oxford, Clarendon, 1987, p. 115; my thanks to Elizabeth Clark for this reference. Lawless argues that Augustine's monastic rule was originally written for monks and only later adapted (by Augustine himself?) for nuns. Masculine forms were systematically changed to feminine ones, so it is therefore notable that *medicus* was not changed to *medica* even though the feminine form was in use in this period; cf. the *Gynaecia* of the contemporary North African writer, Theodorus

been a greater expectation of self-reliance and isolation of the nuns. Peter Abelard, writing to Heloise in the twelfth century, follows the precepts of the Benedictine *Rule* in advising that the convent should have an infirmarian and an infirmary stocked with all necessary medicaments for treating the sick. He advises in particular that «there should be some woman (in the nunnery) experienced in blood-letting, in order that it not be necessary for a man to come among the women for this purpose» (33). Similarly, the Rule for the Poor Clares of Barcelona stipulates that

«the abbess should avoid and not allow the nuns normally to be bled more than four times a year, if there is no particular need for more, and they should not be bled by any stranger, particularly by a man, whenever it is possible to avoid it» (34).

Just such a scenario can be seen in an illumination in a mid-fourteenth-century Diurnal (a book with prayers for the canonical hours of the day) from the Cistercian house of Marienstern in Panschwitz-Kuckau, which depicts one nun being bled by another while a young

Priscianus. In: Valentin Rose, (ed.). *Theodori Prisciani Euporiston Libri III ...*, Leipzig, Teubner, 1894, esp. 233.1-11.

- (33) ABELARD, Peter. Letter VII, in: T. P. McLaughlin. Abelard's Rule for Religious Women. *Medieval Studies*, 1956, 18, 241-292, at p. 261: «Oportet autem aliquam flebotomiae peritam esse ne virum propter hoc ad mulieres ingredi necesse sit.» Strictly enclosed English anchoresses were told by the author of the *Ancrene Wisse* that they needed to be bled four times a year or more often if needed, though there is nothing in the guide to explain how this was to be accomplished; see MILLET, Bella; WOGAN-BROWNE, Jocelyn. *Medieval English Prose for Women: From the Katherine Group and «Ancrene Wisse»*, rev. ed., Oxford, Clarendon, 1992, pp. 140-141. Hildegard of Bingen, in her *Cause et cure*, lays out a detailed regimen for bloodletting, scarification and cautery; see HILDEGARD of Bingen. *On Natural Philosophy and Medicine: Selections from «Cause et cure»*, trans. Margret Berger, Rochester, NY, D.S. Brewer, 1999, pp. 88-96.
- (34) GONZÁLEZ I BETLINSKI, M.; RUBIÓ I RODÓN, A. La Regla de l'Ordre de Santa Clara de 1263. Un cas concret de la seva aplicació: el monastir de Pedralbes de Barcelona. *Acta Historica et Archaeologica Medievalia*, 1982, 3, 35; translated from the Catalan by Montserrat Cabré i Pairet, to whom I owe thanks for permission to cite this.

girl holds the bowl to catch the blood (35). There is also some evidence for other types of self-care within nunneries. The rigidly enclosed nuns of the isolated Cistercian convent of Coyroux in central France were apparently expected to tend to their own ills, for they were handed medicinal herbs through a gate every day along with the other provisions brought to them by the neighbouring monks of Obazine (36). To the extent that some religious women practised medicine outside their communities (which may have included some medical care provided at hospitals their houses ran), they would at times have been responsible for aiding laypeople in their sufferings as well as themselves (37).

In theory, therefore, female religious institutions would have had numerous reasons for interesting themselves in medical books. Since these were the same institutions where female literacy levels would have been among the highest in medieval Europe, it is here that we would most obviously expect to find a culture of literate medicine. Instead, however, in the catalogues, inventories, and other remains from female religious institutions we find the same marginal relation to medical literature that characterized female practitioners. Table 1 lists the seventeen women's religious houses that I have thus far been able to document owning medical books; as we saw above with the midwives, there seems to be a notable difference between western and central Europe, a point to which I shall return later. Even so, the total number is small, especially in light of the comprehensive studies of nuns' books in various parts of Europe that have appeared in recent years.

(35) OEXLE, Judith; BAUER, Markus; WINZELER, Marius. *Zeit und Ewigkeit: 128 Tage in St Marienstern*, Halle an der Saale, J. Stekovics, 1998, p. 248; there is also a depiction of a steambath. My thanks to Jeffrey Hamburger for bringing this study to my attention.

(36) BARRIÈRE, Bernadette. The Cistercian Convent of Coyroux in the Twelfth and Thirteenth Centuries. *Gesta*, 1992, 31, 76-82, at p. 80.

(37) Although there were many hospitals attached to female communities or run by their inmates, it should be remembered that the medieval *hospitium* was an institution more often providing charity for the needy (food, a bed) than medical care *per se*. POWER, note 31, is sceptical of English nuns' medical practice outside the nunnery beyond care they may have given their own kin. My thanks to Walter Simons, who graciously shared with me sections from his forthcoming book on the beguines where he surveys their charitable practices.

In his extensive study of extant manuscripts, booklists of or bequests to medieval English nunneries, David N. Bell presents evidence of only one item of medical material: a late fifteenth-century collection of devotional texts that included a table of auspicious days for blood-letting and, on the fly-leaves, some medical recipes in English. Bell suggests that this manuscript may have been owned in the early sixteenth century by a nun at the mixed Bridgettine community of Syon Abbey, Elisabeth Crychley, but the evidence is questionable (38). The only other medical materials thus far identified in female institutions in England are a handful of recipes found in two manuscripts owned by the house of Nunnaminster in the eleventh and twelfth centuries, and an herbal owned by Elizabeth Wellys who, in her will of 1520, requests that her book, which she had already lent to the Minories in London, should remain there for the nuns' common use (39). Admittedly, the absence of medical texts from English women's houses may be more apparent than real: there are no extant medieval catalogues from any English female institutions so we really have no idea of the full compass of books that may once have been housed in these nunneries. Indications are that at least some of these libraries were rather substantial, perhaps running into figures of 200 or more volumes (40).

If we compare the scanty English evidence with the Continent, however, it seems doubtful that the insular case is fundamentally anomalous or distorted. Again, we must recognize the incompleteness of our evidence, both because of lacunae in the surviving record and because of the inherent difficulties in assembling the material that does remain. Still, the few in-depth studies that have been done do not contradict the

(38) BELL, David N. *What Nuns Read: Books and Libraries in Medieval English Nunneries*, Kalamazoo, Michigan, Cistercian Publications, 1995, pp. 180-181, referring to Cambridge, Magdalene College, MS 13 (F.4.13). For skepticism about Crychley's ownership, see HAMEL, Christopher de. *Syon Abbey: The Library of the Bridgettine Nuns and their Peregrinations after the Reformation*, London, Roxburghe Club, 1991, p. 134. On the nuns' books generally, see also HUTCHINSON, Ann M. *What the Nuns Read: Literary Evidence from the English Bridgettine House, Syon Abbey*. *Mediaeval Studies*, 1995, 57, 205-222.

(39) See Table 1, items 1 and 2.

(40) BELL, note 38, esp. pp. 42-43.

pattern we have started to see. Even well-endowed female communities whose book holdings are fully documented from medieval catalogues have, at best, only a couple of medical books; more often they have none. The libraries of Longchamp (Franciscan) and Maubuisson (Cistercian), both in France, and St Katharina (Dominican) in Nuremberg are generally considered the three largest collections in female communities in the late Middle Ages, and for each of them we have medieval catalogues. Clearly, these houses were not uninterested in the physical health of their inmates. The Franciscan house of Longchamp, for example, had two infirmaries, both of which were repaired and renovated in 1483, and we know by name two barber-surgeons who were nuns in the house. In the library, however, which had 227 volumes of works in Latin and French in 1481, not a single medical book is listed (41). A verse regimen of health was composed for the use of the abbess and nuns of Maubuisson in 1286, but again no evidence survives to suggest that the house continued to own that text or any other medical works (42). Only St Katharina's catalogue lists any medical texts—in this case, just two out of some 500-600 volumes (43).

Even with only two medical books, however, St Katharina's stands out from the great houses of Longchamp and Maubuisson, just as the other fourteen houses in German-speaking regions stand out from other areas of Europe. Space does not permit a full-scale analysis of each of these houses. Nevertheless, I would like to suggest that the medical texts they owned point more towards idiosyncratic interests of the individual houses (or even individual nuns) than to a pattern of engagement with medical literature among German nuns generally. The few examples we have of possession of medical books (most of which come from the very

(41) MLYNARCZYK, Gertrud. *Ein Franziskanerinnenkloster im 15. Jahrhundert: Edition und Analyse von Besitzinventaren aus der Abtei Longchamp*, Bonn, Ludwig Röhrscheid [Pariser Historische Studien, Band 23], 1987. On the barber-surgeons Jeanne de Crespi (d. 1349) and Macée de Chaulmont (d. 1489), see WICKERSHEIMER, Ernest. *Dictionnaire biographique des médecins en France au Moyen Age*, 2 vols., 1936; repr. Geneva, Librairie Droz, 1979, 2:505 and 532.

(42) COLLET, A. *Traité d'Hygiène de Thomas le Bourguignon (1286)*. *Romania*, 1991 (appeared 1994), 112, 450-87.

(43) Table 1, item 9.

end of the medieval period) may suggest more about the availability and circulation of medical literature in German-speaking regions than anything particular about the institution of monasticism and female learning.

First of all, we need to put this number of houses into perspective. Sigrid Krämer's monumental *Handschriftenerbe des Deutschen Mittelalters* identifies some 324 female houses in German-speaking areas (excluding Austria) from which manuscripts still survive; the fourteen German, Polish, and Swiss houses included here, therefore, constitute a mere four percent of that total (44). In fact, if we omit the three houses that have only recipes scrawled into blank margins rather than systematic medical texts (Table 1, items 5, 10, and 13), the number of houses owning full medical texts is reduced to eleven. To be sure, much research remains to be done on women's houses so we can hardly accept these current figures as definitive. Nevertheless, several recent comprehensive studies of individual houses indicate that even large and well-documented women's houses had no medical books. It is therefore unlikely that our difficulty in finding medical books in religious women's collections is simply due to poorly-preserved evidence (45).

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- (44) My thanks to Florence Eliza Glaze for her scrupulous analysis of KRÄMER, Sigrid. *Handschriftenerbe des Deutschen Mittelalters*, 3 vols., *Mittelalterliche Bibliothekskataloge Deutschlands und der Schweiz*. Ergänzungsband I, Munich, Beck, 1989-1990. Krämer necessarily gives only the most minimal description of extant manuscripts' contents; I have thus no doubt overlooked manuscripts with partial, imbedded medical contents. Caution must be used with this invaluable body of data because it is not always clear that all the manuscripts were owned by the indicated houses *in the Middle Ages*. A Latin and Middle English medical volume attributed to the female Benedictine house of Lamspringe, for example (*Handschriftenerbe* 2:473 re: Hildesheim, Stadtbibliothek MS 9), turns out to have been acquired by the house only in the mid-17th century, when emigrant English monks were residing there.
- (45) For example, the Benedictine convent of Frauenalb, which has recently been studied in great detail, yields no evidence of any medical materials in the fifteenth or sixteenth century; see HEINZER, Felix. *Handschriften und Drucke des 15. und 16. Jahrhunderts aus der Benediktinerinnenabtei Frauenalb*. *Bibliothek und Wissenschaft*, 1986, 20, 93-124; the only text related to sickness is an *Ordo ad visitandum infirmum*, i.e., a religious ritual (Heinzer, p. 105). Similarly, fifty-two manuscripts are still extant from the house of Augustinian canonesses at Inzigkofen,

Secondly, we should be careful about assuming that theory-based, interventionist medical care was the most important commodity dispensed by the infirmaress or her assistants. Rather than functioning primarily as clinics for acute care, let alone «hospitals» in the modern sense of the word, monastic infirmaries—male and female—seem to have served largely as hospices, places of rest and comfort for the chronically infirm, the aged, and the dying, and as a recovery room for inmates after they had had their routine bloodletting (46). The chief duty of the infirmarian was less to diagnose and determine treatment than to tend to the basic physical and spiritual needs of the sick. It is not surprising, therefore, that a recent study of male houses from the twelfth through the early sixteenth century has shown that such books as were to be found in monastic infirmaries were more likely to be liturgical than medical (47).

This seems to have been equally true of women's houses. A mid-fifteenth-century German treatise by Johannes Meyer describing the duties of all the various officers of female Dominican houses portrays the infirmaress (*Siechmeisterin*) as one who, among other things, is expected to be knowledgeable about medicines; if not, she should turn to her fellow sisters for assistance. Undoubtedly Meyer expects that basic medical care would be offered, supported by herbs grown in the cloister garden as well as the purchased medicaments we occasionally find listed in monastic account books. There is, however, no specific injunction that the infirmaress should study medical theory or consult medical literature. The only books that are mentioned in connexion with the infirmary are works to edify and console the sick (e.g., the lives of the desert fathers and texts on the art of dying well) (48).

which has likewise recently received intense scrutiny, yet it resembles the English house of Nunnaminster in having only a few brief recipes copied into the back of a book; see Table 1, item 10.

(46) See note 33.

(47) NEBBIAI-DALLA GUARDA, Donatella. Les livres de l'infirmerie dans les monastères médiévaux. *Revue Mabillon*, 1994, 66, 57-81. See below, however, regarding manuscripts held in the main libraries of male houses.

(48) MEYER, Johannes. Buch der Ämter, Bloomington, University of Indiana, Lilly Library, MS Ricketts 198, which was the copy owned by St Katharina's in Nuremberg.

The third fact we must keep in mind in evaluating the potential importance of medical literature to enclosed women's houses is the presence of specialist practitioners coming in from outside the community. In 1298, Pope Boniface VIII (1294-1303) issued his decretal *Periculoso*, which demanded that all religious women throughout western Christendom be strictly enclosed within their houses, not even leaving to carry out duties necessary for the functioning of their communities. (These were to be handled by proctors and other male representatives.) Boniface equally restricted entry to women's houses for all persons, «unless a reasonable and obvious cause exists, for which the appropriate authority may grant a special license» (49). Legal commentators on *Periculoso* in the following decades clarified that certain persons could be allowed inside without special permission: doctors, barbers, seamstresses, and carpenters—that is, people whose skills were indispensable to the nuns (50).

Similar assumptions that attendance by professional (usually male) practitioners was normative in nunneries are found throughout Europe. Johannes Meyer's above-mentioned guide for office-holders in Dominican convents was actually a German translation of a Latin text by Humbert of Romans. Humbert had written his guide for male houses; Meyer was therefore not simply translating the language but also reinterpreting Humbert's precepts for an audience of women. Meyer omits Humbert's warning (reminiscent of Abelard's) against bringing outsiders into the monastery, while he retains the injunction that the infirmaress's assistant, together with the infirmaress herself, should pay heed to the physician's counsel and advice (51). Further evidence for the regularity of employment

My thanks to Jeffrey Hamburger for bringing this important text to my attention and allowing me to make use of his film. Meyer also gave detailed instructions to the librarian on how the books should be catalogued; there is no reference to medical books.

- (49) BRUNDAGE, James A.; MAKOWSKI, Elizabeth M. Enclosure of Nuns: the Decretal *Periculoso* and its Commentators. *Journal of Medieval History*, 1994, 20, 143- 55, at p. 154.
- (50) BRUNDAGE; MAKOWSKI, note 49, p. 148. See also MAKOWSKI, Elizabeth. *Canon Law and Cloistered Women: 'Periculoso' and Its Commentators, 1298-1545*, Washington, DC, Catholic University of America Press, 1997, pp. 47, 71, and 99.
- (51) MS Ricketts 198, f. 55va: «vnd (die siechendienerin) sol mit den siechmeisterin mit fliss mercken der artzitten rat vnd vnderwisung vnd was die artzet heissen sind».

of professional lay physicians comes from the Cistercian house of Heilig-Kreuz near Braunschweig. An extant account book from the late fifteenth century and early sixteenth century shows that the Heilig-Kreuz nuns readily availed themselves of the professional services of *phísici*. Moreover, this house seems to have served as a sort of medical mecca for nuns from nearby houses: because the major city of Braunschweig offered an array of professional practitioners, nuns from more isolated houses would come to Heilig-Kreuz for treatment of major illnesses (52). In fact, it is possible that some medical books associated with women's houses may have been used not by the nuns themselves but by these professional employees. A German-Latin medical volume may have been produced at (and possibly for) the female Cistercian abbey of Seligenthal, which had had a hospital associated with it since the thirteenth century. But that community itself is documented as employing lay physicians to attend to the medical needs of its nuns, and it is probable that the compiler of the two original texts in the German-Latin volume (a cookbook and an *Arzneibuch*, both of which drew on excerpts from Hildegard of Bingen's Latin *Physica*) was a man (53). When the manuscript later passed to the Brigittine double house of Maihingen, it may have been used by the male monastics there (Table 1, item 14).

Structurally, there seems to be nothing about the situation of nuns in Germany that would have distinguished them from female monastics elsewhere in Europe in terms of their medical needs and practices. In England, although nothing has yet been found for a nunnery to rival the amazing parade of professional healers (including at least one woman) who tended the monks at Westminster (54), it is likely that

(52) My thanks to Dr. Eva Schlotheuber of the University of Göttingen for this information (personal communication, 17 March 1999 and 13 September 1999).

(53) WEISS ADAMSON, Melitta. A Reevaluation of Saint Hildegard's *Physica* in Light of the Latest Manuscript Finds. In: Margaret R. Schleissner (ed.), *Manuscript Sources of Medieval Medicine. A Book of Essays*, Garland Medieval Casebooks, New York, Garland, 1995, pp. 55-80, at p. 68, citing HIRTH, Wolfgang. *Studien zu den Gesundheitslehren des sogenannten «Secretum secretorum»: Unter besonderer Berücksichtigung der Prosatiberlieferungen*, diss. Heidelberg, 1969. For other examples of male physicians in German women's houses, see STOUT, note 20, p. 31.

(54) HARVEY, Barbara. *Living and Dying in England, 1100-1540: The Monastic Experience*, Oxford, Oxford University Press, 1993.

Bishop Peckham was not unusual when, writing in regard to Barking Abbey in 1279, he said explicitly that it was permitted that male physicians (*medici*) as well as confessors have access to sick nuns (55). At Syon, the obligations of the infirmaress were chiefly nursing tasks—changing bed clothes, administering medicines, and applying plasters—all under the direction of physicians from outside the house (56). Even hospitals for women employed male practitioners, such as that of St Mary de Pres in Hertfordshire, a foundation for leprous women. Its accounts show a payment made to a barber in the mid-fourteenth century (57). Employment of professional male practitioners was similarly normative among religious houses of both sexes in Italy (58); the preference for professional practitioners was so strong that even Jewish male physicians were employed (59). A thirteenth-century Book of Hours made for a Belgian beguine includes some brief health rules, but an accompanying illumination teaches her iconographically that for medical diagnosis (and presumably, therapy) she must turn to a professional male practitioner (60).

Thus even in exclusively female institutions where there was almost always an inmate specifically charged with tending the sick, recourse

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- (55) MARTIN, C. T. (ed.). *The Register of Bishop Peckham*, 3 vols., [Rolls Series 77], vol. 1, p. 84; cf. vol. 2, p. 652 and 663, where he repeats this legitimate waiver of male exclusion from the nuns' rooms for Romsey and Wherwell.
- (56) As cited in POWER, note 31, p. 134. NEBBIAI-DALLA GUARDA, note 47, notes that this injunction that the infirmarian submit to the counsel of professional physicians was normative in monastic rules.
- (57) *Victoria History of the Counties of England*, 4 vols., Hertfordshire, vol. 4, p. 430. Notably, at about the same time, the nuns there are ordered to improve their literacy, which had been deemed inadequate for their basic liturgical functions. Again, my thanks to Marilyn Oliva for this reference.
- (58) PARK, Katharine. *Doctors and Medicine in Early Renaissance Florence*, Princeton, Princeton University Press, 1985, pp. 99-101.
- (59) SHATZMILLER, Joseph. *Jews, Medicine, and Medieval Society*, Berkeley, University of California Press, 1994, p. 95.
- (60) OLIVER, Judith H. *Gothic Manuscript Illumination in the Diocese of Liège* (c. 1250-1330), 2 vols., Leuven, Uitgeverij Peeters, 1988, [Corpus of Illuminated Manuscripts from the Low Countries, 3], vol. 1, p. 100; vol. 2, p. 246, 250-251, 285; and pl. 15. Oliver suggests that health rules (which are simple month-by-month prescriptions for food consumption and phlebotomy) may have been a regular part of Books of Hours that were later deleted.

was often made to professional practitioners coming in from outside. Why, then, do the German houses have even the few medical texts that they do? Such medical books as these communities had were for the most part limited to recipe collections and simple regimens—texts primarily intended to help maintain health or treat minor disorders. They were not substitutes for a physician's care; least of all were they textbooks to lead the reader into the intricacies of philosophical medicine. Certainly the most famous manuscript from a nunnery that incorporates a medical text is the so-called Guta-Sintram codex, a collection of liturgical and religious texts written in 1154 by the Augustinian canoness Guta of Schwarzenhann and illustrated by the canon Sintram from the brother house of Marbach. Guta included a text on hygiene in the month-by-month Martyrology, and we can well imagine that the canonesses of Schwarzenhann continued to remain aware of its precepts as they inscribed new names in the accompanying list of the dead up through the fourteenth century (61). Yet while we might be able to credit Guta herself with this innovation of adding the hygienic precepts to her calendar, there is little else to suggest that a specifically feminine culture of literate medicine developed within convent walls. The one medical text composed for a nun or community of women that I know of was Thomas le Bourguignon's thirteenth-century tract on hygiene, which was also directed to a group of monks (62). Aside from Hildegard of Bingen's work, only one medical text is known to have been composed by a nun and this is likewise a regimen; the German translation of the pseudo-Aristotelian *Secretum secretorum* by the thirteenth-century Cistercian nun Hiltgart of Hürnheim. Although Hiltgart made her translation with the support of her abbess and envisions both male and female readers of the book, it was prompted by the request of a monk and she in no way altered the masculine orientation of the Latin original (63). True, it may have had some local circulation in Cistercian convents (the

(61) See Table 1, item 3.

(62) COLLET, note 42.

(63) HILTGART von Hürnheim. *Mittelhochdeutsche Prosaübersetzung des 'Secretum secretorum'*, Reinhold Möller (ed.), Deutsche Texte des Mittelalters, 56 Berlin, Akademie-Verlag, 1963, p. 4: «Ich pit euch leser und leserinne/Das ir geleubig seit meinem krancken sinne...».

convent of Seligenthal had a copy), and one would assume that a copy remained at Hiltgart's own house of Zimmern. Similarly, it is quite likely that a copy of Hildegard of Bingen's medical writings remained available at her convent at the Rupertsberg throughout the Middle Ages (64). Beyond that, however, there is as yet no evidence that female religious houses played a particularly notable role in the transmission of these female-authored works. While recent studies are confirming that Hildegard of Bingen's medical writings had a more significant circulation than previously assumed, all the known redactors or owners involved were male (65).

A closer look at the Dominican house of St Katharina's in Nuremberg can give us some sense why this house had even the limited amount of medical material that it did. As we have seen, St Katharina's had only two medical books in its huge fifteenth-century library (66). The first volume listed in the catalogue had been in the house since before the Dominican reformation of 1428, when the convent had only forty-six books. This medical volume (which is still extant) includes a quite substantial collection of important and popular German texts: regimens of health, wound care, phlebotomy and bathing rules, Ortolof of Bayerland's general textbook of medicine, an herbal, and the highly popular collection of recipes known as «Bartholomaeus». Although it has no specialized material relating to women's disorders (there is, in fact, nothing to suggest that the volume was modified for female use), as a general handbook of information on herbs, bloodletting, and treatment of wounds one can imagine that it would have served the infirmaress well in her duties. In fact, this manuscript could quite accurately be called a comprehensive compendium of all the leading German-language medical

(64) Table 1, item 4.

(65) See MOULINIER, Laurence. Fragments inédits de la *Physica*. Contribution à l'étude de la transmission des manuscrits scientifiques de Hildegarde de Bingen. *Mélanges de l'École Française de Rome. Moyen Age*, 1993, 105, 629- 650; and WEISS ADAMSON, note 53.

(66) St Katharina's was distinctive not only in having the largest library among female houses in Germany, but also in having the largest known library, personal or institutional, of German-language books.

material then available. The manuscript was produced in the Nuremberg area in the late fourteenth century and was bound at the male Dominican house in the early fifteenth century; whether it was made expressly for the women's house is unclear, yet the fact that it came so quickly into the nunnery's holdings suggests that it might have been commissioned especially for their use. If so, then this volume would clearly reflect a concern to provide the infirmaress with a comprehensive body of information comparable to that of a non-latinate general practitioner.

Rather than serving as the core of a larger collection of materials to educate the infirmaress or other members of the community, however, it is likely that this volume was meant only to be a medical reference book. The acquisition of the second volume at St Katharina's seems to have been fortuitous rather than deliberate. The first half of this composite codex was a general *practica*, arranged in head-to-toe order, which had been given to the convent by a certain Peter Kraft. The latter half was a collection of recipes that had been owned by one of the nuns, Kunigunde Gross Schreiberin, a patrician widow who brought a total of nineteen books into the convent with her (67).

Altogether, then, St Katharina's owned three medical books, an impressive collection, to be sure, in comparison with the scant evidence we have for other nuns' involvement with medical literature. But it was nothing more substantial than a basic household collection (68). And that, of course, is the point: even this, perhaps the wealthiest female community in Europe in terms of its number of books and intellectual resources, invested almost nothing in acquiring medical literature nor, we may imagine, in cultivating an environment in which medical education could be enriched. It should be remembered that the library at St Katharina's increased more than tenfold in less than fifty years following

(67) SCHNEIDER, Karin. Die Bibliothek des Katharinenklosters in Nürnberg und die städtliche Gesellschaft. In: Bernd Moeller, *et al.* (eds.), *Studien zum städtischen Bildungswesen des späten Mittelalters und der frühen Neuzeit: Bericht über Kolloquien der Kommission zur Erforschung der Kultur des Spätmittelalters, 1978 bis 1981*, Göttingen, Vandenhoeck & Ruprecht, 1983, pp. 70-82.

(68) In my survey of lay women book owners, I have found two women who owned six medical books and three who owned five. The majority (71%) have only one.

the reformation of 1428, to a large extent because of the copying efforts of the nuns themselves (69). Aside from the effort of binding Kraft's *practica* with Schreiberin's recipe collection, none of the massive labors of the nuns to build up the library collection was directed toward producing medical texts.

This continuing (self-?) perception of religious women as being «lay» in respect to a corps of professional medical personnel outside the nunnery seems to have been paralleled in respect to the nuns' attitude toward legal learning. The grouping of law and medical texts together in the fifteenth-century catalogue of St Katharina's reflects the perception of the two fields as related, presumably in their technical, non-religious character. As with the medical texts, the two legal texts at St Katharina's have different provenances. One, a copy of «papal law» (*pebstlichen recht*) was given to the convent by a priest, while the other, a copy of the *Schwabenspiegel*, was brought into the house by Sister Katharina Tucherin, a patrician widow (like Kunigunde Schreiberin) who gave a total of twenty-four volumes to the house (70). The law books and the second of the two medical books at St Katharina's thus reflect the interests or concerns not of the community of nuns, but of their individual priestly (male) and aristocratic (female) donors. The similar provenance of the one medical and the one legal book that had been privately owned by women before they were brought into the house suggests, moreover, the similarity of law and medicine as areas where land-owning and relatively powerful women may in certain situations have felt they needed some

(69) EHRENSCHWENDTER, Marie-Luise. A Library Collected by and for the Use of Nuns: St Catherine's Convent, Nuremberg. In: Lesley Smith and Jane H. M. Taylor (eds.), *Women and the Book: Assessing the Visual Evidence*, London and Toronto, British Library and University of Toronto Press, 1996, pp. 123-132.

(70) SCHNEIDER, note 67, pp. 70-82. Tucherin's copy of the *Schwabenspiegel* is still extant (Nürnberg, Stadtbibliothek, MS Cent. IV, 93). With over 380 known manuscripts, the *Schwabenspiegel* was the most widely circulating German text in the later Middle Ages.

(71) I have found only two other cases where women owned both medical books and law books: (1) Jeanne de Chalon, countess of Tonnerre (d. 1360), who owned among her twenty books «ung livre en François de plus[ieurs] medicinnes» and «un livre en François des loys de Bertaigne»; and (2) Elisabeth von Volkensdorf,

reference material (71). Clearly, the religious community of St Katharina's as whole felt no similar need, for as with medicine, despite the massive build-up of the library in the course of the fifteenth century, no legal books were produced within the nunnery itself.

The example of St Katharina's seems to suggest, then, that the literate milieu of the nunnery did not automatically encourage an attitude of medical self-sufficiency such that the acquisition of advanced medical literature was deemed necessary or desirable. We may attribute this to a highly developed «culture of suffering» which valorized an ascetic acceptance of pain and disease as an imitation of Christ (72). Or we may attribute it to the fact that religious women seem to have replicated the lay culture from which they had come—one which was already accustomed to turning to professional practitioners when faced with serious illness. Or, perhaps more simply, we may see the lack of engagement with formal, theoretical medical literature as a reflection of the same non-intellectualism characteristic of women's monasticism generally. It is now well-documented that certain female houses (many of them in German territories) became *loci* for distinctive creative endeavors: the composition of mystical treatises, the writing of collective biographies and institutional histories, even the creation of distinctive forms of devotional art (73). That no similar creativity seems to have been directed toward medical education or composition may say more about the successful masculinization of philosophical medicine than about the skills or interests of the nuns themselves.

a fifteenth-century Austrian woman, whose forty-eight volume collection comprised six medical books as well as two *rehtpuech*. No biographical information on Elisabeth has been found, but the very wealth of her book collection makes it likely that she would have been of similar social standing as the Countess Jeanne and the patrician women of St Katharina's. For citations, see GREEN, note 2, pp. 52 and 54.

(72) STOUDET, note 20.

(73) See, for example, LEWIS, Gertrud Jaron. *By Women, For Women, About Women: The Sister-Books of Fourteenth-Century Germany*, Toronto, Pontifical Institute of Medieval Studies, 1996; HAMBURGER, Jeffrey. *Nuns as Artists: The Visual Culture of a Medieval Convent*, Berkeley, University of California Press, 1997.

3. *CONCLUSIONS AND SPECULATIONS: THE ROLE OF GENDER*

At the most fundamental level, we can identify the limited education of girls and women as the common cause of the similar distance of both practitioners and nuns from theoretical medical literature. Basic literacy—the ability to make out words, to read over and over again the same devotions or prayers, even the ability to teach rudimentary letters to one's children—offered no automatic entrée into the world of technical literacy which medicine necessarily involves. Whereas urban girls may have occasionally received some formal schooling, except in a few rare cases they were not allowed to receive the secondary education that would have given them training in grammar, logic and dialectic. This differential, in turn, may have proved the crucial dividing line in keeping women's literacy below the level where they could readily engage with technical literature. And as the ability to engage with medical theory (which was symbolized, of course, by the knowledge embodied in books) came more and more to define what constituted «learned» medical practice, the image of «the medical professional» would more and more be equated with masculine gender. In fifteenth-century Valencia, an apothecary wills all his movable goods to his wife except «the things and tools that I have of my apothecary's art, and the books that I have of this art» (74). The books, just as much as the tools, are part of the capital investment of his profession. But they also symbolize his intellectual investment and, no doubt, serve as a continuing symbol of his status as a professional. The will does not specify whether his professional possessions are to be sold or given to another practitioner. Yet the very fact that he draws such an absolute separation between household and craft/profession suggests that his wife played no role in the latter.

The exclusion of girls from higher learning would have had a similar effect on the women who became nuns. In the same years that the nuns of St Katharina's in Nuremberg were building up their extraordinary library, the physician Hermann Schedel (1410-1485), also

(74) Will of Pere Torres, 7 July 1458, as cited by FERRER GIMENO, Maria Rosario. *Mujeres y libros en Valencia (1416-1474)*. *Estudis castellanencs*, 1994-95, 6, 515-523, at p. 521. My thanks to Montserrat Cabré i Pairet for this reference.

of Nuremberg, was building up his own private collection. Schedel was a humanist who had studied in Leipzig and Padua and served as physician to Kurfürsten Friedrich III of Brandenburg and later as municipal physician in Nuremberg. He counted the leading families of Nuremberg among his clientele (including, for example, the family of Katharina Tucherin), and both male and female monastics numbered among his patients. His library comprised 667 volumes, approximately a sixth of which were medical books, the vast majority in Latin (75). Schedel can no more be considered typical of male medical practitioners than the rich house of St Katharina's can be considered typical of all women's religious houses. But each library in its excess suggests something about expectations of learning for professional male practitioners, on the one hand, and pious cloistered women, on the other.

That the libraries of pious cloistered men more often resembled the layman Schedel's library than that of the nuns of St Katharina's shows how firmly the gender divide was fixed. As noted above, even in men's houses medical books were not commonly found in the infirmaries. But in the general libraries of many of the larger male houses, we can often find dozens of medical books. From St Augustine's in Canterbury to the Cistercian Abbey of Clairvaux, the libraries of male monastic communities often rival the medical holdings of both private practitioners and universities where medicine was taught. Even in Nuremberg this gendered division is obvious. The male Dominicans had a library comparable in size to that of their sister house, but it was almost entirely in Latin. Their catalogue listed nine medical volumes, which comprised approximately seventy different texts (including one entitled «On the Diseases of Women» and a copy of pseudo-Albertus Magnus's «On the Secrets of

(75) STAUBER, Richard. *Die Schedelsche Bibliothek: Ein Beitrag zur Geschichte der Ausbreitung der italienischen Renaissance, des deutschen Humanismus und der medizinischen Literatur*, [Studien und Darstellungen aus dem Gebiete der Geschichte, VI, 2 and 3], Freiburg im Breisgau, 1908. RUF, Paul (ed.). *Mittelalterliche Bibliothekskataloge Deutschlands und der Schweiz*, vol. 3, part 3, 1939; [repr. Munich, C. H. Beck, 1969], pp. 798-844. SCHNELL, Bernhard. Schedel, Hermann. In: RUH *et al.*, note 16, vol. 8, pp. 621-625. SCHNELL, Bernhard. Arzt und Literat: Zum Anteil der Ärzte am spätmittelalterlichen Literaturbetrieb. *Sudhoffs Archiv*, 1991, 75 (no. 1), 44-57.

Women») (76). Similarly, the male Franciscans had ten medical volumes, comprising twenty-one major texts in Latin (77). Whether these sizable holdings served to edify the monks and friars for purposes of medical practice is unclear; they no doubt relied to some extent (perhaps to a great extent) on the services of lay professionals in the same way the women did (78). But here is the crucial difference: these primarily Latin medical works could serve to bring the male Dominicans and Franciscans of Nuremberg into the same intellectual universe that university men, whether clerical or lay, participated in throughout Europe (79).

Even in mixed communities of men and women it is doubtful that women were ever invited into these broader dialogues about the nature of the elements, the workings of the body, the causes of disease. For example, even without the existence of the catalogue of the nuns' collection at the Brigittine community of Syon Abbey in England, it is obvious that the men's collection (for which we do have a catalogue) differed radically from the women's. Whereas the men of the house were intimately involved in external affairs (both ecclesiastical and political), using their phenomenal library resources (their collection comprised at least 1500 volumes) to run what has been called a veritable «spiritual university,» the nuns were decidedly not noted for their intellectual

(76) RUF, Paul *et al.* (ed.), *Mittelalterliche Bibliothekskataloge Deutschlands und der Schweiz*, 4 vols. (Munich: Beck, 1918-1983), vol. 3, pp. 495-496. A tenth volume had a single medical text amid works on astronomy. The copy of the pseudo-Albertan text is still extant: Erlangen, Universitätsbibliothek, MS 673 (Irm. 917).

(77) RUF, note 76, pp. 761-762.

(78) SCHNELL, Bernhard. Die volkssprachliche Medizinliteratur des Mittelalters - Wissen für wen? In: Thomas Kock and Rita Schlusemann (eds.), *Laienlektüre und Buchmarkt im späten Mittelalter*, Frankfurt am Main, Peter Lang, 1997, pp. 129-145, has pointed out that not all monks who owned medical books were «lay» with respect to medicine. Be that as it may, I believe that male monastic medical collections (many of which were composed of books given to the houses) reflect more the «research» needs of these communities of intellectuals rather than the immediate therapeutic needs of active practitioners.

(79) See, for example, ZIEGLER, Joseph. *Ut Dicunt Medici: Medical Knowledge and Theological Debates in the Second Half of the Thirteenth Century*. *Bulletin of the History of Medicine*, 1999, 73, 208-237, for the frequency and command with which non-physicians employed medical arguments in their work.

activity; instead, they engaged in constant prayer (80). Although several nuns (at least in the early sixteenth century) had good command of Latin, their studies—whether in Latin or English—seem to have been solely devotional (81). Given these striking differences between the activities of the nuns and the monks, it is hard to imagine that the nuns ever owned anything comparable to the twenty-nine medical volumes that the men had or even, given the strict physical segregation of the monks and nuns (their libraries were, in fact, separate and they never saw each other, not even in chapel), to imagine any regular sharing of medical texts between the men and women (82). It is thus also worthy of note that the female house I have here documented with the largest collection of medical texts (in Latin, no less) is the community of Elbing bei Danzig (i.e., Elblag near Gdansk in modern-day Poland, Table 1, item 8) which, like Syon, was a mixed Brigittine community of monks and nuns. Little is known about this community or its library, but given the patterns we have seen for other medieval women's medical book holdings, it would be extraordinary indeed if these three technical Latin books turned out to be owned by the nuns of Elbing (who, in the early years of the house's history, were all ex-prostitutes) rather than the monks (83).

My emphasis in this paper has been to focus on the evidence for women's engagement with medical literature and we have come to the rather unsurprising conclusion that, Hildegard of Bingen aside, medie-

(80) DE HAMEL, note 38, pp. 99-100. For the catalogue of the men's library, see BATESON, Mary. *Catalogue of the Library of Syon Monastery, Isleworth*, Cambridge, Cambridge University Press, 1898.

(81) HUTCHINSON, note 38.

(82) Extant from the men's collection of medical books is Glasgow, University Library, MS Hunter 509 (s. xv), a Middle English translation of Gilbertus Anglicus's *Compendium medicine*. Two others were in English, while the rest were in Latin.

(83) Sister PATRICIA, O.S.S. The Growth and Expansion of the Order. In: James Hogg (ed.), *Studies in St Birgitta and the Brigittine Order*, 2 vols., Lewiston, NY, Edwin Mellen Press, 1993, pp. 27-48, at pp. 28-29. Several of the extant Elbing manuscripts are clearly of university origin; see ROBINSON, P. R. *Catalogue of Dated and Datable Manuscripts c. 737-1600 in Cambridge Libraries*, 2 vols., Cambridge, D. S. Brewer, 1988, vol. 1, pp. 61-63.

val women apparently never enjoyed the same access to formal medical literature—and the knowledge embodied in it—that the men who inhabited university and peri-university circles did. Nor is there yet any evidence for an alternative written tradition that circulated within female communities, let alone any tradition that focused specifically on women's diseases. (Not a single women's house is found to be in possession of any specific gynaecological literature beyond a couple of recipes and charms.) Yet these silences themselves raise important questions, for if we look just beyond the end of the medieval period, we find a surprising efflorescence of female-authored medical literature (84). These collections seem to owe more to empirical traditions of recipe-collecting than to any medieval tradition of book-learning in the medical sciences. These collections suggest, moreover, that perhaps we need to look beyond the written word and search for medical knowledge that existed in the unstable realm between writing and orality. Perhaps it is here, rather than in medical books, that we will find the sources of medical education of medieval women.

(84) See GREEN, note 2, pp. 46-48; and the 16th-century *Arzneibuch* of the nun Anna Maria Stöcklin listed in Table 1, item 11, below.

TABLE 1

Female Religious Institutions Owning Medical Books

Note: This list includes all books with medical content that I have thus far found in the holdings of female religious institutions. My researches have included published material for Catalonia, France, the Low Countries, Italy, and Majorca, though aside from the last no comprehensive studies of these regions have yet been published. ^a I would welcome receiving notice of newly-discovered material or published studies that have escaped my notice.			
ENGLAND			
<i>Institution</i>	<i>Medical Books</i>	<i>Total Number of Books^b</i>	<i>Type^c and Date of Source</i>
[1] Benedictine house of St Mary's Nunnaminster, Winchester	1) the nuns may have copied several Old English medical remedies into a book containing private devotions in Latin and various prayers	2/4	M/early 11th cent. ^d
	2) A religious and computistical compendium, composed in the early 11th century for a male recipient, had a single medical recipe in Old English added shortly after its composition; the manuscript probably passed into the hands of a woman in the twelfth century, perhaps an abbess at Nunnaminster		M/12th cent. ^e
[2] the Minories, a women's religious house in London	in her will, Elizabeth Wellys requests that an herbal she had already loaned to the Minories should remain there for the nuns' common use	1/??	B/1520 ^f

TABLE 1 (Continuation)

GERMANY ^g			
<i>Institution</i>	<i>Medical Books</i>	<i>Total Number of Books^b</i>	<i>Type and Date of Source</i>
[3] Augustinian canonesses of Schwarzenhann	written by the canoness Guta in 1154, a liturgical manuscript includes a series of hygienic precepts as part of its Martyrology; the manuscript remained in the possession of the house until at least the 14th century	1/??	M/1154 ^h
[4] Benedictine house of Rupertsberg	Johannes Trithemius, abbot of the nearby abbey of Sponheim, visited Rupertsberg in the 15th century, and reports having seen copies of both of Hildegard of Bingen's medical writings; it is possible that these were the original copies that had been produced at Rupertsberg during Hildegard's lifetime (1098-1187)	2/??	O/ca.1487-96 ⁱ
[5] Dominican nuns in the Rhine area ^j	Owned a psalter into which was added an exorcism for the diseased uterus	1/??	M/13th cent. ^k
[6] Dominican convent of St. Marien in Lemgo	owned a collection of texts in Latin and Low German on plague, phlebotomy, charms, herbs, and care for the dead	1/5	M/14th-16th cent. ^l

TABLE 1 (Continuation)

GERMANY ⁶			
<i>Institution</i>	<i>Medical Books</i>	<i>Total Number of Books^b</i>	<i>Type and Date of Source</i>
[7] Cistercian convent of Lichtenthal in Baden-Baden	<p>owned two miscellaneous manuscripts with medical contents; when exactly they came into convent's possession is not clear:</p> <p>1) a 13th- and 14th-century collection of philosophical and natural philosophical texts, including some <i>materia medica</i> and recipes, in German and Latin</p> <p>2) a collection of recipes together with a German translation of Bartholomaeus' <i>Practica</i> made in 1462</p>	2/ca. 128	<p>M/13-14th cent. +</p> <p>M/an. 1462^m</p>
[8] Brigittine double monastery of Elbing bei Danzig (Elblag near Gdansk)	<p>owned three Latin books with medical contents:</p> <p>1) a 14th-cent. copy of Mesue's tract on medicinal simples together with two antidotaries;</p> <p>2) a 15th-cent. copy of some <i>Questiones medicinales</i>;</p> <p>3) a late 14th-cent. volume with sections of Avicenna's <i>Canon</i>, plus a copy of Galen's <i>De morbo et accidente</i></p>	3/39	M/14th-15th cents. ⁿ

TABLE 1 (Continuation)

GERMANY ⁶			
<i>Institution</i>	<i>Medical Books</i>	<i>Total Number of Books^b</i>	<i>Type and Date of Source</i>
[9] Dominican convent of St Katharina's in Nuremberg	two medical manuscripts are listed in its 15th- cent. catalogue:		
	1) a collection (still extant) of German texts, including a <i>Regimen sanitatis</i> , portions of Ortolf of Bayerland's <i>Arzneibuch</i> , the so-called Macer text on herbs, and Bartholomaeus' <i>Arzneibuch</i> ; this is one of the 46 books that had been in the collection since before the Dominican Reformation of 1428	1/46	M(an. 1398) + C/1455-61 ^o
	2) a general <i>practica</i> , arranged in head-to-toe order, followed by general remedies; this codex had originally been two separate volumes: the <i>practica</i> was the gift of Peter Kraft; the recipe collection was brought to the cloister by one of the sisters	2/ca. 500-600	C/1455-61 ^P

TABLE 1 (Continuation)

GERMANY ^g			
<i>Institution</i>	<i>Medical Books</i>	<i>Total Number of Books^b</i>	<i>Type^e and Date of Source</i>
[10] Augustinian canonesses of Inzigkofen	owned a two-volume book of Gospels and Epistles, into which a later hand wrote three medical recipes, (on, respectively, jaundice, rheumatism, and menstrual irregularity)	1/52	M/ca. 1443 ^a
[11] Cistercian abbey of Seligenthal in Landshut, which had a hospital associated with it since 1252	<p>three manuscripts of medical content produced in the 15th and 16th cent. Seem to be connected with this house:</p> <p>1) a copy of Hilgart von Hürnheim's German translation of the pseudo-Aristotelian <i>Secretum secretorum^f</i></p> <p>2) a fifteenth-century German and Latin volume with texts on <i>materia medica</i>, cooking, horse medicine, and ointments and plasters may have been produced here; portions of the text on cooking and the <i>Arzneibuch</i> derive from Hildegard of Bingen's <i>Physica</i></p>	3/8	<p>M/mid-15th cent. +</p> <p>M/late? 15th cent. +</p>

TABLE 1 (Continuation)

GERMANY ⁶			
<i>Institution</i>	<i>Medical Books</i>	<i>Total Number of Books^b</i>	<i>Type and Date of Source</i>
	3) Anna Maria Stöcklin, a member of the convent in the 16th cent., was owner (and perhaps compiler) of an <i>Arzneibuch</i> , a collection of miscellaneous recipes (some of which derive from male physicians)		M/late 16th cent. ⁵
[12] Augustinian canonesses at Cologne	owned a 15th-century copy of "Magister Bartholomaeus," a popular German medical compendium that had been composed ca. 1200	1/67	M/15th cent. ¹
[13] Benedictine convent in Ebstorf	owned a manuscript of Middle Dutch devotional texts which includes, at the end, three medical recipes	1/51	M/2nd half of 15th cent. ⁴
[14] Brigittine double monastery in Maihingen (diocese of Augsburg)	at some point acquired the manuscript that may have been produced at Seligenthal (item 11 above) that contained German and Latin texts on <i>materia medica</i> , cooking, horse medicine, and ointments and plasters	1/23	M/late? 15th cent. ^v
[15] convent of Nonnberg in Salzburg	in 1496, the nun Magdalena Haslinger made up a list of manuscripts, 36 German and 18 Latin; among the German	2/54	C/1496 ^w

TABLE 1 (Continuation)

GERMANY ^g			
<i>Institution</i>	<i>Medical Books</i>	<i>Total Number of Books^b</i>	<i>Type^c and Date of Source</i>
[16] Franciscan tertiaries at Wonnenstein	manuscripts were two medical books (<i>ein puch von der Ertzney and mer ein püech der Ertzney</i>) owned "a little book of medicine" (<i>ain klins artzabüchly</i>)	1/ca. 200?	C/s. 15 ex./16 in. ^x
[17] Dominican convent of Altenhohau	a list of expenses in 1513 for books mentions a German "medical book called <i>The True Art of Distilling</i> " ("ein erczney puch genant der waren kunst zu distilieren") which had just been acquired by the convent	1/ca. 44	O/1513 ^y

NOTES

a. As opposed to other areas of Europe, Majorca has been the subject of an exhaustive analysis of all its medieval bookowners: see HILLGARTH, Jocelyn N. *Readers and Books in Majorca, 1229-1550*, 2 vols., Paris, Éditions du Centre National de la Recherche Scientifique, 1991, who finds two instances of books owned by nuns. In neither case are these medical. For France, the only national survey thus far published is GENEVOIS, Anne-Marie; GENEST, Jean François; CHALANDON, Anne (eds.). *Bibliothèques de manuscrits médiévaux en France: Relevé des inventaires du VIIIe au XVIIIe siècle*, Paris, Éditions du C.N.R.S., 1987.

b. The first figure is the total number of medical books, the second the total number of books in the institution's library (to the extent that that number can be determined).

c. C = medieval catalogue of the nunnery's library; B = bequest to the house in someone's will; M = extant manuscript; O = other type of list or reference.

d. The nuns may even be responsible for having creatively adapted these recipes from previously existing Old English medical books. HOLLIS, Stephanie; WRIGHT,

Michael J. The Remedies in British Library MS Cotton Galba A.xiv, fos 139 and 136r. *Notes and Queries*, 1994, 239 (n.s. 41), no. 2, 146-47. This manuscript also contains a prose charm for curing foot ailments (f. 72r), and two recipes for restoring the body to health through prayer (f. 118rv); see HOLLIS, Stephanie; WRIGHT, Michael (with the assistance of MILLS, Gwynneth M. D.; PEDDER, Adrienne). *Old English Prose of Secular Learning*, Cambridge, D. S. Brewer, [Annotated Bibliographies of Old and Middle English Literature, 4], 1992, p. 288. On the books owned by Nunnaminster in the 11th and 12th centuries generally, see MORROW, Mary Jane. *The Literary Culture of English Benedictine Nuns, c. 1000-1250*, Ph.D. dissertation, Duke University, 1999, esp. pp. 197-202.

e. See HOLLIS and WRIGHT(1992), note d, pp. 236 and 238, re: London, British Library, MS Cotton Titus D.xxvi.

f. As cited from Guildhall Library, MS 9171/9, ff. 175r-176r in PAXTON, Catherine. *The Nunneries of London and Its Environs in the Later Middle Ages*, Ph.D. dissertation, Lincoln College, Oxford, 1992, p. 106. My thanks to Marilyn Oliva for this citation.

g. Includes all German-speaking regions, including Poland and Austria.

h. WEISS, Béatrice, et al. (eds.). *Le codex Guta-Sintram, manuscrit 37 de la Bibliothèque du Grand Séminaire de Strasbourg*, 2 vols., Lucerne, Éditions fac-similés; Strasbourg, Éditions Coprur, 1983.

i. *Trithemii Opera historica*, [ed. FREHER], Frankfurt, 1601, as cited in SCHRADER, Marianna; FÜHRKÖTTER, Adelgundis. *Die Echtheit des Schrifttums der hl. Hildegard von Bingen*, Cologne and Graz, Böhlau, 1956, pp. 54-58.

j. Although the specific house is not known, the manuscript can be situated in the Rhine area because of its liturgical contents.

k. Wolfenbüttel, Herzog-August-Bibliothek, MS 146.2 Extravagantes (s. xiii med.); the charm, added by a later thirteenth-century hand, appears on f. 2r. See KRUSE, Britta-Juliane. *Verborgene Heilkünste: Geschichte der Frauenmedizin im Spätmittelalter*, Quellen und Forschungen zur Literatur- und Kulturgeschichte, 5, Berlin, Walter de Gruyter, 1996, p. 440; and BUTZMANN, Hans. *Die mittelalterlichen Handschriften der Gruppen Extravagantes, Novi und Novissimi*, Frankfurt am Main, Vittorio Klostermann, 1972, pp. 83-84.

l. Detmold, Nordrhein-Westfälisches Staatsarchiv, MS L 110 B Tit. 3 Nr. 3; described in GERLACH, Friedrich. *Aus mittelalterlichen Klosterbüchereien und Archiven*, Lemgo, 1934, pp. 10-17. According to Gerlach (p. 11, n. 2), the as-yet-unpublished medieval booklist of St Marien listed *libri medicinales*, suggesting that there may have been more than one volume. Cf. KRÄMER, Sigrid. *Handschriftenerbe des Deutschen Mittelalters, 3 vols., Mittelalterliche Bibliothekskataloge Deutschlands und der Schweiz*. Ergänzungsband I, Munich, Beck, 1989-1990, vol. 2, p. 489.

m. Karlsruhe, Landesbibliothek, MSS Lichtent. 31 and 76. See ETTLINGER, Emil. *Die Ursprüngliche Herkunft der Handschriften die aus Kloster-, Bischöflichen und Ritterschaftsbibliotheken nach Karlsruhe gelangt sind*, rev. ed., Wiesbaden, Harrassowitz, 1974, pp. 10-11; and KRÄMER, note l, vol. 1, pp. 48-50.

n. Cambridge, Corpus Christi College, MSS 505, 516, and 530; though not strictly medical, there is also in MS 521 a collection of religious texts that ends with a brief list of the signs of pestilence. See KRÄMER, note l, vol. 1, pp. 202-203.

DYNAMIS. Acta Hisp. Med. Sci. Hist. Illus. 2000, 20, 331-369.

o. The manuscript is now Würzburg, Universitätsbibliothek, M. ch. f. 79, an. 1398; for description, see THURN, Hans. *Die Handschriften der Zisterzienserabtei Ebrach, Die Handschriften der Universitätsbibliothek Würzburg*, Bd. 1, Wiesbaden, Harrassowitz, 1970, pp. 95-98. For the catalog, see RUF, Paul *et al.* *Mittelalterliche Bibliothekskataloge Deutschlands und der Schweiz*, 4 vols., Munich, Beck, 1918-1983, vol. 3/3, p. 618.

p. RUF *et al.*, note o, vol. 3/3, p. 618.

q. FECHTER, Werner. *Deutsche Handschriften des 15. und 16. Jahrhunderts aus der Bibliothek des ehemaligen Augustinerchorfrauenstifts Inzigkofen*, Sigmaringen, J. Thorbecke, 1997, pp. 74-76; my thanks to William Crossgrove and Bernhard Schnell for bringing this study to my attention.

r. Hürnheim (where Hiltgart produced her translation) and Seligenthal had the same abbot as their superior; see HILTGART von Hürnheim, *Mittelhochdeutsche Prosaübersetzung des «Secretum secretorum»*, ed. Reinhold Möller, Deutsche Texte des Mittelalters, 56, Berlin, Akademie-Verlag, 1963, p. xxv.

s. Munich, Bayerische Staatsbibliothek, Cgm 288; and Augsburg, Universitätsbibliothek, MS III. 1. 2° 43. On the latter manuscript, see WEISS ADAMSON, Melitta. A Reevaluation of Saint Hildegard's *Physica* in Light of the Latest Manuscript Finds. In: Margaret Schleissner (ed.), *Manuscript Sources of Medieval Medicine: A Book of Essays*, Garland Medieval Casebooks, New York and London, Garland, 1995, pp. 55-80, esp. pp. 67-70. In none of these excerpts is Hildegard cited by name. The third manuscript is Bethesda (Maryland), National Library of Medicine, MS 68: «Arzeney Buech warinen vill unterschiedlich guete Hausmitl zo finden», ff. 1r-90r. For a description of the manuscript, see FAYE, C. U.; BOND, W. H. *Supplement to the Census of Medieval and Renaissance Manuscripts in the United States and Canada*, New York, Bibliographical Society of America, 1962, p. 143.

t. Darmstadt, Landesbibliothek, MS 2507; see KRÄMER, note l, vol. 2, p. 456. On the *Bartholomäus* text, see KEIL, Gundolf. Bartholomaeus. In: Kurt Ruh (general editor), *Die deutschen Literatur des Mittelalters: Verfasserlexikon*, 2nd ed., in progress, Berlin/New York, Walter de Gruyter, 1978- , vol. 1, p. 609-615.

u. Ebstorf MS VI 10, f. 143r. See GIERMANN, Renate; HÄRTEL, Helmar. *Handschriften des Klosters Ebstorf*, Wiesbaden, Harrassowitz, 1994, pp. 180-82.

v. Augsburg, Universitätsbibliothek, MS III. 1. 2° 43. See KRÄMER, note l, vol. 2, pp. 523-524.

w. Archivhandschrift Nonnberg, 14 A II A 1, ff. 14r-v. My deepest thanks to Dr Gerold Hayer of the University of Salzburg for this information, and to Dr Bernhard Schnell of the *Mittelhochdeutsches Wörterbuch* in Göttingen for his intercession.

x. RUF *et al.*, note o, vol. 1, p. 454; there are no surviving manuscripts from Wonenstein so it is impossible to know what this «little book of medicine» was. My thanks to David N. Bell for bringing this citation to my attention.

y. RUF *et al.*, note o, vol. 4/2, p. 604. The book in question may be Hieronymus Braunschweig's printed volume, *Das Buch der waren Kunst zu distillieren die Composita* (1507). Aside from a collection of rituals for sick and deceased nuns (Munich, Bayerische Staatsbibliothek, Clm 23313-23319), no books relating to medicine seem to be extant from Altenhohau.