

bined with their apparent thoroughness, argued for them being accepted as authoritative, even though in those very writings Galen had urged readers not to rely upon written anatomical treatises but only upon personal dissection and observation. For the practical purposes of the therapeutics of the day, the anatomical knowledge served fairly well, and if, as G.E.R. Lloyd has argued in another context,<sup>122</sup> there was no particular anatomical problem to test, then there was little impetus to undertake the difficult and distasteful dissection and little if anything to be gained from the experience.

## The Life of the Corpse: Division and Dissection in Late Medieval Europe

KATHARINE PARK

**I**N 1216 King John of England died in Newark, near Nottingham, and his corpse was dismembered by the abbot of Crokestone, his confessor. In the words of the chronicler Ralph of Coggeshall, "After the said abbot had made an anatomy [*anathomia*] of [the king's] physical body, his entrails were reserved, sprinkled with salt, and taken to Crokestone at the order of the abbot, where they were buried. His body, dressed in royal fashion, was carried to Worcester, and he was reverently buried in the cathedral by the bishop."<sup>1</sup>

Despite the use of the word "anatomy," Ralph's entry clearly referred not to a dissection, but to a practice sometimes called the "division of the corpse," which was widely employed by northern European royalty and aristocracy in the high and later Middle Ages.<sup>2</sup> As in the case of King John, division seems to have developed from and been related to embalming, which typically involved evisceration and was used to preserve

1. Ralph of Coggeshall, *Chronicum anglicanum*, quoted in Dietrich Schäfer, "Mittelalterlicher Brauch bei der Überführung von Leichen," *Sitzungsberichte der preussischen Akademie der Wissenschaften (Berlin)*, 1920, 26, 478-98, p. 496.

2. Elizabeth A. R. Brown, "Death and the human body in the later Middle Ages: The legislation of Boniface VIII on the division of the corpse," *Viator*, 1981, 12, 226-41; Ralph Giesey, *The Royal Funeral Ceremony in Renaissance France* (Geneva: E. Droz, 1960), esp. ch. 2; Pierre Duparc, "*Dilaceratio corporis*," *Bulletin de la société nationale des antiquaires de France*, 1981, 360-72; Schäfer, (n. 1).

A preliminary version of this paper was given at a symposium, "Imaging the Self in Renaissance Italy," at the Isabella Stewart Gardner Museum, Boston, in February 1993 and was published with the Museum's annual report for 1991; see Katharine Park, "The Sensitive Corpse: Body and Self in Renaissance Medicine," *Fenway Court 1990-1991* (Boston: Isabella Stewart Gardner Museum, 1992), pp. 77-87. I am grateful to Alice T. Friedman, Margaret Carroll, and Nancy G. Siraisi for their suggestions and comments on that earlier draft.

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122. Lloyd, (n. 73), p. 166.

bodies for state funerals.<sup>3</sup> In its more extreme form, division involved completely dismembering the body, a practice that seems to have served two principal purposes. On the one hand, as Ralph of Coggeshall's account indicates, it allowed parts of the body to be buried in different places. This enabled the deceased to profit from prayers on their behalf at several religious shrines, while enabling several religious communities literally to claim a piece of a single illustrious individual; King John bequeathed to Crokestone not only his heart but also a sizeable gift of land.<sup>4</sup>

On the other hand, it facilitated transporting the body long distances for burial—contemporary embalming techniques were only indifferently successful—when the person in question had died far from home. The problem appears clearly in Henry of Huntington's account of the death of Henry I of England in 1135. Although he had died in Rouen, the king wished to be buried in Reading. Accordingly, he was decapitated, and his brain, eyes, and viscera were removed and buried in Rouen. The rest of his body was cut into pieces, heavily salted, and packed in oxhides against the smell, which, according to the chronicler, had already killed the man responsible for extracting the brain. By the time the funeral procession reached Caen, the corpse was exuding a liquid so foul that its attendants could not drain it without what Henry of Huntington called "horror and faintings."<sup>5</sup> Largely to avoid this kind of unpleasantness, German notables, increasingly followed by their French and English counterparts, often asked to have their bodies dismembered and their bones boiled in water or wine; in this way, their flesh and entrails could be buried locally and their dry bones neatly and cleanly transported to their chosen resting place.<sup>6</sup>

Despite the currency of such practices among northern European aristocracy, there is little evidence of them in twelfth- and thirteenth-century Italy, where they were sometimes described, often with amazement, as the "German custom" (*mos teutonicus*).<sup>7</sup> In a study of the wills

3. On medieval embalming procedures, see Ernst von Rudloff, *Über das Konservieren von Leichen im Mittelalter: ein Beitrag zur Geschichte der Anatomie und des Bestattungswesens* (Freiburg i. Breisgau: Karl Henn, 1921).

4. Ralph of Coggeshall, quoted in Schäfer, (n. 1), p. 496. See also Brown, (n. 2), pp. 235–38, on the disputes over the heart of King Philip III of France.

5. Henry of Huntington, *The Chronicle of Henry of Huntington*, trans. Thomas Forester (London: Henry G. Bohn, 1853), pp. 262–63, quotation on p. 263.

6. Many examples in Schäfer, (n. 1).

7. E.g., Riccardo da San Germano, cited in Schäfer, (n. 1), p. 488; see also Buoncompagno da Firenze, in *ibid.*, p. 493.

of a number of late medieval cardinals, for example, Agostino Paravicini Bagliani found that, whereas non-Italian prelates regularly requested to be eviscerated or divided and repatriated if they died on foreign soil, this was not true of their Italian colleagues, whose funerary dispositions were much simpler and who in general consented to be buried where they had died.<sup>8</sup> In 1299 Pope Boniface VIII gave exaggerated expression to the Italian discomfort with northern funerary customs in his famous bull, *Detestande feritatis*, apparently issued in reaction to what he considered the unsavory and unacceptable testamentary provisions of a French cardinal named Nicholas de Nonancourt.<sup>9</sup> "Moved by a pious intention," Boniface began, "we have fittingly commanded to be abolished an abuse of detestable savagery committed improvidently by some Christians, so that the ferocity of the said abuse will no longer tear apart the human body and move the minds of the faithful with horror. . . ."<sup>10</sup> Boniface's justification for his prohibition was sketchy; he made no appeal to scripture or to tradition, and he gave no rationale for his prohibition of division, beyond vaguely worded references to its "horror," "abomination," and "impiety." This led Paravicini Bagliani to conclude that Boniface's severity, like the difference between the funerary wishes of Italian and northern cardinals, reflected a special "Mediterranean" investment in the integrity of the corpse.<sup>11</sup>

There are various reasons to be sceptical about this conclusion. For one thing, Spanish princes had begun to request division in the later thirteenth century,<sup>12</sup> which suggests some distinction between Iberian and Italian sensibilities in this matter. For another, by 1299 Italians had

8. Agostino Paravicini Bagliani, *I testamenti dei cardinali del Duecento* (Rome: Società alla Biblioteca Vallicelliana, 1980), pp. cviii–cxii; idem, "Storia della scienza e storia della mentalità: Ruggero Bacone, Bonifacio VIII et la teoria della 'prolongatio vitae'," in Claudio Leonardi and Giovanni Orlandi, eds., *Aspetti della letteratura latina nel secolo XIII: Atti del primo convegno internazionale di studi dell'associazione per il medioevo e l'umanesimo latini (AMUL), Perugia 3–5 ottobre 1983* (Perugia and Florence: La Nuova Italia, 1986), esp. pp. 244–49.

9. *Detestande feritatis* was promulgated four days after Nicholas's death on 23 September 1299; see Paravicini Bagliani, (n. 8), "Storia della scienza," p. 252; Brown, (n. 2), pp. 248–49.

10. Boniface VIII, Bull of 27 September 1299, in Georges Digard et al., eds., *Les registres de Boniface VIII: recueil des bulles de ce pape publiées ou analysées d'après les manuscrits originaux des archives du Vatican*, 4 vols. (Paris: E. de Boccard, 1884–1939), vol. 2, cols. 576–77 (no. 3409). For a general discussion of the bull's intellectual and cultural context, see Brown, (n. 2); Caroline Walker Bynum, "Material Continuity, Personal Survival and the Resurrection of the Body: A Scholastic Discussion in its Medieval and Modern Contexts," in her *Fragmentation and Redemption: Essays on Gender and the Human Body in Medieval Religion* (New York: Zone Books, 1991), pp. 239–97; Francesco Santi, "Il cadavere e Bonifacio VIII, tra Stefano Tempier e Avicenna, intorno a un saggio di Elizabeth Brown," *Studi medievali*, 1987, 28/2, 861–78.

11. Paravicini Bagliani, (n. 8), "Storia della scienza," pp. 249–50.

12. Brown, (n. 2), pp. 234–35.

begun regularly to dismember corpses, albeit in another context entirely—that of the anatomical dissection and the medical postmortem. The first unambiguous record of an Italian autopsy dates from 1286, when the chronicler Salimbene described the actions of a doctor in Cremona, who was inquiring into the nature of a mysterious epidemic.<sup>13</sup> By the early fourteenth century, postmortems also were being performed in forensic and private contexts, and medical professors at the university of Bologna had introduced the practice of dissecting human corpses into the study and teaching of anatomy, for the first time since the early Hellenistic period.<sup>14</sup> Over the course of the fourteenth century, both dissection and autopsy spread rapidly among the cities of northern and central Italy, where they were taken up enthusiastically not only by medical faculties, but also by municipal colleges of physicians and surgeons.

From a purely technical point of view, the Italian medical practices of postmortem (examining the entrails of a dead body to determine cause of death in an individual case) and dissection (opening and eventually dismembering a corpse as part of an anatomical demonstration) closely resembled the funerary practices of embalming and division. In this sense, Ralph of Coggeshall's description of the abbot of Crokestone's actions as an "anatomy" were a propos. In other respects, however, the two sets of practices appear wholly distinct; although the corpses of illustrious Italians were occasionally temporarily embalmed in preparation for a state funeral, they were never, as far as I know, radically divided,<sup>15</sup> while, with the exception of the University of Montpellier in southern France, there are few known references to autopsies and only one to a dissection in Germany, England or France before the late fifteenth century, including the relatively important medical faculty at Paris.<sup>16</sup> It is

13. Salimbene de Adam, *Cronica*, 2 vols., ed. Giuseppe Scalia (Bari, 1966), II, 894.

14. See Katharine Park, "The criminal and the saintly body: Autopsy and dissection in Renaissance Italy," *Renaissance Quarterly*, 1994, 47, 1–33; Nancy G. Siraisi, *Medieval and Early Renaissance Medicine: An Introduction to Knowledge and Practice* (Chicago: University of Chicago Press, 1990), pp. 86–90 and ch. 4; Walter Artelt, "Die ältesten Nachrichten über die Sektion menschlicher Leichen im mittelalterlichen Abendland," *Abhandlungen zur Geschichte der Medizin und der Naturwissenschaften*, 1940, H. 34. On dissection in Alexandria, Heinrich von Staden, "The discovery of the body: Human dissection and its cultural contexts in ancient Greece," *Yale J. Biol. Med.*, 1992, 65, 223–41.

15. See Sharon T. Strocchia, *Death and Ritual in Renaissance Florence* (Baltimore: Johns Hopkins University Press, 1992), ch. 2, esp. pp. 45 and 49–50; B. Cecchetti, "Funerali e sepolture dei veneziani antichi," *Archivio veneto*, 1887, ser. 1, 34, 265–84.

16. The one known northern European dissection seems to have been an isolated case, performed at Vienna in 1404, significantly by an imported Italian lecturer on medicine; see Giuseppe Ongaro, "La medicina nello studio di Padova e nel Veneto," in Girolamo Arnaldi et al., eds. *Storia della cultura veneta*, 6 vols. in 10 to date (Vicenza: Neri Pozza, 1976–), vol. 3, pt. 3, p. 95. The first known dissection at the

worth emphasizing that neither culture showed any signs of the generalized taboo concerning the polluting power of human corpses that made Herophilus' and Erasistratus' practice of dissection in third-century Alexandria so daring and so transitory. Dismemberment had long since been domesticated by the Christian cult of relics (often severed body parts), while the stories of dismembered martyrs had surrounded the practice with a charismatic if somewhat anxious glow.<sup>17</sup>

How is it possible to explain the geographical specificity of these two sets of customs? Why was there such apparent resistance to the division of the corpse in Italy and to human dissection in the North? In the remainder of this article, I will speculate that this difference reflected a whole complex of contrasting attitudes toward the recently dead body that divided northern Europe from Italy in the later Middle Ages and well into the early modern period. Focussing on the fourteenth and fifteenth centuries, I will argue that, while Italians envisaged physical death as a quick and radical separation of body and soul, northern Europeans saw it as an extended and gradual process, corresponding to the slow decomposition of the corpse and its reduction to the skeleton and hard tissues, which was thought to last about a year. Thus, while Italians tended to see the recently dead body as inert or inactive, northerners treated it during this liminal period as active, sensitive, or semianimate, possessed of a gradually fading life.<sup>18</sup>

There are scattered signs of these attitudes in a number of disparate northern and Italian beliefs and practices around the corpse. Well into the seventeenth century, for example, northern European law admitted the Germanic principle of "bier-right," which held that the body of a recent murder victim would bleed or exhibit other physical changes in

University of Paris dates from 1477–78, and public anatomies were performed with some regularity from 1481–82 on; the autopsy of the bishop of Arras, conducted by the medical faculty in 1407, was not, as sometimes claimed, a dissection. See Mary Niven Alston, "The attitude of the Church toward dissection before 1500," *Bull. Hist. Med.*, 1944, 16, 230–31.

17. See Bynum, (n. 10); Park, (n. 14), esp. pp. 22–26; Patrick J. Geary, *Furta Sacra: Thefts of Relics in the Central Middle Ages*, 2nd ed. (Princeton: Princeton University Press, 1990), chs. 1–2. For the contrast with ancient Alexandria, cf. von Staden, (n. 14).

18. For a general account of beliefs relating to a sensitive corpse, see Philippe Ariès, *The Hour of Our Death*, trans. Helen Weaver (New York: Knopf, 1981), pp. 354–61; Bynum, "The Female Body and Religious Practice in the Later Middle Ages," in (n. 10) *Fragmentation and Redemption*, pp. 234–35. Although Bynum (like Ariès) does not address the question of geographical specificity of these attitudes and practices, her treatment is extraordinarily helpful in understanding what I see as northern attitudes and practices; see, in general, her "Female Body," pp. 188–96. I have also used Pietro Camporesi's *The Incorruptible Flesh: Bodily Mutation and Mortification in Religion and Folklore*, trans. Tania Croft-Murray with Helen Elsom (Cambridge: Cambridge University Press, 1988), which focusses on a somewhat later period than the one treated in this article.

the presence of its murderer.<sup>19</sup> Yet, when the Italian jurist Ippolito de' Marsigli was confronted with just such a case in the early sixteenth century, he decisively rejected this method, preferring to rely on what he considered more traditional forms of proof: "I said nothing," he wrote, "not having faith in such a thing, which has nowhere been proved. Indeed, several days afterward enough evidence had been found to justify torturing the suspect, whom I had arrested, and because there was a great deal of evidence against him, he confessed without torture that he had killed the man."<sup>20</sup>

Similar beliefs appear in the predominantly northern European interest in drugs made from the fat or flesh of the recently dead, the special power of which seems to have lain in their lingering vitality. (It was often specified that the body in question be that of a strong young man suddenly cut down in the prime of life.)<sup>21</sup> Thus there were significant differences in sixteenth-century German and Italian medical discussions of the drug known as *mumia* ("mummy"). Italian writers tended to stress that real mummy had to come from embalmed and long-dead corpses. In his *Discourses on Dioscorides' Materia Medica*, for example, Pietro Andrea Mattioli noted that this substance was no longer available in Europe; the traditional source of supply, the tombs of Syrian and Egyptian notables, were too well protected, and consequently the only conceivable way of obtaining it would be to embalm "with a mixture of aloes, myrrh, and saffron the bodies of Christians who die in hospitals, and then to extract it at the appropriate time."<sup>22</sup> For the Swiss-German Paracelsus, on the other hand, real mummy was that which came from the "body of a person who dies an unnatural rather than a natural death, before falling ill";<sup>23</sup> such a body should not sit longer than a day and a

19. See Henry C. Lea, *Superstition and Force: Essays on the Wager of Law, the Wager of Battle, the Ordeal, Torture* (Philadelphia: Henry C. Lea, 1878), pp. 315-23; Henri Platelle, "La voix du sang: le cadavre qui saigne en présence de son meurtrier," in *La piété populaire au Moyen Age, actes du 99e congrès national des sociétés savantes, Besançon, 1974* (Paris: Bibliothèque Nationale, 1977), pp. 161-79.

20. Ippolito de' Marsigli, *Practica criminalis*, cited in Peter Binsfeld, *Tractatus de confessione malefactorum et sagarum* (Cologne: Peter Henning, 1623), pp. 111-12.

21. See, e.g., Elfriede Grabner, "Der Mensch als Arznei: alpenländische Belege zu einem Kärntner Schauermärlein," in *Festgabe für Oskar Moser: Beiträge zur Volkskunde Kärntens* (Klagenfurt: Verlag des Landesmuseums für Kärnten, 1974), pp. 81-95.

22. Pietro Andrea Mattioli, *I discorsi nei sei libri della materia medica di Pedacio Dioscoride Anazarbeo*, I, 82 (Venice: Erasmo, 1557), p. 86. See, in general, Alfred Wiedemann, "Mumie als Heilmittel," *Zeitschrift des Vereins für rheinische und westfälische Volkskunde*, 1906, 3, 1-38; Karl Dannenfeldt, "Egyptian Mumia: The sixteenth-century experience and debate," *Sixteenth Century Journal*, 1985, 16, 165-80.

23. Paracelsus, *Quinque philosophiae tractatus*, III ("Von dem Fleisch und der Mumia"), in Will-Erich Peuckert, ed., *Theophrastus Paracelsus Werke*, 5 vols. (Basel: Schwabe, 1965-68), 3, 412.

night before the drug was harvested—only enough time to absorb the influence of the sun and moon. If doctors were aware of the power of this substance, according to Paracelsus, no body would be left on the gibbet for more than three days.<sup>24</sup>

There are similar discrepancies between Italian and northern European popular beliefs in the area of religion. For example, the late fourteenth and fifteenth centuries saw the proliferation of religious shrines that specialized in the temporary resurrection (for baptism) of stillborn infants. These were overwhelmingly northern European phenomena, with their epicenter in west central France.<sup>25</sup> Such beliefs took much longer to make their way into Italy—the cult was primarily a seventeenth-century phenomenon—and even then, they remained confined for the most part to the very northern regions of Aosta and Friuli, a fact that suggests French and German influence.<sup>26</sup> Similarly, while there is ample documentation of northern (and eastern) European belief in "revenants" or vampires—recently buried corpses who refused to lie passively in their graves, but who cried out, turned over, gnawed on their own limbs, and occasionally rose from their tombs to torment those they had left behind—Italians interpreted occasional apparitions of the dead as visible manifestations of *souls* in purgatory.<sup>27</sup>

By their very diversity, these examples would suggest that the northern belief in the continued animation of the corpse could be found at all levels of society and culture. Not confined to folkloric stories and practices, it was analyzed, debated, and defended, with copious erudite references, by learned northern writers on theology, medicine, and law. But such scattered pieces of evidence are at best suggestive, offering little purchase for sustained analysis. It is easier to grasp the contours and the implications of the phenomenon by examining in more detail a sin-

24. Ibid. The recipe was described in more detail by Paracelsus' follower, Oswald Kroll; see Dannenfeldt, (n. 22), p. 173.

25. Pierrette Paravy, "Angoisse collective et miracles au seuil de la mort: résurrections et baptêmes d'enfants mort-nés en Dauphiné au XVe siècle," in *La mort au Moyen Age: actes du colloque des historiens médiévistes français, Strasbourg, 1975* (Colmar: Editions Istra, 1977), 87-102; Jacques Gélis, "De la mort à la vie: les 'sanctuaires à repit,'" *Ethnologie française*, 1981, n.s., 11, 211-24.

26. Michael Carroll, *Madonnas that Maim: Popular Catholicism in Italy since the Fifteenth Century* (Baltimore: Johns Hopkins University Press, 1992), pp. 108-11. I find unconvincing Carroll's tentative hypothesis that the concentration of these cults in the far north of Italy reflects a greater northern investment in "otherworldly salvation."

27. Paul Barber, *Vampires, Burials, and Death: Folklore and Reality* (New Haven: Yale University Press, 1988); Gabriella Zari, "Purgatorio 'particolare' e ritorno dei morti tra Riforma e Controriforma: l'area italiana," *Quaderni storici*; 1982, 50, 466-97.

gle aspect of late medieval culture: the funerary ritual, art, and practices that so clearly distinguished Italy from northern Europe.

One signal difference between northern and Italian funerary ritual was the fact that northern Europeans moved much earlier than Italians to enclose the recently dead body. Throughout the fourteenth and fifteenth centuries, Italian funerals continued openly to display the corpse of the deceased, which typically lay in full view on the bier, elaborately dressed and with its face exposed. Only in exceptional circumstances was the body enclosed in a coffin, as, for example, when there had been some delay in the burial or if the deceased had died of plague, which was considered a uniquely dangerous and contagious disease.<sup>28</sup> In the North, on the other hand, the dead body was tightly sewed into a cloth shroud—in English iconography, according to Malcolm Norris, the shroud or winding sheet became the “basic indicator of the dead”<sup>29</sup>—and, increasingly, beginning in the fourteenth century, shut up in a wooden coffin both during the funeral procession and in the grave.<sup>30</sup> Both practices are compatible with a belief in a sensitive and potentially active corpse that must be both protected and contained.

A further difference between northerners and Italians, as I have already indicated, had to do with their differing investment in the fate of the dead body. Although Italians showed an increasing interest in specifying their place of burial over the course of the fourteenth and fifteenth centuries,<sup>31</sup> they never exhibited anything like the obsession with reparation found in the funerary instructions of northern aristocrats and princes, with their heroic technologies of dismemberment, salting, and boiling. By the same token, they never tried systematically to multiply their resting places by engaging in the division of the corpse. This difference requires a more complicated analysis than the varying use of shrouds or coffins: it suggests that the issue should be seen not just in terms of whether the recently dead corpse had some kind of residual life,

28. Strocchia, (n. 15) *Death and Ritual*, pp. 2, 39, 49; Cecchetti, (n. 15), pp. 267–69.

29. Malcolm Norris, “Later Medieval Monumental Brasses: An Urban Funerary Industry and its Representation of Death,” in Steven Basset, ed., *Death in Towns: Urban Responses to the Dying and the Dead, 100–1600* (Leicester: Leicester University Press, 1992), p. 198.

30. Robert Dinn, “Death and Rebirth in Late Medieval Bury St. Edmund’s,” in Basset, (n. 29) *Death in Towns*, p. 154; Ariès, (n. 18) *Hour of Our Death*, pp. 166–70; I see these practices not as a “denial of physical death,” as Ariès argues (p. 172), but as the reflection of a particular attitude toward physical death.

31. Samuel K. Cohn, Jr., *The Cult of Remembrance and the Black Death: Six Renaissance Cities in Central Italy* (Baltimore: Johns Hopkins University Press, 1992), ch. 4; idem, *Death and Property in Siena, 1205–1800: Strategies for the Afterlife* (Baltimore: Johns Hopkins University Press, 1988), pp. 60–61, 114–15.

but also, more specifically, in terms of its relationship to the previously living person or self.

In the North, I would argue, people saw the flesh-and-blood body as in some sense integral to the self. Thus the selfhood of the corpse persisted (though ever more tenuously) in the transitional year after burial, during which the body gradually reduced and decomposed. While in this liminal state, this selfhood did not depend at all on the body remaining intact: as in the case of saintly relics, its personal identity and properties could inhere in its scattered parts as easily as in the whole. This belief finds vivid expression in a story told by the seventeenth-century German doctor Christian Friedrich Garmann about a man who had a nose-graft after losing his own nose in battle; his replacement nose started to rot exactly at the moment that its donor died.<sup>32</sup>

In contrast, Italians at every level of society seem to have identified the person or self less with the body than with the spirit—the soul, in Christian theological terms, or some generally immaterial entity that temporarily animated and inhabited the body but that left it for good at the moment of death. As Leonardo da Vinci put it, “The soul can never be infected by the corruption of the body, but acts in the body like the wind which causes the sound of the organ, wherein if one of the pipes becomes spoiled no good effect can be produced because of its emptiness.”<sup>33</sup> In this Italian mental universe, death corresponded not to the gradual decomposition of the corpse but to the instant of separation of body and soul. In that instant, the corpse became insensitive and inanimate, a not-self. This is not to say that it lost all importance, but merely that it suddenly changed its status from subject to object. No longer a person, it became a memento that recalled or represented the person by virtue of long and intimate association. In sum, although both Italians and northern Europeans prayed and offered masses for the *souls* of the dead, they differed on the role played by the *body* in the cult of the dead. While Italians treated the body as an object of memory and commemoration, centering therefore on the appearance of the intact or living person, northerners focussed on the gradually fading personhood and vitality of the corpse itself, as expressed in the process of physical decay.

This distinction between northern European and Italian attitudes to-

32. Christian Friedrich Garmann, *De miraculis mortuorum* (1709), cited in Ariès, (n. 18) *Hour of Our Death*, pp. 356–57. On the personhood of relics, see Bynum, (n. 18), pp. 194–95; Geary, (n. 17) *Furta Sacra*, p. 34.

33. Leonardo da Vinci, Codex Trivulzianus, fol. 71r, in Edward MacCurdy, trans., *The Notebooks of Leonardo da Vinci*, 2 vols. (New York: George Braziller, 1958), I, 68.

ward the recently dead body found strong expression in the late medieval iconography of death. Many historians of art and literature have noted the appearance in the later fourteenth and fifteenth centuries of what Philippe Ariès has called an "iconography of the macabre," focussed on representations of the decomposing corpse.<sup>34</sup> But whereas Ariès portrayed this as a general European phenomenon, others have emphasized its characteristically northern flavor and its almost total absence south of the Alps.<sup>35</sup> Although both northern and Italian artists personified Death as a skeleton, they differed dramatically in their representations of recent corpses; unlike Italians, northerners generally portrayed these as physically vital or active, and they emphasized much more than Italian artists the process and stages of corporeal decay.

The relatively passive nature of corpses in Italian iconography appears clearly from a comparison of late medieval representations of the famous story known as the *Three Living and the Three Dead*. In the legend, three young noblemen were out hunting, when they were confronted by three corpses who reminded them of their inevitable death: "You will be as we are," they warned, "Power, honor, riches are nothing/At the hour of death/Only good works count."<sup>36</sup> As has often been noted, northern illustrators of this story conferred on the corpses a macabre vitality; aggressive interlocutors of the living, they confronted them directly and on equal terms (figs. 1 and 2).<sup>37</sup> Virtually all Italian representations of the story, in contrast—Francesco Traini's fresco in the Camposanto at Pisa (fig. 3) is typical—showed the cadavers lying in their tombs; exempla rather than participants, they required a passing hermit to draw the moral of the scene.<sup>38</sup>

Similar differences characterize late medieval funerary art, where,

34. Ariès, (n. 18) *Hour of Our Death*, pp. 110–123, quotation on p. 110.

35. E.g., Alberto Tenenti, *Il senso della morte e l'amore della vita nel Rinascimento (Francia e Italia)* (Turin: Einaudi, 1957), chs. 5, 12; Kathleen Cohen, *Metamorphosis of a Death Symbol: The Transi Tomb in the Late Middle Ages and the Renaissance* (Berkeley: University of California Press, 1973); Erwin Panofsky, *Tomb Sculpture: Four Lectures on its Changing Aspects from Ancient Egypt to Bernini*, ed. H. W. Janson (New York: Harry N. Abrams, 1964), pp. 56, 66.

36. From the version of the poem by Baudouin de Condé, transcribed and translated in Cohen, (n. 35) *Metamorphosis*, p. 34.

37. Chiara Frugoni, "La protesta affidata," *Quaderni storici*, 1982, 50, 428. For a similar representation, see Cohen, (n. 35) *Metamorphosis*, fig. 7 (Bibliothèque de l'Arsenal, 3142, fol. 311v).

38. Further Italian examples in Millard Meiss, *Francesco Traini*, ed. and intro. Hayden B. J. Maginnis (Washington: Decatur House Press, 1983), p. 41 and associated references; Cohen (n. 35), *Metamorphosis*, pp. 34–35 and Fig. 9. See also Frugoni, (n. 37), pp. 428–37; Tenenti, (n. 35) *Il senso*, pp. 430–32. The fresco at Santa Maria in Vezzolano (1354), reproduced in Cohen (n. 35) *Metamorphosis*, Fig. 8, is the principal exception; but even though the corpses in this representation are semi-upright, they function principally as objects of demonstration by the hermit.



1. Jean Lenoir, *The Three Living*, Psalter and Prayer book of Bonne de Luxembourg (1348–49), fol. 321v. Credit: The Metropolitan Museum of Art, The Cloisters Collection, 1969. (69.86)



2. Jean Lenoir, *The Three Dead*, Psalter and Prayer book of Bonne de Luxembourg (1348–49), fol. 322r. Credit: The Metropolitan Museum of Art, The Cloisters Collection, 1969. (69.86)



3. Francesco Traini, *Triumph of Death* (detail), Camposanto, Pisa, Italy (ca. 1342). Credit: Alinari/Art Resource, NY.

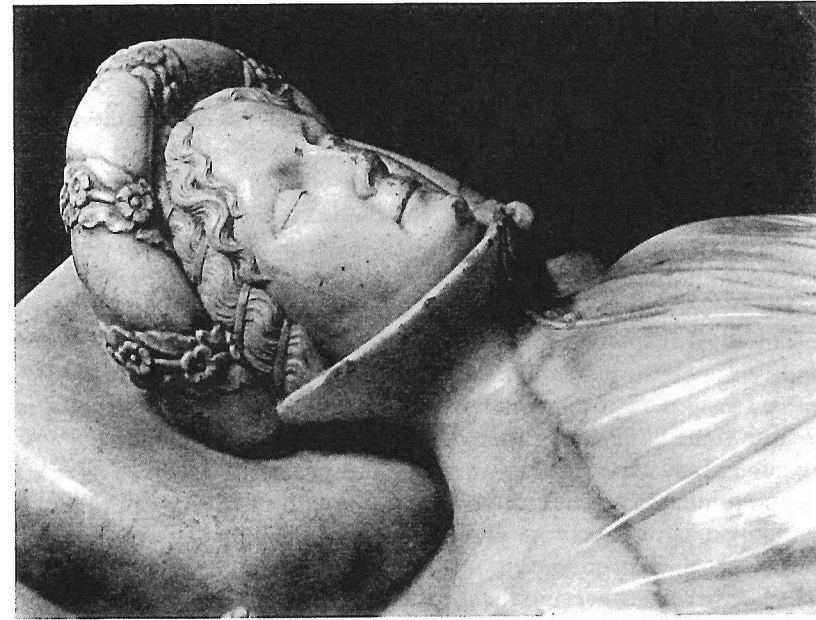
once again, northern Europeans laid great emphasis on the fact of physical decay. One of the most striking manifestations of this preoccupation is the appearance in the later fourteenth century of the *transi*, which figured the deceased in the guise of a decomposing corpse.<sup>39</sup> One famous example is the tomb of Johannes Gmeiner in Straubing, from ca. 1482, with its array of feasting reptiles (fig. 4). But images of this sort had wide appeal throughout northern Europe, where they appeared not only in the fully developed *transi* tomb, which juxtaposed the deceased with an image of the deceased as he or she had appeared in life, but also in a wide array of simpler funerary slabs and monumental brasses. In Italy, on the other hand, there are extraordinarily few such representations; tomb sculpture of the period almost always showed the recently dead person as he or she looked while alive, as clothed in everyday garments and in a quiescent state resembling sleep (fig. 5).

The function of the northern European *transi*, I would argue, was to

39. Analysis and images in Cohen, (n. 35) *Metamorphosis*; Norris, (n. 29); Panofsky, (n. 35) *Tomb Sculpture*, ch. 3.



4. Tomb of Johannes Gmeiner, St. Jakob, Straubing, Germany (ca. 1482). Credit: Foto Marburg/Art Resource, NY.



5. Jacopo della Quercia, Tomb of Ilaria del Carretto, d. 1406 (detail), S. Martino, Lucca, Italy. Credit: Alinari/Art Resource, NY.

show the deceased as dead (a point underscored by the body's nakedness) but during the crucial liminal period of decomposition when corpse was most sensitive and vital, and when the person was still in the corpse. In that sense, it was still a portrait and an immediate image of the self; the penitential aspect of the image<sup>40</sup>—its emphasis on the mortification and humiliation of body—drew its force from the fact that the person himself or herself was continuing in some sense to suffer as the body itself decayed. In Italy, this kind of image would have had no meaning, since the corpse was a castoff from which the person had fled. In fact, as Sharon Strocchia has noted, the funerary monuments of fourteenth- and fifteenth-century Florentines rarely depicted their dead bodies in any form. I would interpret this as meaning that because the corpse was purely an object, with no lingering connection to the person, its claim to representation was tenuous. Instead, Florentines chose to invest in wax and terracotta images (sometimes based on deathmasks)

40. See Cohen, (n. 35) *Metamorphosis*, ch. 2.



as well as painted and sculpted portraits that represented the face of the dead.<sup>41</sup> Discarded at death, the physical selfhood of the person portrayed could only be reconstructed by something that patently declared itself a representation, as the partial nature of the portrait head made clear.

Thus the Italian cult of the dead was fundamentally a "cult of remembrance," as Samuel Cohn has put it, in which the body figured only as an object of earthly memory.<sup>42</sup> Leon Battista Alberti expressed this position clearly in the chapter of his *Ten Books on Architecture* devoted to tombs. While he gave first priority to memorializing the virtues and achievements of the deceased, he wrote, "I think that it is good also to take care of dead bodies for the sake of those who remain alive."<sup>43</sup>

At this point, I would like to return to the puzzle with which I began and to propose that the contrasts I have been describing help us to understand the different meanings of opening and dismembering the corpse in Italy as opposed to northern Europe. In the northern context, the continuing identification of the person with the decomposing body would explain the relative prominence of embalming in northern funerary ritual, as an attempt to prolong a continuing presence and fading life. Furthermore, because the northern corpse was a magical and semi-animate subject, still strongly identified with the self, its place of burial was of prime importance; in an age of primitive embalming techniques, to accede to the wishes of the deceased in this regard might well require division of the corpse. On the other hand, to open or dismember the body for doctors to inspect—an act of no conceivable utility to the deceased, now beyond all medical aid—was an act of objectification and a violation of personal honor. The logic in Italy, I would argue, was reversed. Because the corpse was only a corpse, the castoff of a self now definitively elsewhere, it made no sense to engage in laborious and unsavory efforts to preserve it for distant burial. The person was no longer in the body, so that the significance of the particular place of burial was less magical—provided it took place in consecrated soil—than com-

41. Strocchia, (n. 15) *Death and Ritual*, pp. 45–47. See, in general, Eric Maclagan, "The use of death-masks by Florentine sculptors," *Burlington Magazine*, 1923, 43, 303–04; Julius von Schlosser, "Geschichte der Porträtsbildneri in Wachs: ein Versuch," *Jahrbuch der Kunsthistorischen Sammlungen des allerhöchsten Kaiserhauses* (Vienna), 1910/11, 29, esp. 210–20.

42. Cohn, (n. 31) *Cult of Remembrance*, ch. 4, esp. pp. 135, 151.

43. Leon Battista Alberti, *L'architettura di Leonbatista Alberti*, VIII, 2, trans. Cosimo Bartoli (Venice: Francesco Franceschi, 1565; facs. reprint Sala Bologne: Arnaldo Forni, 1985), p. 268. See Eugenio Garin, "Leon Battista Alberti e il mondo dei morti," *Giornale critico della filosofia italiana*, 1973, ser. 4, 4, 178–89.

memorative and metaphorical: a symbol of religious allegiance, family solidarity, or social rank.

The same assumptions governed the medical practice of opening the body in Italy: a procedure related not to a gradually fading subject, but to an inanimate and selfless object left behind, it served the interests of the living rather than the dead.<sup>44</sup> This was the case not only for public anatomical dissections, but also for an increasingly common practice in fifteenth-century Italy: private autopsies performed on patrician men and women at their own request or that of their families. (As I have already mentioned, postmortems for forensic or public health purposes had been performed in Italian cities since at least the late thirteenth century.) The motives for such autopsies were various. Sometimes family members wished simply to reassure themselves that they could have done nothing further to help their loved one or, conversely, to show that the doctors had bungled the case.<sup>45</sup> More commonly, however, parents aimed to protect their children from hereditary disease; for this reason, many postmortems were of siblings and mothers, whose close physical link with their children during pregnancy seems to have led contemporaries to assume that they were more likely than fathers to influence the physical constitution of their offspring. As Paolo da Certaldo instructed in his mid-fourteenth-century *Book of Good Customs*, "take great care that the wife you take is not born from sickly stock, afflicted with consumption or scrofula or madness or ringworm or gout, because it often happens that some or all of the children she bears will suffer from some of these vices and defects."<sup>46</sup>

Examples of such cases turn up both in doctors' works and in patrician diaries or *ricordanze*. In the second half of the fifteenth century, for example, Bernardo Torni composed a medical opinion for a Florentine judge, in which he described in detail the postmortem he had performed on the man's young son, who had died of unknown causes. Noting that he had performed the autopsy "for the sake of the other children," he

44. I am grateful to Vernon Rosario for helping me understand this point.

45. For a late fifteenth-century case of this latter sort, see Antonio Benivieni, *De abditis nonnullis ac mirandis morborum et sanitationum causis*, in A. Costa and G. Weber, eds., *L'inizio dell'anatomia patologica nel Quattrocento fiorentino, sui testi di Antonio Benivieni, Bernardo Torni, Leonardo da Vinci* (Florence: Archivio DeVecchi per l'anatomia patologica e la medicina clinica, 1952), p. 636.

46. Paolo da Certaldo, *Libro di buoni costumi*, ed. Alfredo Schiaffini (Florence: F. LeMonnier, 1945), p. 84. For some of the tensions and complexities in this belief, see Christiane Klapisch-Zuber, "Blood Parents and Milk Parents: Wet Nursing in Florence, 1300–1530," in her *Women, Family, and Ritual in Renaissance Italy* (Chicago: University of Chicago Press, 1985), ch. 7.

diagnosed the boy's problem as an excess of humidity and phlegm, which had putrefied, and he appended a recipe for a medicine to be administered (as he put it) "to any son of yours of the same constitution."<sup>47</sup> The same motives came into play at the death of Bartolomea Rinieri in 1486. As her husband noted, "Early in the morning my wife Bartolomea died at the age of forty-two or thereabouts. She died of a diseased womb; this caused a flux that had lasted about eighteen months and which no doctors could cure. She asked me to have her opened so that our daughter or others could be treated. I had this done, and it was found that her womb was so calcified that it could not be cut with a razor."<sup>48</sup>

Such cases allow us to define more precisely the relationship between the dead body and the self in fourteenth- and fifteenth-century Italian culture. On the one hand, they suggest that the corpse still contained a genetic self, the physical identity of the lineage, which could provide information useful to the health of family members left behind. On the other hand, they outline starkly the distinction between this genetic self and a personal self, as the autopsies of patrician women make clear. The works of various contemporary physicians and surgeons inform us that male doctors rarely touched their female patients when they were alive or examined them physically, especially in the genital area.<sup>49</sup> For reasons having to do with strict ideas of female modesty and male honor, such examinations and operations, when performed at all, were usually carried out under the doctor's supervision by midwives or other woman practitioners.<sup>50</sup> Yet immediately after death, male doctors regularly performed postmortems in which they felt free not merely to touch but also to open and inspect their female patients' genitals and wombs. Thus Filippo di Matteo Strozzi recorded his wife's death in 1478, noting, "I had her body opened, and Master Lodovico saw it, among others, and he later said to me that he had found the uterus full of putrefied blood, and that this caused her death."<sup>51</sup>

47. Transcribed and translated in Lynn Thorndike, *Science and Thought in the Fifteenth Century* (New York: Columbia University Press, 1929), ch. 6 and Appendix 13; English quotations on pp. 126 and 128, Latin on pp. 191 and 192.

48. Florence, Archivio di stato: Conventi soppressi 95, 212, fol. 171r; transcribed in Katharine Park, *Doctors and Medicine in Early Renaissance Florence* (Princeton: Princeton University Press, 1985), pp. 53-54.

49. Helen R. Lemay, "Anthonius Guainerius and Medieval Gynecology," in Julius Kirshner and Suzanne Wemple, eds., *Women of the Medieval World* (New York: Basil Blackwell, 1985), pp. 323-24.

50. According to the early fifteenth-century physician Niccolò Falcucci, for example, this dramatically curtailed the possibility of operating on women with kidney stones; see his *Sermones medicinales*, VII, 3, 43, 4 vols. (Venice: Bernardino Stagnino, 1490-91), vol. 4, fol. 87v.

51. *Ricordanza* of Filippo di Matteo Strozzi, in Florence, Archivio di stato: Carte strozziane, ser. 5, 22,

An even more extreme example of this unwillingness to apply to the female corpse traditional standards of feminine modesty appears in an anonymous account of the autopsy of Margarita of Città di Castello, who died in 1320. (This autopsy was initially planned as an embalming—a procedure often used in Italy to preserve the wonderworking bodies of potential saints.)<sup>52</sup> Although she had led a life of "decorous virginity," according to her first, anonymous biographer, the city fathers had local surgeons open her naked body, in church, before what he described as "an enormous crowd of brothers, clerics, and seculars."<sup>53</sup> Needless to say, all were gratified when the doctors found that her heart contained three stones inscribed with images of members of the Holy Family.

The quasi-public aspect of this particular autopsy recalls in many respects the nascent practice of anatomical dissection, which, as I have indicated, appeared in Italy at almost exactly the same time. Nonetheless, the social purposes and circumstances of these two medical practices differed greatly. These differences help to explain why, even in Italy, where dissections were regularly performed much earlier than in northern Europe, they were always much more strictly controlled.

As I have already mentioned, the privately initiated autopsy served family interests and was performed in a domestic context. The fourteenth- or fifteenth-century anatomical demonstration, on the other hand, typically took place before a gradually expanding audience of medical students, physicians, surgeons, and, increasingly, visiting dignitaries and interested local notables. Even though the great age of dissection as public theater and edifying entertainment lay in the future, the public nature of the dissection differentiated it dramatically from the private postmortem.<sup>54</sup> Even more to the point, dissection served the purposes only of doctors or their students; unlike the autopsy, it involved no conceivable benefit to the family of the dissectee, while imposing on them significant social costs. These costs lay above all in the assault on

fol. 97r: "Fecy aprire il chorporo e infra li altri vi fu a vederlo Maestro Lodovico, e disse me poi aver trovato la matricie piena di sangue putrafatto, e che questo la fecie perire."

52. For another contemporary case, see Park, (n. 14), pp. 1-2, and the contemporary accounts in Enrico Menestò, ed., *Il processo di canonizzazione di Chiara da Montefalco* (Scandicci: La Nuova Italia, 1984), pp. 84-95, 153-60, 244-49, 339-43.

53. M.-H. Vincent, ed., "La plus ancienne légende de la B. Marguerite de Città di Castello," *Archivum fratrum predicatorum*, 1940, 10, 127.

54. For the sake of brevity, I do not deal here with the growing practice of *private* dissection; see Park, (n. 14), pp. 8-10. See, in general, Giovanna Ferrari, "Public anatomy lessons and the carnival: the anatomy theater of Bologna," *Past and Present*, 1987, 117, 50-106.

family honor involved in both the public display of the dismembered and naked body of the deceased—public dismemberment was the penalty for the most appalling crimes—and in the alterations such a practice would require in the funeral, which was centered, as already noted, on the semi-exposed object of the corpse. It is for these reasons that municipal and ecclesiastical authorities protected the honor of respectable citizen families by restricting dissections to foreigners, particularly foreign criminals. As the anatomist Alessandro Benedetti wrote in 1497, “by law only unknown and ignoble bodies can be sought for dissection, from distant regions without injury to neighbors and relatives.”<sup>55</sup>

Benedetti's exclusive emphasis on the interests not of the dead but of the living—friends and family—underscores once again the differences between northern and Italian attitudes toward the corpse. For Italians, because death had emptied the body of selfhood, opening it did not necessarily involve an attack on personal identity, as is often claimed.<sup>56</sup> Such claims, almost invariably made in the present era by historians of northern European extraction, project northern attitudes onto fifteenth- and sixteenth-century Italians: for the Germans, the French, and the English, imbued with a sense of the selfhood of the recently dead body, dissection (performed primarily on executed criminals) did indeed represent a personal violation and was understandably seen as punitive, by both the judges and the condemned.<sup>57</sup> This accounts for the continuing and widespread popular resistance to the practice that has been documented in northern European countries such as England; there it culminated in the Tyburn riots of the mid-eighteenth century, in which Londoners protested violently at the gallows to deny surgeons access to the bodies of the hanged.<sup>58</sup> Italians, in contrast, seem to have accepted the dissec-

55. Alessandro Benedetti, *History of the Human Body* (1502), translated in Levi Robert Lind, *Studies in Pre-Vesalian Anatomy: Biography, Translations, Documents* (Philadelphia: American Philosophical Society, 1974), p. 83; Latin text in Alessandro Benedetti, *Anatomice, sive historia corporis humani* (Paris: Henri Etienne, [1514]), fol. 10v.

56. Cf. Jonathan Sawday, “The Fate of Marsyas: Dissecting the Renaissance Body,” in *Renaissance Bodies: The Human Figure in English Culture, c. 1540–1660*, eds. Lucy Gent and Nigel Llewellyn (London: Reaktion, 1990), pp. 112–35; Glenn Harcourt, “Andreas Vesalius and the anatomy of antique sculpture,” *Representations*, 1986, 17, 28–61; Devon L. Hodges, *Renaissance Fictions of Anatomy* (Amherst: University of Massachusetts Press, 1985), esp. pp. 3–5.

57. Peter Linebaugh, “The Tyburn Riot against the Surgeons,” in *Albion's Fatal Tree: Crime and Society in Eighteenth-Century England* (London: Allen Lane, 1975), p. 76; Ruth Richardson, *Death, Dissection and the Destitute* (London: Penguin Books, 1988), p. 76; Clare Gittings, *Death, Burial, and the Individual in Early Modern England* (London: Croom Helm, 1984), p. 70. Gittings associates this belief with others relating to the semianimate corpse, such as the existence of corporeal revenants and the healing power of the body parts of the recently dead (pp. 67–72).

58. Linebaugh, (n. 57); see also Thomas Laqueur, “Bodies, death, and pauper funerals,” *Representations*, 1983, 1, 109–31.

tion of hanged criminals and other foreigners with relative equanimity, although they naturally objected when medical students, eager for cadavers, disrupted local funerals by snatching corpses from their tombs or biers.<sup>59</sup> By the same token, Italian judges, unlike English ones, never used dissection, and rarely used posthumous dismemberment, as a way of aggravating the death penalty: because the dead body was no longer identified with the person, it made no sense to exact further revenge from an inanimate corpse. Their preferred practice was rather the public display of executed bodies, which represented an assault on the honor and memory rather than the person of the condemned.<sup>60</sup>

But these considerations take us into the early modern period, when northern European doctors had bowed to the intellectual model of their Italian predecessors and accepted the importance of human dissection in the medical enterprise. This acceptance inevitably produced a fissure between the attitudes of northern medical researchers and their upper-class patients, on the one hand, who accepted the benefits of dissection and autopsy as outweighing its costs, and working-class families, on the other hand, who had little access to professional medical care and the assumptions about professional training and practice that underpinned it (and whose members were after all much more likely to end up on the wrong end of the noose).<sup>61</sup> The latter seem to have retained a characteristically northern commitment to the cadaver's continuing sensitivity and identity with the person, leading northern doctors to complain impatiently of benighted popular attitudes and what the early eighteenth-century English physician Bernard Mandeville called the “superstitious reverence of the vulgar for a corpse.”<sup>62</sup>

The later Middle Ages saw no such rift between popular and professional or official attitudes, in either Italy or the North. Instead the rift was geographical; the contrasting assumptions in both regions about the nature and status of the recently dead body permeated all levels of society and culture, and the sensibilities of late medieval jurists and doctors seem to have differed little in this respect from those of their poorer and less formally educated compatriots. Indeed, I would argue that the con-

59. Lodovico Frati, *La vita privata di Bologna dal secolo XIII al XVII* (Bologna: Nicola Zanichelli, 1900), p. 118.

60. See Antonio Pertile, *Storia del diritto italiano dalla caduta dell'Impero Romano alla codificazione*, 2nd ed., 8 vols. (Turin: Unione tipografico-editrice, 1892), 5, 260–70; Samuel Y. Edgerton, Jr., *Pictures and Punishment: Art and Criminal Prosecution during the Florentine Renaissance* (Ithaca: Cornell University Press, 1985).

61. Gittings, (n. 57) *Death, Burial, and the Individual*, pp. 75–77; Robert Martensen, “‘Habit of Reason’: Anatomy and Anglicanism in Restoration England,” *Bull. Hist. Med.*, 1992, 66, 518–24.

62. Cited in Gittings, (n. 57) *Death, Burial, and the Individual*, p. 75.

trast between northern and Italian attitudes also marked the work of contemporary theologians and philosophers on the body and its relationship to the soul; where the Italian Thomas Aquinas simply denied any formal continuity between the living body and the corpse, northern theologians in the late thirteenth century emphasized that continuity, engaging in heated debates about its nature and the complicated issues it raised concerning proper funerary practice and the ultimate resurrection of the body at the Last Judgment, as Elizabeth Brown and others have recently described.<sup>63</sup> But it would be misguided to assign any constitutive power to those debates; they reflected rather than shaped more widely held attitudes in their respective cultures concerning the nature and the life of the corpse.

63. Brown, (n. 2); Bynum, (n. 10); Santi (n. 10). See also Brown, "Authority, the family, and the dead in late medieval France," *French Historical Studies*, 1990, 16, 803-32.

## Notes and Events

*Sarah Davidson Wangensteen (1908-1994)*

On 28 September 1994, Sarah Davidson Wangensteen, Senior Medical Historian Emeritus in the Department of History of Medicine at the University of Minnesota, died after a brief illness, a little more than three months past her eighty-sixth birthday.

Born at Saint Paul, Minnesota, on 21 June 1908, the daughter of Watson Polk Davidson and Sarah Mathilda Davidson, Sarah Davidson grew up in a large, comfortable house on Summit Avenue. She attended the Summit School, a private school for girls, where the headmistress, the redoubtable Sarah Converse, encouraged her students in habits of independent thought and action. When Miss Converse visited the Davidsons at their summer home on Isle Royale in Lake Superior, she noted that the Davidson boys started and operated the motor boat, while Sally, as she was called by her family, was merely a passenger. Miss Converse insisted that Sally should learn how to start and operate the boat just as her brothers did, and Sally thereupon learned the mysteries of engine and boat so that she could operate it herself. It was a lesson in independence that she never forgot.

In 1926 Sarah Davidson entered Vassar College, where she was graduated in 1930 with a major in English and History, and was elected to Phi Beta Kappa. On her return to St. Paul she became in 1932 a research assistant at the Minnesota Historical Society. In 1937 she also began to do historical research for the Departments of Political Science and of History at the University of Minnesota and in 1941 assisted Helen Clapesattle in editing for publication the manuscript of her famous book, *The Doctors Mayo*, published that year by the University of Minnesota Press. Sarah Davidson's editorial skill resulted in her being invited in 1943 to go to Washington, D.C., to work at the American Historical Association. There, during World War II, she edited *GI Roundtable Pamphlets* for the Information and Education Division of the United States Army. On her return to Minnesota in 1945 she became managing editor of the medical magazine *Modern Medicine*, where she worked until 1954, when she resigned to marry Dr. Owen H. Wangensteen, chief of the Department of Surgery at the University of Minnesota.

In 1954 the University of Minnesota was world famous for its recent development of methods to correct congenital defects within the ventricles of the heart. The development at Minnesota of the technique of cross circulation to support patients undergoing open heart surgery, followed in rapid succession by the development of the DeWall-Lillehei bubble oxygenator, the battery-