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## EDITORIALS

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## Leprosy and Social Class in the Middle Ages

The hospital emerged as a unique institution during the most brilliant period of the Middle Ages in Western Europe (roughly 1050–1348). Most medieval hospitals were not medical institutions at all, usually caring for pilgrims, widows, orphans, and reforming prostitutes. Among hospitals with at least quasi-medical functions, leprosaria were very prominent. In 1250, Toulouse had at least seven well-endowed leprosaria to serve a population of 25,000 at maximum.<sup>1</sup> France (roughly corresponding territorially to the modern nation) had approximately 2000 leprosaria in the year 1300, while England had several hundred.<sup>2–4</sup> Yet, by 1300, leprosy was clearly declining in England. Only half of the available hospital spaces were filled and some leprosaria began to be converted to other uses.<sup>2</sup> Estimates of the prevalence of the disease are unrealistic since there are inadequate data available. None-

theless, it is clear that the institutional response to leprosy exceeded any real need. In this paper, I should like to discuss the following question: Why did leprosy evoke so disproportionate an institutional response? I will argue that a perception arose sometime around 1100, and persisted at least until the Black Death of 1348, that leprosy was a peculiar burden of the upper classes of society.

Before considering this question in detail, however, we must first determine what the term *lepra* connoted in the High Middle Ages, how leprosaria fit into the social structure of medieval Europe, and why the response to leprosy at an institutional level implied a commitment of the upper classes.

**The diagnosis of leprosy.** First, let us consider the disease. It has been fashionable among historians to claim that the term *lepra* represented a loose diagnostic expression, indicating a wide variety of skin diseases. This is the view of Brody, Bonser, Creighton, and McNeill, among others.<sup>5–7</sup>

<sup>1</sup> Mundy, J. H. Charity and social work in Toulouse, 1100–1250. *Traditio* 22 (1966) 203–287.

<sup>2</sup> Richards, P. *The Medieval Leper and His Northern Heirs*. Totowa, New Jersey: Rowan and Littlefield, 1977, pp. 5–93.

<sup>3</sup> Brody, S. N. *The Disease of the Soul: Leprosy in Medieval Literature*. Ithaca and London: Cornell University Press, 1974, pp. 221–198.

<sup>4</sup> Ell, S. R. Leprosy In: *Dictionary of Middle Ages*. Strayer, J. ed. New York: Charles Scribners' Sons, 1936, vol. 7 (in press).

<sup>5</sup> Bonser, W. *The Medieval Background of Anglo-Saxon England*. London: Wellcome History of Medicine Library, 1963, p. 371.

<sup>6</sup> Creighton, C. *A History of Epidemics in Britain*. pp. New York: Barnes and Noble, 1965 (reprint of 1894 edition), vol. 1, pp. 69–113.

<sup>7</sup> McNeill, W. H. *Plagues and Peoples*. Garden City, New York: Anchor Press/Doubleday, 1976, p. 175.

Much of the medical writing of the period before 1100 comes from encyclopedic authors. Of these, Isidore of Seville (570–636) was the most influential. He did not clearly describe leprosy at all, but rather the diseases satyriasis and elephantiasis whose relation to leprosy is quite unclear.<sup>8</sup> Hrabanus Maurus, ninth century abbot of Fulda, wrote of leprosy as an indicator of heresy<sup>9</sup> following a tradition of associating leprosy with false religion which dated back at least to Gregory of Tours<sup>10</sup> (as opposed to uncleanness, an association found in the Old Testament), but which did little to define the disease itself.

The translation and dissemination of Greek and Arabic medical texts radically altered the level of medical argument in Western Europe, just as the more general task of translating classical works transformed intellectual life.

By the 12th century, Western European medical writers and the Arabic sources they took to be authoritative offered descriptions of a disease, *lepra*, which clearly included leprosy. While no single sign or symptom of the disease is pathognomonic, certain combinations of signs and symptoms are. Autoamputation of the digits with nasal destruction, facial coarsening and vocal changes, for example, occur in no other disease. Certainly in considering a variety of commentators on leprosy, such as Gilbertus Anglicus, Theodoric of Cervia, John of Gaddysdyn, Guy de Chauliac and the author upon whom they drew most heavily, Avicenna, it is clear that leprosy as we know it was being described. Let us examine, for a moment, a portion of the description of leprosy left by Theodoric of Cervia<sup>11</sup>: “. . . the face becomes puffy, the hairs of the eyebrows and eyelids thin out . . . nodules are felt in the skin . . . the voice wavers, tending to lower . . . if patients are pricked in the ankle bone and are unaware, they feel little, similarly on the leg.” Every symptom men-

tioned is a well-recognized feature of leprosy. Yet, Theodoric describes several types of leprosy, each with supposedly characteristic symptoms. Many of these relate to the supposed imbalance of humors producing the disease. It is clear that some of what Theodoric describes occurs in leprosy, but not all. The question remains: Was leprosy the only disease connoted by the term *lepra*?

The examination of skeletons of persons who died in medieval leprosaria permits an affirmative answer to this question. An examination of 202 such skeletons from the medieval leprosarium at Naestved, Denmark, permitted a positive diagnosis of leprosy in 155 or 77%, work duplicated by two independent researchers.<sup>12, 13</sup> In this case, skeletons from an ordinary cemetery a short distance away with one exception among 633 cases, and that one from a time before leprosy patients had to be buried in separate cemeteries, showed no such changes, arguing against the possibility that these were the result of weathering.<sup>2</sup> Seven of eight skeletons from South Acre in Norfolk showed evidence of leprosy.<sup>14</sup> An extensive study of the leprosarium at Aachen showed leprous changes in over 80% of the skeletons examined.<sup>15, 16</sup> All of these remains date from the 13th through the 16th centuries. No medical literature has appeared to dispute that such osseous changes as those described result only from leprosy.

In general, osseous changes would not be expected in anything like this proportion among modern leprosy patients. Such changes are largely the result of long-standing lepomatous leprosy, so that nearly all of the patients dying in medieval leprosaria had lepomatous leprosy. This argues that medieval diagnosis of leprosy was conservative, tending to select out the most extreme cases.

<sup>12</sup> Moller-Christensen, V. *Bone Changes in Leprosy*. Copenhagen: Munksgaard, 1961.

<sup>13</sup> Andersen, J. E. *Studies in the medieval diagnosis of leprosy in Denmark*, M.D. thesis, Copenhagen, 1969.

<sup>14</sup> Bayliss, J. *Domus leprosa*—community care in medieval England. *Nurs. Times* 75 (1979) 62–67.

<sup>15</sup> Schmitz-Cliever, E. *Zur Osteo-archaologie der mittel-alterlichen lepra*. *Med. Hist. J.* 6 (1971) 249–263 and 8 (1973) 182–200.

<sup>16</sup> Schmitz-Cliever, E. *Das mittelalterliche leprosarium Melatan Bei Aachen*. *Clio Medica* 7 (1972) 13–34.

<sup>8</sup> Isidore of Seville. *Allegoriam quaedam Sacrae Scripturae*. *Patrologia latina*, 83:127.

<sup>9</sup> Hrabanus Maurus. *De universo*. *Patrologia latina*, 111:501–503.

<sup>10</sup> Gregory of Tours. *Historia francorum*. *Monumenta Germaniae historica*, RSM, I, 1:93.

<sup>11</sup> Theodoric of Cervia. *The Surgery of Theodoric*. Campbell, E. and Colton, J., trans. New York: Appleton Century Crofts, 1955–1960, vol. 2, pp. 167–182.

One may argue that some of these persons acquired the disease in the leprosarium; that is, they were initially misdiagnosed but later contracted the disease. Possibly this did occur, but modern understanding of leprosy argues strongly against such a phenomenon playing a major role. A high proportion of individuals exposed to leprosy contract the disease in some form, but the vast majority of cases are subclinical and only a few persons exposed in this way could be expected to show overt leprosy,<sup>17-19</sup> and only a further few of those could anticipate osseous changes. It is sometimes argued that the organism itself has changed,<sup>2</sup> but there is no evidence of any kind to support this contention. Indeed, there has recently been strong medical objection to such notions on the ground that the clinical expression of leprosy is entirely host-dependent.<sup>20</sup>

Leprosy was not a diagnosis to be taken lightly. As early as 757, the Frankish law permitted leprosy as grounds for divorce. Alexander III specifically forbade divorce on the basis of leprosy in 1180, but a year earlier the Lateran Council decreed that leprosy patients could not share church, cemetery, or even social life with the non-afflicted. By 1220, it was a civil crime for a leprosy patient to live among the healthy. Further, the diagnosis occasioned a religious rite in which the leprosy patient was cut off from the rest of Christian society. Leprosy patients were legally dead in some parts of Medieval Europe.<sup>2, 21-23</sup> Medical writers tended, at least by the 14th century, to recommend a conservative approach to diagnosis. Gaddysdyn stated that only one whose

face had been destroyed by the disease should be declared a leprosy patient.<sup>14</sup> Guy de Chauliac, probably the most important late medieval commentator on leprosy, advised that doubtful cases be observed over time, so that the disease could declare itself unequivocally.<sup>3</sup> For all of these reasons, only frank lepromatous leprosy was likely to be diagnosed as leprosy at all, precisely in keeping with the results of the leprosaria studies.

**The medieval hospital as institution and social expression.** Medieval hospitals were pious benefactions of individuals or families. Even royal foundations, such as St. Giles, founded by Queen Matilda early in the 12th century,<sup>24</sup> were acts of individuals, with no concept of the state involved. Indeed, the medieval period is conspicuous for its lack of a concept of the state or of government existing apart from the person of the ruler.

Thus, hospitals functioned as private institutions of charity. Charity, in turn, was defined as the love of God with all one's heart and soul and the love of neighbor as of self. The hospital's role was not that of medicine but that of hospitality. Only seen as a personal expression of piety and primarily non-medical does the medieval hospital come into focus.

The "flowering" of medieval civilization was based on a narrow agricultural surplus which permitted both a sharp rise in population and the concentration of wealth in the hands of a tiny elite. With few exceptions, high medieval institutions were the constructs of the highest levels of society, the nobility, the rich ecclesiastics, and the wealthy burghers. Leprosaria were such a construct.

Whatever else they may have disagreed over, these disparate fragments of the upper classes were united in contempt for the peasantry. As Duby has recently written,<sup>25</sup> when the deprivations of warring nobles further impoverished the peasantry, outrage was expressed at the resultant loss to the landowner. Involuntary poverty was a mat-

<sup>17</sup> Godal, T. Immunological detection of sub-clinical infection in leprosy. *Lepr. India* 47 (1975) 30-41.

<sup>18</sup> Myrvang, B. Immune responses to *Mycobacterium leprae* in man. *J. Oslo City Hosp.* 25 (1975) 3-24.

<sup>19</sup> Job, C. K. Leprosy—the source of infection and its mode of transmission. *Lepr. Rev.* 52 Suppl. (1981) 69-76.

<sup>20</sup> Harboe, M. *Mycobacterium leprae* and host response. *Lepr. Rev.* 52 Suppl. (1981) 1-14.

<sup>21</sup> Jeanselme, E. Comment l'Europe au moyen age se protegea contre la lepre. *Bull. Soc. Fr. Hist. Med.* 25 (1931) 1-155.

<sup>22</sup> Delaunay, P. Histoire de la medicine: de la condition des lepreux au Moyen Age. *Hippocrate* 2 (1934) 456-460.

<sup>23</sup> Cougoul, J. E. *La Lepre dans l'Ancienne France*. Bordeaux: Delmas, 1943.

<sup>24</sup> Kealey, E. J. *Medieval Medicus: A Social History of Anglo-Norman Medicine*. Baltimore: Johns Hopkins University Press, 1981, pp. 82-107.

<sup>25</sup> Duby, G. *William Marshall, Flower of Chivalry*. New York: Pantheon, 1985, pp. 33, 123-153.

TABLE 1. *Early medieval references to leprosy and their associated imagery.*

Type of document	Number	Type of reference to leprosy			
		Worldliness	Heresy	"Epidemiological" <sup>a</sup>	None <sup>b</sup>
Chronicles	16	4	9	1	2
Saints' lives	20	5	12	0	2
Biblical commentary	24	6	13	1	5
Total	60	15	34	2	9

<sup>a</sup> This refers to any comment on who is most likely to acquire leprosy. One such work is quoted in the text; the other refers to the lascivias.

<sup>b</sup> Leprosy mentioned, or a person identified as having leprosy, but no comment made on its significance.

ter for contempt. In general, the upper classes looked after their own interests. The interests of the poor merited some lip service but little action. Hospitals looking after widows and orphans were institutions which could and did serve high families fallen on hard times. Prostitution was a risk of a woman without adequate dowry.<sup>26</sup> Pilgrims of whatever origin were revered but, again, the serf who went to a distant shrine was the exception, while high nobles were expected to undertake some pious journey.<sup>25</sup>

Thus, leprosia imply a commitment of the upper classes and it would be atypical if the goal was not in their favor. One may reason quite logically that the goal was freedom from contamination, but an examination of the literary imagery surrounding leprosy suggests an alternative explanation, namely, that the upper classes saw themselves at particular risk for the disease.

**Literary imagery: Leprosy as heresy to leprosy as worldliness.** Medieval exegesis and even popular literature equated various diseases with moral states. Disease was a figure, as distinct from a symbol, of the moral state. A symbol signifies something else, while a figure **has** the quality it signifies. David as king is a figure of Christ in that he symbolizes the Heavenly King, but is also a divinely appointed king himself. Thus, a disease might symbolize a moral state, but the sufferer was also felt to be in that moral state. With this in mind, let us consider a striking change in literary imagery that occurred around 1100.

Tables 1 and 2 summarize references of various types to leprosy. Note that in the

Early Middle Ages, when the diagnosis of leprosy was uncertain, leprosy was equated with heresy. Once the diagnosis became reliably that of the disease we know as lepromatous leprosy, the imagery shifted to worldliness, especially pride, avarice, gluttony, sexual license and neglect of spiritual values. While no sample of medieval texts can be called random, these references were collected while researching two general articles on images of disease and the physician in the Middle Ages. These articles were not concerned primarily with leprosy.<sup>27, 28</sup> Thus, they are to that extent impartial. Further, one must note that certain literary genres rose and declined during the transition from Early to High Middle Ages. Hagiography declined sharply in the High Middle Ages, while the Early Middle Ages had little vernacular literature. Yet, even within the same genre, imagery changed. Note that in biblical commentaries, the early medieval sample shows leprosy associated with heresy more than twice as often as with worldliness, while the larger high medieval sample equates leprosy with worldliness over four times as often as with heresy, despite the tremendous tendency to copy exegetical works from earlier periods word for word.

Consider the transformation of a single story, the legendary (and clearly fictional) leprosy of Constantine. In the original version of unknown authorship, Constantine the Emperor is afflicted by leprosy and begs a cure from Pope Sylvester II. In return for the cure, Constantine grants the papacy

<sup>27</sup> Ell, S. R. Concepts of disease and the physician in the Early Middle Ages. *Janus* 65 (1978) 153-165.

<sup>28</sup> Ell, S. R. The two medicines: some ecclesiastical concepts of disease and the physician in the High Middle Ages. *Janus* 68 (1981) 15-25.

<sup>26</sup> Kirshner, J. Pursuing honor while avoiding sin: the *Monte delle doti* of Florence. *Studi Senesi* 89 (1977): 177-258.

TABLE 2. *High and late medieval references to leprosy and their associated imagery.*

Type of document	Number	Type of reference to leprosy			
		Worldliness	Heresy	"Epidemiological"	None
Chronicles	20	7	0	0	13
Saints' lives	8	5	2	0	1
Biblical commentary	32	26	6	0	0
Courtly literature	30	23	0	0	7
Medical tracts	10	3	0	6	1
Total	100	64	8	6	22

temporal dominion in Western Europe. This is the fictional basis of the forged but famous Donation of Constantine,<sup>29</sup> one of the keystones of papal claims to worldly dominion. In the hands of Gregory of Tours in the 6th century, this story is reworded around the baptism of Clovis. The former pagan is described as a "new Constantine," shedding the "disgusting macules" of leprosy at the ceremony.<sup>10</sup> It is unclear if Gregory actually thought Clovis had leprosy, but his language is so graphic as to leave considerable doubt. In any case, heresy (paganism was not demarcated from heresy in this period—the Islamic religion was considered a heresy) is central to the imagery of leprosy. As cited above, influential writers, such as Isidore of Seville and Hrabanus Maurus, specifically equated leprosy with heresy.

When one enters the literature of the High Middle Ages, there is an abrupt shift. The leprosy of Constantine in Dante's *Inferno* is the punishment for his worldly pride, not his pagan past.<sup>30</sup>

Nowhere is the change in imagery more striking than in the new vernacular literature of which the *Divine Comedy* is the masterpiece. To be sure, significant amounts of vernacular literature were new to the High Middle Ages, but they were intended for courtly and educated audiences. Perhaps the most singular such work with regard to leprosy is *Der Arme Heinrich* (c. 1200), discussed at some length by Brody.<sup>3</sup> The hero, Heinrich, is a knight possessed of the chivalrous virtues, noble birth and wealth. Yet,

he is *wertlich*, worldly, and for this he is punished with leprosy. His only chance for cure lies in the possibility of a chaste girl sacrificing her life for him. A pure peasant girl, reasoning that death before she is tainted by lust or other sin will surely lead to salvation, offers herself. Perceiving truth at last, Heinrich prevents the girl's sacrifice, thereby renouncing the world himself (considering the legal status of leprosy patients), and is cured.<sup>31</sup> The parallel imagery of the knight noble in the eyes of the world, impure to God, and the peasant girl, contemptible to the world yet pleasing to God, is remarkable. As already commented, the peasantry, if mentioned in medieval literature at all, almost invariably evoked derision. Yet the noble "leper"/pure peasant motif enjoyed considerable popularity.

Medieval courtly literature—and real life—abounds with tales of noble "lepers." No true epidemiology of leprosy in the Middle Ages seems possible, but in light of the sharp reversal of imagery surrounding the disease at the time when it came clearly to be recognized as the disease we know today, it is difficult to dispute that the upper classes felt themselves at peculiar risk.

They may have had reason to feel so. Certain pious practices might well have put them at unusual risk. Queen Matilda (c. 1110), wife of Henry I of England, brought leprosy patients into her chambers, washed their feet, kissed their sores, and fed them. Her brother David (later King of Scotland) roundly cursed her for this practice on one occasion, but later took up the practice him-

<sup>29</sup> Tierney, B. *The Crisis of Church and State*. Englewood Cliffs, New Jersey: Spectrum Books, 1964, pp. 18–21.

<sup>30</sup> Dante. *Inferno*. Canto 27, lines 94–97.

<sup>31</sup> Hartmann von Aue. *Der Arme Heinrich*. 4th ed., Gierach, E. and Knight Bostock, J., eds. Oxford: Blackwell, 1965.

self. William of Malmesbury, who recounts this story clearly, admired such actions.<sup>24, 32</sup> Henry I himself made leprosy the "royal disease" of England in a sort of thaumaturgic prestige contest with the King of France.<sup>24</sup> One of the major contributors to Matilda's leprosarium, Saint Giles, was Robert Fitz Ralph, himself a victim of leprosy.<sup>24</sup>

Examples of behavior like that of Matilda suggest again a preoccupation with leprosy on the part of some nobles. At the same time, they suggest that avoidance of the temptations of the world might free one of genuine risk, whether of the disease itself or of sin is unclear. In any case, it is clear that high nobles had a direct experience with the disease through pious acts and thereby, perhaps, an increased risk of infection. The popular image of the wandering leprosy patient ringing his warning bell and of villagers scattering in fear is markedly at variance with the scene in the apartments of the Queen of England.

**Conclusion.** On the basis of the best evidence at hand, namely the skeletal remains of those thought to have had the disease, leprosy was accurately diagnosed in the

Middle Ages, and corresponded basically to lepromatous leprosy. However tempting it may be to proclaim medieval ignorance of the disease, there is physical evidence that persons diagnosed as suffering from leprosy in fact did.

At the same time that this diagnosis became reliable, a striking change in literary imagery occurred. Leprosy ceased to be the figure of heresy and became that of worldliness. The noble "leper," sometimes contrasted to the pure peasant, became a popular literary motif, and one at variance with essentially all other literary imagery relating the orders of society. Nobles poured lands and funds into leprosaria, out of proportion to actual need. Far from fleeing contact, some pious nobles sought out direct contact with the afflicted and probably did increase their risk of infection. Whatever the real epidemiology of leprosy in medieval Europe, it is inescapably apparent that the perceived burden of leprosy fell on the upper classes and that the literary, social and institutional response to the disease reflected that perception.

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<sup>32</sup> William of Malmesbury. *Willelmi Malmeshirensis Monachi de Regum Anglorum*. Stubbs, W., ed. London: Rolls Series 90, 1887–1889, vol. 2, p. 494.