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Beyond the Grave — The Use and Meaning of Human Body Parts: A Historical Introduction

Susan C. Lawrence

In a recent essay on the use of body parts from newly dead human beings for organ transplants and medical research, Ruth Chadwick concludes that “rational ethical arguments have failed to hold sway in thinking about the dead [as exploitable objects] because of possible strong intuitions about the respect due to the corpse. It has been accepted, however, that the corpse has importance as a symbol, and that foetal remains and particular parts of the body have especially strong symbolism which cannot be ignored.” Chadwick appeals, throughout her article, to vague references from the past to support her point that corpses were “symbols” of the living human being and that this “symbolic” presence explains the common “intuition” that the dead — like the living — deserve respect. She assumes, like many other contemporary writers, that she need not justify that the living deserve respect, nor that more might be said about just what it is — and was — that corpses and their parts symbolize. While Chadwick’s philosophical reflections primarily concern organs, and not entire bodies or small tissue samples, her approach to the meaning of human body parts is typical in that it rests upon a set of relatively recent values primarily expressed in secular Western cultures. Certainly Chadwick is quite right to stress that symbolic meanings must be understood in order to ground an ethical position on the appropriate use of human materials; what is not clear from her comment, however, is just how much those symbolic meanings have varied over time and place and how much they still vary among people from diverse political, economic, intellectual, and religious backgrounds within Western societies.

In this essay I outline the wide range of ways that human beings have used body parts in the past, primarily within Anglo-American cultural frameworks and experiences. I concentrate on practices much more than on the formation of theories (e.g., development of abstract legal perspectives or philosophical analyses of the “body”) or the expression of particular ethical principles (e.g., should body parts be used? should medical researchers be allowed to use tissue samples stored from days before informed consent?). A focus on historical actions, including suggestive comments on how these actions made sense at particular times and places, offers us a way to look at the harmonies and tensions between expressed values and cultural practices. At a time when taking, stor-
ing, and using human tissues for a variety of purposes seems to have become a common practice in Western biomedicine with little advance discussion about their status in law or contemporary ethics, a historical perspective can sharply remind us that practices always express cultural values (whether overt or hidden) and that cultural values vary considerably among different populations, even within a single overarching group defined by religious or political boundaries, be they medieval Europeans or twentieth-century Americans. To create useful, fair, and sensitive ethical guidelines for future use of human materials requires that we take the diversity of beliefs and practices of a pluralistic society into account.

Because this essay offers a very broad historical survey, I do no more than raise significant connections between beliefs and practice, introduce a few general themes, and refine the way that we ask questions about the "ownership" and "use" of human parts (skeletons, organs, blood, or tissues). I have two overarching points to make. First, beliefs about the location of humanness and personal identity — in the body, the brain, the soul, or combinations of these "places" — shape the meaning and value that humans ascribe to body parts. Hearts, blood, brains, and eyes, for instance, have long seemed more powerful, more central to personhood, or more attuned to spiritual connections than hair, saliva, leg muscles, or kidneys. Hence generalizations about "human parts" whether in historical research or in ethical guidelines will founder unless we recognize that different religious and cultural groups ascribe different hierarchies of values to body parts and that these change over time. In the same vein, I claim that the ways in which humans have used body parts at any particular time and place depended directly on the meaning (status, power, value, etc.) attached to the human being from whom they came. The corpses of saints and the corpses of criminals in the medieval period had widely differing meanings, despite their apparent similarity as dead human beings. These meanings — whether taken literally or understood as symbolic of "higher" ideas — allowed pieces of the former to be venerated and pieces of the latter to be reviled and "punished."

Second, I emphasize that the principles of "autonomy" and "informed consent," which have emerged specifically in twentieth-century Western cultures shaped by beliefs in democratic government, a service-capitalism economy, and secularly defined law and moral codes, have started to transform practices previously imbued with religious beliefs about life after death and/or specific social rituals that demonstrated "respect" for dead bodies and their parts. Performing specific rituals over the dead, be these for "proper" burial, entombment, or cremation, has long been held, indeed, to be one of the central characteristics distinguishing the "truly human" from the animal.3 Disposing of
the corpses of other people as if they were unwanted animal carcasses has been a ubiquitous way of identifying certain individuals or entire peoples as unworthy of respect, from the suicide hung at the crossroads in early modern Europe to the mass graves of attempted genocides. From this perspective, I suggest that part of the ongoing revulsion, or at least ambivalence, that many people feel about using parts of human bodies (if not other people's, at least their own) for medical or scientific purposes comes from deep cultural beliefs that proper disposal of the dead means laying the body to "rest" — literally in burial, symbolically in cremation — with all the deceased's parts and organs together. Putting the values of autonomy and informed consent into practice, of course, demands that kin, ministers, physicians, and hospital administrators (among many others) all respect the decisions of an individual about what happens to his or her cells, tissues, organs, and entire body during life and after death. Understanding and respecting why people refuse to donate parts of themselves for others to use is just as important (although "irrational" to some) as accepting why other people do so willingly. Until all of the living believe that use of their own and their loved ones' body parts in therapeutics, teaching, and research actually demonstrates appropriate "respect" for the individual dead person, the tension between those who want parts for these purposes and those who refuse to give them will persist.

These points clearly make sense for human materials (entire corpses, significant organs) that obviously embody a sense of human identity and personhood, parts that individuals should be able to have disposed of in ways that are meaningful to them. Tissue samples (bits of organs taken for biopsy, a few vials of blood, small sections stored in pathology labs for histological examination), in contrast, appear too small to matter. Like the hair, saliva, and skin cells that we shed every day, it seems almost absurd to worry about a "proper," respectful laying to rest of such scraps. Yet, as other essays in this volume emphasize in several different ways, even tiny pieces of individual people have taken on new meanings and new values over the past decade. The abstract knowledge that nearly all of our cells contain our own unique versions of DNA now has concrete implications for personal identity. Laboratory techniques can produce individualized DNA profiles in a matter of hours from either fresh or stored tissue samples. Serious issues of privacy for the living and the dead and of profit for genetic researchers are but two of the areas where the recent developments in science will quite literally reshape human attitude toward their own cells. Just as Western societies have witnessed transformations in beliefs about the use and meaning of entire corpses and the use of the viable organs of the newly dead, so too will we experience a cultural shift — and cultural conflicts — in attitudes toward minute parts. Whether these will be
resolved by procedures for informed consent and adherence to the values of personal autonomy remains to be seen.

In this essay, I range over many centuries and touch on a wide variety of "uses" for human body parts. I do so in order to juxtapose practices and debates that I have not yet seen considered together. It has seemed as though the uses of body parts in religious worship, in criminal law, in medical treatments, in medical education, and in anthropological research have all been primarily considered within each discrete and isolated field. Each area of life or thought defines the "body" in different ways; these ways in turn justify the exemption of parts from burial (or reburial) and allow pieces to be put in storage or on display. Because such attitudes can diverge widely from each other and yet somehow co-exist in the same legal and moral universe, even as that universe changes over time, their comparison offers us possible insights into current areas of conflict and compromise.

I organize my discussion around the basic areas of human experience that have dominated beliefs about human body parts and the uses to which they have been put. While the discussion is roughly in chronological order, I must stress that all of these areas are at work at all times, either implicitly or explicitly. These are religion, political/legal, and medical. I close with my view of the specific ways in which a historical perspective contributes to the meaning and treatment of stored tissue samples.

**Religion: The Sacred and the Profane**

I begin with religion because so much of the literature concerning dead human bodies emphasizes the very basic social practice of the proper disposal of the dead for religious reasons. These reasons have sometimes been explicitly theological: correct burial, entombment, or cremation of the dead body is necessary for the existence and happiness of the person in the next life, either right after death or at some point in the future. Whether involving a literal concept of bodily resurrection (as in certain strands within Christianity) or a symbolic one sensitive to a "natural" integrity of the decaying corpse, such religious beliefs create strong and important rituals around the disposal of the dead body. These rituals, moreover, often serve to protect the living from the anger or revenge of the newly dead and hence incorporate the power of fear of the corpse as well as love and respect for the dead person.

Even when religious dogma places less emphasis on the intact presence of the corpse for a period after death (as with cremation), social rituals developed through both religious and more broadly cultural beliefs have almost univer-
sally stressed that certain acts display appropriate respect for the dead. The nearly ubiquitous notion of the importance of showing "respect" for the human corpse has its roots deep in religious traditions, no matter how secularized this "respect" became in nineteenth- and twentieth-century Western societies. In turn, mutilation of the dead body, delayed burial, disinterment, and inept treatment of the corpse during embalming, the funeral service, and burial have all been interpreted as marks of "disrespect" that nineteenth- and twentieth-century Anglo-American courts have judged to be liable as torts in common law. Close relatives who suffer emotional distress from such acts have thus won damages, whether or not they explicitly appealed to violations of religious beliefs.

Within the Judeo-Christian tradition, the dead body and its disposal acquired intense religious meaning. The ancient Hebrews, in practices that continue in orthodox Judaism, insisted upon the immediate burial of their dead and a ritualized period of mourning for the family and community. The continuing concerns about the "uncleanliness" of the corpse and desecration of the body by cutting into it — "mutilation" — have shaped a long tradition of resistance to autopsies and the dissection of Jews for teaching purposes. Christianity, in its emergence from Judaism in the context of Greco-Roman culture, developed a much more complex theological relationship to the dead. In part, the rejection of Jewish laws and customs helped early Christians to distinguish themselves from the older religion, and denying the innate "uncleanliness" of the corpse was part of this larger trend. That Roman law similarly held the corpse to be offensive, requiring burial outside the city, for instance, and absolutely forbidding the violation of buried or entombed remains, similarly demarcated Christianity from the dominant pagan culture.

Yet the crucial significance of the physical and spiritual resurrection of Christ meant that Christians also needed to deal more particularly with the meaning of the dead body both at the time of death and for its resurrection at the Last Judgment. Caroline Walker Bynum has explored, in sophisticated detail, the conflicting perspectives among Christians from the church fathers of the third century to the theologians at the start of the fourteenth century on just how resurrection was supposed to occur. Much of the theological and liturgical discussion among church elites centered on the importance of the material resurrection of the body as vital for the continuance of the individual. Even with a separate soul constituting a distinctly immaterial spiritual self, the full self, these men argued, emerged with the individual personhood of lived experience in particular flesh. Thus, the debates on the self in the afterlife (did a person continue to have a gender? an age? physical evidence of valued martyrdom?), even when "perfect" (which meant?) with God, constantly dealt

*The Use and Meaning of Human Body Parts*: 115
with the problem of the apparent physical decay of the corpse and its eventual role in defining the self after death. Some sort of bodily resurrection, in short, was profoundly necessary for medieval thinkers, at the same time that it raised considerable anxiety about the burial of the whole body. It was a considerable comfort for some, for example, to believe that a person would be reunited with an amputated limb when made perfect at Judgment, just as other damaged parts would be made whole and well again for eternal happiness.9

Such arguments for the material resurrection of the body as it was in life (not, of course, as a decayed corpse),10 however, had a tense relationship with another practice developed within medieval Christianity: the importance and power of saints’ relics.11 Holy relics included pieces of the true cross and objects, like clothing, that saints had used in life; they also included body parts, primarily bones, blood, and hair, but also sometimes organs and completely mummified corpses. One argument made at the time, of course, was that such pieces — particularly necessary parts like bones and organs — would be reunited with the saint at Judgment, but that in the meantime the saint had a perfect body in heaven. At the same time, however, relics of bone and flesh were quite literally part of the saint and still invested with her or his spiritual power. They were not mere symbols, then, but active spiritual material, existing, as Christ had, in at least two places at once. Relics, moreover, could be further divided over time and thus distribute a particular saint’s presence and benefits to more people.12

The crucial difference between the ostensibly horrifying practice of cutting up the bodies of holy people soon after death, or the at least unsavory willingness to disinter bodies and distribute what was left of the remains (usually bones, but sometime mummified flesh), and such acts on the body of a common sinner rested in the purpose of the dismemberment and the subsequent veneration of the parts.13 Laid in appropriate reliquaries, some of which were complex works of art, the saint’s body parts in some sense were more than respected: they were venerated and adored.14 Of course, Catholic priests and theologians were extremely careful not to permit idol worship. The remains themselves were not literally divine. Instead, the presence of part of the saint’s body allowed the worshiper to concentrate on the lessons of the saint’s life — even if just holiness in general — and to find a path to the saint, who was alive in heaven, for intercession with God. The presence of relics was clearly not necessary for miracles to occur, yet their proximity acted rather like a catalyst. By simply existing they encouraged people to take pilgrimages to visit them, to fear them if not properly revered, and to credit their presence with healing powers.15

As sacred and powerful objects, relics became important adjuncts to the
founding of new churches and monasteries during the European expansion of Catholicism in the fourth to fourteenth centuries. They also became items of exchange, pieces “gifted” for favors, for prestige, and for political and religious influence, as well as more crudely marketed commodities. Indeed, the proliferation of relics, especially the increasing number of forged ones, raised the ire of Catholic reformers throughout the later Middle Ages. Sixteenth-century Protestant reformers, in turn, not only criticized the undoubted reverence for false relics, but quickly denied the canonization of saints and abolished the veneration of human remains as outright idolatry. The concern over the authenticity of holy parts and objects led, during the Counter-Reformation, to the pope’s creation of the “Sacred Congregation for Indulgences and Relics.” True relics continue to have an important place within twentieth-century Catholicism, although it is far more difficult to have new ones accepted by the church. The use and treatment of relics are closely regulated by canon law, which states, for example, that selling relics is simony and hence forbidden. If there is still a cash market for relics, it is either underground or based upon the material, artistic, or historic value of the reliquary, not upon its spiritual power. Stories told about pious priests and monks casting out the bones of ordinary people when they were discovered to be forgeries, Protestants destroying previously saintly relics, and French revolutionaries smashing the Catholics’ sacred remains, moreover, attest to the ways in which lack of respect for these human fragments had potent religious and political meaning.

**Law: Property and Torts**

Just as parts of the saintly body were long venerated in Western culture, so were the bodies, and parts of bodies, of dying heretics and criminals burnt, dismembered, hung to rot, or crudely buried outside of consecrated ground in order to continue their punishments into the next life. All of these marks of excommunication and infamy, moreover, served secular powers (for the church technically could not execute people) throughout the medieval and early modern periods as ways to terrorize potential wrongdoers. While all Protestant denominations rejected the adoration of saints’ relics, most Protestant sects and Protestant rulers continued to include public execution and public humiliation of the corpse as important elements of punishment for the most heinous criminals, especially murderers, until the eighteenth or, in some instances, the nineteenth centuries. “Respect” and “decent” burial, in short, were only for “respectable” and “decent” people.
The association of mutilation of the corpse with postmortem penalties for murderers offered the earliest rationale for the official use of dead bodies in medicine for nontherapeutic purposes. From at least the early fourteenth century, evidence exists that academic physicians had begun to supervise public dissections of human cadavers. Starting in Italy, at the University of Bologna, it appears that secular rulers granted a few corpses of executed criminals to be cut up to demonstrate the parts of the body in association with readings from standard texts. Elite physicians, assisted by local surgeons, held these "anatomies" perhaps two or three times a year. By the early modern period, it is clear that in some cities the "anatomies" were open to nonmedical people who found edification in seeing the inside of a human being accompanied by a learned account of God's handiwork. Such audiences also felt satisfaction in observing the last visible rendering of justice upon the criminal. Whether or not people believed in the literal resurrection of the body, the murderer—who was already excommunicate in Catholic jurisdictions—suffered symbolically. Secular rulers also intended that the final indignity of dissection, and then burial (if at all) in unconsecrated ground, would deter would-be felons from the crime. By the mid-eighteenth century in England, the state further linked the penalty for premeditated murder with anatomical dissection by surgeons for the pedagogic benefit of practitioners and apprentices. The 1752 Murder Act replaced the judge's discretion to add dissection to the sentence of death with the requirement that the corpses of murderers in London were to be cut up at Surgeons' Hall.

The official connection between dissection and punishment for murder carried significant political and cultural meaning in the following decades. Between the 1740s and 1800 medical education expanded in London, as it did in other major cities, and getting a good medical training increasingly required that all students actually dissect a human body with their own hands instead of simply watching a dissection with a large crowd of pupils. Surgeons' apprentices and other students soon found that the official anatomies of murderers were insufficient and turned to corpses "resurrected" from graveyards for needed material. By the late eighteenth century "professional" body-snatchers—who were not medical students or anatomists—had begun a profitable business supplying dissecting rooms with material. It is highly likely that such body-snatching had gone on discreetly for centuries; but by the early nineteenth century the demand for cadavers had increased to the point where laypeople could no longer tolerate the violation of cemeteries and the commodification of the dead. Disgust at the practice intensified, as Ruth Richardson amply describes, because body-snatchers took the dead from respectable graves instead of just "using" the bodies of the very poor. This shift
led, after convoluted political turns, to the Anatomy Act of 1832. This act became the standard model for anatomy acts passed in Canada, Australia, and other British territories, as well as in various states in America from the mid-1830s to the 1920s.

The provisions of the Anatomy Act of 1832, to which I return below, stemmed not only from a major shift in ideas about appropriate medical training, but also from the status of the corpse in law and contemporary regulation of burials. Laws governing appropriate burial, including, for instance, the requirement to provide a reasonable interment for any stranger dying in one's house when no relatives could be found, had emerged in both church law and common law by the early modern period. An equally complex body of law developed around the proper disposal of corpses during times of famine and epidemics, when the secular powers of city, parish, or state needed to ensure burial, and sometimes even cremation, for those whose relatives could not manage it. Such provisions led, in turn, to laws regulating burial for reasons of “public health,” a discipline that with hindsight may be seen developing in medieval cities, but which is clearly articulated only early in the nineteenth century.

A central question in Anglo-American law, and of considerable import for the political implications of the use of parts of dead human bodies, is the extent to which a property relationship can exist between the living and the corpse. The hallowed traditions of English common law state that there can be, in fact, no ownership of a dead human body at all. What has evolved, instead, are definitions of “legal possession” of the body. Those who own the property where a person dies have proper “possession” until someone with a greater claim arrives to take possession of the corpse for burial. Such a claim, in turn, rests upon the responsibility of kin to ensure that the body is decently interred, and the order of duty follows degrees of relationship: from spouse, to adult children, to parents, and so on through near kin back to the owner of the property where the person died.

The origins of the principle that “there can be no property in a dead corpse” are, as many English legal texts complain, quite obscure. Indeed, according to the best historical and legal analysis I have seen to date, this precept emerged from a series of errors in understanding early modern jurists and in interpreting fragments of reports of seventeenth-century cases. As Paul Matthews explains, however, once the principle (even if incorrectly based) became enshrined in common law, it became the common law and was so treated by judges from the eighteenth century on. This point is extremely significant, for it means that in Britain the corpse itself and its parts have no standing under the law for damage, theft, exchange, or inheritance. None of the ways
in which property is defined, managed, or transferred in either criminal or civil law can apply directly to the dead body. Mutilation of a dead body, inappropriate disinterment, and the like must thus be handled under laws specifically about the corpse. Because it is not property, the body cannot be willed by its owner, although the kin can of course try to fulfill the deceased's (lawful) wishes. Before the Anatomy Act of 1832, therefore, a person could not be prosecuted for “stealing” a dead body, either before or after burial, because it was not theft; someone caught with a “resurrected” corpse could only be charged with the theft of the shroud or winding sheets or the coffin, if that was also taken too. These were the property of those who provided them or, failing that, of the next of kin. This interesting situation meant that those tried for body-snatching usually faced only a misdemeanor (due to the small value of winding sheets and shrouds), instead of a felony, which at this period was punishable by death.

In the United States, as writers on the law have discussed in detail, the corpse is usually considered “quasi-property.” It is not true property, a point of view inherited from English common law, yet it has some of the elements of a property relationship with the living. In effect, “quasi-property” means that, just as in the case of right and duty of possession in England, kin (or legal alternates) have the privilege and responsibility to see that the dead relative is disposed of properly. As in English law, a hierarchy of relationship degrees lays out the order of precedence in making the funeral and burial decisions. In both English and American law, moreover, the requirements of public health and the public interest in the apprehension of criminals give authority to various branches of government to interfere with the kin's plans for burial or cremation. Public health concerns might dictate further medical investigation or immediate cremation of a “dangerous” corpse; the police and the court system can order autopsies, and the storage of a dead person, to satisfy the needs of investigation and justice. Samples of the corpse's body fluids, organs, and tissues can then be kept after the dead body is released for burial for as long as needed by the prosecution and defense to run tests.

This body of law, in England and America, nicely deals with the death and final disposal of most people. When conflicts and complaints about the treatment of the corpse arise, many problems end up in civil, rather than criminal, courts. While a hospital, government agency, undertaker, or burial manager cannot be sued for damage to “property” if someone feels that the body of his or her relative has been abused, the offended kin may sue for wrongs done to the feelings, dignity, respect, or status of the surviving (and presumed loving) relations. Much case law in both nations exists on this process, and U.S. courts have heard claims for damages for the distress caused by, among other things,
mutilation by unauthorized autopsy, mutilation by unauthorized dissection, negligence in gathering up the body parts of someone killed by a train, improper embalming, use of a too-small coffin, and fraud in returning ashes from a group cremation instead of from individual cremations, as the company promised. In all of these cases, the relatives had to convince the court that the mistreatment had severely disturbed them, occasioning emotional pain by the lack of proper respect shown for the remains of those close to them. While relatives can be distressed by such wrongs, moreover, the way that these actions work means that strangers cannot sue on the same grounds. The courts have decided, at least so far, that without a close relationship with the deceased during life a person, even the executor of the estate, cannot be distressed enough to bring a valid claim for damages.32

Combining the principle that there is "no property in a body" (or that the corpse is only "quasi-property") with the duty of the householder (or equivalent) to dispose of the body of an unclaimed person dying on his or her property and with the case law that denied "strangers" the grounds to sue for maltreatment of a corpse gives the underlying mind-set not only for the cultural and political formation of the British Anatomy Act of 1832, but also for subsequent Anglo-American legislation on unclaimed corpses. In brief, the act allowed the overseers of the poor, parish offices, masters of workhouses, hospital administrators, and magistrates to provide the bodies of those who died in their care (or who died on the street or in some other public place) to licensed anatomists working at licensed medical schools, provided that the individual had not explicitly stated that he or she did not want to be dissected or that the relatives of the deceased objected. In effect, the act meant that a poor person dying with no relatives at hand to object could be dissected if the official with "legal possession" of the body (i.e., those in positions listed above) so decided. At this point, hired undertakers moved the corpse to a medical school, where the anatomist took "legal possession" of the cadaver. In 1832 the act specified that the anatomist could have the body for eight weeks, at which time the law required that all the remains be buried "decently."33

As Ruth Richardson has stressed, this legislation embodies not only important elements of political maneuvering by the classes with power and wealth to protect their own graves, but also a continued association of dissection with punishment, in this case punishment for dying while dependent on the state or charity (via poor rates, workhouses, hospitals) for support.34 The act did manage, however, at least to express upper-class sensibilities about the final disposal of even the very poor and abandoned in proper graves and their concern that bodies, even if in fragments, be interred with all of their parts. Under the powers invested in the newly created "Inspectorate of Anatomy," the gov-

The Use and Meaning of Human Body Parts : 121
ernment's officers supervised the act, which eventually supplied an adequate number of cadavers for medical schools' demands.

The Anatomy Act in Britain was modified slightly in 1872, and reworked in 1984, but the basic status of the corpse in law and the primary responsibility and rights of kin to dispose of the dead have not changed. Similarly, when the commonwealth nations and states of the United States adopted the British Anatomy Act, each legislative body modified it to suit local conditions and jurisdictions, but kept the essential idea — the use of state-dependent, "unclaimed" bodies for anatomy teaching in medical schools — intact. Until World War II — for reasons as yet not clearly understood — the part of the act allowing the explicit donation of one's own body after death for dissection was very rarely invoked; by 1951 voluntary bequests had only reached 40 percent of the annual supply for dissection, climbing to between 70 and 100 percent in the 1960s and the 1970s. In most areas in the United Kingdom and the United States today, donations of bodies (many expressed well before death) to medical schools fill the educational demand; in the United Kingdom, however, the old law is still on the books and is occasionally applied to the bodies of the unclaimed dead.

In a very important sense, as this discussion has shown, the law actually has had very little to say about human body parts other than for anatomical dissection or proper burial before the development of organ transplants and complex biochemical and genetic studies. Legislation passed between the 1960s and 1980s in Britain and the United States (e.g., the 1968 Uniform Anatomical Gift Act) has more or less dealt with the issues and procedures involved in organ transplants, particularly in declaring that human body parts for transplantation cannot be knowingly exchanged "for valuable consideration." Yet there was, and still is, a large shadowy area where medical practitioners and scientists take, keep, and use "worthless" bits of human bodies without questions of law, "respect," or responsibility crossing their minds. The various "anatomical" and "tissue" acts governing dissection and organ transplants have major loopholes, in fact, when it comes to the disposition of human material not for therapeutic purposes, but for medical and scientific research. The 1987 amended Uniform Anatomical Gift Act (which most states have adopted in some form or other), for example, prohibits the sale of organs and tissues for transplant, but not — by obvious omission — for use in teaching and research. This is the case, I believe, in part because researchers have taken "useless" human material for centuries without the practice being seen as problematic by people or groups with both significant political power and moral objections. In the past twenty years, however, the constant expansion of clinical research requiring blood and tissue samples and the exponential growth in
the amount of personal information that can be recovered from body parts mean that issues of lawful possession, respectful disposal, informed consent, and biological privacy have taken on new force and new urgency.  

**Science and Medicine: Body Parts and Artifacts**

The first use of human body parts for what we could reasonably call “medicine” in Western culture appears in therapeutics. Heinrich von Staden has observed (following Mary Douglas’ important insights in her *Purity and Danger*) that the early Greeks, from whom we have a fairly large number of well-studied texts, used “impure,” “polluted,” “dirty,” or similarly despised materials for therapeutic ends. The underlying rationale was simple: in certain diseases, conditions, or individual cases, the disorder-causing problem needed to be “drawn out” or (in a modern metaphor) neutralized, by the most potent of substances. The worst, most unsavory, “dangerous,” and forbidden things had considerable power and hence, if applied carefully, could cure. Among the unsavory and forbidden substances were various kinds of animal feces, poisonous plants, and, in certain contexts, human blood, tissues, and bones. The use of human material was rare, but it persisted. Von Staden reports, for example, that a Greek physician, Artemon, prescribed drinking spring water “from a murdered person’s skull” for epilepsy. Almost two thousand years later, seventeenth-century European pharmacopoeias contained remedies that required “mummy” — the dried remains of human bodies.  

Such beliefs might seem to be no more than odd stories from quasi-magical folk traditions, except that they reveal the way in which credible medical practitioners can essentially redefine certain body parts. Laying “therapeutic” over “offensive” or “disgusting” shifts the moral category of using human parts from intolerable to permissible. In Western societies, the continuation of the taboos against using parts of dead (and living) human beings as food or fertilizer fails to shift the moral category of this material from intolerable to permissible, despite logical arguments about the possible utility of such practices. Similarly, using parts of dead bodies to make artistic works (outside of certain historical curiosities) has been taken as inappropriate, if not totally offensive. Hence the therapeutic use of human substances, from blood transfusions to the implantation of fetal brain cells into people with Parkinson’s disease, is and will continue to be controversial precisely because medicine’s power to redefine the meaning of human parts requires much more than rational arguments about beneficial outcomes. It requires, I suggest, a certain coherence, or compatibility, between the kind of body part employed, the proposed pur-
pose, and the broader, often emotional, value of the body part — or the dead body as a whole — to the living.

The appeal to therapeutic benefit, nevertheless, is currently the most convincing way to make the use of human substances acceptable. The appeal to “science” is much more fraught with ambiguities. An argument for educational necessity — as with the “need” for human cadavers for medical students — falls somewhere in the middle, as certain practices, such as dissection, have been justified by the presumed therapeutic benefit of well-trained practitioners. In the following discussion, I concentrate on the use of human body parts for “science,” without explicit analysis of the development of reasons for use in teaching, primarily because the rhetoric of formal medical education and training has always included the necessity of educating neophytes in the medical “sciences,” whatever those have been at different times and places.  

Anatomy was, of course, the first “science” that needed human body parts for study, although much of the early work that the Greeks, and then Greco-Romans, did on the structures of bodies was done on animals considered analogous to humans.  

Physiology — knowledge of how the body functioned — depended in part on descriptions of body parts, but, until the eighteenth and nineteenth centuries, was shaped around what moderns tend to see as “merely” philosophical constructs, particularly the system of the four humors and three (or more) basic “souls” or well-springs of action, such as digestion/nutrition and the motions of muscles. As noted in the section on law above, the study of human gross anatomy changed in the fourteenth century, with the occasional demonstration of the interior parts of the body on the corpses of criminals. But it is important to stress here that until the “solids” (organs, etc.) were seen as significant locations of normal and pathological processes for which some therapy could be devised most practitioners considered that intensive attention to the details of human structure was nearly irrelevant to clinical practice. The academic study of anatomy for elite practitioners expanded in sixteenth-century Italy, as the notable example of Vesalius’ monumental On the Fabric of the Human Body (1543) attests.  

Thus, during the centuries in which Europeans most actively gathered and partitioned the physical remains of holy people, medical practitioners actually had relatively little interest in dissecting, describing, and mapping human remains for the sake of “knowledge.” The former was sacred; the latter profane. At the same time, however, men of the law became interested in seeking the marks of crime — especially poison and dead wounds — within the bodies of those (usually important people) who died unexpectedly. The need to understand the evidence produced with forensic autopsies, in fact, may well
have been one of the key reasons why demonstrative human dissection began at the University of Bologna, a major center for the study of law in the thirteenth and fourteenth centuries.48 Medical men, for both legal and, increasingly, medically diagnostic reasons, performed postmortem investigations of the body's interior over the next centuries, but many of these were focused on answering specific questions about the cause(s) of death, and they were rarely open explorations into pathological anatomy before the eighteenth and nineteenth centuries. Autopsies were more acceptable to people than is generally assumed, primarily because the procedure could be restricted to certain areas of the body (e.g., excluding the head) and were always restricted in time. A postmortem physical examination might take a few hours, but after that the usual arrangements for the funeral and burial continued. The corpse, then, while disfigured by the operation, was (supposedly) interred with all of its parts and with appropriate “respect” and “decency.” Certainly relatives and friends objected to autopsies, and usually had their way, until the later development (in the nineteenth century) of the “interests” of the state, superseding the interests of kin for evidence in criminal investigations.49

More significant than the increasing number of autopsies in the early modern period was, I believe, the start of museums that contained specimens of human body parts. The historical development of the “museum” itself, from private collections to state institutions, has recently received critical academic study. In one sense, medieval churches had “collections,” as did the courts of monarchs and nobles who acquired, and sometimes displayed, various “interesting” objects. But it was not until the sixteenth and seventeenth centuries that collecting and display became a specific goal, with items set into dedicated spaces and attention spent on printing catalogs. As Paula Findlen details, the beginning of collections of items of “natural history” is particularly intriguing, as some collectors tried to gather together material that would present all the regularities and curiosities of the natural world.50 Fascination with “odd” animals, plants, and rocks had, of course, existed since the Greeks wrote texts describing natural phenomena and the Roman author Pliny composed his encyclopedic account of all things familiar and strange. During the medieval and early modern period, however, nature’s wonders primarily revealed the hand of God, discussed both in sophisticated theological treatises on God’s creation and in the traditions of hermeneutic, magical, and symbolic lore. In both genres, human-produced “monsters” (malformed fetuses and newborns) embodied moral and spiritual messages, signaling God’s general displeasure, the wages of sin, the foolish behavior of the pregnant woman, or warnings about future catastrophes.51 It is not too surprising, then, that some of the first anatomical specimens of human parts preserved for display were
abnormal fetuses, who hardly counted as “human” at all to their observers. They were kept, however, as objects to be studied, not simply as hideous displays to be feared and interpreted as portents. The early modern collections of natural materials, as Findlen argues, then helped to shift the interest in creatures, plants, and rocks from the magical and metaphysical to the natural and rationalistic.52

Just when anatomy professors at universities, and surgeons in their guilds, started to collect human parts for study and teaching is still obscure. Certainly there were articulated skeletons and separate human bones (perhaps prepared from dissected criminals) kept for examination by the sixteenth century. Bones, of course, as the longest-lasting parts of the human body, were available to be “found” in ways that other parts were not; bones, once dried, moreover, did not generally need to have anything else done to preserve them. In contrast, it was quite difficult to save any other part of the body unless it could be desiccated rapidly in a relatively sterile environment (as the Egyptians knew with their embalming methods, and Europeans knew with salting and drying). In general, however, keeping specimens of human parts in ways that would allow future examination of their structures was not done until a series of new techniques for anatomical study and preservation appeared between the 1660s and 1680s. Injections of mercury into arteries and veins revealed tiny vessel patterns. Injecting liquids that solidified, especially colored waxes, allowed the tissues to be removed after the liquid hardened, while preserving the shape and distributions of the arteries and veins. Even more significant was the discovery, in the early 1660s, that parts placed in “spirits” (high-proof alcohol) in a sealed glass container would not decompose. Both high-quality glass containers and spirits were quite expensive at the time, however, and so “potted” specimens did not become widespread until the nineteenth century, when improvements in glass and spirit manufacture made cheaper containers and preservatives possible.53

These new methods led to a passion for collecting anatomical materials. Anatomy collections in Amsterdam, Leyden, Paris, London, Bologna, and Padua all became well known by the mid-eighteenth century. In London nearly all the successful anatomy teachers created their own sets of materials for study and teaching, and these became valuable resources.54 By the mid-eighteenth century most surgeon-anatomists deliberately tried to preserve specimens of pathological structures, as well as normal anatomy. In the first decades of the nineteenth century in the medical schools that developed around hospitals, examples of diseased organs and tissues were frequently linked to specific case records or autopsy-room log books.55 With the shift
to the anatomy of tissues — histology — from the 1840s on, gross anatomical specimens made room for collections of slides, which in turn prompted techniques for preserving slide samples for research and teaching. Anatomy museums also housed papier-mâché casts and models made of wood and wax, as well as diagrams and illustrations.56

As this sketch of the basic history of anatomical collections suggests, typical historical accounts are remarkably quiet about the source of the human materials for specimens. In part this stems from the way that the collectors recorded and labeled their materials. The “objects” were universalized into “the bones of the leg” or “a fetus of three months” or “a liver displaying cirrhotic change.” Such abstractions of the particular nicely fulfilled the needs of teachers and students, for whom the specimens were supposed to represent “typical” human structures, whether “normal,” “diseased,” or “deformed.”57 Presumably some parts came from lawfully dissected criminals, without asking the executed person for “donations”; but it is very doubtful that these bodies accounted for many of the specimens. “Resurrected” corpses more than likely provided the bulk of the organs and sections preserved in eighteenth-century England and elsewhere. Specimens from snatched bodies had no provenance, perhaps not even names; “consent” to their donation was, by definition, a moot point. Under the Anatomy Act of 1832, moreover, the provision for complete burial of the dissected person literally meant that in Britain no organs or sections could be removed for preservation in anatomical collections, although enforcing this was problematic.58

“Interesting” parts from autopsies also ended up in museums, and perhaps postmortem inquiries furnished some apparently normal organs for study and preservation, especially after the Anatomy Act went into operation. It is nearly impossible to know if the relatives who permitted an autopsy also gave permission for specimens to leave the body. In a few instances in their accounts, medical writers noted that the relatives or attendants denied permission to remove organs. They offered such explanations to account for possible errors in descriptions that they gave from memory, from notes, and from on-the-spot sketches. In others, as suggested by a story that an early nineteenth century medical student at St. Thomas’ Hospital told his family in a letter, determined practitioners performed autopsies even when they knew that permission had not been given. With such practices adding excitement to medical life, presumably removing a part, such as the heart or stomach, could be easily justified and then disguised by adding stuffing, closing the incision, and placing the corpse in a shroud.59

By the mid-eighteenth century common law principles in England held that
no one had property in dead human bodies or parts of dead human bodies. But anatomists behaved otherwise. As I have already discussed, there were people who removed bodies from graveyards to sell to anatomists in the eighteenth century, although plenty of “amateurs” (i.e., medical students) did this work without payment. Such “trade” ostensibly went on in secret, although it is likely that quite a few people were aware of these practices but did not raise a fuss when only the bodies of the very poor or unknown were taken. It is important, then, that a “trade” in preserved body parts went on quite openly in the eighteenth century and probably continued into the nineteenth and twentieth centuries. Several of the men who lectured on anatomy in London and who acquired their own teaching specimens retired or died with quite a bit of money tied up in their collections, and these were sometimes put up for sale. A few printed catalogs of the auctions for anatomical preparations survive and show beyond doubt that human pieces were sold and bought for cash. After the 1832 Anatomy Act required the burial of all the parts of dissected bodies, the inspector of anatomy for London blithely told anatomy lecturers to purchase necessary anatomical specimens “from the Continent,” ironically endorsing an international trade in human body parts because the law would not support a local one.

In recent law review literature on the status of body parts as property, the only lawsuit regularly cited that specifically concerned anatomical specimens occurred in Australia in 1908. In Doodeward v. Spence, ultimately considered by the High Court of Australia, Mr. Doodeward was a showman who displayed “the preserved corpse of a stillborn child with two heads.” Entrepreneurs had put on “freak shows” including deformed animals, living dwarves, and “fat ladies” at least since the seventeenth century in Europe, and such exhibits had become popular parts of traveling circuses in the nineteenth and early twentieth centuries. Doodeward’s stillborn fetus was nothing really new at this time, but it offended some local sensibilities, and he was prosecuted for “indecent exhibition of the corpse.” The police removed the specimen, placing it in a university museum; when he demanded its return, they gave him only “the bottle and preserving fluid.”

When the three judges of the High Court considered the claims, they divided over the application of the common law principle that human bodies are not property combined with the problem that “lawful possession” was usually given to those who wished to bury the body, not to keep it bottled in preserving fluid. Hence neither the police department nor the university had any claim to the fetus that was better than Doodeward’s. The court eventually ruled, two to one, that the specimen be returned to Doodeward. One of the
majority decided this on the grounds that the stillborn fetus was not a human corpse. The other, Justice Griffin, however, argued that

when a person has by the lawful exercise of work or skill so dealt with a human body or part of a human body in his lawful possession that it has acquired some attributes differentiating it from a mere corpse awaiting burial, he acquires a right to retain possession of it, as least as against any person not entitled to have it delivered to him for the purpose of burial, but subject, of course, to any positive law which forbids its retention under the particular circumstances.64

Until further research uncovers lawsuits that involve treating other (non-fetal) anatomical specimens as property, the significance of the Doodeward case rests on Griffin's attempt to articulate a criterion that distinguishes anatomical specimens from other possible uses of parts of dead bodies. As Paul Matthews points out, however, this is a weak argument, considering that skilled work on other "natural" objects does not make them into the personal property of the worker.65 For Matthews, the key argument here is that a person who possesses anatomical specimens can only be challenged by "a person with a better right to possession." Following this point to its logical conclusion, moreover, clearly suggests that a "better right" rests only in people with the first right of possession (i.e., the relatives) who intend to dispose of the body and its parts.66

Lastly, anatomical and pathological collections have housed body parts removed during surgery, which mostly meant amputations before the invention of anesthesia in the 1840s and the spread of sterile operating techniques in the 1870s to 1890s. Very little is known about the history of living patients' reactions to the storage and display of their parts. A few recent legal cases, however, show that some people have in fact attached considerable meaning to the final fate of their excised tissue. A case in Dallas in 1975, for example, centered on a patient who sued for his intense distress upon learning that his excised eye had been lost down a drain; here he claimed damages for negligence, as well as for emotional pain.67 In Browing v. Norton—Children's Hospital, in Kentucky in 1974, a man sought financial solace after the hospital cremated his amputated leg because he had a lifelong intense fear of fire and was very upset when imagining his leg burning.68 As Browing, and others, have discovered, however, surgical consent forms generally contain language that gives the hospital control over excised tissues for disposal, educational use, or research. Even without formal consent, it has been understood that patients in effect "abandon" such materials at the hospital, and so they can hardly ask for them back.

The Use and Meaning of Human Body Parts : 129
weeks, months, or years later. Since very few patients have intended to keep, or to destroy or bury personally, their postsurgical parts, no accommodation is made for those who do not express their wishes before the procedure.69

Concern about the status of excised tissues will only intensify as human cells and human genetic material acquire monetary value.70 While the cash market for anatomical specimens for medical museums was (and is) rather circumscribed, the market for developed cell lines and genes promises a great deal more. The case of 

Moore v. the Regents of the University of California (1988–1990) has raised serious issues about who can profit when, in this case, the spleen removed from John Moore for treatment of his hairy cell leukemia ended up providing his doctors with the primary cells for “a cell line that they later patented” with considerable commercial value.71 As discussed above, notions about having property in the body have been resisted in the case of “ownership” over one’s body after death; that legal position has made “ownership” in detached parts of one’s own living body — as in Moore’s case — troublesome to define in law, to say the least. As with the dead body, individuals do not “own” their postmortem body parts, but in most jurisdictions they have the right to determine the disposition of these parts for burial, cremation, or use in transplantation, without “receiving any valuable consideration.” 72 To date, this “gift relationship” has defined the voluntary collection of blood for transfusions (except for some “payment for service” fees) and organs for transplants in Western nations. In these transactions among the living, both the donor (or kin) and donee have agreed to the exchange of blood and organs as a service to the injured and the ill, knowing full well that the “material” is, in a very important sense, priceless.

In Moore’s case, of course, he did not want possession of his excised tissue in order to dispose of it properly; but neither did he understand that he was “giving” it to his physician for potentially profitable research. However valuable previous research on postsurgical or postmortem tissues has likely been in the past, Moore’s case highlights what seemed to be an explicit, direct connection between an individual’s cells and the resultant salable product. In 1990 the Supreme Court of California overturned the appellate court’s decision that Moore had a valid claim. The majority arguments basically decided that Moore in fact had no ownership or right of possession in his cells once they were removed — with his consent — in the hospital; that imposing such ownership on one’s own postremoval cells would unduly hinder important medical and scientific research; that in Moore’s case his cells were not unique, and hence use of them did not invade his privacy; and that the patented cell line was “both factually and legally distinct” from Moore’s original cells.73
court did agree that Moore’s physicians should have told him about their research interests from the start, and hence they had not fulfilled the spirit of fully informed consent when performing the surgery and following his case (taking further blood and other samples) over the next several years.  

In the Supreme Court of California’s decision on Moore’s suit, Justice Arabian expressed his deep repulsion that a person (i.e., Moore, not the scientists who patented the cell line) could consider “the human vessel — the single most venerated and protected subject in any civilized society — as equal with the basest commercial commodity.” That Arabian identified Moore’s cells — or even his spleen — as so much a part of the whole “venerated and protected” person that turning them into a commodity was as morally objectionable as commodifying a living or dead human being ironically speaks volumes for a notion of personhood embedded, like a saint’s grace, in every speck of tissue. Considering the possible biochemical and genetic (hence possibly commercial “value” of the vast numbers of identifiable tissue samples from autopsies and operations saved in pathological and anatomical collections, Moore’s case will not be the last on this problem. Indeed, if Arabian’s comment is to be taken literally, it already marks the beginning of a major cultural transformation in Western attitudes toward heretofore “worthless” parts of the self and others.

Justice Arabian’s moral position on Moore’s cells is doubly ironic, moreover, given the past, and ongoing, treatment of some groups of presumably “venerated and protected subject[s],” as I have already discussed in the use of unclaimed paupers’ bodies for medical school dissection. When we turn from biomedicine to anthropology, and from pathology departments to natural history museum displays, human body parts take on yet another set of political and cultural meanings. As histories of anthropology, discussions of natural history museums, and law review articles on Native American, Aboriginal, and other “origin peoples’” burials and remains make abundantly clear, people of European descent have systematically dug up, collected, transferred, preserved, and exhibited the remains (usually bones, but also “exotic” shrunken heads, human scalps with hair, and mummified connective tissues, for instance) of indigenous humans without any regard for permission from those who could be affected. Newly influential indigenous peoples are not only disturbed over existing collections, moreover, but are also angry about the continuing extraction of remains from burial sites (even though now much more closely regulated) and the resistance to returning remains to indigenous people for proper reburial (even though some have already been “repatriated”). Museum authorities and scientists claim that the bones (and other
parts) need to be examined before they can pass out of the sight and touch of experts. Indigenous people claim that such appeals to “science” mask ongoing racism and ethnocentrism.78

Religious and cultural concerns about proper respect for ancestors are central to indigenous peoples’ claims for repatriation. “Theft” and “desecration” (or, at the very least, disrespect) continue for as long as the remains stay unburied in collections, whether or not on display in natural history museums.79 Native American activism, at least in the United States, has led to federal (and some state) statutes outlining ways to obtain human remains and artifacts from public collections. As John Winski discusses in detail, the National Museum of the American Indian Act (NMAI, 1980) and the Native American Graves Protection and Repatriation Act (NAGPR, 1988, 1990) are two of the most important pieces of recent legislation. From my perspective, it is significant that the NMAI requires that all of the remains held by the Smithsonian first be “identified and inventoried” (since many have not been studied since deposit). Only after that research, which may take decades, “if the tribal origin of such remains can be adequately determined, the affected tribe must be notified and given an opportunity to request their return.”80 This act seems to me to reflect the spirit of the original Anatomy Act of 1832: presumably if remains are unidentifiable, or if the tribe they belonged to no longer survives, the remains have no one to suffer over them and to need their burial. In subtle contrast, the NAGPR extended control over the remains discovered at grave sites “to the lineal descendants of the deceased,” or, if none exist, “to the Indian tribe on whose land the items are found,” or, if on nontribal land, to “the tribe with the closest cultural affiliation to such remains.”81 This act in effect legislated a very broad notion of the “kin” who have an opportunity to care about the remains, and so to bury them.

**Conclusion**

Several legal commentators have explained how the NMAI and the NAGPR take steps toward dealing with the perceived difference in the way that indigenous peoples’ remains have been treated compared with those of identifiable white settlers, whose remains have regularly been reburied when discovered.82 From this perspective, it is interesting that the apparent sensitivity shown to settlers’ bones has not yet been extended to anatomical specimens in medical museums. The people from whom they came, even if now nameless, are quite likely linked by genetic, ethnic, and cultural heritage to the population(s) of the area where the specimen originated.83 Instead of raising concern about
ongoing disrespect toward European, African, and Asian ancestors, however, relatively anonymous anatomical and pathological preparations of body parts somehow express (at least so far) the collective needs of humankind for progress in medical and scientific research and teaching. Whether subliminally categorized as “sacrifices” or “gifts” (especially by people who never actually see any specimens), these pieces have served appropriate goals (knowledge, better health care) in increasingly secular Western societies over the last century.

As I have discussed in this essay, no one can yet claim to own an anatomical specimen as property, although he or she may possess it. Legal reasoning in Anglo-American culture has nonetheless upheld the right of “kin” to decide its final disposition, assuming, of course, that a still-living person did not “abandon” his or her tissue in a hairbrush or in an operating suite. Without kin to present “a better right” to possession, once again, the parts and tissues can stay in the institution currently holding them. But of course these parts and tissues have “kin,” and genetic studies could find them, given enough time and resources to do so. While DNA analysis of relatively recent human museum specimens is not a current intent or interest, discoveries of kin-relationships will likely be an inadvertent side result of historical-genetic research, which is rapidly expanding. If so, being able to give anatomical specimens a collective identity (tribal, ancestral, familial) could quite literally create people who just might care about the status, location, display, or disposal of these remains.

Ethicists, lawyers, genetic researchers, and medical practitioners are currently developing policies that will guide the future collection and storage of human tissue specimens. In these discussions, the principles of personal autonomy and informed consent loom large, reflecting their increasing significance in many areas of medical research and practice. With still unidentified materials from the past, however, the question of “informed consent,” expressing the autonomous wishes of the source person, is irrelevant. We can only speculate vainly about that person’s possible decision, trying hard not to project our own assumptions and preferences onto a ghost. These ethical principles, moreover, will not easily solve the problems of privacy, patents, and potential profits on “useful” cells and genetic material collected in the present and future, as other essays in this collection make clear. From my historian’s perspective, only the firm denial of commodification can possibly accommodate the diverse definitions of “respect” for human beings in a pluralistic society. I urge that we seriously consider restricting research material to tissues and fluids that are the generous, unrestricted gifts of informed adults and their families. I would also urge that development of commercially viable products from these gifts be limited to corporations bound to stringent requirements to reinvest profits into new research, to make a proportion of products available
to those who cannot pay for them, and to value medical ethics above business practices. The gift relationship has maintained a fragile social and moral balance between personal beliefs and medical needs in the donation of cadavers for dissections and in the gift of organs for transplantation; it could do so as well for tissue samples.

Making adherence to these cultural values — autonomy, consent, and the gift relationship — more important than economic gain or research agendas would, of course, be extremely difficult and controversial; nor could they all be fulfilled to the same extent. We are too genetically intertwined to really be autonomous individuals anymore. My decisions about studies of my genome, or those of my as yet unburied ancestors, can affect not only my living relatives, but those yet to be conceived. But such has always been the case: human lives are too socially, economically, emotionally, and physically intertwined for us ever to have been really autonomous individuals, secure in our privacy and informed in our "free" consent. Genetic information will undoubtedly add more risks and fears, as well as hopes and pleasures, to how we live our lives. A historical perspective, nevertheless, offers many reminders that new knowledge and needs inspire cultural adaptations whose very complexities — even internal contradictions — in turn express multiple, conflicting values. How many of those our descendants end up believing in will depend not only upon our seemingly high ethical ideals, but also upon the mistakes we will inevitably make in trying to put them into practice.

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Notes


5. For an example, see Bruce Craig, “Bones of Contention,” *National Parks* (July/August 1990): 17.


13. For evidence that holy bodies were cut up soon after death, see Bentley, *Restless Bones*, pp. 37, 41–42, 94, 110–111, 155, 223.

14. For illustrations of some of the elaborate reliquaries, see Bentley, *Restless Bones*.

15. Bentley, *Restless Bones*, pp. 46–48, 69, 80–81; Bynum, *Resurrection*, has a much more nuanced analysis of these points throughout her work.


*The Use and Meaning of Human Body Parts*: 135


24. For a detailed account of popular gratification in witnessing a dissection of a murderer in 1829, see William Roughead, ed., Burke and Hare (Toronto: Canada Law Book Co., 1921), pp. 272–275.


26. Richardson, Death, passim. The account of the passing of the Anatomy Act of 1832 is the subject of Richardson's book.


29. Paul Matthews, “Whose Body? People as Property,” Current Legal Problems 36 (1983): 197–200; Matthews’ account is quite fine, from my perspective, because he did considerable historical research to tease out what can be known from surviving documents about this principle. Most other authors just take the “no property in a corpse” position as well-established common law.


33. Richardson, Death, pp. 198–215. The text of the Anatomy Act can be found

34. Richardson, *Death*, pp. 219–281.


36. For a detailed survey of U.S. state laws on anatomy before the Uniform Anatomical Gift Act of 1968, see George H. Weinman, *A Survey of the Law concerning Dead Human Bodies, Bulletin of the National Research Council* 73 (December 1929). Many of the statutes Weinmann covers were first passed in the nineteenth century. There is considerable variation among state policies, but all provide that unclaimed bodies go to anatomy schools. The only exceptions, in some states, were for the bodies of strangers passing through a town (unless they were “vagrants”) and ex-servicemen. Most states passed laws in the 1960s and then again in the 1980s to conform to the provisions of the Uniform Anatomical Act suggested by the Commissioners on Uniform State Laws. See their *Handbook* for 1968 and 1987. It is important to note that the 1987 amended Uniform Anatomical Gift Act allows coroners to approve the donation of organs from a person whose kin cannot be found within a fairly short amount of time. This provision was designed to increase the organ supply. Most states do not go this far, and require positive knowledge that the person agreed to be an organ donor, either from an organ donation card or from relatives. One of the few states that followed the provisions of the Uniform Anatomical Gift Act was Ohio. See Ohio Revised Statutes §2108.02 (B7); Erik S. Jaffe, “‘She’s Got Bette Davis’[s] Eyes’: Assessing the Nonconsensual Removal of Cadaver Organs under the Takings and Due Process Clauses,” *Columbia Law Review* 90 (1990): 528–574; Harry J. Finke, “Brotherton v. Cleveland: The Creation of Property Rights by a Federal Court,” *City of Toledo Law Review* 23 (1992): 205–218.

37. Vickie Walker, “The Anatomy Act,” unpublished undergraduate paper (supervised by Roy Porter, Wellcome Institute, London; assisted by Susan Lawrence), 1995, contains some examination of the act’s records from 1934 to 1953; Richardson, *Death*, pp. 258–260. Richardson has noted the apparent correlation between the rise of bequesting and cremation in Britain. Both, she argues, stem from changing beliefs about life after death: a final decline of belief in literal resurrection and a broad social shift toward agnosticism and atheism. These points remain to be researched, however.

38. “Uniform Anatomical Gift Act,” in *Handbook* (1987), p. 182 [§10(a)]. The adoption of the Uniform Anatomical Gift Act by each state means that each state has its own version of this act, although generally in agreement with the provisions of the Commissioners on Uniform State Laws. The 1968 version of the Uniform Anatomical Gift Act, however, did not contain language forbidding the purchase or sale of organs; indeed, it gave the donee, who could be a physician, hospital, or needy person, “absolute ownership” over the material without specifying how it could be transferred to another, except by continuing to call the exchange a “gift” (*Handbook*, [1968], pp. 182–193). For a detailed argument in favor of making organs into monetary commodities, see Roger Blair and David Kaserman, “The Economics and Ethics of Alternative Cadaveric Organ Procurement Policies,” *Yale Journal on Regulation* 8 (1991): 402–452, and the response sustaining the gift relation by Ronald Guttmann, “The Meaning of ‘The Economics and Ethics of Alternative Cadaveric Organ Procurement Policies,’”

For a survey of the legislation covering human tissues in Australia, see Magnusson, “The Recognition of Proprietary Rights in Human Tissue in Common Law Jurisdictions,” Melbourne University Law Review 18 (1992): 612–616. Australian law covers tissues used in research as well as organs used in transplants and, according to Magnusson, prohibits donors “from trading in their own tissue, including blood, in the absence of ministerial permission.” On the other hand, “reputable suppliers are permitted to sell processed tissue for medical or scientific purposes, so long as the tissue is itself obtained without payment” (p. 615). In his review, Magnusson basically argues for recognizing property rights in human parts and tissues on the basis of existing practices.

39. Uniform Anatomical Gift Act (1987), pp. 180, 182. Compare §6(a)(1) with §10(a). The latter states that the donees and purposes of an anatomical gift are “a hospital, physician, surgeon, or procurement organization, for transplantation, therapy, medical or dental education, research, or advancement of medical or dental science.” Subsection (2) allows educational institutions to receive such gifts for “education, research”; §10(a), in contrast, only prohibits buying or selling parts “for transplantation or therapy.” Education, research, and the more general “advancement of... science” are clearly not covered under this provision or any other. States have adopted this exact wording and general intent. See, for example, Ohio Revised Statutes §2108.11 and §2108.12.


42. Roughead, Burke and Hare, p. 66. In 1829 the notorious William Burke was executed for murdering poor people in Edinburgh and selling their corpses to Dr. Knox, a private anatomy teacher. According to Roughead’s compilation of original documents, Burke was publicly dissected at the University of Edinburgh and his parts stored for student use. At the same time, however, his skin was also “tanned” and sold as souvenirs of the event. Several sites in Europe, moreover, mostly dating from the late medieval and early modern period, are still extant where human bones have been arranged in “decorative” motifs, in charnel houses, crypts of churches, and catacombs. These sites have an ambiguous status in the modern world: as macabre art, as testaments to sacred places, and as tourist attractions.

43. Chadwick discusses a U.K. case in which an artist displayed a model human head wearing ten-year-old laboratory specimens of fetuses in a commercial gallery. The artist and gallery owner were charged with offending public decency. Chadwick, “Corpses,” pp. 66–67; for the original case report, see R. v. Gibson and another, 1 All ER 439, [1991]. Fredrik Ruysch (1638–1731) is one figure, well known among historians.


46. Roberts and Tomlinson, Fabric of the Body, passim.

47. Siraisi, Medieval, p. 40, tells the story of a group of nuns who opened the body of one of their sisterhood immediately after she died to look for signs of the passion, which they reportedly found in the holy woman's heart. In this case the “autopsy” was for evidence of spiritual elevation.

48. Siraisi, Medieval, p. 82.


50. Paula Findlen, Possessing Nature: Museums, Collecting and Scientific Culture in Early Modern Italy (Berkeley: University of California Press, 1994); in 1509, as well, Lucas Cranach compiled a “catalogue of relics” based on the collection of the Emperor Frederick. See Bentley, Restless Bones, p. 179.


52. Findlen, Possessing Nature.


54. See, for example, John Teacher, Catalogue of the Anatomical Preparations of Dr. William Hunter (Glasgow: University of Glasgow, 1970 [edited reprint of 1900 edition]). The first manuscript description of Hunter's collection dates from 1782.


57. See Teacher, Catalogue, for numerous examples. On the general significance of universalizing body parts taken from, or drawn from, individuals, see Susan C. Law-

58. Somerville to Eddison, Inspectorate of Anatomy, Outletter Book (General), 1832–1835, Jan. 11, 1833, PRO MH 74/12; Alcock to Goodfellow, Inspectorate of Anatomy, Letterbook (Miscellaneous), 1842–1858, Jan. 29, 1844, PRO MH 74/15.


61. For examples, see [John Douglas], *A List of the Anatomical Preparations of the Late Mr. John Douglas* (London, 1758); and [William Partridge], *A Catalogue of Anatomical Preparations . . .* (London, 1766); copies of these catalogs held in the library of the Royal College of Surgeons of England (London) contain handwritten notes on the prices of specimens put up for sale at these auctions.


66. Matthews, "Whose Body?" pp. 220; he supports this with case about a dispute over conjoined twins that ended with the father’s “better right” to the corpse, presumably in order to bury it. Matthews goes on to comment, however, that “this view deals only with civil law rights. A person retaining a corpse unburied might still be liable under the criminal law.” In the 1984 Anatomy Act in Britain, however, which revised the 1832 law, the provisions state that the secretary of state, who licenses places for anatomical dissection, also licenses persons to “have possession of anatomical specimens.” Smale, *Davies’ Law*, p. 52. Skegg, "Human Corpses," pp. 418–420, argues that the law in England should be changed to make parts removed from dead bodies into property and/or to specify that human body parts “prior to burial or cremation” are “the subject of property.” This author is writing, in 1975, specifically about anatomical specimens, not organs for transplant or human tissues with potential economic value.

67. *Mokry v. University of Texas Health Science Center at Dallas*, 529 S.W. 2d 802. The appellate court in Mokry reversed the lower court’s dismissal of this case and ordered a new trial.

68. *Browning v. Norton–Children’s Hospital*, 504 S. W. 2d 713 (Ky. 1974).

69. In Browning’s case, he only thought about the fate of his “abandoned” leg weeks after it had been cremated: 504 S. W. 2d 713 (Ky. 1974); Moore at 793 P.2d 488. A surgical consent form appears at 558 S.W.2d 136–137, for a case on a different issue. It contains the statement “consent to the pathological study and disposal by the hospital authorities of any removed tissues.”


72. All states have adopted the provisions of the Uniform Anatomical Gift Act as outlined by the National Conference of Commissioners on Uniform State Laws (see their Handbook [1987], p. 182) prohibiting a person from purchasing or selling “a part for transplantation or therapy, if removal of the part is intended to occur after the death of the decedent.” The National Organ Transplant Act also forbids a trade in organs for donation.

73. 793 P.2d, pp. 488–497.

74. 793 P.2d, p. 497.

75. Quotation from Justice Arabian, 793 P.2d 497; the justices did agree, however, that the doctors were wrong not to have told Moore all along what had been done with his spleen (or part of his spleen) and chastised them for failing to fulfill the spirit of informed consent.

76. Recent draft legislation for Congress addresses some of the issues surrounding stored tissue samples. The McDermott Medical Privacy in the Age of New Technologies Act (H.R. 3482, May 16, 1996), now before Congress, centers on the privacy of health information in general, which subsumes knowledge obtained from genetic testing. Because the bill concentrates on access to information, however, it does not address concerns about taking samples and making tests per se; rather it would take over once the data were collected. The proposed Genetic Privacy Act (draft with commentary dated Feb. 28, 1995) by George Annas (et al.), in contrast, places considerable restrictions on researchers. A person wanting to make genetic tests on tissues is responsible for seeing that quite specific informed consent has been given by the individual from whom it came. This act does not address any other forms of testing and, if read narrowly, would not exclude analysis of human RNA in tissues. The language of the draft, moreover, is quite unclear on whether it would apply retroactively to all stored tissue samples, even if now ostensibly anonymous.


