

[Back to Article page](#)

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## What's your dust worth?

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*After We Die: The Life and Times of the Human Cadaver* by Norman Cantor  
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When I was a boy – on this evidence, a miserable, maudlin sort of child – I used to kill time by calculating the value of a human life. Not the value of your soul or your contribution to civilisation or your lifetime earnings or your insurable value or the sums your heirs might realise in a wrongful death suit. I was interested in what a life's worth when broken down into the stuff it's made of, its bits and pieces, when to dust it hath returned. What's your dust worth?

The answer depends on what counts as your mortal remains. The notional value of the chemical elements making up a living, or recently deceased, body was, as I recall from the 1950s, 75 cents. Now it's said to be \$4 or \$5 – one of the many ways in which the value of human life hasn't kept pace with inflation. You're mostly oxygen, carbon and hydrogen: those three make up about 83 per cent of your body-and-soul mass. Nitrogen, calcium and phosphorus come to another 5.5 per cent; then there are smaller amounts of potassium, sulphur, sodium, on down to tiny quantities of boron, manganese, arsenic and uranium, with traces of tin and zinc. For an average-sized adult, cremated ashes – basically, the residue of the hard bits – weigh about five pounds, and seem not to have any market value at all. (Titanium implants and precious metal tooth fillings may be returned to the family after cremation or, under certain circumstances, sold off as scrap metal.) In the past, 'resurrectionists' used to dig up newly buried bodies to sell on to medical schools for anatomy classes, but the corpse's next of kin never gained any material benefit from that. Burke and Hare didn't wait for nature to do her work when they supplied fresh bodies to the anatomists; the tariff then was £8 to £10 each.

You can increase your yield significantly by selling off entire body parts. A website called Cadaver Calculator tells you what your different components are theoretically worth on the open market. Before being given your personal valuation, you fill in a survey that asks your age (wear and tear?), your smoking and drinking habits, whether you're bald (useless for

wigs?), and whether your appendix has been removed (no idea why). I'm valued at \$4415, which, I gather from online forums, is well below average. An edition of *Horizon* a few years ago was more generous in its appraisal. Heart valves in good nick fetch \$7000 each, and you've got four of them; tendons are worth \$1000; corneas can fetch \$6000 the pair. Heads – which are apparently in demand for trauma testing – make \$6000, and I was interested to learn that brains were worth just a tenth of the heads that contain them. *Wired* has a more entrepreneurial slant, setting a higher value on your parts, specifying the difference between legal and illegal markets, and noting global variation in the trade: hearts go for close to a million dollars, livers more than half a million, skin \$10 a square inch. Towards the end of our lives, there's a good chance we're more valuable dead than alive, and many people around the world are worth more in scrap value than they ever realised in their working lives.

It's illegal to buy or sell human organs in most developed countries, but it happens anyway. Poor countries cater for what's become known as transplant tourism, and several years ago bones from Alistair Cooke's cancer-ridden corpse were illegally taken in the US and sold for about \$6000. There have been scandals in the States in which bodies 'willed to science' were chopped up and the more valuable parts trafficked by brokers: 'A lot of money is changing hands,' one anatomy professor has said. 'It's easier to bring a crate of heads into California than a crate of apples. If it's produce, the authorities want to know all about it.'

So one kind of answer to the question 'What's a body worth?' yields a range between several dollars and several million. It's an answer that can be traced back to Jeremy Bentham's spectacularly hard-headed directions for the use of his own corpse. In a modern secular idiom, the dead human body is just rapidly decaying meat, gristle, bone, fat and fluid. It has no consciousness of its circumstances, no feelings, and can have no interest in its fate. The corpse can't be gratified or embarrassed, whatever happens to it. Bereft of life, it's an ex-person, but has no more awareness of its decay or of the rituals focused on it than the ashes in your fireplace, which you can think of as ex-coal. Nothing immaterial has freed itself from mysterious connection to the meat; there is no non-meaty entity enjoying or suffering an afterlife; nothing, under any circumstances, eventually to be reunited with the meat. The only value to be assigned to the corpse is its break-up value.

But those who affect this hard-headedness are rarely consistent in maintaining it, and its occurrence in modern society is limited. In one version of soft-headedness, we seem to set a zero or even negative value on the corpse, since few try to realise its cash potential and most of us set aside significant sums just to dispose of it. In another variant, we bridle at the very idea of turning human flesh into money, and we may expend both resources and emotional energy in ensuring that no commercial use is ever made of the cadaver, our own or that of anyone close to us. Mortal remains, by that reckoning, are priceless; they are not,

and must not be, marketable commodities.

One reason for the apparent disorder of contemporary beliefs about the dead human body is our increasing separation from its physical reality. The facts of the matter are not part of the fabric of our lives as once they were. That's a commonplace, but not an empty one. Last year, I asked a class of about 50 students whether any of them had ever seen a corpse; only three said they had. (My own experience consists of my father and mother, and, maybe, a few glimpses of the detritus of traffic accidents. Considering the times in which I've lived, that's not a lot. For people like me and my students, death and the vicissitudes of dead bodies are noises off.) Perhaps it's that restricted experience, and the fascination of the secret, that accounts for the proliferation of dead bodies and their management in the popular media – in the now inescapable elevation of the forensic pathologist into TV hero, for example, or in *Six Feet Under*, or in Channel 4's late-night *Autopsy*, or Gunther von Hagens's travelling *Body Worlds* exhibitions of (donated) plastinated corpses, already seen by 32 million people around the world. Opening in London nine years ago, the exhibition was condemned on the *Today* programme by the Tory MP Teddy Taylor (who hadn't seen it): 'This will only appeal to ghoulish groups in our society. What possible benefit can a normal person gain from looking at dead bodies?'

The word 'autopsy' comes from the Greek *autopsia* – 'to see' or 'to witness for oneself' – but because it's so rare for us to see a dead body we are largely ignorant of its fate and at the same time anxious to know about it. In *The Birth of the Clinic*, Foucault wrote that the practices of dissection in the 18th and 19th centuries brought the human corpse out of the dark cultural space of 'gloomy respect' into the light of science, where, its interior revealed to the public gaze, 'the corpse became the brightest moment in the figures of truth.' Yet that bright moment is accessible to very few of us. Uneasily positioned between the profane and the sacred, the corpse is venerated, abominated and feared. Sometimes we do science with it; more often we shudder and pass by on the other side. We invest it with so much emotion, and are so ambivalent about its identity, that we can scarcely bear to know what it really is. Just as the phenomena between conception and birth have now become part of the technologically aided public visible, so those between death and final dissolution have become opaque. The two sorts of quasi-person – the corpse and the foetus – are increasingly thought of in different ways.

If you do want to know what happens to dead bodies, Norman Cantor's *After We Die* offers a compact description. Within minutes, the pallor of death develops, as the blood drains from the surface capillaries and subsides deeper in the body. A few hours after death, the blood – no longer pumped round the body – becomes subject to gravity and pools in the lower body parts, turning them a deoxygenated purple colour (livor mortis). Rigor mortis – the stiffening of the muscles – begins within one to six hours, reaching its height after about 12 hours, and ends a day or a day and a half after death, when the body becomes

completely relaxed. The corpse begins its dissolution into evil-smelling liquids and gases soon after death, and depending on temperature, moisture and other conditions, the stench becomes inescapable within two or three days. (The 'worms' – as the schoolyard song has it – really do begin to 'crawl in and out', bacteria, bugs and their larvae aiding in decomposition.) The release of gases – including hydrogen sulphide, methane and ammonia – makes the corpse bloat, and the pressure build-up can cause liquid to ooze out of the body's orifices. Before we're dust, we're a cheesy mud. Sometimes the mud blows up: 'Gas pressure is capable of bursting the thoracic or abdominal cavities,' Cantor writes. 'Before embalming was common, sealed coffins sometimes exploded' because of it. There is a story that the corpse of Elizabeth I – retained for more than a month before burial – blew up, shattering the wooden coffin and lead sarcophagus in which it was being kept. (The story was itself political dynamite, and her courtiers evidently tried to keep it secret, while Papists enthusiastically circulated the tale of the exploding royal corpse as evidence of Protestant moral corruption.)

Modern embalming involves draining blood from the corpse and injecting the arteries with liquid preservatives – substances like formaldehyde, methanol and ethanol. Extreme forms of embalming can keep the body from putrefaction for weeks or longer, but the more usual aim is just to prevent the corpse from stinking, leaking and, of course, exploding, until it can be formally disposed of. In cultures that bury their dead very quickly – Jewish, Muslim and Hindu, for instance – embalming is not really necessary and is generally prohibited or frowned on. A simple washing and dressing in a burial garment is thought to be enough. But when there is a viewing, and especially when the corpse is kept around for extended periods (as with political figures), embalming techniques are more elaborate, and more attention is paid to cosmetics. When the political use of the dead body is very important – think of Lenin, Stalin, Eva Perón, and the horribly botched embalming job on Mao Zedong – then state-of-the-art technologies are enlisted to perpetuate a material focus of veneration, as interpreted in Katherine Verdery's magnificent *The Political Lives of Dead Bodies: Reburial and Post-Socialist Change* (1999) and more briefly in John Gray's *The Immortalisation Commission*.[\*] Preserving Lenin's body from further decay is a bit like painting the Forth Bridge: every 18 months the body is bathed in a potassium acetate-glycerin solution and careful maintenance done on the accumulating skin defects.

Burial – even six feet deep and in a well-sealed metal casket – can only slow down ultimate dissolution. The reduction of an unembalmed buried corpse to a skeleton takes between five and 40 years, again depending on conditions. But if you don't want to wait, and especially if you don't want the bother of a burial, a plot and an inscribed stone, cremation gets you to dust – the term of art here is not 'ashes' but 'cremains' – neatly and speedily. Its popularity has been growing fast: in Britain, around three-quarters of all corpses are now cremated; in the US, about 40 per cent, up from a quarter in 1998 and

only 1 per cent in the 1920s. We were once uneasy about cremation (a century ago American morticians condemned it as a profane 'bake and shake' procedure): now we tend to find it clean, fast and cost-efficient. It's the way to go.

Getting rid of your remains quickly is one characteristically modern gesture; keeping them around intact as long as possible is another. The great Boston Red Sox baseball player Ted Williams – his head separated from his torso – is now what's vulgarly called a 'corpsicle', suspended in liquid nitrogen (at  $-196^{\circ}\text{C}$ ) at the Alcor Life Extension Foundation in Arizona, a commercial 'cryonics' facility. He and about a hundred other 'frozen chosen' are there because either they or their kin were convinced that scientific progress would soon deliver technologies of immortality (and the means to be safely frozen and thawed so as to benefit from those technologies). It's still a fringe belief, but it's growing, and is now held by some of the most charismatic American technoscientific Thought Leaders. The influential futurologist Ray Kurzweil has put himself down for freezing at the Arizona plant, and the MIT engineer Marvin Minsky, one of the great figures in artificial intelligence, is on Alcor's scientific advisory board. Minsky likens embracing cryonic preservation to Pascal's wager: it might work, and if it doesn't, you don't lose that much – the fee seems to be around \$100,000.

Cantor is sceptical of cryonic immortality on pragmatic grounds, but that's because the science he trusts is different from the science that Kurzweil and Minsky trust. The idea that you can bring a frozen body, still more its separated head, back to life is compared to 'turning a piece of hamburger back into a cow'. The Second Law of Thermodynamics suggests it's going to be hard. Hopes for the end of death were and are central to Christian eschatologies; now they're appearing in scientific eschatologies too. The idiom has changed, but eschatology is its proper name. As Gray writes, the Christian expectation of life after death 'has been replaced by the faith that death can be defeated'. What he calls 'techno-immortalism' appears as a form of philosophical confusion – unreflectively conflating the sacred and the secular – and as a moral failure to confront the mortality that gives life meaning.

Cantor is a lawyer and his book's centre of gravity is the contemporary American legal, political and ethical debate over what can and should be done with human remains. It's a broad survey of the ways modern corpses are thought about and dealt with: the determination of death, what you may and may not legally do with a corpse and its parts, the changing forms of American funeral practice, the purposes and performance of autopsies, the law and ethics of organ donation and transplantation. Cantor is a secular modernist, an enthusiastic member of the dead meat school. Death is both the end of the matter and, so far as you are concerned, the end of mattering. Your family and friends may care, but they should know that you're past caring, and so whatever they do with your meaty remains should logically be done for their sake, and for the sake of overall human

welfare – not for yours. (The law, as he goes on to show, can take a different view.)

Cantor departs from his generally disinterested mode in exhorting us to make our corpses fully available for organ harvesting and to accept a definition of death that allows for the greatest post-mortem utility. We should do some good on the way out, and no squeamishness justifies the living in refusing – or their kin in making objections to – such uses. He favours a ‘presumed consent’ system for organ and tissue harvesting along the lines of arrangements in Spain and Austria. He knows that there are many people in modern society who resist organ harvesting and the use of bodies for medical training – irrationally thinking that the person who died has ‘suffered enough’ or shivering at the idea of ‘mutilation’ – but he has no sympathy for them, no historical feeling for what it might be to *know* that there is another life when ‘the dead shall be raised incorruptible.’ In the 1850s, the editor of the *New York Times* wrote that the dead body is not like something that ‘once *belonged* to the deceased’; it retains ‘something of the former selfhood’. Unlike any ‘other portion of matter’, it ‘will be raised again – yea, the same body’. And that is one reason it must be treated differently from other kinds of matter. Secular modernists many of us may be, but we inhabit a culture whose institutionalised practices of death and the disposal of dead bodies have been shaped by beliefs that are neither modern nor secular.

Biology and chemistry don’t give sufficient answers to the question of what a corpse is. The *Times* writer noted that the dead human body was not property but neither was it a volitional agent, a person. Retaining only ‘something of the former selfhood’, it also acquired aspects of a material object. The intractability of the corpse’s identity is a problem for both philosophy and law. Philosophers can think about what a corpse is, but the law is called on to establish it and to govern conduct around it.

Neither English nor American law treats the corpse as property to be disposed of like other forms of real and personal property, probably because corpse management was once outside civil law, regulated by the clergy and ecclesiastical courts. If the corpse was deemed the property of the decedent, then it could, for example, be seized by creditors for the collection of unpaid debts – and that wouldn’t do. Instead, the corpse tends to be regarded as *res nullius*, something owned by no one, and yet something located within a network of human interests. One set of interests belongs to the state, entrusted with the sanitary disposal of the dead and with ensuring some form of what’s known as ‘decent sepulture’ – a morally and culturally recognised disposition of the dead body and its protection from illegitimate subsequent disturbance. In the 19th century, decent sepulture was legally considered a ‘sacred trust’ flowing from ‘the universal feelings of mankind’. The civil law and Christian religion were then aligned.

Other interests attach to the decedent’s next of kin. Family members may have beliefs and

values of their own and these may bear on the forms of a funeral service, the burial or cremation of the corpse, the desirability of organ donation and the like. Where the decedent has left written instructions (Cantor says that the majority of Americans don't), these might conflict with the wishes of the surviving family; or there might be disagreements between family members as to the expressed or implied wishes of the decedent. In that event the courts may intervene, finely gauging the force of conflicting wishes. Or the interests may be resolved more informally. Cantor writes about a man whose will dictated that his money should be buried with him: 'At the funeral, his widow slipped a cheque into the cadaver's pocket. No one complained.'

Then there are the interests of the corpse. That's an intriguing matter because in a consistently secular idiom the dead body is not supposed to have desires or interests. And yet the law can treat the dead body as if it did. So, for instance, American law acknowledges the explicit or presumed wishes of an entity that has no wishes and, so far as it can, respects those wishes in the disposal of the body. A court in California judged that an individual has 'a sufficient proprietary interest in his own body after death to be able to make valid and binding testamentary dispositions of it' and the only legal treatise on the law of cadavers says that 'ordinarily one has a right during life to determine the disposal of his body after death.'

A living agent, therefore, has (limited) legal rights that are enforceable after it stops being an agent. But it's not that simple. There are, Cantor claims, recognised rights assignable to a corpse which are *not* equivalent to the rights of the state or of the family or of the formerly living agent who may have expressed wishes: 'Mistreatment of a corpse is a legally cognisable wrong against the corpse even though the corpse's rights might be asserted by other interested parties ... The rights being enforced are often those of the cadaver as well. The mistreated corpse has no agonised feelings to compensate, but it does have legally cognisable interests in dignity and quiet repose.' The 'rights of a corpse' are legally performative: insofar as the law acts as if there are such rights, then it establishes the fact that dead human bodies *do* have rights. There is no 'intrinsic obstacle', Cantor says, 'to legal recognition of standing for nonhumans', and American law has edgily recognised such rights – for animals, for aspects of the natural environment and, famously, for that other major type of quasi-human, the foetus. 'The point is that law can establish rights in beings and entities that have sufficient moral stature in the eyes of lawmakers even in the absence of moral equivalence to persons.'

Those rights proceed from the incoherence of our cultural attitudes to the corpse. We don't think of it as a living agent, and we don't think of it simply as a sack of chemicals, but as something which still has a measure of agency associated with it: a quasi-agent. Its quasi-agency has evidently got a sell-by date. Culturally, we recognise the recently dead body of a friend or relative as some version of them: death does not immediately detach their

personhood from their remains. The physical dissolution of the face roughly tracks the career of personal identity: as the expressive features of the body fix, sag and then rot away, so their capacity to convey the moods of personhood erodes. (The mortician employs his cosmetic skills in assisting the corpse to look 'peaceful', an imputation of a psychic state to an entity which no longer has psychic states.) And the rights of decent sepulture and repose seem to expire over time: when the land is required for other purposes, both US and British authorities routinely dig up bones and move them elsewhere. The 19th-century English judge Lord Stowell offered the opinion that the right of repose is only a single generation of 'mingling human remains with the earth'. When you walk around a cemetery, you'll notice that some graves are decorated with the marks of memory – flowers, pebbles, sometimes food and sports paraphernalia – and that some aren't. Save for the celebrated, memory-death takes about a generation. Depending on the network of memory-keepers, you're socially dead about 25 years after having been legally declared so.

The corpse is a quasi-agent because so much of life is a preparation for death: not necessarily a morbid fascination with funerals and stones, but a continuing investment in the painting of what Cantor calls a 'memory picture'. Apart from any beliefs we may have about the hereafter, we act in life as if we cared about what is thought about us after we are dead and as if we will then care about what is done to our corpse. Cantor invites secularists who affect indifference as to what is done with their corpse to imagine how they'd feel if told their dead bodies would be dragged naked through the streets with a sign bearing their name and then fed to the pigs. Many might feel such things mattered even while struggling to find language to say why they should. We work in life to build an image of who we are, ideally a favourable one. That memory picture belongs to the corpse. To speak ill of the dead, or to defile the corpse, Cantor says, is to injure that memory picture: 'Even if cadavers cannot sense the actual violation of a lifetime's legacy, their image and identity are things they have worked to establish that can be harmed.' The injury is experienced by survivors, but it is an injury done to the decedent's lifetime's work in becoming and being who they were.

'Death is not an event in life: we do not live to experience death,' Wittgenstein said in the *Tractatus*. He meant that no one has ever sensed what it is to be dead. Death is not a condition in which we can experience anything, so why ever should we fear it? That's Wittgenstein both as a secular modernist – there is no hereafter – and as an implicitly religious thinker: 'If we take eternity to mean not infinite temporal duration but timelessness, then eternal life belongs to those who live in the present. Our life has no end in just the way in which our visual field has no limits.' Take away the religiosity, and what's left is an awareness of death as a place where our memory picture lives when we no longer do. We're left with the secular fear of the pain, the discomfort and the indignity of dying. If the experience of death cannot belong to life, the practices of dying, of thinking



about death, and acting on those thoughts, are very much part of life. If you need complete secularism, it's not Wittgenstein you should go to but Woody Allen: 'I'm not afraid of death, I just don't want to be there when it happens.'

[\*] Allen Lane, 288 pp., £18.99, January, 978 1 84614 219 2.

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Vol. 33 No. 8 · 14 April 2011 » [Steven Shapin](#) » [What's your dust worth? \(print version\)](#)  
pages 10-12 | 4397 words