

Gunther von Hagens and *Body Worlds* Part 2: The Anatomist as Priest and Prophet

CHARLEEN M. MOORE AND C. MACKENZIE BROWN

Part 1 of this two-part series highlighted tensions between the anatomical quest for scientific knowledge about the human interior and artistic representations of the anatomized body, contrasting the roles of Goethe's scientific *Prosektor* and humanistic *Proplastiker*—roles disturbingly fused in Gunther von Hagens. Part 2 first examines religious interpretations of the human body that fuel the tensions manifest in anatomy art. The body in Western cultures is a sacred text amenable to interpretation as handiwork of God, habitation for the soul, and vehicle for resurrection. As handiwork of God the body beckons the anatomist's scalpel, helping establish dissection as the hallmark of Western medicine. The body as divinely designed machine encompasses the idea of an indwelling soul expressing its will in actions mediated through the intricate network of muscles—an understanding reflected in the oft occurring muscle men of early anatomical textbooks. Interconnections of body and soul in medieval somatic spirituality are examined with reference to ideas of resurrection and their impact on anatomical illustration. Part 2 concludes with consideration of von Hagens as priest and prophet, culminating in the Promethean impulse that recognizes not God but ourselves as proper owners and molders of our destiny, embodied in the plastinator's visionary quest to create the superhuman. *Anat Rec (Part B: New Anat) 277B:14–20, 2004*. © 2004 Wiley-Liss, Inc.

KEY WORDS: anatomy; art; anatomical exhibitions; medical education; education; plastination; religion

INTRODUCTION

In part 1 of this two-part series (Moore and Brown 2004), we examined tensions between the anatomical quest for scientific knowledge about the human interior and artistic representations of the anatomized body,

contrasting the roles of Goethe's scientific *Prosektor* and humanistic *Proplastiker*. We saw how the contemporary German anatomist Gunther von Hagens attempts to fuse these roles as creator of the anatomy art that is displayed around the world in his *Body Worlds* exhibitions. In part 2 we turn to the religious interpretations of the human body that have fueled the tensions manifest in von Hagens' anatomy art and examine his additional—and more disturbing—roles as secular priest and prophet.

RELIGIOUS VIEWS OF THE HUMAN BODY: THE ANATOMIST AS PRIEST

Human organic material, however modified, is not simply matter; the human body is not simply an object. Culture in general, and the religious imagination in particular, endow our physical embodiment with metaphysical attributes that both reflect and create an understanding of personal, social, and spiritual identity—including one's final destiny. Within the re-

ligious perspectives of the Western monotheistic traditions, three such metaphysical attributes of the body are especially relevant to the anatomical enterprise: the body as God's handiwork, as habitation for the indwelling spirit or soul, and as the vehicle for bodily resurrection.

Human organic material, however modified, is not simply matter; the human body is not simply an object.

The notion of the body as divinely designed, according to Shigehisa Kuriyama, was fundamental to the anatomical quest in the West in the monotheistic traditions, a quest largely absent in India and China. "The evidence linking early anatomical inquiry with the belief in a preconceived plan is abundant and explicit. . . . The presumption of divine design was

Dr. Moore is Professor in the Department of Cellular and Structural Biology at the University of Texas Health Science Center at San Antonio. She teaches gross anatomy and the history of anatomy. Her current research interests are in the genetics of aging and the history of medicine and anatomical art. Dr. Brown is Professor and Chair of Religion at Trinity University in San Antonio. He teaches courses in Asian religions and religion and science. His current research interests concern contemporary Hindu responses to modern science and medicine.

*Correspondence to: Charleen M. Moore, Department of Cellular and Structural Biology, University of Texas Health Science Center at San Antonio, 7703 Floyd Curl Drive, San Antonio, TX 78229. Fax: 210-567-3803; E-mail: moorec@uthscsa.edu

DOI 10.1002/ar.b.20005
Published online in Wiley InterScience
(www.interscience.wiley.com).

absolutely critical to the enterprise of anatomy in just this way. It promised that a cadaver held more than frightening, repugnant gore—that its contents displayed visible meaning” (Kuriyama 1999, p. 124–125). Vesalius was merely standing in a long line of Western anatomical Galenic tradition when in the preface to his *De Fabrica* he explained the inclusion of illustrations as providing—for those unable or too delicate in nature to attend dissections of the human body—the opportunity to attain some degree of anatomical knowledge of humankind that “attests the wisdom (if anything does) of the infinite Creator of things” (Vesalius 2003).

Islamic scholars made similar claims for anatomy; thus the acclaimed Aristotelian philosopher Ibn Rushd (Averroës) proclaimed: “He who does dissection increases his faith in Allah” (quoted in Bittar 1955, p. 357). Somewhat more mystically, the Sufi theologian al-Ghazzali effused: “The science of the structure of the body is called anatomy: it is a great science, but most men are heedless of it. If any studies it, it is only for the purpose of acquiring skill in medicine, and not for the sake of becoming acquainted with the perfection of the power of God. The knowledge of the anatomy is the means by which we become acquainted with the animal life; by means of knowledge of animal life, we may acquire a knowledge of the heart and the knowledge of the heart is a key to the knowledge of God” (quoted in Bakar 1999, p. 195).

Within the Christian tradition, the implications of anatomy for religious thought are made explicit by the 19th-century natural theologian Thomas Dick: “Adorable Creator! With what wonderful art hast thou formed us! Though the heavens did not exist to proclaim thy glory—though there were no created being upon earth but myself, my own body might suffice to convince me that thou art a God of unlimited power and infinite goodness” (Dick 1860, p. 111). Dick goes on to emphasize the machine-like quality of the body: “In short, when we consider, that health depends upon such a numerous assemblage of moving organs, and that a single spring out of action might derange the whole machine, and put a stop to all its complicated movements, can we refrain

from joining with the Psalmist in his pious exclamation and grateful resolution, ‘How precious are thy wonderful contrivances concerning me, O God! How great is the sum of them! I will praise thee; for I am fearfully and wonderfully made. Marvelous are thy works, and that my soul knoweth right well’” (Dick 1860, p. 112).

Dick, in a manner reminiscent of al-Ghazzali, also pleads eloquently for Christians to engage in anatomical study: “Yea, how many are there who consider themselves as standing high in the ranks of the Christian profession, who affect to look down with a certain degree of contempt on the study of the material works of God, as if it were too gross a subject for their spiritual attainments! They profess to trace the wisdom of God in the Scriptures, and to feel gratitude for his par-

Von Hagens values the uniqueness of each individual specimen, arguing that each plastinate reveals the particular vicissitudes and anomalies of real individuals. Such expressed respect for the uniqueness of individuals does not convince some of the visitors to *Body Worlds*, however.

doing mercy; but they seldom feel that gratitude which they ought to do for those admirable arrangements in their own bodies. . . . They leave it to the genius of infidel philosophers to trace the articulation of the bones, the branching of the veins and arteries. . . . But surely such astonishing displays of the wisdom and benignity of the Most High, as creation exhibits, were never intended to be treated by his intelligent offspring with apathy or indifference. . . .” (Dick 1860, p. 45).

Von Hagens is hardly a natural

theologian in the mold of a Thomas Dick. Yet he clearly understands the fascination and awe before “the admirable arrangements” within our body. And von Hagens shares with Vesalius the desire to provide those without opportunity or desire to attend a dissection the opportunity to see the wondrous working of the human body, although he sees the design aspect as the product of natural processes that plastination can illuminate: “Plastination . . . represents a shift in value from a useless corpse to a plastinated specimen, which is useful, aesthetically instructive and produced by nature” (von Hagens 2000, p. 37). He says of visitors to *Body Worlds*: “They will marvel at the diversity and beauty of human nature” (von Hagens, n.d., “Theme of the Exhibition”).

The second metaphysical attribute of the body as habitation for the indwelling spirit or soul, defined as an autonomous agent, may well have played a critical role in the development of scientific anatomy in the West. In Kuriyama’s analysis, from Galen on the view of the soul as “a self possessing muscular will” (Kuriyama 1999, p. 146) was essential in focusing attention on the body’s musculature: “The life of a person cannot be told, therefore, merely in terms of natural processes like digestion and the pulsing of arteries. Beyond processes that happen of themselves, there are also the actions willed by the soul and carried out by these instruments called muscles” (Kuriyama 1999, p. 145). The muscles “display the soul’s decisions” (Kuriyama 1999, p. 151). Such a viewpoint, for Kuriyama, is reflected in the many flayed muscle men or *écorchés* that are a major motif in Renaissance anatomy books—and perhaps not coincidentally, the covers of von Hagens’ *Body Worlds* catalogues.

It is not just the muscles, however, that may reflect the state of the soul, especially when the body-soul relationship is viewed outside the perspective of radical Cartesian dualism. Just as contemporary liberal theology rejects a mind-body dualism, so in late medieval thinking, the body was seen as an integral aspect of the human being, both before and after death. Katherine Park convincingly documents the “intensely somatic nature of Christian spirituality

in the late Middle Ages” (Park 1994, p. 22). Such spirituality was manifested in the importance accorded to body relics, the penitential use of the body, mutilation and dismemberment as a means of spiritual attainment, as well as in the quest to discern the marks of a sanctified life in the physical body of the truly pious.

Thus, the desire to confirm the physical but interior marks of sanctity—such as the scars of divine love on the heart and other organs—inspired the opening and dismembering of bodies. A particularly instructive example noted by Park concerns one Sister Francesca of Foligno and her fellow nuns, who eviscerated their beloved abbess Chiara of Montefalco after her death in 1308. Cutting through the deceased’s back to extract the heart, the nuns discovered in the dissected organ an image of Christ crucified, along with “even more miraculous marks of Chiara’s sanctity, all formed of flesh: the crown of thorns, the whip and column, the rod and sponge, and tiny nails” (Park 1994, p. 2).

Von Hagens presents an interesting parallel in which mental and emotional states play the role of the soul: “The external face, the human countenance, has always been considered the mirror to the soul. The soul, on the other hand, also has an effect on the body. Happiness and worry have visible effects on the face within—just look at anorexia or stomach ulcers. Does that mean that an entire plastinated body is also an embodiment, a reflection of the soul?” (von Hagens 2000, p. 38). Von Hagens values the uniqueness of each individual specimen—part of his objection to mere models that only express a generalization of the body—arguing that each plastinate reveals the particular vicissitudes and anomalies of real individuals. “All models look alike and are, essentially, simplified versions of the real thing. The authenticity of the specimen, however, is fascinating and enables the observer to experience the marvel of the real human being. The exhibition is thus dedicated to the individual face within” (von Hagens, n.d., “Aim of the Exhibition”).

Such expressed respect for the uniqueness of individuals does not convince some of the visitors to *Body Worlds*, however. As one medical stu-



Figure 1. Matteo di Giovanni’s late-15th-century flayed and muscular St. Bartholomew draped in his own skin. © Museum of Fine Arts, Budapest.

dent wrote after viewing the plastinates in Brussels: “How can von Hagens expose bodies of real people, for everyone to see or touch, without any respect? We learn, during our studies, to respect the human body; a respect anyone would find natural, even necessary, when lying in bed in a hospital, or standing next to a loved one who had just died. A grave mistake has been made, a limit has been crossed. The body should be considered as a whole: a beautiful machine but also the home for the soul. I think we need this limit to orient our lives” (Vertes 2002, p. 168).

Part of the student’s objection was not just that the human body was presented as a “machine without a soul,” but also that the specimens were, in her mind, exhibited in the most disrespectful of ways. After commenting on the skillful dissections, the student added: “But the rest was horror disguised: they had no skin, no face, and looked too beautiful to be frightening. The artistic poses were shocking. . . . If *von Hagens* had meant the exhibition to be educational, as he claimed, then why did he put the bodies in these shocking, artificial poses?”

Such remonstrances are not uncommon. The pastor Ernest Pulzfurt,

in an interview on National Public Radio’s *All Things Considered*, lashed out through the translator: “I think these ideas are perverse. This man is playing with corpses like they are dolls. It makes no anatomical sense to present a dead person playing chess, riding a horse, swimming or fencing. This has nothing to do with anatomy. It is Play-Doh, and he makes it out of dead human meat” (National Public Radio, *All Things Considered* 2001, p. 12).

Why indeed, we may ask, does von Hagens pose his whole-body specimens as though they are still engaged in the normal activities of living? As noted in Part 1, von Hagens exalts in imitating representations, in reproducing classic works of art in organic material, yet there is more than just an aesthetic, if morbid, nostalgia at work here. This relates directly to the final metaphysical attribute of the body, as the vehicle or means for the psychophysical continuation of the individual via resurrection.

One of the most powerful doctrines affecting the course and practice of anatomy in the late Middle Ages was the idea of bodily resurrection on the Day of Judgment. This doctrine cut in two directions. On one hand, it emphasized the idea that physical or material continuity is essential to personhood and identity, and thus dismemberment could be viewed as a significant threat to eternal salvation. On the other, God in his omnipotence could reconstitute even the most corrupted of bodies, so that at the Final Judgment the scattered remains of a thoroughly pulverized and decomposed body, gathered, for instance, from the stomachs of carnivores if need be, would be divinely reassembled. Bone would be stuck back to bone, skeletons reclothed with muscles and flesh, and the whole body revived.

Without such hope in eschatological reassemblage and restitution, the fate of martyrs like the flayed (and according to some versions, beheaded) St. Bartholomew would have been grim indeed. Reflecting the medieval fascination with mutilation and dismemberment as a means of spiritual exaltation, St. Bartholomew was frequently portrayed carrying his own flayed skin, sometimes fully clothed but also as a nude wiry athlete, his raw muscles exposed, as in Matteo di Giovanni’s 1480 painting (Fig. 1). In



Figure 2. Detail from Michelangelo's 16th-century *Final Judgment* portraying the martyred St. Bartholomew fully restored in his resurrected body while holding his own flayed skin. Photo credit: Scala/Art Resource, NY.

Michelangelo's *Final Judgment* in the Sistine Chapel (Fig. 2), the martyr's postmortem vindication is graphically validated. Among the many resurrected souls St. Bartholomew appears fully reenfleshed while holding his own excoriated skin—itsself in the form of a drooping self-portrait of the artist, suggesting Michelangelo's own hoped-for restitution through the martyr's intercession and Christ's mercy (Partridge 1997, p. 139). Given the connections between art, religion, and science, it is hardly surprising that, as A. Hyatt Mayor

notes, "The limp features that sag from his [St. Bartholomew's] hand reappear in the frontispieces of several baroque anatomy books" (Mayor 1984, p. 69). A similar theme is found in Andreas Vesalius's *De Humani Corporis Fabrica*, with its famous engravings of flayed but walking muscle men, which appeared in 1543, two years after the unveiling of Michelangelo's *Final Judgment*.

Anatomical art brought dry bones to life on the printed page, resonating with God's promise in Ezekiel's prophesy in the valley of dry bones:

"Thus saith the Lord God unto these bones; Behold, I will cause breath to enter into you, and ye shall live: And I will lay sinews upon you, and will bring up flesh upon you, and cover you with skin, and put breath in you, and ye shall live" (Ezekiel 37:5–6). Giorgio Ghisi's *The Vision of Ezekiel* (1554) reveals its own resurrecting *écorchés* (Figure 3), less than a dozen years after Vesalius' *De Fabrica*. It is in this context that we can better appreciate the religious overtones in Valverde's engraved figure of the flayed man holding his own skin (1556) (Fig. 4). The St. Bartholomew-like *écorché*, knife in one hand, sagging skin in the other, is reminiscent of Michelangelo's restituted saint. Valverde's artist was likely Gaspar Becerra, former assistant to Michelangelo at the Sistine Chapel and an anatomist himself (Roberts and Tomlinson 1992, p. 214).

Von Hagens' plastinated rendering (Figure 5) of Valverde's *écorché*, with its echoes of much earlier representations of the skin-bearing saint, obviously evokes a number of traditional religious ideals. As Ulrich Fischer noted regarding the Mannheim exhibit, "religious associations were unmistakable in this exhibition, such as when plastination was referred to as an 'act of resurrection' or that plastinated specimens had been 'preserved for all eternity'" (Fischer 2000, p. 235). And von Hagens himself notes: "Whole-body plastination joins the ranks of skeletons and mummies as a new means of determining our post-mortem existence for ourselves" (von Hagens 2000, p. 36).

The scientifically dissected body in the mid-16th century clearly revealed to those in the anatomical theaters both human and divine handiwork. It also anticipated a yearning for a new kind of immortality and bodily perfection—under human direction—a yearning explicitly voiced by Goethe's *Proplastiker* some two centuries later, and in von Hagens' most recent visions of a superhuman.

THE PLASTINATOR AS PROMETHEAN PROPHET OR FRANKENSTEINIAN MONSTER

The various controversies surrounding *Body Worlds* clearly reflect a num-

Publisher's Note: Unrestricted permission to reproduce this figure electronically was not granted by its original publisher. Readers are kindly requested to refer to the printed version of this article.

Figure 3. Detail of Giorgio Ghisi's 16th-century *The Vision of Ezekiel* representing the reanimation of dry bones through a refreshing of the skeleton as described in Ezekiel 37:1–10. © The Trustees of the British Museum, London. © Copyright The British Museum.

ber of historical tensions between science and art, art and religion, and religion and science that transcend the two cultures of the sciences and humanities. Underlying all these tensions is one major philosophical schism manifested in the question, "To whom does the body belong?" Those, for instance, who desire von Hagens to plastinate their bodies clearly believe it is their own right, whereas Dean Ulrich Fischer offers a very different perspective. As the handiwork of God, Fischer affirms, we and our bodies belong to our Creator. Death does not terminate this status, for the corpse is still the person. He concludes: "Everything that forms a basis of both human confidence as well as human limitations is lost when human beings become works of art in the hands of artists" (Fischer 2000, p. 235). Thus, violation of the body in the anatomical act, including von Hagens' hygienic processing of the corpse, inflicts damage on "the human existence of the persons involved" (Fischer 2000, p. 236).

Van Dijk notes the convergence of diverse motivations on the part of those who volunteer to have their bodies plastinated: "To those wishing to donate their own body to science, plastination offers the possibility to unite posthumous altruism and—more egocentrically—eternal 'life.'

Since antiquity, people have sought to save their mortal bodies from total decay by having them mummified or embalmed after death" (van Dijk 2001, p. 121–122). And she adds one more motive: "the prospect of having their body transformed into a statue or work of art" (van Dijk 2001, p. 122). The modern quest for plastination seems in one sense not far removed in spirit from the ancient Egyptian funerary prayer to Osiris, that through the embalming process "I shall not decay, I shall not rot, I shall not putrefy, I shall not turn into worms, and I shall not see corruption" (Prayer to Osiris, n.d.).

Individuals intending to be plastinated may be regarded as seeking to fulfill a legitimate quest for an aesthetic postmortem fate, avoiding putrefaction and becoming a beautiful object that perhaps even enhances self-esteem while still living. Alternatively, they may be viewed as deluding themselves by refusing to accept their finitude in a vain attempt to deny divine will. One's view depends in large part on whether we regard ourselves and our bodies as belonging to God, or, ultimately, to ourselves.

Placing these two views in historical perspective, Erwin Panofsky contrasts the medieval Christian notion of humankind as being created in the image of God with the later Renaissance

ideal of human beings as self-creating. Humankind in the medieval perspective was the primary subject of the cosmic drama of salvation, an end in itself, but subservient to God's will. Panofsky notes the great divide between that view of humankind and the one of Pico della Mirandola of the 15th century, who proclaimed: "Thou, man, masterful molder and sculptor of thyself . . . may'st shape thyself into whichever form thou wantst" (Panofsky 1953, p. 167). No longer Adam but Prometheus is the symbolic representation of what it means to be human.

Those seeking the supposed benefits of plastination and especially von Hagens himself would seem to subscribe to the Promethean point of view. Once again, van Dijk nicely makes the

**The various
controversies
surrounding *Body Worlds*
clearly reflect a number
of historical tensions
between science and
art, art and religion, and
religion and science
that transcend the two
cultures of the sciences
and humanities.**

point: "Although in many ways his work is a continuation of age-old traditions in the material production of anatomical objects, he also adds a commentary on the 'nature' of the human body: humans are no longer subject to divine nature, as science and scientists to a large extent control longevity and quality of life" (van Dijk 2001 p. 111). She elaborates: "The most disturbing aspect of Von [sic] Hagens' plastinates, in my view, is neither the transgression of art-science boundaries that purportedly fuelled the controversy, nor the resuscitation of public spectacle or display. Something that remained virtually untouched in the public debate concerning the exhibition was that plastinated cadavers prompted visitors to recon-



Figure 4. Sixteenth-century copper engraving of flayed man holding aloft his own skin. From Juan Valverde de Amusco's *Anatomia del corpo humano . . .* (Rome, 1559 (first published 1556)). The artist was probably Gaspar Becerra, himself an anatomist, who assisted Michelangelo in painting the Sistine Chapel. Courtesy of the National Library of Medicine.

sider the status and nature of the contemporary body, both dead and alive. This body is neither natural nor artificial, but the result of biochemical engineering: prosthetics, genetics, tissue engineering, and the like have given scientists the ability to modify life and sculpt bodies into organic forms that we once thought of as artistic ideals—models or representations. What Von [sic] Hagens does with dead bodies is very similar to

what scientists do with living bodies” (van Dijck 2001, p. 124).

Von Hagens’ Promethean proclivities are recently manifested in his plans to create a new sort of plastinate, not one reflecting the actual state of a human cadaver, but an idealized “superhuman” of the future. As one commentator notes: “The Plastinator is on to new and ever-more ghoulish horizons. His web site announces, in bold lettering, that he is ‘appealing for a terminally ill

patient’ to film his death, plastination and reconstruction as a ‘superhuman’. . . . Notwithstanding his inability to draw breath, the ‘superhuman’ is supposed to be free of all the flaws von Hagens faults evolution with bestowing on us. The Plastinator’s dead creation will have extra ribs (to protect the vital organs), knees that swing backwards (an attribute that sounds especially unstable), a backup heart (for when the primary organ fails) and a ‘retractable penis” (McGovern 2002). She concludes by quoting the Plastinator’s own prophetic vision: “What we do with a real human body today will show what we can achieve in the future using genetic engineering.”

Such visions may suggest to many a Frankensteinian nightmare, yet, as one might anticipate from the publicity-seeking plastinator, von Hagens “is quite happy to be compared to Mary Shelley’s fictional character, Frankenstein” (Singh 2003, p. 468). As von Hagens himself proclaims, “Hollywood has earned a fortune by blending anatomy with body snatching and playing with ambivalent, gruesome feeling. What can be better than to . . . put me into this tradition?” (quoted in Singh 2003, p. 468).

For many, von Hagens will ever represent the postmodern Promethean priest, the Frankensteinian promoter of anatomical violence, offending both God and humanity. For others, he is Goethe’s idealized anatomist fusing the human urges of the *Prosektor* for scientific knowledge and the aesthetic sensitivities of the ideal *Proplastiker* who delights in celebrating the human power to intervene in nature’s processes (and God’s designs or evolution’s mistakes, depending on one’s point of view), and who transforms the perception of postmortem destiny into something bearable.

The science of anatomy in its long interactive history with art has unavoidably been intertwined with religion and the human aspiration for meaning. The desire to know our bodily interior frequently intersects with spiritual longing for self-knowledge and for immortality. The resulting tensions may be inevitable, given the dual nature of human beings. As Ernest Becker succinctly dramatized this duality, we are creators with minds that soar above nature, yet



Figure 5. Gunther von Hagens' late-20th-century plastinated imitation of Valverde's Bartholomew-like *écorché*. © Professor (VCR) Dr. med. Gunther von Hagens Institut für Plastination, Heidelberg, Germany (www.bodyworlds.com).

are “worm[s] and food for worms” who live in conscious awareness of this “terrifying dilemma” (Becker 1973, p. 26). The anatomical enterprise as practiced by von Hagens and many of his predecessors has often served, and continues to serve, to highlight that dilemma, and in the process repeatedly brings science and art into collision, with religion as a catalyst.

LITERATURE CITED

- Bakar O. 1999. The history and philosophy of Islamic science. Cambridge: Islamic Texts Society.
- Becker E. 1973. The denial of death. New York: Free Press.
- Bittar EE. 1955. A study of Ibn Nafis. *Bull Hist Med* 29:352–368;429–447.
- Dick T. 1860. The Christian philosopher; or, the connection of science and philosophy with religion. In: The complete works of Thomas Dick, vol. 2. Cincinnati: Applegate & Co.
- Fischer U. 2000. When death goes on display. In: Kelly F, translator. Gunther von Hagens' anatomy art: fascination beneath the surface. Heidelberg: Institute for Plastination. p 233–237.
- Kuriyama S. 1999. The expressiveness of the body and the divergence of Greek and Chinese medicine. New York: Zone Books.
- Mayor AH. 1984. Artists and anatomists. New York: Artist's Limited Edition in association with the Metropolitan Museum of Art.
- McGovern C. 2002. The plastinator wants you! well, your body. Report: Canada's Independent Newsmagazine (<http://report.ca/archive/report/20021021/p46i021021f.html>).
- Moore CM, Brown CM. 2004. Gunther von Hagens and Body Worlds, part 1: the anatomist as Prosektor and Propplastker. *Anat Rec (New Anat)* 276B:8–14.
- National Public Radio, All Things Considered. 2001. Body art. Transcript from Livingston, NJ: Burrelle's Information Services. p 12.
- Panofsky E. 1953. Artist, scientist, genius: notes on the “Renaissance-Dämmerung.” In: The Renaissance: six essays. New York: Harper and Row. p 123–182.
- Park K. 1994. The criminal and the saintly body: autopsy and dissection in Renaissance Italy. *Renaiss Quart* 47:1–33.
- Partridge L. 1997. Michelangelo's Last Judgment: an interpretation. In: Stainton EB, editor. Michelangelo: The Last Judgment—a glorious restoration. New York: Harry N. Abrams. p 8–154.
- Prayer to Osiris. n.d. From the papyrus of Nu, the chapter of not letting the body perish. In: Wallis Budge EA, translator. The Egyptian book of the dead ([http://www.lysator.liu.se/\(a1\)/~drokk/BoD/tchsta.html](http://www.lysator.liu.se/(a1)/~drokk/BoD/tchsta.html)).
- Roberts KB, Tomlinson JDW. 1992. The fabric of the body: European traditions of anatomical illustration. Oxford: Clarendon Press.
- Singh D. 2003. Scientist or showman? *Br Med J* 326:468.
- van Dijk J. 2001. Body Worlds: the art of plastinated cadavers. *Configurations* 9: 99–126.
- Vertes D. 2002. Körperwelten: the fascination of authenticity. *Student Br Med J* 10:168.
- Vesalius A. 2003. In: Garrison D, Hast M, translators. On the fabric of the human body. Evanston, IL: Northwestern University (<http://vesalius.northwestern.edu/noflash.html>).
- von Hagens G. 2000. Anatomy and Plastination. In: Kelly F, translator. Prof. Gunther von Hagens' anatomy art: fascination beneath the surface. Heidelberg: Institute for Plastination. p 11–38.
- von Hagens, Gunther. No date. “Aim of the Exhibition.” In *Body Worlds*. (<http://www.koerperwelten.de/en/pages/ausstellungsziel.asp>) Last visited 25 July 2003.
- von Hagens, Gunther. No date. “Theme of the Exhibition.” In *Body Worlds*. (<http://www.koerperwelten.de/en/pages/ausstellungsinhalte.asp>) Last visited 10 August 2003.