

Body construction and representation: anatomical waxes in the *Museo La Specola*

Leoni Schmidt

Dunedin School of Art, New Zealand

E-mail: leoni.schmidt@op.ac.nz

The *Museo La Specola* in Florence houses a large collection of anatomical waxes, an art developed in that city under the patronage of the Medici family in the 17th century for the purpose of teaching medicine. This article explores the waxes as representative of diachronically a key moment in the history of body construction, and specifically one where art and medicine interface; and also synchronically as a key strategy in body representation. In *Fragments for a History of the Human Body* (1989) Michel Feher distinguishes body construction on three axes: top to bottom – proximities between divine and human bodies; transversal – relationships between the inside and outside of bodies; and horizontal – connections between organs and the social functions of the body. This article argues that the anatomical waxes in Florence display aspects of all three axes and that they do so in surprising ways which can only be experienced within the context of their presentation in the *Museo La Specola* situated in Florence.

Key words: body, construction, representation, anatomical waxes

Liggaamskonstruksie- en representasie: anatomiese wakswerke in die *Museo La Specola*

Die *Museo La Specola* in Florence huisves a groot versameling anatomiese waswerke, 'n kuns ontwikkel in daardie stad as gevolg van die ondersteuning van die Medici familie in the 17de eeu met die oog op mediese opleiding. Hierdie artikel ondersoek die waswerke as verteenwoordigend van 'n diakroniese oomblik in die geskiedenis van liggaamskonstruksie en spesifiek van 'n samekoms van die kuns en die mediese dissipline; maar ook sinkronies as 'n kernstrategie in representasie van die liggaam. In sy *Fragments for a History of the Human Body* (1989) onderskei Michel Feher tussen drie verhoudings met betrekking tot liggaamskonstruksie en -representasie: van bo na onder – verhoudings tussen goddelike en menslike liggame; transversaal – verhoudings tussen die binnekant en buitekant van liggame; en horisontaal – verhoudings tussen organe en die sosiale funksie van die liggaam. Hierdie artikel poneer dat die anatomiese waswerke in die *Museo La Specola* al drie tipe verhoudinge vertoon en dat hulle dit doen op maniere wat slegs ondervind kan word binne die konteks van hul aanbieding in the *Museo La Specola* in Florence.

Sleutelwoorde: liggaam, konstruksie, representasie, anatomiese waswerke

A year ago I went to Italy to explore the *Museo La Specola* at the University of Florence. In this museum one can see the famous anatomical waxes created for the instruction of medical students in the 18th Century. The waxes were created within a context where the study of anatomy was flourishing in the Age of Enlightenment. Nowhere was this more true than in 18th-Century Florence, where a school of ceroplastics was founded and linked to the Medical School of Bologna through the intervention of the surgeon and child-birth specialist Giuseppe Galetti working alongside the founder Felice Fontana, who – together with his apprentices and successors (such as Giuseppe Ferrini and Clemente Susini – created many of the most spectacular anatomical waxes during the heyday of the ceroplastics school in the years around 1771-1831. The waxes were intended for medical study and the assistance of surgeons when operating on real bodies. At *La Specola*, documents show that more than two hundred corpses were necessary

to learn the anatomy necessary for producing one of the waxes. Nearby, the Hospital Santa Maria Nuova provided these corpses in an age prior to refrigeration when they could not last more than a few days of scientific scrutiny. (See *Encyclopaedia Anatomica*, s.a.: 12-13.)

It is unknown where the waxes were actually made and only some indications of instruments and other tools used are now extant. Alongside displays of these, the waxes in *La Specola* on exhibition today count 513 of the human anatomy. There are 26 whole figures, 18 of which are life-size; and there are 800 framed drawings and 900 explanatory notes. Although many of the notes and drawings are now facsimiles to protect the originals from light degradation, the museum still acts as a scientific repository for teaching purposes. Apart from this function, the anatomical waxes also prompt reflection on the history of body construction and representation. This article considers some issues around body construction and representation, returns to the anatomical waxes in this respect, and concludes with some thoughts around a direct and embodied experience of the waxes *in situ* at the *La Specola*.

Where he introduces a series of publications on the body entitled *Fragments for a History of the Body* (1989), Michel Feher distinguishes three axes according to which the series is presented in three parts. One axis involves the *vertical* body through which relationships between the human and the divine are intimated. Feher writes: "...a vertical axis begins at the top and measures the distance and proximity between divinity and the human body. The question is: what kind of body do the Greeks, Christians, Jews, Chinese endow themselves with – or attempt to acquire – given the power they attribute to the divine" (Feher 1989: 13).

What kinds of metaphors, metonyms, gestures and directions are deployed to connect the human with the divine? Wings, proximities to the gods, depictions of miracles emanating from the head, mortifications of the flesh, upward gestures and eyes staring to the heavens are some of the ways in which bodies have been represented to construct a relationship between the human and the divine, with the vertical of the cross being the central directional device in Christian art.

A Medieval fresco depicting *The Miracle of Bolsena* in 1263 shows the Consecration of the Host by a German priest, Peter of Prague, who had found it difficult to believe that Christ was actually present in the Host. While delivering the Mass, blood was said to emanate from the Host to trickle across the altar and over the priest's hands in a miraculous event which connected him directly with Christ. The fresco makes a direct vertical link between the priest and the spiritual realm in the upper part of the work and does so through a tiny figure of Christ holding his Cross and held on the head of Peter of Prague by the priest's own hands. This is an example of body construction and representation on an axis involving the *vertical* body through which relationships between the human and the divine are intimated.

In this fresco, the upward movement of the priest's arms, the lances and candlesticks positioned diagonally and vertically, as well as the upward glances of the faithful and the perspective of the altar table contribute to the vertical axis of the representation of the miracle. All these elements combine to steer the viewer's focus towards the relationship between the human body and the divine realm.

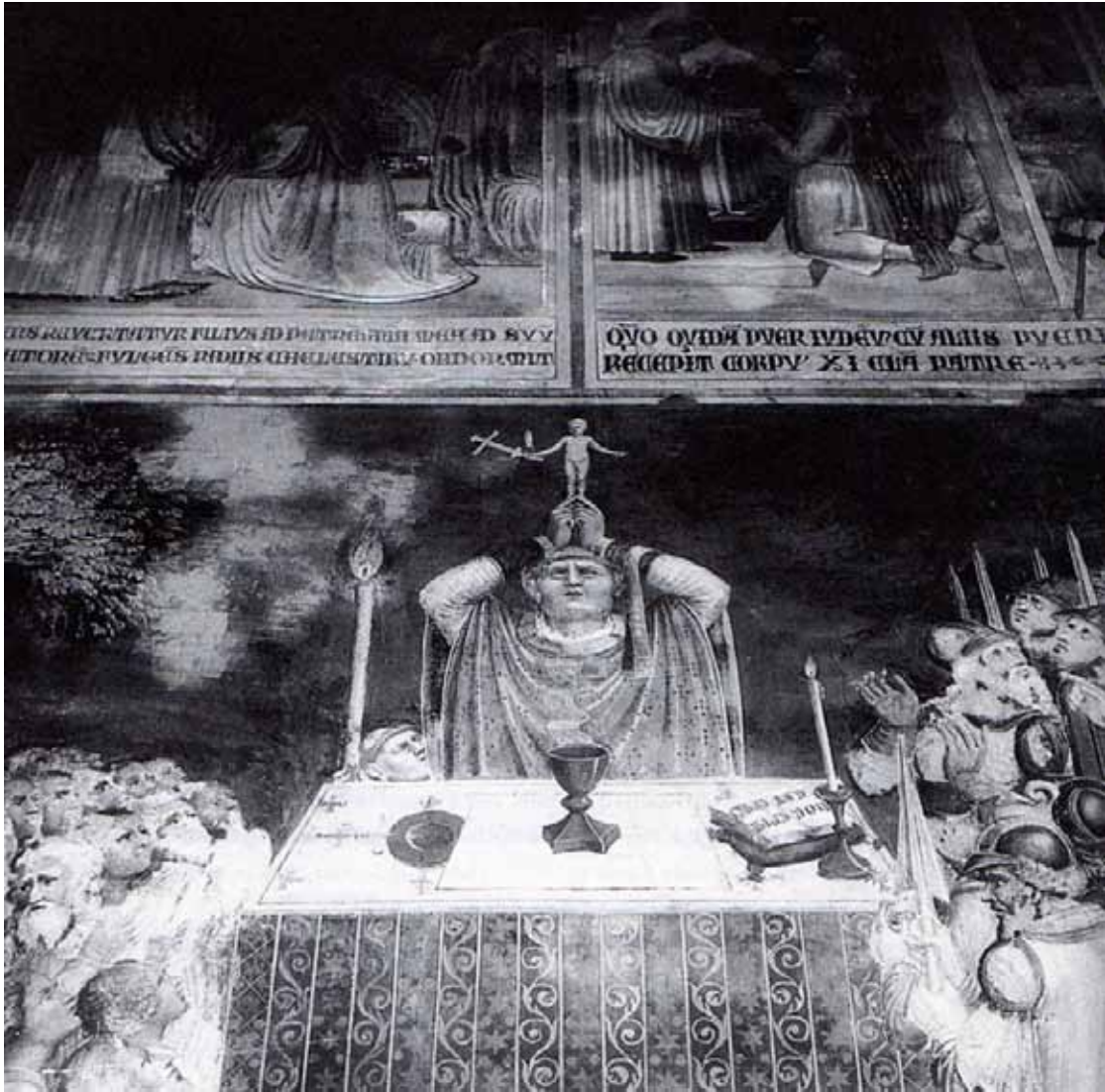


Figure 1
Anonymous, *The Miracle of Bolsena*
 (1263, fresco, Cathedral of Orvieto, Italy).

A second axis is called the *transversal*, “how the ‘inside’ relates to the ‘outside’”(Feher 1989: 14). In the Islamic world of the late Middle Ages and later in Christian Europe, dissection to investigate the relationships between outside and inside advanced medical knowledge of the body. These efforts are reflected in the visual arts, with Leonardo being a well-known protagonist in the history of anatomical visualisation. In 1600, Ludovico Cardi made the first anatomical sculpture of which the Italian title translates as “flayed man”. The Dutch were not far behind in their fascination with dissection of the body, with the famous dissection theatre at the University of Leiden finding its way into many depictions and stories such as where W. G. Sebald discusses the relationship between dissection and the criminal body sent to such theatres from the prisons of Europe. Sebald’s 2002 novel entitled *The Rings of Saturn* considers the relationship between anatomist, cadaver and spectators in situations where the inside of the body is exposed to the outside for the onlooker to stare at. Natalie Alvarez focuses on the same issue in 2011 in her article called “The Early Modern Anatomical Theatre and the Danse Macabre of Theatrical ‘Looking’”. Both authors highlight the macabre aspects of this kind of looking into the body of the absented individual represented by the flayed or partly flayed cadaver.



Figure 2
Rembrandt van Rijn, *The Anatomy Lesson of Dr. Nicolaes Tulp*
(1632, oil on canvas, 300 x 225 cm, Mauritshuis, The Hague).

Throughout the 17th and the 18th Century the act of dissection was then recorded in the aforementioned anatomical waxes when Italian artists such as Gaetano Zumbo and later Fontana and Ferrini and Susini bridged the gap between process and its documentation in the pliable medium of wax. The anatomical waxes in *La Specola* are the results of their endeavours. These waxes take the transversal relationship between inside and outside further than any works preceding them. In Rembrandt's *The Anatomy Lesson of Dr. Nicolaes Tulp*, there is still a measure of reticence about displaying the flayed cadaver, with the dissected part the furthest away from the viewer of the painting. *La Specola's* waxes show nothing of this reticence, rather the opposite, as their waxen bodies display every detail of the human body as studied from the hospital corpses. In some instances, however, we see an attempt at aestheticisation, where the female body is only partly dissected with the rest idealised and presented in the manner of the trope of the classical nude in Western art.



Figure 3
Gaetano Zumbo, *Dissection of a Head*
(1701, wax, Museo La Specola, Florence).



Figure 4
Clemente Susini, *Reclining Female Figure*
 (late 18th Century, wax, *La Museo Specola, Florence*).

From Italy, such practices spread to England, while other materials were used in other countries. Nearer and into our own time, the fascination with the relationships between the outside of the body and what lies beneath continued in the life class which is still taught in art schools across the world. Depictions of the dissected body also gained momentum after World War 1 when reconstructions of broken bodies became a major focus for the medical profession, while artists such as Georg Grosz and Otto Dix relayed their bitter critique of the war's effects on the transversal body through the cut and slash and bite of printmaking tools and materials. On a wholly different level, plastic surgery such as rhytidoplasty for the removal of wrinkles have now become an everyday occurrence for some, signalling a trajectory of inside-outside manipulations of the body harking back to early prototypes on the dissection table of anatomy theatres and the critical practices of artists like Grosz and Dix.



Figures 5 and 6
Jacques Joseph (Surgeon) *Reconstructive Plastic Surgery post-World War One* &
Otto Dix, *Transplantation*
 (1926, *photograph and etching from Der Krieg Series, whereabouts unknown*).

Michel Feher also focuses on the *horizontal* body where relationships between organs and society are paramount. He writes: “organs and bodily substances are metaphors or models for the functioning of human society and the roles people play in society” (Feher 1989: 15). Mappings of the body often ascribe particular social functions to organs and body parts or connections between the inside of the body are made to the outside to indicate the body’s situatedness within a larger societal network. Organs and gender roles are depicted – Feher talks about a politics or rivalry of the body where uterus and penis, female and male seeds compete within an embryo. In other works they are shown as complementary and central to the cycle of the seasons. Bodies, body parts and their measurements and appearances have also undergone phrenological interpretations and we are left with whole histories of prejudice based on the constructed connections between body parts and social behaviours.

The endeavours of Alphonse Bertillon of the *Préfecture de Police* in Paris late in the 19th Century are a case in point. He set out to document the body parts and bodily imprints of all known French criminals at the time in order to construct a theory of common denominators of the criminal appearance for early detection or prevention of future crimes. The relationship between body and social crime is also the central theme of George Franju’s film entitled *Eyes without a Face* (1959) in which a renowned surgeon kidnaps young girls and removes their faces to graft onto his own daughter’s head after she was brutally disfigured in an accident. In the film he transforms from surgeon to torturer.



Figures 7 & 8
Alphonse Bertillon, *Left-hand Print of Arthur Joseph Mallet*
(1885, Archives of the *Préfecture de Police*, Paris)
George Franju, *Eyes without a Face*
(1959, movie still).

Many other artists have explored the horizontal body, i.e. the body and its social relationships. Billy Wilder’s film entitled *Fedora* (1978) comments on the relationship between aesthetic surgery and film itself as a medium. Tony Oursler’s series on the body and mental states come to mind as do John Isaacs’s bodies and society series, Marc Quinn’s interpretation of the body and the seven deadly sins, Beth B’s work on obesity and anorexia, Terry Gilliam and David LaChapelle on surgery and the social body, Bill Viola on the extraction of rotten teeth as a metaphor for the cleansing of society. And, last but not least of these examples, Damien Hirst’s monumental vitrine with surgical equipment – a kind of anti-monument to our times and its history stretching back to early anatomical analysis and dissection.

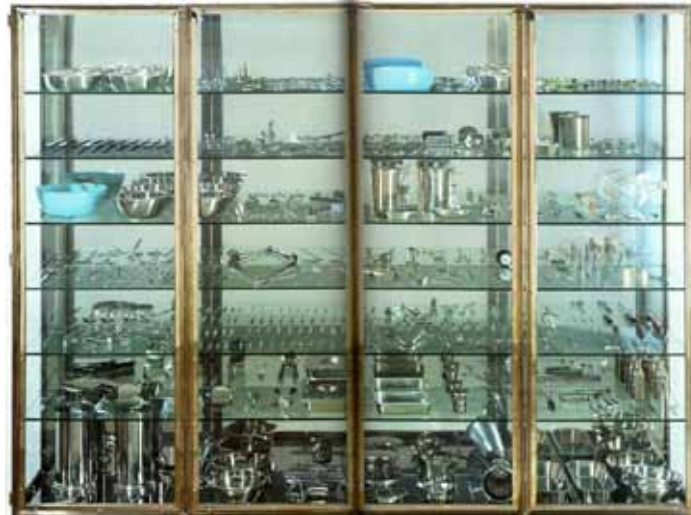


Figure 9
Damine Hirst, *Still*

(1994, glass vitrine with surgical instruments, Collection of the Tate Modern, London).

Earlier, two examples of the anatomical waxes to be seen in the *Museo La Specola* at the University of Florence were reproduced. A focus on the waxes now follows in relation to the contention that the anatomical waxes display aspects of all three axes identified by Michel Feher and that they do so in surprising ways which can only be experienced within the context of their presentation in the *Museo La Specola*.

Firstly a few notes on the exhibition context of the waxes. *La Specola* consists of 34 rooms packed with literally millions of specimens: fossils, rocks, minerals, shells, insects, and taxidermied birds, fish, and mammals. Oddly, the collection even include a stuffed hippopotamus which used to be a family pet of the Medici household and which lived in the Boboli Gardens behind the Palazzo Pitti, which is now a museum for Italian art around the corner of *La Specola*, which of course means ‘observatory’. One walks through room after room, row after row, observing specimens of species in ascending order: from minerals through shell fossils through butterflies through antelopes, to lions. There is only one entrance and one exit. Near the exit, near the height of the experience, one comes upon the species ‘mankind’. Ironically, after all the taxidermy, humans are not shown in this way but represented in the medium of wax. Real flesh and feathers and fur are behind us in the building and now wax is everywhere. Even in a collection of famous art works replicated in wax, one’s attention is held by the substitute for human flesh: wax. All the famous anatomists and modellers connected to the Medical School of Bologna and to the University of Florence School of Medicine are represented. Their knowledge of the human body and their skills in replicating its intricacies are on display. Materials, tools, registers and models for the making of the waxes are exhibited. Lists of corpses provided by the hospital nearby can be read on the walls. These corpses are now absent and *in memoriam* represented by the waxes. Trying to find a way to simplify one’s reporting on this enormous collection, one strategy is to focus on skull, eye, torso and hand.

In strands of 18th-Century thinking – such as in Antonio Genovesi’s ideas around psychosphy – the mind is paramount and housed in the skull which protects it; an idea lovingly executed by the wax modeller, Giovanni Zumbo. Genovesi’s ideas were known in Florence at the time when the waxes were made as his main patron, Bartolomeo Intieri, lived there and was visited by Genovesi (see Steiner, 1999: 77). The paramount mind looks up *vertically* through the eyes towards the divine and away from the earth.



Figure 10
Giovanni Zumbo, *Specimen of a Head Looking Upwards*
 (1703, wax, *La Specola*, Florence).

Rene Descartes's emphasis on the *horizontal*, social functions of the eye, on observation in the arrival at the truth about the earth and all its creatures, also circulated in 18th-Century Italy, so much so that the Italian Enlightenment philosopher Giambattista Vico remarked on his return from Spain that Descartes's ideas about the centrality of vision had become entrenched in Italian intellectual and artistic circles (see Hueglin, 2007: 16). The emphasis on the eye is almost obsessive in *La Specola's* final rooms. Many models of eyes and eye-balls are to be seen in vitrines and one finds oneself being looked at at every turn, sometimes through half-closed eyes which seem in the act of opening fully in a beautiful face attached to a flayed body.



Figures 11 & 12
Anonymous, *Various Models of the Eye-ball* and detail of a *Male Torso*
 (late 18th Century, wax, *La Specola*, Florence).

Many of the waxes focus on the torso and the vital organs contained therein: womb and mammary glands, heart and lungs. Leslie M. Whetstine points out in her book entitled *The History of the*

Definition(s) of Death from the 18th Century to the 20th Century (2008) that ideas about organ failure leading to death in the 18th Century were confused. Some believed that death resulted from heart failure; some believed it was due to heart *and* lung failure and some believed the kidneys were the culprits. In some wax works the whole body is shown but with an emphasis on the torso. The organs contained within the torso spill out to create a sense of their extended scale outside the confines of the body. The modeller used this opportunity to suggest a flowering of organs, a benedictory attention to the body which has been laid open to *transversal* scrutiny. If the inside has to come outside, it is in need of dignification.

Arguably one of the most surprising aspects of the waxes is the attention to the hand. We know from Renaissance art theory how important the hand and its gestures were. Andrea de Jorio (1769-1851) compiled 380 pages of text with 19 pages of small thumbnail sketches to document hand gestures derived from Roman art, developed further in the Renaissance and evident in Italian art after the Renaissance. In Florence, the wax modeller bestows the object for medical instruction with subjectivity through attention to its particularity: only a human hand can look like this, only a young woman's finger can bend like this: I recognise my daughter's hand in such an image.



Figure 13
Anonymous, detail of a *Body with Hand*
(late 18th Century, wax and human hair, *La Specola*, Florence).

Three axes of body construction and representation in *La Specola*: transversal, horizontal, vertical. This article concludes with an image of a full body anatomical wax, roughly three quarter size of the bodies we know today but probably a full body size for the 18th Century. Within the context of *La Specola* with its 34 rooms of specimens, the ontological status of this object is clearly further away from representation and closer to construction: it is not the corpse which arrived from the prison hospital, it is not a taxidermied variant of that corpse; it is an instructional tool fashioned according to the pedagogical needs of its time. But it is also a sculpture, a work of art; because it manifests the ideas of its time and embodies the artistic conventions they were connected to. One may remember here that it was Giambattista Vico who insisted in late 17th- and early 18th- Century Italy that human endeavours do not only represent the natural world, they also construct according to cultural convention (see Pompa 1982: 22-28). In this wax model we see – through the reflections of the glass vitrine inside which it is entombed – the *vertical* yearning for connection between the human and the divine; the *transversal* link between inside and outside; and the *horizontal*, social appeal to us as interlocutors to share a conventional language of gestures.

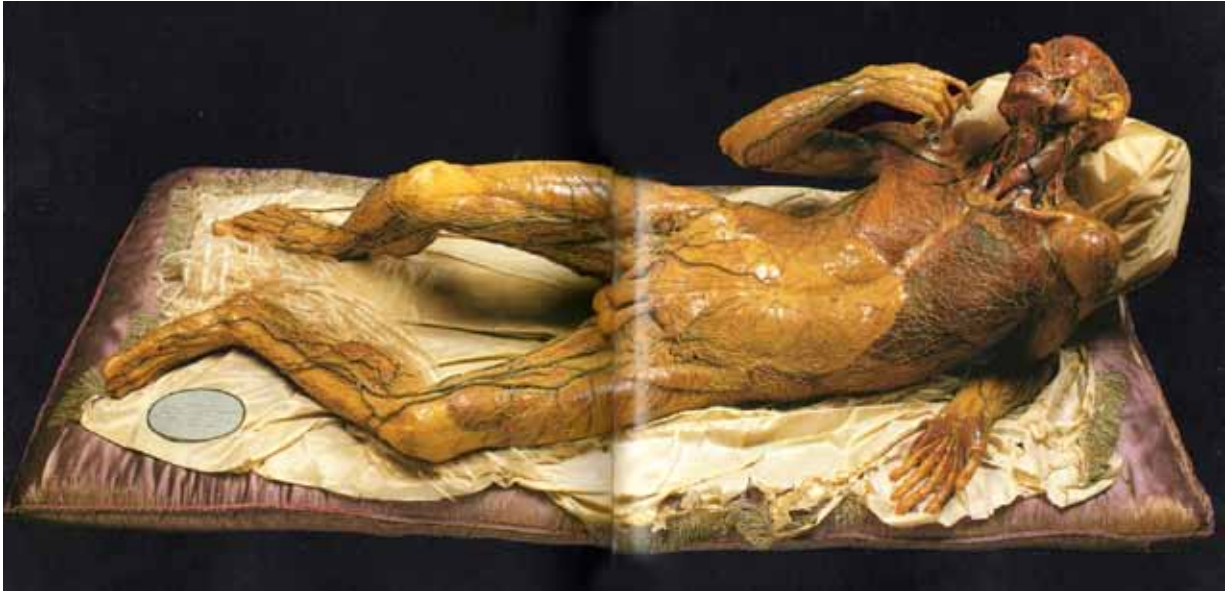


Figure 14
Anonymous, *Figure of a Man*
(Late 18th Century, wax, *La Specola*, Florence)

I left *La Specola* strangely moved. I imagined corpses arriving at the University of Florence in the 18th Century from the prison hospital of Santa Maria Nuova. I envisaged the clinical actions of dissection. A forensic curator at the museum explained some of these actions and also pointed out that only a severe disciplining of normal responses to a body one recognises as belonging to one's own species can make these actions possible. Later, walking in the Boboli Gardens on the hill behind *La Specola*, I imagined the Medici hippopotamus pet living there amongst the trees. And, I wondered about the modellers of the *La Specola* anatomical waxes and their dignifying of the transversal, dissected human body through its vertical and horizontal relationships with the divine and social realms.

Gunther von Hagens' recent exhibition entitled *Body Works* throws an uncanny perspective on the *La Specola* waxes. Where they dignify, his works seems to debase. The line between the represented or constructed and the real is overstepped; the line between art and life, so to say. Von Hagens was an anatomist at the University of Heidelberg where he developed a technique of plastination in the late 1970s, through which actual human bodies are treated to reveal anatomical structures. These items have been exhibited in various major centres since 1995, including a 2010 show at the *Telus World of Science* in Vancouver. Purportedly aimed at education towards better health awareness, the collection curiously includes a plastinated giraffe in direct reference to the Boboli Gardens' hippopotamus. But again debasement rather than dignifying occurs: no covering skin, no protection against the brutal invasion of the all-seeing eye. In contrast, the *La Specola* anatomical waxes, and the taxidermied animals preceding them in that space, reverently remain within the domains of science and art as frameworks for body construction and representation wherein a distance from 'life' is maintained.

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Leoni Schmidt is the Head of the Dunedin School of Art at Otago Polytechnic/Te Kura Matatini ki Otago in New Zealand. She is a full professor and academic leader for postgraduate studies in the School. Her own research focuses mainly on contemporary drawing and its histories and theories. Recent publications include: “Relational Drawing as Pedagogical Action: Locational Strategies”, *The International Journal of the Arts in Society*, 2008, 3 (3): 27-38 and “Drawing Strategies at the Venice Biennale”, *South African Journal of Art History*, 2011, 26 (3): 35-44. She was the first editor of the *South African Journal of Art history* and has since been the editor of *Junctures: The Journal for Thematic Dialogue* and *Scope: Contemporary Research Topics (Art & Design)*, see www.junctures.org and www.thescope.org.nz She is currently also the Associate Director: Research and Enterprise at Otago Polytechnic.