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Body Worlds: clinical detachment and anatomical awe

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Abstract If studying anatomy in medical school promotes clinical detachment, how do lay people respond to the crash course in anatomy they receive on visiting the Körperwelten / Body Worlds exhibition? If late modernity's celebration of the living body makes the dead body problematic, how do visitors respond to the aestheticised dead bodies on display? Through examining the written comments of visitors, the article identifies a number of responses. The chief is an elementary scientific gaze in which obvious interest is shown in anatomical details. But because the exhibits are dry, odourless and anonymous, this does not generate the defence of emotional detachment; indeed, among several emotional responses, are fascination and, for some, awe. Body Worlds is less a popularised anatomy lab than a shrine to the human body, a shrine in which medically untrained people can look at the body in new ways.

Keywords: Body Worlds, anatomy, clinical gaze, clinical detachment

Introduction

It is a conventional wisdom in the history and sociology of medicine that a latent function of dissecting cadavers in medical school is that students learn clinical detachment, that is, they suspend personal feeling and see, discuss and treat the body with objectivity. Critics argue that clinical detachment, though necessary for surgery and certain other gruesome medical procedures, has divided doctors from lay people and from their lived experience of their own body. In some medical schools, this criticism is now leading to more patient-centred ways of learning anatomy.

This paper reports on a new twist in the story. In the Body Worlds/ Körperwelten exhibition of plastinated anatomical specimens, millions of lay people are now – like medical students – learning about their own live bodies by looking at (what are arguably) other people's dead bodies. How does the

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Body Worlds crash course in anatomy affect visitors' sense of their own bodies? Just at the time when doctors in the West are being trained to be more personal and holistic, could it be that millions of lay people are coming to adopt a more scientific view of their bodies? Medical doctors have to manage tensions between clinical detachment and more engaged, emotional, ethical, personal stances – how do Body Worlds visitors manage such tensions?

Alternatively, this paper may be introduced by starting not with medical but with lay views of the body. In the view of a number of sociologists (*e.g.* Giddens 1991, Mellor and Shilling 1993), late-modernity's celebration of the body is threatened by disability, disease, death and decay. Sooner or later, these jolt each of us from the dream of the body beautiful. Some go further to argue that celebration of the living body makes late-moderns not only terrified of, but also fascinated by, the dead body (Fitzpatrick 2003), echoing Ariès' assertion that 'in the modern era, death, by its very remoteness, has become fascinating' (1981: 608) This could help explain the large numbers of Body Worlds visitors, but the question remains: how do their experiences of the dead bodies on display at the exhibition affect their celebrations of the live body? If visitors change their view of the human body, is it toward scientific detachment, or enhanced celebration, or something else again?

These are the questions addressed by this article.

The clinical and the personal

Following Descartes, Boyle and other early modern scientists, Western medicine has for over three hundred years treated the body as a machine (Synott 1992). Careful observation of the body, through stethoscopes, biopsies, MRI scans and other techniques, divide medicine's 'observed body' from the 'subjective body' that is the daily experience of the lay person. Historically, and to a lesser extent today, the dead body has been at the heart of this scientific, objective gaze. The final definitive data for diagnosis come from the body examined under post mortem, while for five hundred years medical students have been taught anatomy through dissection of the dead body (Engelhardt 1986, Foucault 1973, Kemp and Wallace 2000, Richardson 1989, Sanner 1997). If the subjective, personal body is very much alive, carrying out its intentions through its body (Leder 1992) and experiencing the world through it (Frank 1995), the scientific body is represented by the dead body. The defunct machine may no longer function, but all its parts may be carefully dissected, examined, analysed and displayed for the benefit of clinicians, researchers and students. Examining the dead body is part of the process by which medical students learn to relate to living patients with clinical detachment (Good 1994, Hafferty 1988).

Clinical detachment has come under criticism for ignoring, or at least marginalising, the living patient's experience (Francis and Lewis 2001, Frank 1995, Leder 1992). More spectacularly, medical science's routine handling of

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human remains has become a matter of media, public and political concern. The tension between scientific and personal views of the body underlies scandals in the UK in the late 1990s over the appropriation by pathologists of children's organs, and comparable controversies over body parts in the USA (Andrews and Nelkin 1998), not to mention disputes between, on the one hand, archaeologists and museum curators who consider human remains as belonging to the global scientific community, and on the other hand, indigenous peoples who have very different views of their ancestors' remains (Hubert and Fforde 2002). Meanwhile, late 20th century medicine attempts, via the talking therapies, to colonise the patient's experience within its own clinical gaze (Armstrong 1984, Arney and Bergen 1984) and is redefining health in more subjective terms (Sullivan 2003); anatomy teaching is responding to its critics, for example, by 'problem-based training' in which students start with a real patient and go to the anatomy lab only to understand that living person. How to relate scientific understanding to a more personal understanding of my own – or in the case of organ retention scandals, my child's, and in the case of archaeology, my ancestor's – body is not easy. It is something medical students struggle with in anatomy lab and, even more so, at their first autopsy (Fox 1979, Smith and Kleinman 1989).

Further, if Giddens (1991) is correct that in high modernity the body is increasingly the bearer of personal identity, then seeing the corpse as a person is not an old-fashioned 'superstition' (Richardson 1989: ch. 1) but very much part of contemporary consciousness (Lundin and Akesson 1996). Modernity generates both a medical depersonalising of the corpse, *and* a lay personalising of the corpse. This division between medical and lay views of the body, including the dead body, is amplified by Britain's mass media, whose reporting of organ retention scandals has pitted lay people's (especially parents') personalised corpse narratives against impersonal medical routines. (Of course, lay and medical views can be more varied. Some lay people do not personalise the corpse, believing that 'when you're dead, you're dead' and the medics can do what they like with the remains (Bennett 1987). And some medical students in anatomy lab do personalise their corpse (Miles 1991).)

In the 20th century, few other than medical students have learnt about their own living bodies by studying other people's dead bodies. Since 1996, however, 12 million people in Japan, Germany, Austria, Switzerland, Belgium, South Korea and England have visited the Körperwelten/Body Worlds exhibition, whose stated purpose is to teach anatomy to the general public by means of a public display of plastinated bodies and body parts[1]. Plastination, invented by the German anatomist Gunther von Hagens, replaces the body's 70 per cent water content with a resin that hardens tissue so that it can be displayed within the body in its normal vertical position (von Hagens 2002).

Though similar processes have been developed over the last 300 years (Hansen 1996), Body Worlds is significant for a number of reasons. First, the exhibits need not be encased in liquid in glass jars, in turn protected within

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Figure 1 *Fascination beneath the surface*

glass cases; whole body plastinates can stand erect in the same space inhabited by the viewer. Second, spatial relationships between organs, and their position within the body, that could previously only be shown through models of the average human, can now be shown with real and diverse bodies. Third, von Hagens is committed to educating the public as well as doctors; given his flair for showmanship, this means that anatomy is now well and truly out of the cabinet.

Though technically innovative and in media terms highly controversial, the exhibition shows many elements of traditional anatomical discourse. Visitors peer at and into the exhibits (Figure 1), assisted by a distinctly clinical commentary (both written and audio). Much of the exhibition, especially its controversial baby section, echoes anatomy museums of previous centuries. The pre-mortem names of the exhibits are not given, nor any personal or social details; the only narrative (Frank 1995) is a conventional

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Figure 2 *Basketball player*

anatomical narrative. Von Hagens positions himself as rediscovering the Renaissance mission to educate everyman. Medical discourse pervades the exhibition. Even in museum terms, the exhibition is traditional: visitors look at static objects which they cannot touch or handle, and there are no fancy computerised graphics or staged interactivity.

The majority of visitors, though highly favourable to the exhibition in general (Charlton *et al.* 2001, Lantermann 2002), often select one particular aspect for criticism. During the exhibition's time in London from March 2002 to February 2003, apart from unease about the baby section, the major criticism, both by visitors writing in the guestbook and by journalists, concerned the way in which the bodies were posed. Though arranged ostensibly to display certain anatomical features, the whole-body plastinates are given a social identity as standing – or running, or swimming, or chess-playing, or bicycling, or basketball-playing (Figure 2) – humans. Some echo the poses in Renaissance anatomical drawings (Figure 3), others are contemporary

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Figure 3 *Man holding his own skin*

(Figure 2). Visitors either love these visually striking poses, enjoying their creativity, or are disturbed by them (Figure 4). Meanwhile, the exhibits are becoming ever more exotic as the technical possibilities expand and von Hagens' highly creative team dreams up yet more spectacular poses. At the London exhibition, the latest were a bicyclist and his cycle expanded to one and a half times normal size; and a fairytale 'mystical plastinate' (Figure 5)[2].

So, there is a contradiction: the exhibition shows the human body with clinical, impersonal, scientific detachment, yet at the same time breaks with 20th century anatomy not only in showing human remains to the public but in giving them spectacularly individual and playful identities. Like the God whom St Paul believed will re-clothe the resurrected in a new body[3], so von Hagens has given his donors a new identity; the cyclist may never have known how to cycle, the swimmer may not have been able to swim. Von Hagens himself[4] has compared it to plastic surgery, and to the posthumous name that Buddhist priests in Japan give the deceased.

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Figure 4 *Pregnant woman*

Though concern about this artistic dimension has dominated discussion in the British press and some scholarly writing (van Dijck 2001), the exhibition's declared intent is not artistic display but anatomical education, and it is this – distinctly under-discussed – formal purpose that this article addresses. My questions are not the critic's 'Is it art?', or the philosopher's 'Should the dead be put on display?', but the sociologist's and medical educator's 'How do visitors see the displayed objects? Do they come to re-view their own bodies? If so, how?'.

Method

It is the systematic collection and scrutiny of data on visitors' responses that distinguishes this article from an ordinary exhibition review and turns it into empirical social science. Many thousands of visitors have written about their

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Figure 5 *Mystical plastinate*

experiences of the London exhibition, and various samples of their writings form the bulk of my data[5].

1. At the end of the exhibition, visitors are invited to write their comments in a 'Guestbook'. I examined a sample of 700 consecutive comments from late Summer 2002. The writers appear broadly representative of visitors as a whole in being equally male and female, with age 20 to 40 as the most numerous age group.
2. In addition, comments can be made on the web. The exhibition's press office provided me with a laptop on which these comments were held, listed by language, and I scrutinised 1500 consecutive English-language comments from Summer 2002.
3. Body Worlds publishes some of its visitors' comments, including – since it markets itself as controversial – very negative ones.

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4. Thirty of my undergraduate sociology students visited the exhibition as a group, and wrote about it afterwards.
5. I conducted taped interviews with seven visitors at the exhibition, and chatted to others; I also talked to students, colleagues and friends who had visited the exhibition. I formally interviewed von Hagens in June 2002, and on several occasions during the London exhibition informally talked to him and his colleagues. I also conducted taped telephone interviews with four Britons who had signed up to be donors.
6. In addition, I observed my own and other visitors' reactions at the exhibition.

Life, death and decay

Whatever else they do, the exhibits problematise the boundary between life and death:

> The visit has left me with a strange feeling inside. Never before have I seen the human body in such detail, and so exposed. It reminded me of the complexity of our bodies and also left me feeling that we are so much more than our physical self. I think my visit has changed how I percieve life, for ever.
>
> What a challenge to the way we think of our bodies and mortality.
>
> The most fascinating way to learn about the body – makes you feel very mortal!

In modern, as in many, societies, the bodies of the dead are ritually separated from the living. In a secularised Protestant society such as Britain, the living and the dead are separated not only physically, but also conceptually, with transgressors across the boundary (ghosts, prayers for the dead, appearances of the dead to the bereaved, spiritualist mediums) treated with suspicion. Those who spend time in the company of the dead (bereaved people, funeral directors) may be stigmatised. Encountering a dead body in a ritualised setting such as Body Worlds, a funeral parlour or medical school lab frequently raises troubling questions of life and death for newcomers, though not necessarily for routine body handlers (Collins 1994, Howarth 1996). Medical students attending their first autopsy become acutely aware of how thin the line is between life and death; they talk of 'working on the body of a person who was once alive and now is dead', and 'working on the body of a real person who not very long ago was very much alive' (Fox 1979: 56). Juxtapositions of alive/dead, and body/person, abound in their talk.

Body Worlds visitors likewise puzzle over the status of the exhibits: are they dead people, or plastic representations? The wide variety of terms used in the guestbooks reveal the ambiguous status of the plastinates:

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> real people [*often used in the past tense, as in* 'they were real people'] / REAL PEOPLE, who once have walked, smiled and talked / dead people / I was always aware that they were someone's father, grandfather, brother, husband etc, / dead bodies / anatomical pieces / plastic, they don't really look like flesh / just meat. nameless meat / Plastic lumps of meat / synthetic. Dried out. Meat.

This ambiguity is manifest throughout the exhibition. At the chess player, a seven-year-old girl, looks, frowns, and asks 'Is that real, mummy?' Pause. 'It was once'. A visitor who had come with her teenage son told me she had oscillated between thinking 'This is really important, I'm learning so much' to waves of being revolted – 'Oh my God, these are really dead people'. A postmodern cultural theorist was bored: 'I'm interested in representations of the body, not the body itself'. In the guestbooks, considerably more write of 'real people' than of 'plastic lumps', or 'meat'.

About a third of guestbook writers identify themselves as non-medical body-workers – nurses, physiotherapists, physical education teachers, first-aiders, ambulance crew, complementary therapists, artists – professionals whose job is to work with the human body but who (unlike doctors) learnt anatomy from books and models rather than from hands-on dissection of a real cadaver. Virtually all these bodyworkers are enthusiastic about the exhibition, regularly reporting that they had learnt more about the body in two hours at Body Worlds than they had in three years of training[6]. I looked at the knee joint in the company of a physiotherapist, who was engrossed. A physiotherapy student wrote:

> This exhibition did wonders to enhance and reinforce my anatomy knowledge. I had only had the opportunity to study some cadavers for a few hours prior to this – I am so glad I made the effort to come down for the weekend to visit the show. This is a must for every medical student.

These bodyworkers find the exhibits real, in the way that diagrams in books or models are not. Diagrams and pictures represent an ideal or average body/organ; plastinates, like cadavers in the dissection lab, display the individuality of real humans.

Real bodies?

In the introduction, I noted that lay people are now learning about their bodies by looking at other people's dead bodies. So, for the purpose of this article at least, I am presuming – along with the bodyworkers but against some reviewers and a minority of visitors who point to the exhibits' plastic or artificial or artistic nature – that the plastinates may reasonably be described as real. They are real in the sense that a cooked chicken has some

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tangible continuity with the living chicken it once was; it may also have some artistic elements created by the chef, but it is not just a representation in the way a drawing or photograph of a chicken is. It is, or was, a chicken, rather than being just a representation of a chicken. 'Is it real?' 'It was once'.

Chickens get cooked. Humans get disposed of in other ways. Plastination falls within the normal range of what happens to dead humans, namely dessication/injection. Most dead bodies undergo a process of drying, by which the physically unstable wet corpse is reduced to the physically stable form of dry bones, cremated remains, or mummified flesh; plastination is another way to complete this process (Walter 2004). Some dead bodies also have chemicals injected to replace any removed fluid: the main example of this is embalming, in which the blood is replaced by preserving fluid, either for the purpose of viewing in the funeral parlour or for dissection in medical school. In everyday language, dry bones and ashes, which have lost their soft tissue and hence their 'bodily' solidity, are typically described as human remains; mummies and embalmed objects, each of which retain soft tissue, are described as dead bodies. The plastinates on display at Body Worlds may be described as real, in the sense that a mummy or embalmed body is described as real, even though a) the soft tissue has been made hard, b) plastinates have a lot of plastic in them, which c) enhances tissue colour. Plastinates comprise dessicated human tissue, in the way that sculpture, death masks and most artistic representations of the dead do not. The displayed whole-body plastinates are aestheticised dead bodies, in the way that embalmed bodies in a funeral parlour are.

Though I suggest the plastinates fall within the normal process of the drying of human remains, the quotes above indicate that many visitors struggle with this. This may, in part, be because in contemporary Britain plastic is widely seen as a symbol of the artificial. Though a corpse filled with embalming fluid is perceived as real to viewers in the funeral parlour[7], one filled with plastic (and, more to the point, known by viewers to be filled with plastic) is seen by some Body Worlds visitors as 'artificial, just plastic'. Of more theoretical interest is the wet/dry distinction. I have argued elsewhere (Walter xxxx) that visitors, inhabiting a society in which mummification is not a regular funeral option, have no category for soft tissue that is dry and odourless. In their schema, dead bodies rot and smell, or they are reduced to bone and ash. Plastinates comprise soft tissue, yet are hard and odourless, so simply do not fit, and many visitors have difficulty categorising them. Not fitting, they disturb (Douglas 1966). The exhibits challenge our preconceptions about life, death and decay (von Hagens 2001).

The wet/dry distinction (Hertz 1960) is crucial for analysing clinical detachment. Medical students have problematic feelings about the corpse that they dissect or witness being autopsied, not just because it is dead – they did not have similar feelings about the skeleton in the high school biology lab, which is even more dead, so to speak. There are two other, more important, factors. One is that they can connect their corpse with a person, which is why witnessing their first autopsy (of a recently dead, possibly

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known patient) can be more traumatic than dissecting an unknown, partly pickled corpse (Fox 1979). The other factor concerns very physical emotional reactions, for example of sexual attraction induced by having to examine the private parts of an opposite sex patient or corpse, or disgust in having to get close to body parts that smell or are deemed impure (such as the rectum). An example given by Smith and Kleinman (1989: 64) is the male medical student who absented himself while his female colleagues dissected their male cadaver's genitalia. In having to get close up to, and into, another person's wet, rotting, smelling, sexual body, medical students experience the revulsion of the civilised person (Elias 1978), revulsion which they handle in a range of ways (described by Hafferty 1988, and by Smith and Kleinman 1989) that are labelled clinical detachment.

If clinical detachment is a defence against invasion of a smelly, known human person, it is clear that Body Worlds visitors have a much gentler introduction to human anatomy. The plastinates do not smell, nor are they personally known. This is the key to my argument below that, not needing to develop clinical detachment, visitors are free to develop other orientations toward the dead bodies on display. It would seem theoretically possible for some visitors to adopt the beginnings of a medico-scientific gaze, without the emotional defences that accompany this in the medical student.

The clinical body

Some guestbook writers are interested in the clinical, anatomical aspects, but do not isolate these from more personal questions. The first comes from Karen[8], in Seoul:

> it was really nice.
> but . . . sad. . . .
>
> i hope they are in heaven . . .
> how do you cut this bodies?
> skins. . . . ?

Karen enjoyed the exhibition, intrigued by the processes of dissection and plastination, but at the same time recognised that these were real people, and wondered about their spiritual destiny. She ponders the fate of both body and soul.

Some visitors ponder the plastinates' pre-mortem identity:

> They do look human when you see the nails and things like that, but the other parts – even though they're really, really, you know, um, sort of intricate – they still look plastic, obviously. Totally plastic. But I think if the name and everything were there, it would affect people more. . . . They

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> would connect with it, you know, as if to say, well that could be me one day; I'll be dead one day, and that's what my body's like inside. Instead of thinking of it as an object. It would be a person then.

Most who ask for more information ask for medical information. Such requests might produce a more positive responze from curators of museums of pathological anatomy in which a clinical history is necessary to explain diseased organs or deformed bones, but Body Worlds' aim is predominantly to show normal rather than diseased anatomy. A number of those who wanted to know personal, rather than medical, details were, perhaps surprisingly, doctors. This from a hospital doctor:

> A fascinating merger of science and art! Why not some photos of the people portrayed? Maybe this will humanize the exhibit for those who find it distasteful. Or maybe not. For me photos would add a nice element to the exhibit in providing a glimpse of the personality along with the body.

The chief way in which pre-mortem identity seeps through is through surface features. 'Fascination beneath the surface' is one of Body World's advertising slogans. 'Discover the mysteries under your skin' is another. Many visitors are indeed fascinated by what at Body Worlds they find under the skin. What they find is anonymous, displaying an anatomical rather than a social identity. But visitors can be disturbed by surface features that reveal a social identity (Benthien 2002). When I took a group of my sociology students to the exhibition, many found it hard to see the exhibits as anything other than 'just plastic', 'models' – until they saw those with some skin. One nearly fainted at the first exhibit which had finger nails, another found the tattoo on one body haunting, another wrote that 'stubble brought the reality back', and a fourth would not enter the baby section (all the babies have all their skin on). One wrote that 'the faceless anonymity' of the exhibits with no surface features rendered them 'merely scientific artefacts, which was somehow easier to accept'.

Other visitors are able and/or willing to separate the body from the rest of the person. An Australian who visited the exhibition in Brussels wrote:

> Understandably people have reservations about real human bodies being used, but I think we need to understand that the body is a shell, it is not our soul.

One of my students wrote:

> These weren't 'people' on display, they were places where people had once existed.

Von Hagens (2002: 16) has commented that it was the Catholic church's dualistic division of body and soul that allowed Renaissance Italy to lead

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the development of modern anatomy in the 16th century. Cunningham (1997) disputes this reading of history, but it is certainly true that many guestbook writers' division of body and soul – a distinction rooted in contemporary popular beliefs about the afterlife (Walter 1996) – enables them to adopt a scientific gaze separated from religious concerns.

Others learn about their own anatomy, using the proferred medical gaze to learn about themselves or their family:

> Some of the exhibits I could relate to personally, eg my youngest son being 'prem' and seeing the exhibit of a 6 month old with the uterus. He also had an inguinal hernia – there was an exhibit of this too!! Totally worth while. Thank you.

Some go further. Learning, rather than being divorced from their own life projects, actually has implications for how they will live:

> Since I visited, I've become much more aware of my body. . . . I am now making a conscious effort to treasure what I've been given and not abuse it, the exhibition has changed my life for the better.

A few exhibits, notably those displaying smokers' lungs, clearly impart a public health message; Lantermann's (2001) exit-surveys show a proportion of visitors saying they will quit smoking or change their lifestyle in some other health-promoting way. In the guestbooks I studied, Lisa says her visit changed her personal response to medical intervention:

> I loved the exhibition, so educational! I am now unafraid of any future operation I may need.

Several write of how the exhibition is both anatomically informative, and an emotional experience. For this 18-year-old male, science and emotion are not divorced:

> Very, very interesting as a show of anatomical studies. Also incredibly moving.

Others criticise the exhibition for being uniformly clinical:

> Very educational, but lacking in emotion!

> Bring the human spirit into the equation – we are a whole lot more than the sum of the parts.

These last two critics, however, share with the enthusiasts quoted earlier the belief that the scientific and the personal, the clinical and the emotional,

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should not be divorced. What they disagree over is whether the exhibition entails such a divorce. Many guestbook writers do not want clinical detachment. Body Worlds aims to establish a medical view, but visitors obstinately connect bodies with persons, their relationship to the exhibits being communicative rather than detached (Hirschauer 2002). Visitors can examine the human body with a scientific gaze, without being so disturbed by having themselves to cut up a known, smelly corpse that they need to divorce science from emotion. But some visitors are happy with scientific detachment:

> This is groundbreaking stuff for sure. It's like looking inside yourself.
> I like the way it's just meat. nameless meat.

Most doctors, medical students, and non-medical bodyworkers, long-socialised into the clinical gaze, write, usually appreciatively, in purely clinical terms.

The celebrated body

I have shown that visitors can accept, and enjoy, the exhibition as an educative display of anatomy[9], without necessarily becoming detached from emotions or from personal and religious concerns. A number of writers go further:

> We are the most stunning, complex beautifull creatures under our skin. Everyone should see this exhibition, creates real respect for human body.

> A beautiful way of celebrating what it is to be alive at the beginning of the twenty first century.

Von Hagens, who regularly reads the guestbooks, believes that the beauty of the body, especially of its interior, comes as a surprise and joy to many visitors:

> There is this kind of media influence, and there is a kind of educational influence, which starts in the childhood, 'You should not explore your body', you know. 'You should not touch your body, masturbation, you should not look on your faeces, er, as a composting machine,' you know, and all is horrible. And finally, you are educated so much that you shy away from your body (interview with author).

By transforming the body's slimy, slippery, smelly interior into dry, odourless, colourful exhibits, plastination produces an anatomy that is acceptable to civilised sensibility. According to Elias (1978), the civilising process has, over the centuries, civilised the body's orifices and exterior; plastination extends this to the body's interior. In so doing, Body Worlds rejects the conventional

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dichotomy between the body's ugly interior and its beautiful exterior (Miller 1997), along with the convention that the task of society is to represent the human body's exterior but to restrain its interior (Turner 1996).

One writer, Laila, was ecstatic:

> IT WAS FANTASTIC I WOULD LIKE TO GET MARRIED IN THERE

Marriage celebrates the union of two bodies, and it seems that for Laila Body World's celebration of the body reminds her not of the dead, but of the living; not of medicine, but of marriage; not of science, but of love. Von Hagens would be pleased by her response, as he is on record as wanting to induce in visitors the sense 'It's great how I look: I must worship who I am' (Jenkins 2002). 'With my body I thee worship', goes the Anglican wedding service, and Body Worlds may be read, like the wedding bed, as a shrine to the worship of the body.

Laila's connection with marriage was exceptional. But she is not alone in responding to the exhibition with awe:

> It's wonderful!! I love human body!

> I didn't expect the human body to look so small and fragile.

> I AM AMAZING AFTER ALL!

Other writers, operating from a religious perspective, ask how can anyone not believe in the Creator after seeing the exhibition? Awe can be directed at my body, or its heavenly Creator, or both. Kemp and Wallace (2000: 20), referring to Renaissance and Enlightenment views of the anatomised body, write of 'the divine machine'. In those times, the body was divine because it was wondrously made by God. Indeed, Cunningham (1997) argues that in their public dissections, the Renaissance anatomists were not doing science, research or education in our understanding of these terms, but exploring the soul and displaying the high point of God's creation. Von Hagens is doing the secular equivalent, helping the visitor worship not God, but Man. Certainly the fascination, sometimes turning into wonder and awe, at the bodies on display, and hence at their own body, to be found in some guestbook writers hints at a secular notion of their own body as divine. Nothing new in that, sociological students of the body might say. What is new, or at least revived from the Renaissance, is that this divinity is inspired by the body's hitherto anathematised interior.

Awe, the 'Wow!' feeling, is regularly reported by visitors to Body Worlds, but not by medically-qualified visitors and not – according to one visitor who was a final-year medical student – by medical students in their first-year anatomy classes. Why not, I asked her? She reckoned that in Britain, at age

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18, there was peer pressure not to admit to any 'Wow!' experience, whereas there was considerable peer pressure to show you could cope with the workload, not to mention the blood and guts of dissection (*cf* Hafferty 1988, Sanner 1997, Smith and Kleinman 1989). So, by the time you are older and can admit to awe at the body's workings, you already have too much knowledge to experience the first-time awe of the lay visitor who comes to Body Worlds[10]. Medical, and more especially paramedical, visitors to Body Worlds say they learn a lot about anatomy, but rarely mention emotions, least of all awe (unless it be admiration for the technical quality of von Hagens' dissections). Both medical and lay visitors report fascination at particular anatomical details, but only lay visitors extend this to awe at human anatomy in general.

We are now in a position to compare the context of the medical school dissection class and Body Worlds. In the former, the school's aim is to cram in knowledge in order to pass exams, in the latter the aim is to display the glory of the human being. In the former, there is physical cutting up of a smelling, slimy cadaver, in the latter the visitor looks at gleaming, colourful, odourless exhibits. In the former, there is peer pressure not to get emotional; in the latter, family and friendship groups often overtly share their responses (though school parties comprising teenagers can have their own peer pressure to express disgust).

So, it seems that while traditional anatomy teaching typically induces clinical detachment, Body Worlds can induce – in some visitors at least – anatomical awe. The first-year medical student, unlike the Body Worlds visitor, is required to dissect the body of another human being, in the company of peers s/he has barely got to know, let alone trust; and over the years has to work with the suffering of thousands of patients. Clinical detachment may help young doctors suppress negative emotional responses to these extra-ordinary tasks. As William Hunter, the famous 18th-century anatomist, said in an introductory lecture to students, 'Anatomy . . . familiarizes the heart to a kind of necessary Inhumanity' (quoted in Richardson 1989: 31)[11]. The one-off Body Worlds visitor, by contrast, entering the liminal (Turner 1977) space of this extra-ordinary exhibition, often in the company of family or trusted friends, can afford an almost religious experience.

My point is not that all visitors report awe, far from it. Many more report a more moderate, though still positive, response: fascination. My point is that some visitors report developing an anatomical gaze that is detached from neither emotion nor life, a gaze that is suffused – at least in the liminal space of the exhibition – with awe. Whether that awe continues into everyday life, whether the 'conversion' experience of Body Worlds lasts beyond the day, whether those who promise to look after their bodies better actually do, my data cannot show. Such, of course, may be asked about any worshipper on Monday morning, or any pilgrim on return home, but that is not to deny awe as a key component of religious experience.

To what extent have students of religion analysed awe? Reference works are surprisingly elusive about what is, surely, a central religious concept. Beit-Hallahmi and Argyle's review (1997: 75) finds awe is mentioned in a

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number of studies as a component of religious experience, but the term is not elaborated. Eliade's *Encyclopaedia of Religion* (1987) has no entry for 'awe', while the entry for 'worship' comprises articles on the rites of each major religion. The object of awe is easier to describe than the experience. Likewise at Body Worlds, while remaining unclear as to what guestbook writers mean by awe, we can identify the object of awe – the display of our own bodily interior. This is the opposite of Rudolf Otto's (1923) famous formulation of the holy as 'The Other', the transcendent. What Body Worlds visitors find at Body Worlds is a shrine to the human, to themselves. One scholar who *has* written about worship (Smart 1972) rules out this possibility: for him, following Otto, worship entails fear, a sense of inferiority, and the object of 'worship' is ultimately invisible; hence, he says, we cannot worship ourselves. Yet that is what seems to be occurring at Body Worlds.

Or to shift the metaphor from religious to secular travel, there is a sense of discovery. Free from the medical student's burden of a mass of information to imbibe if s/he is to get through this year's exams and eventually qualify as a doctor, the Body Worlds visitor is simply a museum visitor. Many museums do not touch the visitor, but occasionally what began as 'just another museum' can become a place of personal discovery, or of connection with another society, with another time, with humanity itself (Walter 1990: 212–3). To put it another way, the Body Worlds tourist discovers the mysterious realm of his or her own interior being.

The common body

A number of medical schools now own plastinates; von Hagens sees plastination as complementing traditional anatomical dissection. He criticises models and computer simulations used in anatomy teaching because they show the average body, and doctors need to be trained to expect wide variation between bodies. A retired general practitioner told me, 'The trouble with my anatomy class was that in my cadaver things were never where they were supposed to be; I could never find things, and I never learnt much'. Von Hagens claims that the advantage of plastination is that several examples of the same organ can be shown, demonstrating variability of form, size and positioning. One of the Body Worlds exhibits is two-sided – a human, skinned face to the front, its anatomised interior to the rear. The audioguide comments: 'If the skin and subcutaneous fatty tissue are removed in the course of an anatomical specimen, this individuality disappears, and instead we see a new *anatomical* (emphasis in original) individuality'.

In the guestbooks, however, I found no reference, not even by doctors and medical students, to the exhibition demonstrating anatomical individuality and diversity. What I did find was a number of awed references to our anatomical similarity and to how von Hagens' anatomy class teaches us a common humanity:

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> the exhibition is great 4 the living 2 c the beauty we have inside us, what makes everyone the same.

> It's strange how we all boil down to the same ingredients despite the way we live our lives. . . . Perhaps I'm being too simplistic, but that was the feeling which overwhelmed me when viewing the exhibits.

> I was fascinated and shaken in a positive way when seeing the complex, perfect structure of our body, and I experienced a very strange amicable feeling towards all the other visitors to the exhibition who were in the same room as I. I had the feeling as if we already knew each other inside out. This make me feel humorous. And as I watched the dressed, living bodies standing next to the plastinated, mute bodies I constantly had to smile to myself. It is really amazing how close strangers can suddenly feel to each other.

Even one medic, a Dr Chauhan from Luton, wrote in similar vein:

> Extremely insightful compared to examining other models used to learn about our bodies. Under the shell of our skins, our bodies are all so similar, regardless of colour of skin!

Some of my white students observed the same contrast between racially differentiated exteriors, and a universal interior. This experience of a common humanity, which as Bennett (1995: 201) notes, occurs also at the Biological Anthropological Gallery at the Musée de l'homme in Paris, is very different from late 19th-century museums of natural history, ethnology and comparative anatomy that affirmed the supremacy of the white European male.

For one writer, it seems that the common humanity revealed in the exhibition undermined individual hubris:

> On one hand reminded me to enjoy being alive and to appreciate how wonderful our bodies are and on the other hand it reminded me not to take 'the self' too seriously.

In an individualistic society, we might expect even those who score low on self-esteem to assume that they are special, or at least unique. In particular, my sense of my own body being unique to me is what makes me me, and different. It may be that Body Worlds reverses this experience for some visitors. They come in assuming 'I'm special, everyone else is ordinary', and go out feeling 'We're all amazing, and this is what makes me special'. As one wrote: 'I AM AMAZING AFTER ALL'. Why? Not because of my individuality, but because of the anatomy I share with all humans. My bodily exterior may be unique, but my anatomy is not. However ugly or spotty I

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am, my anatomy is wonderful to behold. Specialness thus comes to be rooted not in individuality but in collective membership of the human race. It comes to be rooted not in my unique exterior but in our common interior. This revelation flies in the face of a culture obsessed by surface beauty and revolted by bodily interiors. It is not surprising if some visitors have had a 'Wow!' experience by the time they leave the exhibition.

The one, major, exception to Body World's sense of a common humanity is the exclusion of the female body. Apart from the swimmer, the only female whole-body plastinates display aspects of reproduction, implicitly defining the female as a reproductive machine. Many females write that they would like to learn about themselves as well as about men[12]. Laqueur (1990) has argued that, from Galen till the 18th century, anatomists displayed the female as a lesser form of the male, echoed in von Hagens' defence that, with on average 40 per cent less muscle, female whole-body plastinates display musculature poorly. But as Jordanova (1985) has argued, there is also an anatomical tradition of gawping, in the name of science, at female genitalia. Indeed, von Hagens' other defence for excluding female whole plastinates is that he does not want Body Worlds to be accused of enabling males to become voyeurs of women's bodies. Following pressure from London visitors in 2002, he announced he would introduce more female plastinates. Until they appear, visitors remain unsure to what extent males and females inhabit a common anatomical body.

Conclusion

In most societies, dead bodies are problematic objects that are dealt with through ritual (Metcalf and Huntington 1991). Several sociologists (Elias 1978, Giddens 1991, Mellor and Shilling 1993) argue that illness, death and decay are particularly problematic for a late-modern society that celebrates the healthy, beautiful, living body; we may therefore be terrified of the dead body, or morbidly fascinated by it. Or, as in the cosmeticised, embalmed corpse on display in the American funeral parlour, the dead body may be transformed into an aesthetic object for viewing, all signs of decay and smell chemically removed (Davies 1996, Davies 1997). There are thus in the modern West three ritualised ways of handling the dead body: hiding it, turning it into pornography, and transforming it. It is in this last tradition that Body Worlds may be placed, though its purpose and the chemicals used are different from those of the funeral parlour.

There is, of course, a fourth way of handling the dead, and that is through the medical rituals of dissection and autopsy. The preparation of plastinates certainly falls into this category, but this is completed thousands of miles away in a purpose-built facility in a high-tech industrial estate in China. Visiting Body Worlds, therefore, is a very different way of learning anatomy from the wet mess and smell experienced by the medical student. And

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unlike viewing in a funeral parlour, where information about the technicalities of embalming are rigorously kept from mourners, Body Worlds includes a video and information panels about the process of plastination. At Body Worlds, information about the technique of plastination is central to the educational/museum experience, whereas in a funeral parlour lack of information about the technique of embalming is central to the mourning experience.

This leads to the possibility of a different kind of 'body view' at the exhibition, compared both to mourning a known, soft, embalmed corpse in a funeral parlour, and to dissecting a formalin-soaked, smelly, wet cadaver in an anatomy lab. Plastination's transformation of the body into an object that is dry, colourful, odourless and yet still anatomically individual evokes fascination, sometimes awe, at the intricacy, complexity and vulnerability of real human bodies that is rarely evoked by pictures, models and computer simulations that depict an idealised or average body/organ. Simulations may not be wholly believable; embalmed corpses lead to feelings of grief; corpses in process of dissection or autopsy lead to feelings of revulsion, and in defence, clinical detachment. Because they are perceived, by many, as real, yet not repulsive, exhibited plastinates fall into a different category, which enables a different mix of cognitive and emotional responses. Among these are, for many visitors, fascination, and, for a few, awe.

Of course, some do not find the exhibits believable. Some mourn the plastinated babies. Some are revolted. Some want more personal identification of the exhibits, others are disturbed by either the imposed post-mortem poses or the skin, hair and nails that signify pre-mortem identity. But the physical nature of the exhibits, together with the context of their display, makes possible a proto-scientific gaze that lacks the emotional complications inherent in the dissection lab and the autopsy room. This gaze is, perhaps, the same as that of the high-school student learning biology from a textbook, yet the fact that these are perceived – despite the ambiguities – as real human bodies is what turns modest interest into absorbed fascination and, for some, into awe. As the advertising slogan for the Brussels exhibition put it 'Koerperwelten – La fascination de l'authentique'.

Whether the relic be authentic or forged, the pilgrim who visits the saint's preserved remains has seen something categorically different from any number of pictorial or artistic representations of the saint. Something similar seems to happen to some, not all, Body Worlds visitors for whom the exhibited plastinates are more real than other anatomical representations they may have seen. The dead body that seems to threaten late-modern celebrations of the lived body becomes, in von Hagens' hands, the relic that generates not only celebration of the lived body, but even, for some, its worship.

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Notes

1 For a brief review of social science literature on Body Worlds, see Walter (2004).
2 For further pictures, see von Hagens, G. and Whalley, A. 2002, or the exhibition website.
3 1 Corinthians, 15, 35–57.
4 Conversation with author, 13 January 2003.
5 I have not corrected grammar or spelling in the written data. Many thanks to Felicity Ruperti, Angelina Whalley, Gunther von Hagens, Kate Anthony, Toby Jones and other Body Worlds staff for their help in making these materials available. They went out of their way to assist, offering data I had not thought to collect or whose existence I had not known existed.
6 Though often appreciating the technical quality of the plastinates, doctors and medical students do not say this. This suggests that hands-on dissection in medical school a) *is* pedagogically effective, b) *does* give them privileged knowledge of our insides, and therefore c) *does* enhance medical mystique, not least vis-à-vis other bodyworkers.
7 Some mourners complain that the embalmed body does not look right. My own observation in funeral parlours in the UK and the USA identifies not poor embalming, but inappropriate cosmetics and clothing, as the usual cause of such comments.
8 This is her real name, willingly attached to her entry to a guestbook in the knowledge it could be used for publicity purposes. I do not consider it ethical for sociologists to anonymise respondents who have chosen to make their identify public. To remove or change a person's name without their permission is to depersonalise them – anatomists depersonalise the dead, sociologists the living.
9 For a detailed auto-ethnography, showing *how* the exhibition induces a scientific gaze, see Walter (2004).
10 This is not to say medical students may not experience awe outside the anatomy class. My informant reported awe on delivering her first baby.
11 I accept Collins' (1994) argument that, for the experienced surgeon, invasion of other's bodies is routine; s/he may not need to be emotionally protected by distancing strategies. In this paper though, I contrast medical and lay *first* encounters with the dead.
12 Nor are any of the plastinates whose skin is visible black. But no visitors in the data I collected mention this.

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