

The dead shall entertain the living: 'Bodyworlds' from the perspective of medical students

REFLECTIONS

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On October 6th, Gunther von Hagens' extravagant exhibit of human dissections, *Bodyworlds*, opened in London's Piccadilly Circus. After drawing the attention of the nation in 2002 with the first public autopsy in 170 years, von Hagens now presents his tour of the human body hoping to "edutain" (educate and entertain). Since 1995, *Bodyworlds* has been renowned for the dramatic and often shocking poses of its plastinated cadavers. We entered *Bodyworlds* prepared to expand our anatomical knowledge but also mire at the craftsmanship of his preparations. In this article, we explore the educational value and ethical considerations surrounding an exhibition like *Bodyworlds* from the perspective of penultimate year medical students.

The exhibition was separated into organ systems with relevant pathological prosecutions dominating each display. This arrangement was genuinely educational at the level of the layperson and conveyed health promoting ideas. Typical of this was the interactive display showing the detriments of smoking. To the general public, witnessing a fully dissected nervous system or an infarcted heart offered a novel, engaging and genuinely educational experience. As medical students, we take these opportunities for granted but on first exposure, they will leave visitors with a lasting impression of the human form and its mortality. As important as this is, our own knowledge was not expanded beyond that of introductory sessions held in our first years at medical school. It may have been presumptive of us to expect a post-graduate level of anatomical and physiological content, nonetheless, we felt disappointed that plastination was not used to its full potential. To us, it could revolutionise anatomical teaching by displaying delicate anatomy in ways not possible through traditional methods. We left feeling this was a missed opportunity. Anatomical labels were haphazardly scattered on some specimens as if randomly drawn from von Hagens' signature hat.

The exhibition quickly turned to the more bizarre imaginings of von Hagens' brain, with dissections becoming less and less relevant, and more and more striking. It was difficult to see the educational value of "Atlas", a cadaver positioned carrying a replica of the Earth, complete with suspiciously attached Mohawk. The question of whether body donors knew of their eventual post-mortem positioning struck us throughout the exhibition. We were answered in a short video where von Hagens stated that the positioning of "Atlas" was devised post-dissection after remarking at his muscular physique. It should be noted that *Bodyworld* donors can consent to public display as an "anatomical work of art" but beyond this, it is unclear how much input they have. In honesty, we were surprised to learn that the Institution of Plastination has over 17,000 registered donors despite this. (1) For us, this strikes few parallels with the world of medicine where informed consent is emphasised to the highest degree. This contrast was highlighted around a poker table where three dissected bodies were placed as if re-enacting a James Bond scene. All educational value had been abandoned in place of spectacle when we saw a man riding an enormous horse whilst holding his own, and the horse's, brain aloft for our viewing pleasure.

Seeing a human body presented in this way evokes an emotional rollercoaster, from awe at the dramatic posing, to the realisation that these bodies were donated by once living people. Even as medical students with years of anatomical experience, we were not immune to this human reaction. We were impressed by the technical brilliance and spectacle of the dissections but also felt conflicted at how they were presented. For example, the decision to display a pregnant woman, with a viewing window cut into her abdomen revealing her unborn child, left us uneasy. Our emotional responses, perhaps, were heightened from our previous experiences of dissection. We always treat the dead with the utmost respect and dignity, with emphasis on respectful handling of human remains. Interestingly, when *Bodyworlds* underwent an ethical review by the California Science Center in 2004, the committee deemed there to be an atmosphere of respect. (2) To us, these sentiments seemed fleeting throughout *Bodyworlds*, which arguably embraced more sentiments of a showroom, rather than a dissecting room.

Some sections were less enjoyable to view and were more ethically problematic. Plastinated foetuses of just a few weeks gestation isolated in glass cases were presented with little educational comment. One of the key recommendations of the California Science Center's review was the presence of accompanying text panels of adequate information. The plastinated foetuses were not displayed in California. (2) It's hard to place why they were so upsetting, but the lack of educational effort in this section was much more hurtful. We were concerned that donor consent was only

mentioned once within the exhibit – for two lovers immortalised in sexual intercourse – as if the other positionings and specimens did not warrant such ethical consideration. This lack of emphasis on consent again flies in the face of our medical teaching. The relative lack of transparency was uncomfortable as if they are trying to hide this aspect of the process from the public eye. We felt there was a missed opportunity to educate the public about the process and benefits of body donation. *Bodyworlds* is a unique spectacle in bringing attention to body donation but does little to promote it as a way to further medical education.

Bodyworlds was an experience not to be missed, best described by its creator as "edutainment". It sparked many ethical discussions between us, mostly centred on consent, respect and whether education prevails in justifying the exhibit. Nonetheless, *Bodyworlds* has undergone worldwide ethical scrutiny in the public and scientific eye. To our eyes, it seemed more concerned with the spectacle and showmanship than the informative text panels. It is tempting to ask whether this detracts from the great educational potential '*Bodyworlds*' has. Without this extravagance, however, it would be unlikely to engage half the audience it has since 1995. It is also poignant to remember that the history of anatomy is rooted in artistic expression and has been since the days of Galen and Vesalius. Many questions remain – art or science, education or entertainment and why where there swings halfway through the exhibit?

References

1. Body Worlds. Vital Donor Programme. London: Body Worlds; 2018 [accessed 10 Jan 2019]. Available from: <https://www.bodyworldsvital.com/about-us/donors/>.
2. California Science Center Ethics Committee. Body Worlds: An Anatomical Exhibition of Real Human Bodies Summary of Ethical Review. Los Angeles: California Science Center; 2004 [accessed 10 Jan 2019]. Available from: <https://californiasciencecenter.org/file/summary-of-ethical-review-updatepdf>.

Editorial Note: The 'Bodyworlds' press office was contacted in February 2019 for a response to this article, with the offer to publish their response in the journal. To date, no response has been received.



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