

**Federative International Committee for Ethics and Medical Humanities (FICEM) of the International Federation of Associations of Anatomists (IFAA)**

Thomas H. Champney / USA, Jon Cornwall / New Zealand, Sabine Hildebrandt / USA, Amadi O. Ihunwo / South Africa, Gareth Jones / New Zealand, Diogo Pais / Portugal, Sergio Tamayo / Argentina, Guo-Fang Tseng / Taiwan, Andreas Winkelmann / Germany (Chair)

**Ethical and Medical Humanities Perspectives on the Public Display of Plastinated Human Bodies**

**Definition of the Subject:**

**The phenomenon, starting in the mid-1990s, of the commercialized public display of dissected plastinated human bodies and body parts, characteristically including bodies displayed in "life-like" poses.**

Displays of plastinated bodies as defined above, which started in the 1990s with the development of the plastination technique and the exhibition of plastinated whole-body mounts by German anatomist Gunther von Hagens, are now a worldwide phenomenon. Many others have started similar businesses and there are now both travelling exhibitions in many parts of the world, and a permanent museum in Berlin ("*Menschenmuseum*" [museum of man]).

These exhibitions certainly have attracted large crowds and massive news coverage around the globe. They also attract critical discussions, public and academic, as the display of dead bodies engenders ethical, cultural and legal questions.<sup>1</sup> It should be borne in mind that the following considerations do not concern plastination as a conservation method – a revolutionary technique that has proven very helpful for research and teaching in anatomy –, but rather the specific use of this technique in for-profit exhibitions as described above.

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<sup>1</sup> As for legal questions: Some court decisions have so far had a direct effect on such exhibitions. These rulings, however, cannot be generalised. Given the various legal contexts worldwide, this document will not go deeper into legal questions, but will argue from an ethical perspective.

Several aspects need consideration when looking at such exhibitions from an ethical and/or medical humanities perspective, arising from the "[Recommendations of good practice for the donation and study of human bodies and tissues for anatomical examination.](#)" A discussion of the details of these aspects is summarised here in the following guiding questions for ethical considerations concerning plastination exhibitions and some general conclusions. All aspects are then discussed in more detail below.

- **Is there documented informed consent of donors (including a clear definition of "body donation")? Are donors informed about the acquisition, utilisation, and destruction (or return) of their body?**
- **Is there transparency of the body procurement procedures (particularly when bodies are imported from abroad)?**
- **Are local social, religious, and ethical standards for the display of human material and local legal obligations met?**
- **Is there commercialisation of the dead human body?**
- **Is the purpose educational, or does it mainly aim at eye-catching and/or morbid curiosity?**
- **Is the privacy of donors and their families respected?**
- **Is the dignity of the donors preserved? Or is their body reduced to mere material, an object, or a piece of art?**

Apart from the question of transparent informed consent, these questions cannot always be answered with a simple yes or no. It remains difficult to clearly define a threshold that determines if a given exhibition becomes ethically unacceptable. FICEM is concerned that the major purpose of such exhibitions, apart from financial gain, may be sensationalism and voyeurism. When the dead human body is made an object of commerce or morbid curiosity, the dignity of the deceased is at stake. The reputation of anatomy as a discipline and of plastination as a preservation technique depends on respect for the dignity of the deceased and their body.

In summary, the FICEM of IFAA has serious ethical concerns about the use of plastinated human remains in commercial exhibits. The committee believes that all of the points raised in this document should be adequately addressed prior to the public display of any human remains. The committee strongly believes that respect, dignity and privacy should be afforded to all individuals whose bodies are used or displayed. Therefore, the commercial public display of human remains appears not to meet the ethical standards established by the committee and endorsed by the IFAA.

In the following, the aspects mentioned above are discussed in more detail:

- **Body Procurement**

All aspects of the IFAA "[Recommendations of good practice for the donation and study of human bodies and tissues for anatomical examination](#)" apply to this specific practice of using dead human bodies for anatomical purposes. Following these recommendations, the display of plastinated bodies is unethical if there is no **individual informed consent** of the deceased during their lifetime, based on their free decision and documented in writing. It should also be noted that sometimes, the term "body donation" is used in an unclear way, relating to "donation" by entire communities, or by institutions or firms. Donation in the sense of the IFAA Recommendations must always refer to a bequest by an individual. Such informed consent will have to include consent to the intended "range of uses of donated bodies" (point 9b of the Recommendations), i.e. in this case information about the intended forms of public display (see also below). To be able to demonstrate that all exhibition items are based on voluntary body donation, it must be possible at all times to trace back every specimen to the related individual donor (point 8d of the Recommendations).

Exhibitions that do not follow this basic standard of informed consent are unacceptable. This may be difficult to assess when bodies are imported from other, often distant, countries, because the methods of procurement may remain obscure if they happen outside the local legislation of the place of the exhibition. Independent of the geographical origin of the bodies, transparency regarding the procurement procedures is therefore mandatory.

As will become clear from the following, informed consent is a necessary, but not necessarily a sufficient, condition for ethical approval of such displays.

- **The Use of Dead Human Bodies for Personal Profit**

As the IFAA Recommendations and many laws around the world stipulate with good reason, the dead human body should not be made an object of commerce. Commercialisation has to be assumed as a significant aim of vendors if a trade of bodies or body parts is established, and/or if individual persons or firms draw financial gain from using dead bodies for anatomical purposes.

There is indeed a blurred line between non-profit donation programs charging fees for their administrative and handling expenses, and for-profit organisations demanding prices for bodies or body parts. Nevertheless, commercialisation presumably prevails if earnings are high and not fully re-invested in the program itself but rather go into private hands, or if the organising institution is a for-profit organisation by its legal status, or if bodies or body parts are directly priced (rather than expenses compensated). It is also a sign of commercialisation if bodies or body parts do not stay under the custody of the institution that accepts the donation, but are passed on to others (i.e. are truly "sold") and do not go back to the first institution.

All travelling exhibits that we know of charge high entrance fees and are run by for-profit companies. If the main purpose of such an exhibition therefore is financial gain, it must be deemed unethical.

- **The Alleged Educational Purpose**

An important argument against accusations of commercialisation has been to say that the display of plastinates serves other, that is “higher,” purposes than commercial gain. The main argument in this respect has been to assume a significant educational effect on the visitors, be it on increased knowledge of their own body, or on improvement of their health behaviour. It has, for example, been claimed that visitors are more critical of smoking after visiting the exhibition. A full exploration of this question is not possible at this point, as more evidence would be needed.

- **Morbid Curiosity**

The IFAA Recommendations (point 6) state that the arousal of morbid curiosity by "images, or other artefacts produced from donations ... placed in the public domain" should be prevented.

Closely related to the question of educational purpose is therefore the question whether the main purpose of such exhibitions is merely to arouse morbid curiosity – as this would go against a respectful contact with the dead and would not be covered by a willed donation made for scientific and/or educational purposes. Without further evidence, it cannot be said whether the huge success of plastination exhibitions is mainly based on curiosity or on *morbid* curiosity. It seems plausible (but will need further evidence) that many visitors who see anatomical specimens for the first time will be affected emotionally to a degree that will hamper the acquisition of anatomical and medical knowledge. As anatomists know, the acquisition of such knowledge is a process of "learning to recognize patterns", and it takes professional students of anatomy a significant amount of time and energy to attain modest mastery of this subject (months or years of study).

- **The Alleged Historical Continuity**

Von Hagens' exhibitions, in particular, have been accompanied by historical accounts and imaging suggesting a historical continuity of today's displays with public dissections and displays of the European Renaissance and with the Anatomical Theatres of the 17<sup>th</sup> and 18<sup>th</sup> centuries. The evocation of such historical connections intends to justify today's activities by placing Gunther von Hagens in a direct historic continuity from Vesalius and Rembrandt's Dr. Tulp into the 21<sup>st</sup> century.

The historical lines, however, are not as direct as suggested. Other obvious historical lines are often overlooked, in particular the resemblance to 19<sup>th</sup> century traveling exhibitions of medical curiosities (including mummies and living "freaks"). Also, public dissections in anatomical theatres in the 17<sup>th</sup> and 18<sup>th</sup> centuries served other than the alluded purposes, for example as an additional punishment for those who had been executed, or as a "Memento Mori", particularly during the Baroque period. Moreover, in the German historical context, the exhibition of pieces of removed skin with tattoos or of a muscle-man carrying his folded own skin over his arm may also evoke the preservation and processing of skin from murdered concentration camp inmates in the period of National Socialism.

Above all, historical practices on their own cannot simply be taken to justify modern practices ethically, because modern ethics has evolved. For example, the consideration of individual dignity and autonomy has changed compared to the 16<sup>th</sup> or 18<sup>th</sup> centuries (cf. the development of the Nuremberg Code 1947 and the Declaration of Helsinki 1964, latest

revision 2013), and views of different societies and cultures on how to see the display of the dead continue to evolve. Therefore, claiming historical continuity may entail referring to ethically dubious practices of the past.

- **The Unclear "Lifespan" of a Plastinated Specimen and the Question of Burial**

Plastination is a very efficient technique to circumvent the natural decay of the human body after death. While experience with plastinates only extends over four decades, it can be safely assumed that bodies preserved by plastination may persist as long as or even longer than Egyptian mummies. Obviously, this precludes simple burial of plastinated bodies, and even makes cremation difficult or impossible. The question therefore arises what will be the fate of plastinated bodies once they are not used anymore (including "waste" parts of plastinated bodies accruing during the process).

In other body donation programs not aimed at public display of plastinates and based on other preservation techniques, donors can usually assume that their body, or the biggest part of it, will later be cremated and/or buried, i.e. will eventually be treated like other dead bodies in the respective culturally appropriate way. In contrast, the bodies of those donating to a plastination program could potentially end up as plastic waste, unless a definitive solution to the problem of their disposal and/or burial is discussed. In this case, consent to plastination and display will have to include information about this fate of the body (point 9 of the Recommendations demands transparency regarding the final disposal of remains). This concerns all institutions that make use of plastination, not just those organising exhibitions.

Interestingly, many donors seem to intend just that, to become a non-perishable plastinate, because they associate this post mortal fate with notions of an eternal existence or even immortality. It must also be asked, however, if all bodies donated for the purposes of exhibition will ultimately end up in a public display, and if the potential hopes for such a form of "immortality" by donors can always be satisfied in this way.

Apart from organising cremation and/or burial, many anatomy departments around the world also organise commemorative ceremonies or services of thanksgiving for those who gave their bodies. No such commemorative services are usually held for the deceased individuals behind exhibited plastinates, and this omission contributes to the de-personalising perspective of such displays (see below).

- **The Privacy of the Donors**

Privacy has both legal and ethical contexts; here, only the ethical context is addressed. Anonymity of the donors has been the rule in any displays of plastinates so far. The privacy of the donors is thus formally respected. In public displays, however, the feelings of relatives and friends of the deceased must also be considered. Therefore display of bodies or body parts should be avoided if it might allow for individual identification, such as for example tattoos – a problem that does not usually have to be considered in dissecting rooms, as they are not public places. As the IFAA recommendations (point 6) state, the privacy of the surviving relatives has also to be respected.

Even without such individual identifying features, however, do relatives have to accept that their loved ones are on display as plastinates, even if the deceased consented? Most laws regarding donation, and the IFAA recommendations, focus on the personal autonomy of the individual and their right to decide about the post-mortal fate of their body. This can include a

decision against the wishes of relatives. Ideally, however, the relatives should be included in such decisions (see point 1 of the IFAA recommendations).

- **The Posing of Dead Human Bodies**

One special feature of these exhibitions of plastinated bodies is that they include bodies displayed in "life-like" poses, for example sitting at a table playing chess or cards, or running, or performing certain sports, or even riding a plastinated horse. Some of these whole-body plastinates are obviously meant to convey functional anatomy, while others allude to works of art. For example, a plastinate with "drawers" of organs alluded to a well-known figure by Salvador Dalí.

It can be argued that the educational effect of such posing plastinates regarding functional anatomy is rather limited. Seeing the brain and spinal cord of a "chess player" does not inform the viewer about the actual functions of the nervous system while playing chess. The plastinate of a "runner" with individual muscles pointing away from the body like streamlines has been criticised because the function of muscles depends on their attachments on both ends.

What, then, is the function of these poses? They certainly are eye-catching, as the visitor immediately recognises a human figure, which, as his/her senses suggest, must be alive, but turns out to be dead. These plastinates are dead bodies *animated* in a very strange way (see below). Some of these "animations" have been seen as highly offensive by some, for example the plastinated body of a pregnant woman or plastinates in erotic poses, including the display of a male and female body post mortally joined in eternal sexual intercourse. Such plastinates must be called more voyeuristic than educational.

Nevertheless, the technique of full-body plastination and subsequent aesthetic processing (including coloration of the surface and insertion of glass eyes) and posing has made it possible, likely for the first time in history, to display "real" dead bodies in a rather aesthetic, dry and "clean" way – at least in the anatomical context, where this was historically limited to wax models. One of the few historical comparisons is the display of relics in Catholic churches, which, in their context, were also successful in presenting mortal remains in a positive way, albeit with a very different purpose – the admiration of a person in the presence of their authentic remains.

The plastination process removes aspects of bodily decomposition, such as odour, fluids, slimy substances, perhaps even worms. It therefore allows laypersons to look into dead bodies and see muscles and organs without the revulsion that bodily decay usually causes. The life-like positioning may add to this effect by further eliminating reminders of mortality. This may explain the success of plastination exhibits compared to traditional displays of anatomy museums with discoloured body parts in jars. The question remains whether the intention of preparing and posing dead bodies this way is to teach anatomy, raise body awareness, arouse morbid curiosity, or just to catch the eye.

Finally, the art aspect of posing plastinates has been very controversial. This kind of "art" is actually far from contemporary art (which had very different approaches to the human body over recent decades). Rather than art, it is either *design* using organic "material", or the *reproduction* or quotation of classic works of art (as in the case of the drawer man), again with a very special "material". Both these approaches thus reduce the dead body to material used to produce works of art or design and therefore question the dignity of the deceased. On the other hand, such displays have also been seen as a "reconvergence of science and art" as they combine the approach of the anatomist as "Prosektor" (in Goethe's words), i.e. someone

who has to destroy to obtain knowledge, and as "Proplastiker", i.e. someone who restores what the "Prosektor" destroyed, trying to bring the dead matter to life again and thus to restore dignity by this artistic approach to the body.

- **The Ambiguity of Plastinates**

Plastinated posed bodies are a strange combination of opposites that are difficult to combine in the living world. They transgress categories which are familiar to us and which therefore help us to make sense of the world. This includes combinations of: interior/exterior, real/fake, dead/alive, body/person, self/other. The full-body plastinate is highly ambiguous, which may explain why it can be so fascinating, but also disconcerting at the same time. The process of plastination both renders a new form and preserves the old one, and as a consequence, an ambiguity of form is created which has generated much discussion on how such items should be classified, treated, and regulated.

From an ethical point of view, it would be good to stress that plastinates originate from and continue to be part of the donor, i.e. a person. In this sense, the ambiguity between body and person should not collapse into a classification of the plastinate as mere object or material. If the person behind the plastinate disappears completely, dignity is at stake. If, on the other hand, the ambiguity can be tolerated and upheld in the face of the dead body, it might be used productively to learn more about the human condition.

- **The De-Humanising / De-Personalising Perspective**

The display of plastinates does teach visitors an "anatomical view" of their body, but the view thus taught is a limited, rather 19<sup>th</sup> century model of a material "mechanical" body. Of course, the structural and mechanical understanding of the human body has been a main historical focus of anatomical research and teaching. It has, however, been argued more recently that anatomy as a discipline has now evolved into a discipline that takes the body in anatomy not just as a piece of material but also as a (dead) person, thus re-humanising the dead body. This new perspective is for example expressed by memorial services or other ceremonies surrounding dissection courses. It is also expressed by speaking of "donors," "mentors," or "teachers" rather than of cadavers. It is seen as a part of an education for professionalism. This view seems very different from the perspective that plastination exhibits usually imply, a perspective that can be described as de-humanising or de-personalising, where mortal remains are called just "plastinates".

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