Katharina Sabernig

A Rod of God

"Knitted Anatomy" as a Response to Human Remains in Exhibitions

Introduction

"Knitted Anatomy" is the foundation of an art-based research project, "Knitted Body Materiality", subsidised by the Austrian Science Fund and affiliated with the University of Applied Arts Vienna. The aim of the project is to use textile art to create ethically acceptable and scientifically accurate anatomical objects that evoke pleasant feelings while visualising one's own invisible interior body (cf. Sabernig 2025). The knitted anatomical objects have been exhibited in different contexts, such as the Neue Galerie Graz of the Universalmuseum Joanneum, at various hospitals, and the Josephinum (the Medical History Museum Vienna), where the modern woollen models were displayed alongside historical wax models. A unique exhibition concept involved its integration into a special exhibition at the German Museum of Medical History (Deutsches Medizinhistorisches Museum) in Ingolstadt. The Museum recently examined the proper handling of human specimens in museums in the exhibition, *Ansichtssache. Menschliche Präparate im Museum* (Heart of the Matter: Human specimens in the museum), which was on display from 3 April 2025 to 11 January 2026. The German word *Ansichtssache* offers a thoughtful double entendre: it means both "a matter of opinion" and "a matter of perspective." In contrast to the "hard" view of the human remains presented there and in various other medical history museums, I contributed an installation of knitted human organs, entitled "*Interventions I: Knitted Anatomy*," which was on show for a limited time (from 5 June to 9 September 2025). Knit, unusual in anatomy, is intended to stimulate ethical questions and raise awareness of issues surrounding the presentation of human body parts in a museum.



Fig. 1 Arteries (2016–2022) including heart and kidneys. © Katharina Sabernig

Both the installation *Knitted Anatomy* and the thoughts behind this contribution, centre on the argument that artistic interpretations, such as my knitted anatomical intervention, provide a unique lens for reflecting on the ethical, religious, political, and perceptual complexities of anatomical displays, both historically and in the present day. I explore how two- and even three-dimensional anatomical presentations in Europe and Asia, in particular Tibet, were shaped by such concerns since the 17th century, and how these considerations are connected and have influenced my project. I will examine several examples in Asian anatomical history connected to political, colonial or missionary activity and how art can be a way to reflect on such sensibilities.

Description of the spiritual charges involved within the project

Contemporary artworks often stage the body in a "shocking" way; sometimes, the artists' own bodies are deployed and provocatively transgressed (Jordanova 2015, 121). In contrast, how we treat human remains — which are highly spiritually charged materials — in museums, exhibitions, and artworks should represent an ethical concern. I argue that we should embrace a broader global and historical perspective to explain why human remains are still spiritually charged nowadays. This raises the question of how a scientific culture of medicine, often regarded as morbid or even necrophilic (Quigley 2012, 197), is linked to, overlaid by or even exploited for spiritual or religious reasons. My work on colourful anatomical objects, which may also elicit a slight smile, emerged from a research project on the history of anatomy in Tibet.[i] Tibetan art, ritual, medical and political history is strongly influenced by Buddhist values (cf. Gyatso 2015).

Building on the research project on Tibet, *Knitted Anatomy* considers the interplay between anatomical knowledge and religion, on the one hand, and how religious values and concerns shaped anatomical presentations in Europe and Asia in the 17th century, analysing how the cultural exchanges between the two areas contributed to the development of the three-dimensional reproduction of anatomy, which I employ in my work.

The boundaries between medicine, anatomy and religion are often blurred, not least because of the deeply human desire for physical, mental, and spiritual integrity. In many religions, the intactness of the corpse plays an important role. Even though there are some cases in Christian burial and preservation traditions where bones are displayed, they are rather considered curiosities (such as the ossuaries in Hallstatt or Kutná Hora). In Tibetan Buddhism, in contrast, the integrity of the corpse plays no special role; dismemberment is part of the funeral ritual of "sky burial". Mortal remains symbolise the impermanence of all living beings, to be transformed into

"sacred waste".

It is not uncommon for Tibetan ritual objects to be displayed in exhibitions worldwide, including artefacts of human body parts such as skull caps or femoral bones. This sort of "sacred waste" is often artistically processed, as bone fragments are sometimes painted or decorated and occasionally transformed into musical instruments such as skull drums (*damaru*) or flutes made from tabular bones (*rkang-gling*). These objects require special treatment and consideration from both a religious-ritual and a humanistic perspective.

This anonymisation of the remains of 'ordinary mortals' contrasts with the veneration of the relics of holy figures. It is primarily at the level of religious authorities, however, that relics or corpse preservation plays a certain role. Relics of the Buddha, which are kept in so-called *stūpas*, are a well-known example. The undecomposed corpse of a Buryat Khambo Lama by the name of Dashi-Dorzho Itigelov (1852–1927), which is on display at the Ivolginsky Datsan near Ulan-Ude, is an example of the veneration of a human corpse in a religious context. More than a thousand years earlier, Buddhist nuns in the Chinese town of Taizhou (in modern Zhejiang province) found other materials for their religious adoration – in the substitution of "Buddha's original remains". They created Buddha's organs out of silk to be enshrined in a statue that was later brought to what is now the Seiryōji Monastery (Kyoto) in 985. In medieval China, it became common practice to insert models of internal organs into Buddha statues (cf. Chang 2024, 58). Hence, when selecting materials for the representation of anatomical objects, textiles were considered early on.

In 17th century Tibet there was further development in anatomical knowledge. Lobsang Chödrak, personal monk physician of His Holiness the V. Dalai Lama, performed empirical dissection to prove that anatomical knowledge handed down in authoritative Buddhist medical texts was evidently correct and true, or should be

corrected according to his findings. For example, he suggested a reform in the approach to counting vertebrae, but he was unable to implement his ideas and finally officially followed the orthodox view (Sabernig 2016, 26f.).

As director of the medical college on the Iron Hill, just opposite the Potala Palace in Lhasa, he oversaw the creation of *thangkas* (scroll paintings) depicting anatomical and medical details authored by Sangye Gyatso, the Regent of the V. Dalai Lama (see: Parfionovitch et al. 1992). These 79 *thangkas*, with colourful, vivid, humorous and playful drawings, are invaluable to the visual history of Tibetan medicine and were an important source of inspiration for *Knitted Anatomy*.

Due to the strong religious and political relations between Buryatia and Tibet, an elaborated copy of these paintings was brought to the Russian Republic in the early twentieth century. In the early 1930s, shortly before the height of Stalin's purges, Dondup Endonov (1870–1937?), who was a monk, physician and director of the medical college of the Buryat Atsagat Monastery, tried to reform the medical curriculum. He roughly copied most of the anatomical paintings and revised many of the classical anatomical ideas. In his legacy, there was not only a modern biomedical atlas of Heitzmann (1836–1896; 1902), but also a copy he made of the Mongolian translation of the *Manchu Anatomy* introduced in the next paragraph (cf. Bolsokhoever 2016; Sabernig, forthcoming).



Fig. 2 Knitted organs as a homage to the Buryat physician Dondup Endonov (1870-1937?) and his reforms in the medical curriculum at Atsagat Monastery (2022). © Katharina Sabernig

The image in Fig. 2 presented in the concluding section is a homage to the Buryat physician. The knitted artwork of the most important internal organs is based on Tibetan medical paintings at Atsagat Monastery. It depicts traditional Tibetan medical concepts while also incorporating modern anatomy.[ii]

Almost at the same time as the scroll paintings were being created in Lhasa, in Europe, a peculiar notion arose that anatomists were the "rod of God." This religiously embellished metaphor was probably inspired by the *Rod* of Asclepius but was interpreted to mean that the wondrous complexity of the inner body, was made

visible by anatomists, and could be seen as proof of the existence of the Christian (mainly Catholic) God ('radius seu virga in manu Dei Anatomicus est';Faller 1980, 186). French Jesuits in China who translated standard works on anatomy into Manchu to use these illustrations as proof of God's existence in the sense that only (a Catholic) God could create such perfection, is an example of this idea in practice. The most famous work of the Jesuit Father Dominique Parrenin (1665-1741) is the so-called *Manchu Anatomy*, which is a translation of France's most popular anatomical atlas by Pierre Dionis (1645-1718), accompanied by images mainly taken from the atlas of Thomas Bartholin (1616-1689, see: Parrenin 1723; Johnson 1928; Walravens 1996; Asen 2009).

These historical examples were not only a source of inspiration for me as an artist, but also previous curatorial projects that were inspired by this material, prompted me to reflect on how difficult topics such as the sanctity of the body can be addressed in gallery spaces. Two examples, in particular, showed me how artistic visualisation could approach these topics indirectly, especially when the permission to use the original image for the exhibition is not granted. One example is a homage to the Buryat physician Endonov mentioned above, Fig. 2. Another example is Buddha's organs made from silk at Seiryōji Monastery, Kyoto. As the historical silken organs were already a religious substitute for the relics, no printing permission was granted in the scope of the comparative guts project. In response to the impossibility of using printed reproductions of the silken organs, Stella Thumiger created textile organs based on an illustration to serve as a visual placeholder (cf. Chang 2024, 56-58).

When I began my work on *Knitted Anatomy* in 2015, I was particularly concerned with creating anatomical objects using ethically unproblematic materials. I also wanted to create my own anatomical images for presentations and teaching. With my homage to Endonov, I became more aware of the great value of art as an abstract substitute for a visual presentation that would otherwise not be possible. In the

following sections, we will take a closer look at my exhibition in Ingolstadt and how the spiritual and emotional challenges provoked by anatomical representations were addressed.

Curatorial strategies

The *Heart of the Matter* exhibition explicitly asked how deeply the sight of human body parts affected visitors emotionally. The exhibition asked questions regarding the reactions of viewers, which were evaluated by Sonja Marschall, as part of her bachelor's thesis in Media and Communication Studies (University of Leipzig) based on a quantitative online visitor survey. *Interventions I* were evaluated using a guest book, which contained many enthusiastic and affectionate handwritten comments, but no further questionnaire.

It is part of the general concept of the German Museum for the History of Medicine in Ingolstadt that the visitors should be given the opportunity to decide which objects they would like to see (or which they would rather not) and how long the gaze lingers on an object. More sensitive objects are positioned in less obvious locations. This caters to different types of visitors with varying levels of prior knowledge, protects sensitive individuals and allows those with a particular interest in the subject to gain a deeper insight.

Curating exhibitions on human anatomy requires considering different levels or abilities of perception and comprehension. For instance, in the context of a planned exhibition on anatomical theatre in Berlin, Mira Frye distinguished between three ways of viewing anatomical objects and what kind of presentation would elicit what kind of gaze. In a nutshell: 1) spectatorism, 2) communication media, and 3) art as the other view. She also points out that exhibitions must comply with ethical as well as museum standards, and objects should not be exposed to sensationalism and curiosity (cf. Frye 2018, 265–270). Due to the subversive nature of the material (cf. Schulte 2012, 166) *Interventions I* can be viewed as both a scientific communication

medium and an artistic medium. Michael Sappol mentioned another form of anatomical gaze: connoisseurship (2024, 79). Even though he writes about this in the context of homosocial expertise in male dominated scientific circles in the 18th and 19th century,[iii] the view also applies to the knitted objects installation, in that those experts familiar with the subject matter should be able to identify the detailed anatomical structures without further explanation.

In cooperation with Marion Ruisinger, the director of the German Museum of Medical History Ingolstadt, it was decided to only exhibit macroanatomical[iv] textile objects which neatly correspond to the human organs exhibited in the main exhibition, but no pathologies were presented. The aim was to communicate medical content in an approachable and personally tangible, even playful way, given the heterogeneity of the museum viewers. The museum is visited by artists, non-medical visitors, vulnerable people, families with their children, as well as medical professionals. For a medically uneducated person, it may be difficult to see or, in the case of illness, to understand something happening inside one's own body, to which one ordinarily has no direct visual access. At the same time, the beholder may feel uncomfortable when reminded of his or her own vulnerability (cf. Schnalke 1999, 19). The difficulty in representing anatomy was more evident in another exhibition at the Josephinum in Vienna. The woollen objects were displayed directly next to the wax models. For those interested in medicine and materiality, this was a wonderful juxtaposition, but for some people who had come primarily to see *Anatomy in Stitches*, the sight of the more 'realistic' wax models was challenging.

The textile structures of *Interventions I* are just as vulnerable to knives as we are ourselves. On the one hand, they provide an insight into the fascinating inner world of our organism. On the other hand, they convey the feeling that it is important to care for something so precious as the body.

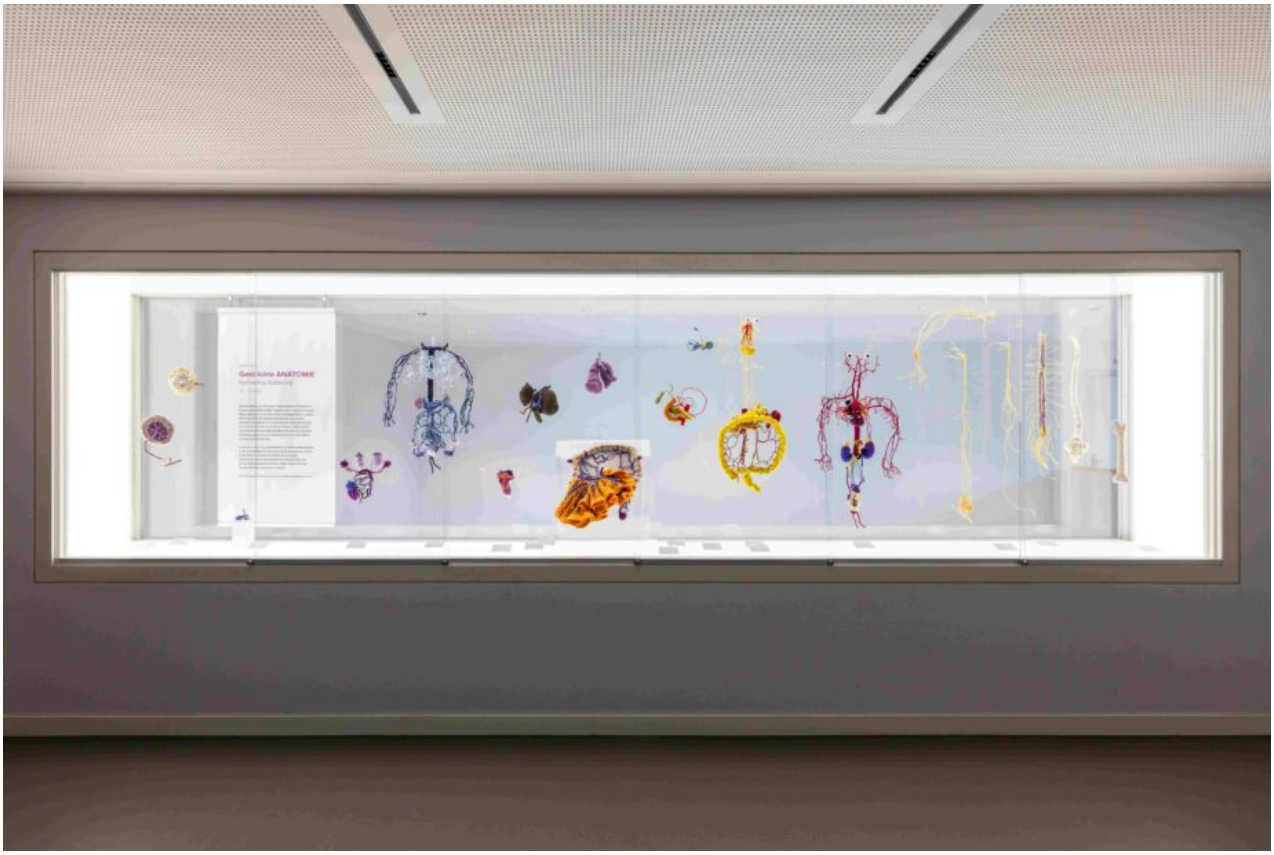
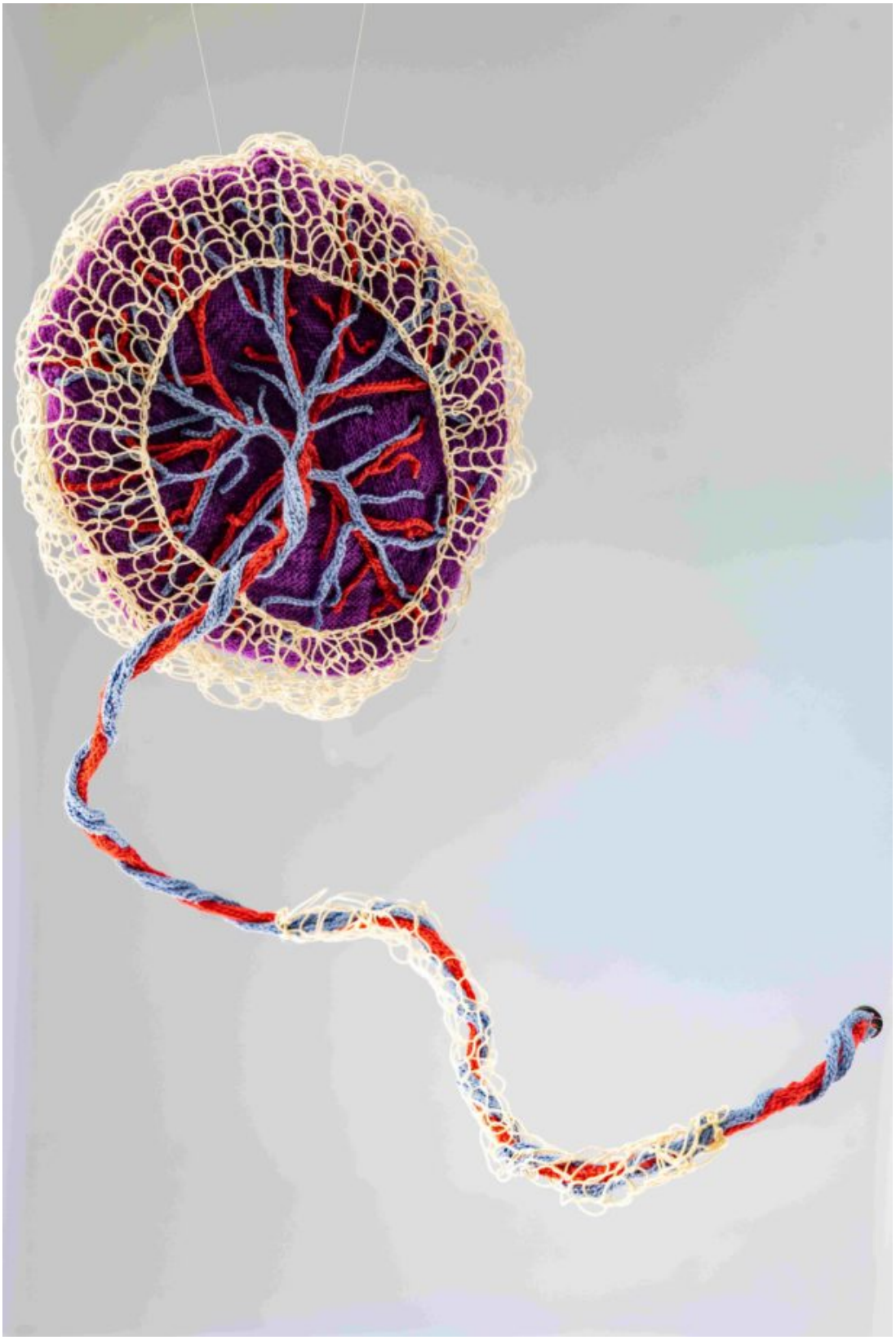


Fig. 3 Interventions I: Knitted Anatomy in the huge display cabinet. © Johannes Hauser, Deutsches Medizinhistorisches Museum Ingolstadt

Aside from the main exhibition *Interventions I*, I showcased around 30 anatomically correct knitted human organs in a single but large (6 x 1,5 x 0,5 m) display cabinet in a separate room (Fig 3). Suspended from thin invisible threads hanging from the ceiling of the display case, the individual objects floated as if in an aquarium.

Katharina Sabernig



A Rod of God
https://boasblogs.org/de/dcntr-debates/debate-4/a-rod-of-god/

Fig. 4 Placenta with blood vessels amniotic membrane and umbilical cord (2025). © Johannes Hauser, Deutsches Medizinhistorisches Museum Ingolstadt

The exhibition started with a placenta (Fig. 4), symbolic of the beginning of life. The placenta was especially made for the exhibition and could be compared with a prepared placenta displayed in the room showing *Heart of the Matter*. As in the annual exhibition, the objects shown in *Interventions I* were arranged in such a way as to consider the topographical relations of the body. Organs located higher up, such as the sensory organs of the head, were displayed in the upper quarter of the display case, while organs located further down, such as the reproductive organs or the intestines, were displayed in the lower part of the display case. This should facilitate reflection on one's own body while observing the objects.

Katharina Sabernig



A Rod of God
https://boasblogs.org/de/dcntr-debates/debate-4/a-rod-of-god/

Fig. 5 Female urogenital tract aside from veins and lymphatic vessels (2025). © Johannes Hauser, Deutsches Medizinhistorisches Museum Ingolstadt.

Apart from this requirement, I considered the order in which the organ systems should be installed. In this regard, I was inspired by the anatomical art and visual logic of Valencian engraver Crisóstomo Martínez (1638-1694), who became a pioneer of the artistic representation of bone histology by designing images within images by gradually moving from a macroscopic overview to microscopic detail (López 1964; Valverde 2009: 531). The organs should be positioned so that the content shown in one object is recognisable in the object presented next to it. For example, a female urogenital tract was installed next to the large object showing the venous and lymphatic systems, which also incorporated a female urogenital tract, albeit in less detail (Fig. 5). Another example is the object which showed the “liver with the gallbladder” which was installed to the left of the “pancreas with gallbladder”, above the intestines (Fig. 6).



Fig. 6 “Liver with the gallbladder”, installed left to the object “pancreas with gallbladder” above the intestines © Johannes Hauser, Deutsches Medizinhistorisches Museum Ingolstadt

Interventions I was closed shortly after the city’s Museums Night and the Biannual Conference of the International Association of Medical Museums and Collections (IAMMC). The conference took place under the programmatic title “*Material Matters*,” which dealt specifically with the materiality of “Powerful Objects in Medical Museums and Collections”. Although no definitive answer could be found to the question of how to deal with “human remains” in medical exhibitions, *Knitted Anatomy* provided an opportunity to reflect on this crucial issue from alternative perspectives.

In addition, behind every exhibit of human remains in a medical museum, a human history is hidden, and at the conference, there was broad consensus that it should be a general aim of medical curators to restore the personal history of the individual behind the objectified specimen. Opinions may differ considerably on how sensitive objects in medical collections may be handled, particularly in ethnographic collections where the legality or individual context of the acquisition is not always clear or is rather questionable by today's standards. This is true for colonial collections, but also regarding contemporary exhibitions such as the controversial *Body Worlds* (2013) by the anatomist and plastinator Gunther von Hagens. He used human material and, for a long time, it was unclear where the bodies came from and whether the deceased had consented to plastination (cf. Bogusch et al. 2003).

Concluding remarks

The ethical benchmark of an exhibit depends on the context in which it is embedded, the intended audience, and the religious sensibilities and traditions of curators, viewers, and, most importantly, the people on display. The idea of using cotton to represent anatomical facts is a general concept in my project and intended to stimulate ethical questions and raise awareness of the materiality of presented anatomical objects in a museum. As discussed in the workshop, a strategy involving empathy and an educational approach is required in a museum when dealing with delicate or even taboo topics. Personal identities, religious sensitivities or painful memories require special consideration to avoid hurting people's feelings.

Acknowledgements

My gratitude goes first to the director of the German Museum of Medical History Ingolstadt, Marion Ruisinger and Johannes Hauser, for providing the photographs, to Catherine Kemp for editing my English and to Michael Balk for his general support.

i Grant DOI 10.55776/AR705, check FWF record; Another example is my PhD dissertation: https://utheses.univie.ac.at/detail/43079# (accessed 17.01.2026). See also Parfionovitch et al. 1992.

ii See: Tidwell, Tawni and Katharina Sabernig 2024: 93; original painting published in black and white by Bolsokhoever 2016: 19.

iii The term "homosocial" relates to social interaction between members of the same sex, typically men. These relationships are not of a romantic or sexual nature, but social relations such as mentoring, camaraderie, or circles of "connoisseurship".

iv Macroanatomical refers to structures that are visible to the naked eye, such as organs. In contrast, microanatomical refers to tiny structures that require a microscope for magnification. Microanatomy encompasses histology (the study of tissue) and cytology (the study of cells).

References

Asen, Daniel. 2009. "*Manchu Anatomy*: Anatomical Knowledge and the Jesuits in Seventeenth- and Eighteenth-Century China." *Social History of Medicine* 22 (1): 23–44.

Bogusch, Gottfried, Renate Graf and Thomas Schnalke, eds. 2003. *Auf Leben und Tod: Beiträge zur Diskussion um die Ausstellung 'Körperwelten'*. Darmstadt: Steinkopf.

Bolsokhoeva, Natalia. 2016. "Tibetan Medical Illustrations from Atsagat Medical College and other Anatomical Achievements of the Buryat Lama and Physician D. Endonov." *Curare* 39(1): 6–21.

Chang, Che-chia. 2024. "China and Japan in the Modern Period." In *Comparative Guts: Exploring the Inside of the Body Through Time and Space*, edited by Chiara

Thumiger, pp 56-59. Christian-Albrechts-Universität zu Kiel; Cluster of Excellence Roots.

Faller, Adolf. 1980. "Elemente einer Wissenschaftslehre und einer Wissenschaftskritik in den Schriften von Niels Stensen (1638–1686)." GESNERUS 37(3/4): 169-188.

Frye, Mira. 2018. "Sektionen des anatomischen Blicks. Eine Ausstellung über das Berliner Anatomische Theater." In *Tiefe Einblicke: das Anatomische Theater im Zeitalter der Aufklärung*, edited by Johanna Bleker, Petra Lennig, and Thomas Schnalke, pp 261–274. Berlin: Kulturverlag Kadmos.

Gyatso, Janet. 2015. *Being Human in a Buddhist World: An Intellectual History of Medicine in Early Modern Tibet*. New York: Columbia University Press.

Hagens, Gunther von. 2013. *Körperwelten: Das Original.* Heidelberg: Arts & Sciences.

Heitzmann, Carl. 1902. Анатомический атлас [Anatomic Atlas], Kiew [aus dem Deutschen übersetzt: *Descriptive und topographische Anatomie des Menschen*].

Johnson, John William Schibbye. 1928. *L'anatomie mandchoue et les figures de Th. Bartholin: étude d'iconographie comparée*. København: Høst.

López Piñero, José María. 1964. *El atlas anatómico de Crisóstomo Martínez, grabador y microscopista del siglo XVII / estudio y transcripción de José María López Piñero*, Valencia: Ayuntamiento de Valencia.

Parfionovitch, Yuri, Gyurme Dorje and Meyer Fernand, eds. 1992. *Tibetan Medical Paintings: Illustrations to the 'Blue Beryl' treatise of Sangs rgyas Rgya mtsho* (1653–1705). London: Serindia.

Parrenin, Dominique. 1723. *Wargi namu oktosilame niyalma beye giranggi sudala nirugan-i gisun. Xi yi ren shen gu mo tu shuo.* Source gallica.bnf.fr / Bibliothèque nationale de France. Département des manuscrits. Mandchou 289/ FM 191.

Quigley, Christine. 2012. *Dissection on display: cadavers, anatomists, and public spectacle*. Jefferson, NC: McFarland & Co.

Sabernig, Katharina. 2016. "Anatomical Structures and the Structure of Anatomy in Tibetan Medicine: the Fourth Chapter of the Explanatory Tantra in its Commentaries." *Curare* 39(1): 22–32.

Sabernig, Katharina 2025. "Knitted Body Materiality / Gestrickte Körper Materialität." In *Geografien des Textilen: Lehren als künstlerische Praxis*, edited by Barbara Putz-Plecko, pp 338-341. Berlin & Boston: De Gruyter.

Sabernig, Katharina (forthcoming). "The Manchu Anatomy: A revisited fabric of bodily paintings." In *Proceedings of the 64th Meeting of the PIAC, held in Budapest in 2022; Studia Uralo Altaica.*

Sappol, Michael. 2024. *Queer Anatomies: Aesthetics and Desire in the anatomical Image, 1700–1900*. London: Bloomsbury.

Schnalke, Thomas. 1999. "Veröffentlichte Körperwelten: Möglichkeiten und Grenzen einer Medizin im Museum." *Zeitschrift für medizinische Ethik* 1: 15–26.

Schulte, Philipp. 2012. "'It's a girl!' drei Aspekte der Performativität in Marijs Boulognes Autopsie-Performance: The Anatomy Lesson. Excavations." In *Aufbrüche: Kulturwissenschaftliche Studien, zu Performanz und Performativität*, edited by Peter Hanenberg and Fernando Clara, pp 163–172. Würzburg: Königshausen & Neumann.

Tidwell, Tawni and Katharina Sabernig. 2024. "Tibetan medicine." In *Comparative Guts: Exploring the Inside of the Body Through Time and Space*, edited by Chiara Thumiger, pp 82-93. Kiel: Christian-Albrechts-Universität zu Kiel; Cluster of Excellence Roots.

Valverde, Nuria. 2009. "Small parts: Crisóstomo Martínez (1638–1694), bone

histology, and the visual making of body wholeness." *Isis* 100(3): 505–36.

Walravens, Hartmut. 1996. "Medical knowledge of the Manchus and the Manchu Anatomy," *Études mongoles et sibériennes*, cahier 27, 1996. Actes de la 37e P.I.A.C. Conférence internationale permanente des études altaïques. Chantilly, 20-24 juin 1994. pp. 359-374.

Katharina Sabernig studied medicine and cultural anthropology in Vienna. In her previous projects, she focused on anatomical illustrations, visualised medicine and Tibetan medical terminology. Inspired by the diversity of anatomical representations, the transfer of anatomical knowledge and ethical issues involved in representations of anatomy, she began knitting anatomical objects in 2015 to address questions of ethics, materiality and perception. In her current project, subsidised by the Austrian Science Fund and affiliated to the University of Applied Arts Vienna (doi 10.55776/AR705), the textile creations are exhibited in different historical contexts, but also presented through photography, video animation and performative anatomical theatre. The knitted anatomical objects were also exhibited in the Medical History Museum Vienna Josephinum, along with the historical wax models, and in the Joanneum in Graz.