Where are we now? Current potentials and future necessities in medical history collections and museums

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The perennially vibrant and inspiring biennial congresses of the European Association of Museums of the History of Medical Sciences prove it: there is a highly dynamic international scene dealing with medical objects as historical collecting items. It is a space for the manifestation and reflection on basic practical aspects of storing, keeping and preserving the respective artefacts. Theoretical and methodical approaches are developed to clarify the status, meanings and values of these things as epistemic objects. And, most prominently, material medical cultures grow around stunningly rich and diverse historic collections, widely disseminating issues on the body, health, healthcare and disease far into society. Amongst other formats, exhibitions provide insights into the development of current concepts and understanding of how we see ourselves today as physical, mental, emotional and social beings. These exhibitions trigger debate on how to become or stay healthy and happy, and how to shape our living conditions in both their essential and existential aspects. In addition, they frequently address deeply sensitive issues. They question the subject in the objects, the contexts and provenances of collective items, and respect and responsibilities in practical medical relations, as well as the possibilities and limitations of modern medicine in times of increased scientification and mechanisation. Overall, however, our concerns and realisations are currently being played out in the depot or the

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show-room in a framework fuelled by two basic agendas: digitisation and participation.

Of course, behind all such activities there are actors: us, the curators, researchers and teachers working in the fascinating fields of medical history collections and museums. Before us stands an audience – correction, not one audience, but several, certainly highly diverse audiences. We all want to reach these target groups with our objects, themes and strategies. But how in today's world of multitudes do we achieve this?

To get to the core of this question, I would like to step back for a moment and ask where we are now in our spheres of medical history collections and museums. Naturally my point of view is rooted in my own experiences working for a medical history museum on the campus of a university clinic, the Berlin Charité. From this academic background, however, I want to try and address some general aspects—resources, potentials, strategies and necessities—which might be worthwhile considering as we strive to engage with our audiences.

Environs

A closer look at our concerns may profitably start with glancing into the topography of the particular institution for which we are active. In my own case, the Berlin Museum of Medical History is located in the very centre of the city, on the historical campus of a university clinic: the Charité. Thus, the museum acts as an integral part of an ambitious academic medical complex which in Germany is required to fulfil four classical tasks: research, teaching, providing healthcare, and outreach. In addition, the over 300 year old Charité has its own rich, differentiated and, at times, highly reputed past. This specific geographical and historical embedding presents the museum—in existence under its original name and denomination, the Pathological Museum, for over 100 years—with a few demands. These include portraying the esteemed times of the Charité, show-casing its impressive current research results and placing the museum's own history within the larger context.

As representatives of the Berlin Museum of Medical History we are conferred with two choices: either to ignore these pretensions or to integrate them into our work synergistically. We have decided on the latter route and so a ubiquitously present academically medical momentum inevitably prevails in all of the museum's affairs, but it also generates effects which extend to the

general public. Correspondingly, the museum also registers interesting impulses and open questions from the public, which can be passed on to medical experts and perhaps induce them to implement a specific choice of topics and strategy in their own public engagement.

Close contacts between museum and medical staff offer opportunities to establish a multi-layered dialogue, generating distinct questions, which can be dealt with in their historical as well as contemporary contexts within the means of the museum. Present-day medicine is also a venerable source of objects to be collected and, eventually, be placed on display. Furthermore, it possesses the expertise for identifying and clarifying the functions of both recent and older artefacts. Finally, there is the possibility to develop and establish bi- and multilateral co-operative projects.

Three-dimensional publications

Regarding its external standing and reception, a university museum of medical history—like other similar institutions—presents itself predominantly by exhibitions, which meet with certain public expectations. The museum's clientele divides roughly into two large groups: the scientific public from within the university hospital or wider fields of medicine, and interested, but not medically trained lay people. Although many of our visitors in Berlin identify the museum as an institution situated within a medical complex which affords a glimpse behind the medical scenes and, therefore, an arena created by medicine to announce and explain itself, it seems appropriate for the museum's actors to take a different approach. To reach an audience beyond the often hermetic walls of medicine, it is beneficial to define the show-rooms as spaces belonging to the general public. In this way, medicine only has the status of a guest.

In the world of academia, thematically grounded medical (history) exhibitions have the potential to provide cutting-edge research based publications in their own right. Scientific papers discursively develop their procedures and arguments in a limited number of pages, which are structured and focused by the rhythm of headings, tables, diagrams, images, footnotes, references and primary and secondary sources. Epistemic spaces of exhibitions, however, base their analyses and statements primarily on objects, which are positioned in a spatial syntax of meaning and laid out over a limited number of square or cubic metres. In the show-room, things are placed as arguments to be exchanged in telling and sometimes contradictory commentaries and juxtapositions. Specific objects on display form condensed crystallizations of

ideas and information, which add to, comment upon or question each other with the support of additional objects, images, sketches, graphics, and texts. From these foci, frames of reference emerge, opening perspectives into intriguing, diverse, and meaningful fields of discourse and relations. Such spatial displays of knowledge and purposefully generated contiguity and connection between sufficiently deciphered objects, provide the basic modules for a striking array of medical historical lines of thought. This leads to a wider contextualisation, integrating the best elements of analysis and drama and forming a convincing discursive narrative. The spatial placement of objects in exhibitions as matching, commenting or criticising each other structures a line of argumentation and an arc of suspense which, in turn, creates a three-dimensional publication in the museum. What remains specific for the museum is that the spatial layout of object-arguments never results in a homogenous format of publication. It remains porous. Each exhibition can be entered from a variety of angles: from the beginning, from the end or obliquely. This provides new, divergent views on the objects and their possible meanings. All of this is positive and generates effects which are crucial to individual research, teaching and outreach settings, encouraging conceptualisation and inspiration beyond previously held modes of thinking.

Such effects may also be gained from virtual representations of medical (history) exhibitions. However, analogous objects performing in real, curatorialy composed and condensed exhibition rooms possess their own unique qualities. To physically meander through a spacious set of arguments not only stimulates the brain, but also triggers the heart and the guts, leaving two-dimensional presentations on a flat screen far behind.

Each thematic exhibition aims to convey its issues to the audience in a manner both sound and compelling. For this purpose a medical history museum utilises specific means, techniques and strategies. Debating with and from the medical past, it presents stunning and intriguing objects which provide historical explanation and comment on key medical, health and disease related developments. These objects alternately inform, enlighten, please and entertain, so they can capture the viewer both on an intellectual and an emotional level. To some visitors, they may have a slightly shocking effect even causing them to faint. In other cases they enable relief and distance to irritating and disturbing aspects of dealing with pain and suffering, thus soothing and healing the visitor in his or her specific condition or relations.

Of course, we very much hope that viewers of our exhibitions enter the medical history museum as healthy guests, who might only sense theoretical and potential physical and mental endangerments for themselves. By realising what medicine had to offer then and has to offer now, suggesting it mostly tried and tries very hard to do its very best, the visitors might be opened to unanimously look out for and register signals in, at or on their own bodies and minds. By mirroring themselves in the displayed medical objects, they might be encouraged to reflect on themselves more fearlessly and to finally think more creatively and productively about health issues privately, as well as generally.

The temporary and the permanent

Like other museums, the Berlin Museum of Medical History at the Charité features temporary exhibitions as well as a permanent presentation. The temporary displays address medical and medical history topics within an explicitly wide thematic spectrum incorporating nature, culture, society, politics, religion and so on. The only criterion is that each special exhibition evolves from a truly medical core. The historical component is usually inherent and explicit to the concept, but may occasionally be down-played or even left aside in certain projects. Highlighting current issues at stake in specific medical fields today – forensics or nursing for instance – is interesting as a presentation in its own right. The historical grounding of modern facets in medicine frequently appear implicitly anyway, either in the choice of narrative, the integration of historical objects to visualise current aspects of medicine or by the given proximity between the up-to-date temporary and the historical permanent presentation under one museum's roof.

A permanent exhibition is crucial to every museum, including those of medical history. In Berlin we regard it as the backbone in engaging with the public. No matter how little space is available, no matter the technical and infrastructural restrictions of the building, the story and scenic performance are essential in shaping the museum's profile and image. It indicates the range of themes and topics the museum spans within medicine and beyond.

To negate any connection or reference to current medicine in temporary or permanent exhibitions in our field is neither wise nor possible. Each concept that is developed and realised also reflects, at least to a certain extent, the biographical situation of the curator at that moment, as well as the prevailing expectations of the audience. Therefore, specific positions or aspects of current medical cultures immediately become manifest by ideas and

thoughts, statements and arrangements on show in the exhibition rooms. Visitors entering a medical history museum always ask, what is the relevance of all of this to me, now, at this time?

The social and the participative

Contemporary issues are currently dealt with in two realms which have also impacted medical (history) collections and museums: social media and the claim for participation. Twitter, Facebook, WhatsApp, Instagram and so on have long since been a reality in our sector. They have provided thrilling new platforms of recommendation, critical commenting and exchange of impressions and opinions. Thus, as tools of communication, they offer a chance to promote and share our activities throughout the world. They also open doors to establish different forms of participation with expert groups, but most of all with the general public. Participative collecting, research, teaching and exhibition making is on the agenda. In some countries, funding is allocated to projects following this approach. As exciting and lucrative that this route appears, the question arises as to how far it makes sense to follow it to really keep it effective, productive and constructive for everybody, also for our collections and museums. In my view, to reach solutions that further our issues and concerns, it is not enough to merely develop activities and execute entertaining participative programmes for their own sake. Ultimately, we need to filter out extraneous material and focus on the proverbial and precious needle in the haystack.

Research and teaching

Turning around and considering the internal affairs of a medical faculty or an academic medical hospital, a medical history museum can play an active role in research and teaching there. However, although for years it has been common rhetoric to demand and intensify material culture approaches in medical sciences studies as well as in the history of medicine and science, over all there seems to be a reluctance by historians to actually set foot in distinctive object collections in order to conduct their studies on and with material sources held there. The frequently uttered statement 'I am not an object person' seems strange, since no object gene has yet been detected in a researcher's genome.

A similar reservation in becoming involved with objects can be observed in the sphere of teaching. Despite many initiatives and seemingly fruitful approaches to address this, the long existing ritual of using a white cube ambience for classical seminars remains firmly in place. Both teachers and students know the

drill: present a lecture illustrated with some power-point slides, followed by a discussion. Another plus: everyone is quickly in and out. It would seem that getting involved with unruly objects is a far more complicated process.

Despite all this, a more intensive integration and use of things in research and teaching is still in demand. However, we need to think in greater detail about the requirements which need to be provided beforehand; about rooms and facilities that generate proper access, thus making it more easy and attractive to handle objects in our fields. Let's take a closer look at this by considering the frequently precarious situation of university collections in general, but always bearing in mind the necessities of adequately working on and with medical history artefacts.

Depot

Things need a place. Objects surviving in a historical collection are in need of an appropriate location. A bona fide depot where medical objects of all kinds are stored properly must meet with all necessary and ample criteria regarding climatic conditions, storage, security, technical equipment and movability to access the objects easily, quickly and conveniently. Certainly it is fair and, under certain conditions, preferable, to adapt an existing storage space and bring it up to depot standards. In some cases, it may even be adequate and possible to build a new depot from scratch for a specific highly valued collection at its historic site. However, sometimes it is also sensible to combine resources and to create central depots in cities where endangered collections can be protected and supported and where the holdings can be worked with professionally. In this scenario the primary location may be lost, but the context of the collection could be kept intact if it is maintained as a specific spatial unit within the new venue.

Archive

Things need access. Although well organised and perfectly accessible libraries, text and image archives always seem to have been available throughout the world and enhanced in the meantime by all possible means of digitisation, the use of many historical collections—at least in the university scene—still resembles a hurdle race. Conceptualising, testing and creating object archives are a clear necessity. Carefully and well planned, such integral institutions can offer users a whole host of opportunities. Orientation of the collections can be provided by a digital search prior to entering the archive. The

object archive itself should be endowed with specially designed object study rooms. Individual artefacts from the depots could be placed there at set or pre-arranged times. Users could then study and document the objects without time pressure by also integrating further sources provided by the archive, such as additional related objects, texts, images and so on. For protracted object investigations over several days or even weeks, shelves or cupboards beside work desks could be made available. These kinds of practical capacities for object-based workspaces could be supplemented with smaller show areas, exercise, seminar and event rooms.

Larger objects would require a different strategy: the archive needs to be flexible in that the depot becomes the quasi archive. There, the objects need adequate space to be looked at in detail. Small adaptable work stations could be placed next to them. In any constellation, object work stations, either in the depot or in the archive need enough space, electric current, WLAN access and sufficient lighting.

Laboratory

Things need attention. Object archives are not necessarily sterile quiet zones. On the contrary, they can unleash potential according to the actions developed and performed within them. Transformed into object laboratories, they can go beyond merely enabling observation and documentation and provide the opportunity for a more intensive or expansive handling; in certain cases and within limits, this could even include carrying out experiments.

Object labs which are planned equally for research and teaching purposes require ample space. Relevant study objects can be assembled thematically at defined study times and stored on larger shelving units close to the study tables. In separate repositories, additional text and image sources can be compiled as object information dossiers. Laptops and computers provide internet access. Integrated cabinets hold the necessary means for investigations: gloves, scales, rulers, magnifying glasses and lamps.

In the centre of the object lab there could be space for joint group activities. Mobile tables and chairs, a beamer and a screen serve to hold object workshops or seminars. Movable show-cases and presentation walls form an exploratory zone for exhibition making: objects can be tested here in flexible arrangements in forming spatial arguments.

These logistic measures are absolutely crucial in creating access to objects. Alone, however, they are not enough to overcome the reluctance of many researchers to really physically approach artefacts and use them in research and teaching. In the end, things cannot be carried to them; instead, ways and means must be found to actively take researchers and teachers to the objects. Project seminars, PhD courses, object stipends, grants, graduate schools and research groups need to be established around object archives and object labs, forming a true infrastructure for object research and teaching. Themes may lead in many directions. The only condition to be met: research and teaching must be performed primarily on and with objects.

Status

Our medical history objects are strange and wonderful, square and misshapen, large and small, grey and colourful. Overall, however, they don't speak. In the first moments of closer inspection they appear simply as surfaces with holes, niches, edges, screws, blinking lights. Some are made primarily to explain medical functions or conditions, as teaching models. Others quite obviously indicate their intrinsic function. Many, however, resemble black boxes that carry out their mysteries only implicitly. In any case, all these objects are silent. Apart from robots, they do not talk about themselves, about their uses, modifications, experiences and meanings. They do not converse explicitly with the world. They are by no means as literate and communicative as other medical history sources, such as texts, images, sound recordings or statistics. However, we can assume that these artefacts would have a lot to say, if they were able to speak. Therefore, each honestly understood and seriously undertaken working on and with medical history collections primarily aims at making things speak. The goal is to reach behind their facades, to detect, identify, decode and reconstruct their sometimes explicit, but mostly inscribed or associated texts.

The search for texts in objects can result in finding real words, signs, ciphers, numbers or abbreviations, which are directly imprinted or attached onto the objects. As 'bridging links' they may lead the investigator to product descriptions, user instructions, data bases, manufacturer catalogues, patent specifications or similar primary text sources. Functions, intentions and ideas become clearer, unfolding the subtext to each artefact and raising further research questions at this early stage of investigation, as well as initial assumptions, interpretations or at least hypotheses on the meaning of the very object in its own time.

At this point, an epistemic spiral of gaining object knowledge becomes apparent. In a kind of spatially laid out more and more expanding curve it revolves around the artefact, forming a coil of questioning and detecting, describing and documenting, but at the same time already forming further questions, assumptions and arguments. In an almost forensic mode, the individual object's cosmos is lit ever clearer and brighter. Beyond the subtexts, its contexts are revealed in all their possible dimensions: medical, scientific, technical, biographical, social, political, philosophical, religious, cultural …

By working methodically on and with medical history objects in such detailed epistemic spirals, profiled object biographies emerge as single object micro-studies. Following particular lines of interest, these studies can be interwoven and combined to form larger thematic mosaics which offer answers to profound research questions. This approach is certainly only one of multiple ways to turn material medical cultures practical. What it does not aim for is adding yet another puzzle piece to an abundant theoretical discourse ending in an apodictic manifesto. What it is about is generating clear manifestations of unique, intriguing and enlightening analyses and narrations.

Strategies

Medical history objects are stubborn. To get to their core and solve their case in research, teaching and outreach, there are several ways to question them. Strategies which have been developed in the (medical) sciences may provide some possible and useful directions here.

First, there is the classical *observatio*, the reflected and pre-informed inspection and description of things. This comprises a detailed registration, documentation and portrayal of the morphological aspects of the object under investigation. A second route used in medicine since late Medieval times, is the *dissectio*. Not only in anatomy, but also in other fields, a deep impulse for investigation exists which urges us to dig deep, open up, take apart and strive for 'insight'. Of course, in today's object labs, the question immediately arises as to whether it is permitted to approach an object by cutting it open or unscrewing it to satisfy our deep-seated curiosity.

Observatio and *dissectio* in themselves are not enough; to reproduce the primary function of a medical instrument or apparatus it seems reasonable and desirable to switch it on and get it working again in a setting of *experimentatio*. The mere appearance of the artefact may only tell half of its

story. A fuller understanding is possible if it is in action again. But how far should we go? How far can we stress the objects and perhaps risk damaging or, in extreme cases, even destroying it? At this point a crucial status difference regarding two groups of museum's and collection items comes into focus: on the one hand there are things which are kept and collected in order to be intensively researched at a later date which may deplete the substance in the process of investigation, tissues and liquids in specimen collections or bio-banks, for instance. On the other hand, there are all those museum's objects, which were set free from their primary functions and uses at certain times, things that were luckily not destroyed. These artifacts were moved into the depots and survived, gradually becoming suffused with more meaning. Multiple such instances have reached us today and raise the question, 'as historical material sources, how did they come into existence and what do they mean to us?' As unique cultural remains they are retained with maximal protection. No touch should hurt their face.

Finally, today the *digitalisatio* promises a great future in taming all things. In fact, the application of virtual techniques has also opened up fascinating new possibilities in our fields of medical (history) collections and museums. Data-bases and internet platforms offer the convenience of specific searches from any distance. Two and three-dimensional scans of objects provide visual impressions and information on objects, which are stored safely. In combination of data from scattered sources virtual collections and even digital museums which consist of objects which cannot or should not be moved are now feasible. 3D printing even grants the possibility of generating copies of precious originals. While these copies can be touched, packed, disseminated and used in a variety of ways in parallel time at multiple locations, the unique sources from which they were taken can be kept safe and sound in their primary show-cases or locked away in their depot shelters. Digitisation is certainly helpful in many ways in our spheres of activity. However, its applications can also sometimes seem to turn into a magician's hat that is pulled over the collections items with a counterproductive effect. Not infrequently, richly funded digitisation projects turn into useless data graves, or—even worse—into powerful tools to distance oneself (again) from dealing directly with the very object itself. Ultimately, this creates a representational machine, turning all the wood and glass, wax and shellac, metals and textiles, bones and tissues from which our objects are made into bits and bytes. Therefore, the objects not only disappear from our vision, they seem to be completely superfluous.

Sensitivities

All items in our medical collections and museums carry, present and represent sensitivities. From specimens to surgical instruments, they are all marked, tinged, made by or sometimes even made from human individuals. Therefore, everyone dealing with such 'subjective' artefacts—may it be in research, teaching or outreach—requires certain responsibilities. First and foremost, provenances must be clarified for each individual object in the collection. Indeed, provenance research (not only in the current focus upon colonial context, but also in the wide-spun historiographical sense) is the methodological route of the moment, the path to take today in order to really become knowledgeable in what we say about the true origins of our items. As such, it is necessary not to continually objectivise—thus dehumanise—our artefacts and collections, but to at least attempt to re-humanise them as much as possible. This approach of re-humanising will underline the inherent respect and responsibility required in our attitudes to the objects in our custody. It obligates us to consider how to deal with and demonstrate, present and represent these things, but also how to think and talk about them amongst ourselves and with our audiences. One of many questions here is whether we should really publicly display all and everything in our collections – either in our exhibition spaces or published freely on the internet, according to an open access policy.

Conclusion

So what does this all mean for our audiences? The most crucial issue seems to be access or, more precisely, access to and through things in spaces. On all levels—research, teaching and outreach—we have to ask and answer the same question: how is it possible to connect our clientele (researchers, students and the public) with our cherished, precious and meaningful artefacts. Certainly there are multiple routes we can take. However, it is not enough to simply theorise things. We have to become practical. We have to take one thing seriously above all else: our objects. They have to come into, and stay in, our focus. We have to place them in our hands and turn them around in front of our eyes, move them up and down, back and forth, and upside down. We have to be attentive, to look, think, document and analyse so that we can decipher their functions and meanings, pin down their inner profile and discover their individual secrets.

Concentrating on our objects in such analogous ways, we move beyond philosophical material discourse and begin to prove the potential of our sources and approaches: we need to aim at narratives, to go for stories, great stories, that only objects can tell.

Spaces, in our case, are crucial at all stages of investigating and elaborating object stories and biographies—spaces as depots, object archives and object labs, but also spaces as show-cases and show-rooms. These three-dimensional cubes provide specific stages in collections and museums, in which objects are arranged to perform and to present their information and meanings as arguments in a discursive debate of detailed juxtapositions. In our spaces, all our visitors' senses are captured in an (again) analogous way. No computer-based or internet-mediated animation of objects or online exhibitions can really provide an equivalent substitution. What prevails here and reaches the souls of our visitors is the experience of being in a real world; a world, however, that is composed in such a way as to tell the objects' histories in the best and most impressive ways.

So far, these thoughts may be deemed relevant for audiences finding their way into any museum and collection in the world. What about our medical history sphere? Is there anything specific or different about it? I think, yes, there is. First and foremost, questions concerning the body, health, healthcare and disease, topics that evolve around life and death, are essential and existential to everyone. And so medicine is always an issue. There is a never ceasing interest which we can both relate to and turn to in our specific medical (history) collections and museums. Our unique objects open the mind fairly easily to generate interest in medical topics, but also in thinking and questioning and suggesting new answers in profound debates about us as physical, social and emotional beings.

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