

## *Museums and the making of medical history*

### **Introduction**

Most of the contributions to this volume are based on an implicit faith in the power of objects to tell, or at least to ask, historians things that the written word alone cannot.<sup>1</sup> What this range of studies reveals is the vital and often unique historical evidence that seemingly mute objects can be made to yield, especially about what people actually did and felt, rather than just what they wrote or said about their experiences.<sup>2</sup> Taking a step back from the objects themselves, this essay looks at the places in which most of them are found – namely medical museums.

At the heart of this essay lies the conviction, not only that artefacts are significant, but also that their study is greatly enhanced by an understanding of the history of the museums that keep them; indeed, that researching the material culture of medicine without an interest in the type of institutions that preserves it would be to share some of the myopia of ignoring three-dimensional evidence altogether. It is the nature and history of medical museums that distinguishes their objects from mere collections of generic types and odd examples: they provide the essential context that enables lumps of brute matter – instruments, wax models, pieces of furniture, anatomical specimens and so forth – to come to life as parts of cultural and social history.

In practice, this insistence on the importance of the history of medical museums in addition to their contents necessitates research into the histories of the buildings they occupy, along with the ways in which their collections were amassed and what has happened to them since they arrived in the museums. Frequently, of course, buildings housing medical museums have strong associations with important medical figures or institutions. In these cases, the additional study that I am advocating comes down, as J. T. H. Conner has pointed out, to treating medical buildings themselves as simply particularly large and complicated, but also often well documented, museum artefacts, capable of revealing much historical insight in their own right.<sup>3</sup>

What follows cannot hope, and does not seek, to provide an exhaustive description, or even an inventory, of the huge numbers of institutions throughout the world that might be classified as medical museums.<sup>4</sup> Instead, it aims to survey the broad features of the medical museum landscape, highlighting in particular their role in medical history, and the legacy of that history in the provision of different types of medical museums today. The final section of this essay will analyse the types of medical history presented in these museums, and suggest opportunities for a more vigorous approach to presenting objects within them.

## Museums and the History of Medicine

### *Early-Modern Experimental Museums*

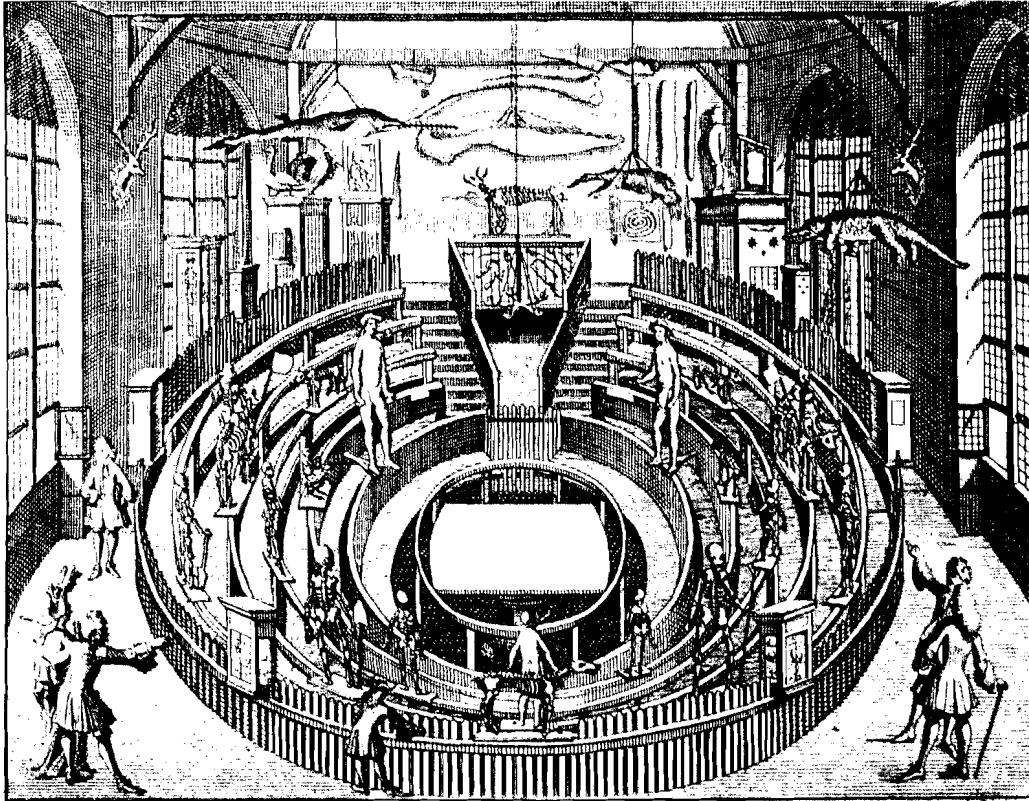
Many of Europe's first museums were, in fact, set up in the apartments and workplaces of medical men. In Italy, then in Northern Europe, and finally in England, Renaissance apothecaries and physicians – along with other emergent professionals and that part of the nobility intent on cloaking itself in the pretensions of “virtuosity” – gathered and studied “natural” and “artificial” curiosities, many of them brought back from travels to unfamiliar countries. Not content simply to hoard and admire their treasures, a number of these early collectors also turned their museums into houses of experience and experimentation. They tasted and tested their specimens, explored the magic of loadstones, assessed the plausibility of theories about fossil origins and, of particular significance here, attempted both to deepen knowledge of *materia medica* and to practise anatomical dissections.<sup>5</sup>

Two legacies of this era of museum history are evident in many of today's medical museums. One is the array of natural historical specimens relating to pre-nineteenth-century medications, particularly the armadillos, alligators, mummified flesh, human skulls and narwhal horns frequently displayed in the “early apothecary shops” common in many local history museums throughout Europe. Possibly the fullest such presentation can be found in Heidelberg's Pharmaceutical Museum. The other legacy lies in the anatomical wax models, or moulages, often represented in older and more comprehensive medical museums. The classic example is the Leiden anatomical collection associated with the anatomical theatre, originally created by Pieter Paaw (1564–1617).<sup>6</sup>

### *Museums and Medical Education*

Medical wax models continued to be made and used for didactic purposes – augmenting the use of cadavers – well into the twentieth century.<sup>7</sup> The eighteenth century, in particular, witnessed elaborate, and some audaciously fanciful, developments in the art of their creation. Over a thousand specimens of anatomical and obstetrical wax models can, for example, be found in the Vienna Institute of the History of Medicine at the Josephinum. Other significant collections exist in Florence, in Dresden at the Hygiene Museum, and at the Museum of Morbid Anatomy of Bologna.

The technique of moulaging was particularly useful in rendering accurate models of soft tissue. An especially skilful exponent of the technique of injecting material into tissues to preserve them was the Amsterdam anatomist, Frederik Ruysch (1638–1731), who let his extraordinary imagination loose in juxtaposing specimens so as to create quite breathtaking still-life montages, many of which are still preserved in the Military-Medical Museum of St Petersburg, where Peter the Great deposited them. At least two examples are also still in the Anatomy Museum of Leiden, along with many more prepared by his contemporaries and successors.



*De Anatomie te Leiden.*

*Figure 1. Leiden Anatomy Theatre. Line Engraving. Even in the seventeenth century, anatomy theatres like this were also used as museum spaces. That in Leiden famously displayed skeletons of Adam and Eve mounted on horse-back.*

The most notable exponent of the art in nineteenth-century England was Joseph Towne, whose anatomical and dermatological waxes can be seen in the Gordon Museum in Guy's Medical School.

With notable exceptions, the use of medical museums for research purposes – be it anatomical, natural historical or pharmaceutical – diminished from its height in the sixteenth and seventeenth centuries. The awe-inspiring range of early-modern museum-based experiments and enquiries was reduced to a more or less monolithic concern with taxonomy. At the same time, medical museums became focused on an educational function. In many eighteenth-century medical schools, collections were increasingly seen as essential elements of the curriculum, and a number of important medical museums owe their foundation to this pedagogical purpose.<sup>8</sup>

In England, the Hunter brothers, for example, both exercised passions for collecting and curating. John's collection embodied what he held to be an unwritten book illustrating and summarising a new theoretical approach to the "Animal Oeconomy;" William's museum was more explicitly set up as a resource for anatomical teaching.<sup>9</sup> Parts of both collections survive today at the Hunterian Museum in Glasgow and the Royal College of Surgeons of England in London. Another London medical museum – that



*Hunterian Museum*  
*Royal College of Surgeons*  
*Das Anatomische Museum des Königl. Collegiums der Chirurgen*  
*Das Anatomische Museum des Königl. Collegiums der Chirurgen*

Figure 2. Hunterian Museum, Royal College of Surgeons. Engraving after Thomas H. Shepherd, c.1830. The gesticulations of the figures in the foreground indicate how the collections were used for didactic and demonstration purposes.

of the Royal Pharmaceutical Society of Great Britain – was also started as a teaching collection, by the Society’s School of Pharmacy.

By the end of the nineteenth century, most learned medical societies had gathered some sort of teaching collection; parts of a good number survive today. These include: the Gordon Museum, which is still used by Guy’s Medical School in London; the Mütter Museum of the College of Physicians of Philadelphia;<sup>10</sup> and the Warren Anatomical Museum, assembled initially by Dr John Collins Warren between 1850 and 1950 in Harvard Medical School. Warren’s most famous exhibit is the “Crowbar Skull,” the preserved head of one Phinias Gage, who in 1848 survived massive head injuries from a iron tamping rod that passed through his forehead, and whose mother was encouraged to contribute her son’s skull and the tamping bar to the museum in 1866, some five years after his death. This exhibit survived, but many more did not, for the museum has largely been disposed of; even as a teaching forum, this museum had more than its fair share of the marvellous, the wondrous and the ghoulish, and in a modern age of “objective” science, the usefulness and even the propriety of keeping the collection became impossible to defend.<sup>11</sup>

#### *Museums and Public Health Education*

The twentieth century has seen a number of developments within medical museums. For much of the first half of the century, they became, in the hands of national states and local governments, widely used as tools for public education in health, sanitation and hygiene. In 1922, for example, Dr Charles Whitebread opened a public health gallery in the Smithsonian Institution in Washington DC. Thirty-five years later, a new *Hall of Health* was opened – its most memorable exhibit being the “transparent woman” or “talking lady,” as it was known: a female mannequin with internal organs that lit up while being commented upon by prerecorded descriptions. In Britain, the best known example was Parkes’ Museum of Hygiene, founded in 1879, which into the 1950s was still presenting instructional exhibits “in all matters connected with public health.”<sup>12</sup> Numerous other examples were established by colonising countries throughout their dominions. They remain popular as educational tools in developing countries.

#### *Museums of the History of Medicine*

The other main trend that has, in the twentieth century, led to a virtual explosion in both the numbers and types of medical museum has been a self-conscious concern with the history of medicine. Often associated with, and inspired by, the passions of retired medical men, these museums have grown up alongside, but mostly separate from, the development of an academic interest in the history of medicine. These newer museums have as their aim a determined attempt to understand medicine’s past as a significant part of human endeavour. In older medical museums, established collections gradually became historically significant, while, in



*Figure 3. The Hall of Statuary in Henry Wellcome's Historical Medical Museum in the 1930s. Wellcome's passions, not to mention his wealth, allowed him to change the face of medical museums.*

more recent examples, collections have been gathered *because* of their historical interest.

Among these recent museums, five types can be identified, each tending to be placed within a characteristic location: those collected and set up by medical entrepreneurs, often found in privately funded institutional venues; those gathered about the biographical locus of individual medical figures established in historic sites; others inaugurated by professional medical bodies and societies located on their premises; yet others emerging from the repositories of particular institutions; and finally, those attached to more broadly based museums.

One man with an extraordinary passion, and almost unlimited funds, single-handedly changed the face of medical museums and collecting in the early part of the century. When Henry Wellcome opened his Historical Medical Museum in 1913, it virtually filled 54A Wigmore Street in London with its halls of "Primitive Medicine" and "Statuary," galleries of "Pictures" and "Ancient Manuscripts, Printed Books, etc.;" front and back ground floors of reconstructed pharmacies, hospitals and the like; not to mention further displays in corridors and on stairs.<sup>13</sup> This was the

collection of medicine's material culture on a heretofore unimagined scale – rapidly becoming larger than many of Europe's national cultural collections. Astoundingly, even this was seen by Wellcome as only part of his "Museum of Man."<sup>14</sup> Wellcome died without completing his visionary project, but even the initial task of comprehensively cataloguing the enormous collections he did amass (less more than half that were dispersed after his death) continues as a major project today.

Wellcome's use of a fortune made in the commercial medical world to invest in historical collections was repeated by a number of other entrepreneurs, some in direct imitation, although none on the same scale. The Dittrick Museum in Cleveland, Ohio, was considerably influenced by Howard Dittrick's impressions of Henry Wellcome's museum.<sup>15</sup> The Thackray Medical Museum in Leeds was funded by the proceeds of the sale of a medical supply company, and inspired by the efforts of the grandson of the company's founder, Paul Thackray. In Germany at the beginning of the century, the Hygiene Museum in Dresden was founded by the owner of the Odol-Mouthwash company, Karl August Lingner (*see* Chapter 2, pp. 31–61), and the German Aesculap Works Company, one of the oldest manufacturers of surgical instruments in the world, diverted some of its profits into collecting medical instruments, for the company museum in Tuttlingen.<sup>16</sup>

One popular approach to the writing of medical history has been biographical, and it is not surprising that a good number of medical museums have similarly developed around the life stories of individual medical figures. Down House in Kent, for example, contains the Charles Darwin Memorial Museum. Darwin died in this house and visitors are able to look around the Old Study, where he did much of his work, and to walk along his "thinking path." The Jenner Museum in Gloucestershire is established in the house where Edward Jenner, discoverer of vaccination, died. In it are preserved his personal possessions and material relating to his work, including artefacts from the life of James Phipps, the boy he first vaccinated. In London, one can visit the Florence Nightingale Museum, the Alexander Fleming Laboratory Museum – set up in the laboratory where he did his pioneering work on penicillin, and the house where Sigmund Freud lived after fleeing Vienna.

Away from England, in Budapest, the birthplace of Ignac Semmelweis has been turned into a museum dedicated to the man who discovered that doctors were responsible for passing on puerperal fever to women who had given birth. In Leiden, there is a museum devoted to Boerhaave, the eighteenth-century medical systematist. In France, the celebrated physiologist, Claude Bernard, is the subject of two museums – one in his birthplace, the other in the family mansion of the farm where he was born.<sup>17</sup> The Pest House Medical Museum in Lynchburg, Virginia, is set up in the more modest 1840s white-frame building that was the medical office of a Dr John Jay Terrell during the American Civil War. The Pasteur

Museum in Paris is unusual in both preserving the memory of a great scientist and presenting a type of scientific research that has continued to be practised in his name till today – the latter being the focus of a second structure inaugurated in 1986 in Marnes-la-Coquette (the Museum of Applications of Pasteurian Research).<sup>18</sup>

Professional associations have also supported museums. Typical of this genre of medical museum are the Museum of Pharmaceutical History in Basel, the German Pharmaceutical Museum in Heidelberg, the Göttingen collection of obstetrical and perinatal artefacts, the British Dental Association Museum, and, back in Germany, the Dental History Museum in Cologne.<sup>19</sup>

Some hospitals, such as the Glenside Hospital in Bristol and the Royal London Hospital, have established collections based on their own history. The numbers of such collections may increase significantly in Britain if established plans for re-organisation of the hospital services continue to be implemented. There have been several proposals for converting old hospitals into museums, most notably the suggested use of St Bartholomew's Hospital in London as a museum of national history, which would augment the recently established small museum dedicated to the history of the hospital.

An important part of the history of many of these institutional museums is a period of obscurity, the sense of near loss heightening the precariousness of rediscovery. Two anecdotes exemplify the point. In 1991, a first-year Yale University medical student, Christopher Wahl, found, almost by accident, a collection of about 600 preserved brains and associated photographic material, stored and largely forgotten for nearly 40 years in a former bomb shelter. The material had been gathered by Harvey Cushing, a Yale professor known as “the godfather of neurosurgery,” who died in 1939. The collection, now known as the “Cushing Tumor Registry,” subsequently went on display. In Southwark in London, the Old Operating Theatre Museum and Herb Garret announces itself as “London's most intriguing historic interior.” The roof garret of an eighteenth-century church, containing Britain's oldest preserved operating theatre, was largely forgotten after its premises were taken over by the Post Office and its doorway bricked up early in the twentieth century. Rediscovered in 1956, it has subsequently been restored and converted into a museum.<sup>20</sup>

The Army Medical Museum in the USA provides a very different example of an institutional medical museum. It was founded in 1862 by Surgeon General William Hammond, who directed army medical officers to collect the remains of soldiers on Civil War battlefields and send them back to Washington in order to help the study of military medicine and surgery – what Dr Howard Karsner, writing in 1946, called the pathology of the entire army of a great country. One of its most famous exhibits is the shattered and severed leg of General Daniel Sickles, who, after losing the limb at Gettysburg, attached a note to it and packed it off to the museum





*Figure 4. The interior of the Old Operating Theatre, Museum and Herb Garret. A modern museum of the history of medicine that draws its strength from a medical space that lay forgotten and hidden for decades.*

in a coffin-like container. Other star attractions of the collection include the bullet that ended Abraham Lincoln's life, and a specimen from the body of his assassin. A year after the assassination, the museum was moved to Ford's Theatre, where Lincoln had been shot. At the end of its first century of collecting, the museum had more than a million specimens, with a further 200 or so more arriving every day.<sup>21</sup>

What is relatively unusual about the Army Medical Museum is its role as an intellectual centre alongside its research activities. By the 1870s, with the Philosophical Society holding its meetings there, the museum had become a focus of intellectual and scientific life in Washington. In the 1880s, the museum's emphasis changed to that of a more general museum of medicine and medical science. The general acceptance of the idea that microbes transmitted diseases resulted in the museum becoming a repository for microscopes and their slides. In the early part of the twentieth century, museum staff were also involved with significant army medical investigations into yellow fever and typhoid; in fact, the first vaccine against typhoid was developed at the museum. During the First World War, the museum was used to produce instructional motion pictures and lantern slides. Thereafter, relations with the medical professions were renewed, particularly with a large-scale project creating a pathology registry.

After the Second World War, the museum became part of the Armed Forces Institute of Pathology. The museum, however, was not a primary part of the Institute's activities, and was destined to be separated from its research concerns. The challenge for the present-day curators of the National Museum of Health and Medicine is to weave a public museum (the USA's largest medical museum) out of the constituent elements cumulatively left over from this extremely rich institutional history.<sup>22</sup>

To complete this overview of the more recently created medical history museums, it is necessary briefly to mention those that comprise a part of those museums having much broader historical or technical perspectives. These include the "reconstructed street" museums – such as the York Castle Museum and Blists Hill Open Air Museum in Ironbridge Gorge. Most are set in the mid to late nineteenth century and feature dispensaries, pharmacies, and doctors' and dental surgeries. Museums that seek to treat the entire history of science often also have collections relating to the medical sciences. The Museum of the History of Science in Oxford, for example, has medical and dental instruments, wet specimens, some wax and ivory models, patent medicines, early X-ray tubes and an early artificial elbow joint.

At the national level, significant collections exist in most science and history museums. The medical collections in the Smithsonian Institution, for example, form one of its oldest divisions, which started as a drugs and plants display exhibited in the 1876 Centennial Exhibition in Philadelphia. The "history of medicine" collections in the Science Museum in London, to take just one more example, are largely based on the "permanent loan" of the non-library material gathered by Henry Wellcome, mentioned above. More recent acquisition of material has continued to keep the collections up to date, enabling the museum recently to open an exhibition that explores how medicine has changed during the twentieth century: *Health Matters* (see Chapter 6, pp. 123–43).<sup>23</sup>

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The cumulative history of some four centuries of medical museums – a history which I have somewhat artificially divided into an early-modern period of museums used for medical research, a later consolidation of their use in medical education, a late-nineteenth- and twentieth-century attempt to use them for public health education, and finally a virtual explosion of self-consciously "historical" medical museums in the past 70 years – has produced an extraordinarily diverse legacy of types of institutions in which medically significant collections are now held. Many of the institutions and collections extant today, particularly the older ones, have themselves evolved through a series of stages, each of which has imprinted a new identity on the objects kept in the collections. An understanding of these successive meanings, where available, can be crucial to the study of this material.

Although extremely sketchy, even the above outline history indicates the ranges of motivations for founding museums. The importance of this history lies in the potential enrichment it gives to the artefacts that the museums contain. For it should prompt students of this material culture to add to their enquiries new questions: when did an object arrive in an institution and how, why was it brought there in the first place, what use has been made of it since?

### **Historiography in Medical Museums**

Along with the traditional practice of keeping collections and catalogue records of their contents, within medical museums considerable thought has, more recently, been given to the way in which their contents are presented to the public. For the remainder of this essay, I want to focus on various strategies by which museums turn their collections into publicly accessible medical history.

In common with many other types of museum, medical history displays have, in the past two to three decades, witnessed a move away from traditional, long timespan, internal histories of the subject to more contextual and interdisciplinary exhibits. In the former, medicine was assumed to be a fairly monolithic intellectual pursuit, with an internal evolution that could be depicted through a mix of objects, illustrations, captions and text panels. In the latter, a different methodology has emerged, in which exhibitions with medical themes are much more broadly interpreted in the context of other subjects and disciplines: most commonly, aspects of cultural and social history, anthropology and archaeology. Two other significant differences also characterise traditional and thematic styles of presentation. First, the former have tended to be set up as “permanent” galleries – with an envisaged lifespan of five to ten years, which, in reality, often ends up double that – whereas interdisciplinary thematic exhibitions have, instead, commonly been “temporary” shows, on view for a maximum period of one year. Second, the broad-sweep (ancient to modern) histories of medicine have most frequently been based on more or less universal collections of medical artefacts – from early scalpels to modern hypodermic syringes – whereas thematic shows often use objects eclectically drawn from a variety of different collections, not infrequently from outside museums altogether.

Creators of both types of exhibition can be prone to using artefacts simply as illustrative material to support predetermined stories, which, by implication at least, are based on other written sources located elsewhere. The exploitation of thematic exhibitions, however, has encouraged considerable amounts of experimentation with alternative approaches to presenting objects; and it is on the basis of the best of this work that the greatest progress has been made with the idea that objects can actually constitute a form of historical and cultural evidence in their own right.

The remainder of this paper will look in more detail at the methodological issues surrounding the curatorial challenge of forming and presenting medical history in museums. I will first describe a range of the “traditional” universal survey exhibitions, then I will look at a small selection of thematic exhibitions that have significantly departed from this model and, finally, I will consider the issue of how medical galleries and exhibitions can make conscious use of artefacts as a form of material evidence – the very “stuff” of the histories they seek to tell.

*Traditional Medical History Galleries: The Universal Survey*

Almost every major hub of medical activity boasts an exhibition that aims to encompass nothing short of a universal survey of medical history, while many other “medical capitals” contain national versions of that same story. Christoph Mörgeli’s description of the Museum of the History of Medicine at Zurich University sums up the intention behind many such displays: “an overview of the history and evolution of medicine” illuminated by “a varied and fully displayed collection containing objects, dating from the earliest times up to the present, ... [which] give visual and palpable evidence of the ‘knowledge’ of medicine.”<sup>24</sup> In London, this historiographic goal of a complete history of medicine is fulfilled by the Wellcome galleries in the Science Museum. In Germany, it is located in Ingolstadt, where a selection of material from the permanent collections has been carefully presented in a building that is itself a historic monument, once housing the city’s anatomical institute and medical faculty. In Budapest, the medical museum set up in the birthplace of Ignac Semmelweis similarly directs its visitors through the standard chapter headings in a medical history primer: “Prehistoric and Primitive Medicine,” “Medicine in the Ancient Orient,” “Greek and Roman Medicine,” “Islam and Public Health,” up to “Rebirth of Medicine in the 16th and 17th centuries,” and so on.<sup>25</sup>

The universal surveys of medical history presented in these displays are, however, commonly influenced by national agendas and local variations. Spain’s version (the Museum of the History of Medicine, in Catalonia), for example, deals with the development of descriptive anatomy, not through the standard textbook account of the Renaissance “discovery of the human body,” but rather by detailing the introduction of anatomical knowledge at the foundation of the Royal College of Surgeons in Cadiz in 1748 and by placing special emphasis on Spanish “topographical” and “anthropological” anatomy. Similarly, at the National Museum of American History in Washington DC, the emphasis within the health sciences displays has very much been on American-made, -produced or -used material.<sup>26</sup> The Vienna Institute of the History of Medicine at the Josephinum has a number of sections displaying the development of Vienna medicine during the past 200 years, with material relating to the ophthalmological pioneer Georg Joseph Beer (1763–1821), the father of phrenology Franz Joseph Gall (1758–1828), and, of course, Sigmund Freud (1856–1939).<sup>27</sup> The medical

history museum of Budapest moves from a standard general medical history to an examination of the emergence of the medical school of Pest and of the discovery by the local hero, Semmelweis, of the causes of puerperal fever. Interestingly, in South Africa, there are two medical historical museums: the Cape Medical Museum and the Adler Museum. The former deals exclusively with Western medicine, whereas the latter does contain a small section on traditional medicine: "Apparel and objects used by the witch-doctor in the diagnosis and treatment of disease." As Andy Brown of the Adler Museum has pointed out, however, this balance far from reflects the practices of the people in South Africa, 95% of whose black population would tend to "visit traditional healers before consulting Western doctors."<sup>28</sup>

In Rome, a general Museum of the History of Medicine is housed in the University "la Sapienza." This example is a large-scale affair, covering 800 square metres on three floors, and using some 10,000 objects to reflect the evolution of medical thinking and technology. In common with those of a number of its counterparts, the Sapienza's displays include a number of reproduced objects, made in order to fill perceived gaps in the story being told. The Karl Sudhoff Institute of the History of Medicine and Natural Sciences in Leipzig, to take one other example, has similarly augmented its collection of medical instruments with a set of reproductions of Roman instruments.<sup>29</sup> This tendency to feel the need to augment displays in which original artefacts are missing with more recently reproduced examples points towards one of the defining characteristics of such approaches to medical history galleries: namely, the inclination to view the role of objects in such exhibitions as primarily one of lending material support to the story being told.

These traditional survey exhibitions have tended to be mounted for an audience envisaged both as lacking any prior knowledge of medical history and as having an interest in following that history as a continuum through century after century. Certainly, just to select the example with which I am most familiar, a few studious hours in the Science Museum's Wellcome galleries would provide a solid foundation for anyone with a casual interest in the history of medicine. It also provides a more palpable and vivid sense of what the physical reality of that history was like than any written text could do, no matter how well illustrated. Much of the more recent work in medical history curation, however, has moved away from these monolithic slices of medical history, exploiting instead smaller thematic exhibitions.

#### *Thematic Exhibitions in Medical Museums*

Most of the traditional medical history exhibitions just discussed were put together at least a decade ago, and represent something of a culmination of the most recent phase in the history – outlined above – of the founding of medical history museums. Often growing out of a perceived need to

augment such universal survey galleries, a newer type of thematic exhibition has been the subject of experimentation in the past couple of decades. The intellectual foundations for these shows have tended to come from more radical and interdisciplinary areas of academic research. As temporary displays, these exhibitions have often also provided curators with a license to present objects that otherwise would not normally see the light of day in an unusual angle, sometimes quite literally, or in unexpected, even quite jarring juxtapositions. It is often under these circumstances that otherwise mute material can be seen, or rather heard, at its loudest. Most refreshingly of all, special exhibitions frequently allow curators to draw on and present together material otherwise separated by academic disciplines and institutional boundaries.

The most significant element introduced into such cross-disciplinary exhibitions has been art – both historical and contemporary. One of the more important ventures of this type in recent years was the *L'ame au Corps* exhibition mounted at Le Grand Palais in Paris in 1993. Deliberately bringing together material from art and science collections across Europe, this exhibition traced the preoccupation of post-Enlightenment scientists and artists with the connections between the human spirit and its material envelope: the body. At one juncture in the show, for example, tiered steps and sharply focused spot-lights were used dramatically to present a set of model heads used by phrenologists. Set near them were framed works of art by the likes of Daumier, in which the caricaturists' skills similarly used the shapes of their subjects' heads as their subject matter. Without much more than a prosaic caption or two, this skilful juxtaposition tellingly evoked the moment at which particular forms of "science" and of art briefly shared the same perspective of the same subject – that is, the minutely observed and measured contours of the human head – before being wrought apart by the cultural separation of the worlds of aestheticism and empiricism. Throughout the remainder of the exhibition, a further mass of scientific material – anatomical images and waxes, mechanical models reflecting different theories of the body's inner workings, up to modern molecular models – was brought together with paintings, sculptures, prints and drawings by the likes of Chardin, Gericault, Dadd, Dali, Klimt, Munch and Turner, in an intricately and evocatively interwoven fabric that managed, more beautifully and effectively than any essay or monograph could do, to demonstrate the symbiotic and continually evolving relationship between art and science.

Another recent exhibition – *Ars Medica: Art, Medicine and the Human Condition* – this time drawn exclusively from collections in the Philadelphia Museum of Art, explored the complex relationship between medicine and the visual arts through a very different strategy. The presentation here was entirely of works by many of the most familiar names in the history of Western art: Lucas van Leyden, Durer, Rembrandt, Hogarth, Munch, Rauschenberg and so forth. With carefully researched captions that drew

out the medical significance of the pieces, the works of art brought to various aspects of medical history the distanced perspective of outsiders to the medical world, but also, more crucially, the careful observation, critical wit, profound wisdom and sheer genius that these artists possessed in such quantity.<sup>30</sup> The point of presenting what might otherwise seem to have been “just an art show” was achieved by the fashion in which the exhibition managed considerably to expand the cultural territory traditionally occupied by medical research and practice and to bring it to the attention of audiences untouched by medical history. The overlaps between the worlds of art and medicine are long-standing and deeply significant for both sides of this now strictly divided pair of disciplines, and this, among other exhibitions, has made it clear that the modern imperative to assign such material to one side or the other has dramatically dulled the full significance of what they truly share.

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The approach to integrating medical science and art that was adopted in two other recent projects has placed more of an accent on the insights and imaginations of active contemporary artists. *Beyond Ars Medica: Treasures from the Mütter Museum* (1995/96) presented some of the material from this medical history museum and archive alongside photographs by contemporary artists inspired by and developed directly from items in the collection. In the Wellcome Trust's *Materia Medica: A New Cabinet of Medicine and Art* (1995/96), eight working artists were each invited to form a mixed “cabinet” comprising pieces of their own work presented in juxtaposition with material selected from the Wellcome collections (kept in the Wellcome Institute Library and the Science Museum).<sup>31</sup> The rationale behind both these projects was less a matter of exposing areas of medical history to art historical scholarship than an attempt to broaden the approach to material in the history of medicine and, indeed, to expand the range of those usually encouraged to approach it.

A variety of medical museums have, especially during the past five years, opened one or sometimes a series of temporary exhibitions that have done much to explore the history of medicine – exhibitions that have both treated medical science and practice as a cultural activity and examined them in the context of their social relevance to a variety of communities. Constraints of space do not permit even a brief survey of these projects, but one institution in particular exemplifies just how much can be done through a thematic, interdisciplinary approach to aspects of medical history that touch the lives of ordinary people. The German Hygiene Museum in Dresden, with its own fascinating institutional history, has been responsible for some of the most innovative and provocative work in this area, and certainly for the largest output of temporary exhibitions within the area of medical history. A list of just some of its projects can be taken as

representative of the many other excellent exhibitions that an essay of this length does not allow me to mention.

The sheer range of exhibitions that the Hygiene Museum has mounted in the past few years hints at the breadth of vision of this pioneering institution. The subjects tackled have included asbestos (*Asbest: zur Geschichte eines Umweltproblems*), rubber (*Gummi: die Elastische Faszination*), drugstore advertising in the GDR (*In aller Munde*), a history of abortion (*Unter anderen Umständen*), the technical and cultural aspects of refrigeration (*Unter Null*), Darwin and his cultural and intellectual legacy (*Darwin und Darwinismus*), baths and bathing (*Das Bad*), “the Pill” (*Die Pille*), the river Elbe (*Die Elbe*), sexual abuse of children, the history of homeopathy, AIDS, and explanations of illness from various cultures and at various times, in a show entitled “Sick. How Come?” (*Krankheit. Warum?*). They all have a direct link to medicine, health and its history, but what additionally holds all this outpouring together is a powerful and involving philuseum by means of a permanent collection. Consciously drawing on its own history, the Hygiene Museum’s traditional obligations of promoting public health care – that go back to the early 1900s – are brought up to date with an additional objective of presenting the human body as part of a cultural and ecological environment. The strength and breadth of this programme of exhibitions derive from the less publicly visible activities that go on in the organisation: the preservation of existing collections and their augmentation, the promotion of scholarly research, which often contributes directly to the conceptual work behind the exhibitions, and the provision of a forum for health-orientated communication for educators’ unions, self-help organisations and branches of local government.

Cumulatively, these exhibitions have done much to alter the face of medical history within museums, making it clear that medical history is a far broader, more flexible and interlinked subject than was ever imagined before: accessible through other sciences, popular culture, the arts, politics and so on. The new approach to an eclectic range of heretofore unimagined themes has grown up alongside a more adventurous perception of how artefacts might be presented – that is, a revised sense of what the objects actually mean and can tell the public about the history of medicine when they are put on display.<sup>32</sup> This is the subject of the final section of this essay.

### **Medical Museums and the “Stuff” of History**

Medicine touches a special, and especially sensitive, part of our psychological make-up. Consequently, as a medical history curator, one tries in vain entirely and unequivocally to separate the “serious” subject of medicine from the “trivial” response to “blood and guts.” We feel medical history through its artefacts, not only, like everything else that has a third dimension, because that history tangibly engages another of our senses, but because many of those objects manage to reach inside us in a most





Figure 5. *Materia Medica*: A new cabinet of medicine and art. An exhibition at the Wellcome Trust that sought to juxtapose history, art and medicine.

discomforting way – often because they literally relate to our hidden insides. It is this chilly delight that gives special resonance to Ulrich Tröhler's claim that historical medical artefacts – those relating to obstetrics are his particular concern – “may lead us to study *what was felt*.”<sup>33</sup>

Many curators of medical collections have been tempted to try to avoid, or even wilfully to prevent, the visceral responses that some visitors might have to medical historical displays. Two-headed babies, shrunken heads and the feet of Egyptian mummies are thus selectively removed to reserve collections. The National Museum of Health and Medicine in Washington DC, for example, has for many years sought to rid its displays of any carnival-show type of attractions, replacing them instead with interactive and didactic exhibitions on the modern medical understanding of our bodies and health. Although there is, of course, a perpetual need to be watchful that a healthy exploration of a difficult subject does not slip into the thoughtless exploitation of strong material, this sensational aspect of medical history surely provides a key to the special significance of the whole subject. An excessively cautious and fearful approach to such displays thus runs the risk of substituting packages of worthy but uninteresting education for windows on to the real world. It also, incidentally, runs the risk of misrepresenting past periods of scientific investigation, which genuinely were energised by a sense of the marvellous and the bizarre.<sup>34</sup>

For this reason, exhibitions with a medical history content, in no matter what museological context – traditional thousand-year-long survey galleries or temporary thematic exhibitions – will, more probably than not, contain objects having a potency that inevitably interrupts and rises above the narrative flow of an exhibition. Two examples taken almost at random from very different types of medical history exhibitions will suffice to make the point. One discovers little extra factual information about the fairly well-known story of President Lincoln's assassination by visiting the Armed Forces Medical Museum in Washington DC, but, as the newspaper critic, Hank Burchard, has described it: “no history text, can make the tragedy as immediate and real as [the fragments of his skull] and the army pathologist's ... heartbroken but graphic official autopsy report” on display there. Similarly, in the Red Cross Museum in Geneva, among a display that is largely made up of exquisitely lit reconstructions, beautiful illuminated text panels, and highly sophisticated slide-shows telling broad brush-stroke stories of health care from pre-history up to the founding of the Red Cross movement, there is something altogether more profound about the impact of a gigantic room filled with the card index of the seven million First World War prisoners of war.<sup>35</sup>

Even though, as just suggested, medical history has privileged access to the core emotions such objects touch, these artefacts are inevitably few and far between. For the most part, both traditional galleries and thematic exhibitions tend to present heavily scripted stories in which objects are mostly used to illustrate, enliven and make palpable a history vouchsafed

by textbooks and academic monographs and journals.<sup>36</sup> That said, even with the somewhat diluted faith placed in objects that so many medical history displays embody, the stories they present cannot help but be different from those found in standard textbooks, for they inevitably have greater gravity and more emotional charge, and, especially for those without any background knowledge, they still have the potential to stop visitors in their tracks.

As is admirably indicated by other contributions to this volume, however, more recent work with the material culture of medical history has resulted in much more sophisticated attention being paid to the issue of what objects can, in their own right, uniquely divulge about the history of medicine. Although the use of this approach to artefacts within exhibitions is still in its infancy, any number of object types suggest themselves as material ready to be exploited in more artefact-led exhibitions that could be used to shed extra and unique light on aspects of the history of medicine: surgical and diagnostic instruments to provide insight into the “hands-on” practice of medicine; moulages to act as windows on to particular aspects of medical education; human specimens to open up difficult and sometimes troubling parts of medical history; patient-produced artwork to reveal something of the user’s experience of medicine (especially that of the mind); medical posters and public education films to elucidate the understanding of public health policy; army medical collections to suggest both the crucial part played by warring governments in medicine and the nature of injuries and fatalities during war; pharmaceutical products and packaging to explore the commercial context of medicine; instruments of investigation such as microscopes to uncover the methodology of medical research; the attire and costume of medical practitioners to indicate the social and cultural place of various branches of medicine; and collections of medical illustrations to document both the evolution of anatomy, and the relationship between anatomy, physiology, pathology and so forth. This long, but by no means complete, list indicates just how much could be done with such an approach. A brief examination of the first four of these categories might serve to demonstrate how the insights afforded by the study of such material could enrich medical history exhibitions.

Instruments are one of the virtually ubiquitous types of object present in any medical museum. Frequently poorly documented, “the fact that they exist is [as Gretchen Worden has pointed out] often the only available documentation of their existence.” Despite the fact that, as Worden goes on to say, “medical historians can exhibit a surprising lack of curiosity when given the opportunity to examine and use an instrument devised by one of the great names in medicine,” a significant amount of insight can be teased out of their brute materiality. In the first place, much can be inferred from just how basic the equipment in common use was, and, by implication, the extent of the dexterity of those who successfully made use of it.<sup>37</sup> The mere sight of a seventeenth-century amputation set, with a saw reminiscent of

one you might find in a present-day junior carpentry set, conveys a strong sense of the brute physicality involved in such operations at that time. Handling such equipment only helps to drive the point home. Further evidence can be gauged from the development of particular types of equipment – for example, indication of the speed with which new medical ideas and theories were accepted. Thus the increasing use of steel rather than bone handles for surgical equipment offers very direct evidence relating to the notion that diseases were spread by germs that could be excluded by the introduction of sterile environments and equipment.

In addition, as Eduard Caspar Jacob von Siebold, an early curator of the Göttingen collection of perinatal instruments noted as long ago as 1839, “the invented instruments and objects . . . often speak to us a language more truthful than their inventors by whom they are extolled with all possible hymns of praise.” This “language” is in part derived from the emotional impact of a collection such as that displayed in Göttingen: for it is difficult not to empathise with those on whom such instruments were used as much as, if not more than, with those who used them. Medical instruments, in fact, often crystallise the point of contact between practitioner and patient, and consequently have the potential to reveal much about their relationship. One exhibit in the Göttingen collection poignantly illustrates the point: William Smellie’s forceps, which he covered in leather so that they might “appear so simple and innocent,” or in other words less frightening, to those who endured their effects.<sup>38</sup> Clearly, the sight of a “softer” and more domestic material such as leather covering the bent metal arm used to pull a baby out of its mother’s womb was believed to be less distressing than the bare metal, even though the shape and function of the instrument remained unchanged.

Another area of medical history uniquely illuminated by collections of instruments is the context of their manufacture. Even the monotonous ranks of mass-produced instruments, marketed in increasing numbers since the Industrial Revolution, reveal much about the changing organisation of medical practice and education. Not infrequently in earlier periods, medical instruments were either fashioned by innovative practitioners and theoreticians, or custom-made by specially employed instrument makers.<sup>39</sup> The decreasing numbers of such instruments in museum collections is in itself an indication of the change towards a more industrially orientated style of medicine. The numbers of medical instruments found in collections can further indicate the extent of their use; their cost might suggest the range of practitioners that used them; the standard of workmanship in their mechanisms and the accuracy of their calibrations will provide clues to the fashion in which they were expected to be used; and the frequency and fashion in which models were updated may reflect changes in medical ideas and standards of practice.

A second type of artefact found in many medical collections that could potentially provide unique insights into a number of aspects of medical

history are moulages, the wax anatomical and dermatological models produced in profusion from the seventeenth century until the mid 1950s. These sometimes quite beautiful sculptures, developed initially for use in anatomy, pathology and obstetrics, were later much utilised by dermatologists. Often made according to the instructions of particular medical tutors or practitioners, by craftsmen with extensive medical knowledge, they can reveal much about the relative development of these various disciplines, and the dominant theories within those fields.

As has been discussed above, a study of moulages can also shed light on the special place that museums have had in the history of medicine. For, unlike so much of the material gathered in today's medical museums, which was inevitably moved from the context in which it was made and first used in order to be added to a museum collection, many wax models are still to be found displayed in the very institutions for which they were created. Thus one can, today, look at the waxes made by Joseph Towne (1806–79) for the Gordon Museum in Guy's Hospital, in that very place. Some examples – such as the pioneering work of Testa Dello Zumbo (1695–1700) in the Museo Zoologico de “La Specola” in Florence, the anatomical works by Ercole Lelli in the mid eighteenth century that are to be found in the Anatomical Museum of Bologna University, and the dermatological works in the German Hygiene Museum – are also very significant in what they reveal about the history of the presentation of medicine to a wider, non-professional public. The same significance is to be attached to the didactic plastic mannequins (the transparent men, women and animals) made and exhibited in Europe and America from the 1920s to the 1960s, under whose transparent surface museum visitors could see the internal organs and systems, sometimes lit up, with accompanying audio commentaries (*see* Chapter 2, pp. 31–61).<sup>40</sup>

A third type of object – which, for publicly accessible museums at least, represents potentially the most difficult exhibits of all – is human specimens. Much museological comment has been passed on the inherent problems of displaying human remains, be they in ethnographic, archaeological or other collections. A rather unusual example highlights the insights that careful investigation of such material in medical collections can reveal. In the anatomical museum of Ferrara University are preserved pieces of human skin bearing tattoos, taken from the bodies of dead prisoners and other convicts who were publicly executed. Claudio Chiarini argues that, far from simply being tokens of the depersonalising, dehumanising process of anatomical investigation, these exhibits can instead be regarded as “graphic voices” capable of transmitting “those desperate invocations, that need for forgiveness, which no one [in their own time] granted.” If one agrees with Chiarini, then the display of this particular type of human remain, somewhat counter-intuitively, is to be seen as a partial fulfilment of the “desire for friendship and love that time unfortunately denied” the people from whose bodies they were taken.<sup>41</sup>

Another type of artefact found in a variety of museums, and which potentially represents a source of profound reward for medical historians, are pieces of work, mostly art, produced by patients in medical and mental institutions. Undoubtedly, the most significant body of such material is the Prinzhorn Collection of some 6,000 pictorial objects, held by the Psychiatric Clinic of Heidelberg University. Named after the art historian, psychologist and physician Hans Prinzhorn, who worked on the material in the early 1920s, this collection represents an extraordinarily nuanced body of evidence, both about the lives and thoughts of “mentally deranged” patients of the period, and about their classification, care and treatment.<sup>42</sup>

A recent exhibition of the Prinzhorn Collection at the Hayward Gallery in London gave ample testimony to the fantastic art-historical riches that this material contains. Displayed as a straightforward art exhibition of mounted and framed pictures with two-line captions identifying artist and medium, the beauty and intrinsic – albeit sometimes troubling – interest of the works were given the ideal space and viewing conditions in which to speak for themselves. Somewhat extraordinarily, however, no attempt was made to use the exhibition to explore any questions about the institutional, medical, cultural or social context in which the works had been produced. A great opportunity, therefore, still exists to display the material again, this time to bring out a variety of its other significances. In this case, art-historical interests entirely eclipsed the potential medical historical importance of the material; however, it must be said that many of the insights offered by the four categories of medical material culture just surveyed (surgical instruments, moulages, human remains and patient-produced artwork), and indeed all the other object categories listed above, generally remain largely under-exploited even in medical museums.

As the other essays in this volume make clear, some of this potential insight is now being gathered by researchers working with museum collections and, indeed, some of their insights *are* beginning to be presented in exhibitions; but there is much still to do in making medical artefacts actually carry, rather than merely reflect, medical history within exhibitions. One of the easiest ways of furthering both the research into the material culture of medicine and the active presentation of the resultant insights must be the integration of these two museum-based enterprises. Both can but strengthen the other: for the newer style of thematic exhibitions can clearly be enriched by the types of insight into artefacts produced by this new scholarship, while, at the same time, exhibitions can also both stimulate the need to investigate particular items in a collection and provide the site at which to attempt to put across the results of this research to more than just a clique of other medical historians. Given the thrust of argument in this paper concerning the role of museums in the making and in the preserving of medical history, it is only fitting that such a development should take place in those very same institutions.

## Conclusion

Museums must inevitably take the dominant role in preserving and illuminating the historical significance of the material culture of medicine. Along with providing encouragement for in-depth “object” research of the type related in many of the other contributions to this volume, their role, I have argued, has at least two other parts to it. First, their own institutional histories provide crucial contextual information to supplement scholarly pursuit of that nature. Second, by presenting their objects, museums inevitably give them a historiographic role. While most collections of medical objects are still organised according to the conventions of a predetermined history, I have argued that much more is possible by focusing on types of material that have their own story to tell, and in particular by the imaginative use and juxtaposition of this material and the insights it carries within thematic temporary exhibitions. If medical objects are held to have a historical voice, the role of museums is not just to keep them audible but, rather, to make them sing.

## Notes

1. For general discussion of this point see, for example, James M. Edmonson, “Learning from the Artefact: Surgical Instruments as Resources in the History of Medicine and Medical Technology,” *Caduceus* 9, no. 2 (1993): 87–98; Ghislaine Lawrence, “The Ambiguous Artefact: Surgical Instruments and the Surgical Past,” in *Medical Theory, Surgical Practice: Studies in the History of Surgery*, ed. Christopher Lawrence (London, 1992), pp. 295–314; and Gretchen Worden, “Steel Knives and Iron Lungs: Medical Instruments as Medical History,” *Caduceus* 9, no. 2 (1993): 111–18. As surgeons and not historians, Angela Faga and Luigi Valdatta have spoken interestingly of the implicit faith in the significance and pleasure of seeing museum objects that is shared by many non-historians. Angela Faga and Luigi Valdatta, “Contribution of the Museum for the History of Pavia University for the Knowledge of Plastic Surgery,” in *Proceedings of the Fourth Congress of the European Association of Museums of History of Medical Sciences*, ed. Museo per la Storia dell’ Università di Pavia (Milan, 1988), p. 53.
2. This common enough observation is, for example, made by James Edmonson in his account of the Dittrick Museum of Medical History. James Edmonson, “Dr. Dittrick’s Museum,” *Caduceus* 6, no. 3 (1990): 1; and by Ulrich Tröhler in his “Tracing Emotions, Concepts and Realities in History: The Göttingen Collection of Perinatal Medicine,” in *Non-Verbal Communication in Science Prior to 1900*, ed. Renato G. Mazzolini (Florence, 1993), p. 373.
3. The Old Operating Theatre Museum in Southwark in London provides a particularly strong example of a museum that in effect presents just one large artefact: namely the building itself. As Martin Lipp has shown for the USA, a medical landscape can be traced out on an ordinary map simply by highlighting significant landmarks, and then embellishing it with the theatre of medical history displayed in medical museums. The sites that form such a geographically based history can be as simple and eloquent as the granite gravestone of Mary Mahoney (America’s first black trained nurse) in Boston or as deceptively silent as the Ether Monument, again in Boston, which does not name any of the discoverers of anaesthesia because who should be credited was the subject of such bitter controversy. Martin R. Lipp, *Medical Landmarks USA: A Travel Guide* (New York, 1991), pp. 71, 104 and passim.
4. No single volume yet published systematically lists, let alone describes, medical museums throughout the world. The range of institutions in Britain is well covered in Sue Weir, *Weir’s Guide to Medical Museums in Britain* (London, 1993), while for the USA Martin R. Lipp (n. 3 above), and though now out of date, the appendix on “Museums of Medical History,” in Henry E. Sigerist, *A History of Medicine* (Oxford, 1951), remain useful sources of information on the world’s more important medical museums.

5. Paula Findlen, *Possessing Nature: Museums, Collecting, and Scientific Culture in Early Modern Italy* (Berkeley, 1994); Ken Arnold, "Cabinets for the Curious: Practicing Science in Early Modern English Museums" (Ph.D. diss., Princeton University, 1992).
6. W. J. Mulder and H. Beukers, "Injected Specimens in the Anatomy Museum of Leiden," in *Proceedings of the Fifth Colloque of the European Association of Museums of History of Medical Sciences*, ed. Fundacio-Museu d'Histora de la Medicina de Catalunya (Barcelona, 1990), p. 9.
7. Thomas Schnalke, *Diseases in Wax: The History of the Medical Moulages* (Berlin, c. 1995).
8. For accounts of the history of medical museums, see John Pickstone, "Museological Science? The Place of the Analytical, Comparative in Nineteenth-century Science, Technology and Medicine," *History of Science* 32 (1994): 118–21, and Ken Arnold, "Time Heals: Making History in Medical Museums," in *Making Histories in Museums*, ed. Gaynor Kavanagh (London, 1996).
9. See W. D. I. Rolfe, "William and John Hunter: Breaking the Great Chain of Being," in *William Hunter and the Eighteenth Century Medical World*, ed. William Bynum and Roy Porter (Cambridge, 1985).
10. See Gretchen Worden, "The Mütter Museum of the College of Physicians of Philadelphia," in *Beyond Ars Medica: Treasures from the Mütter Museum* (New York, 1995).
11. William Bennett, "Dr Warren's Possessions," *Harvard Magazine* (July/August 1987): 24–31.
12. *Guide to London Museums and Galleries* (London, 1953), p. 10; Audrey B. Davis, "The History of the Health Sciences at the National Museum of American History," *Caduceus* 4, no.1 (1988): 59–71.
13. *Historical Medical Museum Organised by Henry S. Wellcome* (London, 1913).
14. The best account of Henry Wellcome's collecting activities is to be found in Ghislaine Skinner, "Sir Henry Wellcome's Museum for the Science of History," *Medical History* 30 (1986): 383–418. An account of the subsequent history of Wellcome's museum can be found in Georgina Russell, "The Wellcome Historical Medical Museum's Dispersal of Non-Medical Material, 1936–1983," *Museums Journal* 86 (Supplement 1986).
15. James Edmonson (n. 2 above).
16. "Museum der Aesculap-werke AG," in *Proceedings of the Third Congress of the European Association of Museums of History of Medical Sciences*, ed. Deutsches Medizinhistorisches Museum Ingolstadt (Ingolstadt, 1986), p. 249.
17. A. Opinel, "Le Musée Claude Bernard," in *Proceedings of the Fifth Colloque of the European Association of Museums of History of Medical Sciences*, ed. Fundacio-Museu d'Histora de la Medicina de Catalunya (Barcelona, 1990); Jacqueline Sonolet, "Musée-maisons Claude Bernard," in *Proceedings of the Fourth Congress of the European Association of Museums of History of Medical Sciences*, ed. Museo per la Storia dell' Università di Pavia (Milan, 1988), p. 301.
18. A. Perrot, "Deux musées de l'institut Pasteur, deux conceptions muséologiques," in *Proceedings of the Fifth Colloque of the European Association of Museums of History of Medical Sciences*, ed. Fundacio-Museu d'Histora de la Medicina de Catalunya (Barcelona, 1990), pp. 189–93.
19. Ulrich Tröhler (n. 2 above); Marielene Putscher, "Museum des Bundesverbandes der Deutschen Zahnärzte," in *Proceedings of the Third Congress of the European Association of Museums of History of Medical Sciences*, ed. Deutsches Medizinhistorisches Museum Ingolstadt (Ingolstadt, 1986), p. 246.
20. Jonathan Welsh, "Many Special Minds are Found at Yale," in *The Wall Street Journal*, February 15, 1996; *The Old Operating Theatre, Museum and Herb Garret: Museum Guide* (London, 1995).
21. For a general introduction to the extraordinary history of the Armed Forces museum, see Robert S. Henry, *The Armed Forces Institute of Pathology, Its First Century* (Washington DC, 1964). A more recent journalistic account has been written by Alan Green, "No Guts, No Glory," *Washington City Paper*, February 1993.
22. Robert S. Henry (n. 21 above). More information can also be found by visiting [http://www.sgi.com/Technology/WalterReed\\_Museum.html](http://www.sgi.com/Technology/WalterReed_Museum.html).
23. Audrey B. Davis (n. 12 above), pp. 59–71; Brian Bracegirdle, "The Museum of Medical Science in the Year 2000," in *Proceedings of the Fourth Congress of the European Association of Museums of History of Medical Sciences*, ed. Museo per la Storia dell' Università di Pavia (Milan, 1988), pp. 241–45; Ghislaine Lawrence and Tim Boon, *Health Matters: Modern Medicine and the Search for Better Health* (London, 1994).



24. Christoph Mörgele, *The Museum of the History of Medicine of the University of Zurich* (n.p., 1994), p. 13.
25. Christa Habrich, "Les collections d'étude du musée allemande de l'histoire de la médecine à Ingolstadt," in *Proceedings of the Fourth Congress of the European Association of Museums of History of Medical Sciences*, ed. Museo per la Storia dell' Università di Pavia (Milan, 1988), pp. 103–07; Jozsef Antall, ed., *Pictures from the Past of the Healing Arts [Orvostörténeti Közlemények communicationes de historia artis medicinae. Supplementum 5]*, (Budapest, 1972).
26. Filip Čid and Nuria Gorina, "The Museum of History of Medicine of Barcelona, a Conceptual Museum," in *Proceedings of the Fourth Congress of the European Association of Museums of History of Medical Sciences*, ed. Museo per la Storia dell' Università di Pavia (Milan, 1988), pp. 97–102; Audrey B. Davis (n. 12 above), p. 65.
27. *University of Vienna: The Vienna Institute of the History of Medicine at the Josephinum*, leaflet edited by Christian Brandstätter (n.p., n.d.).
28. *Alder Museum of the History of Medicine* (Johannesburg, 1980); Andy Brown, "Museum Display – Fractions of a Truth," in *Proceedings of the Sixth Congress of Curators of Museums of the History of Medical Sciences*, ed. Museum Boerhaave Leiden (Leiden, 1992), pp. 149–55.
29. Maria Antonietta Coccanari and Giovanni Benito Scarano, "Le musée d'histoire de la médecine de l'Université de Rome," in *Proceedings of the Fourth Congress of the European Association of Museums of History of Medical Sciences*, ed. Museo per la Storia dell' Università di Pavia (Milan, 1988), pp. 43–47; Klaus Gilardon, "Medizinhistorische Sammlung des Karl-Sudhoff-Instituts für Geschichte der Medizin und der Naturwissenschaften der Karl-Marx-Universität [Leipzig]," in *Proceedings of the Third Congress of the European Association of Museums of History of Medical Sciences*, ed. Deutsches Medizinhistorisches Museum Ingolstadt (Ingolstadt, 1986), p. 246.
30. Diane R. Karp et al., *Ars Medica: Art, Medicine and the Human Condition. Prints, Drawings, and Photographs from the Collection of the Philadelphia Museum of Art* (Philadelphia Museum of Art, 1985).
31. *Beyond Ars Medica: Treasures from the Mutter Museum*, exhibition catalogue (New York, 1995); Ken Arnold and Martin Kemp, *Materia Medica: A New Cabinet of Medicine and Art* (London, 1995).
32. There is not space here to speculate on how closely linked are the developments of new thematic approaches in exhibitions and new museological attitudes to the presentation of objects. My own suspicion is that the two went virtually hand in hand: the former gave legitimacy to the use of all sorts of objects not before shown in medical history exhibitions, it exposed curators to a variety of disciplines with very different – often far more sophisticated – approaches to material culture, and it encouraged them to experiment in shows that would only last a maximum of a year.
33. Ulrich Tröhler (n. 2 above), p. 373.
34. William Bennett (n. 11 above), p. 31, has described the demise of "a taste for the marvellous" within science museums in his account of the Warren Anatomical Museum in Harvard, Mass.
35. Hank Burchard, "It's Strange Inside the Medical Museum," *The Washington Post*, February 2, 1979, p. 6; *Musée international de la Croix-Rouge et du Croissant-Rouge* (Geneva, 1990).
36. The emblematic museum for the illustrative approach may well be the Institute of History of Medicine in Hyderabad, India. For here, large amounts of the material culture to support the story of medical history are not available even in replica, so that the story is instead woven around recent artists' renditions of medical subjects in Indian history. Sample exhibits include "Pictures from Ayurvedic Books" and a "Show-case Showing Replicas of Medical Sciences in the Buddhist Art." Somewhat refreshingly, the attitude here has not been to worry about the support of material evidence at all, but simply to take a very literal approach to the didactic task of illustrating the history of Indian medicine. D. V. Subbba Reddy, ed., *Institute of History of Medicine: Hyderabad. Museum Guide [Indian medicine]* (Secunderabad, c. 1971).
37. Gretchen Worden (n. 1 above), pp. 111–15.
38. Ulrich Tröhler (n. 2 above), pp. 369, 346.
39. An unusual case such as that of the highly specialised instruments made by J. Th. Hoefficke in the early nineteenth century, kept by the University Hospital in Leiden, may also suggest much about the relative power of instrument makers, users (i.e. surgeons) and medical

theoreticians. Willem J. Mulder, "J. Th. Hoefftcke, University Instrument Maker in Leiden," in *Proceedings of the Third Congress of the European Association of Museums of History of Medical Sciences*, ed. Deutsches Medizinhistorisches Museum Ingolstadt (Ingolstadt, 1986), pp. 125–27.

40. For a history of medical moulages, and the museums that contain them, see Thomas Schnalke (n. 7 above).
41. Claudio Chiarini, "Les 'voix graphiques' du musée anatomique de Ferrare," in *Proceedings of the Fourth Congress of the European Association of Museums of History of Medical Sciences*, ed. Museo per la Storia dell' Università di Pavia (Milan, 1988), p. 51.
42. *Beyond Reason. Art and Psychosis: Works from the Prinzhorn Collection* [Hayward Gallery exhibition catalogue] (London, 1996). Another very significant collection of such material is held at the Bethlem Royal Hospital, where the names of some of the individual artists are far better known: Richard Dadd, Jonathan Martin and Charles Sims amongst them. The Wellcome Institute Library also contains much material of a similar nature.

## Addresses of main museums cited

### **Austria**

*Museum of the Institute of the History of Medicine*  
Museum des Instituts für Geschichte der Medizin  
Josephinum  
Währinger Str. 25  
A-1090 Vienna IX

### **France**

*Pasteur Institute*  
Musée Pasteur  
25, rue du Docteur-Roux  
Paris Cedex 15  
F-75724

### **Germany**

*Aesculap Works Museum*  
Aesculap-Werke AG  
Aesculap Platz  
D-78532 Tuttlingen

*Dental History Museum*  
Museum des Bundesverbandes der Deutschen  
Zahnärzte  
Universitätsstr. 71  
D-50931 Köln 41

*German History of Medicine Museum*  
Deutsches Medizin-Historisches Museum  
Anatomiestr 18/20  
Ingolstadt D-85049

*German Hygiene Museum*  
Deutsches Hygiene-Museum  
Lingnerplatz 1  
D-01069 Dresden

*German Pharmaceutical Museum*  
Deutsches Apotheken-Museum  
Bureau, Heidelberg Schloss

Friedrichstr. 3  
D-69117 Heidelberg

*Karl Sudhoff Institute of the History of  
Medicine and Natural Sciences*  
Karl-Sudhoff-Institut für Geschichte der  
Medizin und der Naturwissenschaften des  
Bereiches Medizin  
Universität Leipzig  
Augustusplatz 10/11  
D-04109 Leipzig

*Obstetrics collection of the University's  
women's clinic*  
Die Geburtshilfliche Sammlung der  
Universitäts-Frauenklinik  
Ethik und Geschichte der Medizin  
Humboldtallee 36  
D-37073 Göttingen

*Prinzhorn Collection*  
Prinzhorn Sammlung der Psychiatrischen  
Universitäts-Klinik Heidelberg  
Voßstr. 4  
D-6911 Heidelberg

*Psychiatric Clinic of the  
University of Heidelberg*  
Postfach 105760  
D-69047 Heidelberg

### **Hungary**

*Semmelweis Museum, Archives for the  
History of Medicine*  
Semmelweis Orvostörténeti  
Múzeum, Könyvtár és Levéltár  
Apród u 1-3  
H-1013 Budapest

**India**

*Institute of History of Medicine in Hyderabad*  
State Health Museum  
11-6-15  
Hyderabad 500004

**Italy**

*Anatomical Museum "G. Tumiatì"*  
Museo Anatomico "G. Tumiatì"  
Dip. Morfologia ed Embriologia  
Sezione Anatomia Umana  
Via Fossato di Mortara 66  
I-44100 Ferrara

*Museum of the History of Medicine, "la Sapienza"*  
Università di Roma "La Sapienza"  
Museo di Storia della Medicina  
Facoltà di Medicina e Chirurgia  
Viale dell'Università 34A  
I-00185 Rome

*Museum of the History of the University of Pavia*  
Museo per la Storia dell'Università di Pavia  
Strada Nuova 65  
I-27100 Pavia

*Museum of Morbid Anatomy of Bologna*  
Museo di Anatomia e Istologia Patologica  
Via Massarenti 9  
I-40138 Bologna

*Muzeo Zoologico de "La Specola"*  
Museo 'La Specola'  
Via Romana 17  
I-50125 Firenze

**Netherlands**

*Leiden Anatomical Collection*  
Anatomisch Museum  
Wassenaarseweg 62  
NL-2333 AL Leiden (Zuid-Holland)

*Museum Boerhaave*

National Museum of the History of Science and  
Medicine  
Lange St Agnietenstr 10  
NL-2312 WC Leiden

**Russia**

*Military Medical Museum*  
Voenno-meditsinskij Muzej  
Lazarentnyj per 2  
St Petersburg

**South Africa**

*Adler Museum of the History of Medicine*  
University of the Witwatersrand  
POB 1038  
Johannesburg 2000

*Cape Medical Museum*  
POB 16511  
Vlaeberg 8018  
Cape Town

**Spain**

*The Museum of the History of  
Medicine of Catalonia*  
Fundacio-Museu d'Historia de la Medicina de  
Catalunya  
Passatge Mercader 11  
ES-08008 Barcelona

**Switzerland**

*Museum of Pharmaceutical History*  
Schweizerisches Pharmazie-Historisches Museum  
Totengässlein 3  
CH-4051 Basel

*Museum of the History of Medicine of the  
University of Zurich*  
Med-historisches Institut  
SOC E 14  
Rämistrasse 69  
CH-8001 Zürich

*Red Cross Museum*  
17 avenue de la Paix  
CH-1202 Geneva

**United Kingdom**

*Alexander Fleming Laboratory Museum*  
St Mary's Hospital  
Praed Street  
Paddington  
London W21NY

*Bethlem Royal Hospital Archives and Museum*  
The Bethlem Royal Hospital  
Monks Orchard Road  
Beckenham  
Kent BR3 3BX

*Blists Hill Open Air Museum*  
Ironbridge Gorge Museum  
Telford  
Shropshire TF8 7AW

*British Dental Association Museum*  
64 Wimpole Street  
London W1M 8AL

*Charles Darwin Memorial Museum*  
Down House  
Luxted Road  
Downe  
Kent BR6 7JT

*Florence Nightingale Museum*  
Florence Nightingale Museum  
2 Lambeth Palace Road  
London SE1 7EW

*Freud Museum*  
20 Maresfield Gardens  
London NW3 5SX

*Glenside Hospital Museum*  
Glenside Hospital  
Blackbery Hill  
Stapleton

Bristol  
Avon BS16 1DD

*Gordon Museum in Guy's Medical School*  
United Medical and Dental Schools (UMDS)  
The Wills Library  
Guy's Hospital  
London SE1 9RT

*Hunterian Museum (Glasgow)*  
University Avenue  
University of Glasgow  
Glasgow  
Strathclyde G12 8QQ

*Hunterian Museum (London)*  
Royal College of Surgeons of England  
35–43 Lincoln's Inn Fields  
London WC2A 3PN

*Jenner Museum*  
The Chantry  
Church Lane  
Berkeley  
Gloucestershire GL13 9BH

*Museum of the History of Science*  
Broad Street  
Oxford OX1 3AZ

*The Old Operating Theatre  
Museum & Herb Garret*  
St Thomas's Church  
9A St Thomas's Street  
London SE1 9RT

*Royal College of Surgeons of England*  
35–43 Lincoln's Inn Fields  
London WC2A 3PN

*Royal Pharmaceutical Society of Great Britain*  
1 Lambeth High Street  
London SE1 7JN

*St Bartholomew's Hospital Archives*  
St Bartholomew's Hospital  
West Smithfield  
London EC1A 7BE

*Thackray Medical Museum*  
131 Beckett Street  
Leeds  
West Yorkshire LS9M 7LP

*The Science Museum*  
National Museum of Science & Industry  
Exhibition Road  
London SW7 2DD

*Wellcome Institute for the History of Medicine*  
183 Euston Road  
London NW1 2BE

*York Castle Museum*  
York YO1 1RY

**USA**

*Dittrick Museum of Medical History*  
11000 Euclid Avenue  
Cleveland  
OH 44106-1714

*Mütter Museum*  
The College of Physicians of Philadelphia  
19 South 22nd St.

Philadelphia  
PA 19103

*National Museum of American History*  
Smithsonian Institution  
Washington DC 20560

*National Museum of Health and Medicine*  
Armed Forces Institute of Pathology  
Dahlia and 14th Streets NW  
Washington DC 20306

*Philadelphia Museum of Art*  
26th St and Benjamin Franklin Pkwy  
Philadelphia  
PA 19130

*The Pest House Medical Museum*  
Old City Cemetery  
711 Old Trents Ferry Rd  
Lynchburg  
VA 24503

*Warren Anatomical Museum*  
Harvard Medical School Building  
25 Shattuck St  
Boston  
MA 02115