

# A history of Edinburgh's medical museums

SJMM Alberti

*Keeper of Science and Technology, National Museums Scotland*

**ABSTRACT** Edinburgh has a wealth of medical collections, thanks not only to its role in the Enlightenment and the diaspora of graduates from the large medical school, but also to recent developments in medical heritage. Concentrating on the collections of the University of Edinburgh's Anatomy Department and Surgeons' Hall Museums at the Royal College of Surgeons of Edinburgh, this paper charts the complex and connected histories of the material culture of anatomy, pathology and surgery in the city. What roles did museums play, from their 18th century origins to their 21st century resurgence, and who used them?

**KEYWORDS** anatomy, museums, pathology, Royal College of Surgeons of Edinburgh, University of Edinburgh

**DECLARATION OF INTERESTS** The author researched and wrote this paper while engaged by the University of Edinburgh as James M. Graham Visiting Professor, Clinical Surgery.

**Correspondence to SJMM Alberti**  
**Science & Technology**  
**National Museums Scotland**  
**Chambers Street**  
**Edinburgh EH1 1JF**  
**UK**

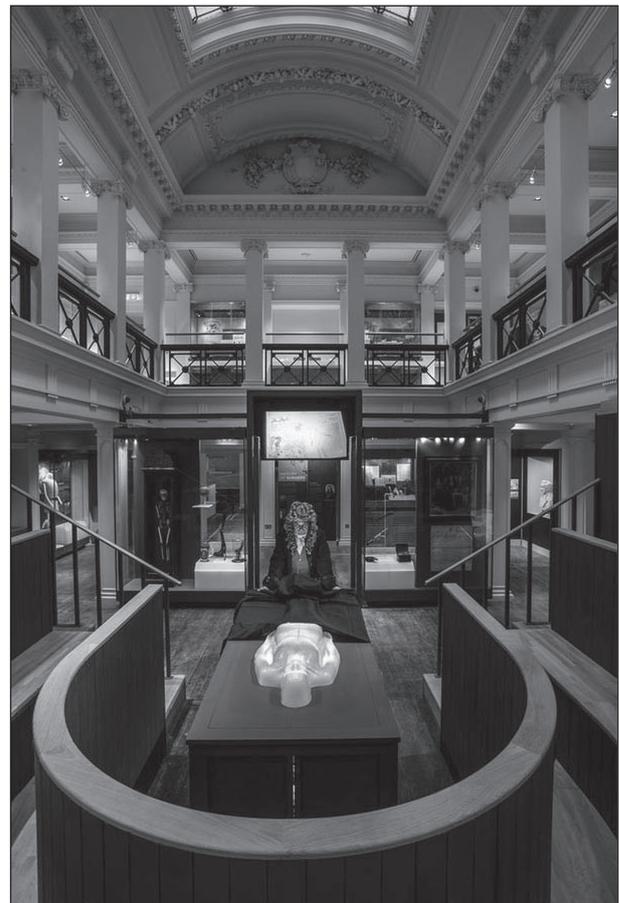
**e-mail** s.alberti@nms.ac.uk

## INTRODUCTION

In September 2015 the museums of the Royal College of Surgeons of Edinburgh (RCSEd) re-opened after a major new development, with improved physical access and refreshed interpretation of its rich collections (Fig 1). Other British medical museums, such as the Hunterian Museum at the Royal College of Surgeons of England and Wellcome Collection in London, are also attracting more visitors than ever. The Science Museum in London is redisplaying its vast medical collections across six galleries, which will create the largest medical history displays in the world.

Against this encouraging backdrop, the University of Edinburgh is assessing the potential use of its own rich anatomical collection, for example showing medical models in the *Visual Dissection* exhibition at the University Library.<sup>1</sup> It therefore seems an opportune time to reflect on the history of such museums in Edinburgh, to better understand why organisations have invested so much in them over three centuries.

Medical collections are a broad church. In common with other collections of science and technology they can include models, manuscripts, books and instruments (such as those collected en masse by Henry Wellcome);<sup>2</sup> they have also reflected the development of imaging technologies, from watercolours of pathologies through X-rays to 3D anatomy visualisations.<sup>3</sup> In common with natural science collections, many medical museums include organic specimens: not only human, but also zoological and botanical material. Fine examples of all of these categories can be found in Edinburgh, from modern biomedical instruments in what is now the National Museum of Scotland to medicinal plants in the



**FIGURE 1** The refurbished Surgeons' Hall Museum at the Royal College of Surgeons of Edinburgh, 2015. Image © Royal College of Surgeons of Edinburgh.

physic gardens in the Royal Botanic Garden and the Royal College of Physicians of Edinburgh (RCPE).<sup>4,5</sup>

For the most part this paper is concerned with human and animal remains in the two major collections in the city, the Anatomy Museum at the University of Edinburgh and the collection of the RCSEd. Historical attention has been paid to their genesis, early years, and acquisition routes;<sup>6,7</sup> here in particular the focus is on the connections between them, their location and their use; and to bring their stories up to date. This may help us to understand the value placed on them, their contrasting fates over the 20th century and what is particular about Edinburgh's museological landscape.

## THE PROFESSORS MONRO

Although the Faculty of Medicine was not formally established until 1726, Edinburgh boasted what was effectively the first Chair of Anatomy in Britain from 1705, a joint venture between the Town Council and the Incorporation of Surgeons. Robert Elliot held this post, as well as taking a salary to be 'Keeper of the University Museum', charged with inspecting the rarities therein.<sup>8,9</sup> (Although for complex governance reasons it was often termed 'the Town's College' in its early history, here for clarity the 'University' is used throughout.) There is no precise record of the University museum's contents, but it is likely to have been associated with the library, and involved material transferred to the University at the end of the previous century by Sir Andrew Balfour and Sir Robert Sibbald (founders of the physic garden and the RCPE).<sup>10</sup> It included a dramatic cutaneous horn cut from the head of Elizabeth Low and the skull of the 16th century humanist scholar George Buchanan, items that remain in the University's Anatomical collection. In the meantime, Sibbald had also deposited a similar 'Large Parcell of Curiosities' in the RCPE in 1706; largely natural history, it had disappeared by 1770.<sup>11</sup>

The anatomy professor from 1720, Alexander Monro (later dubbed *primus*), gathered his own private collection of anatomical preparations, specimens and models to support his teaching practice.<sup>12</sup> These were to contribute to what one historian has dubbed the 'Edinburgh manner' of anatomical instruction – that is, dissecting fewer cadavers more slowly, supported by other teaching techniques including specimens.<sup>13,14</sup> But this approach was not unique: collections were also intensively used by anatomical educators such as Monro's former pupil William Hunter in London (and later by William's younger brother John Hunter), or peers further afield in France, the Netherlands and in Italy. Monro's studies had taken him to several of the leading London and Continental museums where he learned techniques of preparing bodies for dissection from William Cheselden and Frederik Ruysch.

Monro probably moved his collection of human and

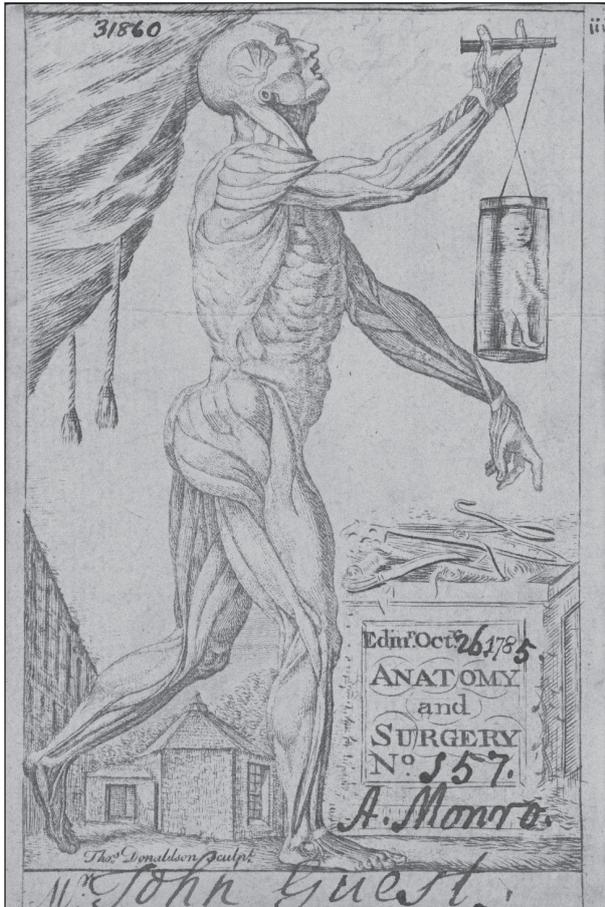
comparative (animal) specimens from Surgeons' Hall to the University in 1725. This was ostensibly a safeguard against anti-grave-robbing mob attacks, but it was also an astute political move on Monro's part, as it meant the collection (and the position) was more associated with the University.<sup>8</sup> Some specimens were displayed in the ground floor anatomy theatre; others were kept below the seating and taken out when needed.<sup>15</sup> In 1763 the University also took custody of most of the collection of the Incorporation of Surgeons, which had included natural curiosities and some surgical equipment, donated in response to a circular in the *Edinburgh Gazette* in 1699.<sup>9,16,17</sup>

Alexander Monro's father was the surgeon John Monro, who had been a fellow student of Robert Elliott and Herman Boerhaave at Leiden and was Deacon of the Incorporation of Surgeons from 1712–14. He had donated 'anatomical preparations' prepared by Alexander to both the Incorporation and the RCPE to demonstrate the young man's skill.<sup>12</sup> John Monro then had a hand in engineering the Chair of Anatomy for his son.<sup>18,19</sup> Alexander inherited these dynastic inclinations: from the 1750s he shared teaching duties with his own son, also Alexander, who would succeed him to the Chair. Monro *secundus* followed his father's example and studied in Leiden and elsewhere in Europe, as well as with his father's former pupil William Hunter (with whom he would later have a bitter dispute on matters of anatomical priority).<sup>20</sup> Influenced by Hunter and aware of the importance of collections across the Continent, he continued to use his father's collection, and added to it significantly.

The family ambition undiminished, Monro *secundus* chafed for more space, lobbying the Town Council for a new anatomy theatre.<sup>21,22</sup> Specimens could then be used alongside dissection in anatomy teaching, and housed in the existing theatre once vacated:

The present teaching room will likewise may a very fit placing for lodging the preparations, which properly put up, will be an ornament to the University, and serve to give strangers a more favourable idea of it whilst making the waiting and Preparation room the same, the students will have the opportunity of examining, at their leisure, the preparations of any organ [with which] they wish to be more particularly acquainted.<sup>23</sup>

As a sweetener to persuade the Town to permit the construction of the new theatre, Monro not only laid down the capital but also offered his museum collection. His campaign was successful and a new theatre constructed. A class card for Monro *secundus*' 1785 anatomy course shows a flayed figure holding a spirit-preserved specimen, demonstrating the importance of museum collections to anatomy teaching in this period (see Fig 2).



**FIGURE 2** Class card for Alexander Monro *secundus*' 1785 anatomy and surgery course. Image © University of Edinburgh Centre for Research Collections.

Finally, in 1798, Monro fulfilled this promise:

I...give and bequeath to the said University, for ever, my whole collection of anatomical preparations, with all the vessels and cabinets in which they are contained in the several rooms connected with the Anatomical Theatre...for the purposes of demonstrating and explaining to the students of the University the structure, physiology, and diseases of the human body.<sup>24</sup>

The founding purpose of the University's Anatomy Museum, then, was for use in teaching anatomy, physiology and pathology, alongside lecture-based teaching and dissection; and as such it was part of the Monros' contribution to the Edinburgh Medical faculty's conspicuous success in the 18th century. There were 400 medical students in Edinburgh by the 1780s, and Monro *secundus* alone taught 4,400 students during his career.<sup>25</sup> They actively used the collection, as evidenced by the 12 gallons of whisky (which anatomists used to generate clear ethanol for preserving specimens) sourced by the city for its preservation and maintenance.<sup>26</sup> Over 100 specimens from this era survive in the collection today.

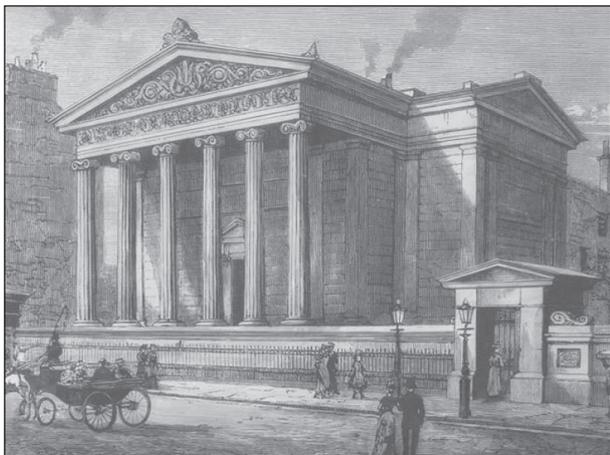
By the early 19th century Monro *secundus* was teaching alongside his own son (another Alexander), who took over the Chair entirely in 1817. Monro *tertius*, who will feature in more detail later, put more energy into writing than teaching, but with no more success.<sup>27</sup> He had a different view on the use of the museum, removing items from it liberally and gathering his own collection in parallel. The French historian Amédée Pichot visited Edinburgh in 1822 and recalled 'Monro, the owner of the fine museum of anatomical figures collected by his father, of which he was so jealous that a sight of it could only be obtained by a stratagem.'<sup>19</sup> Monro *tertius* disputed his father's posthumous intentions for decades; eventually the dispute was settled, and after *tertius*' death his son David bequeathed his private cabinet to the University as well. The Monros had occupied the anatomy chair for 126 years.

## THE SURGEONS' MUSEUM

The first decade of the 19th century was an important time in the development of both medical education and anatomical collections. New ideas of pathological anatomy were formulated in Paris,<sup>28</sup> and museum practitioners in Italy were developing novel display techniques. Many early 19th century medical institutions, from established hospitals and colleges to new anatomy schools, established or re-established museums.<sup>29</sup> These collections were in high demand for teaching: as the training of surgeons became more learned and that of physicians more practical, they both turned to anatomy as a central component in their education.<sup>7,30</sup>

As we have seen, most of the material at Surgeons' Hall had been transferred to the University by Monro *primus* but there were still the remnants of a collection at the RCSEd (as the Incorporation had become in 1778). Prominent among the remaining items were dissections by Archibald Pitcairn and Monro presented in 1718, which are still on display today. But with growing museums in cognate organisations – the Universities in Edinburgh and Glasgow and other Royal Colleges – it was clear that as a credible medical institution the RCSEd needed to acquire a serious collection.

The surgeons re-invigorated their anatomical museum in 1804 with the appointment of John Thomson as their first Professor of Surgery, a post established partly in response to the perceived inadequacies of Monro *tertius*' teaching.<sup>17,31</sup> (Although *tertius* retained the title 'Professor of Anatomy and Surgery' he had never been a practising surgeon.) Thomson had trained at Glasgow, Edinburgh, and with John Hunter in Leicester Square, London; both his sons would go on to hold chairs at the University of Glasgow. Thomson senior presented his own private collection to the RCSEd, and he and his



**FIGURE 3** The 1832 building designed by William Playfair for the Royal College of Surgeons of Edinburgh. Image © Royal College of Surgeons of Edinburgh.

assistants supplied many of the specimens acquired in the first years of the museum's existence. But the core of the collection arrived from elsewhere.

As part of an active purchase and donation strategy, the RCSEd invited gifts from members and, in 1821, extramural teacher John Barclay promised his massive comparative anatomy collection provided the RCSEd build dedicated accommodation for it.<sup>32</sup> In light of the failure of some large-scale potential purchases the RCSEd agreed despite the expense. Furthermore, Barclay's assistant Robert Knox was given care of the pathological elements of the collection, and became the museum's first conservator. Knox was a diligent and effective servant, cataloguing, labelling and augmenting the collection and worked hard to plan new premises; but after his association with the torrid events surrounding William Burke and William Hare in 1828 his position was less secure. He eventually resigned in 1831.

In the meantime, the complex web of collection exchange became ever more close-knit as the RCSEd also purchased the collection that Scottish surgeon and anatomist Charles Bell had built up in London at the Great Windmill Street School that William Hunter had established.<sup>33</sup> Both the Bell and Barclay collections were housed from 1832 in the RCSEd's new building on Nicholson Street (Fig 3), the original 1697 Surgeons' Hall having become insufferably crowded.

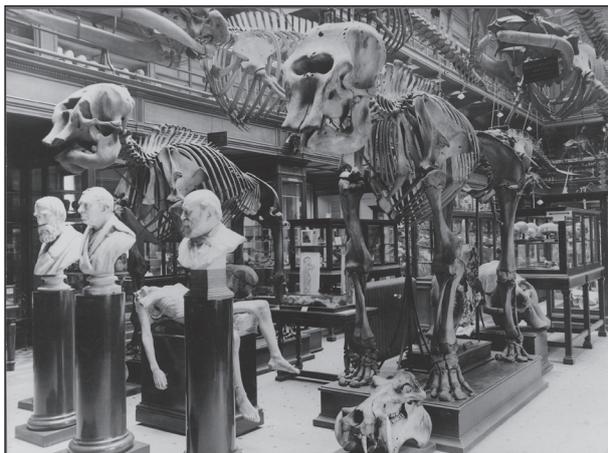
In the new Surgeons' Hall the entire first ('principal') floor was occupied by the collection – a chamber which at 40 x 97 feet was among the largest custom-built accommodation for a medical museum in Britain at the time (alongside, for example, Guy's Hospital anatomy block of 1825). There were also preparation rooms for maceration and other museum processes. Furthermore, the museum:

was opened to the public on 8th July 1832...four days each week, and all persons having an order from a fellow of the college, or applying to the conservator, have been admitted...three-fourths have been non-professional, or both sexes and of all classes. None have been refused admittance, excepting a very few (not more than five) persons in a state of intoxication. There has never been a disturbance in the Museum. Although upwards of 2,000 preparations have been exposed on open shelves, none of them has received injury from visitors...Visitors of the lower classes, mechanics, sailors and soldiers, have uniformly been quiet, careful and most orderly. Indeed the only visitors who ever touch the preparations are the medical students, who, in their desire to inspect an object, sometimes forget that it is prohibited to handle it. Visitors of the lower classes seem to take more interest in the specimens than those of the higher, many of whom, especially ladies, merely walk through the room without looking at the object particularly.<sup>34</sup>

Up to 10,000 visits per year were recorded by 1837. Although this figure would probably have included any students and repeat visitors, this was a huge audience for an institutional anatomy museum at this time, and presumably dispelling some of the opprobrium attracted by the Burke and Hare murders. Among them may have been many of those who had visited the popular peripatetic anatomy shows such as that of 'Signor Sarti'.<sup>35</sup> Conservator William MacGillivray, a naturalist who would go on to be Professor of Natural History at Aberdeen, concentrated on comparative anatomy, which was continued by his successor John Goodsir.<sup>36</sup> Goodsir's brother Harry took over from John; still later, briefly, their younger brother Archibald took over the collection for a few months. The temptation to parallel the three brothers' curatorship with the tenure of the Monros is however tempered by their relative timespans: four years in total compared to 126.

## OLD COLLEGE

By the late 18th century the University's buildings had fallen into disrepair and Robert Adam was engaged to design a building on South Bridge to house all the departments. The building that would become known as 'Old College' was in use from 1793. In the north-west corner was a large anatomy theatre, above which was an attic room for the museum collections. After a Napoleonic break in construction, William Playfair – later to design the new Surgeons' Hall – continued to design and re-design the quadrangle, and in 1815 Alexander Monro *tertius* proposed that the theatre be divided horizontally and the lower portion used for a



**FIGURE 4** The Anatomy Museum in Teviot Place, around 1900. Image © University of Edinburgh Anatomical Collections.

larger, more accessible museum with better lighting than the attic; after a decade of debate the work, which cost a massive £2,000, was completed in 1827.<sup>22</sup>

This marked the conclusion of the fierce debate between Monro *tertius* and the Town Council over the use, ownership and access to the museum. He treated it as his personal cabinet as we have seen, but the Council wanted it to be a shared resource, like the military surgery museum set up by John Thomson after his transfer to the University. So too the natural history collection next door, overseen by renowned mineralogist Robert Jameson, Regius Professor of Natural History, with whom Monro quarrelled over space. The latter collection, which held the remnants of Balfour's and Sibbald's cabinet, became the nucleus of the natural history collections of the Edinburgh Museum of Science and Art, later the Royal Scottish Museum, now the National Museum of Scotland.<sup>37,38</sup>

As the University's assistant librarian observed in 1830, the Anatomy Museum thrived in its new home:

Of late years the specimens in the museum have been considerably increased. The new rooms are much calculated to exhibit them to advantage, and they are now open to students and to the medical profession. ...superior opportunities of improving the study of anatomy are nowhere to be obtained than at the University of Edinburgh.<sup>39</sup>

The medical profession of the town was able to access it, and the collection was used by those on the anatomy course as part of their fees or others by a 7 shilling ticket for a season.

The collections were central to Edinburgh's teaching in the early 19th century, when Scotland led the world in medical training. The importance now placed on the University's museum was evidenced by the joint role of

William Mackenzie, conservator to the museum and anatomy demonstrator, who produced the first printed catalogue.<sup>24</sup> The allocation of resource for his role (and for the growth of the museum) had been thanks in part to the advocacy of RCSEd President William Wood.

Each successive Chair of Anatomy set about expanding and re-ordering the collection according to his own research interest. Pioneering cytologist and microscopist John Goodsir worked at both RCSEd and University as museum conservator, then succeeded Monro *tertius* to the Chair of Anatomy in 1846.<sup>36</sup> He expanded the comparative anatomy, both vertebrate and invertebrate, and engaged Thomas Spencer Cobbold to catalogue the comparative and morbid anatomy following the system established by Richard Owen for the Hunterian Museum at the Royal College of Surgeons of England.<sup>40</sup> Spencer Cobbold, an Edinburgh medical graduate, arranged the collection according to function rather than form, shifting from anatomical to physiological. An accomplished helminthologist, he went on to a chair at the Royal Veterinary College. Despite this zoological emphasis, in the mid-century the University collection's principal purpose remained medical teaching. 'There is in the University of Edinburgh', reported a government survey in 1857, 'a general anatomical museum for the purposes of the medical faculty and of the medical school of the University.'<sup>41</sup> By this time the RCPE also housed a sizeable materia medica museum. Established in 1835, it thrived until 1896, when the custom-built galleried space at the top of the Queen Street building was assigned to the library, and the collection was transferred to the Pharmaceutical Society of Great Britain.<sup>11</sup>

## HIGH-WATER MARK

Much of the attention paid to the history of anatomy museums has been focused on their founding and early history. This is due to a number of factors: the fetish for origin stories in museum history; the focus on original spaces in new buildings rather than subsequent design and use;<sup>42</sup> the historiographical gravity of the Monros; and the morbid appeal of the Burke and Hare murders. But it was during the tenure of Goodsir's successors at both institutions – William Turner and Charles Cathcart, respectively – that the collections reached their peaks in size and, arguably, institutional significance.

At the University, William Turner was senior anatomy demonstrator under Goodsir; a keen cetacean biologist, Turner was professor from 1867 and later Principal of the University. He expanded the University collection to render it a reference collection not only for whales but across the taxa.<sup>43</sup> Upon taking up the Chair he complained – successfully – about the lack of space for the collection and in the 1880s he oversaw the move

to the new medical school building on Teviot Place, one of the largest in Europe.<sup>44</sup> The Anatomy Department was given prominence and space in the medical school and at its heart was the first floor museum (Fig 4), 112 x 39 feet with two galleries and a small adjoining galleried room specifically for human crania. As such, it was one of a generation of sizeable medical museum spaces opened within the decade across the country, including the pathology museum at St Bartholomew's Hospital and the extension to the Hunterian Museum in London. It was now also of comparable size to the museum of the nearby RCSEd (although the University medical buildings in their entirety were much larger). The Hunterian Museum in Glasgow – recently moved to the University of Glasgow's grand new buildings on Gilmorehill designed by Sir George Gilbert Scott – included the extensive anatomical and pathological series based on William Hunter's collection; both the Glasgow Royal Infirmary and the Western Infirmary also housed pathology collections.<sup>29,45</sup>

Thanks to Rowand Anderson's design of the new medical school, the University of Edinburgh's anatomical collection was efficiently served by support spaces – workrooms, offices, and a 'macerating house' in the 'anatomical court' over which the museum looked. It was also connected to the other anatomical spaces – lecture theatre, library and dissection room.<sup>46</sup> 'In the arrangement of the specimens', explained Turner, 'the primary use of the museum as a teaching collection had to be kept in view, and facilities had to be provided for moving objects to the lecture rooms, in which they would be needed for illustration.'<sup>47</sup> Morbid anatomy was arranged on the upper gallery, for example, better to facilitate use in the nearby pathology classrooms.

One space in the complex that the historian might miss was a small attic garret for the anatomical artists who, under the direction of the anatomy professors, produced stunning anatomical diagrams (often grand in scale) to accompany the prosections. Like many medical collections, the anatomy holdings therefore include valuable paper anatomical heritage to accompany the three-dimensional material.

The Teviot Place building housed not only the anatomy collection but also several other collections within the University. The largest were medical jurisprudence (forensic medicine) and pathology (distinct from the pathological series in the Anatomy Museum).<sup>48</sup> Preparations and artefacts also illustrated surgery, materia medica, physiology, gynaecology, otolaryngology, dermatology and military surgery (although this had declined since the termination of the Regius Chair).<sup>44,49</sup> The networks facilitated by this material culture stretched between departments and beyond the University; Alexis Thomson in the Department of Surgery, for example, worked on collections with

Charles Walter Cathcart at the RCSEd (as we shall see later, Cathcart was as important to the RCSEd museum as Turner was to the University's).<sup>17</sup>

Turner's biological interests led to a considerable growth in the comparative anatomy and cetacean elements of the anatomy collection. But during his tenure the Anatomy Museum also became renowned for other non-medical elements: physical anthropology and, especially, phrenology (the study of character and brain via the surface of the skull). The first Phrenological Society had been founded in the town in 1820, and over half a century had gathered a sizeable collection of human crania, casts, and animal skulls. In 1886, the Henderson Trust, which had displayed the collection in a museum on Chambers Street facing the Edinburgh Museum of Science and Art (now the National Museum of Scotland), offered it to Turner, and he accepted, absorbing the skulls into the University's collection.<sup>7</sup> Turner developed an international skull collection comparing crania across ethnicities and geography, and it was these he displayed in the bespoke skull room.

The museum's move to Teviot Place coincided with a massive expansion of Western anthropology museums as new Imperial projects generated an influx of human remains into collections; a flow which continued well into the interwar period. Skulls arrived in Edinburgh from India, Africa and, especially, Australia, to sit alongside indigenous Scottish crania from archaeological excavations.<sup>50</sup> The RCSEd also displayed ethnographic material and the remains of indigenous peoples, but not to the same extent.

Turner continued to take an interest in the collection as Principal and both his successors, Daniel John Cunningham (who held the Chair of Anatomy from 1903 until his death in 1909) and Arthur Robinson (Chair 1909–1931), continued to enhance the anthropological collection, the latter with 'casts of prehistoric specimens, simian skeletons, and tracings and casts of comparative craniology'.<sup>51</sup> The museum continued to accept archaeological remains throughout the 1930s, and remained an important reference collection for physical anthropology. By this time the collection included over 1,600 skulls from 55 countries.

By contrast, the RCSEd museum's growth had been slow in the half-century from 1840. Only with Charles Cathcart's appointment in 1887 did the museum once again become cutting-edge. Cathcart published an epic three-volume catalogue,<sup>52</sup> which was notable in his particular attention to the developing field of histopathology (Turner began the equivalent at the University but it was never completed<sup>43,53</sup>). When the College opened a new research laboratory on Hill Square in 1897 there was considerable interaction between museum and laboratory. Too often the development of pathology as a discipline in this later



**FIGURE 5** The Anatomy Museum in Teviot Place, mid-twentieth century. Image © University of Edinburgh Anatomical Collections.

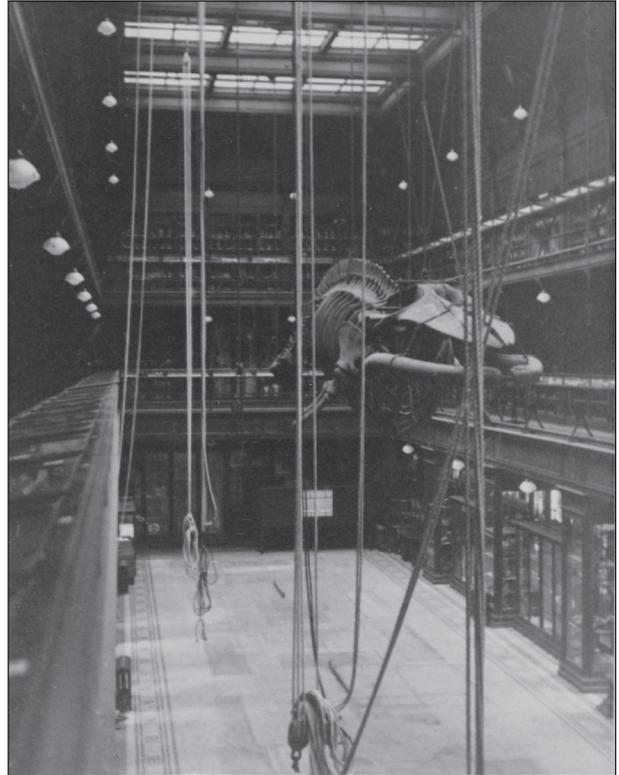
period is associated only with the modern form of the laboratory, whereas museums remained important sites for pathology into the 20th century. Comparative anatomy was not so privileged, however, and the Barclay collection was moved to a space in Hill Square smaller than its previous accommodation.<sup>16</sup> The museum remained popular overall, with several thousand visitors a year including students and researchers.

## TWENTIETH CENTURY

University and RCSEd collections alike continued to grow apace after the First World War, especially their morbid series as British pathology hit its stride. The University also housed an important collection of clinical preparations from the surgical wards under the charge of the Regius Professor of Clinical Surgery from the Royal Infirmary next door (with supporting records in the infirmary and drawings at the RCSEd).<sup>54</sup> Among these preparations was the personal collection of John Chiene, Professor of Surgery and RCSEd President.<sup>55</sup> Elsewhere in the country considerable resource was devoted to medical teaching museums, for example in the new anatomy block at St Bartholomew's Hospital in 1936.<sup>56</sup>

The University museum remained an important teaching tool, as well as evidence of the intellectual gravity of the institution more generally (Fig 5). Staff from across the faculty worked on the specimens, using them for research and contributing to cataloguing.<sup>53</sup> Researchers and students also used the Zoology Museum, which opened in the University's new King's Buildings in 1929.<sup>37</sup>

The Anatomy Museum influenced the undergraduate and formative career years of many who would go on



**FIGURE 6** Dismantling the Anatomy Museum in Teviot Place, 1950s. Image © University of Edinburgh Anatomical Collections.

to become the Great and the Good of British anatomy and pathology in later years, including Johnson Symington at Belfast, John Struthers at Aberdeen (later RCSEd President) and German Sims Woodhead at Cambridge. They all returned to Edinburgh to visit the collection, as did Arthur Keith, renowned conservator of the Hunterian Museum at the Royal College of Surgeons of England.<sup>57</sup>

However, by the time the Teviot Place collections featured in the University's 350th anniversary in 1933, there were some signs of neglect, with one visitor complaining of dusty, unkempt displays in the skull room.<sup>58</sup> After collections returned from safekeeping during the Second World War, the Anatomy Museum welcomed the Anatomical Society of Great Britain and Ireland for its annual meeting in 1947, but visitors were dwindling.<sup>59</sup> There is evidence of some use by local doctors and artists, but professors tended to deploy other resources for anatomy teaching. The collection was no longer central enough in the curriculum for the museum to justify such a massive space. The galleries were closed (Fig 6) and sliced horizontally into three spaces to expand the accommodation of the department. Technician Hugh Taylor packed up the collections. The closing line in the visitor book is from anatomy professor George Romanes in 1956: 'FINIS LIBRI ATQUE MUSEI GULIELLOMI TURNER', the end of Turner's museum.<sup>57</sup>



**FIGURE 7** The Anatomy Resource Centre on the top floor of Teviot Place, 2015. Image: the author; courtesy of University of Edinburgh Anatomical Collections.

Pathology fared rather better – in the short term at least. In 1960 the University moved the several thousand-strong pathology collection to the medical school's new building, an extension to Teviot Place that backed onto George Square. The new building had accommodation not only for the medical library but also for two museums, one undergraduate and one postgraduate. This demonstrates the importance placed in some quarters on pathology collections for teaching; elsewhere, the Royal College of Surgeons of England had included two new pathology museums in its post-war reconstructed building. In Edinburgh this was not to last for long; in 1971 the pathology museum spaces were re-purposed as laboratories and most of the specimens were stored. The collection was dispersed to UK medical schools and to the RCSEd in 2005.<sup>48</sup>

In the Anatomy Department, crania remained in the skull room and a selection of models and specimens – including material relating to Burke – were displayed on the top floor, but the bulk was stored in Teviot Place coal cellars. The collections, while still sizeable, were reduced by some accidental loss, and transfers to the Royal Scottish Museum in 1963 and 1979 of at least 350 items, including anthropology and zoology.<sup>60</sup> Successive anatomy technicians safeguarded the collections in the building, and offered the top floor museum and the large anatomical illustrations to complement cadaveric teaching. There are traces of the use of the museum during the later century, including publications relating to its history,<sup>7</sup> but there was little growth except for further deposits from Scottish archaeological digs.<sup>61</sup> A major exhibition at the Royal Scottish Museum celebrating the 250th anniversary of the Faculty of Medicine in 1976 used only two specimens from the Anatomy Museum.<sup>62</sup>

There was a renewed external interest in the anatomy material at the end of the 20th century for quite

different reasons. In 1947 the University had pioneered the repatriation of human remains when James Couper Brash (Chair of Anatomy 1931–54) agreed to the return of the remains of the Uva revolutionary leader Keppetipola to Ceylon (now Sri Lanka).<sup>61</sup> From the 1980s, other source communities began to request the return of ancestral remains from the University's and other British collections. After heated debate, the University implemented a pioneering pro-repatriation policy in 1990; remains were returned in the years that followed to Australia, New Zealand and Hawaii. These transfers are evidence of the changing meanings of the anatomical museum. Returning ancestral remains did not open floodgates and deplete the collections, as some have feared,<sup>63</sup> but rather established new relationships, establishing the University as a national leader in this activity, and provided a welcome driver for enhanced collections information.

By this time the Anatomy Museum was experiencing a quiet renaissance (Fig 7). Anatomist Gordon Findlater, technician Iain Campbell and their colleagues made greater use of the University's anatomy collection, bringing more specimens and models from the basement to the top floor 'resource centre' and displaying anatomical art throughout the building. Artists and historians began to explore the stores.<sup>64</sup> From 2008 around 2,000 students used the refreshed and redecorated resource centre each year.<sup>65</sup> By this time the collection, along with the other anatomy facilities, operated under the auspices of the Human Tissue Act (Scotland) 2006, and in 2011/12 staff also opened the museum to the general public on one Saturday per month. Responses were very positive: 'interesting'; 'fascinating'; 'informative' were common responses, and there is evidently an awareness of the privilege of access to a protected space. Many of the visitors were from overseas, especially the USA. As well as satisfying the curiosity of the general visitor, open days also served as a recruitment function: at least one visitor recorded, 'This has been a great day out which has inspired me to a career in medicine'.<sup>66</sup> On one such event over 2,000 visitors were recorded.

Many of those 2,000 would also have visited the vibrant museum at the RCSEd, which had had a different experience of the 20th century. Under David Middleton Greig, conservator 1920–1936, the RCSEd collection was an active site for research as he acquired not only specimens but also important X-rays and other images. After the Second World War the museum re-opened in 1947 under conservator James Hartley and was actively used in postgraduate education, especially for FRCSEd pathology examinations. Hartley oversaw the expansion into another Hill Square apartment for photography and laboratory work.<sup>17</sup> Postgraduate studies were the basis for formal collaboration between the two Royal Colleges and the University, and

eventually the University erected the Pfizer and Lister buildings on Hill Square for postgraduate teaching. Adjacent to the RCSEd, the buildings therefore had easy access to museum collections (especially for surgical pathology), but, tellingly, with no dedicated museum spaces: either because of the easy access to Surgeons' Hall, or because of the lack of value placed upon museum collections by this stage.

Unlike the University's Anatomy Museum, the RCSEd had loaned extensively to the 1976 Royal Scottish Museum exhibition; evidence of the increasing use of the museum more explicitly as heritage. Historical specimens and instruments reinforced the professional identity of Fellows and celebrated the history of Edinburgh medicine. After a bequest from Sir Jules Thorn, the RCSEd opened a history of surgery gallery in 1989; in 1964 the College had acquired instruments and paintings from the extensive collection of the dentist and historian John Menzies Campbell, which were displayed in the dental gallery from 1994. (Menzies Campbell's books, meanwhile, found a home in the library of the Royal College of Surgeons of England.) This shift from medical teaching and research to surgical heritage collection continued with the appointment of a professional curator rather than a surgeon in the new role of Director of Heritage.

In the early 21st century, Surgeons' Hall played a major role in medical heritage, for example leading the 'Scotland and Medicine' initiative, and by the 2010s was attracting 35,000 paying public visitors per annum.<sup>67</sup> Accessibility remained a challenge, however, because the galleries were spread across several buildings and floors. This spurred a successful fundraising campaign, the 'Lister Project' and the museums closed in 2014 to allow access to be improved. The surgical history exhibits have been re-displayed and a new anatomy theatre installed; the pathology collection remains in the Playfair Hall, subtly enhanced to provide more access, information and light.

## CONCLUSIONS

This, then, was the rich history of the material culture of anatomy and pathology in Edinburgh over the last 250 years. The two main medical collections, at the University and the RCSEd, were (and are) closely connected in provenance and personnel. The Monros' collective shadow looms large, but both collections had fitting successors in Turner, Cathcart and others. They were used by students and examinees extensively from the outset, and later by researchers, from pathologists to zoologists. Throughout the 20th century, the material culture of anatomy has played an increasingly important role in the heritage of the University and of the medical profession more generally. Latter-day Scottish medical

educators explicitly draw on the renown and credibility of their illustrious predecessors. Such celebrations of Edinburgh's medical heritage have been markedly successful in recent years, especially at the RCSEd.

In this, Edinburgh's collections developed in a pattern with elements in common with London and Dublin, which had strong Royal College museums; and in common with teaching centres like Glasgow and Manchester, the University also developed a large collection at the heart of the university built environment, which absorbed material from other teaching practices. But Edinburgh's geography is denser than other centres, and there was a marked lack of a significant 19th century hospital-based collection, no doubt because of the proximity of the Royal Infirmary of Edinburgh (next door to the Teviot Place buildings for over a century). The city's teaching was of particular renown, especially (but not exclusively) in the 18th century, and the collections of its educators contributed to that credibility.

The 'brand' of Edinburgh medicine remains strong, and if we can learn anything from their history it is that the collections have different uses for different generations, but continue to fascinate, educate and inspire. Collections can and should continue to play a role in celebrating what the city has brought to human and animal health.

## ACKNOWLEDGEMENTS

My thanks to Iain Macintyre, former Vice President of the Royal College of Surgeons of Edinburgh; Malcolm MacCallum, Monro Project Curator at the University of Edinburgh and Iain Milne, Head of Heritage and Sibbald Librarian at the Royal College of Physicians of Edinburgh; all errors are my own.

## REFERENCES

- 1 MacCallum M. New exhibition showcases unique items from the University's Anatomical Museum. 2015. <http://libraryblogs.is.ed.ac.uk/blog/category/exhibitions> (accessed 18 November 2015).
- 2 Larson F. *An Infinity of Things: How Sir Henry Wellcome Collected the World*. Oxford: Oxford University Press; 2009.
- 3 Hallam E. *Anatomy Museum. Death and the Body Displayed*. London: Reaktion; 2016.
- 4 Doyle D. Edinburgh doctors and their physic gardens. *J R Coll Physicians Edinb* 2008; 38: 361–7. [http://www.rcpe.ac.uk/journal/issue/journal\\_38\\_4/doyle.pdf](http://www.rcpe.ac.uk/journal/issue/journal_38_4/doyle.pdf)
- 5 Kaufman MH. Early History of the Royal College of Physicians of Edinburgh. *Res Medica* 2005; 268: 49–53. <http://dx.doi.org/10.2218/resmedica.v268i2.1029>
- 6 Hartley JNJ. The early history of the museum of the Royal College of Surgeons of Edinburgh. *Edinburgh Post-Graduate Lectures in Medicine* 1952; 5: 152–71.
- 7 Kaufman MH. *Medical Teaching in Edinburgh During the 18th and 19th centuries*. Edinburgh: Royal College of Surgeons of Edinburgh; 2003.
- 8 Underwood EA. *Boerhaave's Men at Leyden and After*. Edinburgh: Edinburgh University Press; 1977.
- 9 Emerson RL. The founding of the Edinburgh medical school. *J Hist Med Allied Sci* 2004; 59: 183–218. <https://muse.jhu.edu/article/54537>
- 10 Sibbald R. *Auctarium musaei Balfouriani, e musæo Sibbaldiano*. Edinburgh: Impressum per Academiae Typographum; 1697.
- 11 Craig WS. *History of the Royal College of Physicians of Edinburgh*. Oxford: Blackwell Scientific; 1976, 100.
- 12 Monro A. An essay on the method of preparing and preserving the parts of animal bodies for anatomical uses. *Medical Essays and Observations* 1737; 3: 107–32.
- 13 Lawrence C. Alexander Monro primus and the Edinburgh manner of anatomy. *Bull Hist Med* 1988; 62: 193–214.
- 14 Cunningham A. *The Anatomist Anatomis'd: An Experimental Discipline in Enlightenment Europe*. Farnham, Surrey: Ashgate; 2010.
- 15 Guerrini A. Alexander Monro primus and the moral theatre of anatomy. *The Eighteenth Century* 2006; 47: 1–18.
- 16 Macintyre I. *Chamber of Curiosities: A Short History and Guide to Surgeons' Hall Museums*. Edinburgh: Royal College of Surgeons of Edinburgh; 2015.
- 17 Tansey V, Mekie DEC. *The Museum of the Royal College of Surgeons of Edinburgh*. Edinburgh: The Royal College of Surgeons of Edinburgh; 1982.
- 18 Macintyre I, Munro A. The Monros – three medical dynasties with a common origin. *J R Coll Physicians Edinb* 2015; 45: 67–75. <http://dx.doi.org/10.4997/JRCPE.2015.116>
- 19 Wright-St. Clair RE. *Doctors Monro: A Medical Saga*. London: Wellcome Historical Medical Library; 1964.
- 20 Ambrose CT. The priority dispute over the function of the lymphatic system and Glisson's ghost (the 18th-century Hunter–Monro Feud). *Cell Immunol* 2007; 245: 7–15.
- 21 Fraser AG. *The Building of Old College: Adam, Playfair and the University of Edinburgh*. Edinburgh: Edinburgh University Press; 1989.
- 22 Horn DB. The anatomy classrooms in the present Old College, 1725–1880. *University of Edinburgh Journal* 1965; 22: 65–71.
- 23 Alexander Monro [Secundus], petition to the Town Council, Edinburgh Town Council Minutes, 4 July 1764, cited in Morrell JB. The Edinburgh Town Council and its University, 1717–1766. In: Anderson RGW, Simpson ADC, editors. *The Early Years of the Edinburgh Medical School*. Edinburgh: Royal Scottish Museum; 1976. p. 46–65, 63.
- 24 MacKenzie W. *Descriptive Catalogue of the Anatomical Museum of the University of Edinburgh*. Edinburgh: Whyte; 1829, i–ii.
- 25 Erlam HD. Alexander Monro, Primus. From an Account in Contemporary Manuscript. *University of Edinburgh Journal* 1954; 17: 77–105.
- 26 Royal Commission of Universities of Scotland. *Minutes of Evidence*. London: HMSO; 1837.
- 27 MacIntyre I. Alexander Monro, tertius (1773–1859). *J R Coll Physicians Edinb* 2013; 43: 282. <http://dx.doi.org/10.4997/JRCPE.2013.319>
- 28 Maulitz RC. *Morbid Appearances: The Anatomy of Pathology in the Early Nineteenth Century*. Cambridge: Cambridge University Press; 1987.
- 29 Alberti SJMM. *Morbid Curiosities: Medical Museums in Nineteenth-Century Britain*. Oxford: Oxford University Press; 2011.
- 30 Rosner L. *Medical Education in the Age of Improvement: Edinburgh Students and Apprentices, 1760–1826*. Edinburgh: Edinburgh University Press; 1991.
- 31 Kemp D, Barnes S. *Surgeons' Hall: A Museum Anthology*. Edinburgh: Royal College of Surgeons; 2009.
- 32 Kaufman MH. John Barclay (1758–1826) extra-mural teacher of anatomy in Edinburgh: Honorary Fellow of the Royal College of Surgeons of Edinburgh. *Surgeon* 2006; 4: 93–100. [http://dx.doi.org/10.1016/S1479-666X\(06\)80038-7](http://dx.doi.org/10.1016/S1479-666X(06)80038-7)
- 33 Struthers J. *Historical sketch of the Edinburgh Anatomy School*. Edinburgh: MacLachlan and Stewart; 1867.
- 34 MacGillivray W. Unidentified journal clipping, 21 November 1837, p. 22. Royal College of Surgeons of Edinburgh Archive.
- 35 Bates AV. 'Indecent and demoralising representations': public anatomy museums in mid-Victorian England. *Med Hist* 2008; 52: 1–22. <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2175054>
- 36 Gardner D. John Goodsir FRS (1814–1867): Pioneer of cytology and microbiology. *J Med Biogr* 2015. E-pub ahead of print 16 July. <http://dx.doi.org/10.1177/0967772015591716>
- 37 Begg MJ. *The Natural History Collections of the University of Edinburgh*. Edinburgh: Department of Zoology; 1988.
- 38 Swinney GN. *Towards a historical geography of a 'National' Museum: the Industrial Museum of Scotland, the Edinburgh Museum of Science and Art and the Royal Scottish Museum, 1854–1939*. PhD: University of Edinburgh; 2013. <https://www.era.lib.ed.ac.uk/handle/1842/8109>
- 39 Bower A. *A History of the University of Edinburgh*. Edinburgh: Edinburgh University Press; 1830, iii, 365–6.
- 40 Thomas Spencer Cobbold catalogue, 1846–1869, Edinburgh of University Archives IN1/ACU/A2/16/1.
- 41 *Returns Relating to Medical Museums in the United Kingdom*. London: House of Commons; 1857, 20.
- 42 Alberti SJMM. This post mortem palace: accommodating the Hunterian Museum. In: Berkowitz C, Lightman BV, editors. *Anglo-American Science Museums in Transition: Nineteenth-Century Cultures of Display*. Pittsburgh: University of Pittsburgh Press; forthcoming 2017.
- 43 Turner W. *The Marine Mammals in the Anatomical Museum of the University of Edinburgh*. London: Macmillan; 1912.
- 44 Burdett HC. *Hospitals and Asylums of the World: Their Origin, History, Construction, Administration, Management, and Legislation*. London: Churchill; 1893.
- 45 Keppie L. *William Hunter and the Hunterian Museum in Glasgow, 1807–2007*. Edinburgh: Edinburgh University Press; 2007.
- 46 Rowand Anderson, plans for the medical school, c. 1880, University of Edinburgh Archives RRA 1.6.
- 47 Turner W. The public museums in Edinburgh. *Museums Journal* 1901; 1(7–23), 14.
- 48 Gardner DL. A tale of two old and historical museums. In: Cooke RA, editor. *Scientific Medicine in the Twentieth Century*. Augusta, GA: United States and Canadian Academy of Pathology; 2006. p. 92–8.
- 49 Kaufman MH. *The Regius Chair of Military Surgery in the University of Edinburgh, 1806–55*. Amsterdam: Rodopi; 2003.
- 50 'Skull catalogue of the Anatomical Museum', 1940–1947, University of Edinburgh Archives IN1/ACU/A2/16/23.
- 51 Turner AL. *History of the University of Edinburgh 1883–1933*. Edinburgh: Oliver and Boyd; 1933; 106.

- 52 Cathcart CW, Shennan T. *Descriptive Catalogue of the Anatomical and Pathological Specimens in the Museum of the Royal College of Surgeons of Edinburgh*. 3 vols. Edinburgh:Thin; 1893–1903.
- 53 Turner W. *Catalogue of the Specimens in the Anatomical Museum of the University of Edinburgh*. Vol. I. *Pathology*. Edinburgh:Thin; 1909.
- 54 'Catalogue of Surgical Preparations', MS ledger, 1908–1919, University of Edinburgh Archives IN1/ACU/A2/16/14
- 55 'Catalogue of the Museum of the Surgical Department of the University of Edinburgh'. TS, loose leaf, 4 vols, 1884–1920, University of Edinburgh Archives IN1/ACU/A2/16/10–13.
- 56 Waddington K. *Medical Education at St. Bartholomew's Hospital, 1123–1995*. Woodbridge, Suffolk: Boydell; 2003.
- 57 University of Edinburgh Anatomy Department visitor book 1845–1956, University of Edinburgh Archives IN1/ACU/A2/17/14.
- 58 Severn JM. Edinburgh Museum of Casts and Skulls. *Phrenology* 1936; 34: 384–5.
- 59 Treasured bones. *Edinburgh Evening News*. 1 August 1942, p. 4.
- 60 Fforde C. *Collecting the Dead: Archaeology and the Reburial Issue*. London: Duckworth; 2004.
- 61 Henshall A, Mountain MJ. Long cist graves found on no. 3 golf course, Gullane, East Lothian. *Transactions of the East Lothian Antiquarian and Field Naturalists' Society*. 1972; 13: 1–2.
- 62 Anderson RGW, Simpson ADC. *Edinburgh and Medicine*. Edinburgh: Royal Scottish Museum; 1976.
- 63 Jenkins T. *Contesting Human Remains in Museum Collections: The Crisis of Cultural Authority*. New York: Routledge; 2011.
- 64 Richardson C, Borland C. Talking about a Christine Borland sculpture: effective empathy in contemporary anatomy art (and an emerging counterpart in medical training?). *Journal of Visual Art Practice* 2015; 14: 146–61. <http://dx.doi.org/10.1080/14702029.2015.1041743>
- 65 Anatomy Museum Student Visit Book February 2008–January 2011, University of Edinburgh Anatomy.
- 66 Anatomy Museum Student Visit Book January 2011–March 2013, University of Edinburgh Anatomy.
- 67 Patrizio A, Kemp D, editors. *Anatomy Acts: How We Come to Know Ourselves*. Edinburgh: Birlinn; 2006.