AN AUTOPSYC ART: DRAWINGS OF ‘DR GRANVILLE’S MUMMY’
IN THE ROYAL SOCIETY ARCHIVES

by

CHRISTINA RIGGS*

*School of Art, Media and American Studies, Sainsbury Centre 0.28, Norwich Research
Park, University of East Anglia, Norwich NR4 7TJ, UK*

In 1821 Augustus Bozzi Granville FRS unwrapped and dissected an ancient Egyptian mummy, presenting the results of his examination to the Royal Society in 1825. He commissioned artist Henry Perry to draw the process in stages; these drawings were subsequently engraved by James Basire for publication in *Philosophical Transactions*. This article presents the original drawings for the first time, allowing comparison with their engravings. Taken together with Granville’s accounts of the unwrapping of the mummy, the drawings demonstrate the significant role of illustration and other visual practices in anatomical argumentation in the early nineteenth century, as well as the prestige that commissioned illustrations lent to the performance and dissemination of scientific expertise. Moreover, the drawings include one of the key visual tropes of race science—a skull in left-facing profile, mapped with a facial angle—and thus indicate the early incorporation of Egyptian mummies into typologies of race.

Keywords: Augustus Bozzi Granville; Royal Society archives; Egyptian mummification; mummy unwrapping; scientific illustration; race science

INTRODUCTION

The physician and obstetrician Augustus Bozzi Granville (d. 1872; FRS 1817) led such an eventful life that the act for which he is perhaps best remembered today—unwrapping the mummy of an ancient Egyptian woman in 1821—earned fewer than five pages in his two-volume autobiography.¹ He was neither the first nor the last Fellow of the Royal Society to examine an Egyptian mummy and read a paper about his findings at one of the Society’s meetings, subsequently published in *Philosophical Transactions*. But Granville’s investigation, and the manner in which he presented and published his research, is noteworthy for the prominence given to the illustrative plates and for the fact that he commissioned an artist throughout the weeks-long unwrapping, which took the form of an early *conversazione*-style gathering in his London home. The artist was Henry Perry, who had a modestly successful career as a painter and print publisher and whose original

*c.riggs@uea.ac.uk

pencil drawings, one with added colour, survive in the archives of the Royal Society. Engraved by the leading firm of James Basire, Perry's drawings are a significant example of scientific illustration at this period not only because they concern what was still a rare anatomical subject—an Egyptian mummy—but also because they document stages of the unwrapping and dissection, through which an object of antiquarian interest became an object of anatomical interest, complete with discussion of race and disease. In this article I discuss the six Perry drawings and their incorporation into Granville's *Philosophical Transactions* text. In their transformation from hand-drawn artworks to published plates, the illustrations underwent few substantial changes, yet their labour-intensive, transmedial creation is indicative of the value accorded to them not only as evidence but also, I argue, as marks of prestige both for Granville and for his anatomical undertaking.

Visual practices were central to the production and dissemination of scientific knowledge, and as recent and ongoing research demonstrates, the archives of the Royal Society provide a rich resource in this area.² Alongside pictorial illustration, we should count among these visual practices the preparation of slides and specimens, model-making, and diagrammatic illustration, including the tabular presentation of data. In addition to being published in *Philosophical Transactions*, visual evidence was part of the performance of scientific communication at meetings of the Society. Viewing and inspecting (the word Granville used) such evidence would, it was hoped, allow members of the Society to affirm the conclusions that the speaker had drawn, and just as importantly to discuss and debate the evidence among themselves, creating a shared body of knowledge and reinforcing collective standards of evidence and argument. Granville read his paper to the Society in its Somerset House rooms at consecutive weekly meetings, starting on Thursday, 14 April 1825 and concluding on 28 April. Throughout the paper he refers to the drawings, as I discuss further below, in addition to several anatomical preparations that were 'exhibited after the meeting, to the Fellows and Visitors present, on three successive Thursdays'.³ These included his own preparations from the mummy (all dry: muscles, organs and the pelvis, thigh bones and vertebrae); a skeletal specimen comprising 'the most perfect pelvis of a well grown Negro girl, which I prepared some years ago'; a mummified head and arm said to be from Tripoli, given to him in the course of the mummy unwrapping by Sir Robert Wilmot-Horton MP, Undersecretary of State for War and the Colonies; and four 'imitative mummies', representing Granville's own experiments in embalming, using a stillborn foetus.⁴ Thus the exhibition accompanying Granville's paper also displayed his social connections and his facility as a medical practitioner, preparator and experimenter. As Samuel Alberti and Simon Chaplin have discussed, eighteenth-century and early nineteenth-century anatomy thrived on the creation and collecting of such specimens, which might be purchased or exchanged as well as used for demonstrations, teaching or display.⁵ The dissected dead lent authority to the living.

In his published text, Granville does not specify whether Perry's drawings formed part of the display accompanying his presentation; by the time the *Philosophical Transactions* paper was printed, the drawings had been engraved and readers were referred to the relevant plates instead. The minutes of the Society's Journal Book do not mention the display at all, but given the emphasis that Granville places on the accuracy of the drawings, and of the artist who produced them, it seems likely that they were indeed available for consultation at the meeting.⁶ The drawings that Perry made of the coffin lid (figure 1a), the wrapped mummy (figure 2a) and the mummy before dissection (figure 3a) stood *in absentia* for what no longer existed or, in the case of the lid, had proved too unwieldy to transport to Somerset

Figure 1. Egyptian coffin, wrapped mummy and inscribed linen bandage. (a) Drawing by Henry Perry, Royal Society archives, PT/73/1825/248. Copyright © The Royal Society, London. (Online version in colour.) (b) Printed plate based on the same drawing, engraved by James Basire. *Phil. Trans. R. Soc. Lond.* **115** (1825), pl. XVIII.

Figure 3. Drawing of the pelvis of an Egyptian mummy, after dissection. (a) Drawing by Henry Perry. Royal Society archives, PT/73/1825/250. Copyright © The Royal Society, London. (Online version in colour.) (b) Printed plate based on the same drawing, engraved by James Basire. *Phil. Trans. R. Soc. Lond.* 115 (1825), pl. XX.

House. The Perry drawings are scientific in the broadest sense of the word, in that they incorporate what Victorian science would eventually distinguish as ‘cultural’ and ‘natural’ objects of study—for the former, the decorated wooden coffin case and linen mummy wrappings, and for the latter, the embalmed body itself. Egyptian mummies often cross over or fall between these two classifications, and had done since the days of early modern collectors.⁷

Granville and his contemporaries would not have deployed the word ‘autopsy’ to characterize his act of unwrapping and dissecting an Egyptian mummy, although this is the term invariably attached to mummy investigations of the later nineteenth and twentieth centuries and even in the present day, when scanning techniques dominate the field. Yet the drawings that Granville commissioned from Henry Perry are autopsic in the sense of the term as it came into wider use in the 1810s and 1820s: ‘the action or process of seeing with one’s own eyes’, especially in the post-mortem examination of a body.⁸ The importance of seeing—and recording—a phenomenon for oneself can be traced to antiquity, but the relationship between observation, experiment and the techniques they required is culturally and historically specific. Lorraine Daston and Elizabeth Lunbeck point out that in European science during the late eighteenth and early nineteenth centuries, observation and experimentation operated as partners: observation discovered, described and delineated a phenomenon, which experiment hypothesized, tested and proved or disproved. From the 1820s onwards, however, experiment began to be assigned greater weight, because it was considered more neutral and controllable than observation. Observing left too much to the individual eye, which might be tainted by preconceived theories and ideas.⁹ Granville expresses no such concern. Although he conducted experiments in embalming, they are not the focus of his Royal Society paper. As a medical practitioner, he may have felt he could speak with greater authority about the results of the mummy dissection; moreover, the nature of the embalming experiments meant that only time would tell how successful they had been. In presenting instead his observations of the Egyptian mummy, from its unwrapping to its pathological anatomy, Granville relied on the autopsic art of illustration.

The format and content of the drawings that Perry made, and the manner in which Granville referred his audience to them, emphasize directed looking and the importance of examining scientific evidence for oneself. Art in the service of science presented twin paradoxes, however. First, drawing was in many ways a highly individual technique of observation and recording, but the circulation of finished illustrations, both in person and through their published reproductions, helped make visualization a collective endeavour.¹⁰ ‘Seeing with one’s own eyes’ was possible only through the efforts and collaboration of many people, from the colleagues and students who attended the unwrapping and dissection, to the artist and engraver who produced the images, to the audience members and journal readers who consumed the results. Second, the conclusion that viewers were meant to draw from seeing the images for themselves was foretold by the accuracy—as Granville repeatedly assures us—of the drawings. Created to illustrate one argument, visualizations tended to deny any other; evidence was in fact proof. Here we sense the tensions between observation and experimentation that, within a generation, would elevate the latter as more reliable and rigorous. Drawing would retain, or rather reconfigure, its value as a recording and communication technology (one of Latour’s immutable mobiles) even after the advent of methods such as photography, but experiment would stand out as the scientific method *par excellence*.¹¹

The Egyptian mummy presented paradoxes, too. It was lifelike, but dead; ancient, but still a novelty to science; and, in the parlance of the nascent study of race, it was both Ethiopian and

Caucasian, depending on whose account one read. All of these informed Granville's approach as he set out to examine 'a most complete specimen of the Egyptian art of embalming'.¹² As this paper discusses, visual practices including illustration, specimen preparation and display were integral to each stage of this examination, from its inception in Granville's dining room to its dissemination at the Royal Society and in the pages of *Philosophical Transactions*. These practices have also left lasting traces, comprising the drawings retained in the Society's archives and what remains of the mummy, which Granville later in life donated to the British Museum—an act that in itself, as we shall see, speaks to the cultural significance and curiosity value of the Egyptian mummy in nineteenth-century England, and to Granville's own valuation of his foray into the art of embalming.

DR GRANVILLE'S GRATEFUL PATIENT

A summary of Augustus Bozzi Granville's career helps contextualize his work on Egyptian mummification; he led a fascinating life, captured in the lively tones of his autobiography. Born in Milan in 1783, his parents were Italian, but his mother was the granddaughter of an English expatriate whose family name—Granville—was adopted by a young Augustus Bozzi as his mother's dying wish. Granville became involved in republican politics while a medical student in Pavia, and after graduation (and a short prison term) he set out to travel around the Mediterranean, befriending the diplomat and antiquarian William Hamilton. Granville found employment first as a physician to the Ottoman Turkish navy, next in Spain, and finally in the British navy. After marrying an Englishwoman and moving to London, he undertook further medical training, specializing in obstetrics and childhood disease. He set up a practice in Savile Row, which proved a success, and was active in the Royal Society, the British Medical Association and the Royal Institution. Throughout his life he continued to support Italian concerns—he claimed to have helped the sculptor Antonio Canova negotiate the return of artworks looted by Napoleon—and travelled widely through mainland Europe, including an extended stay in St Petersburg and regular visits to German spa towns. In later life, after the death of his wife, he moved his practice to Bad Kissingen. As his entry in the *Oxford dictionary of national biography* points out, Granville 'would perhaps have attained even greater fame if he had focused his considerable energies more narrowly'.¹³ His prolific published output included numerous and varied articles in medicine, pamphlets on sewage and sanitation, an account of his Russian journey, and multi-volume works on the spa towns of Britain and Germany. For Granville, unlike fellow physician Thomas 'Mummy' Pettigrew (who staged public mummy 'unrollings' in the 1830s and 1840s), unwrapping a mummy was a unique event; he had too many other interests to make a sideline of it.¹⁴

It was through his medical practice in London that Granville acquired the mummy and its case, via his patient Sir Archibald Edmonstone. Granville's essay in the 1825 *Philosophical Transactions* and his autobiography give two slightly different accounts of how Edmonstone came to donate the mummy to Granville, and how he himself had purchased it. Only in the autobiography, written in the 1860s, does Granville indicate that Edmonstone had been his patient, having returned in poor health from taxing travels in Egypt, including a journey to the western desert oases in 1819. Doctor and patient converse about Alexandria, where (Granville writes) Edmonstone had purchased a mummy that he kept in his Wimpole Street residence. Granville called on Edmonstone to see the mummy and suggested

investigating it under its ‘covering’, to which Edmonstone agreed on condition that he could keep the coffin afterwards. It is unclear in this version whether Granville is conflating the coffin (‘case’) and the wrapped body inside it when he uses the word mummy, because the next passage sees the entire coffin brought to Granville’s practice—and home—at 8 Savile Row, to be opened; ‘covering’ likewise may refer either to the coffin in which the body lay or to the cloth wrappings around the body.¹⁵ In *Philosophical Transactions*, Granville does not reveal the nature of his relationship with Edmonstone, nor the specifics through which ‘the mummy came into my possession’.¹⁶ He does, however, give a more convincing account of when and where Edmonstone purchased the coffin and its contents for about 4 dollars: on 24 March 1819 at Gurna, the village located among the cemeteries on the west bank of the Nile opposite Luxor, known as ancient Thebes.¹⁷ This provenance accords with the coffin’s style and inscriptions, which identify it as a Theban burial for a woman named Irtyersenu, dating to *ca.* 600 BC.¹⁸

Once the case was in his home—specifically, in his dining room—Granville wasted no time in making a start, inviting ‘scientific and other friends’, including Edmonstone, to gather at 1 p.m. for the opening of the wooden coffin, whose remarkable state of painted preservation Granville took to be a sign that it had originally been protected by an outer coffin as well (see figure 1a, b). Lifting out the cloth-wrapped body and placing it on a table, Granville and his guests first undertook a surface examination of the carefully wound cloth bandages that encircled the mummy and crossed three times over its front; the face was covered by a resin-soaked wad of cloth. In his autobiography, Granville recalled that the renowned traveller and early Egyptologist John Gardner Wilkinson was present and was able to read the inscription (‘hieroglyphs’) inked on the wrappings across the mummy’s chest (shown at the bottom of figure 1a, b).¹⁹ This is wishful remembering, however: Granville’s unwrapping took place in the autumn of 1821, a year before Jean-François Champollion presented his decipherment of Egyptian hieroglyphs to the French academy—and coeval with Gardner Wilkinson’s arrival in Egypt, where he would stay for 12 years. The inscription on the mummy bandages (see figure 1a, b) is in fact in hieratic Egyptian script, and in the 1825 *Philosophical Transactions* paper Granville ventured no translation of it, nor of the hieroglyphic texts on the coffin.

Although Gardner Wilkinson was not present, several of Granville’s friends and colleagues did attend, indicating the network of acquaintances on which he could draw, as well as the interest that the investigation of a mummy could generate. Granville emphasized that he felt it his ‘duty to afford to every individual interested in science, of witnessing the demonstrations of mummy’.²⁰ Although the actual unwrapping—that is, unwinding and cutting away the cloth from the corpse—took place in one day, lasting ‘upwards of an hour’, the subsequent examination and dissection of the body occurred over several weeks in November and December 1821.²¹ Dissecting the pelvis, for instance, required two hours a day for nearly a week, during which Granville notes that someone was always with him. Friends, students and colleagues were welcomed at these demonstrations in Granville’s home, where one imagines a convivial atmosphere accompanied the scientific undertaking; if the work extended into the late autumn afternoons, candlelight was essential, too. Perhaps the most distinguished guest to attend was the anatomist and royal physician Dr William Baillie (d. 1823; FRS 1790), whom Granville credited with identifying the mummy’s gall bladder.²² One of Granville’s students took notes of the proceedings, but Granville does not state whether the artist, Henry Perry, attended the examinations or undertook his own work separately; perhaps a

mix of both was true. Perry's drawings bear dates between November 1821 and March 1822 and would have required good natural light and a certain amount of time for him to execute them. They also required input from Granville and others, to ensure that they incorporated the details that were crucial to the medical and historical analysis of the mummy.

The examination and interpretation of Granville's mummy was thus a collaborative effort, not to mention a multi-sensory one. In his physical examination of the unwrapped body, Granville lifted the breasts to judge their weight and size and passed his hands over the surface of the skin, noting the short stubble of hair on the shaved skull and pubis. He observed the bandaging, 'skilfully arranged, and applied with a neatness and precision, that would baffle even the imitative power of the most adroit surgeon of the present day'.²³ No aspect of the mummy was overlooked, and in presenting his work to the Royal Society, Granville discussed the history of studies on Egyptian mummification and the present state of knowledge in the field, which had recently been furthered by the French military and scientific expedition to Egypt. Fellows of the Society had contributed 'but little' to the subject in the past, Granville observed: first through the 1763 investigation John Hadley (d. 1764; FRS 1758) conducted of a mummy from the Society's own collection, and second with the Foreign Member Johann Blumenbach's 1794 report on several unwrappings he had undertaken during a stay in England.²⁴

Blumenbach had devised the fivefold division of humankind into Caucasoid, Mongolian, Ethiopian, American and Malayan races, based on his extensive studies of skull shapes and skin colour. In his estimation, Egyptian mummies best fitted the Ethiopian type, whereas the Egyptians represented in many of their own works of art resembled the 'Hindoo cast', a Caucasian variety. In some artworks, though, the Egyptians fell between these two, 'which must have been owing to the modifications produced by local circumstances in a foreign climate'.²⁵ Comparing actual human bodies with the bodies represented in man-made monuments was an accepted practice, deployed since the seventeenth century in anatomical atlases that used Classical statues as the basis for their illustrations.²⁶ The Dutch anatomist Petrus Camper (d. 1789), a generation older than Blumenbach, furthered comparative anatomy through direct comparisons between human skulls and the heads of renowned statues such as the Apollo Belvedere, which the influential *Geschichte der Kunst des Altertums* (1764), by Johann Joachim Winckelmann (d. 1768), had helped canonize.²⁷ By unwrapping mummies, Blumenbach sought examples to refine his observations about the race of the ancient Egyptians, expecting to find skeletal material to compare with ancient art. Because several of the mummies he opened in London contained no human remains (they were later forgeries), Blumenbach had less to discuss than he might have hoped, but he used the opportunity to discuss different techniques of Egyptian mummification, as well as race.

For his own research on Egyptian mummification, Granville not only read Hadley and Blumenbach but also gathered personal recollections from Baillie and from fellow anatomist Sir Everard Home (d. 1832; FRS 1787), both of whom had studied with John Hunter (d. 1793; FRS 1767) and observed a mummy unwrapping he conducted. Home—who presided as Vice-President at the 28 April meeting at which Granville finished reading his paper—had himself begun to dissect a mummy donated to the Royal College of Surgeons many years earlier, but 'cannot tax his memory as to the precise parts discovered, the dissection not having been completed, in consequence of the remains of the mummy being destroyed in some of the souterrains of the College, from the effect of dampness in a newly erected building'.²⁸ In addition, Granville knew of two other

mummies acquired by friends who had travelled to Egypt, and of a recent mummy dissection performed in Bristol; a similar investigation had been conducted in Leeds in 1823 but was published only in 1828.²⁹ If early nineteenth-century Britain seemed to be awash with the embalmed bodies of ancient Egyptians, it was a sign of the times. The end of the Napoleonic wars opened Egypt to Western European travel, diplomacy and commerce (a creeping colonization), and mummies offered prized opportunities for anatomical work, before the 1832 Anatomy Act came into force—and the more so because Egypt, poised between Africa and Europe, occupied an unstable position in the Western imagination. In the scientific study of race, for which Blumenbach's work was crucial, where to slot the ancient Egyptians had become a point of contention—and would be one of the key concerns that informed Granville's study and the drawings he commissioned to accompany it.

THE HENRY PERRY DRAWINGS

Although Granville does not name Perry in his essay for *Philosophical Transactions*, the artist's name was there for all to see at the bottom left of each plate: 'Henry Perry del.t', for *delineavit*, 'drawn by'. The bottom right of each plate bears the engraver's signature, 'J[ame]s Basire sculp.t', for *sculpsit*, 'engraved by'. Basire (d. 1869) was the fourth generation of the Basire printmaking family. His great-grandfather Isaac and his grandfather and father, both also James, were appointed engravers to the Royal Society, for whom the youngest James continued to produce work.³⁰

Much less is known about Perry, a painter who exhibited at the annual Royal Academy of Arts exhibitions for several years between 1810 and 1825; his subjects were portraits and landscapes. During this period, Perry occupied addresses in Marylebone and Mayfair, settling in the 1820s at 7 Hanover Square.³¹ He is better documented as a print publisher, which could be a lucrative, or at least reliable, business. The British Museum holds three etchings and one lithograph published by Perry, including a print engraved by John Perry—perhaps the subject of Henry Perry's 1819 portrait, 'Mr. J. Perry, artist'—and an etching based on Perry's own drawing of the Soho Bazaar in Soho Square. This respectable shopping arcade included a gallery where Perry sold his prints, as the caption on another Perry print in the British Museum attests, likewise an 1827 lithograph in the Royal Collection.³² How Granville knew Perry is not known; perhaps Granville had purchased a painting or prints from him. Perry had no known association with the Royal Society, nor does he seem to be documented elsewhere as a scientific illustrator.

The six Perry drawings in the archives of the Royal Society correspond to the six Basire-engraved plates in Granville's *Philosophical Transactions* essay. Their measurements correspond closely to the size of the finished plates, meaning that Basire did not have to scale up or down much when engraving them, although he did mirror-engrave each plate so that the impressions taken bore the same orientation as Perry's drawing; this was standard practice. Each drawing is on cream-coloured wove paper with the image field defined by a double ruled line, as on the engraved plates; there are no drawings, notations or signs of tracing on the reverse of the sheets. The paper used for the individual drawings has been cut down from a larger sheet, in each case along the resulting long edges. One sheet (B; figure 2a) bears the watermark of the paper manufacturer James Whatman, whose family firm was a leading paper supplier for the fine arts in eighteenth-century and early

nineteenth-century Britain as well as on mainland Europe.³³ The drawings are in pencil, with two different ink colours, in two different hands, used to add some headings and to delineate lines and measurements, as specified in the individual descriptions below. Only one drawing (A, figure 1a) uses ink on the pictorial representation itself. This drawing also employs a delicate wash of pigment over each image and picks out details of the coffin lid in red, blue and green watercolour.

Further details for each drawing are provided below, along with a comparison with the published plate. For convenience, each drawing is assigned a letter (A, B, C, etc.), which will be used to refer to it from this point onwards, distinct from the various numerical designations that have been associated with the drawings during their creation, publication and archiving.

A. PT/73/1825/248 (figure 1a; engraved as Plate XVIII: figure 1b). Coffin lid, wrapped mummy (front view), and hieratic inscription. Paper: 22.1 cm×32.3 cm. Image field: 17.8 cm×23.3 cm. In the upper margin, the pencilled script 'Drawing no. 1' has been erased, likewise something at the upper right border, where the journal name, year and plate were subsequently pencilled in. At the lower left border the words 'Drawn by Henry Perry, March 1822' were replaced on the plate by 'Drawn by Henry Perry, 7 Hanover Street, Hanover Square', offering Perry credit while advertising his contact address. The ink designations a, b, and c for each of the three representations on the plate—respectively the lid, mummy, and inscription—have been crossed out in pencil and replaced with figure numbers, in keeping with the house style of *Philosophical Transactions*. Pencilled rule lines also indicate the height and width of the lid; these are probably in Perry's hand. An ecru-toned wash of pigment, applied over the pencil and ink, darkens the surface of each figure and provides the ground for the red, blue and green paint on the drawing of the coffin lid, where both line and shade are finely executed.

B. PT/73/1825/249 (figure 2a; engraved as Plate XIX: figure 2b). Unwrapped mummy, front view. Paper: 21.6 cm×33.5 cm; hole in the top centre, as if from a drawing pin. Watermark oriented to righthand edge, 'J Whatman 1820' (not visible in the figure). Image field: 17.3 cm×24.6 cm. In the upper margin, the pencilled script 'Drawing no. 2' has been erased, likewise the text to be engraved at the top right border, where the journal, year and plate have later been added in ink script. At the lower left border, Perry's neat lettering states 'Drawn by Henry Perry Nov[embe]r 1821', the date being crossed out and the Hanover Square address pencilled to the side; the engraved plate (figure 2b) reduces this to the formula 'Henry Perry del.t'. The 5-foot scale at the right side of the drawing is in pencil, and brown ink delineates the measuring lines and descriptors to the left of the body, bracketing the head, torso and upper and lower legs. Further measures in the bottom left corner indicate the length of the arm, forearm, foot and hand. The number forms differ from those in the pencilled scale line, indicating a second hand, perhaps Granville's. All the measurements and lines appear in the engraved plate.

C. PT/73/1825/250 (figure 3a; engraved as Plate XX: figure 3b). Lumbar vertebrae, pelvis and upper femur bones, front view. Paper: 21.6 cm×31.5 cm. Image field: 18.1 cm×23.5 cm. In the upper margin, the pencilled script 'Drawing no. 3 Plate XX' has been crossed out. At the upper right border, the journal name, volume and plate number are pencilled as engraved (and as on drawing A). At the lower left border, 'Drawn by Henry Perry Dec[embe]r 1821' is struck through and emended to give the engraved wording 'Henry Perry del.t'. At the lower right border, the same hand has also pencilled in 'J.s Basire sculp.t', as on the finished plate (figure 3b). Ink lines and measurements

indicate key dimensions of the pelvis, in the same hand as the ink measuring lines on drawing **B**. The drawing is produced at exact size on the engraved plate, although the image field itself, defined by the double lines, is narrower there.

D. PT/73/1825/251 ([figure 4a](#); engraved as Plate XXI: [figure 4b](#)). Head of the mummy, left profile. Paper: 22.5 cm × 33.6 cm. Image field: 19.3 cm × 23.9 cm. This is the only drawing for which the paper is rotated to a landscape orientation, suiting the subject. Perry's own credit line, with the November 1821 date, appears at the lower left border in this orientation, and the pencilled script 'Drawing no. 4' in the upper margin. Something originally written beneath the drawing has been rubbed out, and the traces are illegible. To match the orientation of the printed plate, the journal, volume and plate designation appear at the 'upper' short-ended border, and pencilled script credits for Perry and Basire at the 'lower' of the short ends. The drawing and a scale in inches, below the head, are in pencil, with signs of light erasing around the lips and crown. Brown ink has been used to draw a square around the head; the ink is the same as that on drawing **B**. Lines and an arc (presumably created with a protractor) pass through the square to indicate 'Facial angle=80°'. All appear in the engraved plate.

E. PT/73/1825/252 ([figure 5a](#); engraved as Plate XXII: [figure 5b](#)). Inner organs, including the uterus and spleen. Paper: 20.7 cm × 33.3 cm. Image field: 18.3 cm × 23.2 cm. In black ink 'Drawing no. 6' appears in the upper margin but is scratched out in pencil and 'plate XXII' written to the left. In a different hand, and in brown ink, 'plate 3[r]d' is written at the top right, also crossed through in pencil. At the upper right border, black ink script with the journal name, year and plate number appears, as on drawing **B**. Also crossed out are the letters a, b and c next to each image within the plate border, replaced by figure numbers. Neat lettering along the lower border reads 'Drawn by Henry Perry, Jan[ua]ry 1822. Shepherds Bush near Hammersmith', perhaps indicating premises that Perry occupied before his move to Hanover Square; the address does not correspond to any listed in Royal Academy exhibition records. In the lower margin of the paper, four lines of pencil script have been so thoroughly erased that the paper is torn. These may have contained designations for the three figures, about which Granville is otherwise not very specific in his text. 'Fig 1' is the uterus, which Granville discusses at length, 'fig. 2' seems to represent the 'flattened' spleen, and 'fig 3' may be another organ or part of the peritoneal membrane. On the engraved plate ([figure 5b](#)), the representations are the same size as on the drawing, but the double-ruled line around the image field has been narrowed by about 1.5 cm, with the result that parts of the upper two images break through the border.

F. PT/73/1825/253 ([figure 6a](#); engraved as Plate XXIII: [figure 6b](#)). Heart and lungs, and pericardium and diaphragm. Paper size: 20.5 cm × 32.8 cm. Image field: 18.5 cm × 22.3 cm. Crossed through in pencil, the black ink designation 'Drawing no. 5' appears in the upper margin, and a mixed pencil and brown ink 'plate XXI' above and to the right. As on drawings **B** and **E**, respectively for plates XIX and XXII, black ink script at the upper right border gives the correct plate number, following the journal and year. The date February 1822 is neatly lettered outside the lower border, stating Perry's name and giving the Shepherds Bush locale named in the previous drawing (see [figure 5a](#)). Like that drawing, this one has also had pencil text erased in the lower margin and the image field in the engraving made narrower, so that the lower image interrupts the double-ruled border. Pencil corrections on the drawing have crossed out the artist's a and b designations, replacing them with figure numbers. Letter c was maintained at either side

Figure 5. Drawing of inner organs from an Egyptian mummy, including the uterus and spleen. (a) Drawing by Henry Perry. Royal Society archives, PT/73/1825/252. Copyright © The Royal Society, London. (Online version in colour.) (b) Printed plate based on the same drawing, engraved by James Basire. *Phil. Trans. R. Soc. Lond.* 115 (1825), pl. XXII.

Figure 6. Drawing of the heart and lungs (top) and pericardium and diaphragm (bottom) from an Egyptian mummy. (a) Drawing by Henry Perry. Royal Society archives, PT/73/1825/253. Copyright © The Royal Society, London. (Online version in colour.) (b) Printed plate based on the same drawing, engraved by James Basire. *Phil. Trans. R. Soc. Lond.* 115 (1825), pl. XXIII.

of the image, and is reproduced in the plate (see figure 6*b*); judging from Granville's text, *b* and *c* may have been intended to distinguish the pericardium from the diaphragm, to which it remained attached.³⁴

Henry Perry's drawings, and the subsequent emendations or notations made on them, offer several insights into their creation and the process of preparing them for publication. First, the dates on the drawings indicate the progress of the unwrapping and the length of Perry's involvement: the two drawings of the unwrapped, but not yet dissected, mummy (**B** and **D**) date to November 1821, and the drawing of the dissected pelvis, sawn off through the femurs (**C**), to December 1821. Drawings of the inner organs (**E** and **F**) date respectively to January and February 1822 in the new year. Like the pelvis, the organs were anatomical preparations that Perry could in theory draw at any point; hence these drawings provide a *terminus post quem* for the dissection, whereas the drawings of the intact mummy and its head can only have been made prior to it. The last dated drawing, from March 1822 (**A**), represents the mummy before any unwrapping took place, which means that Perry must have worked up this final image, including his exquisite rendering of the coffin lid, from sketches made on the first day.

The need for an artist to attend at short notice, and then at repeat intervals, may be one reason that Granville did not call on the services of Franz Bauer (d. 1840; FRS 1821), the Kew-based botanist and accomplished illustrator responsible for several Royal Society illustrations at this period, especially for Sir Everard Home. Granville's previous publication in *Philosophical Transactions*—on a human foetal dissection, for the 1820 volume—had two accompanying plates drawn by Bauer, whose artistic contribution, Granville wrote, helped make his paper 'deserving of th[e] honour' of appearing in the journal.³⁵ At the outset of his investigation of the mummy, however, Granville did not necessarily anticipate publication, although he clearly had some visual documentation of his efforts in mind. Another reason for calling on the skill of an artist such as Perry might have been the antiquarian interest of the coffin lid and mummy wrappings. These required a subtly different approach to illustration, for which an artist such as Perry was perhaps thought better suited—although, in fact, anatomical and other genres of scientific illustration shared many characteristics in the late eighteenth and early nineteenth centuries, with an emphasis on isolating objects against a blank, 'neutral' background; capturing surface detail; and incorporating text, indicator marks or a scale discreetly, where these were deemed necessary. Ideally, depth and contour were depicted on the object itself. In Perry's drawings, only the coffin lid and inscribed bandage cast shadows (figure 1*a, b*), likewise the curled edges of the paper supporting the diaphragm; the membrane itself does not (figure 6*a, b*).

Over the course of the eighteenth century, the revelation of knowledge in what would become the natural and biological sciences operated within a wider cultural discourse of unimpeded sight. To see was to know; hence anatomists and their illustrators were actively concerned with how best to represent anatomical observations through the act of drawing in such a way that visual acuity matched illustrative accuracy, using 'four-eyed sight' to create what amounted to a jointly authored image.³⁶ The calibre of scientific observation, measurement and argument was inseparable from its means of representation. This is evident in the way in which Granville refers to the plates throughout his discussion of the mummy, at times suggesting that the images are better than verbal description. For instance, he refers readers to specific figures on Plate XVIII for the 'curious inscription', the arrangement of the bandages and the appearance of the coffin lid, which can be 'better understood' through the image than through his description.³⁷

The literal mark made by the artist on paper becomes ‘marked’ in the sense of ‘evident’, when Granville repeatedly identifies his observations as being visible on the plates.³⁸ Accuracy is the most crucial assertion that Granville makes: Plate XIX has the measurements of the mummified body ‘accurately marked’, Plate XXI represents the head ‘with scrupulous accuracy’, and Plate XXII is an ‘accurate delineation’ of the organs.³⁹ Although not named, Perry himself receives credit for achieving this veracity, when Granville specifies of the pelvis that ‘I likewise carefully dissected [it], and caused [it] to be represented by the same accurate artist in Plate XX’.⁴⁰

Perry’s illustrations were given due prominence in the eventual publication. In *Philosophical Transactions* in 1825, 17 (of 24) articles had accompanying plates, but most required just one or two plates, often with multiple figures. Only three articles—two on anatomy (by Home) and one on crystal structures—used three plates; thus Granville’s article used twice as many plates as any other. Comparison with other issues of *Philosophical Transactions* in the late 1810s and 1820s confirms that six was an unusual number of plates for any one essay, although papers concerning human or animal anatomy did tend to use a higher number of plates and to position a single, large figure on each plate—especially where the subject offered exotic as well as artistic interest. For example, an 1821 article by Home on mammal skeletons from Sumatra deployed five plates in total, four drawn by Hunterian Museum curator (and Home’s brother-in-law) William Clift and one by Robert Hills, a well-established watercolourist specializing in animal paintings.⁴¹ There was thus a precedent for publishing such a richly illustrated paper in *Philosophical Transactions*, as well as employing a fine artist for the purpose, as Home—whom Granville knew and admired—had done with Hills.

An artist’s work may have been complete when he submitted the final drawing, but the drawing itself could undergo further changes, as observed in the descriptions of the Perry drawings above. In preparation for engraving, the wording of Perry’s signature line was changed, the internal letter designations were replaced with figure numbers, and the journal name, date or volume, and plate number were added, either in tidy lettering (**A**, **C** and **D**; figures 1a, 3a and 4a) or handwritten in black ink. Notations in the upper margins of **E** and **F**—the drawings of the internal organs (figures 5a and 6a)—suggest that the drawing of the heart and lungs was originally planned to precede the drawing of the uterus and spleen; the reversed order may have been due to changes in the text, or perhaps to confusion about what each drawing represented, especially if the erasures at the bottom of each had been the key to identifying them to a non-expert. Someone other than Perry also added further measurement notations, lines and a facial angle calculation to the drawings of the unwrapped mummy, its pelvis and its head (**B**, **C** and **D**; figures 2a, 3a and 4a). Executed in identical brown ink, and with number forms different from Perry’s, these additions were most probably made by Granville himself, because they reveal the interest in anatomical dimensions and skull measurements that formed one of his main lines of argumentation—and brought ‘Dr Granville’s mummy’ into the early nineteenth-century discourse of race.

READING RACE AND DISEASE IN DR GRANVILLE’S MUMMY

By 1821, when Granville undertook the mummy unwrapping, the medical sciences had by and large accepted the classification of humans into five races—a scheme set out a

generation earlier in the work of Blumenbach. It was Blumenbach's research on human variation that had impelled his own investigations of mummies. Ancient Egyptian human remains, although still rare, offered comparative ease of access for anatomical study; moreover, they presented a cultural and biological conundrum. Was ancient Egypt closer to Europe or to Africa? In medieval and early modern Europe, the high value placed on Hermetic philosophy—a body of third-century and fourth-century AD Greek literature, attributed to the Egyptian sage Hermes Trismegistus—ensured that Egypt was conceived as a place of European origin, an idea echoed by several ancient Greek writers as well as the Judaeo-Christian tradition. As colonization and the slave trade brought Europe increasingly into contact with the global south, however, an epistemological shift began to question where Egypt belonged, and how its ancient culture related to its modern one. This line of questioning opened the possibility that the past and present populations of Egypt bore no relation to each other—a biological counterpart to the imaginative geography that Edward Said termed Orientalism.⁴² The ancient 'Other', like its modern equivalent, was just such a construct, but in the early nineteenth century the Egyptian mummy held the promise that this Other (or potential Self) could be laid bare on the anatomist's table.⁴³

Given that he was a medical practitioner in Georgian London, it is not surprising that these concerns were at the forefront of Granville's own study of Egyptian mummification, from the sources he cites—including Blumenbach—to the comparative methods he deployed. Precise measurements of the body, broken down into constituent elements of the limbs, torso and so forth, 'appeared to me to deserve the next consideration; and they were taken with great accuracy', wrote Granville. He saw the opportunity to record the measurements of 'a really perfect female mummy' as an important contribution to 'the study of the natural history of man', hence the lines and dimensions added to drawing **B** (see figure 2a, b) and stated in the *Philosophical Transactions* article.⁴⁴ Granville makes reference to the work of Camper, which had laid down many of these principles, recording the dimensions and ratios associated with different human typologies in the nascent science of race. Like his contemporaries, Granville was also well versed in the striking visual presentation that Camper used to illustrate his findings, in which the left-facing profiles of skulls and their corresponding heads were arrayed sequentially from apes to humans, culminating in the 'ideal' features of the Apollo Belvedere in the Vatican Museum, thought at the time to be a Classical Greek statue (rather than a later Roman version).⁴⁵ Camper's grid-like arrangement of the profiles—and in a separate figure, the frontal views—echoed the grid-like guides he laid over each individual skull or head to delineate certain measuring points and, especially, the facial angle. This was calculated at the intersection of two lines, one drawn vertically from the forehead through the base of the nose to the lips, the other drawn horizontally from the base of the nose to the opening of the ear; crudely put, the resulting measurement gauged how far forwards the jaw protruded in relation to the forehead. Prognathism was held to be one signifier of racial difference, and the theory of facial angles became as influential after Camper's death as its illustrative trope, which featured in scientific illustration and medical portraiture in the late eighteenth and early nineteenth centuries, as well as informing the invidious scientific racism of the later nineteenth century.⁴⁶

In analysing the mummy of an ancient Egyptian woman, Granville referred to Camper's female equivalent of ideal human beauty, the statue known as the Venus de Medici in the Uffizi Gallery in Florence—like the Apollo Belvedere, a life-size marble statue singled

out by eighteenth-century art historian Johann Winckelmann for its aesthetic perfection.⁴⁷ Granville's measurements of the mummy's height and limbs correspond almost exactly to those of the Venus statue ('representative of a perfect beauty'), a comparison that no anatomist of the day would have found unusual. Since the Renaissance, European physicians had used the measurements and forms of classical statues to inform the study and representation of human anatomy.⁴⁸ Similarly, calculating the facial angle of the mummified head—duly added to Perry's drawing (see [figure 4a](#))—yielded 80°, exactly the measurement that the renowned French naturalist Georges Cuvier (d. 1832) had identified as typical for the Caucasian race.⁴⁹ Cuvier's work did much to refine and promote the Camper theory of facial angles, such that Granville offers his calculation as confirmation of Cuvier's published opinion that the ancient Egyptians were Caucasian.

Perry's choice of a left-facing profile for the mummified head takes on an added significance in the light of the visual lineage of comparative anatomy and racial difference. A key plank of Granville's argument about race, however, is that in a female skeleton it is not the skull but 'the pelvis that presents the most striking difference in different races'.⁵⁰ Thus Granville took particular care in dissecting, measuring, and instructing Perry to draw the pelvic bones of the mummy ([figure 3a, b](#)). As the drawing shows, the pelvis was separated from the rest of the skeleton at the first lumbar vertebra, and Granville then 'sawed off the thighs a few inches from the hip'; he spent two hours per day for nearly a week on the ensuing dissection.⁵¹ Granville carefully noted the diameters observed in the mummy's pelvis and the distances between the ilia. These proved comparable to measurements that Camper had deduced from the Venus de Medici statue—and markedly different, Granville argued, from the pelvis of a 'Negro girl' already in his collection, which he exhibited after his presentation to the Society. As an obstetric specialist, Granville had the opportunity to examine and treat many women, and the multiple pelvic specimens he refers to in his collection suggests preparations he made after performing post-mortems as well.⁵² In 1810s or 1820s London, a woman of African heritage almost certainly was, or had been, a slave, and Granville's reference to a 'Negro girl' is more likely an indicator of low status than of the individual's age at death. For this pelvis to be anatomically comparable to that of the mummy, we can deduce that the individual had attained sexual maturity and quite possibly given birth, given the morphological changes that pregnancy and childbirth create in the pelvis.

Childbearing was another question that Granville addressed in his analysis of the mummy's pelvis, once he had satisfied himself as to the question of race. Thinning of the iliac crest suggested that the dead woman had borne several children and was in her fifties at the time of death. Indeed, the tactile and communal conduct of the mummy examination was used to support this observation, because Granville notes that 'small fragments [of the ilium] have come away in consequence of their being frequently touched by the numerous persons who saw the pelvis at my house, and were incredulous to its real texture without touching it'. In the uterine system, depicted on the penultimate plate of his essay ([figure 5a, b](#)), Granville identified enlargement of the womb, with a diseased ovary on the right side which he considered the likely cause of death. Submitting the organs to the inspection of leading surgeons, including the late Baillie, supported Granville's conclusion, and he invited his audience to compare the prepared specimen to its depiction on Plate XXII—the most direct indication that Perry's drawings were indeed displayed to the Royal Society audience alongside the dissected body parts.⁵³ In recent years, biological scientists and Egyptologists have revisited Granville's discussion of the mummy's pathology and concluded that this ovarian tumour was in fact a benign cyst. In

2009, researchers at University College London and the University of Birmingham re-examined lung and other tissue samples from Granville's mummy, using amplification by the polymerase chain reaction to identify *Mycobacterium tuberculosis* DNA, an endemic disease in ancient Egypt and a more likely cause of death.⁵⁴

Some 180 years after Granville's dissection, these analyses have been made possible by the preservative effect of the ancient embalming as well as the subsequent fate of the dissected mummy and related preparations in Granville's collection—a fate he himself bemoaned in his autobiography. In 1850s London, the British Museum had become the obvious home for an Egyptian coffin lid and what was left of an Egyptian mummy, and Granville donated these to the nation in a gesture he perhaps thought placed him in a worthy line of descent from previous generations of medical men-cum-collectors, such as the Hunters and Hans Sloane. But as Granville would discover, a museum is very different from a private home or a scientific lecture theatre, and more than 30 years on from his own unwrapping effort, public interest in Egyptian mummies had been well served (by Pettigrew, for instance). Since the 1830s, the British Museum had vastly expanded its holdings and display space for coffins, mummies and small artefacts, and at the time of Granville's donation it was preparing a major reinstallation of its ground-floor Egyptian sculpture galleries.⁵⁵ The interests of early nineteenth-century anatomical science and, at mid-century, the still-emerging field of Egyptology sat less comfortably together than they had in the pages of Granville's essay.

THE BRITISH MUSEUM HAS LOST ITS ARM

From the start, performance and display had been central to Augustus Bozzi Granville's analysis of an Egyptian mummy, which was both multi-sensory and multi-vocal in the way it was conducted at his Savile Row residence and later presented to the Royal Society in its Somerset House meeting rooms. The oral exchange of information and ideas, captured in the *Philosophical Transactions* text through repeated reference to the opinions of fellow scholars and medics, was effected through in-person examination of the mummy, its anatomical preparations, and other specimens drawn into the discussion. Granville averred that more than 100 'scientific and literary characters' had attended the unwrapping and dissection of the mummy over the course of six weeks.⁵⁶ Translating these engagements into visual form was another collaborative effort, with Henry Perry acknowledged as the 'accurate artist' even if his choice of subject and the arrangement of the plates emerged through discussions with Granville. Perry may also have attended stages of the investigation, although half of the drawings are dated in early 1822, by which time the dissection seems to have finished. Nor were the Perry drawings the only visual evidence brought into play, for at the Royal Society meeting Granville 'carefully displayed' the prepared organs, head and pelvis of the mummy, alongside other anatomical samples and, in all likelihood, the Perry drawings.⁵⁷ In presenting a range of anatomical preparations—not just the parts of the mummy but also the North African head and arm he had been given, the pelvis of an African woman, and human foetal remains he had himself embalmed—Granville exemplified a fashion among anatomists of the time. Mounting anatomical specimens, and having the necessary connections to acquire others, allowed medical practitioners to display their own skills and the extent of

their command over what amounted to a personal museum, albeit on a much smaller scale than famous pathology collections such as John Hunter's museum.⁵⁸

Granville commissioned a cabinetmaker to make a small chest of drawers in which he arranged various tissue samples from the mummy, fragments of its linen, and his own experimental forays in mummification, using the arms and legs of stillborn babies. Believing that he had found a layer of wax in the mummy he had examined, Granville was convinced that wax was an important component of the ancient embalming process, and prepared the infant remains accordingly. In his autobiography, he recalled that the publication of his essay by the Royal Society led to an invitation to lecture on Egyptian mummification at the Royal Institution; this took place in April or May 1827, just a few months after Michael Faraday had instituted the Institution's 'Friday evening discourses'.⁵⁹ This he gladly did, once again displaying the drawings (or perhaps printed plates), the preserved parts of the mummy, and his experimental results. In addition, he had what he identified as wax from the mummy 'manufactured into small tapers, which were lighted and burned during the lecture. This was delivered on one of the Friday evening meetings at the Royal Institution, and attracted general notice'.⁶⁰ However, we now know that wax did not play a substantial role in Egyptian embalming; Granville's prized candles were saponified body fat from the mummified corpse, lighting the Royal Institution's lecture theatre with human flesh.

The small chest of drawers remained in Granville's possession along with the coffin lid, until he donated both to the British Museum in 1853. As he recounts with evident frustration in his autobiography, Granville was dissatisfied with the Museum's method of displaying his cabinet and its prized contents. Although the chest of drawers stood in a glass case in the Museum's Egyptian rooms, Granville writes that his donated mummy parts were

not displayed in the manner best adapted for the instruction or the amusement of the public. Some reasons for this anomalous mode of exhibiting these specimens were assigned to me by the very able and courteous curator of the department, which I doubt not are consistent with the rules and spirit of the place, though they failed to satisfy me.

Reading between the lines, Granville's complaint against the British Museum suggests that the drawers of the chest were kept closed, 'a *museum clausum*, as some funny gentleman apertaining to the museum once said to me'. The museum curator's Latin phrase refers to seventeenth-century physician Sir Thomas Browne's posthumous essay of the same name, concerning rare, lost or hidden works; Browne's sceptical take on the possibility of complete knowledge seems to have been lost on Granville.⁶¹ The suppression of the infant arms and legs from his embalming experiments bothered him the most, because these 'had preserved intact their freshness, softness, complexion, and colour, although not enveloped by any bandage whatever'.⁶² How were museum visitors to judge whether his scientific discovery of (so he thought) Egyptian embalming techniques would continue to be a success, if they could not see these arms and legs for themselves?

CONCLUSION

The role of vision—the *autopsia* of seeing for oneself—was crucial to Granville's mindset in the 1820s. His was an era that had embraced an epistemological shift towards interiority,

making new kinds of science possible and the visual representation of the interior paramount. Although often studied today according to disciplinary divisions, such as archaeology or astronomy, practices of visualization in fact had much in common across a range of antiquarian and scientific pursuits in the early nineteenth century.⁶³ The Henry Perry drawings make this point well, combining as they do the illustration of the coffin and mummy wrappings with the anatomical illustrations. In 1821, few illustrations of Egyptian mummies had been published that would meet representational standards of the time; plates showing two mummified heads, in an 1821 volume of *Description de l'Égypte*, were perhaps the closest comparison, or the detailed drawing of a mummified foot from Hadley's 1764 *Philosophical Transactions* essay.⁶⁴ Hence Perry could draw on his artistic experience in depicting the wrapped and unwrapped body of the mummy as if from a bird's-eye view. Such a view was impossible even for an observer standing above, say, one end of the examining table; instead it was a composite of observations, adjusted for angle of vision and crafted into an image of unquestioned truth-value. The conjunction of antiquarianism and the natural sciences is further reflected in the fact that James Basire, like his antecedents, produced engravings for both the Society of Antiquaries and the Royal Society. These learned societies shared physical space in Georgian London as well, meeting in adjacent rooms in Somerset House now occupied by the Courtauld Gallery.

Acts of representation, which often entailed precise, multi-stage acts of creation (drawing, revising, engraving, printing), were not merely the means of circulating knowledge in these environments, but of producing it, because such visual practices were the way in which scientific practitioners encountered and experienced their objects of study.⁶⁵ Visual practices were communal endeavours, too, and thus helped define the emerging professional identity being shaped for medical students and physicians in the late eighteenth and early nineteenth centuries.⁶⁶ As the physiological specificity of vision became better understood, however, a 'crisis in perception' would soon make vision too subjective and hence untrustworthy.⁶⁷ Something of this anxiety may be glimpsed in the repeated assertions that Granville made about the accuracy of Henry Perry and his drawings, and the similar praise that he and Sir Everard Home both bestowed on Franz Bauer in the pages of *Philosophical Transactions*, when Bauer had supplied drawings for their plates. Granville's 1820 essay credited Bauer with suggesting a second view of the human foetus under study, producing a drawing 'of the most accurate and finished execution', and Home, who also relied on Bauer's microscopy, singled out the 'correct representations' produced by Bauer's hand.⁶⁸ 'Mr. Bauer's delineation of these nerves', wrote Home, 'makes it unnecessary to give any verbal description of them'.⁶⁹ In the late eighteenth century, anatomists such as Baillie, the Hunters and John and Charles Bell had encouraged styles of illustration that isolated subjects on the page, part of an aesthetic of plainness, clarity and simplicity that eschewed the elaborate poses and settings of earlier efforts.⁷⁰ Specialist illustrators, or fine artists who could turn their hand to botanical and anatomical illustration, likewise began to emerge in the early nineteenth century, creating a visual economy that placed a premium on the intelligibility and objectivity of hand-made and printed images—exemplified by Perry's drawings and the published engravings.⁷¹ With the rise of photography and other mechanical imaging and recording devices a generation later, the value of drawings would certainly slip—but would never disappear.

In arranging for Henry Perry, a fine artist and print publisher, to execute drawings of the Egyptian coffin, the wrapped mummy, the unwrapped body and its dissected remains, Granville showed the flair for dramatic presentation that seems to have served him well

throughout his remarkable life and career. But he also asserted the primacy of illustration as evidence and proof in one, in an act of communal seeing that ‘revealed’ the ancient Egyptian body, the pathology of the female reproductive system and the quantifiability of race. The efficacy of illustration—and other visual practices—in making and communicating an argument in fact contributed to the development of racial science and its counterpart, scientific racism. Camper’s and Cuvier’s schemata facilitated the application of their measuring techniques to skulls in particular. A profile view overlaid with lines and angles, or multiple profiles marshalled in an order easily read as left-to-right ascendant, created racial physiognomies and trained viewers to see and interpret them. It was arguably more difficult to illustrate perceived differences for complex three-dimensional shapes such as the pelvis, which may be one reason that the clear (and ‘well known’) reading of race that Granville asserts for the female pelvis was never as influential or successful a stratagem in racial typologies. What to illustrate and how, what to engrave, where to publish: these were powerful choices with long-lasting consequences.

Egyptologists have often cited ‘Dr Granville’s mummy’ as a notable and praiseworthy early example of the mummy autopsy, an investigative method that Edwardian, late twentieth-century and now early twenty-first-century science have repeatedly revisited.⁷² Even the remains of Granville’s dissected mummy have been called upon to align his work unproblematically with that of contemporary science, bringing new techniques to bear on preserved tissue while implying a professional pedigree stretching back to Georgian London. After the humiliation of the *museum clausum*, such renewed interest in Granville’s study of an Egyptian mummy suggests that his visual, rhetorical and textual strategies have ultimately proved effective in securing both individual prestige and group consensus. However, closer analysis of the drawings, plates and preparations that accompanied Granville’s effort requires us also to evaluate the invidious aspects of historical medical interest in Egyptian mummies, whose early nineteenth-century visualization helped make race so persuasive as a scientific and a social category. Observation, not experiment, created the body of evidence on which race theory depended. Without drawings such as Perry’s, racial judgements could not be seen, and they were thus less likely to be believed or, conversely, considered reliable enough to challenge. The autopsic art of ‘Dr Granville’s mummy’ lay not only in the creation of the drawings and plates but also in knowing how to look at them with trained and sustained attention to detail. Thanks to the archives of the Royal Society, we can still follow Granville’s exhortation to look—and crucially, in looking closely at Perry’s drawings, we can better understand how the visualization of ancient Egyptian bodies drew them into a discourse of race, disease and Other-ness in post-Enlightenment Europe.

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NOTES

- 1 A. B. Granville, *Autobiography of A. B. Granville, M.D., FRS* (Henry S. King, London, 1874), pp. 207–212.
- 2 For example S. Kusakawa, ‘Picturing knowledge in the early Royal Society: the examples of Richard Waller and Henry Hunt’, *Notes Rec. R. Soc.* **65**, 273–294 (2011), and see the AHRC-funded Research Network (Principal Investigator S. Kusakawa), ‘Origins of science as a visual pursuit: the case of the early Royal Society’, <http://picturingscience.wordpress.com/>.
- 3 A. B. Granville, ‘An essay on Egyptian mummies, with observations on the art of embalming among the ancient Egyptians’, *Phil. Trans. R. Soc. Lond.* **115**, 269–316 (1825), at p. 296 n.†.
- 4 These are mentioned in Granville’s text (*op. cit.*, note 3) at pp. 279 (pelvis of an African woman), 291–293 (arm from Tripoli), 305 (preparations from the unwrapped mummy) and 313 n.* (‘imitative mummies’).
- 5 S. J. M. M. Alberti, *Morbid curiosities: medical museums in nineteenth-century Britain* (Oxford University Press, 2011), esp. pp. 14–15 and 103–111; S. Chaplin, ‘Dissection and display in eighteenth-century London’, in *Anatomical dissection in Enlightenment England and beyond: autopsy, pathology and display* (ed. P. D. Mitchell), pp. 1–9 (Ashgate, Farnham, 2012).
- 6 Royal Society Journal Book for 1825–26, pp. 386–390 (14 April 1825), 390–391 (21 April 1825) and 392–400 (28 April 1825). The Journal Book entries also provide the information that Granville had two guests present at the meeting on 14 April, a Monsieur Potemkin and Baron Lello, a Bavarian minister. At the meeting on 28 April, Granville brought as his guests a Reverend Mr. Finch and the Count d’Aglie, minister and envoy of the king of Sardinia.
- 7 Examples in K. Pomian, *Collectors and curiosities: Paris and Venice, 1500–1800* (Polity, Cambridge, 1990), pp. 45–48 and 74–78.
- 8 *Oxford English Dictionary*, entries for ‘autopsy’, ‘autopsic’ and ‘autoptic’; see <http://www.oed.com> (accessed 31 July 2015; requires subscription). For *autopsia* as a principle of education in eighteenth-century Germany, see N. Hopwood, *Haeckel’s embryos: images, evolution and fraud* (University of Chicago Press, 2015), p. 32.
- 9 L. Daston and E. Lunbeck, ‘Introduction: observation observed’, in *Histories of scientific observation* (ed. L. Daston and E. Lunbeck), pp. 3–4 (University of Chicago Press, 2011).
- 10 O. W. Nasim, *Observing by hand: sketching the nebulae in the nineteenth century* (University of Chicago Press, 2013), p. 9.
- 11 B. Latour, ‘Visualisation and cognition: drawing things together’, in *Knowledge and society: studies in the sociology of culture past and present* (ed. H. Kuklik), pp. 1–40 (Jai Press, Greenwich, CT, 1986).
- 12 Granville, *op. cit.* (note 3), p. 281.
- 13 O. Moscucci, ‘Granville, Augustus Bozzi (1783–1872)’, *Oxford dictionary of national biography* (Oxford University Press, 2004; <http://www.oxforddnb.com/view/article/11299>, accessed 30 July 2015).
- 14 On Pettigrew, see G. Moshenska, ‘Unrolling Egyptian mummies in nineteenth-century Britain’, *Br. J. Hist. Sci.* **47** (3), 451–477 (2013); G. Moshenska, ‘Thomas “Mummy” Pettigrew and the study of Egypt in early nineteenth-century Britain’, in *Histories of Egyptology: interdisciplinary measures* (ed. W. Carruthers), pp. 201–214 (Routledge, Abingdon, 2014).
- 15 Granville, *op. cit.* (note 1), p. 207.
- 16 Granville, *op. cit.* (note 3), p. 271.
- 17 *Ibid.*, p. 269.
- 18 H. D. Donoghue, O. Y.-C. Lee, D. E. Minnikin, G. S. Besra, J. H. Taylor and M. Spigelman, ‘Tuberculosis in Dr Granville’s mummy: a molecular re-examination of the earliest known Egyptian mummy to be scientifically examined and given a medical diagnosis’, *Proc. R. Soc. B* **277**, 51–56 (2010), at p. 51.
- 19 Granville, *op. cit.* (note 1), p. 208.

- 20 Granville, *op. cit.* (note 3), p. 291.
- 21 *Ibid.*, p. 274.
- 22 *Ibid.*, p. 295.
- 23 *Ibid.*, p. 271. The cloth removed from the body weighed twenty-eight pounds. Granville later subjected it to tests to determine whether it was cotton or linen, concluding—wrongly—that it was the former. For further discussion of the textiles in the Granville unwrapping, see C. Riggs, *Unwrapping Ancient Egypt* (Bloomsbury, London, 2014), pp. 49–56.
- 24 Granville, *op. cit.* (note 3), p. 282. J. Hadley, ‘An account of a mummy, inspected at London 1763’, *Phil. Trans. R. Soc. Lond.* **54**, 1–14 (1764); J. F. Blumenbach, ‘Observations on some Egyptian mummies opened in London’, *Phil. Trans. R. Soc. Lond.* **84**, 177–195 (1794). For the use of Blumenbach’s work in later race science, see R. Bhopal, ‘The beautiful skull and Blumenbach’s errors’, *Br. Med. J.* **335**, 1308–1309 (2007); T. Junker, ‘Blumenbach’s racial geography’, *Isis* **89**, 498–501 (1998).
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