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The Instructive Corpse: Dissection, Anatomical Specimens, and Illustration in Early Nineteenth-Century Medical Education^{*,†}

Cindy Stelmackowich[‡]

At the turn of the nineteenth century when anatomy and hands-on dissection became the prerequisite for a medical career, the medical community in England and France increasingly relied upon visual representations as part of a complex system of reinforcement of their professional goals. The production of novel illustrated textbooks that disseminated arguments through systematizing illustrations were thus integral to their professional status. Through an examination of a series of realistic diagrams that outlined the new methods of surgical and preservation techniques, this paper argues that visual diagrams were instrumental in supporting the systematic codification and prestige on which nineteenth-century medical knowledge was to depend. It analyses the visual rhetoric and the complex representational languages of these intricate and equally precise illustrations by asking how these illustrations embraced new representational strategies as well as embodied idealizing aesthetic techniques.

When anatomist Thomas Pole published his illustrated manual *The Anatomic Illustrator* in 1790 it was hailed by anatomists and the medical community as both modern and practical. This popular manual not only put forward a number of important techniques related to dissecting and preserving human body parts but it also included innovative diagrams of key tools and apparatus. The significance of this medical textbook was not only a matter of scientific priority over which methods and dissection tools would best allow for a “natural” look for prized anatomical specimens, but also of the appropriate means by which anatomical illustrations and diagrams were transforming medical education. At the turn of the nineteenth century, the medical community increasingly relied upon visual representations as part of a complex system of reinforcement of their

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professional goals. These teaching diagrams functioned as proof of anatomists' observations and expertise at a time when dissection increasingly functioned as the basis of medical knowledge.

This article is part of the recent scholarly interest that has set out to analyze complex issues related to visualization in medical science and, in turn, medical education. It draws from a diverse domain of illustrated materials produced at the end of the eighteenth century and beginning of the nineteenth century in England and France that were rooted in post-mortem dissection. These new diagrams and illustrations constituted new visual and discursive practices and were crucial in developing the professional and institutionalized discipline of medicine; they imparted a set of solid procedures for anatomical dissection and investigation, and marked the emergence of the "anatomico-localist" point of view that led to a genuine interpenetration of medicine and surgery, ultimately giving surgery a more "scientific" basis.

It was vitally important that the medical profession and elite physicians at the turn of the century distinguish themselves from the open field of non-specialist medical inquiry and healing sects.¹ Advertisements from "quacks," for instance, constituted a large body of information during this period. The production of novel illustrated textbooks that disseminated arguments through systematizing illustrations were thus integral to their professional status. In fact, visualization enabled physicians to make authoritative and scientific knowledge claims: the inclusion of any type of visual content in a treatise was of major appeal, especially if the plates represented an emergent illustrative technique. I will argue that these illustrations not only advanced the Europe-wide struggle to institute new anatomical approaches, but they also enabled anatomists and the wider medical community to cultivate a distinct professional voice.

"NO DISSECTION, NO KNOWLEDGE!"

At the end of the eighteenth century, physicians were urged to abandon theoretical speculations of disease based on classifying principles² and to

¹ For examples of physicians writing against quackery during this period, see J. Ring, *A Caution against Vaccine Swindlers and Imposters*, (London: Callow, 1816); J. Corry, *Quack Doctors Dissected; Or, a New, Cheap, and Improved Edition of Corry's 'Detector of Quackery': Containing Several Curious Anecdotes of Solomon, Brodum, Perkins and other modern Empirics; with Strictures on Bookmakers, and Puffing Publishers*, (London: Champante & Whitrow, 1810); and J. Makittrick Adair's *Essays on Fashionable Diseases. The Dangerous Effects of Hot and Crowded Rooms. The Clothing of Invalids. Lady and Gentlemen Doctors. And on Quacks and Quackery*, (London: T.P. Bateman, 1790).

² For examples of systematic nosological medical treatises intended as guides for medical student, see W. Cullen, *Synopsis Nosologiae Methodicae [Nosology, Or a Systematic Arrangement of Diseases]*, (Edinburgh: Gulielmum Creech, 1785); and Joseph Townsend, *The*

embrace instead the new forms of medical knowledge based on pathological changes found during dissection. Increasingly, the medical community began to conduct autopsies on their patients and to correlate normal anatomy with post-mortem signs.³ This led immediately to an intense and sustained interest in the results of dissections. The practice of dissection at the end of the eighteenth century was not unprecedented: autopsies and dissections had taken place in Europe for centuries and physicians did publish anatomical works (treatises, illustrated atlases, and their anatomy lectures). In fact, first-hand knowledge of anatomical dissection has consistently been one of the trademark indicators of the learned physician throughout the history of Western medicine. What was new at the end of the eighteenth century, however, was that autopsy findings based on direct experience with the diseased corpse led to an interest in systematic pathology.

To articulate a more accurate conception of “pathological life,” physicians launched campaigns and educational initiatives that focused on “discovering” analysis in the body itself.⁴ At the end of the eighteenth century, momentous emphasis was placed on an active method of anatomy that would excite a spirit of observation and lead the attention of the student to “fact and experience.” No longer was it sufficient for medical students merely to attend lectures and witness a dissection performed in the anatomical theater by a professor or demonstrator. Rather, the novice had to gain personal, empirical dissecting experience: only in the dissecting room could the student acquire the necessary knowledge.

As anatomy became the prerequisite for a medical career, private lecturers and hospital practitioners developed anatomical teaching in both England and France at a fast pace during the first decades of the nineteenth century.⁵

Physician's Vade Mecum; Being a Compendium of Nosology and Therapeutics, for the use of Students, (London: Cox, 1794).

³ Numerous historians have agreed that the initial and influential works published by Matthew Baillie in 1793 and Marie François Xavier Bichat in 1800 spearheaded the growth of post-mortem analysis. See C. Hannaway and A. La Berge, Paris Medicine: Perspectives Past and Present, in *Constructing Paris Medicine*, eds. C. Hannaway and A. LaBerge, 1-70, (Amsterdam: Rodopi, 1998).

⁴ In the preface of M. Baillie's well-known publication, *The Morbid Anatomy of Some of the Most Important Parts of the Human Body*, his stated objective was “[t]o explain more minutely than has hitherto been done, the changes of structures arising from the morbid actions in some of the most important parts of the body,” in order for the physician to “be better fitted to detect diseased alterations in the organization of parts which are but little, or not at all known.” See M. Baillie, *The Morbid Anatomy of Some of the Most Important Parts of the Human Body* (London: J. Johnson and G. Nicol, 1793: preface).

⁵ For a study on anatomical lecturing in London see S.C. Lawrence, *Entrepreneurs and Private Enterprise: the Development of Medical Lecturing on London 1775-1820*, (Baltimore: John Hopkins University, 1988). In the case of France, see G. Weisz, *The Medical Mandarins: The*

There already exists a rich historiography on the dissimilarities in the medical education systems and professional structures between England and France in the first half of the nineteenth century.⁶ What is important to note is that as anatomy became universally acknowledged as the gateway to medical practice it was jealously guarded. This newly regulated medical profession had a vested interest in shutting down quackery and medical professionals increasingly sought to define themselves in contrast to the open field of non-specialist medical inquiry. The stance of “no dissection, no knowledge!” could now be used to dismiss the claims of self-taught practitioners.

Medical students from around the world attended these European medical schools since legal impediments still existed for complete access to cadavers in the United States.⁷ Even though the English surgeons took longer to gain formal recognition than their French counterparts, students found ample opportunities for anatomical and clinical studies in Europe. In his textbook to American medical students, professor and surgeon Charles Averill (Averill 1823, i) advocated dissection as “absolutely essential to the professional character.” In efforts to encourage future surgeons to enroll in European anatomy schools, he insisted that the medical student “must dissect; and it is expedient he should dissect, with all the guidance and assistance, which the experience and instruction of others can supply” (Averill 1823, ii).

MEDICINE’S NEW TEACHING TEXTS: BODIES OF KNOWLEDGE

The realm of medical education was a key site of the expansion of medical knowledge and technique. A spate of new types of “useful” medical publications was produced at the beginning of the nineteenth century. These new medical teaching texts—consisting of dissection manuals, illustrated anatomical atlases, anatomical conspectuses, and surgical guides—were the result of student demand for instruction in anatomical science. Most of these types of texts did not necessarily represent a new genre. What distinguished them from earlier textbooks was their new, intense focus on detailed instruction steeped in deep

French Academy of Medicine in the 19th and Early 20th Centuries, (Oxford: Oxford University Press, 1995).

⁶ For an understanding of the differences and the similarities in medical education between England and France, see C. Hannaway and A. La Berge, Paris Medicine: Perspectives Past and Present, in *Constructing Paris Medicine*, eds. C. Hannaway and A. LaBerge, 1-70, (Amsterdam: Rodopi, 1998); and O. Keel, Was Anatomical and Tissue Pathology a Product of the Paris Clinical School or Not? in *Constructing Paris Medicine*, eds. C. Hannaway and A. LaBerge, 117-84, (Amsterdam: Rodopi, 1998).

⁷ See John Warner, Remembering Paris: Memory and the American Disciples of French Medicine in the Nineteenth Century, *Bulletin of the History of Medicine* 65(3) (Fall 1991): 301-25; and M. Sappol, *A Traffic of Dead Bodies: Anatomy and Embodied Social Identity in Nineteenth-Century America*, (Princeton: Princeton University Press, 2004).

anatomical observations of the corpse.

These medical publications emphasized the locally-constructed nature of medical knowledge; highlighted the active and embodied roles of anatomists and students; and revealed through gaze and language a new way for physicians to experience the diseased cadaver. Conceived as a means of transition from ignorance to medical knowledge, they were intended to prepare the medical student for anatomy. Their function was to teach those who had not performed a dissection nor had yet seen the interior of the body. Furthermore, they enabled physicians to talk about the body and dissection, not in terms concerned with what the untrained had the opportunity to witness, but in terms uniquely their own, representing relationships, techniques and tools not readily available to the lay observer. In this regard, these new types of medical teaching texts became the privileged tools for advancing the anatomico-localist approach.

“THE RULES OF DISSECTION”: CUTTING AND LOOKING, HAND AND EYE

The most popular dissection manual produced in the first decades of the nineteenth century was Hooper’s *The London Dissector*; first published in 1804, this manual became so popular that it was in its third edition by 1811. The instant success of *The London Dissector* was that it offered the young man, who aspired to status in the medical profession, detailed procedures on how to handle, cut, and dissect the body—it outlined a new and necessary set of “rules of dissection.” In its small hand-held format, important dissection instructions and procedures were listed, including daily schedules incorporating the order in which the parts were to be dissected. It also enumerated the novel instruments necessary to the anatomist (types of knives, varieties of scissors, forceps, probes, threads, amputation saws, silver pipes, files, bow drills, brass wires, etc.), provided instruction on the positioning of the cadaver and the marks and cuts, listed the proper methods for removal of parts, and described the experiments to be performed on these viscera.

According to *The London Dissector*, reliable anatomical knowledge could be gleaned only through direct experience and hands-on engagement with the cadaver. These new techniques and dissection procedures called for energetic, sustained, first-hand investigation: one’s own senses and one’s own body had to be fully engaged. Skills obtained by hands-on dissection became imperative: they were the mark of the medically educated. The initial set of instructions in dissection manuals outlined practical rules related to perfecting bench-work skills, such as the “proper” way to position the most important tool in the dissector’s toolkit, the scalpel.

Arduous procedures for handling, cutting, dividing, dismembering, and scrutinizing were to be practiced by the student until mastered. Since the ultimate goal of a dissection was to “unravel” and “lay bare” even the minute parts of the body, detailed instruction followed in *The London Dissector*.

Perfecting the act of dissection involved executing innumerable procedures with precision and a nearly obsessive focus.

The anatomist's gaze needed to be critically active and integrated: one had to see and comprehend at the same time. Only an educated eye, it was assumed, could properly appreciate, identify, and dissect the wonders inside of the corpse.⁸ What went on in the dissecting rooms, then, was learning how to "see" in order to learn how to "know." Through gaze and language, dissection manuals not only sustained these particular ways of seeing, they also established a rational discourse around this new gaze. In this respect, these manuals signaled a change in the ways that medicine structured its relationship with the body: medicine could now claim to reveal what had previously been below and beyond previous visible and linguistic domains.

VISUAL GENRES AND "PERFECT CUTS"

As the primacy of sight became the location for the legitimization of medical knowledge, anatomists recognized that a solid education in anatomy must involve offering students intricate and equally precise visual aids. Crucial to the anatomico-localist approach, therefore, were realistic visual diagrams that conveyed the same set of epistemic virtues expected in the physician's dissection practices. As anatomist John Farre assumed in his course lectures on morbid anatomy from 1810, "an accurate sketch is a permanent memorandum" (2).

In many respects, illustration had an incisiveness that simulated the processes of anatomy: the skills of drawing and dissection were, after all, closely tied. This linkage between anatomy and drawing as it related to the "training of the eye," is evident in the advice offered to aspiring students interested in a career in medicine. In the handbook *The Hospital Pupil*, the mentoring author maintains that a student needs to practice his drawing skills: not only will the holding of the pencil be similar to the scalpel, but it will train one's eye and teach concentration (Parkinson 1817). Both anatomy and art were thereby regarded as an inter-linked approach. Cutting and looking, hand and eye, were tightly bound. Furthermore, both processes demanded a high degree of precision, a certain amount of exactness and were, essentially, taken up as techniques that demonstrated one's mastery and talent. In the case of engraving, the work of anatomical dissection was directly mirrored in this precise incising technique.

In contrast to earlier anatomical treatises that focused only on charts and

⁸ The act of directly observing the cadaver was based, it was believed, on a "pure" practice that would uncover facts. My analysis here on the shifts in the conceptual relationship of medicine to disease and to the patient is based on the work of Michel Foucault. Foucault's analysis helps explain how the anatomical body (both the living subject and the corpse) became, in a relatively short time, a new object of scrutiny, knowledge and regulation as physicians and anatomists attempted to establish new inventories of disease. M. Foucault, *Birth of the Clinic: An Archaeology of Medical Perception*, (London: Routledge and Tavistock, 1973).

tables, an illustrated textbook was widely believed to be more direct, potent, and thus valued. Publishers responded favorably to the demand to make dissection more visually “legible” to an observing eye. The emergent print and graphic culture at the beginning of the nineteenth century was expanding rapidly owing to the emergence of large firms working on an industrial scale in the large cities. As Pamela Gilbert (2004) has noted in her work on medical maps, the nineteenth century was obsessed with visuality and tried to find ways to translate new modes of scientific knowledge into the visual realm. Because illustrations increased the potential success of any scientific manual or treatise, and was cheaper to produce than ever before, both the size and number of illustrations in medical teaching texts increased dramatically in the first few decades of the century.

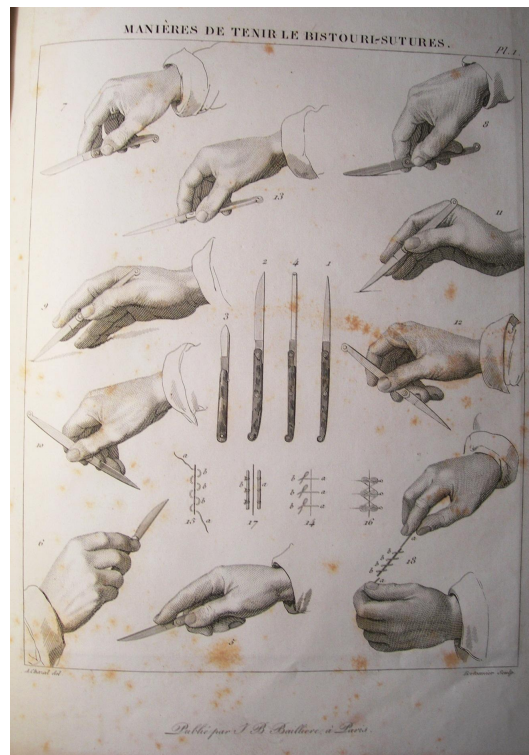


Figure 1. Alfred Velpeau. “Manières de Tenir le Bistouri-Sutures,” copperplate engraving, 28 x 21 cm, Planche 1. Courtesy of The New York Academy of Medicine.

Figures 1 to 3 are copperplate engravings from the surgical teaching manual of the celebrated French surgeon and professor Alfred Velpeau. Velpeau was a well-known lecturer in surgery at a number of Parisian hospitals and was considered a clear and comprehensive writer. He held major posts in France throughout his career, including the chair of clinical surgery at the Charité and at the Hospital de la Pitié. Velpeau started his comprehensive textbook, *Nouveaux Éléments De Médecine Opératoire*, in 1829. By the time it was translated

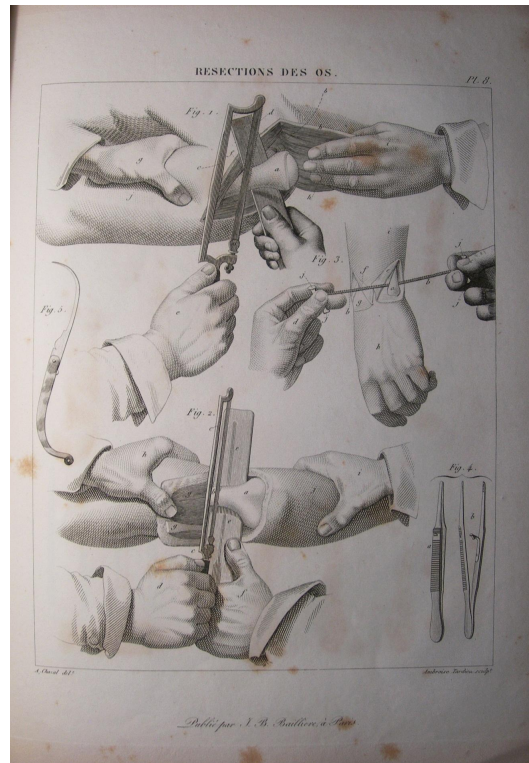


Figure 2. Alfred Velpeau. “Resection des Os,” copperplate engraving, 28 x 21 cm, Planche VI. Courtesy of The New York Academy of Medicine.

for an American audience, it was regarded as indicative of the new scientific “French methods and principles related to Anatomy and Surgery.” Since science was considered an art based on principles, illustrations were clearly primed to make visible the latest techniques of this emergent profession.

Velpeau’s profusely illustrated textbook showed the ways in which surgical know-how was based upon the principles of anatomy gained from dissection. Figure 1 highlights the precise manner to hold the scalpel or knife. As discussed earlier, the “proper” way to position the scalpel was critical for mastering handling and cutting. As we can see in this illustration, the ideal was to provide the student with as many clear, value-free and exacting illustrations as possible. Good illustrations, it was thought, would lead to accuracy in surgical technique, methodical handling skills, and dexterity when performing successful procedures. The anatomist’s gaze during this period was, after all, faithful to the object, careful craft, patience, and skill. These realist diagrams were to enable the novice dissector to perform “perfect” cuts.

Throughout Velpeau’s popular teaching manual, one finds that surgical instruments and disembodied hands dominate the visual field. It was not uncommon for teaching illustrations to cram multiple sets of hands-at-work onto a single page, as in Figure 2. This type of carefully crafted emblematic image

offered the reader access to various angles from which to “see” the entirety of each instruction. In this specific image detailing the surgical removal/resection of parts of the bone, the focus is on where everything and everyone, ideally, was to be positioned during this potentially dangerous procedure, including: the position of the medical subject’s body, the placement of the assistant’s hands and every one of his fingers, the angle of entry into the body for each surgical instrument, and details on the active and engaged grip required of the skilled surgeon, along with an added idea of force or exertion required. In many ways these diagrams were to function as effective “roadmaps of study” that outlined ways of seeing and knowing associated with the new methods of surgical technique. They were to function as an affectless visuality that had no need for language.

The didactic potential of early-nineteenth century illustration was heightened by illustrators’ frequent adoption of creative diagramming techniques. One such example in Velpeau’s textbook is “Ligature des Artères,” Figure 3. This novel foldout image, meant to reveal the minute interconnections of the arterial system of the whole body, offered both a general and the particular distribution of the body’s arteries at a glance. In this illustration, an alive, yet wounded, medical manikin resting on a sheeted bed seems to simultaneously call for, and receive, careful attention. Importantly, instruments of dissection and modern ligature are fore-grounded in the bottom corner. Even though this is meant to be a realistic vision of hygienic clarity and precision, idealization was part of this accuracy. For example, the open wounds that inflict the figure are not grounded in a body, but rather appear to float on the page as disembodied and enlarged excised details. No blood is depicted in the wounds, nor is pain evident from a wincing subject. So, even though the visual realm privileged a sanitized and clinical illustrative point of view, it was also an idealizing space that was full of complex incongruity.

DIAGRAMS FOR “MEMORIALS OF ANATOMICAL INDUSTRY”

Anatomists were keenly aware of the fragile and temporal nature of their subjects and the damaging effects of putrefaction on the cadaver. As a result, dissections usually took place during the winter months, as the weather was too warm to dissect in the summer. In dissection manuals, the order of dissection usually started with the abdominal cavity, as the internal organs would show signs of decay far sooner. As a result of this constant concern (and especially because medical students at the time were working in small groups with fresh bodies rather than a body that was injected with formaldehyde), manuals outlining preservation procedures were in high demand.

Displays of anatomical specimens that ranged from relatively simple specimens to highly elaborate preparations have been a hallmark of medical history. For example, the combined anatomical cabinets of William and John

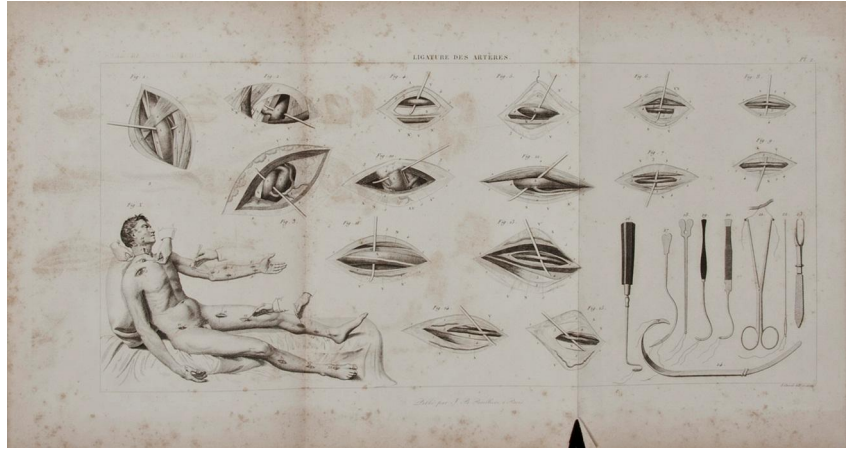


Figure 3. Alfred Velveau. “Ligature des Artères,” copperplate engraving, 28 x 60 cm, Planche II. Courtesy of The New York Academy of Medicine.

Hunter of over 13,000 preparations of human and animal anatomy and pathology are a prime example of how specimens were valued both within the profession and outside of it.⁹ Anatomical collections were perceived to indicate academic excellence, teaching expertise, and authority. The new preservation manuals that emerged in the early nineteenth century were not just for elite physicians to preserve dissected body parts for teaching purposes, they were also intended for the student as reinforcement of the dissection techniques taught in their anatomy and pathology courses. One anatomist noted that introducing preservation techniques to the medical student “[w]ould be helpful in those instances when a student feels reluctant to destroy a fine piece of dissection that has cost him long protracted labour and pains to finish” (Parsons 1831, vii). Preparations from one’s personal dissections thereby functioned as a badge of competence, skill, and craftsmanship.

Thomas Pole’s *The Anatomic Illustrator* gave instruction for preparing both dry specimens, as well as soft tissue organs, using methods of injection, corrosion, maceration, distention, articulation, and modeling. It detailed how to perform the latest preservation procedures, including tips on how to inject mercury and colored wax from finely crafted glass syringes into minute structures such as lymphatics, glands, lungs, liver, kidneys, and the female breasts. Pole’s manual also listed formulas for preparing colored fluids from

⁹ See W.F. Bynum and R. Porter, *William Hunter and the 18th-Century Medical World*, (Cambridge: Cambridge University Press, 2002); and W. Moore, *The Knife Man: The Extraordinary Life and Times of John Hunter, Father of Modern Surgery*, (Bantam, New York, 2005). For an interesting article that focuses on the way in which the display of anatomical preparations served to legitimize dissection as a mode of natural historical inquiry, see S. Chaplin, *Nature Dissected, or Dissection Naturalized? The case of John Hunter’s Museum*, *Museum and Society* 6(2) (July 2008): 135-51.

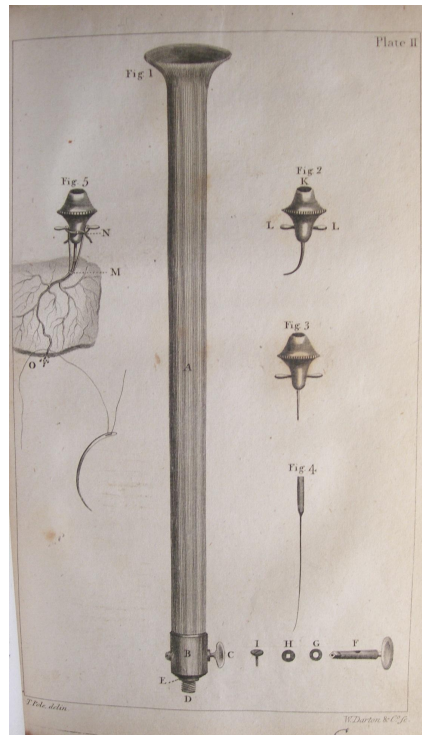


Figure 4. Thomas Pole. “Representing the injecting tube, and its appendages, for the purpose of filling the lymphatics, lacteals, etc. with quicksilver,” copperplate engraving, 22 x 20 cm, Plate 2. Courtesy of The New York Academy of Medicine.

yellow beeswax, white resin, turpentine varnishes, vermilion, verditer, gamboge, lamp-black, King’s yellow, or flake-white. To prepare cavities for “hollow” organs (such as bladders, intestines, large blood-vessels, the larynx and pharynx, the vagina, the uterus, and the penis), Pole suggested air-drying after distending body parts with wool, hair, cotton, plaster, or quicksilver. Proving that the relationship between the practice of human dissection and the manufacture, accumulation, and display of cadavers in late eighteenth-century Europe was of great value, *The Anatomic Illustrator* was a key manual for those who aspired to be a leading medical practitioner.

Included in *The Anatomic Illustrator* were realistic images and diagrams by Pole featuring new types of instruments, techniques, and novel apparatuses. An illustration of the glass tube needed to perform quicksilver injections for the lymphatics and lacteals is pictured in Figure 4. Not only does this illustration highlight visual instruction on how the various pistons, heads, syringes, and needles of the instrument attach to one another, but smaller sections on the same page demonstrate how the needle tip is inserted into the skin and then positioned directly into the lymphatics. Since the role of preservation was to ultimately freeze nature, the static quality of illustration was perfectly suited to these pursuits.

Since there were a number of preservation manuals on the market, *The Anatomic Illustrator* needed to be both practical and “useful.” It had to offer solutions to persistent problems when preparing specimens and set new standards for medical education. This is apparent in Figure 5, which pictures Pole’s “correct and improved” method and apparatus for injecting a dissected hand. The value of this otherwise curious diagram was that it offered students clear instructions on using quicksilver. Such fine anatomical preparations were both marketable commodities and highly cherished: pedagogical illustrations were believed to provide clearer ideas so students could “see,” “know,” and “act” better.

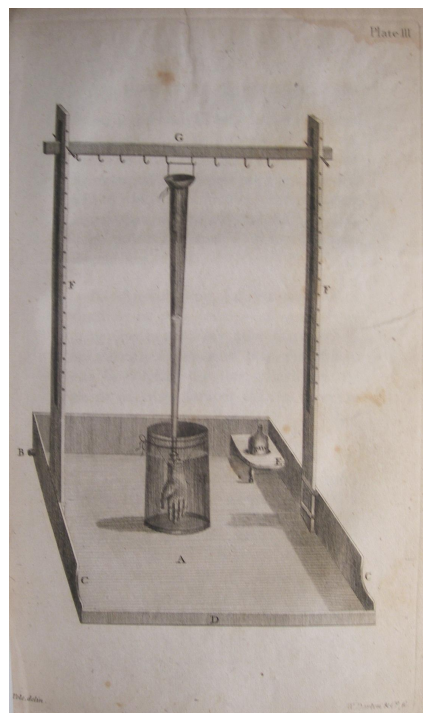


Figure 5. Thomas Pole. “Representing the injecting tray and its appendages, for the purpose of facilitating the process of quicksilver injections, and preventing the loss of quicksilver, which is constantly sustained in the old Method,” copperplate engraving, 22 x 20 cm, Plate 3. Courtesy of The New York Academy of Medicine.

To reward diligence, discipline, and excellence in achieving refined dissection and preservation technique, *The Anatomic Illustrator* suggested that special specimens be properly displayed. More specifically, the manual stated that anatomical preparations should function “as memorials of their industry.” Various ornate vessels, carafes, pedestals, and covers were intended to enclose preparations while they soaked in spirits of wine or oil of turpentine. Ornate platforms were intended to display prized corroded or dried preparations. In Figure 6, five ornamental prototypes produced from plaster of Paris are pictured.

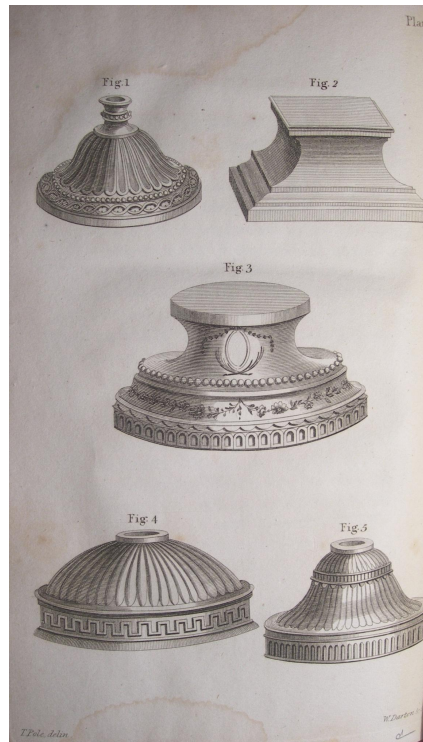


Figure 6. Thomas Pole. “Several pedestals cast in plaster of Paris, intended to support corroded and many other kinds of dried preparations, and recommended as more consistent with their elegance, than the common rude mass of plaster, upon which they have been hitherto generally placed,” copperplate engraving, 22 x 20 cm, Plate 9. Courtesy of The New York Academy of Medicine.

Each of these decorative platforms supported specific anatomical preparations: the smallest pedestal at the top left corner was intended to support kidneys, the flatter plain support beside it was for models of heads and busts, the pedestal in the middle was for extremities such as the hand injected with quicksilver or hearts, the bottom left was for livers, and the bottom right was for spleens and lungs. The ornamental design of each prototype was heightened by the illustrator’s adoption of crisp detailing techniques, which added to the overall artistry of the object’s ornate and elegant design. According to the title on the label for these trophy-like platforms, they were “recommended as more consistent with their elegance, than the common rude mass of plaster, upon which they have been hitherto generally placed” (Pole 1790, 175).

The elegant style of these pedestals speaks volumes about the bourgeois tastes, expectations, desires, and interests of the early nineteenth-century medical profession. Beautiful artistry was simply expected as the professional status of the physician changed over the course of the first half of the century. Specimens, dissection, and preservation tools, as well as medical tableaus involving medical procedures, were thus made not only to conform

to the currents of medical and dissection practice, involving accuracy and labor-intensive processes, but, equally, to conform to Western art historical models rooted in academic artistic practice and aesthetic philosophy. In this regard, the didactic potential of anatomical illustrations was heightened by illustrators' adoption of aesthetic strategies, traditions and investments.

CONCLUSION

Early nineteenth-century medical illustrations functioned as specific kinds of images; they arrived with a certain history and a certain authority, crossing the institutional divisions of art, science, pedagogy, and practice. The visual realm was increasingly accepted as an important epistemological site for this new medical knowledge and its transmission during this period. Detailed illustrations thus became one of the dominant sites wherein physicians achieved transparency for their ideas. In many respects, images were another way of collecting, formatting, selecting, reducing, comparing, and sorting knowledge, information, and facts about the body—all perfectly related to key techniques within scientific anatomy. The clear, precise, and often idealizing diagrammatic illustrations that were produced for new types of illustrated teaching texts were therefore modes of knowledge, as well as practices, that were essential to power and the professionalizing practices of medicine. As we have seen, they were instrumental in supporting the systematic codification and prestige on which nineteenth-century medical knowledge was to depend.

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