Visual Archives in Perspective: Enlarging on Historical Medical Photographs

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Abstract

Examining historical photographs can open paths to improved understanding of the history of most disciplines, including medicine. Images can be "read" and advantageously integrated with other historical "traces." Documents, including photographs, are "orphaned" when separated from their creators and used out of context. Archivists share with historians the responsibility for considering interpretations of the documentary record. Cultivating subject-specific understanding as well as general historical awareness expands our competency to read photographs and promotes more contextualized and historically grounded uses of information.

Approaching Photographs and History

Josiah Johnson Hawes painstakingly exposed daguerreotypes of early ether operations at the Massachusetts General Hospital in the spring of 1847. Half a century later, a reporter for the *Boston Weekly Transcript* interviewed the aged photographic pioneer in his Boston home. He displayed his personal collection of daguerreotypes to the reporter, including many portraits of prominent figures and one scene depicting the administration of anesthesia. He handled them "tenderly, almost reverently," the reporter observed. "One can see how the thoughts of other days fill his mind as he looks them over."[1]

Historical photographs are fertile, underused, and vulnerable to misinterpretation. They are, perhaps, the most immediate and affecting "traces"[2] of the past that we have, evoking "thoughts of other days" in nearly every viewer. This

[1] "A Famous Boston Studio," *Boston Weekly Transcript*, 30 July 1897, 3.

[2] Some historians suggest replacing the term *source* with the less loaded term *trace*, referring to any trace of the past found in the present, including printed books, manuscripts, artifacts, and images. One way of looking at the documentation represented by historical photographs is that they are "fragments," which, in conjunction with other fragments of evidence, other traces, can be assembled into broader and deeper constructions of historical knowledge. Elizabeth Edwards, ed., *Anthropology and Photography, 1860–1920*

article explores historical photography through a few selected aspects of the history of medical photography, offering general observations and a factual framework intended to aid interpretation, identify pitfalls, and encourage archivists to assume a role more active than that of passive preserver and processor of documents.[3] The photographic reproductions accompanying this article are not directly correlated to the text, although a careful "reading" of them illuminates many of the points discussed herein. Captions call attention to observations and background information derived from research in written sources, conversations with expert informants, and visual literacy, a process similar to the in-depth, on-site reference interactions encouraged in the Massachusetts General Hospital (MGH) Archives and Special Collections.

Historians build meanings by using traces of past events to interpret what happened in the past. The "possibility of history" is tied to the survival of such traces and our ability to read them.[4] Historians are expected to be careful about how raw materials are chosen and interpreted and have cultivated techniques for judging how authentic, representative, or relevant such materials are. "They have constructed typologies of sources, . . .dividing them into genres that lend themselves to systematic comparative analyses, and they have invented ingenious strategies for decoding and interpreting sources. . . .The historian's basic task is to choose reliable sources, to read them reliably, and to put them together in ways that provide reliable narratives about the past."[5]

Photographs have long been used to illustrate works overwhelmingly based on textual resources. More recently the photograph in its own right has proven its worth. Its proper place and most informed use is in context with other materials, integrated into a network of related historical traces,[6] often including

1860–1920 (New Haven, Conn.: Yale University Press, 1992), 5. Peter Burke explained that, "Traditionally historians have referred to their documents as 'sources,' as if they were filling their buckets from the stream of Truth, their stories becoming increasingly pure as they moved closer to the origins. . . , implying the possibility of an account of the past which is uncontaminated by intermediaries. It is, of course, impossible to study the past without the assistance of a whole chain of intermediaries, including not only earlier historians but also the archivists who arranged the documents, the scribes who wrote them and the witnesses whose words were recorded." *Eyewitnessing: The Uses of Images as Historical Evidence* (Ithaca, N.Y.: Cornell University Press, 2001), 13. This article will adopt use of the term *trace* in preference to *source,* with the understanding that traces of the past must be used whenever possible in conjunction and in comparison with one another to approximate an overall picture of past events, drawn from individual points of data and carefully considered lines of evaluation.

[3] Archival photographs are those with continuing usefulness, regardless of whether or not they are in an archival repository.

[4] Eduardo Cadava, *Words of Light: Theses on the Photography of History* (Princeton, N.J.: Princeton University Press, 1997), 64.

[5] Martha Howell and Walter Preventier, *From Reliable Sources: An Introduction to Historical Methods* (Ithaca, N.Y.: Cornell University Press, 2001), 1–2.

[6] For the problems (and advantages) associated with mixed collections of documents, artifacts, paintings, photographs, etc., see Jeffrey Mifflin, "Archivists and Artifacts: The Custodianship of Objects in an Archival Setting," *Archival Elements: Newsletter of the Science, Technology, and Healthcare Roundtable of the Society of American Archivists* (June 2003); and Jeffrey Mifflin, "Starting a Hospital Archives and Records Management Program:

complementary texts, and sometimes artifacts, oral testimony, sound recordings, films, and videotapes. Consumers would do well to ask how the interpretation of photographic traces is supported, furthered, contradicted, or confirmed by exploring them in conjunction with evidence gleaned from artifacts, oral statements, or written documents.[7]

Photographs are created by the convergence of photographer, subject, camera, and other variables, such as who is or isn't present, and the authority or influence they may have. The overall situation, as well as technology, frames the result. Angle, lens, speed of plate or film, moment chosen, and length of exposure shape what the camera records.[8] Today, because we are surrounded by photographs, and technologies that make distorting and altering photographic images easy and relatively undetectable,[9] we no longer consider them definitive truth-containing artifacts,[10] as did Dr. Oliver Wendell Holmes. Holmes (professor of anatomy and physiology at Harvard Medical School, 1847 to 1882) was so impressed by the verisimilitude of stereographs that he argued for the establishment of national or city libraries to maintain them.[11]

A Case Study," *Records and Information Management Report* 21, no. 10 (December 2005): 1–13. See also Ala Rekut, "Material Literacy: Reading Records as Material Culture," a paper read at the First International Conference on the History of Records and Archives (I-CHORA), 2–4 October 2003.

[7] As historian of science Adrian Johns recently pointed out as chair of a conference session entitled "Science as News," discriminating consumers of information "compare." They "triangulate" between different types of resources or media to arrive at what they think is the truth. Such resources often include books, the print media, television, the Internet, listservs, and word of mouth. Annual Meeting, History of Science Society, 23 November 2004, Cambridge, Mass.

[8] It is not possible in a short article to define and describe the myriad processes used in photography over the last 168 years. Important considerations related to the capabilities and limitations of specific photographic technologies and how they affect the resulting images have not been discussed in detail in this article, but will be addressed in a longer work currently in preparation. On processes and identification of types of photographs, see William Crawford, *The Keepers of Light: A History and Working Guide to Early Photographic Processes* (Dobbs Ferry, N.Y.: Morgan and Morgan, 1979). See also James M. Reilly, *Care and Identification of 19th-Century Photographic Prints* (Rochester, N.Y.: Eastman Kodak Co., 1986). For general information about photographic archives, see Mary Lynn Ritzenthaler, Gerald J. Munoff, and Margery S. Long, *Archives and Manuscripts: Administration of Photographic Collections* (Chicago: Society of American Archivists, 1984), now superseded by Mary Lynn Ritzenthaler and Diane Vogt O'Connor, *Photographs: Archival Care and Management* (Chicago: Society of American Archivists, 2006). Useful advice about arrangement and description is found in Bernadette Callery and Deborah Wythe, "Photographs," in *Museum Archives: An Introduction*, ed. Deborah Wythe, 2nd ed. (Chicago: Society of American Archivists, 2004), 123–140. George Eastman House maintains a database of historical photographers that can help with attribution of images. See www.geh.org (accessed 11 May 2006).

[9] For discussion of concerns about new technology and alteration of photographs, see Elisabeth Parinet, "Diplomatics and Institutional Photos," *American Archivist* 59 (Fall 1996): 480–85. For further consideration of what constitutes authenticity in a photograph and how diplomatics can orient archivists to such questions, see Nancy Bartlett, "Diplomatics for Photographic Images: Academic Exoticism?" *American Archivist* 59 (Fall 1996): 486–94.

[10] A useful survey of early critical writing about photographs as "reliable and authentic evidence of some external reality" is Joan M. Schwartz, " 'Records of Simple Truth and Precision': Photography, Archives, and the Illusion of Control," *Archivaria* 50 (Spring 2000): 1–40.

[11] See Oliver Wendell Holmes, "The Stereoscope and the Stereograph," in *Classic Essays on Photography*, ed. Alan Trachtenberg (New Haven, Conn.: Lette's Island Books, 1980), 71–82; and Oliver Wendell

Photographs have a remarkable potential for being exploited to various ends. A principal danger in using photographs as historical traces is inherent in the possibilities of dislocation in time and space.[12] Context can provide an anchor that may not be otherwise available, a hedge against error, discouraging the superimposition of meanings. Martha Sandweiss explained that audiences often encounter photographs in such contexts as albums, scrapbooks, studio windows, public lectures, and advertisements. When they are "wrenched from the context of their original presentation" and added to a repository, a viewer's ability to understand them is "diminished."[13] *A Glossary of Archival and Records Terminology*, published by the Society of American Archivists, acknowledges the importance of such stabilizing associations in its definition of "photographic archives," which begins with the phrase "a collection of photographs, often with accompanying materials in other formats."[14]

As Brian Wallis warned, the "notion of an autonomous image is a fiction."[15] The best contemporary thinking about the nature of visual images recognizes, according to Joan Schwartz, that they

> carry important social consequences and that the facts they transmit in visual form must be understood in social space and real time. . . .This focus on context. . . not only connects the concerns of users of archives to the aims of

Holmes, "Doings of the Sunbeam," *Atlantic Monthly* 12 (July 1863): 1–15. See also Stanley B. Burns, "Early Medical Photography in America (1839–1883): II. Physicians and Early Photography," *New York State Journal of Medicine* (May 1979): 945–46.

[12] Note that many medical photographic collections developed in ways best described as "artificial" rather than "organic." One, focusing exclusively on historical material, is the Burns Archive in New York, which licenses selected images from its collections on its Web site at http://www.burnsarchive.com/archive/medical.html, accessed 11 May 2006. Others include the Wellcome Institute for the History of Medicine, the National Library of Medicine, the Center for the History of Medicine at Harvard Medical School's Francis A. Countway Library, and the Chesney Medical Archives at Johns Hopkins Medical Institutions. Harvard's on-line "Visual Information Access" database at http://via.harvard.edu:9080/via/deliver/advancedsearch?_collection=via (accessed 11 May 2006) contains many medical images spread out over the university's numerous repositories. The "Related Work" field of the database (not filled in for every image) is especially valuable. See also Harvard's Oasis database at http://oasis.harvard.edu:10080/oasis/deliver/advancedsearch?_collection=oasis, accessed 11 May 2006. A useful print resource for American medical images is *Illustrated Catalogue of the Slide Archive of Historical Medical Photographs at Stony Brook,* compiled by Rima Apple (Westport, Conn.: Greenwood Press, 1984), which describes and indexes 3,016 photographs and lists repositories known to have significant collections. But note that use of on-line images or, for that matter, other out-of-context reproductions, cannot replace a close examination of originals and associated documentation.

[13] Martha A. Sandweiss, *Photography in Nineteenth-Century America* (Fort Worth, Tex.: Amon Carter Museum; New York: Harry N. Abrams, 1991), ix. It is worth noting that archivists are usually better at preserving the context, or information about the context, of an accession than are museum personnel, who are more inclined to treat an accession as an individual item that can be appreciated on the basis of its own merits.

[14] Richard Pearce-Moses, *A Glossary of Archival and Records Terminology* (Chicago: Society of American Archivists, 2005), 295.

[15] Brian Wallis, "Black Bodies, White Science," *American Art* 9 (Summer 1995): 40. He goes on to explain that photographs that once circulated out of family albums, desk drawers, etc., have often been "displaced" to the "unifying context of the art museum."

> keepers of archives, but also shows that archival description cannot proceed from surface content alone. . . .Our job is to seek their intended function or role—be it personal, social, political, or economic—as a means of communicating a message across time and/or space and then to consider how to preserve and describe them in a way that respects, reveals, and retains their impact on human relations, power, and knowledge.[16]

A number of historians[17] and educators in visual anthropology,[18] as well as archivists,[19] have discussed the pitfalls and opportunities that photographs present when mined for historical purposes.

The most frequently used guides about how to manage an archival program in a hospital setting briefly mention photographs, but do not discuss their collection or use in any detail. Joan Krizack pointed to photographs as useful components of documentation strategy for health care systems.[20] Nancy McCall and Lisa Mix alluded (briefly, in captions) to the importance and usefulness of historical medical photographs.[21] Barbara L. Craig listed photographs of colleagues,

[16] Joan M. Schwartz, "Negotiating the Visual Turn: New Perspectives on Images and Archives," *American Archivist* 67 (Spring/Summer 2004): 110. See also Joan Schwartz, " 'We make our tools and our tools make us': Lessons from Photographs for the Practice, Politics, and Poetics of Diplomatics," *Archivaria* 40 (Fall 1995): 40–74.

[17] See, for example, Marsha Peters and Bernard Mergen, " 'Doing the Rest': The Uses of Photographs in American Studies," *American Quarterly* 29 (Summer 1977): 280–303. See also Jennifer Tucker, "The Historian, the Picture, and the Archive," *Isis* 97 (March 2006): 111–20.

[18] See, notably, Edwards, *Anthropology and Photography;* and Elizabeth Edwards, *Raw Histories: Photographs, Anthropology, and Museums* (Oxford: Berg, 2001). Edwards's special interest is the relationship between photographic practices and cultural representation, especially in anthropological records. The journal *Visual Anthropology* is also a fertile resource for discussions on many aspects of visual literacy.

[19] Good general advice for archivists working with historical photographs appears in an article by Elisabeth Kaplan and Jeffrey Mifflin, " 'Mind and Sight': Visual Literacy and the Archivist," in *American Archival Studies: Theory and Practice*, ed. Randall C. Jimerson (Chicago: Society of American Archivists, 2000), first published in *Archival Issues* 21, no. 2 (1996): 107–27. See also Normand Charbonneau, "The Selection of Photographs," *Archivaria* 59 (Spring 2005): 119–38; Jim Burant, "Visual Archives and the Writing of Canadian History," *Archivaria* 54 (Fall 2002): 115–17; Richard Noble, "Considerations for Evaluating Local History Photographs," *Picturescope* 31, no. 1 (1983): 17–20; Richard Rudisill, "On Reading Photographs," *Journal of American Culture* 5 (Fall 1982): 1–14; and Thomas Schlereth, "Mirrors of the Past: Historical Photography and American History," in *Artifacts and the American Past* (Nashville, Tenn.: American Association for State and Local History, 1980). Articles by Joan Schwartz have effectively mined and interpreted historical photographs in addition to providing a coherent theoretical overview. See, for example, Joan Schwartz, " 'Records of Simple Truth and Precision': Photography, Archives, and the Illusion of Control," *Archivaria* 50 (Fall 2000): 1–40; "Photographic Record of Pre-Confederation British Columbia," *Archivaria* 5 (Winter 1977–78): 17–44; and " 'We make our tools and our tools make us.' " Some general suggestions for further reading are brought together in Richard Pearce-Moses, ed., *A Visual Materials Bibliography* at http://palimpsest.stanford.edu/byauth/pearce-moses/vismat.html (accessed 11 May 2006). The Web site maintained by the Prints and Photographs Division of the U.S. Library of Congress contains a good general bibliography about photographs, which includes a section on "Picture Research and Visual Literacy" at http://www.loc.gov/rr/print/resource/vmbib.html (accessed 11 May 2006). See also *Views: The Newsletter of the Visual Materials Section of the Society of American Archivists* at http://www.lib.lsu.edu/SAA/views.html, accessed 5 October 2006.

[20] Joan Krizack, *Documentation Planning for the U.S. Health Care System* (Baltimore: Johns Hopkins University Press, 1995).

[21] Nancy McCall and Lisa Mix, *Designing Archival Programs to Advance Knowledge in the Health Fields* (Baltimore: Johns Hopkins University Press, 1995). Sample captions include: "When it is impractical

offices, equipment, consulting rooms, buildings, staff, events, and clinical work as being among "types of materials which are usually of long term value."[22] The multivolume *Bibliography of the History of Medicine*, compiled by the National Library of Medicine, lists a number of books and articles useful for multifaceted consideration of the place of photographs in medical history,[23] but *Morton's Medical Bibliography* (a classic reference tool) indicates only two books considered important in the history of medicine because of their use of photographs.[24]

Craig, in discussing hospital historiography, pointed out that some social historians of medicine have recently challenged "almost exclusive reliance on. . .administrative records and published reports" because of the "often intractable nature of records" that don't "respond to current questioning."[25] Providing an effective example of the possibilities of such an approach, she and Gordon Dodds published a selection of historical medical photographs as "independent documents supported by captions." They hoped thereby to "interest others in pursuing a similar approach to historical themes and that the unique archival value of photographs as evidence will encourage a catholic appraisal of these documents within the sphere of medical history."[26] Historical medical photographs can contribute much to our understanding of people, situations, and relationships not addressed by materials such as letters, diaries, administrative records, and journal articles. If analyzed and used with appropriate cautions, they can express elements of the history of medicine that are "rarely disclosed" elsewhere.[27]

to preserve examples of large-scale equipment, photographs may serve as substitute documentation" (210). "Photographs are a major source for studying the evolution of laboratory practices" (193). "Visual documentation constitutes a major source for studying the activities of teaching, health care, and research" (191). "Photographs of patients and specimens [are] a significant part of visual documentation. . . . The intellectual and physical control of visual documentation presents many new challenges to archival management in the health fields" (99). "Visual documentation is also a major resource for the study of socioeconomic conditions at health care institutions" (23).

[22] Barbara L. Craig, *Medical Archives: What They Are and How to Keep Them, an Introduction and Some Basic Advice for Individuals and Institutions,* 2nd ed. (Toronto: Associated Medical Services, 2000), 36.

[23] National Library of Medicine, *Bibliography of the History of Medicine* (Bethesda, Md.: U.S. Department of Health and Human Services, Public Health Service, National Institutes of Health, National Library of Medicine, 1964–1993). See also Carl Spadoni, "Medical Archives: An Annotated Bibliography," *Archivaria* 28 (Summer 1989): 74–119; and Geoffrey Reaume and Barbara L. Craig, "Medical Archives: An Update of the Spadoni Bibliography, 1986–1995," *Archivaria* 41 (Spring 1990): 121-57.

[24] Jeremy M. Norman, ed., *Morton's Medical Bibliography: An Annotated Check-list of Texts Illustrating the History of Medicine (Garrison and Morton)*, 5th ed. (Aldershot, U.K.: Scolar Press, 1991), 766–67.

[25] Barbara L. Craig, "The Canadian Hospital in History and Archives," *Archivaria* 21 (Winter 1985–86): 56.

[26] Barbara L. Craig and Gordon Dodds, "The Picture of Health," *Archivaria* 10 (Summer 1980): 192. A similar approach was effectively adopted in Janet Golden and Charles E. Rosenburg, *Picture of Health: A Photographic History of Health Care in Philadelphia, 1860–1945* (Philadelphia: University of Pennsylvania Press, 1991). See also Jacalyn Duffin, "Medicine through the Lens of a Camera," *Queen's Quarterly* 98, no. 4 (Winter 1991): 865–73.

[27] Rima D. Apple, "Picturing the Hospital: Photographs in the History of an Institution," in *The American General Hospital: Communities and Social Contexts,* ed. Diana E. Long and Janet Golden (Ithaca, N.Y.: Cornell University Press, 1989), 68.

Advantages and Limits of Imaging Technologies

Nineteenth-century attempts to draw what the microscope revealed were often inaccurate because of "imagination and taste" that never failed to influence "the pencil."[28] The 1839 announcement of photography's invention by Louis Jacques Mandé Daguerre in France was quickly followed by its use in conjunction with microscopes. The first known medical photographs were daguerreian photomicrographs (daguerreotypes exposed through the lens of a microscope, depicting micro-organisms) taken by Dr. Alfred Donné in France in 1839.[29] Medical practitioners were entranced by the supposed accuracy of magnified images captured on daguerreotype plates and the engravings based on them.[30] According to philosopher Michel Foucault, the nineteenth-century transition to modern medicine was characterized by increased faith in visual evidence.[31]

Early uses of photography in medicine were limited by the available photographic technology. For example, photomicrographs could be and were taken using the daguerreotype process, but this required long exposures. Calotypes (a paper-based process announced by William Henry Fox Talbot in England at about the same time that Daguerre revealed his silvered copperplate process) were not suitable for use with the microscope because the coarseness of the paper made microscopic details unreadable. Frederick Scott Archer's development of the wet collodion process (wet plates) in 1851 enabled faster speeds for microscopy and other applications, but preparing the glass plates, which had to be sensitized on the spot and developed soon after, was a messy task fraught with difficulty.[32]

Not surprisingly, doctors were pioneers in the refinement of early photographic technology and the application thereof to scientific purposes, such as microscope work, or creating a photographic record of clinical events.[33] Richard

[28] Dionysis Lardner, *The Museum of Science and Art*, vol. 6 (London, 1855), as quoted in Bates Lowry and Isabel Barrett Lowry, *The Silver Canvas* (Los Angeles: Getty Museum, 1998), 102–3. Lardner was a central figure in mid–nineteenth-century publication projects aimed at bringing easily digested scientific knowledge to the general public at affordable prices. See also James A. Secord, *Victorian Sensation: The Extraordinary Publication, Reception, and Secret Authorship of 'Vestiges of the Natural History of Creation'* (Chicago: University of Chicago Press, 2003), 50–51.

[29] Stanley B. Burns, "Early Medical Photography in America (1839–1883): VII. American Medical Publications with Photographs," *New York State Journal of Medicine* (July 1981): 1245.

[30] Lowry, *The Silver Canvas*, 102–3.

[31] Michel Foucault, *The Birth of the Clinic* (New York: Vintage Books, 1975), 107, passim.

[32] Burns, "Early Medical Photography in America (1839-1883): III. The Daguerrean Era," *New York State Journal of Medicine* (July 1979): 1264. On photomicrography see Stanley Klosevych, "Progress in the Science of Photography through the Microscope," *Journal of the Biological Photographic Association* 35, no. 3 (August 1967): 130–42.

[33] See George Rosen, ed., "Medicine and Early Photography," *Ciba Symposia* 4 (August–September 1942): 1330–59. See also Burns, "Early Medical Photography" II, 943–47; and M. L. Verso, "Doctors and Daguerreotypes: Contributions of Medical Men to the History of Photography," *The Victorian Historical Magazine: Journal and Proceedings of the Royal Historical Society of Victoria* 40, nos. 1 and 2 (February/May 1969): 23–44.

Maddox, a physician whose special interest was photomicrography, was instrumental in 1871 in developing dry plates, glass negative plates coated with gelatino-bromide solution allowed to dry before use. Unlike wet plates, they could be stored in readiness until needed. By 1878, improvements to the dry plate allowed medical photographs to be taken at a speed of 1/25 second. Medical journals in the 1880s carried articles about the sundry new applications of photography to medical practice.[34] The first textbook on medical photography (*La Photographie Médicale)* came out in 1893.[35] By the end of the nineteenth century the use of photography in creating a clinical record and for medical education had been thoroughly established.[36]

Early photographs depicting operating room activities are scarce. Close detail required sharp focus, necessitating smaller diaphragm openings on the lens and therefore longer exposures. Longer exposures blurred the image when the doctor probed or the patient drew breath. Early artificial lights were unsuited to the operating room because the carbon-arc lamp burned with an open flame and could not be used in the presence of anesthetic gases. Flash powders were off-limits because of the gases they scattered after ignition. When used to light photographs, mercury vapor lamps did not show bloody details with sufficient clarity. Successful photography of operations in progress was not accomplished until the development of the first practical incandescent lighting systems. (Incandescent bulbs were invented in the 1870s. Systems for generating and providing electrical power for lighting started in the 1880s.) Surgical photography advanced rapidly after the introduction of sensitive panchromatic films in 1904 and photoflash bulbs in 1931.[37] Photographic technology continued to improve (through development, for example, of powerful flashbulbs, more sensitive films, and faster lenses) as the demand for and volume of clinical photography increased.

The silver halide emulsion used on photographic plates in the 1890s was also sensitive to the "Roentgen ray" discovered by Wilhelm Roentgen in 1895, which afforded seemingly miraculous x-ray images of the body's interior. When x-rays became a diagnostic tool after 1895, no one knew whether or not they needed to be retained. The necessary information could often be ascertained from live x-ray images of a patient's insides without creating and preserving a document. (Some very early x-rays were preserved only as a novelty.) As the x-ray became routine for many types of illness, its examination (and re-examination) by more

[34] *Massachusetts General Hospital News*, May 1959, 1–2.

[35] A. R. Williams, "Victorian Clinical Photography," *Journal of Audiovisual Media in Medicine* (1982, no. 5): 100.

[36] Stanley B. Burns, "Early Medical Photography in America (1839–1883)," *New York State Journal of Medicine* (April 1979): 795.

[37] Leonard A. Julin, "A History of Still Photography in the Operating Room," *Journal of the Biological Photographic Association* 39, no. 3 (July 1971): 131–33.

than one person also increased and its preservation as part of the permanent record became standard practice.[38] A study of hospital records in Ontario showed a dramatic increase in the size of case records as well as the variety of types of documents included in patient files starting in the late nineteenth century. These included x-ray positives, x-ray analyses, photographs, and a plethora of other new documents.[39]

The rise of health care technology may have had the unfortunate side effect of distancing patients from their doctors. Patients have reported feeling that their own accounts of how they feel, where it hurts, and so on, have been "devalued" because of the "privileged position" assigned to the "objective" machine. "An overuse of machinery may have made physicians better scientists but poorer healers."[40] Increased numbers of photographs depicting technical equipment in the early twentieth century show how such devices were used and how important they were thought to be by the people who purchased them. By the late twentieth century, most patients and doctors had come to rely on machine-based knowledge and to believe that the best medical care derived from scientific measurements of the body, transcending other techniques.[41]

Ways of Depicting Patients

The three principal components of medical diagnosis are palpation (touching), auscultation (listening), and inspection (seeing with the eyes). As an aid to inspection, photographs have helped doctors describe and convey what they see in invaluable ways.[42] Images of patients have been made (and selected) as tools for diagnosis or teaching, or as devices for otherwise identifying and describing illness.

[38] McCall and Mix, *Designing Archival Programs*, 47–48.

[39] Barbara L. Craig, "Hospital Records and Record-Keeping, c.1850–c.1950, Part I: The Development of Records in Hospitals," *Archivaria* 29 (Winter 1989–90): 64.

[40] Joel D. Howell, *Technology in the Hospital: Transforming Patient Care in the Early Twentieth Century* (Baltimore: Johns Hopkins University Press, 1995), 6. Of special interest in this regard is Paul Starr's controversial analysis of the trajectory of American medicine, including the relationship between an increase in technical expertise and the concurrent distancing of patient from practitioner. Paul Starr, *The Social Transformation of American Medicine* (New York: Basic Books, 1982).

[41] Howell, *Technology in the Hospital*, 10. See also Charles Rosenberg, "Technology and Modern Medicine," *Newsletter: American Association for the History of Medicine* 42 (1993): 1–3; and Charles Rosenberg, *The Care of Strangers: The Rise of America's Hospital System* (Baltimore: Johns Hopkins University Press, 1995). Barbara Maria Stafford has described how "subjective visual judgment is called into question by supposedly objective machinery. . .[A]ttention is transferred from the recognition of visible surface qualities—now deemed deluding—to penetrating devices assumed to be free of illusion." B. M. Stafford, *Good Looking: Essays on the Virtue of Images* (Cambridge, Mass.: MIT Press, 1996), 143.

[42] See John D. Stoeckle and Guillermo C. Sanchez, "On Seeing Medicine's Science and Art: Cure and Care, Body and Patient," in *The Invention of Photography and Its Impact on Learning*, ed. Louise Ambler and Melissa Banta (Cambridge, Mass.: Harvard University Library, 1989), 73, 77.

Early in his career, Dr. Henry Jacob Bigelow, a mid-nineteenth-century Boston surgeon, employed artists to create a visual record of the conditions he treated and wanted to preserve for further study. By the 1850s, he was also taking some of his patients to the daguerreian studio of John Adams Whipple to have clinical conditions recorded photographically.[43] Because no guidelines existed at the time for clinical photography, and because the aesthetic perceptions of first-rate daguerreotypists were derived from conventions of classical art, the resulting photographs of medical conditions often seem oddly artistic.[44]

The *Boston Medical and Surgical Journal* for 10 December 1857 commended John B. Brown, an orthopedic surgeon, for his foresight in documenting the progress of patients photographically, stating that "the daguerreotype apparatus may fairly be considered one of the articles of the surgeon's armamentarium." The same issue suggested that hospitals assign "photographists" to their staffs in the same way and for the same reasons that "microscopists, pathological anatomists, and chemists" had established their roles. In 1858, Bigelow deposited daguerreotypes (as well as medical drawings) of his patients in the Warren Anatomical Museum at Harvard Medical School, where they were carefully cataloged and described as diagnostic and teaching aids for other physicians. The Warren Museum's collections included lithographs, bones, soft tissue preserved in fluid, and other objects in addition to photographs. Pathological images often complemented specimens.[45]

Nineteenth-century doctors permitted their patients' symptoms to develop much further than doctors would today, and extreme conditions were among the favorite subjects for medical photography. One of the practical values of old medical photographs is that the information contained in them can educate today's practitioners about what happens when a disease is allowed to run its full course. Such images are jarring to the nonmedical viewer, and few readers of *American Archivist* would want to be confronted by photographs of 250-pound tumors growing from bedridden patients, or children with their lips, noses, and eyes destroyed by the effects of inherited syphilis, or examples of skeletal malformations, conjoined births, smallpox, severe burns, and other misfortunes.

[43] It is interesting to note that the fledgling Massachusetts Institute of Technology was sufficiently impressed by the scientific applications of photography in 1869 to invite Whipple to teach photographic technique to its undergraduate students "without pecuniary consideration." (To his credit, he accepted this less-than-gracious offer.) MIT Archives and Special Collections, AC 272, Executive Committee, MIT Corporation, box 1, vol. 1, p. 61.

[44] Melissa Banta, *A Curious and Ingenious Art: Reflections on Daguerreotypes at Harvard* (Iowa City: University of Iowa Press, 2000), 63.

[45] The following catalog entries are typical: "Morbid Anatomy, 2985. A large, fibro-cellular outgrowth of the skin from over the left buttock. From a woman, twenty-five years of age. The disease was of about six years' duration. . . [etc.] 1857. Dr. H. J. Bigelow. Morbid Anatomy 2986–7. Daguerreotypes of the above case, which was published by Dr. B. in the Med. Jour. (Vol. LXX. P. 174), with a woodcut. 1857. Dr. H .J. Bigelow." J. B. S. Jackson, MD, *A Descriptive Catalogue of the Warren Anatomical Museum* (Boston: A. Williams and Company, 1870), 647.

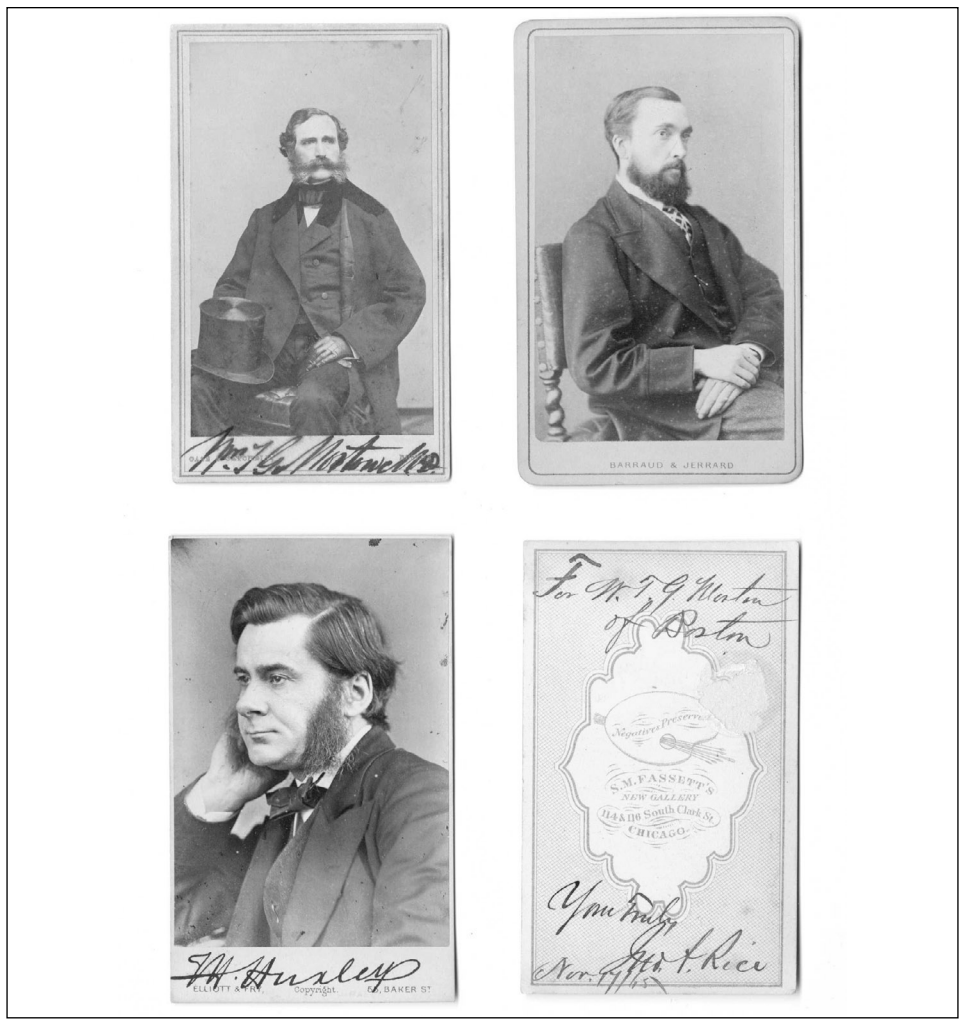
Gallery of Images

1. Dr. John Collins Warren gave his final lecture about surgery in the Operating Room at the Massachusetts General Hospital in the spring of 1847. Warren (touching the etherized patient) arranged for William Morton's "trial" of ether in 1846, the first public demonstration of surgical anesthesia. This image has been used in many contexts (books and exhibits on the history of medicine, postcards, art textbooks, fine arts classes, scholastic aptitude tests, and interior decoration of medical offices) and has served as a reference for historical paintings and the restoration of a national historic landmark. It details the contents and configuration of an American surgical amphitheater in the years after anesthesia but before asepsis and antisepsis. Ether has just been given by means of a conical sponge, and the surgeons are poised (and dressed with suitable dignity) for the operation. The information inherent in the image is intertwined with and supplementary to such additional historical traces as extant ether sponges, Warren's journals, portrait busts, scalpels, and other surgical apparatus.

Josiah Johnson Hawes (commissioned by MGH), daguerreotype. Harvard University, Fogg Art Museum (on long-term loan from the Massachusetts General Hospital Archives and Special Collections).

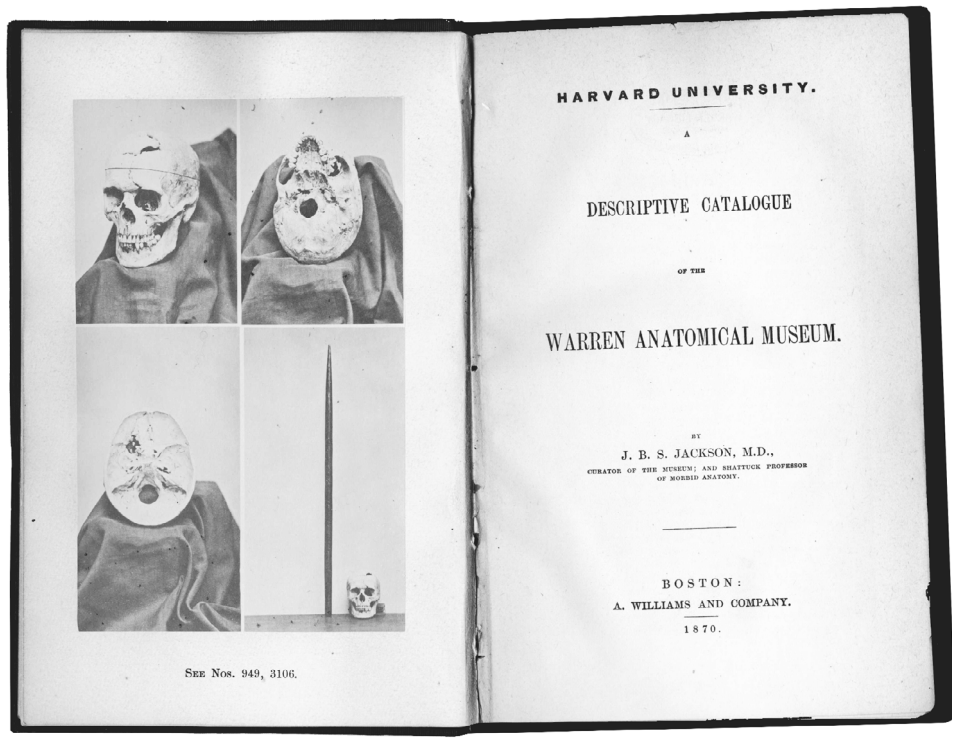
2. Between 1847 and 1884, Harvard Medical School (on right) was adjacent to the Massachusetts General Hospital near the tidal flats of the Charles River, affording medical students easy access to clinical experiences. The hospital received patients and supplies at the wharf during high tide before landfill in the 1860s pushed the tidal basin a thousand feet further west. This image from about 1851 highlights progress, such as new construction, and the mutual benefits of hospital-medical school collaboration. But the photographer has selectively omitted the surrounding community of Irish immigrants packed in crowded tenements, many of which were owned by the MGH's Dr. George Parkman. A well-founded belief in the community that grave robbing was the main source of cadavers used in anatomy labs fueled fears and suspicion. When Parkman was murdered and dismembered by Dr. John Webster in the school's chemistry lab in 1849, an angry mob surrounded the school and threatened to destroy it. Historical maps, city directories, diaries, and newspapers bring out information latent in the image.

Photographer unknown (commissioned by MGH), albumen print from wet plate negative (wet collodion process). Massachusetts General Hospital Archives and Special Collections, Photographic Collections, Buildings Files, Box 2, Folder: Bulfinch Building, exterior views.



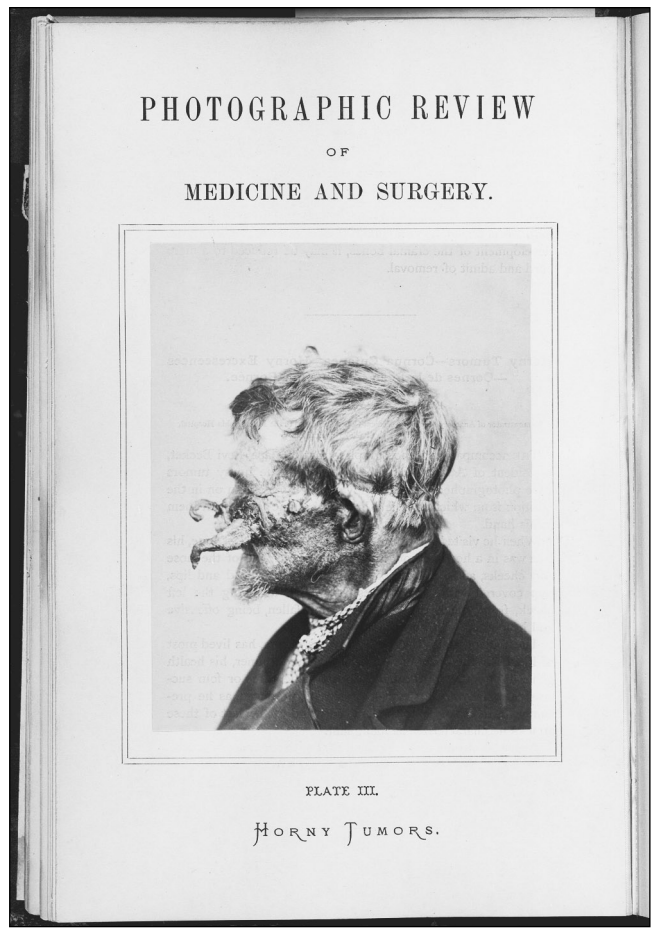
3. William T. G. Morton was a Boston dentist who briefly attended classes at Harvard Medical School and exploited his connections with the influential doctors and scientists who helped him develop a sufficiently potent, safe method of anesthesia for surgery. He attempted to conceal the identity of the anesthetic chemical agent (sulphuric ether) and tried to patent the process, resulting in a lawsuit that provoked the scorn of many in the medical profession. His efforts to ingratiate himself into the circles of the medical establishment were unceasing. He may have requested, collected, and shown off *cartes de visite* of influential physicians as an attempt to become associated with men of unassailable reputation. Morton's collection was originally contained in an album (no longer extant), which would have been displayed for guests on a table in the family parlor. The photographs collected by Morton should be viewed in the context of other historical traces, such as the giant gold collar he bought to aggrandize a small French medal he received and the self-serving biography he commissioned, entitled *Trials of a Public Benefactor*.

Studios (clockwise from upper right) of Barraud & Jerrard (London), S. M. Fassett (Chicago), Elliott and Fry (London), and Case and Gretchell (Boston), cartes de visite (card-mounted albumen prints from wet plate negatives (wet collodion process). Massachusetts General Hospital Archives and Special Collections, William T. G. Morton Photograph Collection, Box 1.



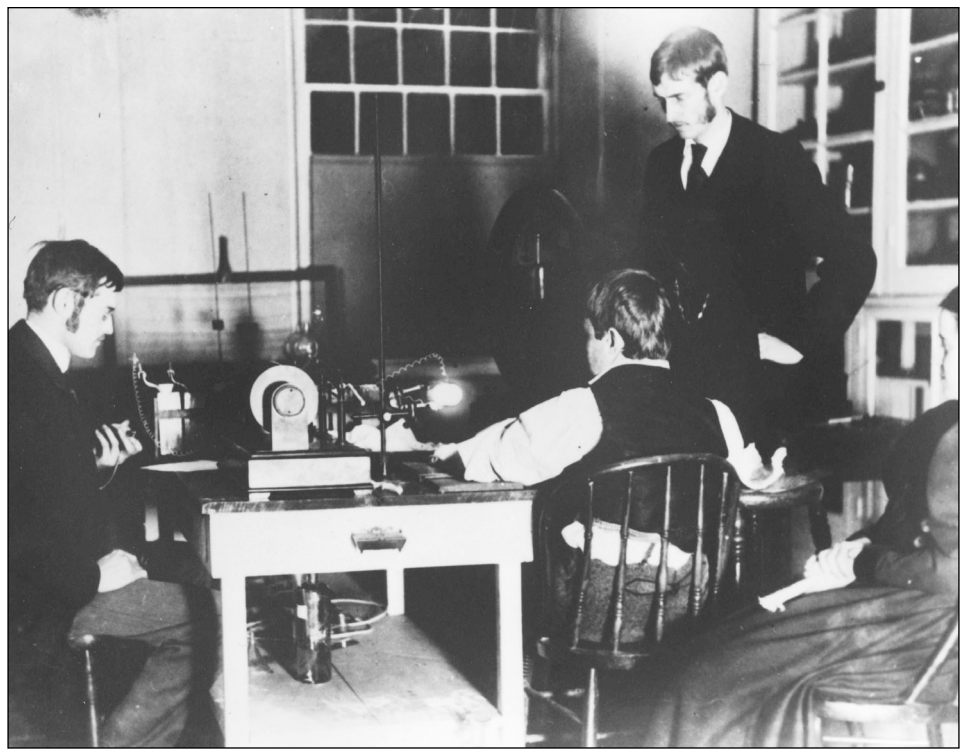
4. Since 1866, the principal attraction of the Warren Anatomical Collection has been its artifacts relating to the 1848 Phineas Gage incident. Gage lived for twelve-and-one-half years after a railway construction accident in which a huge tamping iron shot through his skull when the rock-blasting charge he was preparing exploded unexpectedly. To the astonishment of the medical community, he survived the blast and quickly recovered normal levels of functioning (although observers noticed puzzling changes in personality). Gage's physician, John M. Harlow, commissioned postmortem photographs of the skull in preparation for a conference presentation. Photographs of the cranium, taken in 1868 from different angles, seem determined to address lingering doubts that the bizarre case might be a hoax. Such documentary images were pasted to the frontispiece of the museum's catalog in 1870. Photographs like this are an invitation to inspect the actual artifacts, best understood when looked at in conjunction with cataloging records, medical reports, newspaper clippings, and journal articles, such as the famous case history published in volume 39 of the *Boston Medical and Surgical Journal.*

S. Webster Wyman (commissioned by Dr. John M. Harlow), albumen print from wet plate negatives (wet collodion process), pasted in published book. Warren Anatomical Museum, Harvard Medical School.



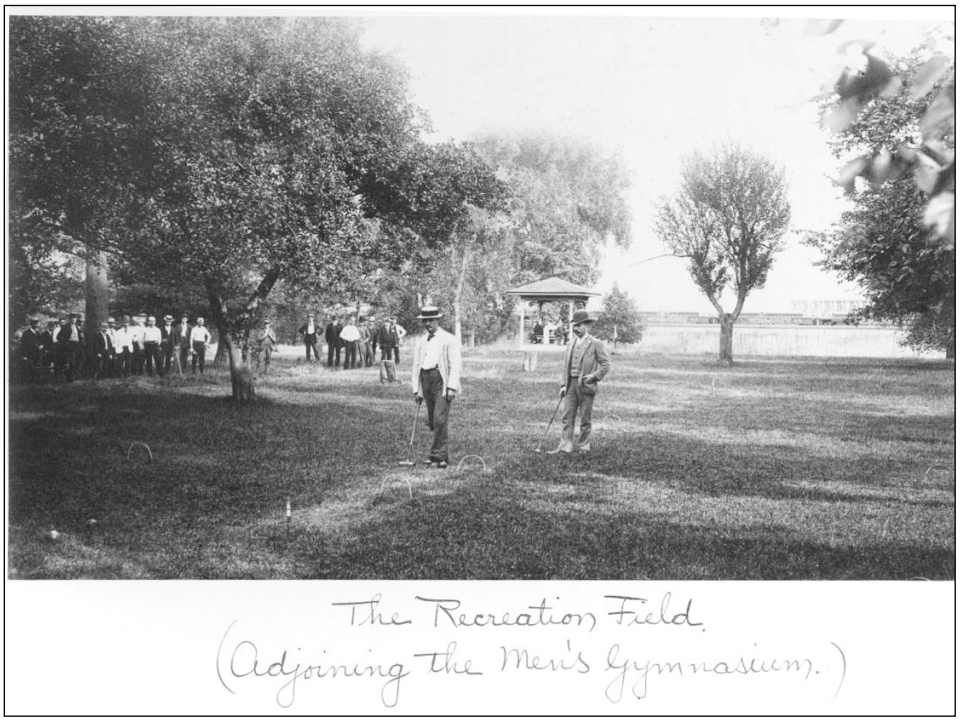
5. *The Photographic Review of Medicine and Surgery* was a short-lived but significant periodical published in Philadelphia (1871–1872), which combined striking images of patients with descriptive texts by attending physicians. The issue seen here features a seventy-eight-year-old sea captain who had spent much of his life exposed to the wind and sun and suffered several attacks of erysipelas, the last of which caused horny excrescences on his cheeks and nose. The "horns" had actually broken off before the patient sought medical help from Dr. William Pancoast, who reattached them with string for the photographer's benefit. Subscribers (a largely medical readership) received original albumen prints pasted onto card stock in each issue. Nineteenth-century patient photographs have a special role in the history of medical photography because they provide graphic evidence of what happened to symptoms when they were allowed to progress to extremes. The two-year run of the *Review* seems in part to be a sincere attempt by American physicians to disseminate usable information among colleagues. In part, though, because of the recurring focus on extreme conditions, it seems like a periodical museum of teratology.

Photographer unknown (commissioned by Dr. William Pancoast), albumen print from gelatin dry plate negative, pasted in published journal. Boston Medical Library in the Francis A. Countway Library of Medicine, Harvard Medical School.



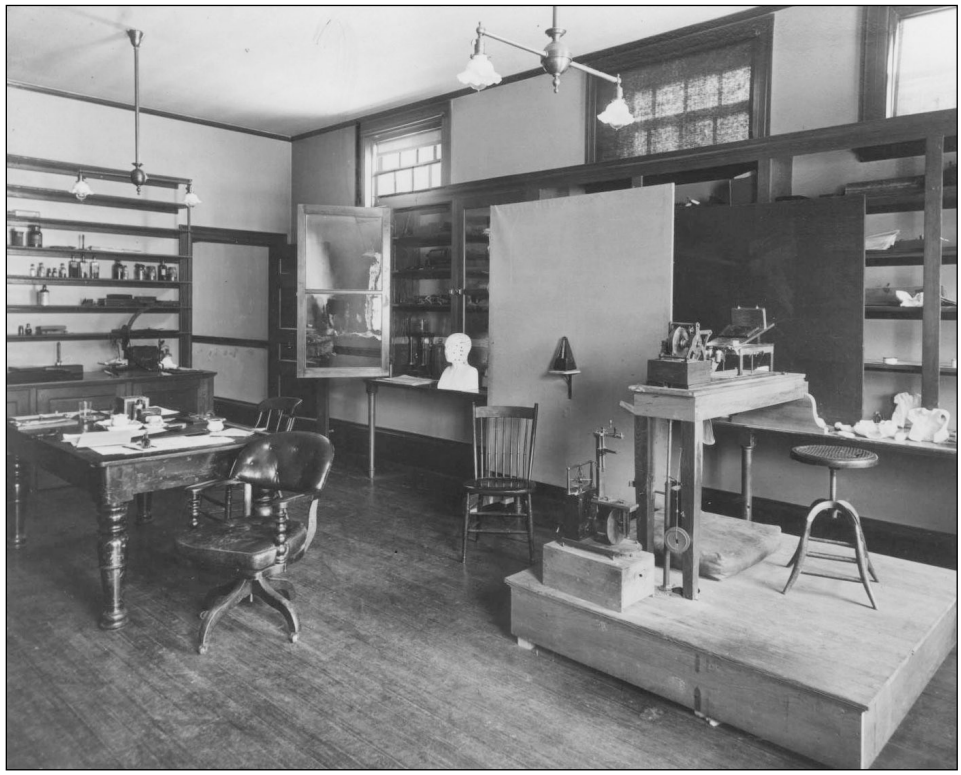
6. Eddie McCarthy, who fractured his wrist while skating on the Connecticut River near Dartmouth College in 1896, was the subject of the first medical x-ray taken in the United States, an event recorded by the photographic firm of H. H. H. Langhill. Edwin Frost, professor of physics at Dartmouth (brother of the boy's doctor, Gilman Frost) exposed the x-ray, using a gelatin dry plate, Crookes tube, and electrical apparatus from the college physics lab. The exposure took twenty minutes. The brothers had read accounts in New York newspapers regarding the discoveries of Wilhelm Roentgen and were excited by the opportunity to try the technique on a patient. Evidently, having called in a photographer, they knew that the occasion was momentous. Within a few weeks a number of other U.S. enthusiasts were experimenting (somewhat fumblingly) with homemade x-ray apparatus. The Dartmouth image is best understood when viewed in conjunction with the shaky but readable x-ray produced and in comparison with photographs of other primitive x-ray set-ups. The original apparatus survives at Dartmouth's Fairchild Science Center. Contemporary newspaper accounts and journal articles, such as the write-up by Frost for *Science* (14 February 1896), are invaluable.

Studio of H. H. H. Langhill, copy photograph from a vintage print made from a gelatin dry plate negative. Dartmouth College Library.



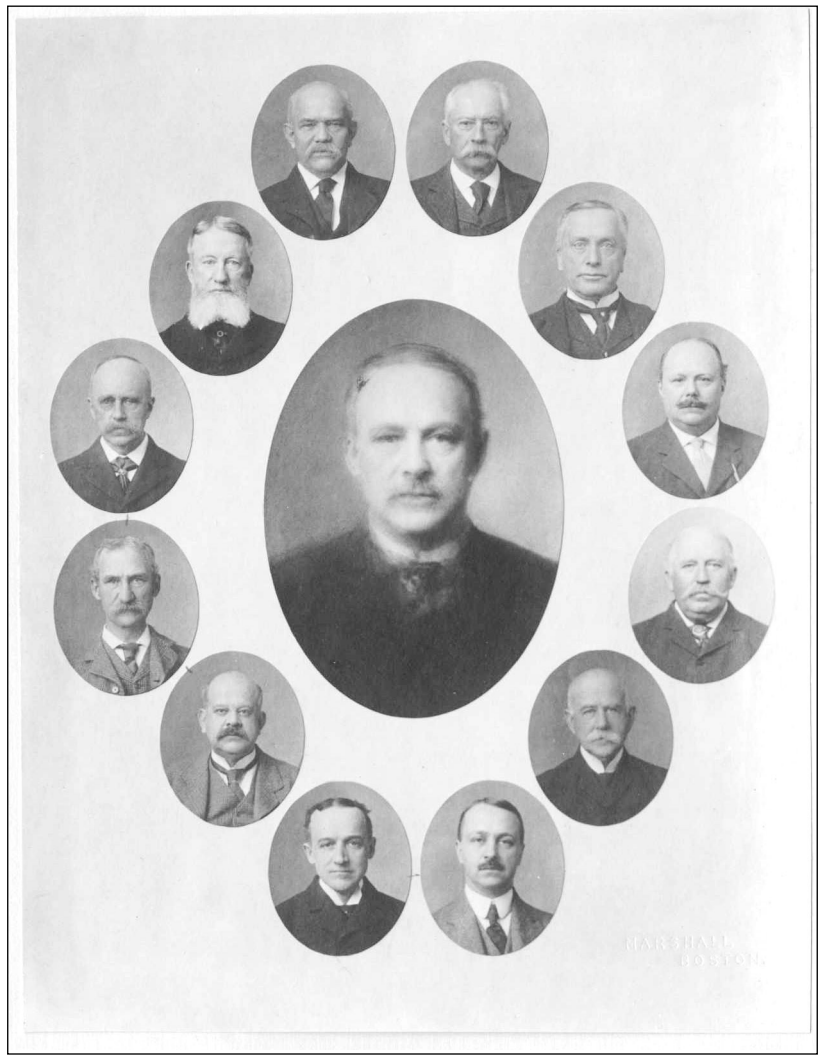
7. Croquet was one of many organized activities supposed to benefit patients at McLean Asylum in the late nineteenth century. Such games, along with assorted crafts, carriage rides, and other diversions, had earlier in the century been considered essential components of "moral treatment," a therapy designed to create conditions for the mentally ill that would help nature accomplish its own cure. By the time of the 1893 Chicago world's fair, McLean superintendent Dr. Edward Cowles had embarked on a search for the biochemical underpinnings of insanity. McLean's exhibit at the fair won an award for "Forms, Charts, and Photographs." This depiction of moral therapy (from an exhibited photo album full of similar scenes) must be considered in context with the modern hospital forms and charts that pointed toward new directions in mental health care. Cowles had, by 1893, come to see croquet and related pastimes as recreation, not therapy. The meanings of the awards, hospital forms, and photograph album exhibited at the fair become clear when the artifacts are studied in conjunction with the hospital's annual reports and writings by the hospital's superintendent.

Photographer unknown (commissioned by Superintendent Dr. Edward Cowles), albumen print from gelatin dry plate negative, pasted into photograph albums (multiple copies for distribution). Photographic Collections, McLean Hospital Archives.



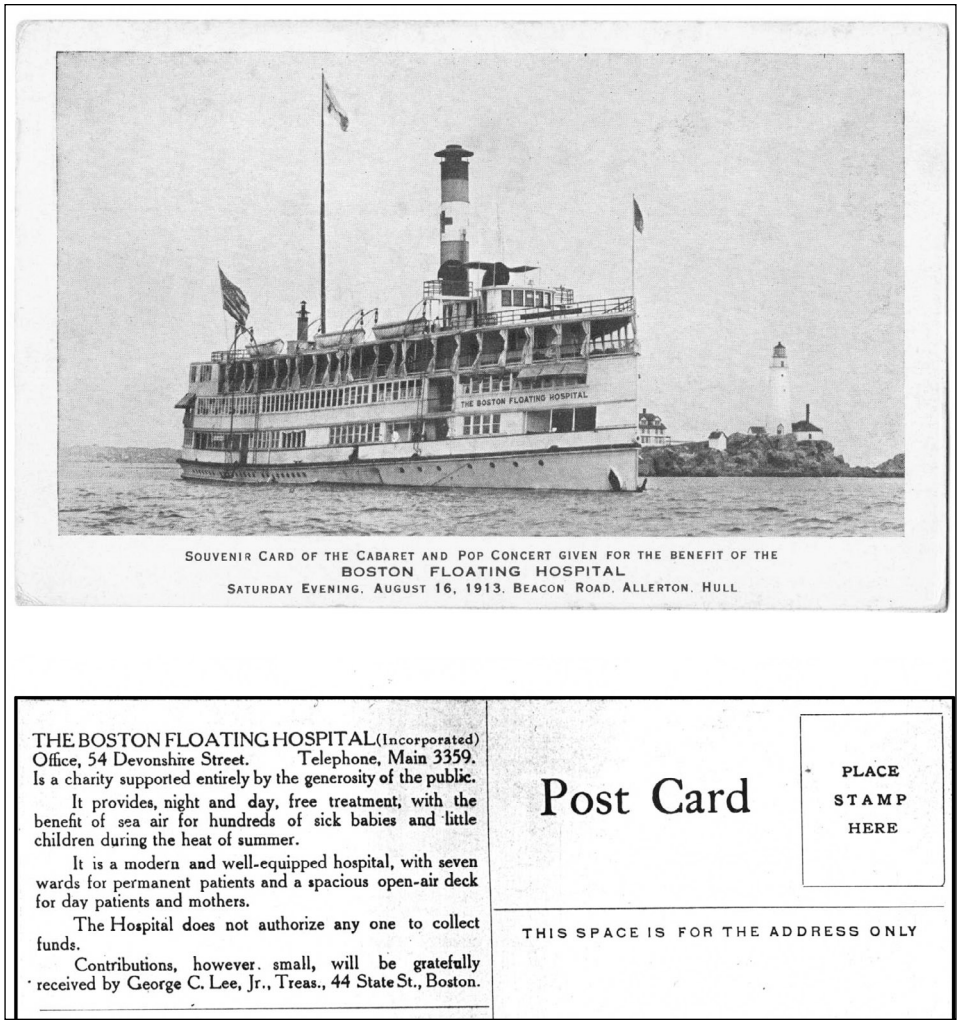
8. McLean Hospital's Experimental Psychology Laboratory, established by physiologist Shepherd I. Franz in 1904, illustrates the movement toward scientific study of mental illness in which hospital-based researchers attempted to understand correlations between physical and mental conditions. The renaming of McLean (from "asylum" to "hospital") in 1895 reflected such new directions. Understanding mental disease, wrote Superintendent Dr. Edward Cowles, "requires expert ability in experimental physiology and its special department of psychology." Lab equipment seen here includes a Hipp chronoscope, metronome, Kymograph, Rheostat, and perimeter. Clark University psychologist G. Stanley Hall, who advised on the lab, wrote a detailed description of it for the *American Journal of Insanity*. Letterpress halftone images of the hospital's Chemistry Laboratory and Psychology Laboratory appeared in McLean's public relations and fund-raising booklet in 1915. Such images are best studied in conjunction with extant psychology lab equipment at Harvard's Collection of Historical Scientific Instruments, instrument makers' catalogs, purchasing lists at the Harvard Archives, hospital annual reports, published articles, and other documents. The overall context is the emergence of psychology as an academic discipline and the application of laboratory research to the needs of hospital patients in the late nineteenth and early twentieth centuries.

Photographer unknown (commissioned by Superintendent Dr. George T. Tuttle), albumen print from gelatin dry plate negative. Photographic Collections, McLean Hospital Archives.



9. Superimposing the individual portraits of twelve Boston-area physicians (members of the Kappa Pi Eta Dinner Club, a.k.a. the Grub Club, circa 1910) created the composite image in the center. Darkroom technicians exposed each negative for one-twelfth the normal time to blend the physiognomies into one face. Composite images were often made of groups in the late nineteenth and early twentieth centuries, including college graduation classes, nurses, and various occupational groups, such as streetcar conductors. The concept derives from pseudoscientific studies by Francis Galton, who invented the process to identify "typical traits" by disguising anomalies. He believed that facial characteristics revealed mental traits. This photograph was probably intended as a novelty for the personal enjoyment of club members, but most viewers today see the composite image as an illustration of the exclusionary "face of medicine" in Boston in the late nineteenth and early twentieth centuries. Membership in the club changed over the years, but the composite faces remain basically the same from one generation of the image to the next. It is useful to compare this photograph with similar composites at Harvard Medical School and to consider them in the light of Galton's preposterous publications.

Marshall Studio (Boston), composite print on matte collodion printing-out paper. Massachusetts General Hospital Archives and Special Collections, Group Portraits Collection, Box 1.

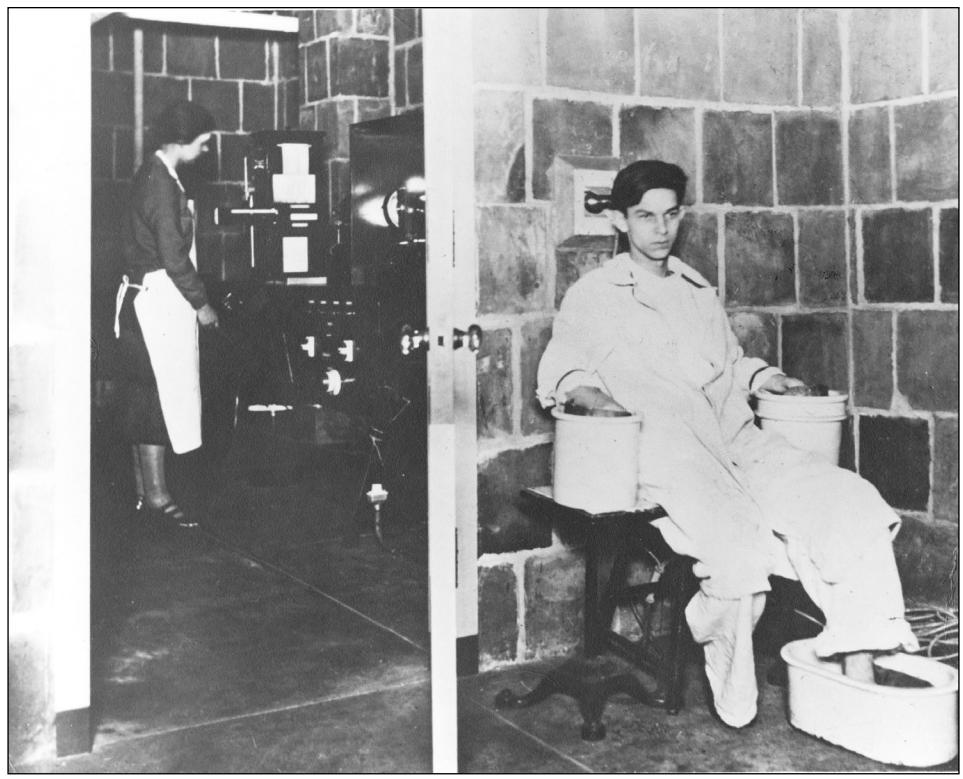


10. The earliest known example of this image of Boston's Floating Hospital is an eight-by-ten-inch print mounted on card stock and dated 1912. The photograph (by Isabel Treganza, a nursing student who had received her training on the boat) was cropped, photomechanically reproduced as a picture postcard, and distributed, probably by the hospital's public relations staff or fund-raising officials. The Floating Hospital offered fresh air, therapy, medical care, and health education for mothers and children from 1894 to 1927, when the boat was destroyed by fire. (Its basic mission continued afterward in land-based facilities.) The early twentieth century was the "Golden Age" of picture postcards, which were mailed and preserved as mementoes of travel or special events and could also serve as a cheap medium for advertising. The date of the event printed on the card should not, of course, be confused with the date on which the photograph was taken.

Isabel Treganza, letterpress halftone postcard. Photographic Collections, Massachusetts Historical Society.

11. The North End Diet Kitchen started in 1875 in Boston as a venue for dispensing nutrition as "temporary aid for the sick poor." Doctors attending the indigent sick could distribute tickets for meals cooked by a woman at the kitchen, who apparently also filled jugs, bottles, and pitchers with milk and sent children home with eggs. The date on the wall calendar in this photograph, when magnified, reads "1914." The Diet Kitchen reproduced images such as this on posters used for fund-raising campaigns. In 1923, the board of directors of the North End Diet Kitchen Fund entered into an agreement with the Massachusetts General Hospital, whereby a diet clinic would be established in the hospital's Outpatient Department so that meals as well as education about health care and disease for each patient could be coordinated with the medical, nursing, and social services staff. The MGH also established, in 1905, the first hospital-based department of social services. Photographs depicting hospital outreach to predominantly immigrant populations in the city are best understood in conjunction with census records, city directories, hospital-based social services records, photos of slum conditions, and the writings of influential reformers such as Jane Addams and Ida Cannon.

George Brayton (Boston), commissioned by MGH, albumen print. Massachusetts General Hospital Archives and Special Collections, Subjects Files, Box 8, Folder: North End Diet Kitchen.



12. In 1914, Dr. Paul Dudley White established the Massachusetts General Hospital's first cardiac unit when he returned to Boston after several years of advanced studies in Europe, bringing with him one of the first electrocardiographs in the United States. The MGH administration authorized him to install the equipment in the basement room seen here. The electrocardiograph operated on the principle that magnets and conductors of electric current interact. A conducting string placed between the two poles of a magnet moves in relation to changes in the electrical field on the surface of the patient's body. Changes resulting from the beating of the heart are recorded on an electrocardiogram. Note that the subject's hands (and one foot) are immersed in buckets of ice water so that the apparatus can measure his heart's response to stress. The original apparatus has not survived, but photographs such as this record the layout of equipment and allow us to visualize the procedures, which are better understood after perusal of technicians' guides for electrocardiograph operation and additional paper-based materials (such as White's autobiography and personal papers).

Photographer unknown (commissioned by MGH), gelatin silver print. Massachusetts General Hospital Archives and Special Collections, Biographical Files, Box 11, Folder: Paul Dudley White.

13. The Drinker Respirator (a.k.a. the "iron lung") saved its first life in 1929 at Boston's Peter Bent Brigham Hospital. This photograph shows a flurry of activity at an iron lung ward at the Massachusetts General Hospital during the peak of the polio epidemic in 1955 (81 of the 428 patients admitted required respirators). Whole floors of the hospital were cleared and equipped with special electrical wiring to accommodate the unexpected influx of emergency cases. Iron lungs enveloped all but the patient's head, while angled mirrors afforded patients a less disorienting view of their surroundings. Poliomyelitis is an infectious disease caused by viral inflammation of the spinal cord, often accompanied by paralysis of various muscle groups. The epidemic engendered widespread fears and led to a national program of inoculations using Jonas Salk's recently developed vaccine. A functioning iron lung in the MGH Archives and Special Collections complements such images as an aid to understanding, as do memoirs by survivors and contemporary journal articles, newsreels, and newspaper accounts.

MGH News Office, gelatin silver print from roll film negative. Massachusetts General Hospital Archives and Special Collections, Subjects Files, Box 9, Folder: Poliomyelitis.

Medical photographs of powerless patients reinforce points stressed by Michel Foucault and elaborated upon by John Tagg about power relations. Tagg showed that the controlling characteristics of photography by the mid-nineteenth century extended beyond police files, prisons, and criminology to schools, factories, hospitals, asylums, and other institutions. Psychiatric portraits, for example, furnished a "permanent record for medical guidance and physiognomic analysis."[46] Francis Galton collected quantities of visual records of faces in support of his theories of eugenics.[47] The "knowledge and truth of which photography became the guardian were inseparable from the power and control which they engendered."[48]

A specialized, small-circulation French magazine, *La revue photographique des hopitaux de Paris*, included a hand-colored photograph of a patient, illustrating his or her condition, each month between 1869 and 1876. In such early patient photographs one often senses that the physician used his influence (based on education, social status, economic power, and sometimes military rank) to take advantage of patients. Modern viewers cringe at such invasions of privacy, which sometimes expose genitalia as well as gashes, deformities, and stumps. The subjects are often wounded, twisted, or naked, and objectified in much the same way that antebellum slaves were objectified in photographs commissioned by Harvard scientist Louis Agassiz in 1850 (now at Harvard's Peabody Museum) or Civil War casualties[49] were when posing for military physicians. Those who do research in Civil War medical photographs know that wounded officers are shown more modestly covered than wounded enlisted men. "We know how to view conventional portraits," explained Alan Trachtenberg, "but to gaze upon naked bodies, male and female, of persons dispossessed of themselves, is another matter."[50]

[46] See Michel Foucault, *Discipline and Punish: The Birth of the Prison* (New York: Vintage Books, 1979) and John Tagg, *The Burden of Representation: Essays on Photographs and Histories* (Amherst: University of Massachusetts Press, 1988), 77–78.

[47] See Martin Kemp and Marina Wallace, *Spectacular Bodies: The Art and Science of the Human Body from Leonardo to Now* (Berkeley: University of California Press, 2000), 134–47. Cesare Lombroso also collected and scrutinized photographs of human faces as part of his campaign to prove that criminal types were atavistic creatures who had retained the traits of primitive people and inferior animals.

[48] Tagg, *The Burden of Representation*, 180.

[49] Walt Whitman's *Specimen Days* and *Leaves of Grass* paint pictures in words of the conditions inside Union hospitals during the Civil War in ways reminiscent of photography. His volunteer work as a nurse put him closely in touch with the wounded, including their physical injuries and psychological trauma. See, for example, "The Wound Dresser" (poem) or "An Army Hospital Ward" (prose) in Walt Whitman, *Complete Poetry and Collected Prose*, ed. Justin Kaplan (New York: Library of America, 1982), 442–45, 718–19. Six volumes of Civil War medical photography were selected and published by the U.S. Surgeon General. *Medical and Surgical History of the War of the Rebellion (1861–1865), United States Army* (Washington, D.C.: Government Printing Office, 1870–1888).

[50] Alan Trachtenberg, *Reading American Photographs: Images as History, Mathew Brady to Walker Evans* (New York: Hill and Wang, 1989), 56. See also Wallis, "Black Bodies, White Science." Regarding the photograph and its contributions toward perception of identity, a noted sociologist has characterized the portrait as a "decorative representation of self that serves to present one's social identity." Erving Goffman, "Gender Advertisements," *Studies in the Anthropology of Visual Communication* 3, no. 2 (Fall 1976): 68. See also Erving Goffman, *The Presentation of Self in Everyday Life* (Garden City, N.Y.: Doubleday, 1959).

By the end of the century, medical journals offered practical advice for doctors who wanted to exploit the potentials of the camera for recording the condition of patients. Bodies were sometimes draped to protect identities. Black bars typically (but not always) masked identity in the resulting image, and opaque triangles ordinarily concealed genitalia.[51] In part, this increase in draping and masking (displaying less of the patient and disguising identity) reflected an increased focus on the isolation of disease that was related to the evolution of medical specialization. As medical knowledge advanced, identification of specific disease entities gradually replaced older diagnoses such as miasmas and fevers. The specific symptoms were photographed in isolation, using various lights and processes to capture details that could be used for diagnosis and education. The resulting increase in patient privacy has been, as some have suggested, offset by the unintentional side effect of reducing the sufferer to his or her "photographed lesion."[52]

Clinical illustration and instruction are the usually cited justifications, in the nineteenth century as well as the present, for medical photography of patients. Physicians shared pictures of goiter, clubfoot, and harelip, as well as images of double-headed births, mental deficiency, amputations, and postmortems, and used them to teach students. Pictures taken before and after surgery were common heuristic devices.[53]

Visual insights into doctor-patient relationships, at least until recently, have been rare because of the canon of confidentiality. Encounters between physicians and patients were generally off-limits to the camera until the late 1930s when photographers for the U.S. Farm Security Administration (FSA) traveled widely, taking pictures in medical offices, migratory labor camps, and even venereal disease clinics to promote federal medical care programs. The trend continued through World War II because of a perceived need to make concerns about health and fitness more visible in furtherance of the war effort.[54] Photographs of the medical conditions of patients now seem freighted with a plethora of associations and potential uses, such as studying the power relations between doctor and patient, or changing attitudes toward race, ethnicity, gender, morals, and social class. Today, patients rarely refuse their consent to having photos taken. "Being looked at by a doctor, camera, or diagnostic

[51] Stoeckle and White, *Plain Pictures of Plain Doctoring*, 112–14.

[52] Burns, "Early Medical Photography" VII, 1261–62. See also Alison Gernsheim, "Medical Photography in the Nineteenth Century," *Medical and Biological Illustration* 11 (1961): 85.

[53] Stoeckle and White, *Plain Pictures of Plain Doctoring*, 112–14. Photographs were not subject to copyright law in the United States until 1884, when the Supreme Court ruled that they could be considered the product of "intellectual invention" and not simply reproductions of nature created by the operator of a machine. *Burrow-Giles Lithographic Company v. Sarony* 11 U.S. 53; 4 S. Ct. 279; 28 L. Ed. 349 (1884).

[54] Stoeckle and White, *Plain Pictures of Plain Doctoring*, 184.

machine is a deeply ingrained visual expectation of the office medical encounter."[55]

Illustrating Publications

In the fledgling years of medical photography, many doctors hoped that one-of-a-kind daguerreotype images could be etched so that the resulting plates could be used for mass reproduction of medical illustrations for publication in books and journals. Early experiments with this process were less than satisfactory. The book *Cours de Microscopie*, by Donné, for example, was published in 1845 with eighty-six images made by an engraver who copied them from the original daguerreotypes. The author had hoped to print directly from etched daguerreotypes, but the results were too faint to convey an adequate amount of the required information. The publication nevertheless qualifies as the first medical book illustrated by images copied from photographs.[56]

In the 1840s, other attempts were made to include photographic medical images in publications by inserting woodcuts or engravings derived from them, or by experimental mechanical methods, such as the photolithographic process of Bradford and Cutting, which proved less than adequate.[57] Woodcuts made from medical daguerreotypes started appearing in medical journals in 1849, and by the mid-1850s, journal illustrations based on photographs were relatively common.[58] Some early medical books with images derived from photographs contain captions with double attributions, indicating who made the daguerreotype and who made the woodcut or engraving that reproduced (and to some degree interpreted) information based on it. Multiple processes of illustration were sometimes employed in the same medical book. The elephantine *Medical and Surgical*

[55] Stoeckle and Sanchez, "On Seeing Medicine's Science and Art," 81. Since the implementation of the 1996 Health Insurance Portability and Accountability Act (HIPAA) in 2003, obtaining written consent (or finding such written consent in the files) is a *sine qua non* for any archivist in the U.S. considering the dissemination of photographs containing Protected Health Information (PHI). But the act provides inadequate guidance for archivists who must administer historical collections containing patient information, as outlined in a letter from Tim Erickson and Jodi Koste to U.S. Department of Health and Human Services Secretary Tommy Thompson, 22 October 2003. The letter is printed in *Watermark: Newsletter of the Archivists and Librarians in the History of the Health Sciences* 27, no. 1 (Winter 2003–2004): 4–6. See also Julie Bell, "Privacy of Dead Perplexes Living," *Baltimore Sun*, 13 November 2003. For more information about this cumbersome act, see http://www.cms.hhs.gov/HIPAAGenInfo, accessed 11 May 2006, and http://privacyruleandresearch.nih.gov/, accessed May 11, 2006.

[56] Burns, "Early Medical Photography" II, 947. See also R. H. Krauss, "Photographs as Early Scientific Book Illustrations," *History of Photography* 2, no. 4 (October 1978): 291.

[57] John Dean, *Smithsonian Contributions to Knowledge, no. 173, Photographs: The Grey Substance of the Medulla Oblongota and Trapesium* (Washington, D.C.: Smithsonian Institution, 1864) was issued as nine cards containing thirty-six photolithographs. A bound and expanded version of the work came out in 1865 with sixteen plates containing sixty-five images. The author also distributed sets of the photographs privately. Burns, "Early Medical Photography" VII, 1229–30, 1248.

[58] Burns, "Early Medical Photography" III, 1258.

History of the War of the Rebellion, for example, includes photographic prints (woodburytypes and heliotypes) as well as varieties of mechanical photoduplication.

A number of medical publications from the second half of the nineteenth century contained albumen prints pasted in by hand. A short-lived but noteworthy bimonthly periodical in the United States published annotated photographs of "interesting cases" for limited distribution to a professional readership. The cases seem to have been selected primarily to show extreme examples of conditions, a sort of periodical museum of teratology.[59] Photographic images appeared regularly in medical textbooks by the 1890s. Dr. Richard Cabot's classic early-twentieth-century textbook, *Physical Diagnosis*, is notable for its extensive use of photomechanically reproduced, often carefully cropped, photographs depicting not only symptoms of various diseases, but also step-by-step techniques for examination.[60]

The Professional Image

In the late nineteenth century, photographs greatly influenced public opinion about doctors and medicine, resulting in widespread enthusiasm for medical breakthroughs and public support for laboratory research, vivisection, and other practices and expenditures perceived to be directed toward medical progress.[61] Training by apprenticeship (without benefit of any formal medical education) had been the principal avenue whereby a man became a doctor in the early years of American medical history.[62] Medical schools in the United States (four in 1800, seventeen by the 1820s, thirty in 1839) were meant to supplement apprenticeship, which remained the most important basis of training. Efforts to raise the standards of the American medical profession, to "professionalize" it, met with difficulty, and many quacks, sectarians, and incompetents

[59] F. F. Maury and L. A. Duhring, eds., *Photographic Review of Medicine and Surgery: A Bi-monthly Illustration of Interesting Cases, Accompanied by Notes* (Philadelphia: J.B. Lippincott and Co., 1871–1872). On the mechanics of publishing books illustrated with original photographs (and the difficulties endured by bibliographers attempting to describe such works), see Helmut Gernsheim, *Incunabula of British Photographic Literature* (London: Scolar Press, 1984), 7–10. See also Lucien Goldschmidt and Weston Naef, *The Truthful Lens: A Survey of the Photographically Illustrated Book, 1844–1914* (New York: The Grolier Club, 1980), 5.

[60] See, for example, the "how-to" photos in the third edition, which incorporates five plates and 240 figures, many of which are photomechanical reproductions that have been embedded into wraparound text. Richard Cabot, *Physical Diagnosis*, 3rd ed. (New York: William Wood and Co., 1905). Cabot's textbook went through many editions.

[61] Bert Hanson, "New Images of a New Medicine: Visual Evidence for Widespread Popularity of Therapeutic Discoveries in America after 1885," *Bulletin of the History of Medicine* 73 (1999): 629–78.

[62] The first woman to attend medical school was Elizabeth Blackwell, who was admitted to medical studies in 1847 in the United States, but finished requirements for her degree in France. U.S. hospitals refused to hire her after her return to America, and she opened her own clinic in New York City in the 1850s. Julia Boyd, *The Excellent Doctor Blackwell: The Life of the First Female Physician* (Stroud, Gloucestershire, U.K.: Sutton, 2005).

continued to practice. Legislation in some states stipulated that medical practitioners have an MD, a movement that resulted less in the raising of standards than in the proliferation of easy medical schools.[63] A mid-nineteenth-century joke held that "MD" stood for "Maker of Dead Men."[64] A cartoon from the same era at the National Library of Medicine in Bethesda, Maryland, shows a bewildered patient being bled by his physician while a nearby butcher slices the throat of a pig. "Doctor," says the butcher, "our cures are similar. Suppose we consult?"[65] Americans had little respect for medicine in the mid-nineteenth century.

François Arago's highly influential endorsement of photography to the French scientific establishment shortly after its invention bolstered its status as a medium for portraiture as well as for scientific work.[66] As the century progressed, photography played a significant role in improving the image of doctors, medical schools, and medical practice in general. By the 1870s and 1880s, physicians were frequently photographed surrounded by the latest technological devices.[67] Sander Gilman discussed how those who constructed the history of medicine used visual representations. Images, especially photographs, framed the history of medicine as a story of progress.[68]

People in power (e.g., doctors, hospital administrators, medical school personnel, or government agencies) usually controlled the production of medical images and arranged for them to be either accepted or discarded.[69] Even when medical images were not accompanied by "overt analysis," they were often still "manipulated" by selection to fit a "Procrustean bed" illustrating the "ever-improving reality of medical care of the patient."[70] Hospitals have usually been circumspect about what photographs they allow to be taken and even more so about which can be published.[71] "The historical challenge is to show how. . .representations were related to changes in medical power. . .to arrive at new understandings of the past. From them we can learn about people's ways of

[63] Richard Harrison Shryock, *Medicine and Society in America: 1660–1860* (Ithaca, N.Y.: Cornell University Press, 1977), 137–44.

[64] Michael West, *Transcendental Wordplay* (Athens: Ohio University Press, 2000), 21.

[65] The cartoon is reproduced in David Armstrong and Elizabeth Armstrong, *The Great American Medicine Show* (New York: Prentice Hall, 1991), 10.

[66] See François Arago, *Rapport sur le daguerréotype* (La Rochelle: Rumeur des âges, 1995). The original report appeared in Paris in 1839.

[67] Burns, "Early Medical Photography" VII, 1259.

[68] Sander Gilman, "History and Images in Medicine," in *History and. . . Histories within the Human Sciences*, ed. Ralph Cohen and Michael Roth (Charlottesville, Va., and London: University Press of Virginia, 1995), 90–112.

[69] Daniel M. Fox and Christopher Lawrence, *Photographing Medicine: Images and Power in Britain and America since 1840* (New York: Greenwood Press, 1988), 5–6.

[70] Gilman, "History and Images in Medicine," in *History and. . .Histories*, 93–94.

[71] Apple, "Picturing the Hospital," *The American General Hospital*, 69.

seeing—how images were created and used, how they carried messages about what to value and how to behave."[72]

Picture Captions and Related Notes

A key responsibility for archivists and historians is to determine which of the "many stories" evoked by photographs are most plausible, ". . .most likely to have been in the minds of the people who took, looked at, and preserved" them.[73] We, as archivists, should bear in mind that captions, or explanatory notes, are often essential to the accurate interpretation of medical photographs and other historical images.[74] Historical photographs not accompanied by words or not found in a readable context are ambiguous. Elizabeth Edwards observed that the meaning of photographs can be "suggested and guided" by accompanying written material that "further enmeshes them in a particular context." Words can be "used to position the photograph and processes of interpretation are controlled through the interaction of image and text."[75] FSA photographers, for example, usually included captions with the images they submitted,[76] but the quality (and usefulness) of these written supplements varied greatly. Dorothea Lange was especially concerned about interviewing her subjects in depth and taking careful notes to develop a multidimensional context for each image.[77] Some of her colleagues were much less conscientious.

Walter Benjamin believed that dislocation of images made captions a necessity, because without them a viewer could not anchor an image in time and space, and the image would lose its validity and authenticity.[78] Daniel Fox and

[72] Fox and Lawrence, *Photographing Medicine,* 6.

[73] Daniel M. Fox, "Physicians at Work: Self- and Public Images, 1890–1930," *Medical Heritage* 2, no. 1 (1986): 20.

[74] On problems of dislocation, lost captions, lost notes, etc., see, for example, Hermine Munz Baumhofer, "Some Reference Problems of Picture Collections," *American Archivist* 13 (April 1950): 121–28; and Joe Thomas, "Photographic Archives," *American Archivist* 21, no. 4 (1958): 423–24.

[75] Edwards, *Anthropology and Photography,* 11. Captions, of course, are also subject to problems of mistake and manipulation, not to mention accidental separation from the image they are meant to describe. Yet, despite their shortcomings, they answer important questions if used with the same caveats one would apply to any other historical trace. Consider the many galloping evocations of Dorothea Lange's 1936 "Migrant Mother" photograph, which are reined in only by an examination of Lange's field notes. See David Finn, *How to Look at Photographs: Reflections on the Art of Seeing* (New York: Harry N. Abrams, 1994), 80–82; Tucker, "The Historian, the Picture, and the Archive," *Isis* 97 (March 2006): 118–19; and Karin Becker Ohrn, *Dorothea Lange and the Documentary Tradition* (Baton Rouge: Louisiana State University Press, 1980), 97–98.

[76] Stoeckle and White, *Plain Pictures of Plain Doctoring,* 117.

[77] See Ohrn, *Dorothea Lange,* 96–98. Lange wrote down what she saw and heard as soon as possible in notebooks intended to accompany the images to the photographic repository.

[78] Walter Benjamin, "The Work of Art in the Age of Its Technological Reproducibility, Third Version," in Benjamin, *Selected Writings,* vol. 4, 1938–1940 (Cambridge, Mass.: The Belknap Press of Harvard University Press, 2003), 258.

James Terry pointed to the elaborate procedures whereby photographs have always been selected and preserved "consciously or unconsciously. . .by some combination of subject, photographer and collector." (To "collector" we might easily add "archivist.") Agreeing with philosopher Roland Barthes, they emphasized the importance of "correlative texts," or written data, without which it is difficult to establish meaning. But many medical images lack a "documented contemporary explanation."[79]

Context and Meaning

Much of the current discourse about historical photographs places special emphasis on the importance of context for sorting out the ambiguities and multiple meanings inherent in images.[80] Jim Burant emphasizes how important it is for archivists to supply researchers with accurate contextual information about images to position them better to make informed interpretations. He regrets that much of this work, even by larger and relatively well-staffed repositories, still remains to be done.[81] Joan Schwartz advises that "archivists must recognize that archival value in photographs resides in the interrelationships between photographs and the creating structures, animating functions, programmes, and information technology that created them." Context "transforms photographic images into photographic documents."[82]

Archivists, including those in the history of the health sciences, are responsible for vast assortments of images, only some of which grew organically. Others come to the archives from a jumble of creators and donors (and are often of unknown origin).[83] In hospitals, the survival of historical medical photographs often depended on the efforts of committed individuals, usually doctors with historical interests, instead of organized institutional commitments. For years the MGH News Office, for example, amassed photographs that were commissioned, donated by retirees, or transferred from the hospital's photo lab. The office director filed these by personal name or subject in folders that included

[79] Daniel M. Fox and James Terry, "Photography and the Self-Image of American Physicians, 1880–1920," *Bulletin of the History of Medicine* 52 (1978): 453. Some historians have asserted that photographs (as well as other pictorial materials) "can never supply the narrative line that is so central to the historian's task." James W. Davidson and Mark H. Lytle, *After the Fact: The Art of Historical Detection,* vol. 1 (New York: Alfred A. Knopf, 1982), 115.

[80] Burke, *Eyewitnessing*, 187.

[81] Burant, "Visual Archives and the Writing of Canadian History," 115–17.

[82] Schwartz, " 'We make our tools and our tools make us,' " 50.

[83] On a related note, Elizabeth Edwards regrets that contexts of photographic images have often been destroyed through the process of archiving. *Raw Histories*, 35.

newspaper clippings, press releases, and correspondence related to that person or subject.[84] Archival outreach to departments and laboratories typically unearths old photographs in neglected storage closets, tucked behind file cabinets, or hanging on walls. The provenance of most of these images cannot be reconstructed with complete confidence, although well-informed judgment based on understanding the hospital's practices has, I believe, often come close.

Meanings associated with more immediate contexts of photographs within the larger context of the archival repository invite further scrutiny.[85] It seems likely that William T. G. Morton's personal collection of *cartes de visite* of prominent physicians[86] testifies to his social climbing and prolonged struggle to bolster his shaky professional status by associating himself with men of unassailable reputation. Morton was the Boston dentist who administered ether during the first public demonstration of surgical anesthesia in 1846. He was doggedly persistent and had an uncanny ability to insinuate himself into the right company at the right time.[87] It seems likely that portable wooden cases of glass slides[88] depicting hospital wards and buildings in the 1890s were used for lantern slide presentations promoting the MGH and demonstrating that money donated to the hospital was money well spent. Early twentieth-century photograph albums stored among nursing and social work files[89] captured and preserved evidence of departmental cohesion, sisterhood, and pride for future generations of nurses and social workers. Close-up 35 mm color slides arranged and labeled in loose-leaf binders by surgeon Ronald Malt[90] in the 1960s recorded his innovative techniques for surgical replantation of severed limbs and were probably intended as a "how-to" reference for junior colleagues.

[84] "Archival potentials change over time; the keys are appropriated by different disciplines, discourses, specialties. For example, the pictures in photo agency files become available to history when they are no longer useful to topical journalism." Allan Sekula, "Reading an Archive: Photography Between Labour and Capital," in *The Photography Reader*, ed. Liz Wells (London: Routledge, 2003), 445. In the parlance of the archives profession, the value of a document can change, for example, from "evidential" to "informational."

[85] As Elizabeth Edwards reminds us, collections donated by individuals to a central archival repository tend to become "absorbed within specific institutional agendas of description, function, and usage." *Raw Histories*, 30.

[86] Massachusetts General Hospital Archives and Special Collections, William T. G. Morton Photograph Collection, Box 1

[87] Richard J. Wolfe, *Tarnished Idol: William Thomas Green Morton and the Introduction of Surgical Anesthesia, a Chronicle of the Ether Controversy* (San Anselmo, Calif.: Norman Publishing, 2001).

[88] Massachusetts General Hospital Archives and Special Collections, Lantern Slide Collection, Boxes 1–4.

[89] Massachusetts General Hospital Archives and Special Collections, AC 2, Records of the MGH Department of Social Services, Boxes 10, 14–15.

[90] Massachusetts General Hospital Archives and Special Collections, AC 25, MGH Department of Surgery (Replantation Operations), Boxes 1–3.

The so-called MGH daguerreotypes[91] merge two original contexts, ether anesthesia images taken by the firm of Southworth and Hawes[92] in the 1840s and patient images taken by John Adams Whipple for Dr. Bigelow, mostly in the 1850s. Their artificial, overarching label, "MGH daguerreotypes," is based primarily on their stature as treasures of the hospital's legacy, on their status as noteworthy examples of early American photography, and on the fact that they have come to be categorized as "art" and are used as such by Harvard University for teaching and exhibits.[93] Bigelow gave most of his patient photographs to Harvard's Warren Anatomical Museum about 150 years ago. The hospital was in the nineteenth century (and still is) a close teaching affiliate of Harvard Medical School. Was the MGH component of Bigelow's collection created for some distinct purpose, or did the "MGH daguerreotypes" merely stray from the anatomical museum, mavericks borrowed for a demonstration or diagnosis years ago and never returned? The written documentary record is silent.

Expanding Depth of Field

Hugh Taylor, alluding to the "complexity of archival knowledge," urged archivists to look at "the riches. . .within the cultural and contextual dimension of the record in all its forms," arguing for the cooperation of archivists and historians as "professional allies."[94] David Smith, reminding his colleagues in the archival profession that they are "peculiarly competent to deal with particular historical problems [raised] by the records in their custody," argued that he could not "accept that the archivist should merely function as the custodian and agent of preservation and no more."[95] Archivists can (and should) use their special knowledge of the content and context of collections to offer insights in addition to orienting users to various research opportunities and options.

[91] Cataloged as MGH 1–MGH 25 by Harvard University's Fogg Art Museum, which has them on long-term loan.

[92] These photographs commissioned by the MGH are among the most frequently reproduced medical images in the world. Southworth and Hawes later published a notice in which they boasted that the firm had successfully taken "several pictures of the surgeons of the Massachusetts Hospital with the patient under the influence of ether, all accurate likenesses." *The Massachusetts Register: A State Record of the Year 1852* (Boston: 1852), 328.

[93] Deborah Martin Kao, Curator of Photography, Fogg Art Museum, personal communication, 2004.

[94] Hugh A. Taylor, "The Discipline of History and the Education of the Archivist," in *Imagining Archives: Essays and Reflections by Hugh A. Taylor,* ed. Terry Cook and Gordon Dodds (Lanham, Md., and Oxford: Society of American Archivists and Association of Canadian Archivists in association with Scarecrow Press, 2003), 61–62.

[95] David M. Smith, "The Archivist's Personal Involvement in Historical Research," *Archives* 12, no. 56 (Autumn 1976): 167–68.

Photographs of operating rooms, for example, can be examined in conjunction with surgical records, medical and surgical textbooks, correspondence, and memoirs to illuminate aspects of surgical practice in bygone eras. Extant images often preserve a record of facts so mundane to contemporaries that they go unrecorded in written documentation, for instance, that surgeons operated in dark frock coats in the years before aseptic and antiseptic surgery. (Surgery, we infer, was a correct and dignified occupation, requiring a gentleman's attire. We only know this because of the visual record.) Photographs fix and define the configuration of scalpels, retractors, restraints, bowls, towels, and observers. Photographs of wards can be used in conjunction with blueprints, architects' reports, committee findings, and medical journal articles extolling the virtues of ventilation or spatial isolation of patients and decrying the effects of cross-infection. Extant photographs of defunct wards include interesting architectural details (which would otherwise be lost), such as those revealing that tile patterns on the floors of nineteenth-century wards at New York Hospital dictated the precise placement of beds and that these fixed guidelines were ignored a few decades after construction because of overcrowding.[96]

The history of medicine once focused almost exclusively on landmark events and the prominent people who were instrumental in bringing them about. Medical historians typically had training as either doctors or scientists and based their research on published accounts, such as articles in professional journals, and (occasionally) interviews. They have typically used historical medical photographs only to illustrate works, usually as afterthoughts rather than traces of the readable past ripe for interpretation.[97] A 1980 article in *Archivaria*, calling for broadened views of what medical historical studies should embrace, makes no mention of photographs in an extensive list of materials recommended for historians researching the social history of medicine.[98] Now, as a result of increased interest in social history, and the need for budding historians to find fresh topics for dissertations, materials like patient records are much sought after for historical research. A new generation of historians wants to explore and analyze ways in which social class, race, or gender factor into the

[96] Jeanne Kisacky, "Restructuring Isolation: Hospital Architecture, Medicine, and Disease Prevention," *Bulletin of the History of Medicine* 79, no. 1 (Spring 2005): 30.

[97] Sander Gilman warned that, "It is. . .imperative to understand the historical context that permitted cultural and social history to use visual images as source materials, while medical history consistently avoided them. The illustrated medical history reflects a set of biases limiting the ability of the historian to use fully the multiple meanings inherent in the visual image. This limitation has its roots in the construction of medical history as a professional discourse in the late nineteenth century." "History and Images in Medicine," in *History and. . .Histories,* 98.

[98] Samuel Shortt, "The New Social History of Medicine: Some Implications for Research," *Archivaria* 10 (Summer 1980): 21.

administration of health care. Nevertheless, historical medical photographs remain underused for systematic study, even by this newer generation of scholars. Lack of time and patience, and a general shortfall of visual literacy, must be counted among the sticking points.

The aim of photographic research should be to challenge existing interpretations and raise new questions, to weave the fabric of history in more elaborate patterns and color it in deeper hues. As archivists, we should think about ways in which visual sources can be integrated with other historical traces to improve the process of interpretation. A checklist or inventory sheet incorporating relevant information can be a useful tool for description as well as for tracking the uses to which an image has been put and anchoring it in original documentary contexts. The MGH Archives and Special Collections inventory form may serve as a model, to be tailored to each repository's individual needs.[99] Such inventory sheets should be updated as additional information or new insights become available.

The historically grounded, contextualized interpretation of historical photographs requires a sophisticated understanding of contexts and consideration of many facets. Who took the picture, and why, and when? Who posed and under what circumstances? What equipment was used and what were its limitations? What was the intended impression and who were the original recipients? What commentary or title accompanies the image, and at what period and for what reason was this associated text produced? How was the image originally used, why and by whom was it preserved, and how has its meaning changed when different viewers at different times have confronted it? How are the pitfalls of interpretation best avoided, for example, the ventriloquism that occurs when a researcher's voice, reflecting his or her contemporary concerns and perceptions, supplants the voice of the document?[100]

Philosopher Paul Ricoeur suggested that "the document sleeping in the archives is not just silent, it is an orphan. The testimonies it contains are detached. . . ." He went on to suggest that archivists should be "competent to question [documents in their care] and hence to defend them," administering them in ways that discourage misinterpretation.[101] Many patrons approach photographs with an "undiscriminating attitude," which archivists should

[99] The MGH Archives and Special Collections inventory form is reproduced in the appendix.

[100] Note, in this regard, that the lure of the past can make its traces and their associations seem more real than the present for some observers. "The richly elaborated past seems more familiar. . .in some respects. . .than our own nearby present; the here and now lacks the felt density and completeness of what time has filtered and ordered." David Lowenthal, *The Past Is a Foreign Country* (Cambridge: Cambridge University Press, 1985), 3.

[101] Paul Ricoeur, *Memory, History, Forgetting* (Chicago: University of Chicago Press, 2004), 169.

"moderate" by "stripping away the layers of misinformation" and promoting "intelligent use."[102]

This is not to say that we, as archivists, should force our opinions on researchers. It is, rather, to suggest that archivists should strive to acquire enough substantive knowledge of the subjects in their collections to develop competency for questioning historical photographs and other traces of the past. An "interest in history and familiarity with its methodology" are essential to the process of judging the "informational value" of documents "within the larger context of the documentary resources."[103] The skills needed for seeing more accurately than others what resides in a historical photograph "need to be cultivated."[104] The background and context, if known, of historical photographs, texts, artifacts, or sound recordings should always be considered.

Digging, sifting, and comparing (the archaeological trope is deliberate) are perhaps suitable metaphors for the type of effort that may be required. A handbook for students of archaeology correctly states that archaeologists can gain many insights from documentary evidence, but that old documents are not always easy to understand. When consulting historical maps or other old papers the resourceful archaeologist seeks the advice of a historian with expertise appropriate to the subject at hand.[105] Most archivists, armed with a master's degree in history or library science, are not well prepared for understanding the nuances of medical subjects, or other specialties.[106] But an argument can be made that archivists have "failed in a major responsibility" if they don't "broaden [their] competence" to acquire better comprehension of materials in their charge.[107]

[102] Peter Robertson, "More Than Meets the Eye," *Archivaria* 1, no. 2 (1976): 33, 42–43. On the role of archivists in shaping meaning by constructing provenance and contextual background based upon the information available to them, see Tom Nesmith, "Still Fuzzy, But More Accurate: Some Thoughts on the 'Ghosts' of Archival Theory," *Archivaria* 47 (Spring 1999): 136–50.

[103] Normand Charbonneau, "The Selection of Photographs," *Archivaria* 59 (Spring 2005): 121.

[104] James A. Terry, Antol Herskovitz, and Daniel M. Fox, "Photographs Tell More than Meets the Eye," *Journal of Biological Photography* 48, no. 3 (July 1980): 111.

[105] Jane McIntosh, *The Practical Archaeologist: How We Know What We Know About the Past* (New York: Facts on File Publications, 1986), 44–45. See also Anders Andren, *Between Artifacts and Texts* (New York: Plenum, 1998).

[106] "In his defense the archivist may argue that his training did not prepare him to handle the manuscripts and archives produced by the sciences. . .[But] one of the most important functions the archivist will have in the future will be to serve as a bridge between the scientist and the historian." J. Frank Cook, "The Archivist: Link Between Scientist and Historian," *American Archivist* 34 (October 1971): 377. (For *scientist* we may well substitute *doctor* or *medical professional*.)

[107] Cook, "The Archivist: Link Between Scientist and Historian," 378. Likewise, Lester Cappon stressed that the "substance of archives" is the "real basis for the archival profession, the *raison d'être* for being an archivist," and he urged increased comprehension of contents. Lester J. Cappon, "Tardy Scholars Among the Archivists," in Richard Cox, ed., *Lester J. Cappon and the Relationship of History, Archives, and Scholarship in the Golden Age of Archival Theory* (Chicago: Society of American Archivists, 2004), 52–53.

The need will arise, for example, for archivists in the history of health care to study books, articles, or Web sites explaining historical medical and surgical instruments, consult nineteenth-century medical dictionaries, and inspect objects with a view to understanding what they were used for and how they worked. Archivists can often acquire deeper understanding through interactions with well-informed researchers. At other times, the flow must be from archivist to client. It is advantageous, at least at first, to cultivate a network of medically trained advisors, perhaps semiretired physicians with historical interests, who can help with identification of instruments or procedures depicted in old photographs, reminisce about bygone people and buildings, and decipher the arcane shorthand of historical medical records.[108] It then becomes the archivist's additional responsibility to evaluate the accuracy of the information provided. Ask such questions as "Does the informant's memory seem acute? Is his or her area of expertise relevant? What is my overall impression of the reliability of this informant?"

Neither archivists nor historians will ever grasp the universe of knowledge, or find, as did the narrator of a "fiction" by Jorge Luis Borges, a point of space in a dark cellar that contains all other spaces and empowers the vision of all things past and present.[109] We may never attain the confidence exhibited by Holgrave, Nathaniel Hawthorne's fictional daguerreotypist in *The House of the Seven Gables*, who believed that the sun's action on his prepared plates afforded him "wonderful insight" that went beneath the "merest surface" to discern "secret character."[110] Many questions are open to interpretation and may or may not be resolved by research, no matter how diligent. Effort, time, and judgment, as well as sufficient subject-specific comprehension and adequate reserves of general historical knowledge are the tools necessary for questioning and evaluating traces.

[108] In this respect, note the longstanding friction between factions in the medical historical community, which occasionally erupts in the pages of the *Bulletin of the History of Medicine* or at annual meetings of the American Association for the History of Medicine. Some members believe that a historian cannot really "do" history of medicine without the medical knowledge gained by attending medical school and taking an MD. Others believe that members with only an MD lack the historical understanding and perspective that the field requires, which is, they believe, incomplete without a PhD in history. For an example of a heated exchange, see *Journal of the History of Medicine and Allied Sciences* 34 (October 1979): 458. For parallels in the history of science community, see Cook, "The Archivist: Link Between Scientist and Historian," 374. See also Thomas Kuhn, "The Relations Between History and History of Science," *Daedalus* 100, no. 2 (Spring 1971): 276–77; and Charles E. Rosenberg, "News of the Profession: Oswei Temkin," *Isis* 95, no. 3 (2004): 452.

[109] Jorge Luis Borges, "The Aleph," in *Collected Fictions* (New York: Penguin, 1999), 272–74. Borges, in addition to his other accomplishments, was a librarian. His works sometimes incorporate fantasies about classifying or retrieving the totality of knowledge. See also "The Library of Babel," *Collected Fictions,* 112–18.

[110] Nathaniel Hawthorne, *The House of the Seven Gables* (New York: Norton Critical Edition, 1967), 91. The novel was originally published in 1851. Holgrave's extravagant claim had at least one parallel in real life. Daguerreotypist Albert Southworth felt that through "discipline of mind and vision" he had acquired "another sense. . .unfelt and unknown to the uninitiated," which allowed him to understand better than others whatever he was seeing. Albert Sands Southworth, "An Address to the National Photographic Association" (1870), *Philadelphia Photographer* 8, no. 94 (October 1871): 322.

For archivists, uncovering (or recovering) layers of meaning and providing better services are the possible rewards. The pursuit of history is an art, whereby "multihued facts" are assembled into "a meaningful design" using "skill, sympathy, and sensitive caution."[111] It may be that the historian's greatest asset "is not the documents. . .but the degree of interest and of cooperation manifested by archivists."[112] Fuller and more fertile approaches to using historical photographs in conjunction with archival records, manuscripts, artifacts, and informants may be analogous to the kind of "thick description" envisioned by anthropologist Clifford Geertz ("an elaborate venture *in*"), accomplished only by getting inside the complex mesh of context.[113]

Obviously, archivists can extend the suggestions presented here to a variety of endeavors, including those far-removed from the history of medicine. Orphaned historical photographs and other documents are regularly used (and often misused) in a wide spectrum of biographies, monographs, advertisements, exhibits, Web sites, and other publications. Others languish neglected or lie obscure, their secrets locked because the keys to understanding them have never been found or remain to be turned. What we can know (and how we know it) is notoriously elusive, and perhaps the highest goal that history can attain is a refinement of debate.[114] But those archivists who are willing and prepared to "venture in" will come closer than others to the informed assessment and effective use of information.

[111] Philip D. Jordan, "The Scholar and the Archivist—A Partnership," *American Archivist* 31 (January 1968): 64.

[112] Jordan, "The Scholar and the Archivist," 59. Similarly, historian Alfred Rollins chastised archivists for providing insufficient guidance to historians and being "too detached and neutral." Alfred B. Rollins, Jr., "The Historian and the Archivist," *American Archivist* 32 (October 1969): 370.

[113] Clifford Geertz, "Description: Toward an Interpretive Theory of Culture," in *The Interpretation of Culture,* ed. Clifford Geertz (New York: Basic Books, 1973), 3–30 (emphasis in original). The philosopher Gilbert Ryle coined the term "thick description." David Macey, *The Penguin Dictionary of Critical Theory* (London: Penguin Books, 2000), 380. Techniques useful in anthropology for an "imaging process" that results in "thick description" and "broadens the ethnographic inquiry" are described in Wilbert Reuben Norman, Jr., "Photography as a Research Tool," *Visual Anthropology* 4, no. 2 (1991): 196.

[114] Geertz himself has questioned "the very possibility of unconditioned description." *Works and Lives: The Anthropologist as Author* (Stanford, Calif.: Stanford University Press, 1988), 141–44. Issues related to the "authorial presence within the text," as it applies to archival description, are discussed in Schwartz, "Coming to Terms with Photographs," 159. The crisis of representation that pervades recent anthropological discourse, as it applies to archival practice, is addressed in Elisabeth Kaplan, " 'Many Paths to Partial Truths': Archives, Anthropology, and the Power of Representation," *Archival Science* 2, nos. 3–4 (2002): 209–20. On the impact of Geertz, see Richard A. Shweder and Byron Good, eds., *Clifford Geertz by His Colleagues* (Chicago: University of Chicago Press, 2005). For discussion of the self-reflexive path of anthropology in recent decades, see James Clifford, *On the Edges of Anthropology: Interviews* (Chicago: Prickly Paradigm Press, 2003).

Appendix: Massachusetts General Hospital Archives and Special Collections Inventory Sheet for Use with Photographs

1. Catalog number. Indicate size of image. Is it framed?
2. Accessioned with what other material? (Give accession number, circumstances of accession, description of accompanying material, and donor or office of origin, if known.)
3. Title.
4. General narrative description of image.
5. Subject added entries.
6. Personal name added entries.
7. Medium or photographic process. (Most questions will be answered by using the identification chart in James M. Reilly, *Care and Identification of 19th-Century Photographic Prints* (Rochester: Eastman Kodak, 1986) and magnification at 10x.)
8. Photographer, or studio, if known.
9. History of use, if known. (Include exhibits, textbooks, monographs, articles, television programs, Web sites, etc., with dates.)
10. Image is available in what formats? (Include negatives, prints, digital formats, transparencies, etc.)
11. Copyright data, if known.
12. Does it depict artifacts still existing in collections? Which ones? Location?
13. Associated notes or captions. (Did the photographer write them? Or did a previous owner? Archives staff? Volunteers?)
14. Linking note. (Indicate associated images.)
15. Location of image in storage.