

A Tale of Two Paintings

Depictions of the First Public Demonstration of Ether Anesthesia

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PAINTINGS about medical history fall into several categories: the celebration of a discovery; the representation of current medical practice, medical teaching, or visiting dignitaries; and the depiction of a calamity. An example in the celebratory category is the depiction by French artist Jean Andre Rixens (1846-1924; *Le Jubilé de Pasteur*) of Louis Pasteur being honored at the Sorbonne. American artist Thomas Eakins (1844-1916; *The Gross Clinic* and *The Agnew Clinic*) and Austrian painter Adalbert Seligmann (1862-1945; *Theodor Billroth at Work in the Allgemeines Krankenhaus in Vienna*) have memorably portrayed clinicians at work. Dutch artist Rembrandt van Rijn (1606-1669; *Anatomy Lesson of Dr. Nicolaes Tulp*) and American artist Charles Stephens (1855-1931; *Anatomical lecture by Dr. William Williams Keen*) have illustrated scenes of medical teaching. The painting by French artist Baron Antoine-Jean Gros (1771-1835; *Bonaparte Visiting the Plague Victims of Jaffa*) shows Emperor Napoleon visiting patients, while English painter Robert Hannah (1812-1909; *William Harvey Demonstrating to King Charles*) portrays William Harvey demonstrating the theory of circulation to King Charles I. Several famous paintings show victims of the bubonic plague in Europe; *The Plague of Ashdod* by French artist Nicolas Poussin (1594-1665) is one such example.

Although some might argue about who is most deserving of credit for introducing anesthesia, there is no doubt that events of the 1840s marked the beginning of the conquest of pain through anesthesia. In 1882, at the urging of French portrait artist Carolus-Duran (1838-1917), and to fulfill training requirements as an art student in Paris, Robert Cutler Hinckley (1853-1941) decided to create a painting of the first successful public demonstration of ether anesthesia. Hinckley's painting,

The First Operation with Ether (fig. 1), has become one of the most popular paintings in medical history.^{1,2}

Before Hinckley began his work, sculptor John Quincy Adams Ward (1830-1910) created the *Ether Monument*, which was erected and displayed in the Boston Public Garden in 1868.^{3,4} Several years after the celebration of the 150th anniversary of this historic event, the Board of Trustees at Massachusetts General Hospital, Boston, Massachusetts, at the urging of Dr. John B. Herman, commissioned Warren and Lucia Prosperi to create an accurate painting of the ether demonstration. The painting, *Ether Day, 1846* (fig. 2), was unveiled on October 16, 2001, exactly 155 yr after the original demonstration of ether anesthesia. It was presented as a gift to Massachusetts General Hospital by its physicians, nurses, and friends.

Although these paintings appear very similar, the documentation of a historic event by an artist, closer scrutiny reveals that the artists have used application of paint, control of light, varied points of view, and inclusion of detail to create works that differ markedly both in their appearance and in the emotional response they evoke.

The Event

Ether and nitrous oxide were used successfully to obtain analgesic effects before William Thomas Green Morton's (1819-1868) public demonstration of ether anesthesia, but for reasons beyond the scope of this essay, these events were not publicized and absorbed into medical thinking. In January 1845, dentist Horace Wells (1815-1848) attempted to demonstrate the anesthetic properties of nitrous oxide at Massachusetts General Hospital during a dental extraction. Unfortunately, the patient moaned and moved during the procedure, resulting in laughter, ridicule, and skepticism by those present.⁵⁻⁹ This failure raised doubts about the ability of nitrous oxide to conquer surgical pain. A second unsuccessful attempt would certainly have been embarrassing and jeopardized the reputations of its proponents and the institution. Therefore, it was with great difficulty that Morton was able even to obtain permission to demonstrate his ability to use ether to obtund surgical pain. Although Morton was ill-prepared and tardy, Lady Luck smiled on him that day, as anesthesia and surgery proceeded without mishap, and thus began the long, often tumultuous story of the discovery of ether anesthesia.^{7,10-14}

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Received from the Department of Anesthesiology, Perioperative and Pain Medicine, Brigham and Women's Hospital, Harvard Medical School, Boston, Massachusetts. Submitted for publication September 25, 2006. Accepted for publication December 19, 2006. Support was provided solely from institutional and/or departmental sources.

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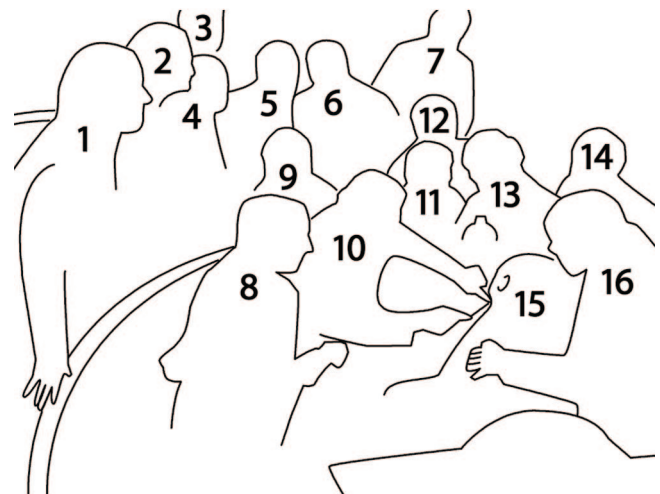


Fig. 1. (top) Robert Cutler Hinckley, *The First Operation with Ether*, 1893. Oil on canvas, 8' × 10'. Boston Medical Library in the Francis A. Countway Library of Medicine, Boston, Massachusetts. Reproduced with permission. **(bottom)** Key for identifying individuals in the painting. (1) Unidentified newspaper reporter; (2) John Call Dalton (1825–1889), student, Harvard Medical School; (3) William Williamson Wellington, M.D. (1814–1896), referring physician for patient Edward Gilbert Abbott; (4) Abel Lawrence Peirson, M.D. (1794–1853), Consulting Surgeon, Massachusetts General Hospital; (5) Charles Hosea Hildreth (1825–1884), student, Harvard Medical School; (6) William Thomas Green Morton (1819–1868), anesthesiologist; (7) Jonathan Mason Warren, M.D. (1811–1867), Visiting Surgeon, Massachusetts General Hospital; (8) Edward Gilbert Abbott (1825–1855), the patient; (9) John Collins Warren, M.D. (1778–1856), Professor of Anatomy and Surgery, Harvard Medical School, Chief of Surgery and Founder of Massachusetts General Hospital, operating surgeon; (10) Ebenezer Hopkins Frost (1824–1866), music teacher, received general anesthesia for dental extraction on September 30, 1846; (11) Charles Frederick Heywood, M.D. (1823–1893), House Surgeon, Massachusetts General Hospital; (12) Henry Jacob Bigelow, M.D. (1818–1890), Professor of Surgery, Harvard Medical School, Visiting Surgeon, Massachusetts General Hospital; (13) Augustus Addison Gould, M.D. (1805–1866), physician, author, and conchologist, Secretary, Massachusetts Medical Society; (14) Solomon Davis Townsend, M.D. (1793–1869), Surgeon, Massachusetts General Hospital.

Fig. 2. (top) Warren and Lucia Proserpi, *Ether Day*, 1846, 2001. Oil on canvas, 6' × 8'. Massachusetts General Hospital, Archives and Special Collections, Boston, Massachusetts. Reproduced with permission. **(bottom)** Key for identifying individuals in the painting [name of individual who posed for the painting]. Unless noted otherwise, all academic titles are at Harvard Medical School, and departmental affiliations are with Massachusetts General Hospital, Boston, Massachusetts. (1) Medical student [Edward A. Stern, Ph.D., Associate Professor of Neurology, Department of Neurology]; (2) Associate Professor of Anaesthesia, Department of Anaesthesia and Critical Care; (3) medical student [John Donohoe, Esq., invited guest]; (4) Jacob Bigelow [W. Gerald Austen, M.D., Edward D. Churchill Professor of Surgery, former Chief, Department of Surgery]; (5) medical student [James W. May, M.D., Professor of Surgery, Chief, Department of Plastic and Reconstructive Surgery]; (6) medical student [Andrew L. Warshaw, M.D., W. Gerald Austen Professor of Surgery, Chief, Department of Surgical Services]; (7) medical student [W. Scott McDougal, M.D., Walter S. Kerr Professor of Urology, Department of Urology]; (8) Charles Frederick Heywood [Glen M. La Muraglia, M.D., Associate Professor of Surgery, Department of Surgery]; (9) Solomon Davis Townsend [John D. Stoeckle, M.D., Professor of Medicine, Emeritus, Department of Medicine]; (10) John Collins Warren [Philip Kistler, M.D., Professor of Neurology, Department of Neurology]; (11) Henry Jacob Bigelow [Robert L. Martuza, M.D., Higgins Professor of Neurosurgery, Chief, Department of Neurosurgery]; (12) Ebenezer Hopkins Frost [John B. Herman, M.D., Associate Professor of Psychiatry, Department of Psychiatry]; (13) William Thomas Green Morton [Warren M. Zapol, M.D., Reginald Jenney Professor of Anaesthesia, Chief, Department of Anaesthesia and Critical Care]; (14) Augustus Addison Gould [William E. Minichiello, Ed.D., Associate Professor of Psychology in the Department of Psychiatry, Department of Psychiatry]; (15) Edward Gilbert Abbott [David Silverman, student, friend of the artists]; (16) John Call Dalton [William G. Austen, M.D., Assistant Professor of Surgery, Department of Plastic and Reconstructive Surgery].

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The Artists

Robert Cutler Hinckley was born in Massachusetts on April 3, 1853. His place of birth has variously been noted as Boston² and Northampton.¹ While he was still a teenager, his parents took him to Paris for formal training in art. Hinckley spent almost 20 yr there and trained under the brilliant portrait artist Charles Auguste Emile Durand (Carolus-Duran). Hinckley began work on *The First Operation with Ether* while in Paris in 1882. It is interesting that Hinckley had not yet been born when the public demonstration of anesthesia with ether took place, and it is most unlikely that he was ever personally acquainted with any of its participants. He spent much time ascertaining who was present at this event, consulting with people in Boston and examining records and newspaper reports. So it was not until 1893, 11 yr after he began his painting, that he considered it complete.^{1,2} Although he finished more than 300 paintings, mostly portraits, we have little information about any of his other works, except for a portrait of Commodore John Barry (1745–1803), which is part of the collection of the US Navy,[§] and a portrait of Georgia Congressman Charles Frederick Crisp (1845–1896) in the collection of the US House of Representatives.||

The contemporary artists Warren and Lucia Prosperis grew up in Florida and New England, respectively, and currently reside in Southborough, Massachusetts. Their work focuses on portraits, landscapes, and commemorative paintings. Several of their paintings are on display at hospitals, clinics, and commercial institutions in New England, and their preferred medium is oil on canvas. It is rare in the history of art for more than one artist to receive credit for a finished work, but the Prosperis have worked together on projects throughout their painting and photographic careers.

The Paintings

Although the Hinckley and Prosperis paintings depict the same scene, Hinckley's traditional approach is in sharp contrast to the photojournalistic treatment by the Prosperis. Viewers have difficulty evaluating the merits of two paintings completed during different periods, using different styles, and having different goals. We wished to determine the additional contribution made by the Prosperis' work and, in doing so, to examine the emotional response evoked by these works, when and where they were created, the purpose behind their creation, and the differences in style.

The contemporary Prosperis painting displays greater

apparent detail, is more accurate historically, and imparts a greater sense of action than the Hinckley painting. These effects are achieved, in part, by the Prosperis' use of colors with different values and saturation, by their showing a three-quarter rather than a full view of the participants, and by their using a more participatory composition. Hinckley's painting, created in Paris, France, and Washington, D.C., over a period exceeding 10 yr, abides by the tradition prevalent during the late 19th century. He places the participants behind, rather than around, the patient. In addition, he disperses them and, by placing the viewer at a distance, creates an operatic scene. Similar to the works of Eakins and Rembrandt referred to earlier, the Prosperis strive for medical accuracy by providing the viewer a vantage point close to the action and by staging the participants around the area of interest. The Prosperis' painting shows the patient, Edward Gilbert Abbott (1825–1855), unperturbed by the operation carried out by the surgeon, John Collins Warren (1778–1856, Professor of Anatomy and Surgery, Harvard Medical School). William Thomas Green Morton is pictured watching carefully while he stands behind the patient. The painting is remarkably accurate, considering the many obstacles Hinckley faced in ascertaining who was present, their roles, and the equipment used.

Hinckley succeeds in capturing the scene that heralded the discovery of anesthesia. The scene is theatrical, and the modest-sized Ether Dome appears quite large, with many participants in the foreground as well as the background. The viewer is kept at a distance and at the same height as Morton. Hinckley focuses our attention on the patient by using lighter hues, by rendering the foreground in sharper contours, and by showing the expectant look on the faces of the onlookers. The viewer is shielded from the incision and from seeing any blood, making one wonder whether the surgeon had actually made an incision. The appearance of two surgeons, Henry Jacob Bigelow (1818–1890, Professor of Surgery, Harvard Medical School) and John Collins Warren, differs markedly from that in photographs and portraits available at the time. Hinckley includes individuals who were most likely absent during the demonstration—medical student Charles Hosea Hildreth (1825–1884), surgeon Abel Lawrence Peirson (1794–1853), surgeon Jonathan Mason Warren (1811–1867), and physician William Williamson Wellington (1814–1896).^{1,2} Moreover, he omits two individuals who were most likely present—surgeons Samuel Parkman (1816–1854) and George Hayward (1791–1863).^{1,2}

Despite its weaknesses, Hinckley's painting is a remarkable achievement for an artist completing training, especially considering that he began work in Paris more than 40 yr after the event and the difficulties he faced ascertaining facts about the event. In *The First Operation with Ether*, Hinckley brings out the excitement of this noteworthy event, and allows us to participate in its

§ <http://www.history.navy.mil/photos/pers-us/uspers-b/j-barry.htm>. Accessed March 29, 2006.

|| <http://xroads.virginia.edu/~CAP/PIX/crischinckley.gif>. Accessed March 29, 2006.

celebration. Although his other works do not deal with medical events, here he demonstrates his skill in the artistic traditions prevalent in the late 19th century.

Unlike Hinckley, in *Ether Day, 1846*, the Prosperis move the patient from the center to the right foreground. The central figure here is the surgeon, John Collins Warren, shown working on a ligature. Blood is clearly in evidence, not only on the surgeon's hands but also on the patient and in the basin. The scene and the participants are essentially the same as in the Hinckley painting, but the viewer is brought closer to and is looking down on the action. One obvious response elicited, especially when *Ether Day, 1846* is viewed from afar, is to wonder whether one is actually viewing a photograph. This is understandable, considering that, for accuracy, the artists took more than 200 photographs of an enactment of the scene by participants who donned period costumes. The work appears extremely realistic, the close-up view and depiction of blood enhancing one's sense of being a witness to a most important event. The realistic, photojournalistic quality that dominates the Prosperis work is due not to the incorporation of minute details, as one might expect, but to a deliberate emphasis on certain features while continuing to maintain sharp outlines. The painting does not appear as warm as Hinckley's work due to its uniform lighting, the absence of shadows, a shallow depth of view, and perhaps its realistic qualities. The Ether Dome appears true to its actual size, and the participants are more uniformly distributed both in the foreground and in the background.

While Hinckley celebrates the first demonstration of ether anesthesia at a distance, the Prosperis invite us to be spectators in the room, very close to the site of action. The darker tones that predominate the earlier painting are replaced by the brightly lit operating room. Hinckley uses spotlighting and gradually blurs the sharp outlines of subjects by blending one tone with another. His larger, operatic painting moves the viewer back into an audience witnessing a performance. The Prosperis cleverly use a staged event at which participants were photographed in period costumes and succeed remarkably in their goal—to create an accurate, realistic, close-up view of the actual operation. As the Prosperis bring the viewer into a ringside seat at the demonstration, the scene is so credible that it is easy to imagine that the patient would have moved had the depth of anesthesia been inadequate. While Morton appears to look on and be available in Hinckley's work, the Prosperis show him alert and ready to move in immediately. In comparison to the subdued atmosphere that pervades the Hinckley scene, the level of anticipation here is intense.

History painters need to stage the scene, as well as costume participants appropriately before commencing their work. The Prosperis took advantage of photogra-

phy to combine this two-step process into one. Closeness to reality and authenticity are the hallmarks of *Ether Day, 1846*. They selected J. Philip Kistler to pose as the surgeon because of his remarkable resemblance to John Collins Warren. The Prosperis are more accurate from a historic viewpoint because they excluded most of the individuals known to have been absent during the demonstration. They correctly exclude Charles Hosea Hildreth, Abel Lawrence Peirson, and Jonathan Mason Warren; however, they do include William Williamson Wellington, who was likely absent during the demonstration. Weather data for the morning of October 16, 1846, and the location of windows in the Ether Dome verify that the participants were surprisingly well illuminated with natural light. The Prosperis used even lighting to keep all participants in sharp focus to simulate conditions in the modest-sized Ether Dome. These details, along with the intense facial expressions of the participants, suggest that they are witnessing a truly monumental event.

Summary

The two paintings we compare depict the same memorable, historic event, but the artists had different objectives. Hinckley undertook the project as a requirement for completion of art studies in Paris, whereas the Prosperis were commissioned by Massachusetts General Hospital, Boston, to create an accurate painting of the event. Both Hinckley and the Prosperis used daguerreotypes and photographic sources for their work. Using painterly brushstrokes and taking full advantage of spotlighting, Hinckley draws our attention to *the patient*, who is the central figure. The patient, who is facing the viewer, is draped in white to exaggerate the effect of highlighting. The overall scene is quite wide, and its staging has an operatic effect. The viewer is somewhat excluded from the scene and delegated a role in the audience. The generous natural light that pours down from the windows of the Ether Dome may even suggest that a higher force guides the surgeon's hands, and, we daresay, those of Morton as well. There are strong emotions interacting here, reminding one of a charged moment in the climax of an opera. The Prosperis apply paint broadly, and bright light evenly illuminates the entire scene. The central figure here is *the surgeon* and certainly not the patient, who is facing away from the viewer. Hinckley uses the warm traditional style prevalent during the late 19th century. He succeeded politically as well, by including in his painting the majority of the prominent men on the Boston surgical scene; however, the Prosperis' work is technically more accurate in some aspects overlooked by Hinckley. The appearance of the participants, the presence of blood in the field, and the zoomed-in view add to the realistic feeling that the artists wish to impart

to the viewer. Their depiction would have been even more convincing if one of the participants were taking the patient's pulse, a detail, accurate or not, that Hinckley included. Additional changes could have included an ether vaporizer that was not tilted downward and that was equipped with a horizontally, rather than vertically, placed mouthpiece.

Few, if any, paintings depicting important scenes from medical history have had an original sequel. There is probably none where the scene has been reenacted by latter-day individuals posing as historic figures. These masterpieces may be considered as supplementing rather than competing against each other. Their differences arise not only from the manner in which paint has been applied, the lighting, point of view, and details, but more important, from the times in which these works were completed. Hinckley's work is indeed representative of work from the 19th century, whereas that of the Prosperis is contemporary. Interested individuals come to Boston from all over the world to examine Hinckley's painting. Those who are fortunate enough to visit the Ether Dome at Massachusetts General Hospital in Boston, where the original event occurred, will also have an opportunity to examine the contemporary painting. We hope that the information we provided here will pique

the interest of readers, be they medical historians or the merely curious.

The authors thank Mary Koch, M.A. (Lexington, Massachusetts), and Jack Eckert, M.S.L.I.S. (Reference Librarian, Center for the History of Medicine, Francis A. Countway Library of Medicine, Boston, Massachusetts), for their help with this project.

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