



IMAGINING IN TIME

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HELEN LAMB: SOME INSIGHT INTO HER LIFE AND TIMES—PART 2*

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First successful total pneumonectomy

James Gilmore, a physician from Pittsburgh, Pa, was admitted to the surgical service of Barnes Hospital, St Louis, Mo, on April 4, 1933. He was accompanied with his lifelong friend, Sidney A. Chalfont, MD. Gilmore's operative permit read: "I herewith request the performance of the required operation and such additional work as may be found necessary or advisable at the time."^{1(p121)} The operation was to be an upper left lobe lobectomy. The preoperative orders left that day were for a "routine prep for a lobectomy 'L,' morphine 0.15 gm @ 9 a.m., atropine 0.0004 gm @ 9 a.m., to OR when called in bed, temperature, pulse, respiration (TPR) q4h, bedrest with bathroom privileges, tub bath, light diet."^{1(p121)}

The next day Gilmore arrived in the operating room shortly after 9 AM. Helen Lamb recorded his vital signs as blood pressure 98/72, pulse 84, and respirations 20. Anesthesia was begun by mask at 9:35 AM.^{1(p122)} Lamb removed the pillows from under Gilmore's head and with her right hand on Gilmore's forehead, extended his head. Lamb then inserted a laryngoscope, lifted the epiglottis, and during inspiration,

inserted an endotracheal tube 2 to 3 cm above the bifurcation of the trachea. This procedure took 10 minutes to perform. Lamb then connected the anesthetizing machine and began delivering 4 L/min of nitrous oxide and 800 cc of oxygen. An FiO_2 of 16.67% was used to reduce the risk of fire from cautery. Adjustment of a catheter expiratory valve allowed a degree of gas rebreathing. Lamb inflated an endotracheal balloon with a 10-cc Luer syringe to seal the lumen of the trachea containing the endotracheal tube. The tracheal balloon was clamped with a hemostat. Lamb then inserted a mouth bite with a string hanging outside the mouth attached to which was a hemostat.^{2(p37-41)}

Graham made his initial incision at 10 AM and entered the chest by the removal of ribs 6 and 7.^{1(p122)} When an increase in intrapulmonary pressure was required by Graham, Lamb adjusted the catheter expiratory valve. Anesthesia was maintained with a hypoxic mixture of nitrous oxide and oxygen. Lamb later authored the chapter "Technique of Administration, Endotracheal and Endopharyngeal Nitrous Oxide Oxygen Anesthesia" in Graham's textbook, *Surgical Diseases of the Chest*.² Hypoxic nitrous oxide-oxygen was used because it was the only anesthesia method available to Graham when he anticipated the use of hot cautery for the surgery.^{1(p125)} Carbon dioxide was added to the mixture when respiratory stimulation was necessary.

After careful exploration, Graham found the mass involved the entire left mainstem bronchus. He felt it would be useless to perform a lobectomy but knew of no successful 1-stage removal of the lung in a human.^{1(p122)} After discussing the sit-

uation with Chalfont, Graham decided to perform what was to become the world's first successful total pneumonectomy with Helen Lamb as nurse anesthetist. Lamb's postoperative remarks summed up how the case had proceeded: "uneventful anes., pulse good volume, color good. Glucose given when B.P. fell and pt. responded. At completion of operation blood transfusion was given."^{1(p124)}

Gilmore was discharged from the hospital 44 days later. He and Graham went on to develop a friendship that was reflected by frequent correspondence, gifts, and occasional visits (Figure 1). For the next 24 years, Gilmore phoned Graham on April 5, the anniversary of his surgery.^{1(p131)} Gilmore lived another 30 years and continued to smoke throughout his life.^{1(p140)}

During 1941, Lamb began corresponding with nurse anesthetist Dagmar Nelson and Vernon C. Hunt, MD. Nelson provided anesthesia for the patients of Hunt, a Mayo Clinic trained surgeon, at St Vincent's Hospital in Los Angeles, Calif. In 1934, Nelson had gone on trial for violating the California Medical Practice Act and was found not guilty. Hunt had initiated the correspondence as he wanted Nelson to visit Lamb to see her work with Graham. Lamb was flattered and would make Nelson's visit to St Louis a warm and interesting visit.^{3(p94)}

An interest in figure skating

During the 1940s, Lamb became interested in figure skating, as did Walter Powell of the Brown Shoe Company (Figure 2). They became good friends because of their mutual interests that included watching and participating in figure skating, though neither was ever a competi-

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Figure 1. In 1955, Evarts Graham, MD (left), with James Gilmore, MD, the first pneumonectomy patient



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Figure 2. Walter S. Powell, undated



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tive skater. The two could sometimes be seen going to a skating rink together at the old Winter Garden on De Baliviere Avenue in St Louis. A student of Lamb's once saw her meeting Powell to go ice skating, and Lamb was dressed in a short skating skirt for the occasion (A. Mahan, oral communication, April 2002). Lamb described herself as "cutting quite a figure dancing to music on ice."⁴

Barnes Hospital

During the late 1940s, many of the community hospitals in St Louis had anesthesiologists on their staff except Barnes, a major teaching hospital of the Washington University School of Medicine.⁵ Some of the surgeons at Barnes had worked with physician anesthesiologists during World War II, appreciated their work, and felt it was time Barnes and Washington University School of Medicine had a Department of (Physician) Anesthesiology. This led to a group of 13 surgeons writing a letter to Graham, demanding he get a physician anesthesiologist to head up the anesthesia department at Barnes Hospital noting the university affiliation and the increasing complexity of modern surgery. Graham finally succumbed to their demand and began searching in earnest for an anesthesiologist who would head up a physician anesthesiology department and teach in the nurse anesthesia program.

This search was accompanied with a high level of tension between the anesthesia and surgery departments (D. Eastwood, written communication, February 2002.)

Lamb felt the anesthetics provided by her and her colleagues were highly adequate, and the hospital director was very happy and protective of the anesthetic department because of the continued income it was providing. In 1950, the hospital was charging a flat fee of \$30 for anesthesia^{1(p183)}; this income helped reduce some of the fees charged to patients for other hospital services. The director of Barnes Hospital, Frank Bradley, MD, knew that the nurse anesthesia students provided inexpensive service. Graham was torn, yet remained supportive of Lamb and the Department of Anesthesia (D. Eastwood and C.B. Mueller, written communication, October 1999).

Finding an anesthesiologist to come to Barnes was to become a long and arduous process. In 1947, Ted Mallinckrodt, Jr, the chairman of Mallinckrodt Chemical Company, a chemical manufacturer and manufacturer of anesthesia products headquartered in St Louis, Mo, endowed a chair in the Department of Anesthesia in honor of his son Henry Mallinckrodt who had died in 1945 from injuries received during World War II.^{1(p188)} Many physician anesthesiologists were interviewed for the

chair, and in October 1950, Douglas Eastwood, MD, from the University of Iowa, came to head the Department of Anesthesia at Barnes. Eastwood would go on to establish a physician residency program in anesthesia, recruit residents, enhance the anesthesia faculty, and integrate the nurse anesthesia program with the physician residency program in anesthesia.^{1(p193)}

Lamb did not greet Eastwood warmly upon his arrival at Barnes Hospital in 1950. Eastwood believed that Lamb saw his appearance at Barnes as a serious threat. Eastwood now had the strong support of Graham. He was eager to make changes at Barnes and had developed a 3-year plan for the department. However, he could not develop a close relationship with Lamb. The two would have serious conversations, at times to the point of confrontation. Eastwood would go on to make many changes in clinical procedures. Many but not all of those changes were approved by Lamb. Yet to this day, Eastwood recognizes the leadership and contributions Lamb made for the department and for the profession of nurse anesthesia. Eastwood later said he was to learn a lot about the administration of anesthesia from Lamb herself (D. Eastwood and C.B. Mueller, written communication, October 1999).

One of the first-full time anesthe-

siologists to practice in St Louis, Seymour Brown, MD, became credentialed to practice in several community hospitals, as did most anesthesiologists coming to St Louis at that time. He recalls:⁵

Nurse anesthetists almost exclusively administered anesthesia at Barnes and Jewish Hospitals (teaching hospitals of Washington University), and a large nurse anesthetist training school continued for many years at Barnes Hospital. At St. John's Mercy, De Paul and St. Louis City Hospitals, much of the anesthesia was provided by nurse anesthetists, with surgeons and residents providing regional anesthesia.

Brown further recalls Eastwood's appointment at Barnes and Washington University School of Medicine and his subsequent resignation in late 1955. At that time, many anesthesiology departments were a service under the Department of Surgery, and a conflict arose among Carl Moyer, MD, chief, Surgical Department, and Eastwood and other anesthesiologists. Moyer wrote a policy that muscle relaxants, especially curare, could not be used as a part of the anesthesia care plan of surgical patients. He based his policy on the deaths associated with its use, as reported by H.K. Beecher, MD, and D.P. Todd, MD, in their 1948 to 1952 study.⁵ Actually, neither Beecher nor Todd reached such a drastic conclusion in their study, although they advocated caution with their use.⁶ Brown further stated that following Eastwood's resignation, "Dr. Robert Dodd was appointed Professor and Chief in the Spring of 1956 with Dr. Bela Hatfalvi coming soon after. The nurse anesthetist program at Barnes Hospital continued to thrive."⁵

Walter Powell and the Saint Louis Symphony

Even though Lamb's retirement from anesthesia in 1951 was because of the internal conflicts within the department, her retirement opened the way for Lamb to achieve other great accomplishments. Lamb was yet to experience a new and interesting chapter in her life, for Powell

also retired in 1951. On December 25, 1951, 61-year-old Lamb married 72-year-old Powell^{1(p183)} (J.L. Conrad and L.W. O'Neal, personal communication, May 1999).

Powell's interest in figure skating led him to become a referee at the 1952 Olympic Winter Games in Oslo, Norway, and the 1960 Games in Squaw Valley, Calif. Powell and Lamb enjoyed traveling to and participating in ice skating events together, as well as having a passion for symphony concerts.⁷ On February 14, 1961, a tremendous tragedy occurred in Lamb's life. A plane carrying the US Figure Skating Team to the World Figure Skating Championships in Prague, Czechoslovakia, crashed near Brussels, Belgium, killing all on board. Powell was on the flight, as he was to serve as a referee at the championships.^{8,9}

Powell's estate was reported to be valued at \$1,035,000. In October 1966, the Saint Louis Symphony began a \$4 million capital fund drive, and Lamb made the Saint Louis Symphony Society beneficiary of a \$1 million charitable trust to be given on her death.¹⁰⁻¹⁴ In an article entitled, "\$1,000,000 Sings For Her" in the *Chicago Sun-Times* newspaper, Lamb described her decision to donate money in her late husband's memory. Both she and Powell had enjoyed many wonderful evenings at the symphony, and Lamb described their whole marriage as rather harmonious. When Lamb heard that there was a possibility of the end of the Saint Louis Symphony because of its financial condition, she decided to make the donation. The article went on to say that although neither Lamb or Powell could sing a tune, nor were either of them musically talented, both could ice dance very well.⁴ Lamb was elected an honorary vice president of the Saint Louis Symphony Society that year.¹⁵

The symphony's capital fund drive and Lamb's donation enabled the purchase of the old St Louis Theatre Building, which was built in 1925.^{15,16} The theater was pur-

chased in August 1966, renovated, and renamed Powell Symphony Hall.¹⁶⁻²⁰ Lamb was unable to attend the gala opening event on January 24, 1968, because of illness, but she was represented by a nurse anesthetist friend from Louisiana and Joyce Kelly, CRNA, MA, from California (J. Kelly, oral communication, September 2002).

Lamb's later years

Lamb later married Noel R. Coleman, a St Louis builder, and she moved to San Diego with him in 1967.²¹ Coleman had the idea of constructing freestanding surgicenters, an idea ahead of its time (J. Kelly, oral communication, September 2002). Coleman died of colon cancer in 1972.¹⁹

Then in 1973, Lamb married Jack R. Frost, a California investment broker of commercial real estate.²² The couple lived in San Diego. Frost was approximately 20 years younger than Lamb and was described by Joyce Kelly, a friend of Lamb and Frost, as "a wonderful person for Lamb" (J. Kelly, oral communication, September 2002). Lamb became a member of the San Diego Symphony Association and the San Diego Opera Guild.²¹ Frost was devoted to Lamb and took wonderful care of her (J. Kelly, oral communication, September 2002).

Kelly remembers Lamb as an educator and a friend. Kelly said of Lamb, "She looked at things differently, she had a lot of foresight. Lamb was a forward thinker, she thought of things in a different dimension than I would think of them" (J. Kelly, oral communication, September 2002). Powell was a very astute businessman, and he was one of the people who insisted that the AANA become affiliated with the American Hospital Association, Chicago, Ill. Early AANA meetings were held jointly with the American Hospital Association. But one of the things he taught Lamb was the importance of men in business, and Lamb felt that it was very important to get a man's opinion, especially at that time, for

men ran business and medicine, and she felt that AANA would be stronger by having men and a viewpoint that came from a different place.

By the late 1970s, Lamb had become quite frail, yet she continued to attend all of the AANA Annual Meetings. On August 25, 1976, Lamb received the second Agatha Hodgins Award for Outstanding Accomplishment (Figure 3). She gave a moving acceptance speech, which recognized her acceptance of the award on behalf of all hard-working and dedicated nurse anesthetists.²³

Lamb had frequent bouts of pneumonia. Kelly conjectured that this was due to the administration of anesthesia, as there was nothing used to rid waste gases when Lamb practiced. For instance, during neurosurgical cases, nurse anesthetists were positioned under the sterile sheets, "holding a cone upside down on the patient's face to keep them asleep, with a little nitrous [oxide] and oxygen blowing on them" (J. Kelly, oral communication, September 2002).

Lamb was scheduled to attend the AANA Annual Meeting in 1979, but died September 3, 1979, in San Diego, Calif. She was survived by her husband Frost. News of her death appeared in newspapers and publications around the country, such as the *St Louis Globe-Democrat*, as well as the *St Louis Post-Dispatch*, the *San Diego Union*, and the *AANA NewsBulletin*.^{19,21,24,25}

The life of Helen Lamb was summed up by Kelly as "one whose life was giving anesthesia and teaching" (J. Kelly, oral communication, September 2002). Lamb was revered by her students, surgeons, and other anesthesia providers for her competency, thoroughness, and forward thinking. She was well regarded for her abilities. She helped found the AANA, which this year celebrates its 72nd anniversary. Somewhere in the world a Certified Registered Nurse Anesthetist is caring for a patient, each and every moment of every day.

Helen Lamb is credited for helping establish that through hard work and dedication to the profession of nurse anesthesia.

In 1980, the AANA Board of Directors established the Helen Lamb Outstanding Educator Award for her contributions in the establishment of the curriculum and minimum educational standards for schools of nurse anesthesia.

REFERENCES

1. Mueller CB. *Evarts A. Graham: The Life, Lives, and Times of the Surgical Spirit of St Louis*. Hamilton, Ontario, Canada: BC Decker; 2002.
2. Graham EA, Singer JJ, Ballou HC. *Surgical Diseases of the Chest*. Philadelphia, Pa: Lea & Febiger; 1935.
3. Bankert M. *Watchful Care: A History of America's Nurse Anesthetists*. New York, NY: Continuum; 1989.
4. Feuerstein R. \$1,000,000 sings for her. *Chicago Sun-Times*. January 9, 1967:55.
5. Brown S. Pioneering in St. Louis. Reminiscing the Development of Anesthesiology in St. Louis. *Anesthesia History Newsletter*. July 1993;11:9-11.
6. Beecher HK, Todd DP. A study of the deaths associated with anesthesia and surgery. *Ann Surg*. 1954;140:2-34.
7. Wells KG. *Symphony and Song, The Saint Louis Symphony Orchestra: The First Hundred Years, 1880-1980*. Woodstock, Vt: Countryman Press; 1980:103.
8. Obituary. *St Louis Orchestra Newsletter*. March 1961.
9. Deaths: Walter S. Powell. *AANA NewsBulletin*. May 1961;15:20.
10. Mann JF. Powell Symphony Hall Sparked Conversion of Old Movie Houses [press release]. St Louis, Mo: Saint Louis Symphony Orchestra; January 1989.
11. Powell Symphony Hall future home of the Saint Louis Symphony. *St Louis Music Journal*. January 1967.
12. Tredway M. [press release]. Special to Lib Ferriss. *St Louis Globe*. St Louis, Mo: Saint Louis Symphony Orchestra; January 11, 1967.
13. Tredway M. Photo Memo [press release]. St Louis, Mo: Saint Louis Symphony Orchestra; January 23, 1967.
14. Tredway M. [press release]. St Louis, Mo: Saint Louis Symphony Orchestra; February 9, 1967.
15. Symphony get \$1 million gift, launches drive. *St Louis Globe-Democrat*. October 26, 1966:A1,6.
16. St. Louis Theater praised as new home of symphony. *St Louis Post-Dispatch*. November 5, 1966.
17. Symphony buys the St. Louis as Concert Hall. *St Louis Post-Dispatch*. August 11, 1966: A1,4.
18. Tredway M. [press release]. St Louis, Mo:

Figure 3. Helen Lamb, nurse anesthetist, at the 1976 AANA Annual Meeting where she received the Agatha Hodgins Award



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- Saint Louis Symphony Orchestra; May 15, 1967.
19. Helen Lamb Frost services; was symphony benefactor. *St Louis Globe-Democrat*. September 7, 1979:2A.
 20. St. Louis Theater to end 40 years as movie house. *St Louis Globe-Democrat*. October 31, 1966.
 21. San Diego Area Obituaries. *San Diego Union*. September 6, 1979:A18.
 22. Helen Lamb Frost. *St Louis Necrologies*. 1979;32:99.
 23. CRNA Helen Lamb Frost, one of the original founders of the association, awarded the AANA Annual Agatha Hodgins Award for Outstanding Accomplishment. *AANA NewsBulletin*. September 1976;30:5.
 24. Helen Lamb Powell Frost dies; symphony benefactress. *St Louis Post-Dispatch*. September 6, 1979.
 25. Helen Lamb Frost, one of the original founders of the AANA, dies. *AANA NewsBulletin*. September 1979;33:7.

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