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Part IV: University Components and Activities --- Chapter 59: Jefferson's Military History; Chapter 60: Art Collection; Chapter 61: Audiovisual Services; Chapter 62: Computer Assisted Learning; and Chapter 63: Jefferson Regalia (pages 1019-1060)

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War has always been a test of the strength and endurance of nations. Just as surely, however, the battlefield also tests a nation’s compassion for the wounded and its capacity to care for them. For the medical profession that provides that care, the battlefield calls for a dimension of service rarely encountered in peacetime. War is a crucible by which men and women learn to practice medicine with an intensity and on a scale never repeated in the course of a professional lifetime. Hippocrates (460–370 B.C.) recognized this when he said: “He who would become a surgeon should join the army and follow it.” Over the years many thousands of Jefferson graduates, students, faculty, and nurses have done that. They have committed themselves to the needs of those wounded in service of country.

Jefferson’s military history is as distinguished and proud as her peacetime history. Any account of the accomplishments since Jefferson’s founding would be incomplete without recognizing the dedication and skill that Jefferson people have put forth in military settings. From the time of the Civil War in the 1860s through the Vietnam conflict 100 years later, Jefferson graduates and

Commendation from James Forrestal, Secretary of the Navy.
staff have served in a way we have come to think of as distinctively "Jeffersonian." They have performed with a willing spirit, to the highest standards, in a cooperative effort, and with the unselfishness and pride that characterize the special place called Jefferson.

Many Jefferson physicians have experienced firsthand what General Merritt W. Ireland (Jefferson, 1891) meant when he described his experiences at an Indian post in the West. "I came to know what love of man for man is, what friendship means and what sublime faith people have in a doctor." Many graduates also have seen the truth of a comment by Major General James Carr Magee (Jefferson, 1905): "A doctor at a battalion aid station cannot be a weakling; he may be the only man between this world and the next."

In this account of Jefferson's military history, some important facts and names must regretfully but pardonably be omitted. Honor is due not only to those whose deeds have won public acclaim, but also to those whose stories remain untold. Each of these Jefferson heroes evokes the deepest pride.

The First to Serve

One of Jefferson's earliest alumni, Anson Jones (Figure 59-1), earned his stripes on three fronts: in medicine, the military, and politics. Born in Great Barrington, Massachusetts, in 1798, he graduated from Jefferson in 1827 in its second class. His

Certificate of Distinction from the War Department.
grandfather was Sir John Jones, and his grandmother was a sister of Oliver Cromwell. When Texas declared its independence from Mexico, Jones enlisted in the Texas infantry. It was 1836, just before the Battle of San Jacinto, and Jones served as surgeon to the Second Regiment. When General Sam Houston gave the order “Fight and be damned,” Jones left the hospital, joined the infantry, and entered the fray. When the battle was over, he returned to the hospital where he provided care for wounded soldiers as well as for General Houston, who had a gunshot wound in the leg.

Jones was the first Jefferson graduate to be involved in the military, and also the first to earn high political office. Capping a stormy career in public life, he became the fourth and last President of the Republic of Texas, before it was annexed to the United States.

First Faculty Involvement

Early Jefferson records also show that William P.C. Barton (Figure 7-1) had a successful military career. Dr. Barton held Jefferson's Chair of Materia Medica from 1826 until 1829 and was also Dean from 1828 to 1829. In 1842 Barton was appointed Chief of the Bureau of Medicine and Surgery of the Navy. The post was a new one; the office of Surgeon General of the Navy had not yet been created.

Dr. Barton received his early education at Princeton, where he graduated with distinction in 1805. He studied medicine under his uncle, Dr. Benjamin Smith Barton, who was a surgeon at Pennsylvania Hospital. As early as 1809 he was recommended for appointment as a surgeon in the Navy by Drs. Benjamin Rush and Philip Syng Physick. He maintained a naval career for the rest of his life, but with long periods of shore duty he was able to conduct academic activities such as his Professorship at Jefferson. He achieved a brilliant record in the organization of the marine hospital system. In a report on the operation of these hospitals he was highly critical, particularly of the hospital at the Philadelphia Navy Yard. The report was so controversial that he was court martialed for “conduct unbecoming an officer and a gentleman.” Later, however, he was exonerated.

The Civil War

The Civil War presented the nation with a crisis of unity. No less it challenged the medical profession to a test of its abilities. Disease spread widely as the battleground swept halfway across the continent. Battlefield wounds became increasingly complex, and there was an acute shortage of physicians.

Poor as it was, American medical care became the best thus far provided to the fighting man. The nation's medical schools were partly responsible for that. Jefferson was in its fourth decade by this time and had established a high

Fig. 59-1. Anson Jones (Jefferson, 1827), the last President of the Republic of Texas (1844–1846).
level of professionalism. Its physicians contributed to the Civil War effort in ways that changed the course of military medicine. An example was Ninian Pinckney (Jefferson, 1833). Just after graduating, Pinckney enlisted in the Navy and went on eventually to become Medical Director with the rank of Commodore before retiring in 1873.

Surgeon Pinckney is known for an innovation that helped both the Army and the Navy in the Civil War. He outfitted a captured Confederate side-wheeler, the Red Rover, equipped it with elevators, window screens, and operating rooms, and used it as a hospital ship (Figure 59-2). Serving on it were Catholic nuns who had volunteered as nurses. This is believed to be the first Navy hospital ship that carried female nurses to care for patients.

Dr. Pinckney was also an able administrator. During his service he was responsible for the organization of medical staff rank and grade for the U.S. Navy, continually striving to improve the status of medical officers. Dr. Pinckney's prominence is indicated by the fact that in 1854 he made the Presentation Address on the occasion of Commodore Matthew Perry's presentation of the flag that had been raised on the soil of Japan after diplomatic and trade relations had been established.

Another Jefferson graduate who made a lasting mark on the military was Dr. Jonathan Letterman (Figure 59-3). Dr. Letterman's father was a Trustee of Jefferson College at Canonsburg, Pennsylvania, from which Jefferson Medical College originated. The elder Letterman wrote to the Board at Jefferson Medical College requesting that his son be accepted. He was, and the younger Letterman earned his degree in 1849. Upon graduating, Dr. Letterman entered the Army as Assistant Surgeon and became a career army man. Eventually he reached the status of Medical Director of the Army of the Potomac. He is best remembered for the system he devised to remove the wounded from the battlefield (Figure 59-4).

Before Dr. Letterman's plan, fellow soldiers transported casualties to rear hospitals in an
FIG. 19-1. Jonathan Letterman (Jefferson, 1849) devised a pioneer system to remove the wounded from the battlefield. These same vehicles, however, were also used by commanders for logistical support. Medical supplies would sometimes be dumped when the vehicles were needed elsewhere. A medical organization was lacking to evacuate casualties collected by regimental units. The situation became critical in the Second Battle of Bull Run, where wounded were still on the field five days later.

At the time of Dr. Letterman’s appointment as Medical Director of the Army of the Potomac, the Surgeon General remarked: “In making this assignment, I have been governed by the best interest of the service. Your energy, your determination and faithful discharge of duty in all different situations in which you have been placed during your service of 13 years, determined me to place you in the most arduous, responsible and trying position you have yet occupied. I now commit you to the health, the comfort and the lives of thousands of fellow soldiers who are fighting for the maintenance of our liberties.”

Dr. Letterman proved worthy of the trust. He organized and trained an ambulance corps. The system was put into effect at Antietam in September, 1862, and it worked. Although Antietam (or Sharpsburg, in western Maryland) was the bloodiest one-day battle in the history of the American Army to that date, the field was cleared of casualties within 24 hours. Later, Dr. Letterman refined the system, organizing division hospitals, staffing them adequately, and adding...
evacuation hospitals where casualties were cared for until they were fit to travel. His 16-page plan for medical evacuation was submitted to President Lincoln. It was approved in 1864, adopted by Congress, and became law.

After the Civil War, Dr. Letterman retired to San Francisco, where he was appointed coroner for two terms and where he died at age 47. His body was later exhumed and he and his wife were reburied at Arlington National Cemetery. The stone over his grave reads: “Jonathan Letterman, who brought order and efficiency into the medical service, was an originator of modern methods of medical administration in the army.” The Letterman Army Medical Center in San Francisco was named in his honor.

William W. Keen (Jefferson, 1862) became a pioneer in neurosurgery because of his findings in problems of the nervous system. He entered Jefferson in 1860, but gave up his studies temporarily to enlist in the Union Army as a Division Surgeon. At the Battle of Bull Run, Virginia, he set up an operating room at Sedley Springs Church with the aid of local women. He was then put in charge of Ekinton General Hospital near Washington, D.C. (by Dr. Letterman, who was then Medical Director of the Army of the Potomac). Later, he studied injuries of the nervous system at the Turner’s Lane Hospital at Twenty-second Street and Columbia Avenue in Philadelphia. His colleagues in this clinical research endeavor were Drs. S. Weir Mitchell (Jefferson, 1850) and George R. Morehouse (Jefferson, 1850). His *Gunshot Wounds and Other Injuries of Nerves* is based on this military experience.

Although Dr. Keen wished to serve in the Spanish-American War, his services were not required because of its short duration. Amazingly, in World War I he served as a consultant medical officer at the age of 80.

At the start of the Civil War, Jefferson’s enrollment included students from both the North and the South. In fact, in the 1859 class, Virginians outnumbered Pennsylvanians 46 to 28. Even before the conflict erupted, the students formed two un integrated groups. As early as December 23, 1859, over 200 students from the South, on an offer of equal standing and free tuition, transferred to Richmond, the capital of the Confederate States. In March, 1860, fifty-six out of 140 who had matriculated graduated from the Medical College of Virginia.

This offer had apparently been arranged and organized by Dr. Hunter McGuire (Chapter 2, Figure 8). McGuire had a degree from Winchester Medical College in Virginia, Class of 1855, and practiced in Philadelphia. He conducted quiz classes for students from both Jefferson and the University of Pennsylvania. During the war, Jefferson’s student body shrank from 630 to 275.4 Jefferson and the University of Pennsylvania survived, but the Pennsylvania Medical College (McClellan’s second school) dissolved by attrition. Dr. McGuire later became Medical Director of the Army of the Shenandoah Valley and Brigadier Surgeon under Stonewall Jackson, to whom he was the personal physician. After the war, all was apparently forgiven and Dr. McGuire was awarded an honorary LL.D. degree by Jefferson Medical College in 1888. Respect for his brilliancy and honesty was never lost. In 1892 he became President of the American Medical Association.

At the end of the Civil War, many of the students from the South returned to Philadelphia to get their diplomas from Jefferson. Philadelphia had numerous military hospitals, and the facilities for obtaining training were excellent—this kept many of the graduates in the area. The Richmond School had given the Southern students adequate instruction but could not compete with Jefferson’s prestige for the triumvirate of Professors Dunglison, Pancoast, and Gross.

Dr. Samuel D. Gross (Jefferson, 1828) was commissioned by the War Department to write a *Manual of Military History*. The Gross *Manual* was published in 1861 and a second edition in 1862. It was distributed to all medical personnel in the Union Army. So competent was it and so great was the need that the Manual was pirated by the Army of the Confederacy and reprinted for distribution to their medical personnel (Figure 9-5).5 One Jeffersonian who could attest to the need for it was Dr. John H. Brinton (Jefferson, 1852) (Figure 9-6), who served as personal physician to Ulysses S. Grant and later founded the Army Medical Museum. His commission as Brigade Surgeon of Volunteers was signed by Abraham Lincoln, and the original is located in Jefferson’s archival treasure trove (Figure 9-7).
encountered a Union doctor who said the first surgery he ever saw was an emergency operation he had to perform himself.² Brinton was a contributing author to *The Medical and Surgical History of the War of the Rebellion*, and after his death his *Personal Memoirs of the Civil War* (1914) was published. Upon the resignation of Samuel D. Gross in 1882, he served as Professor of the Practice of Surgery and Clinical Surgery at Jefferson until 1907.

A number of Jefferson graduates served with distinction in the Army of the South. Matthew W. Butler (Jefferson, 1860); father of Admiral Butler of the Medical Corps of the Navy, attended Stonewall Jackson when he was wounded at Chancellorsville, Virginia. Dr. H. Browse Trist (Jefferson, 1857), a descendent of Thomas Jefferson, served in peacetime with the U.S. Navy, and joined the Confederate Army Medical Corps when the Civil War erupted. Dr. Trist's mother (Virginia, née Randolph) was a granddaughter of Thomas Jefferson.³
The Era After the War

When peace came and the nation began to knit itself together, the need for the military was less immediate. Still, the country had learned to be prepared and would keep its defenses strong. In the last decades of the nineteenth century and on through the early years of the twentieth, several Jefferson graduates made notable contributions to medical military history and held the highest posts in the Army, Navy, and Public Health Services. Worthy of mention are: Commodore J. Nathan Foltz (Jefferson, 1830), who was the first Surgeon General of the Navy; Brigadier General Charles Sutherland (Jefferson, 1849), who was Surgeon General from 1890 until 1893 under President Benjamin Harrison; and Major General Merrette W. Ireland (Jefferson, 1891), who was Surgeon General of the Army from 1918 until 1931 under Presidents Wilson, Harding, Coolidge, and Hoover (Figure 59-8). Dr. Ireland was a veteran of the Philippine-Mexican expedition and went to France with the American Expeditionary Force (AEF) in 1916. He was a Chief Surgeon of the AEF in 1918 and Surgeon General that same year. General John Pershing chose Ireland as his Chief Medical Officer. He praised Ireland, calling him “abounding in vitality, mental and physical, quick and accurate in decisions and prompt in action. He understands men and knows how to work with them for the common good. He is farsighted in making plans and immeasurably able in administration. He is loyal always but courageous in promoting sound views and avoiding error.” Dr. Ireland received an honorary LL.D. degree in 1919 when he addressed the graduating class at Jefferson.

A continuation of the list includes: Dr. J. Chalmers DaCosta (Jefferson, 1885), who was assigned to the ship George Washington as a Naval Surgeon and provided care for President Woodrow Wilson during the Peace Treaty negotiations for the League of Nations; General A.E. Bradley (Jefferson, 1887), who was the First Chief Surgeon of the AEF; and Colonel Frederick H. Mills (Jefferson, 1894), who retired at age 76 and at the time was the oldest medical officer on active duty after 43 years of service. Colonel Mills enlisted in 1898 and served in the Spanish-American War, the Philippine Insurrection, the Mexican Border War, the Boxer Rebellion, and...

Fig. 59-7. Brinton’s commission signed by Abraham Lincoln.

Fig. 59-8. Major General Merrette W. Ireland (Jefferson, 1891) and Board President, Robert P. Hooper, upon the occasion of the Annual William Potter Lecture in 1939.
World War I and II. In 1924 he became Professor of Military Service for the Reserve Officers Training Corps (ROTC) at Jefferson. In 1942 he was recalled to active duty and assigned to Jefferson. In 1945 he was selected to have his portrait presented to the College.

Additional graduates outstanding in military service were: Dr. Benjamin Lee Gordon (Jefferson, 1896), Instructor in Obstetrics from 1897 to 1901, who was a member of Keegan's Brigade in the Spanish-American War, a member of the Medical Advisory Board in World War I, and in the Volunteer Corps, and grandfather of Susan J. Gordon (Jefferson, 1966), a gastroenterologist at Jefferson; Dr. James C. Magee (Jefferson, 1905), who was Surgeon General of the Army from 1939 until 1943; Major General Alexander J. Orenstein (Jefferson, 1905), who was responsible for medical service during the building of the Panama Canal and Acting Medical Director of the Medical Corps in World War II; and Colonel Thomas Leidy Rhoads (Jefferson, 1893), who had a hospital in Utica, New York, named after him. The latter was a medical officer at the White House during President Taft's administration. Colonel Rhoads saw active duty in the Spanish-American War and was Division Surgeon of the 8th Division in France during World War I. He also served as Chief Surgeon of the First Corps of the First Army.

The list concludes with unintentional omissions. Colonel Purcey M. Ashborn (Jefferson, 1893) had a hospital in McKinney, Texas, named after him. He was Inspector General of the Health Department in Panama and active in tropical medicine in the Spanish-American War. Major General William Crawford Gorgas was Surgeon General from 1913 to 1918. Although not a Jefferson graduate, he received an honorary Doctor of Science degree from Jefferson in 1909.

World War I

Military combat changed dramatically in the 50 years between the Civil War and World War I. Hand-to-hand combat was replaced by military hardware. The tank was introduced. This type of battleground constituted the first modern technological war. As warfare changed, it generated new kinds of battle injuries. Trench foot and mouth, gas poisoning, and multiple head, neck, and chest injuries from projectiles were all common. They were so new and so numerous that ways of treating them were still being developed.

It was clear that the Armed Forces Medical Corps would need assistance in coping with the anticipated massive-scale war injuries. For this reason the Red Cross organized 50 hospitals across the country to support the AEF that headed for France in 1918. The Red Cross set up and equipped base hospitals, which were to be transferred to the jurisdiction of the U.S. Army Medical Department after mobilization. The idea was to assemble a staff whose members were accustomed to working with each other, so that the unit could quickly function at an efficient level.

Jefferson asked to be one of those base hospitals. Dr. Ross V. Patterson (Jefferson, 1904) and the Honorable William Potter, Chairman of the Board of Trustees, requested an interview with Surgeon General William Gorgas concerning the establishment of a Jefferson Base Hospital. The original request was refused, but later accepted. In 1917 United States Army Base Hospital No. 38 from Jefferson was organized. At that time, three other hospitals were also organized in Pennsylvania. They were: Base Hospital No. 10 from Pennsylvania Hospital; Base Hospital No. 12 from the Hospital of the University of Pennsylvania; and Base Hospital No. 34 from Episcopal Hospital. All personnel were volunteers. Major William M.L. Coplin (Jefferson, 1886) was made Director-in-Chief of the Laboratory Division of Base Hospital No. 38. Dr. Norman J. Henry was made Chief of the Medical Division, and Major Charles F. Nassau was named Chief of the Surgical Division. The Commanding Officer was Major John S. Lambie, Medical Corps, U.S. Army, who was on active duty.

The training of the hospital personnel took place at the Second Army Regiment on North Broad Street near Susquehanna Avenue in Philadelphia. A didactic course was given by Dr. W.W. Keen, and practical instruction at several locations: Jefferson Hospital, Pennsylvania Hospital, St. Agnes Hospital, St. Joseph's Hospital, Philadelphia General Hospital, Episcopal Hospital, Frankford Hospital, Lankenau Hospital, Presbyterian Hospital, and Jewish and Samaritan Hospitals.
Jefferson Base Hospital No. 38 consisted of 35 officers, 100 registered nurses, six civilian employees, and 200 enlisted men. It had a capacity of 1,000 beds.

The hospital expected to be ordered to France. Personnel marched with their equipment to Stenton Athletic Field at Twenty-fifth street and Hunting Park Avenue. They took along tents and field kitchens. Their training lasted for nearly eight months. On June 19, 1917, a farewell dance was given at the Second Regiment Armory on Broad Street, and Base Hospital No. 38 was off to war.

Many private citizens contributed considerable sums of money for the outfitting of the unit. Adeline P. Gibson, with her husband, Henry Gibson, contributed $50,000 for the purchase of equipment. Mrs. Thomas P. Hunter contributed $5,000 to equip the operating room. Other equipment included a four-ton ice-making machine. The Women's Auxiliary of the Hospital contributed surgical dressings, bandages, and supplies. The Teachers' Association of Philadelphia gave an ambulance costing $1,500, and the Logan Improvement Association gave one costing $2,000. There was even a mascot named “Jeff,” a blue-ribbon Boston terrier valued at $500.

Prior to leaving for France on the Army transport Saturnia on May 19, 1918, President of the Board William Potter stated to Clara Melville, Director of Nurses, and 99 Jefferson nurses: “You will go in the holiest cause that ever angels of mercy were summoned to. You take with you the faith of the republic and your courage and your goodness.” On June 21, 1918, six officers and 100 enlisted men embarked on the S.S. Nopatun (Figure 59-10) from New York, and another 29 officers sailed on the S.S. President Grant. The Base Hospital was established in Nantes, France, and served other small cities and towns in France. The hospital had 21 wards, a diet kitchen, barracks, mess hall, officers’ barracks, and nurses’ barracks (Figures 59-11–59-13). The nurses’ mess hall and the officers’ mess hall were separate.

Equipment was in short supply, and much of it never arrived. Work on the building was done by officers and enlisted men who lived in an incomplete tarpaper building. By September, 1,000 patients had been admitted; in November the daily census was up to 2,412 patients. Many of the nurses were transferred to other units, and Clara Melville, Chief Nurse, had only seven nurses to assist in the operating room and to care for patients.

Nearly 9,000 patients were cared for at the Base Hospital No. 38 in Nantes, France. The primary problems encountered by the medical department were respiratory infection, effects of gassing, diphtheria, scarlet fever, mumps, and gastrointestinal problems. The surgical division had three operating room tables in each operating room, and all were busy most of the time. There were 15 wards for surgical cases and the more than 700 active cases including fractures, gunshot wounds, hemorrhage, infection, and gangrene.

The severity of the wounds and the complications were described as follows: “To die of wounds is bad enough. To die as a result of war gas is immeasurably worse. But the summation of hellish torture born of the devil’s fiendish mania is wounds and gas. All fertile resources of torturing demons evolved through the
FIG. 59-10. The S.S. Nopatm, Jefferson troop transport to France (1918).

FIG. 59-11. Jefferson's Base Hospital No. 38 in World War I, established in Nantes, France.
ages of unspeakable cruelty fall impotent and mild before the dragon of agonizing death."

Seven members of the Jefferson unit died in service. Adeline Pepper Gibson, who had contributed money toward the equipment of Base Hospital No. 38, accompanied the Unit to France. She died in the service of her country on June 10, 1919, from pneumonitis. The memorial to her stated: "She left us one continuous period of smiling, patient helpfulness and her passing weighs upon us as one overwhelming and unforgettable service of our own great adventure. A world peopled by such souls would be sunshine and cheer without pain: a paradise."

By the war's end, 27 sons of Jefferson had given their lives. In their honor the Alumni Association presented a bronze plaque to be placed in the College building (Figure 59-14). It remains there today, just inside the main entrance. At the memorial tablet ceremony on October 7, 1920, Dr. J. Chalmers DaCosta stated: "They died to save us. Wherever man has died for man, that spot is holy ground. It is proper that names of our heroes should be commemorated. . . . It will touch our hearts to think of those brave and gallant gentlemen who made the final sacrifice to save the nation."

One of every four living Jefferson graduates served the Army in World War I. Of 5,000 living alumni, 1,286 entered the Army, and 167 the Navy (Figure 59-15). In his history of Base Hospital No. 38, Jefferson alumnus Dr. William M.L. Coplin noted: "Sixty-five percent of our graduates for the five years preceding 1918 served in the armed services. The class of 1916 had the largest number of men in service—103." Many citations and

FIG. 59-12. The receiving ward of Base Hospital No. 38.
decorations were awarded to Jefferson physicians. Dr. John Chalmers DaCosta noted in his address at the dedication of the memorial tablet that “Dr. Orlando H. Petty of this hospital received the well-merited, seldom given and magnificent honor of the Congressional Medal.” Petty had graduated from Jefferson in 1904. When World War I started, there were only 500 medical officers in the...
Army. By the time of the Armistice, more than 30,000 medical officers served in the military. Five percent of those were Jefferson men.

Jefferson served the country on the home front too. Early in the war, the Army and Navy asked to send medical officers to Jefferson for graduate refresher courses. Jefferson took them in and provided dormitory room for all. In addition, there were 431 students in the Student Army Training Corps, 398 in the Army, and 33 in the Navy. In September, 1918, all Jefferson students were mobilized, and the Student Training Corps was formed for both Army and Navy units. In December, 1918, after a brief period of indoctrination into military life, the unit was demobilized as the war came to a close. The 1919 Clinic lists a number of Army companies and Naval units to which students were assigned.

- Winds of Another War

As soon after World War I as 1920, a Reserve Officers Training Corps was established at Jefferson. Students who enrolled would qualify for a commission in the medical section of the Officers' Reserve Corps of the Army on receiving the M.D. degree. Military training was not compulsory, but some 150 students enrolled. Training included six weeks of summer camp at the Carlisle Indian School barracks located at Carlisle, Pennsylvania (Figure 59-16). After less than a quarter century the nation would again depend on its medical profession to treat the wounds of another war.

World War II

The United States entered World War II on December 8, 1941, the day after the Japanese bombed Pearl Harbor. By this time systems for treating the injured had advanced considerably. The wounded were examined first at battalion aid stations just behind the lines. About a mile to the rear were collecting stations for additional emergency treatment. From there the wounded were sent to clearing stations and the gravest cases to field hospitals. These were some five miles from the combat zone. Evacuation hospitals took those who needed immediate surgery. All of these systems were mobile and moved wherever the action was. The exceptions were general hospitals,
which were fixed installations. One of those general hospitals was Jefferson’s 38th, a reactivated version of Jefferson’s World War I Base Hospital.

As in the previous war, Jefferson was ready to serve. In 1940 the Surgeon General of the Army, James Carr Magee (Jefferson, 1905) was the speaker at Jefferson’s commencement. At a luncheon following the ceremony, Major General Magee asked Jefferson’s Dean William H. Perkins to reorganize Jefferson Base Hospital No. 38.

Work got underway immediately. Dr. Baldwin L. Keyes (Jefferson, 1917), a member of the Reserves since the last war, was made Commanding Officer, and Dr. Burgess L. Gordon (Jefferson, 1919) was Chief of Medical Service. Edna Scott was Director of Nurses with the rank of Major. By the time of the Pearl Harbor attack in December, 1941, Jefferson’s General Hospital No. 38 was complete and ready for active duty. Dr. Keyes fulfilled his responsibility in admirable fashion, and on May 15, 1942, Jefferson’s Hospital Unit left for Camp Bowie, Texas. The group rode what is described as a “ramshackle train,” through hot, sticky weather in minimal accommodations.

The hospital training in Texas consisted primarily of hikes and physical activity. Colonel Forrest R. Ostrander was assigned Commanding Officer of the 38th General Hospital in August, and Dr. Keyes became Executive Officer in charge of medical affairs. In August of that year, the 38th, consisting of 36 original officers and 103 of the original nurses, left Camp Bowie by train for South Carolina.

The hospital equipment was loaded aboard three ships. Two weeks later, the group was transferred to Camp Kilmer, New Jersey, and eventually to Staten Island. From there the 38th sailed over 16,000 miles, stopping at Rio de Janeiro for supplies, then moving on to Cape Town, South Africa, and up the coast of Africa through the Suez Canal to the port of Teufik, where the ship was unloaded.

The destination of the 38th was approximately 13 kilometers from Cairo, Egypt. The members called the hospital “Kilo 13” (Figures 59-17, 59-19). Dr. Keyes, in writing to Dean Perkins in 1943, stated: “Our hospital is built with locally made brick with tin roofs and ceilings of bullrushes or pressed fiber. The buildings are well scattered among the rolling sand dunes, and can only be seen all at one time by climbing on top of a large dune separating the officers’ and nurses’ quarters.”

The hospital opened for patients on November 11, 1942, exactly 23 years from Armistice Day, the day that ended World War I. The patient load consisted of noncombatants. It had been expected that Rommel’s North African Campaign would generate a number of casualties, but at the battle of Alamein in October and November of 1941, Montgomery defeated Rommel. Shortly thereafter, the African Campaign ended, and the fighting moved to Italy, beyond the hospital’s operational area. The hospital, by now with Colonel Mabel Prevost as Chief Nurse, decreased in size because...
Fig. 59-17. Jefferson General Hospital No. 38 ("Kilo 15") in 1943. This is the left half of a group photograph; Dr. Baldwin L. Keyes is at the extreme lower right.

Fig. 59-18. Baldwin L. Keyes (Jefferson, 1917), Executive Officer in Charge of Medical Affairs, with Muhammed Ali, uncle of King Farouk.
it was not in a combat area. Many of the original physicians and nurses were transferred to other facilities. Dr. Keyes was transferred and promoted to Surgeon for the Delta Service Command.

One patient who passed through Jefferson General Hospital No. 38 was Associated Press Correspondent Paul K. Lee. He observed: "I have never stopped in Philadelphia in my life, but I have recently spent ten days as a patient of Jefferson Hospital of Philadelphia. The paradox is explained this way. The hospital is out on glistening yellow-white sand somewhere between the River Nile and the Red Sea. Its official name was the 38th General Hospital, U.S. Army, but to a remarkable degree, it is still Jefferson Hospital of Philadelphia." Mr. Lee's testimony simply confirms that it is the people, not the place, that gives Jefferson its special character.

The 38th General Hospital was cited for its service by Commanding General Giles of the African Middle East Theatre on May 8, 1945, with a Meritorious Service Plaque. It reads: "For superior performance of duty and the accomplishment of exceptionally difficult tasks." The Hospital was deactivated in 1949 as a Reserve General Hospital, and the designation "No. 38" was transferred to a medical school in Richmond, Virginia. Dr. Keyes' efforts to have the unit designation remain permanently associated with Jefferson were unsuccessful.

Jefferson contributed to the World War II effort at home as well as overseas. Early in the War, 12 beds in the hospital were set aside for the Navy by Dr. Hayward R. Hamrick (Jefferson, 1935), who was then Medical Director. Twenty corpsmen were trained in this way. Colonel Frederick H. Mills trained the students for the Army, and later Major R.H. Lackey performed this task. Registered nurses were also assigned to Jefferson for training.

In the fall of 1941, eighty-three Jefferson students from the first-year class enrolled in the Reserve Officers' Training Corps. These men spent an hour each day in military training and were commissioned as Second Lieutenants in the Student Army Training Corps. Their next year of medical school ended in April due to an accelerated program, and was followed by more stringent military training, including duty at New Cumberland, Pennsylvania. Prior to graduation these students were commissioned as First Lieutenants, Medical Corps, U.S. Army. Several later members of Jefferson's faculty, including Drs. Samuel S. Conly (Jefferson, 1944) and John J. Gartland (Jefferson, 1944), were in that unit. A Navy unit was also organized at Jefferson, but apparently military training was somewhat less rigid.

In other ways and places, Jeffersonians demonstrated competence and loyalty to country that earned them prominent military positions: Captain John H. Chambers (Jefferson, 1916), Medical Corps, U.S. Navy, was Commander of the Mobile Hospital Unit No. 2. He was present at the attack on Pearl Harbor on December 7, 1941; Captain Robert E. Duncan (Jefferson, 1919) was Commanding Officer in the Naval Hospital National Medical Center, Bethesda, Maryland; Rear Admiral Harold K. Cokely (Jefferson, 1921) was Executive Officer in a Naval Hospital in Guam, Commanding Officer of St. Alban's Hospital in New York and the U.S. Naval Hospital in Key West Florida, and Commanding Officer of the Naval Hospital in San Diego, which is the largest one in the United States; and Vice Admiral Thomas F. Cooper (Jefferson, 1924), U.S. Navy, was Inspector General and Commanding Officer of the Naval Hospital at Great Lakes, Illinois, as well as Commanding Officer of the Naval Medical Center in Bethesda.

In all, 2,122 Jefferson graduates, almost one-third of living alumni at the time, served in World War II. The great majority, 1,599, were in the U.S. Army. Another 424 were in the Navy; one in the Coast Guard; one in the British Army; and 19 in
the U.S. Public Health Service. Several others were on unknown assignments.

Some alumni were killed in action or became prisoners of war: Capt. William T. Lineberry (1915), U.S. Navy (Japan); Lt. Col. Charles Leason (1918), Medical Corps, U.S. Army; Major Fred H. Beaumont (1928), (Germany); Capt. Sidney E. Seid (1933), Medical Corps (Japan); Capt. Frank Gallo (1934), Medical Corps (Japan); Capt. George A. Raider (1937), Medical Corps (Japan); Lt. J.G. Arthur Miller Barrett (1938), U.S. Navy; Lt. J.G. Bey D. Landgon (1938), U.S. Navy; Dr. Richard Diamond (1943), killed or prisoner of war; Lt. Col. Clark Rodman (1943), Medical Corps, U.S. Army; Lt. J.G. Joseph A. Federowitz (1942), U.S. Navy, killed in action.

For their heroism and devotion to their country, Jefferson graduates were awarded every decoration given to military personnel, and nearly every decoration from foreign governments. These included: Legion of Merit, Distinguished Service Medal, Commander of the Order of the British Empire, Commander of the Order of Bath, Presidential Unit Citation, Pacific Theatre Ribbon, Purple Heart, Letter of Commendation, Navy Commendation Medal, Typhus Commission Medal, European Theatre Ribbon, Bronze Arrowhead, Decoration of Aun Hai (China), American Defense Service Medal, American Theatre Medal, Victory Medal, Combat Medal Badge, European Occupation Ribbon Air Medal, Asiatic Pacific Theatre Medal, American Defense Service Medal, Philippine Liberation Ribbon, Silver Star, Brazilian War Cross, Belgian Fourrigere Liberation Ribbon, Testimonial Flag from Commanding General Chinese Army, Soldier's Medal, and Italian Medal of Valor. Many of these included Battle Stars, many with Oak Leaf Clusters, and many with palms and clasps.

In World War II, 32 Jefferson physicians were lost. Those who made this supreme sacrifice are immortalized on a plaque in the College (Figure 59-20) erected by the Alumni Association: "In Freedom's Cause. To the Eternal Memory of Those Graduates of the Jefferson Medical College Who Answered the Call of Duty and Gave Their
Lives While Serving Their Country's Armed Forces During World War II—1941-1945.”

The Korean Conflict

The mortality rate for the wounded who reached medical facilities during World War I was 8.5%. That figure was down to 4.5% by World War II. This was not only because of the increased efficiency and timing with which the injured were processed to treatment, but also because medicine by the 1940s had made significant strides.

Medical proficiency was to be put to the test again in Korea, where open hostilities broke out in 1950. Here, more than 33,000 Americans lost their lives. Certainly the number would have been greater if not for some lifesaving advances in technology. It was in Korea, for instance, that the helicopter was first used to evacuate the wounded. This timesaving factor greatly improved a soldier's chances for survival.

Information on the participation of Jefferson physicians in Korea is not as complete as that of earlier wars. The stories that have come to light, however, show that here too, Jefferson graduates continued the tradition of dedicated service, valor under duress, high moral character, and commitment to the country's cause. Typical is the record of Dr. Burgess A. Smith (Jefferson, 1949). Smith received the Distinguished Flying Cross for rescuing wounded men behind enemy lines in Korea. On presenting the citation, the Commanding General of Medical Personnel in Korea said: “I am especially proud to present this award to you because you are one of us. It is not often that a member of the Medical Corps receives this high award.”

Dr. Smith was also recommended for the Silver Star. Dr. John E. Hughes (Jefferson, 1948) received a Meritorious Citation and a Secretary of War badge for general surgery in Korea. Another who unselfishly risked his life in Korea was Dr. George R. Farrell (Jefferson, 1949). Dr. Farrell received the Letter of Commendation Medal for heroism in action in Korea (Figure 59-21). He saved the lives of soldiers wounded when the First Marine Division was trapped by the Communist forces near the Changjin Reservoir.

Those Jefferson men whose actions in Korea are recorded served with exceptional bravery and brilliance. Surely those Jeffersonians whose service in that conflict is not known to us also performed with the same high professional and personal standards that are fostered by the Jefferson experience.

Vietnam

By the 1960s when the United States became engaged in war in Vietnam, Jefferson had a century-long tradition of courage in combat medicine. Jefferson people had served in every war in the nation's history during that time. By now, however, it was possible to see some dramatic improvements in the survival rates of soldiers wounded in battle.
In the Civil War, the wounded often walked great distances to secure what limited medical help was available. When they reached the medical unit, amputation and palliation were often the treatment of necessity. One hundred years later, in Vietnam, it was possible to get an injured soldier to a well-equipped operating room with modern resuscitation equipment within 20 minutes of the time of injury.

Dr. Lee P. Haacker (Jefferson, 1960) has described the progress in battlefield medicine based on his firsthand experience in Vietnam. As he pointed out, casualty-handling systems had greatly improved since the last war; transportation was now by helicopter and jet. Further, medicine offered better resuscitation equipment, and, most important, vast quantities of blood were accessible. Frozen blood could be stored almost indefinitely, making available larger quantities.

Even with medical and military progress, this war was no less bloody, but more men did survive. The mortality rate in Vietnam was lower than in any other major conflict. Only 2.4 percent of casualties reaching medical facilities died. Once again, Jefferson graduates helped make that possible.

Dr. Robert A. Brown (Jefferson, 1955), Commander, Medical Corps, U.S. Navy, served with the Third Marine Division during the siege of Khe Sanh in Vietnam. With enemy fire destroying the tents above ground, the medical team had to move to underground bunker space.
to care for casualties when the siege began in January, 1968. During the ensuing three months the medical unit saw 2,541 patients. Most patients were wounded in action by sniper fire and shrapnel from artillery, rocket, and mortar fire (Figure 59-22). As Dr. Brown observed at the time,

“The General Medical Officer in Vietnam adapts very rapidly to the smooth and rapid treatment of large numbers of casualties. He almost daily sees massive soft tissue trauma, with gross contamination caused by booby traps and mines and involving multiple systems of extremities, abdomen, chest and often face and neck. He learns to evaluate wounds caused by high velocity missiles and those caused by shrapnel. He automatically learns to treat the constant problem of heat exhaustion, salt depletion, malaria, dysentery, amebiasis, etc., and to consider them in his therapy in addition to the traumatic wound.”

Other Jefferson physicians who served in Vietnam included: Dr. Jerome Vernick (1962); Dr. Francis Madden (1967); Dr. James Holstein (1967); and Dr. Frederick J. Laucius (1967). Dr. Charles L. Deardorff, Jr. (1961) was assigned to the Seventh Surgical M.A.S.H. Hospital at CuChi for 14 months. Here he provided surgical care for casualties as well as holding weekly sick call in neighboring villages. Dr. Deardorff recalls that in traveling around to the villages, “Penicillin and soap were our main tools.”

The 14 doctors of the Seventh Surgical Hospital took on the casualties from Attleboro, one of the combat operations of the Vietnam War. A regiment of Vietcong had been contacted 20 miles from the hospital, and fierce fighting broke out. American casualties were high and were all flown to this hospital. The medical team treated 356 casualties in 96 hours. “Patients . . . spilled out into the field behind the hospital,” Dr. Deardorff recalled. “We in the operating rooms never saw the patients we operated on before or after surgery. Other men would diagnose, resuscitate, and send the wounded into the O.R., one after the other.” (Figures 59-23 and 59-24) When Attleboro was over, Dr. Deardorff was to notice in the medical personnel a deep realization: “that they had been useful, they had served their

Fig. 59-24. A surgical intensive care unit and recovery room in Vietnam.
country and they were proud. . . We have done our job.”

The Class of 1970 erected a plaque in memory of their classmate, William E. Whiteman, and to those alumni who served in the Vietnam conflict (Figure 59-25).

In War and in Peace

Their names and numbers run into the thousands, those men and women of Jefferson who gave their energy, their care, and sometimes their lives when their country needed them. They gave with a spirit of generosity that was above the call of duty. They gave with a skill that makes them standard bearers for the medical profession. They gave willingly, knowing that it might require of them the highest human sacrifice.

Those educated in medicine possess a gift of healing that makes their presence indispensable when nations go to war. Perhaps none see the devastation of war as closely as those who care for its victims. An observer of World War I noted it this way: “War is the summation of all tragedies, the pinnacle of all follies, the abysmal depth of all horrors, . . . the supremacy of slaughter and starvation. It is insanity—out of which shines but one lone star, . . . the light of the Samaritan who feeds and clothes, arrests bleeding, binds wounds, bears anesthetics, sedation and opiates, nurses with tender hand, . . . takes the last faltering message to loved ones at home, and when comes the end, closes staring eyes, composes limbs, . . . covers with the flag the soldier, the fallen victim.”

These were the physicians and nurses, all those who attended the battle not to destroy but to heal. It is Jefferson’s privilege to have been able to serve that mission with a spirit and a distinction that represent the best of the medical profession and the best that is in us as human beings.

![Plaque](image)
References

6. Ibid.
7. Ibid.
CHAPTER SIXTY

The University Art Collection

ROBERT J. MANDLE, PH.D.

"I trust that the Alumni Association will make it a part of their duty to adorn the College with memorials of this kind (portraiture) as a bare act of justice alike to themselves and to those who devoted their lives to the service of the school."

—SAMUEL D. GROSS (1805–1884)

MENTION of the widely known Jefferson art collection conjures up images solely of its outstanding portrait collection, one of the finest among medical schools, not only for its preeminent Eakins but also because it contains perhaps the oldest sequence of portraits of a medical college faculty. It is the largest component of the Jefferson art collection but only a part. A consideration of "Art" would include the buildings. Some, such as the Scott Library, have won awards for their architectural importance. Others are richly adorned with artistic examples such as the gargoyles on the College and Curtis Clinic buildings. Also, Jefferson's collection of sculpture, now numbering over 25 pieces, has continued to grow. Less well known are the many plaques commemorating benefactors and outstanding alumni. Many are of themselves artistic frames for the statement being presented.

The collection began with the Samuel Bell Waugh portrait of Charles D. Meigs in 1872. Frankenberger (The Librarian) in 1915 stated: "The entire collection of portraits in the possession of the College numbers twenty-four and is a valuable and most interesting one." In 1955, forty years
later, there were 88 paintings, almost a threefold increase in number. These included paintings of members of the Board of Trustees, the faculty, and a few of the people who were important to the history of Jefferson, yet in neither group. The collection dated June, 1987, listed 224 paintings, a trebling in a space of only 32 years.

Paintings constitute the largest portion of Jefferson's art collection. Of the 228 paintings by 1988, a few are landscapes, but 214 are portraits. Others depict a subject that usually relates in some way to Jefferson. Most of these as well as many portraits have been given to Jefferson by friends of the University. Examples of such gifts include the painting of the front door of the Medical College building (1025 Walnut Street) by Benjamin Eisenstat and the Osler at Old Blockley, which, while not a gift, is on long-term loan from Wyeth Laboratories. Many of the portraits are also gifts of family or friends of faculty members, Trustees, or others thus honored.

By 1930 the collection had reached a size and importance sufficient to warrant the concern of the Board of Trustees. In essence, the Trustees were concerned about overcrowding the portraits or displaying "inferior portraits." They did not wish to have portraits accepted for hanging in the Medical College that were not "consistent with the quality of the paintings now owned and on hand." Those concerns of over one-half century ago are just as proper today. In consequence, the Dean's office, the faculty, and the Alumni Association became involved in the process of monitoring the collection and acquisitions.

Files from the 1950s indicate that a faculty committee was functioning and that it was carrying out the wishes of the Trustees with regard to the expansion, display, and maintenance of the portrait collection. The committee consisted of three or four Departmental chairmen who were concerned mainly with the "Class Portrait." The chairman saw to it that the "Portrait Committee" of the Senior Class followed the process that would ultimately add a portrait of a distinguished "teacher" to the collection of which Jefferson is so justifiably proud. They also began to take note of conservation of a portion of the collection, especially the security of Eakins' The Gross Clinic.

From 1957 to July 1960 the Portrait Committee of the faculty was under the chairmanship of Dr. William Harvey Perkins. Members included Drs. Kenneth Goodner, Bernard J. Alpers, Baldwin L. Keyes, Thaddeus L. Montgomery, and Leandro M. Tocantins. Dean Sodeman was an ex officio member. Succeeding chairmen included Drs. Goodner, John B. Montgomery, Andrew J. Ramsay, and Peter A. Herbut. Upon his succession to the Presidency of the University, Dr. Herbut was replaced by Dr. Ramsay.

In the late 1960s the duties of the committee were assigned to the Protocol Committee of the College with Dr. Ramsay as chairman. In July, 1971, President Herbut created the "Thomas Jefferson University Committee on Art." This committee was made responsible for all aspects of art for the entire institution including the display and conservation of the portrait collection, sculptures, and plaques and approval of new acquisitions. It reported directly to the President.

In addition to Dr. Ramsay, the University Art Committee consisted of Beverly Morlandoe, the first Medical Student Representative to the Committee; Franklin C. Dalla, Director of the University Commons; Stanley Graham, Vice President for Development of the University (who shortly asked that his assistant, Oliver Robbins, be his named replacement); and Drs. John Lindquist, Robert J. Mandle, Paul J. Poinnard, Elias Schwartz, and Francis J. Sweeney, Jr. President Herbut was an ex officio member. Dr. Ramsay retired from the University in the fall of 1972. At that time Dr. Mandle became Chairman and remained so for nearly 16 years until July, 1986, when he too retired from the University and was replaced by Dr. Russell Schaedler.

The Portrait Collection and Other Paintings

In writing about Thomas Eakins and The Gross Clinic in the Summer, 1967, Alumni Bulletin, Elwood C. Parry, III gave an account of the beginnings of the Jefferson art collection. As he reports, after Dr. Gross had returned from a trip to Europe (1868), where he visited many famous centers for the teaching of medicine, he and Dr. Joseph Pancoast were guests of Alumni and
friends at a dinner held in their honor. Dr. Gross concluded his speech to those assembled with the following remarks:

“There is one thing that strikes an American in viewing the great literary and scientific and charitable institutions in Europe with admiration such as he cannot feel for his own. It is the respect which is everywhere shown to the memory of great and good men. Portraits, busts, and statues adorn alike the halls of learning . . . and the medical school . . . In our city, so distinguished for its . . . institutions, there is a singular absence of everything of this kind.”

The message must have been taken to heart by his audience, because two years following the founding of Alumni Association (1870) the first of five Samuel B. Waugh portraits of members of the Jefferson faculty was completed. This was a posthumous portrait of Dr. Charles D. Meigs based on a previous one by Waugh that was to be found at the College of Physicians. Thus began a tradition that continues with only slight modification today. The Meigs portrait was commissioned “by his former students” in 1872. The four others were of Drs. Joseph Pancoast (1874), Samuel D. Gross (1875), Robley Dunglison (1876), and John B. Biddle (1880). According to Elwood Parry, “there can be no doubt that Samuel B. Waugh was the official painter for the Jefferson Medical College in the 1870s.”

Following Waugh, Eakins came along to take over as Jefferson’s portraitist. Fortunately for Jefferson, Eakins’ connections with members of its faculty had begun long before he painted the most famous of any work in the Jefferson collection: The Gross Clinic. Dr. Benjamin H. Rand, Professor of Chemistry, and later Dean, was Thomas Eakins’ teacher and a friend of the family. For this reason and because of the admiration that Eakins felt for him as one of his teachers at Central High School, Eakins asked him to pose for a portrait, which was completed in 1874. The Rand portrait was entered by Eakins and selected by the committee for exhibit in the Centennial Exposition, and later Jefferson probably received the portrait from the family.

It is unfortunate that a like beneficence did not occur in the case of the Eakins’ portrait of Dr. James W. Holland, The Dean Calling the Roll. Dr. Holland had been Dean of the Jefferson Medical College for 12 years. The family never accepted the portrait, supposedly because they disliked Eakins’ realistic approach to portraiture. Eakins portrayed Dean Holland in the act of reading the names of the class while attired in his academic robe but wearing his favorite fishing shoes. This superb portrait was subsequently acquired by the Museum of Fine Arts in Boston. The Jefferson collection includes another portrait of Holland by Adolph Borie.

In 1981 Jefferson received a request from the Museum of Fine Arts (MFA) in Boston to borrow The Gross Clinic for an exhibit. In exchange for the loan, Jefferson was able to obtain Eakins’ The Dean Calling the Roll for the duration of the MFA’s need of the portrait of Dr. Gross, and the college placed the Holland in the space normally occupied by the perambulating Gross Clinic. Along with the original, Jefferson obtained a full-sized Polaroid® reproduction of the original, which has been placed in the Eakins Gallery along with the other three Eakins portraits owned by the University.

The painting of Samuel David Gross by Eakins, better known as The Gross Clinic, has earned the respect of art historians and critics all over the world and has finally earned belated plaudits for Eakins as creator of the premier piece of American art. The University Committee on Art receives many requests each month for permission to reproduce it in textbooks or medical journals. The Gross Clinic has been exhibited in many cities, starting with its initial showing in Philadelphia at the time of the Centennial Exhibition in 1876. According to Carol Troyen in the catalog A New World: Masterpieces of American Painting 1760–1910, the painting was also exhibited in New York, 1879; St. Louis, 1904; New York and Philadelphia, 1917 (the year following the death of Eakins); Philadelphia, 1930, 1931, 1933, and 1935; Washington, D.C., 1961; Philadelphia, 1965; and New York, twice in 1970. In these shows it was usually just one of the pieces on exhibit. There have been many requests for its use in exhibits in the interim but a great reluctance over the years on the part of all of the various “committees” to allow it to travel. This was principally because of the age of the portrait, its emotional as well as its real value to Jefferson, and the attendant risks involved in
allowing it to be displayed elsewhere. It was Dr. Bluemle who convinced the University Committee on Art that *The Gross Clinic* was more than a piece of important art owned by Jefferson. It was a part of Jefferson to be seen by the public and when properly exhibited would bring recognition to Jefferson. At his urging, the Committee in 1980 reluctantly agreed to allow the painting to travel to Alabama for an exhibit called “The Art of Healing: Medicine and Science in America” at the Birmingham Museum of Art. Here it was the centerpiece of the exhibit. Two years later in magnificent settings it would share the honor by being exhibited side by side with Eakins’ *The Agnew Clinic* in both Philadelphia and Boston. This was as a part of an all-Eakins showing put together by the Philadelphia Museum of Art entitled “Thomas Eakins, Artist of Philadelphia.” It was during this time that the reports of the art critics proclaimed *The Gross Clinic* to be the most important piece of art in America, and it was singled out for attention and high praise in the reviews of the exhibition in many newspapers and magazines.

The requests for its use in reproductions or for an exhibition escalated. With the enhancement of its position in the art world so also was there a heightened recognition of Jefferson. This reached international proportions when a request was received for its inclusion in a traveling exhibition of American art to be shown at Boston, Washington, and Paris. The exhibit was entitled, “A New World: Masterpieces of American Painting 1760–1910.”

The University Committee on Art and President Bluemle in his position as an *ex officio* member had problems with this request. This was a prestigious request and not one to be turned down lightly. The exhibit was to be put together by members of the Museum of Fine Arts in Boston, the Corcoran Gallery of Art in Washington, D.C., and the Grand Palais in Paris. The pieces to be included in the exhibitions were to come from 57 public and private collections from the United States as well as the Tate Gallery in London and the Louvre. There would be eight other Eakins paintings represented in addition to works by 49 other outstanding American artists. It would be an honor to have *The Gross Clinic* included in such an exhibition, but at what risk? The work had only just returned from the tremendously successful Eakins exhibition in Philadelphia and Boston, for which it had been taken from its home in the newly constructed Eakins Gallery only one month after it initially had been installed there. If the request were to be honored, the painting would be gone from Jefferson for what would seem like an interminable ten months. The stresses placed upon the painting because of the necessity of being taken down, transported, and put up again in a different environment on four occasions might risk damage. The possibility of loss during transoceanic flight also arose. Full insurance was, however, provided which limited the dollar value that could be flown on any one plane. Was this more risky than transportation by truck on the various interstate highways to and from Boston and Washington? The decision was not an easy one, but in the end all concurred that there was an obligation to all of the viewers, American, French, and others, to include *The Gross Clinic* in this great exhibition. Inclusion would give additional recognition to Jefferson. The portrait had its own courier at each move. Mr. Roman Tybinko, himself an artist, had been associated with the Pennsylvania Academy of Fine Arts and had had similar responsibilities there. He had been engaged by Jefferson for a number of years in conserving paintings and hanging Eakins paintings. Members of Jefferson’s Alumni and friends were able to view this great exhibit at each of the locations. In Washington, D.C., arrangements had been made to bring a large contingent from Philadelphia for a special viewing and refreshments. All agreed that the painting never looked better than it did in Boston and Washington.

The same unfortunately was not true for the showing in Paris. People viewing the exhibit felt that the French had shown bad taste in the manner in which the portrait was displayed. It had been hung on the back of a pillar so that it almost touched the floor and intruded into the aisles. It was placed to the rear of one’s direction of progress through the exhibit and thus easily could be missed. Whoever was responsible for the choice of the location for the painting had certainly not featured it in the way it had been highlighted in the previous two exhibits. The entire exhibition was revamped from the way it had been seen in.
the United States, even to the changing of the cover of the catalog. The French were said to have believed that Frederick Remington’s *Evening on a Canadian Lake* was the work of an illustrator rather than that of a true artist, and they substituted a work by George Caleb Bingham for the cover of the French edition. Needless to say, a collective sigh of relief was heard from the University Committee on Art and President Bluemle when the portrait of Samuel Gross was safe again on the wall of the Eakins Gallery in Jefferson Alumni Hall.

The prolonged absence of *The Gross Clinic* from its usual place in the Eakins Gallery was eased somewhat by the presence of a full-sized Polaroid® reproduction in its place. During the painting’s sojourn in Boston at the Eakins exhibit in 1982, Jefferson took advantage of the fact that there existed in the Museum of Fine Arts Museum in Boston a laboratory of the Polaroid Corporation. They had a unique camera capable of making full-scale color reproductions of paintings. While the exhibition was being readied, two full-sized replicas of *The Gross Clinic* were made. One of these was for use in the place of the original when it would be away from Jefferson and the other held in reserve or perhaps used for the purpose of making it available to qualified museums for teaching or display. At that same time, sets of full-scale and enlarged details of the painting were also made. These detailed prints and enlargements have enhanced the appreciation of the Eakins portrait of Dr. Gross.

Two other portraits in the collection that have interesting backgrounds are those of Thomas Jefferson and Benjamin Franklin, bearing “indecipherable inscriptions” discovered by the Historical Records Survey of Pennsylvania in December of 1939. The portraits are described in a “Fine Arts” insurance policy for the Medical College in 1951 issued by the Atlantic Mutual Insurance Company on December 8, 1951. Both the Jefferson and the Franklin are listed with the notation, under the column “Artist,” “Gilbert Stuart (attributed to).”

These two portraits are said to have been given by the subjects to Jefferson College in Canonsburg, which is in western Pennsylvania. How the Jefferson Medical College got these has been detailed in an article by Doctors J. Douglas and James H. Corwin, alumni of the classes 1935 and 1951, respectively, in the “Winter 1974 Jefferson Medical College Alumni Bulletin.” Dr. James Corwin of the Class of 1903 and Dean Ross Patterson of Jefferson in 1929 paid a visit to an “elderly Lady by the name of Roberts” who lived in Canonsburg. Dr. Corwin thought she had or knew who did have the portraits; he believed that the portraits had been kept hidden in Canonsburg after Jefferson College moved to Washington, Pennsylvania, when it merged with Washington College to create Washington and Jefferson College. The trip was highly successful, and the portraits came to Jefferson. Even though the authorship of the paintings is uncertain, their history and their association with our namesake College makes them interesting.

The Class Portraits

The highest honor that can be given to a faculty member at Jefferson is to be chosen by the senior class to have his or her portrait painted and presented to the Medical College (to the University after 1969). This is a fulfillment of the wish of Samuel D. Gross in a manner that brings honor not only to the recipient but also to the class itself. The honor is bestowed upon a member of the faculty by a vote of the graduating class. The criteria for selection have mainly been the teacher’s relationship with the students and their recognition of him or her as outstanding.

The Samuel Bell Waugh portrait of Charles D. Meigs, though painted after his death, was commissioned by the students in 1872. It was given to the family, and ultimately they gave it to Jefferson. This would seem to qualify it as the first “class portrait.” Three years later, the Class of 1885 commissioned Bernhard Uhle to do a portrait of William H. Pancoast, Chairman of the Department of Anatomy, who succeeded his father to this Chair. William Williams Keen was selected by the class of 1901 to have his portrait painted by artist William Merit Chase and presented to the Medical College. If one were to rank the reputation of the artists whose work is represented in the Jefferson collection, Chase would probably
place second only to Thomas Eakins. Chase painted a superb life-size portrait of Dr. Keen, was an excellent teacher of art, and influenced many of the portraitists who were to paint members of the faculty in years to come.

The Classes of 1905, 1906, 1907, and 1908 asked Thomas Eakins to paint a portrait of William Smith Forbes, Chairman of Anatomy and a teacher “greatly esteemed by the students.” The painting, done in 1905, was the only one to have been commissioned by four classes.

For years there were no further portraits commissioned by the students. The Class of 1924 then restored the custom by presenting the portrait of J. Chalmers DaCosta, raising funds by subscription and by the proceeds of a basketball game. The tradition continued through 1956, when the class objected to the manner of selection of the Professor for the honor and declined to participate. This caused a change in the selection process and enlarged the eligibility list to include persons below the rank of Chairman. This policy proved highly satisfactory.

For many years the portraits were paid for through the students’ “laboratory fees.” Ultimately the increasing cost resulted in subsidy through the office of the Dean. The selection of the artists, for a time restricted by reason of limited funding, was thus somewhat liberalized. It is appreciated that many fine artists accepted commissions at fees below their regular ones.

The mechanism for portrait presentation in recent years has included student committee input and Art Committee approval for selection of the subject and then the artist. Upon completion, the Art Committee rules upon the acceptability of the portrait before its presentation. Ceremonies usually include a biographical sketch of the subject and acceptance speeches by the Dean of the Medical College and the President or Chairman of the Board with a response by the subject being honored.

There has been a practice during the class reunions in early June to display some of the class portraits. Those portraits commissioned by the classes celebrating their twenty-fifth and fiftieth anniversaries of graduation are given places of honor for display.

This tradition is admired and copied by other colleges and is something that goes far beyond the expectations of Dr. Gross. A near-perfect record exists now of 63 years of honoring “those who devoted their lives to the service of the school.” These are the portraits given not by the Alumni, as suggested by Gross, but by the students themselves.

**Other Portraits And Paintings**

Apart from the 62 class portraits, the remaining 201 portraits fall into one of two other categories. The first is made up of those commissioned by the Alumni Association or colleagues and friends to honor a member of the faculty or the Board of Trustees. The second category includes the many portraits and other paintings given by “Friends of Jefferson,” be they former students, family of former faculty members or Trustees, or someone wishing to donate a piece of art to Jefferson.

Many examples could be given for each category. The prime piece in collection is the gift from the Alumni Association of *The Gross Clinic*. The Alumni also presented the portraits of Mr. Robert P. Hooper, a Trustee, Dr. Thomas McCrae, and Dean Ross V. Patterson. Portraits of members of the faculty given to Jefferson by colleagues and friends have in recent years constituted most of the growing number of paintings. Examples would include Dean Sodeman and the most recent addition to Jefferson’s fine paintings of its faculty, the portrait of Dr. Warren Goldburgh. From members of the Alumni have come the portraits of Franklin and Jefferson and the portrait of Mrs. Burnside by her husband, the respected portraitist Cameron Burnside, contributed by Dr. Dwight Ashby, Jr. (1946).

Many families having a tie to Jefferson have generously given paintings to Jefferson. Dr. Orville H. Bullitt, Jr., a member of the Board of Trustees, recently gave a painting by Samuel Waugh of his ancestor Louisa Weissel Gross, the wife of Samuel D. Gross. Dr. Susan B. Ward (Jefferson, 1985) gave a Waugh copy of her great-great-great grandfather, Samuel D. Gross, to the University in 1988. Board President Percival Foederer presented the portraits of his wife and himself that can be viewed in the Foederer...
Pavilion. Daniel Baugh gave two portraits of himself to Jefferson for the Institute that bears his name. The paintings of Dr. John Eberle and his wife Salome were donated by a descendant of the family and are valuable works of Jacob Eichholtz from Lancaster, who painted during the early 1800s. An alumnus, Dr. Robert Lukens, painted portraits of his former professors including Dr. Chevalier Jackson and Dr. Randle Rosenberger and donated them to Jefferson.

Many paintings have been given by persons not directly connected with Jefferson. Molly Guion, a contemporary artist, donated two paintings. One was of Dr. Daniel Baker, Jr. (Jefferson, 1933) whom she admired—he had just been granted the Alumni Achievement Award posthumously, and she thought that it would be appropriate for Jefferson to have a copy of the portrait that she had done of him for another institution. The other was a copy of a portrait of Thomas Jefferson by Rembrandt Peale.

The sudden explosion of contemporary portraits of members of the faculty created a problem for the University Committee on Art. Proper display places were diminishing and placing portraits in storage was not desirable. To deal with this problem the University Portraits Standards Committee was formed in 1983 and specific guidelines were developed. The future care of the collection should thus be assured.

Sculpture

The Fine Arts Collection also includes 27 pieces of sculpture in addition to the gargoyles on the buildings on Walnut Street. Some of these are in fine marble, others in bronze, and some in plaster. The most recent addition has been the full-size erect statue of Thomas Jefferson by Lloyd Lilly, in bronze.

The statue that dominates the south side of Walnut Street in front of the College is The Winged Ox, by the Philadelphia artist Henry Mitchell. Placed on campus in the spring of 1976, it was Jefferson's fulfillment of its commitment to the Philadelphia Redevelopment Authority.

Philadelphia was the first city in the United States to establish a policy that would increase the public art for the city. It mandated that developers of land made available to them by the city had to place on such property a piece of art equal to or greater in value than 1% of the cost of the building(s) to be erected. The Orlowitz and Scott Library buildings were erected on land that had been acquired in such a manner from the city. It was thus necessary for the University to obtain a piece of art that would satisfy the guidelines of the Redevelopment Authority. The senior officers of the University, in consultation with Paul Harbison, the architect of the new Scott Library, decided to hold a competition for a piece of sculpture. Henry Mitchell, the winner of the competition, chose as his subject the patron saint of both physicians and sculptors, the ox of St. Luke.

The very popular and artistically exciting statue consists of a 1,400-pound winged ox on a platform subtended by a vertical column about which is a spiral of 50 names of personages who made outstanding contributions to medicine. The list of names was compiled by George M. Norwood, then Vice President for Planning and subsequently Interim President of the University. He, with the help of the librarian, Robert Lentz, had the difficult task of paring down the list to accommodate the 50 spaces allowed by Mr. Mitchell. Among those chosen for this high honor were five alumni of Jefferson. Samuel D. Gross, Carlos Finlay, J. Marion Sims, Chevalier Jackson, and John H. Gibbon, Jr. The total weight of the statue is about 5,000 pounds, and it stands between the two buildings.

Only a few years later, the University was again responsible for a 1% Redevelopment Authority art project. The Parking Garage and the Barringer Residence for students were built on land made available to the University by the city. The University Committee on Art was asked to make recommendations to the senior officers and the Board of Trustees as to a manner in which the obligation could be met. A fountain was agreed upon and, again with the help of Paul Harbison, Jr., a competition was held. Three artists selected by the committee were asked to submit models of a fountain. The committee, unaware of the identity of the creator of each model, chose a fountain containing otters that was again the work
of Henry Mitchell. The fountain was dedicated to William Bodine, Jr., Past President of the University. It was Bodine who in 1973 gave the University a fine bust of Thomas Jefferson sculpted by Rudulph Evans that now resides in the lobby of the Medical College building.

The A. Stirling Calder bronze statue of Samuel David Gross that stands on the South side of the Scott Library came to Jefferson in 1970. Previous to this it had been standing since 1897 in Smithsonian Park in Washington, D.C. Over the years it had been largely unnoticed there, and through the efforts of the Jefferson Alumni Association it was moved to the campus. It is a larger-than-life-size statue of Dr. Gross as he is seen in the Eakins portrait. He stands in the same position, addressing his students while holding in his hand the scalpel, which in this case lacks the vivid blood seen in the painting. When the statue arrived from Washington the scalpel was missing. Steve Tatti, who had been engaged by the University Committee on Art to take care of the conservation of outdoor sculptures, was able to make a very acceptable scalpel and place it in the hand of Gross.

The silver mace, symbol of authority during Commencement exercises and some other University ceremonies, is in reality a piece of sculpture. The theme of its design is the Winged Ox of Mitchell. A silver winged ox surmounts an ebony staff with an adornment of lapis lazuli jewels set in garlands of silver near the top and bottom. The mace was beautifully crafted by Eugene Zweigle, a remarkable silversmith, who translated Mitchell's piece into the Jefferson Mace. It was introduced into Jefferson's ceremonials during the commencement exercises in June, 1986.

The Slave Girl by Tadolini has been a part of the environment of the Daniel Baugh Institute of Anatomy for countless students during their introduction to human anatomy. Over the years it has been thought to be a good-luck charm for the freshmen medical students, a sort of "touchstone" for the course. This imposing marble statue is remarkable not only for the grace and form of the maiden so skillfully crafted by the artist, but also for the engineering skill manifested in the way this heavy statue is placed on its pedestal. A mechanism has been built into the top of the pedestal that allows one to rotate the statue with the effort of only a finger.

A statue of Athena, that stood in a niche in the lobby of the Thompson Building as long as one can remember, was moved to the anteroom of the Eakins Gallery in 1988. Investigations by Mrs. Julie Berkowitz, the University Art Researcher, suggested that this Roman work dates from somewhere between 100 B.C. and 200 A.D.

Display of the Collection

Much effort has been directed toward displaying the collection to public view rather than keeping it in storage. Risks attach to the display of any piece, whether painting or sculpture, though theft is of lesser concern than mutilation or inadvertent injury to a portrait. Damage has occurred to several paintings because of their location in areas exposed to the general public as well as to students and employees. These paintings were repaired by skilled conservators, and arrangements were made for continuing maintenance of the collection.

There is, however, great concern on the part of the Committee on Art for The Gross Clinic. As described elsewhere, this masterpiece escalated in value during midcentury, and in the 1960s it received the special attention it had long deserved. Through the efforts of Theodor Siegl, an outstanding conservator from the Pennsylvania Academy of Fine Arts, a complete restoration was carried out and the painting was remounted. Following this it was possible to consider the many requests for loan of the painting to major exhibitions.

The Eakins Gallery was designed by Val Lewton of the Smithsonian Institution. Its purpose was enhancement of the enjoyment of the Eakins masterpieces in addition to the provision of maximum security and preservation. The focus of attention for most people visiting the Gallery is The Gross Clinic. Two additions to the Gallery of three-dimensional representations of the portrait have helped visitors gain a better understanding of the scene depicted. One, a model using sculptors' figures, was made by Dr. Gary Carpenter, a member of the Committee. It helps the viewer
with the perspective of the group, foreshortening the patient to aid in understanding the nature of the surgical procedure. The second model, itself a work of art, is a diorama made to a size about one-twelfth that of the painting. It is the work of Frederick W. Klotz, whose hobby is making accurate scale models of soldiers and constructing dioramas. In this one, Klotz portrays the whole scene from the perspective of one in the amphitheater at the head of the operating table. He had to imagine what the floor would look like, as well as the front of the instrument table and other details that are not seen in the two-dimensional painting. The diorama, which took about 18 months to complete, has been placed in the wall opposite the Eakins masterpiece and is itself a fine addition to the Gallery.

The Conservation of the Collection

In 1973 the Committee obtained the services of Joseph Amorotico (now deceased), who was trained by Theodor Siegl and worked with him on the restoration of The Gross Clinic. Mr. Amorotico examined the collection at least yearly and made recommendations for paintings needing conservation or minor cleaning and repairs, some of which could frequently be done right at Jefferson. When major restoration was required, the piece was transferred to Amorotico’s conservation laboratories in the Pennsylvania Academy of the Fine Arts. This active and ongoing effort at conservation of the collection was made possible because the Jefferson art committee obtained a budget for that purpose.

Most painting conservators of the past began as practicing artists who developed a special interest in restoration. Sophisticated modern techniques have evolved in recent years that have extended their earlier efforts. Experience at Jefferson reflects the changes in emphasis from an attitude of benign neglect to one of active maintenance. In the past, records generally did not indicate how a painting was restored or by whom. Today a complete description of the painting as it was received together with photographs taken before and after the procedure as well as a description of what was done are furnished with each major conservation.

Conservation of sculpture, like that of paintings, has also evolved. Until very recently the cleaning of pieces was done by conscientious individuals in the custodial service who took the time to dust or wipe a piece, probably to its detriment. Today trained conservators of sculpture are available. A program of regular care of the outdoor pieces on the campus is under the direction of Steve Tatti, who has been trained in this highly specialized field. Care includes a form of preventive maintenance designed to prevent or minimize the deleterious effects of the environment.

The conservation of a painting or statue is an expensive undertaking. Many of the portraits have a value established for insurance purposes as little more than the value of the frame. The value to Jefferson is much more than that given by even a sympathetic insurance appraiser. For this reason, when a painting or statue is in need of conservation it gets it, often at a cost far in excess of the price or insured value of the original piece. Restoration of frames is also an art for which the application of skills is also expensive. What price can one put on a “class portrait” or on the portrait of one of Jefferson’s outstanding faculty members or members of the Board of Trustees? These pieces of art are a part of the spirit of an institution and the people who make it up as well as a record of its history. As such, the Fine Arts Collection deserves the best attention that is available.

The University Committee on Art serves a very important and useful function at Jefferson. It is responsible for a unique part of Jefferson, its art collection. This includes some of the best works of American artists as well as many pieces admired for their subjects apart from their strictly artistic value. While there is a real difference in the actual dollar value of components of the collection, each and every portrait, piece of sculpture, plaque, and painting is important to Jefferson. As long as there is a living member of a class that commissioned a particular portrait or a “Friend” who contributed to the painting of a colleague, there will be a painting that has the same importance as those considered to be more monetarily valuable. The Committee’s paramount
concerns are the protection, display, and maintenance of the high quality of the Fine Arts Collection at Jefferson for future generations of Jeffersonians as well as for others who have an interest in the collection.

Samuel D. Gross would have been gratified to know that the Alumni Association he founded and trusted “as part of their duty to adorn the College” is underwriting a book in preparation (1988) about Jefferson's art collection. Julie Berkowitz, A.B., M.A. (History of Art), as University Art Researcher, is compiling information to author this project, estimated to require about three years.
CHAPTER SIXTY-ONE

Audiovisual Services

THERESA M. POWERS, B.S.

"One picture is worth more than a thousand words."
—CHINESE PROVERB

The use of teaching aids at Jefferson no doubt started with the formation of the Medical College itself in 1824, although the formal establishment of the present facility of audiovisual services did not occur until 1972. To learn of the origin and evolution of audiovisual services at medical centers in general and at Thomas Jefferson University in particular, it is interesting to look first to a period long ago when rare and valuable manuscripts were read only by the teacher and never put into the hands of the students. With the advent of printing, books and documents could be widely circulated, and teachers found it unnecessary to read to their pupils. Individual study methods were then possible, and students could be assigned various texts and related reading material. Lectures could be printed. Later, with the development of photography, the addition of still pictures to hand-drawn illustrations enhanced the written records. Motion pictures and sound next entered the field, with television only one step away. The teacher could now augment the lecture not only with chalkboard illustrations and predrawn charts, but also with professionally prepared sound recordings and visual aids. Schools early recognized their value.

Dr. Herman A. DeVry, in 1912, invented the first portable, hand-cranked, silent, motion picture projector. The first model of the projector is on exhibit at the Smithsonian Institution, and DeVry is listed, along with Thomas A. Edison, on the honor roll of the American Society of Motion Picture and Television Engineers. Dr. DeVry has been called the “Father of Visual Education.” In 1925 he synchronized sound-on-disc with motion pictures and in 1933 announced 16 mm. sound-on-film projectors with sound-heads and speakers. His work in the audiovisual field had a profound influence on the use of the motion picture medium in schools and colleges as well as in industry. He founded and subsidized for years the National Conference on Visual Education, a symposium of educators, government personnel, producers, and industry representatives to study and develop more effective ways to use audiovisual media, especially sound motion pictures. This annual symposium was the creative stimulus for many highly specialized audiovisual organizations. These associations supported not only the
development of better audiovisual media and equipment, but also the improvement of facilities for using them more effectively.

The terms “visual aids” and “teaching aids” were introduced into the literature prior to 1922 in reports on the comparative effectiveness of various educational methods in schools and universities of the northeastern United States. Since the early 1920s there have been countless studies of audiovisual media at leading universities throughout the United States looking toward more effective communication tools to stimulate the learning process. Summary reports were made throughout the 1930s by individual investigators. During World War II, the U.S. Government used audiovisual media extensively when the armed services faced the problem of orienting and training millions of service personnel in the shortest possible time. This led to numerous advances and technical developments.

During the nineteenth century there were two Jefferson pioneers in the field of graphic teaching and reproduction. Dr. J. Aitken Meigs (Jefferson, 1851) introduced the use of stereopticon illustrations for his teaching in the Institutes of Medicine (Physiology) during the 1870s. Dr. William Thomson (Jefferson, 1855) joined Jefferson’s staff as Lecturer in Eye and Ear in 1874 after a distinguished Army career during and following the Civil War. He was one of the founders of a photographic bureau in the new Army Medical Museum and pioneered in experimental photomicrography. He devised techniques whereby prints of microscopic fields could be magnified 15 to 250 times. These and other forms of graphic illustration became more widely used near the turn of the twentieth century, although primitive lantern slides became available as early as 1846. As photography improved, glass lantern slides became the standard until color photography permitted the use of Kodachrome transparencies beginning in 1935. Shortly thereafter, Dr. Andrew J. Ramsay of the Department of Anatomy at Jefferson was among the first to use Kodachromes for a scientific convention presentation.

The clinical use of photography and its audiovisual successors was promoted at Jefferson by Dr. William H. Whiteley (Jefferson, 1943). Having become interested in and skilled in photography in his teens, as a medical student he quickly established a friendship with Dr. Ramsay, who taught him the elements of photomicrography. He also became friendly with Joseph Poppel in the Department of Biochemistry. Poppel did photographic work for that Department, but his services were also used extensively by other Departments for photomicrographs, for copying, and especially for lantern slides.

Another source of photographic services for the Hospital and Medical School was the Cardeza Foundation where Alan Hancock had developed skills in clinical photography. His services were soon in demand from other clinical areas. Facilities were relatively primitive, and wartime strictures limited new ventures. Dr. Whiteley, however, was called upon by colleagues with increasing frequency for clinical photography. The arrival of Dr. Rudolph Jaeger to head the Division of Neurosurgery in 1943 gave impetus to Dr. Whiteley’s involvement and added to his qualifications as Dr. Jaeger’s first resident in Neurosurgery.

Dr. Jaeger was already skilled in photographic art and motion picture production. In 1947 he established a photographic art studio largely furnished by Dr. Whiteley. Mary Nelson, an artist from the Johns Hopkins School of Art, joined the group and contributed sketches and illustrations for lectures. The group also prepared motion pictures and other materials for all types of teaching aids and convention exhibits.

The process remained departmentalized with Anatomy, Dermatology, Ophthalmology, Hematology, Psychiatry, and Pathology utilizing their own skills. Centralization had been planned since the 1940s but was not realized until after pioneering efforts by the Anatomy Department led the way. Dr. Andrew J. Ramsay, the new (1938) Chairman of the Department, needed a research specialist to handle the innovative audiovisual media that he envisioned as necessary for medical education. He asked Theresa M. Powers to join the Department in this role. Dr. Ramsay foresaw the need for closed circuit television, photography, projection equipment service, and medical art work. Thus, with Powers’ versatility and enthusiasm, the service evolved for the Anatomy Department using a wide range of skills in
producing media software. The year 1960 saw the use of television in gross anatomy, and its specialized technique of visualization through the microscope become available in the Department. It has since become widely employed.

When Jefferson Alumni Hall was opened in 1969, sophisticated techniques were built in for the Department of Anatomy. Closed circuit television linked specially designed cubicles to the entire laboratory. The television-microscopy facilities were the first in existence. Also, an x-ray apparatus with image intensification facilities was located in the embalming and cadaver storage suite. These capabilities established the base for development of a centralized service for the entire University.

In 1960 the Executive Council appointed a Supporting Facilities Committee. An immediate concern of this Committee was the development of a complete audiovisual program. An Audiovisual Subcommittee was formed that studied extensively the problems and needs and in 1970 made a complete report that established the foundation for the new Audiovisual Center. Many organizational problems remained to be solved. To aid in this purpose, Theresa Powers, Dr. Ramsay's associate in the Anatomy Department, was asked to prepare her views on the aspects of establishing a Medical Communications or Audiovisual Center and to submit a detailed proposal to the College Administration. When Dr. Ramsay retired in 1972, Dean Kellow decided to accept Powers' proposal and put the Anatomy Department capability to use for the entire Medical College. The facility was created July 1, 1972, and Powers was named its Director. Julius Robinson and Carl Goebel were designated audiovisual technicians, and Earl Spangenberg, photographic technician. The Audiovisual Office was placed under the administrative guidance of Arthur R. Owens, the Registrar, and organized in four sections:

1. The Audiovisual Equipment Service Section was made primarily responsible for the distribution of equipment for regularly scheduled Medical College activities. Dual projection equipment became routine in many classrooms. The Section serviced the new items introduced, such as battery-powered laser pointers and wireless radio-controlled units for carousel slide projectors. Maintenance and repair of equipment became a major concern of the Section. Four main access areas on the Campus provided easy distribution of the units in response to requests.

2. The Television Section acquired additional pieces of equipment, which became integrated into the existing studio system or employed for location activities. The system was frequently updated to include improvements in technology. Two videoprojectors and a film-to-videotape unit were acquired. Herbert Connor became supervisor of television production in the Audiovisual Office in 1982 following long experience in the Department of Psychiatry as a photographer. Taping of interviews and editing of material for educational and research purposes were carried out under his direction. He was joined by Ralph Woolwine with a
similar background, both having had previous experience with the Curtis Publishing Company Photographic Department before coming to Jefferson.

3. The Photographic Section under Earl Spangenberg carried on the usual photographic activities with the addition of film processing, slide duplication, and special procedures for sophisticated research purposes. Dramatic photographic results were obtained with a computer coupled with the computer image recorder, which was acquired in 1987. Spangenberg continued thorough research of modern photographic techniques and established a medical illustration unit complementing the photographic work.

4. The Medical Illustration Section expanded its services to include the use of a laser printer for the MacIntosh Computer. Many Departments including Surgery, Anatomy, Medicine, Family Medicine, the Center for Research in Medical Education and Health Care, and the College of Allied Health Sciences Department of Cytotechnology took advantage of these laser print services, thus increasing both the quantity and quality of graphic production. New computer software programs were purchased, enabling the Center to improve the understanding of computer graphic capabilities throughout the University and to encourage the use of these techniques.

Medical illustration and teaching have undergone remarkable changes. The new procedures offer students and teachers unparalleled facility for presenting and understanding the complex processes involved in medicine and its interrelated fields. The techniques of graphic representation and reproduction at Jefferson have kept pace with developments at every stage.

References


CHAPTER SIXTY-TWO

Computer Assisted Learning

F. Scott Beadenkopf, B.A., M.Ed.

"Medical education is a technical or professional discipline; it calls for the possession of certain portions of many sciences arranged and organized with a distinct practical purpose in view."

—ABRAHAM FLEXNER (1866–1959)

Computers were first used in medical education at Jefferson in 1970, when Thomas Behrendt, M.D. purchased a Honeywell PDB 516 for the Department of Ophthalmology. The computer was impressive for its time, with 16 kilobytes of memory and a paper tape punch and reader for data storage. The computer was programmed to perform statistical analyses of selected student data to help in the selection of students for a tutorial review program. An authoring system was also written for the computer, and residents in the Department of Ophthalmology used the system to create instructional modules on the pharmacology of the eye and other topics.

Computer assisted learning (CAL) on a large scale was initiated at Jefferson in 1974, with the experimental use of the University of Kansas Computer Assisted Teaching System (CATS) for teaching pharmacology. In a controlled study, students using the computer-based tutorials were shown to perform as well on the National Board Examinations as did a lecture/examination control group. The experimental group required less time to finish the material and expressed enthusiasm for the method. Despite the favorable outcome of the test, the program was not continued because of the expense and the awkwardness and unreliability of the available teletype terminal and mainframe delivery system.
In 1976 two projects were undertaken: experimental use of computer-based tutorials from the Ohio State University (OSU) Health Education Network through telephone connections with their mainframe computer; and a self-assessment program created and designed at Jefferson to aid sophomore medical students in the lowest 15% of their class. The OSU hookup was discontinued in 1980, but by then a few individual faculty members had begun writing instructional programs on microcomputers for students and residents. The Self-Assessment Program continued in its mainframe version until the 1984–1985 academic year, when it was rewritten for microcomputers. The creation of the Computer Learning Laboratory that same year provided sufficient microcomputers to enable the Self-Assessment Program to be offered to the entire sophomore class.

By 1983 interest in microcomputers and CAL among both faculty and students was high. An advisory committee of faculty members was established in order to provide guidance on priorities for uses of computers for research and education in the Medical College (Figure 62-1). The committee identified a need for an individual to work directly with faculty members in the use of computers. As a result, the position of specialist in computer learning systems was created within the Center for Research in Medical Education and Health Care and filled in October 1984. Still in 1983 an experimental program of Summer Computer Fellowships was initiated. In this program seven students with a combination of interest and computer literacy were teamed with seven faculty members to develop educational computer software during the summer. Participants in the 1984 summer program were enthusiastic in their written evaluations, and the program was continued.

Although nothing can supplant the learning derived from exposure to actual patients with instruction from experienced teachers, it is reasonable to believe that computer assisted learning will have profound effects on the medical educational system in terms of effectiveness, efficiency, and cost.

![Fig. 62-1. A Resident Physician using a computer in the Scott Library to obtain research information.](image-url)
CHAPTER SIXTY-THREE

Jefferson Regalia

The Black and Blue Colors

The colors, light blue and black, each of equal width, were adopted at a class meeting during the 1889-1890 session of the Jefferson graduates of 1890. A revival of interest in the colors occurred when Dr. Randle Rosenberger coached the football team in 1908. James W. Holland (Dean, 1887-1916) authorized the use of the light blue and black in the cowls attached to the back of the academic gowns worn by recipients of Jefferson degrees, but the date of its inception is not recorded. Evidently Dean Holland regarded the colors as authentic, although they were never adopted officially by the Board of Trustees or the Faculty.

Mrs. Melrose E. Weed (Executive Secretary of the Alumni Association, 1926-1956) at some unrecorded point began to dress up the banquet hall for the Alumni Association’s Annual Business Meetings and Commencement Dinners. Through the years it took the various forms of a football pennant, banner, or flag. The colors also were used on pins, badges, and souvenirs of Class Reunions.

The Class of 1890 acted arbitrarily, but it would be heresy to modify this entrenched color scheme.

Reference

1. Letter of Edward L. Bower, M.D. to Francis J. Sweeney, Jr., M.D., March 19, 1968. (In the archives of Thomas Jefferson University.)

The University Mace

The Thomas Jefferson University Mace was carried for the first time in the 1986 Commencement Ceremonies at the Academy of Music by Grand Marshal, Robert J. Mandle, Ph.D., Professor of Microbiology (Figure 63-1). It was designed by Howard Serlick, member of the Guild of Mastercraftsmen, Winterthur Scholar, and Chief Conservator (Gilding) of the Historical Society of Pennsylvania. Silversmith Eugene Zweigle and
woodturner Michael Copeland collaborated in its crafting.

The four-foot long, 14-pound Mace is made of ebony highlighted with lapis lazulis to reflect Jefferson's black and blue colors. It features at the top a miniature of Henry Mitchell's sculpture The Winged Ox, symbol of St. Luke the Physician, the original of which stands on the column beside the Scott Building on Walnut Street. Mounted at the base of the staff is a profile of Thomas Jefferson. The project was coordinated by the J.E. Caldwell Company.

The Mace is carried at the head of all formal academic processions as the noble emblem of the University's heritage.

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**The Presidential Badge of Thomas Jefferson University**

The President's Badge (Figure 63-2) was created for the Inauguration of Lewis W. Bluemle, Jr., M.D. as President of Thomas Jefferson University on September 7, 1977. It consists of four official corporate seals of Thomas Jefferson University and the predecessor corporation, The Jefferson Medical College of Philadelphia. These seals were used to mark diplomas, certificates, and other official documents and have been goldplated to form the Presidential Badge. When worn by the President they are suspended from a black and blue ribbon, the University colors, united in the form of a circle with each seal comprising a top, bottom, right, and left medallion.

The medallion on the President's right is the corporate seal of Thomas Jefferson University today and was created in 1969 when Jefferson Medical College became Thomas Jefferson University. It carries a contemporary likeness of Thomas Jefferson.

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**Fig. 63-1.** Holding the University Mace, first carried in 1986, are Robert J. Mandle, Ph.D. (Grand Marshal) and Edward C. Driscoll (Chairman of Board of Trustees).
The other three medallions are the various seals that were used in Jefferson Medical College for many years. The oldest, at the bottom, marked every diploma that was issued by the College from 1839 to 1967. This seal carries a traditional likeness of a young Thomas Jefferson and the founding date of the College as 1826. Before 1839 the diploma of Jefferson Medical College carried the seal of the parent institution, the Jefferson College in Canonsburg, Pennsylvania. The old corporate seal on the left bears the Latin words Sigillum Jeffersonian Medi- cineae Collegii-Philadelphia with no date.

The seal at the top was developed in 1967 as a result of research done by the late Edward L. Bauer, Professor Emeritus of Pediatrics, who determined that the founding year of Jefferson Medical College was 1824 rather than 1826. This seal is identical to the present corporate seal except that the words “Thomas Jefferson University” are replaced by “Jefferson Medical College.” It was used only for the two years of 1967 to 1969.

The Presidential Badge is on permanent display in the Scott Library and is used at all convocations of the University.