

The extraordinary influences of two British physicians on medical education and practice in Texas at the turn of the 20th Century

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Summary

In 1891, two British doctors emigrated to Galveston, Texas to become professors in a new medical school. During long and outstanding careers, William Keiller and James Edwin Thompson transferred the best of Old World traditions in anatomy and surgery. The University of Texas Medical Branch became an outstanding teaching institution because of their dedication to professional excellence.

Résumé

En 1891, deux médecins britanniques émigrent à Galveston, Texas, pour devenir professeurs dans une nouvelle école de médecine. Pendant cette longue et marquante carrière, William Keiller et James Edwin Thompson ont apporté le meilleur des traditions de l'Ancien Monde en anatomie et chirurgie. La Faculté de Médecine de l'Université du Texas devint une institution d'enseignement éminente grâce à leurs grandes qualités professionnelles.

Five generations after John Morgan brought traditions of British medical education from Edinburgh to Philadelphia, a small group of doctors became professors at the University of Texas Medical Branch (UTMB), the first university-based medical school in Texas (1). Two of these doctors brought British and European traditions to the sandy beaches of Galveston when this school opened in October 1891. William Keiller, a 29-year-old Scotsman, arrived from Edinburgh as the school's first professor of anatomy and James Edwin Thompson, a 28-year-old Englishman, came from Manchester as the first professor of surgery. Working closely together, they built academic foundations in anatomy and surgery that brought enormous distinction to the new school.

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Keiller (1861-1931) was born in Auchendinny, a village in Midlothian, Scotland, on July 4, 1861 (2). He received his general education at the Montrose Academy, the Perth Academy, and the University of Edinburgh. His university studies in art piqued an interest in anatomy which he pursued avidly during medical studies at the Royal College of Physicians and Surgeons of Edinburgh, and the Physicians and Surgeons College of Glasgow. He received medical degrees from both colleges in 1888 (3). Keiller became an attending physician at the Edinburgh Dispensary, specializing in obstetrics and gynecology, and also gave lectures in anatomy at the University of Edinburgh's medical school. Shortly before he accepted the professorship in Texas, he was elected a fellow of the Royal College of Surgeons of Edinburgh.

James Edwin Thompson (1863-1927) was born on May 21, 1863 in Norwich, England (4). Educated at Witton Grammar School and Owens College in Manchester, he received degrees

Fig. 1 James Edwin Thompson. *



from the University of London in 1887 and 1888. He served as resident medical officer at the Guest Hospital in Dudley for a year, then received additional surgical training under Billroth and Albert in Vienna, and Fournier, Guyon, Peau, and Tillaux in Paris. Afterwards, surgical practice at three infirmaries prepared him for the post of resident surgical officer at the Manchester Royal Infirmary where he learned about the new school in Galveston from an advertisement in the June 27, 1891 issue of the *British Medical Journal*.

Thompson (fig 1) met Keiller (fig 2) for the first time in September 1891 when he walked into the dissecting room on the third floor of the Medical College building in Galveston (fig 3). He saw «a slender looking man bending over a large stone crock, filled with preservative fluid.» Keiller, with his «penetrating blue eyes and a brown beard,» greeted Thompson who later recalled: «He spoke to me with a Scottish accent and my heart warmed to him; because, although I am English by birth, I am Scottish by descent. Thompson added: «He showed me his equipment, and I gasped with dismay, for you will hardly believe me when I tell you that all he

possessed were a few stone crocks, a skull, several *papier mache* models of the human body and special sense organs, and a set of models of the viscera» (5). There were no skeletons, no prepared dissections. The advertisement in the *British Medical Journal* had stated that the buildings were «fitted with all the necessary equipment" (6). In reality, there was little furniture in the building and few teaching tools for any of the professors. Compared to Edinburgh and Manchester, the situation in Galveston appeared bleak, but it did not stifle their spirits. «We felt,» declared Thompson, «that the burden we had to carry was heavy, and that the creation of a school of medicine which would live up to the high standards of teaching to which we aspire, would require years of toil, individual sacrifice and united effort.» Their loyalty and enthusiasm motivated years of toil: thirty-six for Thompson and forty for Keiller.

Training general medical practitioners was the primary goal of UTMB's school of medicine during its first half-century. On the day after graduation, a new doctor might attend patients requiring surgical, medical, or obstetrical care. Believing, therefore, that every graduate must be thoroughly grounded in anatomy, Keiller incorporated anatomy teaching into each of the first three years of the school's curriculum (7). UTMB graduates really knew anatomy. In 1922, Keiller told the university's president that «there was no school in America teaching anatomy as I am teaching it» (8). Justifiably proud of his courses, he resisted attempts to reduce the hours of anatomical instruction in the curriculum (9). By the late 1920s, UTMB's graduates were experiencing a four-year total of 5,087 hours of classes, substantially more than the 4,000 hours recommended by the American Medical Association. In comparison to other major schools, UTMB's faculty taught far more anatomy and clinical medicine, especially surgery.

Like Keiller for anatomy, Thompson was responsible for the extra hours of surgical ins-



• Fig. 2 William Keiller.

truction at UTMB during its early decades. Thompson was a tireless worker in the John Sealy Hospital, UTMB's main teaching hospital (fig 4), performing most of the more than 2,500 operations that occurred during the 1890s(10). These operations were done to treat many conditions, including tumors and congenital anomalies of the face and neck, appendicitis, hepatic tumors, kidney diseases, and anal fistulae(11). With Thompson as the leader, UTMB's surgeons performed more than 16,000 operations between 1901 and 1926.

In 1915, twenty-five years after his arrival, Thompson's department of surgery was still very small: Albert O. Singleton, Sr. (UTMB graduate, 1910), Frederick W. Aves (UTMB graduate, 1911), and Violet Keiller (UTMB graduate, 1914). Thompson, Singleton, and Aves did the surgeries; Keiller, William's daughter, was the surgical pathologist. They gave lecture courses for sophomores, juniors, and seniors; and they taught continuously as students rotated through the clinics, wards, and operating rooms. Aves also developed an experimental surgery laboratory that was dear to the heart of

Thompson. In 1916, for example, Aves produced obstructive jaundice in rabbits and used gelatin to reduce the time needed for coagulation after surgically induced bleeding. He then used this approach in two patients undergoing cholecystectomy with good results (12). In spite of incredibly meager funds (only \$600 for equipment and supplies in PY1915-16), this tiny department established powerful academic legacies in research, teaching, and patient care.

Unlike Thompson, Keiller did not incorporate experimental research into his department of anatomy. But, he championed comprehensive teaching of anatomy so well that he became recognized as one of the nation's leading professors of anatomy. In 1920, for example, the Association of American Medical Colleges invited Keiller to collaborate with two other professors in preparing a major report on the teaching of gross anatomy in North American medical schools (13). Keiller was a magical lecturer, entrancing students with magnificent chalkboard illustrations and charts prepared by his own artistic hands. Short, slight, and bald, Keiller regularly greeted new students with «Hello Freshman» in his high-pitched voice. He prepared "splendidly mounted and beautifully prepared specimens» for teaching and the dissecting laboratory was a «pleasant place in which to work» (14). Harry Knight, Keiller's successor, praised his mentor as a modest, courteous, and gentle man whose «happiest moments» occurred in the classroom and dissecting laboratory (15).

Keiller specialized in neuroanatomy and wrote a text entitled *Nerve Tracts of the Brain and Cord* (1927). Titus Harris, a UTMB graduate in 1919 who later served as chair of the school's department of neurology and psychiatry for thirty-six years, credited Keiller with stimulating his interest in neurology (16). Keiller served as president of the Texas State Medical Association and the Texas Neurological Society. While serving as UTMB's dean between 1922 and

Fig. 3 Medical College Building, 1895.



1926, he watched the construction and opening of a new Laboratory Building on the campus, later named for Keiller and still one of the most ornately decorated structures on the campus.

Students also viewed Thompson as a splendid lecturer who often wore «stiff bosom shirts and cuffs with links imported from England" (17). Another student noted that he «had gray eyes and usually wore navy blue or English tweed and often had a queer looking hat» (18). Like Keiller, Thompson prepared blackboard drawings to illustrate a surgical operation or anatomical structure. «Always inspiring," he spoke clearly and simply, displaying a good sense of humor. In the operating room, he was a stern taskmaster, quick-tempered, and, at times, frightening to nurses and assistants (19). But, his impact on surgery and medicine was truly extraordinary.

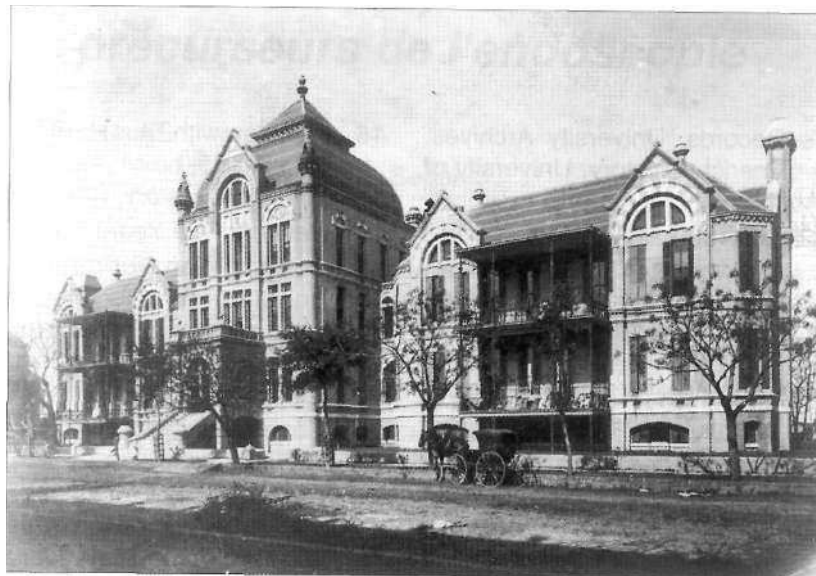
Thompson was a founding member and first vice president of the American College of Surgeons (1913), president and founder of the Texas Surgical Society (1915), president of the Southern Surgical Association (1920), and fellow and first vice president of the American Surgical Association (1922). Thompson wrote more than seventy-five publications about various aspects of surgical practice (20). A faculty colleague

believed that Charles and William Mayo of the famed Mayo Clinic viewed Thompson as «the most learned man in American medicine» (21). All four of Thompson's sons graduated as physicians from UTMB. In October 1991, descendants and family members gathered in Galveston to dedicate the James Edwin Thompson Molecular Biology Laboratory for Surgical Research at UTMB, a sterling tribute to Thompson's legacy.

Keiller and Thompson were rugged individualists who chose to be pioneers, believing that there were more opportunities for advancement in the New World than in the more structured professional networks of the Old World. They also came to Texas because they both contracted tuberculosis in Great Britain. Keiller suffered extensively with the disease, taking more than one leave of absence to recuperate in drier West Texas. This disease probably caused his death in February 1931. About two weeks earlier, he had given lectures in applied neurology to junior medical students.

Thompson's devotion to teaching was no less. In November 1926, he «caught a cold» on a fishing trip. He continued to give lectures as his symptoms worsened during the ensuing months. In April 1927, he died from this respiratory infec-

Fig. 4 John Sealy Hospital, 1894.*



tion that may have been complicated by chronic pulmonary tuberculosis (22).

In his letter applying for the professorship (dated August 3, 1891), Thompson stated: «It is not without some diffidence that I venture to send in my application, for I fully appreciate the great responsibility attached to the post I now seek. Should you do me the honour to elect me I can only say that it will be my constant endeavour to do my duty» (23). And so he did, as did Keiller. To the credit of their honorable heritage and to the greater good of their new country, Thompson and Keiller crafted legacies of professional excellence that endure to this day.

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 20. Reprints of most of these publications are in the James Thompson Papers and a list of all is in the biographical folder about Thompson in the Blocker Collections.
 21. Interview with Willard Cooke (1965). Typescript in folder 35, box 1, archives of the *Seventy Five Year History*, Blocker Collections.
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 23. This letter is in folder 2, box 1, Thompson Papers, Blocker Collections.

Biographies

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** All photos are courtesy of the Blocker History of Medicine Collections, Moody Medical Library, The University of Texas Medical Branch, Galveston, Texas.*