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A Unique Treasure: Transylvania's 1,760 Medical Theses from the Early Nineteenth Century--11 on Yellow Fever

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Transylvania University’s Special Collections contains many books and illustrations about famous horses and renowned Kentuckians, as well as several thousand rare medical books and manuscripts, some dating to the early 1600s. Among the manuscripts are approximately 1,760 dissertations penned by graduates of Transylvania’s Medical Department between 1822-59. The medical theses are unique in that no duplicates or copies are held by any other institution in the world. Thus they represent an unrivaled source of information concerning what physicians in the Mississippi River Valley thought and taught about the many illnesses they encountered. A few of them—particularly on cholera—have recently been studied, but the vast majority have not been opened or examined for more than 150 years.

**A Unique Treasure:**

Transylvania’s 1,760 Medical Theses from the Early Nineteenth Century — 11 on Yellow Fever

To convey the scope of this medical treasure, the following list shows the number of dissertations concerning various infectious diseases prevalent in this region during the nineteenth century:

- 55 on cholera
- 66 on dysentery
- 21 on hepatitis
- 7 on malaria
- 18 on syphilis
- 46 on tuberculosis
- 18 on typhus
- 46 on typhoid fever
- 5 on variola (smallpox)
- 11 on yellow fever

Many other areas of clinical medicine and surgery also were discussed in the hundreds of other theses.

**Yellow Fever Theses**

A recent examination of the 11 medical theses concerning yellow fever provides a good summary of what was then known about this dreaded disease and, parenthetically, also offers insights into the personality of several of the authors. Most dissertations were dutifully dedicated to a respected professor in the Transylvania Medical Department (e.g., Daniel Drake or Benjamin Dudley) or to another person who had aided the student in some way.

As seen in the excerpts below, the prefaces of several theses reveal the authors’ independent spirits or disappointment with the current medical profession.

> "It would be more congenial to my inclination to pass through the process of graduation in obscurity than thus publicly to subject myself to the criticism of the world. But as the laws of the institution require a dissertation from every candidate for medical honours, I am compelled to submit this, to the inspection of the public. And I hope as it is the production of a juvenile mind, impelled by necessity and not by choice, it will be a sufficient apology for its many imperfections."

—B. A. Spurr, Kentucky, 1831

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Transylvania medical students' theses on yellow fever provide a summary of what was known in the early nineteenth century about this dreaded disease as well as insights into the authors' personalities.

"From the many opportunities which you have had of becoming acquainted with my character... I deem it unnecessary to enter into the formal apologies and adulations which is customary upon such occasions."
—E. Swanson, Arkansas, 1826

"And my lot being cast in a part of the U.S. where nothing like correct opinions are held on the great and leading principles of the profession, and where we hear nothing but absurdities from the profession on almost all subjects, and particularly on Fevers... more particularly the Yellow Fever [sic]."
—R. L. Wiley, Indiana, 1822

We know little about the later lives of the above students except that Edward Swanson of Arkansas served as a surgeon in the Confederate army. Robert L. Wiley consistently wrote about “yellow” fever, while other students spelled it “yellow” fever—all except Thomas Beaumont from Louisiana (1843), who slipped once on Page 6 of his dissertation and penned “yellow” fever, thus suggesting its local pronunciation.

**About Yellow Fever**

Many different types of fever were prevalent in this region throughout the nineteenth century. One especially common was a mild form of malaria, also called ague. It was so common that someone ill with it was reported as, “He ain’t sick; he’s just got the ague.”

In contrast, yellow fever was the most feared plague of Colonial America because of its unpredictable appearance during some summers and its frightening mortality, which ranged up to 50 percent in some epidemics.

There were no descriptions of yellow fever in the literature prior to the time of Columbus. The disease may have arisen in western Africa and been transported aboard ships to the Americas via slaves and mosquitoes. The first recorded epidemic was on the island of Guadeloupe in 1638. Boston experienced its first outbreak in 1692. The disease reached Philadelphia in 1699 and reappeared periodically there over the next century. The city’s most horrendous epidemic was in 1793, followed almost annually each autumn over the next decade.

In the early 1800s yellow fever spread up the Mississippi Valley, beginning in New Orleans and extending to southwestern Kentucky and as far west as Kansas.

Yellow fever was never a serious medical problem in northern Europe because the climate did not favor the species of mosquitoes now known to be necessary for transmitting the disease. Nonetheless, the English became acquainted with it because of their colonies in the New World. Samuel Coleridge’s poem *The Rime of the Ancient Mariner* (1798) involved a ship smitten with yellow fever. In William Thackeray’s novel *Vanity Fair* (1848), a disgraced Englishman was exiled to the West Indies because it was assumed that he would soon contract yellow fever there and die, thus relieving his family back home of a distressing social problem.
The pathogenesis of yellow fever was unraveled by Walter Reed and his group in Cuba in 1900. They reported that yellow fever is transmitted by the bite of infected female mosquitoes of only certain species. An epidemic may appear in a community by two routes: the importation of infected mosquitoes on ships and by other means, with the mosquitoes then biting the local inhabitants; or the arrival of a person incubating the infection, who is then bitten by a local mosquito of the right species. It sucks blood containing the yellow fever virus, which must replicate in that mosquito for approximately 10 days before she is capable of transmitting the disease to new victims via a bite and starting an epidemic.

NOTWITHSTANDING MY ADVICE TO THE CONTRARY, TELLING THEM THAT THE ACRIMONY OF THEIR CONSTITUTIONS TO THE INFECTIOUS ATMOSPHERE OF THEIR OWN PLANTATIONS WAS NO PROTECTION AGAINST THE FEVER THEN PREVALENT IN NATCHEZ, THEIR AVARICE, GETTING THE BETTER OF THEIR PRUDENCE, THEY PROCEEDED INTO THE HEART OF THE TOWN, SECURED THE SLAVES, AND RETURNED TO THEIR PLANTATIONS. TWO OF THESE INDIVIDUALS WERE TAKEN SICK ON THE FOURTH DAY AFTER THEIR RETURN AND THE OTHER ON THE SIXTH.

I WILL ONLY ADD, THEY ALL DIED WITH BLACK VOMIT, THEIR LIVES HAVING BEEN SACRIFICED TO THEIR AVARICE.

The incubation period of four to six days for three sickened men is consistent with their having been bitten by infected mosquitoes in the city; however, the author’s concluding sentiment about avarice is curious for a young man steeped in the slave culture of the South. This excerpt illustrates again that original writings like these medical theses often provide unexpected insights into the authors.

A POSTSCRIPT

Yellow fever has a special meaning for Transylvania University, although the disease never reached Lexington. Horace Holley, Transylvania president from 1818-27, was forced to resign due to political and sectarian pressures. After auctioning their household goods and paying their debts, the Holley family boarded a steamboat for New Orleans to investigate prospects for a new school there. What happened next is unclear except that the family set sail for New York in late July. On board ship Holley fell ill with yellow fever, died at age 46, and was buried at sea.

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END NOTE:
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