

# The Archivist's Corner

## In the Field at Devils Lake: Mapping with the Legendary Thwaites

by Robert H. Dott, Jr.

Professor Fredrik “Freddie” Thwaites taught his popular mapping course from the end of World War I (c. 1918) until his retirement in 1957. The purpose of the course, which included a week in the field at Devils Lake during spring break, was to teach mapping using the telescopic alidade, plane table, and stadia rod. Until the 1960s, this method of mapping was a standard part of the professional training of all geologists. Newly minted graduates could expect to apply the method in their first job. It was gradually replaced by increased topographic map and air photo coverage of the country and the total station instrument. Even today, however, plane table mapping is valuable where no accurate base map of suitable scale is available, for example for a critical structurally complex small area or where land forms need to be mapped at a finer scale than is possible on existing topographic maps. The plane table has the advantage over the total station that one can literally see his/her map evolve as the work proceeds rather than after all survey data is compiled back in the office.

Freddie’s mapping course became legendary among our alumni who graduated before 1960. In 1949 he took a whopping 84 students, six of whom were women, along with three cooks, to Devils Lake. Thwaites himself was a unique character—a very bright but taciturn introvert with a droll, deadpan sense of humor, who spoke in a nasal monotone. His sons requested copies of the photo we have hanging in Weeks Hall (right) because it was the only one they had ever seen in which their father showed any hint of a smile. Freddie’s relations with colleagues were difficult because of his bluntly outspoken, stubborn nature. Professor S.W. Bailey in his history of our department (*The History of Geology and Geophysics*, 1981) reported that, in spite of his “lack of classroom presence and polish of delivery, Thwaites was nonetheless a successful and much-loved teacher” (p. 60). All graduates of his Devils Lake course seem to have agreed that this was “one of the most enjoyable weeks any of us had ever spent” (Albert Hanners, 1938 *Outcrop*, p. 21).

In the early years, they traveled to Devils Lake by train, but later by auto. Freddie constructed a large box nicknamed “The Cage,” which he could attach to his Model T Ford to carry some of the bulky equipment needed for the course.



Photo: R. W. Martin, 1949

**“Its daylight in the swamp!”  
With that declaration,  
Freddie Thwaites every  
morning roused his  
sleeping students.**

Before World War II the group was housed at farms or in one of several hotels along the lakeshore. In 1926 the course became coed for the first time, which made Freddie nervous, so he arranged for the two female students to stay at a farm separate from the men. He warned the women of hardships and sent them on a difficult first-day traverse to test them. Lugging the bulky surveying equipment up steep, boulder-strewn talus slopes, they persevered and arrived back after dark to find Thwaites in a dither. They were pleased to have enlightened him about determination and women students. Freddie was a stickler for protocol, so when coeds enrolled, he arranged for a chaperone, whose chief duty was to shoo the women to their quarters at night. An oft repeated, but perhaps apocryphal story claimed that he locked or nailed women in

their quarters, but resourceful men helped them climb out of a window for an evening of fun. After World War II, the course was quartered in former Civilian Conservation Corps (CCC) barracks left from Depression days on the moraine half a mile east of the south end of the lake. Those buildings are now gone, having been replaced by a group campground.

A student was selected treasurer to keep track of expenses. At the end of the course, he and Freddie balanced the books and if there was a surplus, Fred carefully counted out the share due each student. He then returned their refunds in small sealed envelopes, which commonly contained only pennies. He was that meticulous. A cook, usually a student or student spouse, was engaged to feed the hungry crowd with each student performing K.P. duty on a rotating basis. Every morning Thwaites pronounced his weather forecast, which at the end of the day the students graded as to its accuracy. A shower or two seem to have been common with heavy rain some years and snow at least once. Esprit was always high and traditionally prompted a beard-growing contest. The winner was determined by measuring each beard using the alidade to discover whose was longest.

An old piano provided entertainment and pranks were inevitable, which included partial dismantling of beds and short sheeting. The best prank I know of was reported by Pete Link (BS 1953, MS 1955, PhD, 1965). One year some students spent all night lugging boulders up onto the West Bluff. Next day one of them asked Thwaites why they were there in the Driftless area. “With not a flicker of emotion, Freddie remarked that someone had hauled them up there, and, without missing a beat, continued his lecture.” Pete tells another fine story. “Thwaites was so cool that he assigned me the same area as he had assigned my dad (Walter Link, BS, 1924) when he took the course, and never said a word. . . . Modestly, I can say my map was better, and more artistic than Dad’s.” (More about Links in *Outcrop*, 2001).

Thwaites was also known for his remarkable memory, Alfred James (BS 1951) reports. He immediately learned the names of every student in his class and never forgot. “I took his course in 1949 and some years later visited him in his office; he remembered my name and the year I was in his class.” James also remembered



The 1928 Devils Lake mapping group. Knee-high laced leather boots, knickers, and neckties were standard field fashion. Fred Thwaites is center right flanked by the cook (John Crook), with his white cap and large chef's knife, and the undergrad Stanley A. Tyler (front, hat in his hand). Tyler continued for his PhD and joined the faculty in 1935, serving as Department Chair from 1950-55.

(Images from the Department Archives.)

hearing that Thwaites' "knowledge of Wisconsin groundwater was so acute that from memory he could tell an inquiring farmer just where and how deep to find water on his land based on section, township, and range."

Freddie was the son of Reuben Gold Thwaites, a distinguished historian who was the

**"He was simply one of the most memorable characters of my career:"**  
(Alfred James, BSD, 1951)

**"A most remarkable, modest man... One of the very, very best to ever be on the faculty."**  
(Pete Link, BS 1953, MS '55, PhD '65)

him for his lack of social polish and strongly held beliefs. Beginning in 1916, however, Geography Professor Martin let Thwaites teach some of the geomorphology course and also to teach plane table mapping. Finally, in 1928 he was made Instructor and thereafter taught glacial geology and geomorphology as well as the Devils Lake mapping course for the rest of his career.

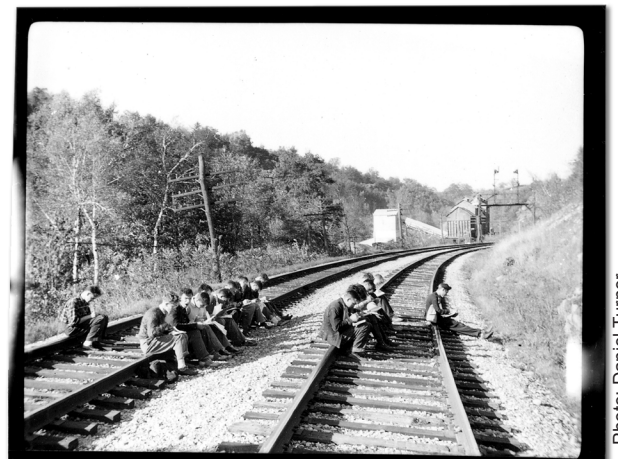
Like many another geologist, Fred Thwaites was happiest in the field and he contributed much to the Department's traditional emphasis upon field work. He surely would endorse the Department's continuation of that emphasis and the Student Field Experience Campaign. ●



Typical Mapper with Equipment  
III

The fully-equipped Devils Lake Mapper (from the 1937 *Outcrop*).

Superintendent of the Wisconsin State Historical Society. He promoted the construction of the Historical Society Library building, which today faces the UW Memorial Library across Library Mall. Fred felt eclipsed by his famous father, but in time he overcame obstacles and developed a substantial career. Often he disagreed with other geologists, but time proved him correct more often than not. Thwaites first worked for the Wisconsin Geological Survey (1908-1911) and then was appointed curator of the Geological Museum in 1912. He wanted to teach, but was opposed by Chairman C.K. Leith, who disliked



Students taking field notes along the railroad track two miles southeast of Devils Lake, 1941.

Photo: Daniel Turner