Robert H. Dott, Jr.

“Kay, Kay Fowler!” came a familiar voice through the cacophony of Piccadilly Circus. Thus did two longtime friends meet unexpectedly in London sometime after World War II. They were far from their native American shores and the Midwestern campus where they had met a quarter of a century earlier. This chance meeting was probably no surprise for this pair of vagabonds. Katharine Fowler and Emily Hahn had met at the University of Wisconsin during the academic year of 1925-26. There they had shared numerous trying and some funny experiences as young liberated women pioneering in the masculine worlds of geology and mining engineering during the Roaring Twenties. No doubt inspired by the passage of women’s suffrage in 1920, while they were school girls, and the great social revolution then under way, each had determined to make her mark in the men’s world. And that they did in spades!

Kay Fowler grew up in a well-to-do Boston family and attended Bryn Mawr College, where she excelled in science and athletics. Professor Florence Bascom, daughter of a former UW president and recipient of two geology degrees from Wisconsin, was a tough taskmaster who discouraged Kay from pursuing geology. Kay let her believe that she aspired to medicine, but applied to Wisconsin for post-graduate work in geology. Having attended a women’s college, she wanted to prove that she could compete with men. Before coming to Madison, she spent the summer taking two field courses in the Rocky Mountains, then climbed Mt. Rainier and visited Crater Lake and Grand Canyon. She completed the MS degree in May 1926 and embarked to see more of the west. In the Black Hills, she gained entrance to the Homestake Mine by disguising herself as a man, but had a scare when a scruffy character who gave her a ride realized she was a woman. At Butte, Montana, by chance she found Professor Mead of the UW doing consulting work. He arranged for her to go underground and also found a ride for her to her next stop, Glacier National Park, where she nearly got fried by a forest fire during a field course.

Kay next earned the PhD from Columbia University in 1929 for a study of anorthosites in the Laramie Mountains in Wyoming. In the field she worked alone, except for a dog and a revolver, and had such interesting encounters as bootleggers being sought by the sheriff. After completing her dissertation, Kay decided to see the world. She traveled to South Africa for the International Geological Congress that year, where she met a Scottish geologist, Jock Lunn, who proposed marriage during a post-Congress field trip, which took Kay all the way north to Cairo. She had two other proposals during that trip, but Jock won. Soon after their marriage in London, Jock returned to his job with the British Colonial Service in the Gold Coast (Ghana). Regulations prohibited Kay from joining him, so she arranged to work as a consultant studying ore deposits in Sierra Leone. During the following three years, the “woman who dresses like a man” trekked repeatedly into the bush with native bearers, who named her the “Gold Missus.” She also explored in the Gold Coast and Nigeria, but could live with Jock only during his leaves in Britain. In 1938 she published an account of her African adventures titled The Gold Missus: A Woman Prospector in Sierra Leone.

Eventually Kay and Jock decided to go their own ways, so she returned to New England and taught at Wellesley College. In 1937 she attended the Geological Congress in Russia and participated in a rugged field trip by Red Army packhorses across the Caucasus Mountains and another by rail across Siberia. She was watched constantly and had some harrowing experiences, which rivaled those in Africa. In 1938 she married noted Harvard geology professor, Marland Billings, and the two pursued joint research in New England and raised two children. In later life, Kay also became a vigorous activist in conservation issues and in public education. In 1999 our Department recognized her as a Distinguished Alumna (see The Outcrop, 1999).
Emily Hahn grew up in St. Louis and entered the UW in 1922, where she gained notoriety as the first woman engineering graduate. It was during her senior year that her academic training overlapped with Kay Fowler’s, who had come to earn the MS degree in the Department of Geology and Geography. After graduating in 1926, Emily worked briefly in the mining industry in her native Missouri and as a tour guide in New Mexico, where she took some advanced courses at Columbia University and taught introductory geology at Hunter College. Quite accidentally Emily stumbled into a long career in journalism with an article written as a favor for a friend and published in the *New York World*. In 1930-31 she, too, traveled to Africa and worked for two years as a volunteer Red Cross hospital relief worker in the Belgian Congo, where she lived with a tribe of Pygmies. She and Kay hoped to meet in Africa, but they could not arrange a rendezvous.

In 1935 Emily traveled to China as a *New Yorker* magazine correspondent when that country was suffering internal revolution and Japanese invasion simultaneously. She had intended to make a short visit with a sister, but she became so enthralled with China that she stayed on for seven years, first in Shanghai, where she married a Chinese intellectual and tried opium, then in Chungking, and finally in Hong Kong, where she fell in love with a married British intelligence officer, and had a baby by him out of wedlock. With a combination of charm and guile, she managed to stay on during the Japanese occupation and to smuggle food to her imprisoned lover. Finally, in 1943 she reluctantly agreed to be evacuated with her infant daughter. In 1945 she and Charles Boxer were reunited, married, had a second daughter, and divided their time between London and New York. He pursued a distinguished academic career in history while Emily continued to lead a colorful, but less dangerous life in journalism. For diversion, she raised apes and other primates and became an advocate for wildlife. Occasionally she and Kay Fowler re-connected as they did in Piccadilly. Emily also re-connected with Wisconsin geologists at least once when the Geological Society of America met in New York in 1948. At an alumni reunion breakfast, former classmate Walter Link offered Emily a cigar. She declined and offered him one of her own instead. This typified a lady who “thumbed her nose at convention all of her life” as a *New York Times* interviewer observed. The university awarded Emily Hahn an Honorary Degree in 1976.

When Emily arrived at the UW in 1922, she expected to major in the liberal arts, but the science requirement led her astray. Professor Kahlenberg’s chemistry course was highly reputed, but the dean informed her that his class was for engineering students only and refused to let her ask the professor for special permission. This was like a red flag to a bull and provoked the stubborn reaction that was to become a Hahn trademark. “Boy, was I mad! I couldn’t have remained in the same college with that dean for one single day more,” she reminisced in a 1946 *New Yorker* article. Emily immediately transferred to the College of Engineering and enrolled for Kahlenberg’s chemistry course. She intended to transfer back to the liberal arts at the end of the semester, but she was about to have a life-changing encounter with another truculent academic bureaucrat. In spite of the co-educational status of the University of Wisconsin, no woman had ever enrolled in an engineering program. Upon her first meeting with the mining engineering faculty adviser, Hahn was asked, “Why should a woman want to be an engineer? I never heard such nonsense. You could never get a job because you would not have the

required practical experience. Women are not allowed in mines; the miners would go on strike.” He declared further that she would not be able to complete an engineering degree because the “female mind is incapable of grasping mechanics or higher mathematics or any of the fundamentals of mining.” These pronouncements instantly altered Emily’s academic goal; she would complete the entire mining engineering degree program! Now she was committed not only to the one-semester chemistry course that had caused this maelstrom, but she would also have to take mechanics, calculus, drafting, surveying and several courses in geology as well.

Hahn’s fellow rough-clad, tobacco-smoking and -chewing engineering students were as appalled as the faculty to have a woman invade their domain. Trouble began at once in the required surveying course. The practical field work was done in pairs, but who would want to team with this female leper? That fate fell to the last fellow to arrive for the assignment, and the poor man suffered verbal abuse from his fellows for the rest of the semester. In the end, Emily and her partner had the best reports for the entire class, and he begrudgingly admitted, “Oh, you ain’t so dumb.” Her classmates soon adopted her baby nickname, Mickey, as more masculine sounding than Emily. It stuck for life. To endure the embarrassments and to surmount the many barriers took courage and indomitable perseverance. Mickey was excused from one laboratory course because there was no women’s restroom in the building. Field trips presented even a greater problem. She could go on all of the one-day trips, but longer ones were impossible. This meant foregoing the most important one, a summer-long field trip to visit mines in the west. As a substitute experience, resourceful Mickey spent that summer at a relative’s farm in Michigan where she made a detailed map of the entire area, which was accepted as an equivalent experience. During her initial year, some unnamed geology professor, whom she had met socially—perhaps Twenhofel or Emmons—gave welcome moral support in her campaign with the engineers.

In the 1920s mining students took enough geology courses to amount to a minor in that subject. At that time the Wisconsin program emphasized ore deposits. Consequently, mining students were well acquainted with the geology department and some were considered to be as much geology students as engineers. This brought Mickey in contact with Katharine Fowler. Both women wanted to take a spring field trip in 1926 led by Professor W.J. Mead to the Lake Superior mining region. No female had ever before been allowed to take this trip, but now, not one but two wished to do so. The male geology students stood up for the women, so Mead consulted with his dean and the dean of women. Both ladies were summoned to the latter’s office for an interview, but beforehand the fellows urged them to dress conservatively and wear horn-rimmed glasses so as to look very studious. Kay was three years older and was a graduate student, but the fact that she had come from Bryn Mawr carried more weight with the dean, who asked solemnly if Kay would “undertake the responsibility of being the chaperone of the party.” With difficulty keeping a straight face, she declared that she would be happy to do so and no doubt thinking how lucky that the dean did not know of pranks that had almost gotten her expelled from Bryn Mawr. Years later after she had married Billings and was living in the Boston area, she occasionally saw Mead, who was now at M.I.T. He liked to regal their social friends about how he had been duped to take the two women along on that 1926 field trip. During that trip, a local geologist at one of the mines puffed on a cigar and told Mickey that “You can’t become an engineer unless you smoke,” whereupon she grabbed his cigar and smoked it to a stub.

Katharine Fowler had another amusing field trip experience at Wisconsin on a legendary spring vacation field trip taught by Professor F. Thwaites in the Baraboo Hills. The goal was to learn topographic mapping using plane table and alidade. Again, she was one of the two first women to enroll for this course, the other being an undergraduate student nicknamed Muck, who was actually Miriam Wollaeger, fiancée of Walter Link (see The Outcrop for 2001). Thwaites warned them of the hardships, lodged them at a farmhouse apart from the men, and sent them on a difficult first-day traverse as a test of their mettle. They had to lug the bulky plane table, stadia rod, and alidade up steep talus slopes to the high ridges above Devils Lake. Their completion of the seemingly impossible assignment surprised the frantic professor when they arrived in camp after dark. In her memoir, Stepping-Stones (1996), Fowler reckoned that Freddie Thwaites learned a lesson about determined females that day.
Although geology was a bit more open to women than was engineering in the 1920s, the student Geology Club was still an all-male bastion. Mickey was well liked by the geologists and several club members had advanced her name for membership, but to no avail. Other members saw it as a matter of principle that admitting a female would set a dangerous precedent. In the autumn of her senior year, a guest lecturer was to speak to the Club, but the announcement had a note attached saying, “Women not invited.” Mickey, now emboldened after three years of proving herself among men, was incensed, for she was sure that this note was meant specifically for her. Three years of prejudicial exclusion was enough, so she marched into the meeting “as bold as brass—my first overt rebellion,” she remembered. The lecture proceeded without incident, but afterward an awkward club president drew Mickey aside and tried to explain that they could not accept her dollar for dues. Her brave front crumpled, she broke into tears, and fled. Shortly after, the embarrassed president found her and announced that she had been elected unanimously. The Geology Club’s record book for 1925 contains several relevant entries. On October 15, attendance by women at meetings if invited was guardedly accepted, but women were to be excluded from membership. On October 29, the matter was brought up again with a motion to make Miss Hahn a special member, but a substitute motion that membership should be independent of sex carried 14 to 2. Then on November 12, apparently about the time of the infamous lecture, it was suggested that the prior action was unconstitutional, even though apparently there was no constitution. The principal antagonist was out voted. When the Club President came to tell Emily of her acceptance, he added, “I’m sure all the fellows are awfully sorry it all happened.”

Katharine Fowler and Emily Hahn were two remarkable women who challenged gender barriers throughout their colorful lives. Hahn once said all the things she has done during her life “seemed natural at the time.” Similarly, Kay Fowler just did what came naturally to satisfy her curious and adventurous nature. In 1938 she wrote, “My parents would turn in their graves if they could know of all the foolhardy things that I have done in my short life.” Coincidentally, these remarkable friends both died in the same year, 1997.

Sarah Titus assembles a solar panel A-frame at a continuous GPS site (Tikoff/DeMets project) monitoring the ground motion of the San Andreas fault near King City, CA. Photo, Neal Lord.

Mickey Hahn went on to become a world traveler and prolific writer, documenting her experiences from around the globe in 52 books as well as 181 pieces for The New Yorker. Her writing career spanned eight decades and every continent. Photo, UW-Madison College of Engineering.