

Remembering Constance Reid (1918–2010)

Gerald L. Alexanderson

Constance Reid will be remembered in mathematics for many years to come. She was not a mathematician, though she had close ties to important mathematicians, but what she did for mathematics may have more influence than the research of many professionals in the field. She would have a place in history if she had done nothing more than write her biography of David Hilbert.



Photograph by George Csicsery.

Constance Reid

Prior to Constance's appearing on the mathematical scene, there was rather little to read in mathematics, at least in English, beyond textbooks and monographs. Students wishing to learn of the culture of mathematics or amateurs who loved mathematics could go to *What Is Mathematics?* by Courant and Robbins, the unfortunately named *Men of Mathematics* by E. T. Bell, along with a few others. And then, in the mid-1950s, influenced by her brother-in-law, Raphael Robinson, a number theorist at Berkeley, and her mathematician sister, Julia Robinson, Constance wrote *From Zero to Infinity: What Makes Numbers Interesting* (Crowell, 1955) and *A Long Way from Euclid* (Crowell, 1963). Both were successful and filled an obvious need. Her next book was initially a bit more problematical. Constance actually started work on a successor volume to *Men of Mathematics* and had written several short biographies of post-Poincaré mathematicians when she encountered the achievements of Hilbert. She found his story to be so captivating that she concentrated her efforts on him and jettisoned the other subjects. She was often asked, "Why Hilbert?" to which she responded that his life was a wonderful narrative. And when her work was referred to as a biography, she demurred. She said she thought of it as a "life", in the Plutarchian sense.

Gerald L. Alexanderson is Valeriote Professor of Science at Santa Clara University. His email address is galalexanderson@scu.edu.

She was fond of telling at mathematics meetings of her experience when she approached her publisher with the proposal to write a biography of the most eminent early-twentieth-century mathematician, David Hilbert. His response was that the only thing that would sell worse than the biography of a mathematician would be a book about South America! But she persisted and found a publisher, Springer. It appeared in 1970 and was an instant classic, a book for the ages. Beautifully written and carefully researched—she discovered Hilbert's papers in Göttingen uncatalogued in boxes at the Mathematical Institute, thus quite possibly saving them from loss—her book was a sensation and resulted in many invitations to speak at regional and national meetings. Her earlier publisher probably came to regret his quick dismissal of Constance's proposal. Times have changed. Consider the flood of popular mathematics books now appearing every year: descriptions of the solution of classic problems, biographies, histories, problem collections, even plays and novels about mathematicians. It was unimaginable in the 1950s. And, in many ways, Constance was there first. And it was with the publication of the Hilbert biography that I became aware of her work. It led to a long friendship and even some collaborations along the way.

Constance, who was born in St. Louis in 1918, and her sister Julia both started college at San Diego State, Constance majoring in English, Julia in mathematics. But Julia moved on to Berkeley



Photograph by Ralph Bowman.

Constance and her sister Julia at the beach.

where, years later, she did essential work on Hilbert's Tenth problem, which was eventually solved by Yuri Matiyasevich. This work earned her a MacArthur Fellowship and the honor of being the first woman to be president of the American Mathematical Society. Constance's first book was *Slacks and Calluses: Our Summer in a Bomber Factory* (Longmans, Green; 1944), which told about her experiences working in a defense plant during World War II. Later she married Neil D. Reid, a San Francisco attorney, and they lived and raised a family in their charming craftsman-style house in the Ashbury Terrace section of San Francisco.

The Hilbert book was followed by two additional



Photograph by Ralph Bowman.

Constance (at right) and Julia.

biographies: *Courant in Göttingen and New York* (Springer, 1976), and *Neyman—from Life* (Springer, 1982). The first in some sense continued her work on the biography of Hilbert because Richard Courant, before moving to New York in 1937, had been director of the famous mathematical institute at Göttingen. For anyone interested in the migration of enormously talented mathematicians and scientists from Europe to the United States at that time, the Courant book is essential reading. The Neyman book chronicled the influence of the Polish statistician, Jerzy Neyman, on American science when he led the statistics department at Berkeley to eminence during the postwar period.

Her sister Julia had remarked on how influential E. T. Bell's book had been in convincing her to be a mathematician. When Don Albers and I found that Bell's only son, Taine Bell, was living close by, we contacted him, because we too had been motivated to go into mathematics by Bell's famous book. Because we had recently worked with Constance on *International Mathematical Congresses: An Illustrated History 1893-1986* (Springer, 1986) and *More Mathematical People* (Harcourt Brace Jovanovich, 1990), we managed to get Constance to take over a project we had planned but were too committed to other projects to do ourselves—a "life" of E. T. Bell. She took on the task with her usual enthusiasm, and a wonderful book it turned out to be. Much of Bell's life was known, but other aspects were not known, even to his family. After extensive sleuthing in California and Britain, she



Photograph by Neil Reid.

Constance with Russian mathematician Yuri Matiyasevich, January 1999.

published *The Search for E. T. Bell, Also Known as John Taine* (Mathematical Association of America, 1993).

Her last book was *Julia: A Life in Mathematics* (MAA, 1996). These books in a sense continued her work on twentieth-century mathematicians. When asked why she did not turn attention to earlier people such as Riemann, she replied that she preferred what Henry James called "the visitable past". During that period I recall that the three of us traveled to New York to attend the memorial service for Walter Kaufmann-Bühler, mathematics editor at Springer, who had urged us to do the book on the Congresses. Traveling with Constance was always rewarding. She seemed to know everyone who mattered in mathematics. On that trip we visited a brownstone in Chelsea, the home of Hermann Weyl's daughter, where a bronze bust of Weyl was in the library. On another occasion, I recall "doing the French Quarter in New Orleans" with Constance and a good friend of hers, Natasha Artin Brunswick, the mother of Michael Artin and one-time wife of Emil Artin, both extraordinary mathematicians.

Constance was a woman of great style and presence. She cared about clothes and wore breathtakingly elegant and occasionally dramatic jackets and accessories. She was an ardent fan of the ballet, reeling off names of dancers and descriptions of memorable performances with ease. When she entered a room people sat up and took notice.

Her husband is a pilot, and they sometimes flew to meetings and to family events in their own plane. She lived a full and active life. And she made lasting contributions to the culture of mathematics. She died October 14, 2010, in San Francisco after a two-year illness.