Constance Reid

John Ewing, former director of the American Mathematical Society, says this of Constance Reid: " She has a special talent for understanding mathematicians and their culture. She understands us. She is the Boswell for mathematics – a biographer who has made the mathematical life understandable to the general public and to mathematicians themselves. Her work has enriched our profession." The "autobiography" of her sister Julia Robinson has been a source of inspiration for many young women contemplating careers in mathematics, and her biography of David Hilbert stands as one of the best mathematical biographies ever written. It is no exaggeration to say that publication of *Hilbert* made her a star among mathematical biographers. Her five lively and penetrating biographies of mathematicians have been highly praised and constitute a great contribution to the world of mathematics. She has set a high standard for future biographers. We are proud that she was a member of our section.

Although the formal mathematical education of Constance Reid concluded with high school algebra and geometry, she was able to understand mathematical ideas well enough to write three best - selling popularizations of mathematics: *From Zero to Infinity* (1955), *Introduction to Higher Mathematics* (1959), and *A Long Way From Euclid* (1963). Several mathematicians have commented on the influence of *From Zero to Infinity* on their development. Her writing ability was early demonstrated in her book *Slacks and Calluses*(1944), an account of her working for a summer on a bomber factory assembly line in World War II. At the time she was a high school English teacher in San Diego and only twenty - six. *Slacks and Calluses* is still in print 67 years after publication.

It's the rare English major who chooses to write about mathematics and mathematicians, but how fortunate we are that Reid did so. Having a sister who was a mathematician clearly had something to do with her warm feelings about mathematicians, but the truth of the matter is that she simply liked mathematicians. After observing her mathematician sister Julia Robinson and brother-in-law Raphael Robinson as well as other UC Berkeley mathematicians, she told Gerald L. Alexanderson in a *Mathematical People* interview that "mathematicians are people who devote their lives to what seems to me a wonderful kind of play."

Julia and Raphael felt that if they could interest her in mathematics, then why couldn't she interest others? So the homemaker and new mother wrote an article in 1953 for *Scientific American* magazine on the role of computers in finding perfect numbers. The article was successful, and in short order she wrote three other popular books on mathematics: She pointed out that having Julia and Raphael as editor - proof readers was helpful. Since sales of the three books were very good, a career as a popularizer of mathematics beckoned.

Reid, however, felt that she had lost her "mathematical innocence" by that point, and needed to move on in some sense. Move on she did to the biggest and most challenging writing project of her life. Her sister Julia suggested a series of short biographies that

might take up where E. T. Bell left off with his *Men of Mathematics*. She started the project, but when she got to Hilbert she discovered that to make him the subject of a short biography would not work. She found him to be a captivating figure with a compelling story. So she decided to write a book just about him. Little did she know how challenging it would be to write.

When one reads the story of how *Hilbert* was written, the determination and tenacity of Reid stand out in bold relief. G.L.Alexanderson and I co-edited two books with her, and we were deeply impressed by her research skills and doggedness in pursuing information that was often difficult to find. We were inspired by her dedication, and more than once expressed wonder at her great fonts of energy.

In "Down the Rabbit Hole or Abenteuer im Wunderland," she recalled: "When I set out to write a nontechnical life of David Hilbert, I did not conceive of an audience of Germans or of mathematicians, nor did I realize how totally unprepared I was for the German and mathematical world that I was about to enter. I did not know the language, the history, the culture, or the educational system. I had almost no knowledge of the mathematical history of Germany. I was not a mathematician. Yet I pursued the legendary figure of David Hilbert into this unfamiliar world as matter-of-factly as Alice followed the White Rabbit into Wonderland." To top it off, Max Born, a distinguished German physicist, who had written about Hilbert, pointed out her total lack of qualifications for the task. She was devastated by his comments, and did not contact him again until she had finished the book.

Undaunted, she enrolled in German language classes so that she could read Hilbert's collected works, a gift from Julia, as well as letters to and from Hilbert's colleagues. She traveled to Germany and interviewed mathematicians and others who had known him. By 1967 she had produced a first draft, and in 1970 *Hilbert* was published to wide acclaim. Invitations to speak about "Hilbert" and the story of how it was written poured in, and she was soon giving talks, more than 100, to mathematicians and students around the country.

It turned out that Reid was a great speaker as well as a gifted writer. Her speaking style was all her own. She told a good story in a dramatic fashion with charm and grace. She enjoyed answering questions and when she talked with you in a group of people, she gave you her full attention. She gave talks at three meetings of the Northern California Section: College of Notre Dame in 1978, Menlo College in 1985, and San Jose City College in 1994. Often she was flown to the sites of the talks by her husband, Neil Reid, an aviation lawyer and pilot.

The great success of *Hilbert* led her to write more biographies of mathematicians: *Courant in Göttingen and New York* (1976), *Neyman* (1982), *The Search for E.T.Bell: Also Known as John Taine* (1993), and *Julia: A Life in Mathematics* (1996).
She also found time to co-edit two books with Don Albers and Gerald L. Alexanderson: *More Mathematical People* (1990) and *International Mathematical Congresses: An Illustrated History 1893-1986* (1986).

Over the course of her life, she won several awards for her work, including the MAA's George Pólya Award in 1987, the MAA's Beckenbach Book Prize in 1996, and the JPBM Communications Award in 1998. Constance Reid is a star in the mathematical firmanent.

Don Albers
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