# ROBERT EDOUARD MORITZ—IN MEMORIAM

The sudden death of Professor Moritz in Seattle on December 28, 1940, not only marked the close of a life that had measured the allotted span, but terminated an honorable career of nearly half a century in the service of mathematics and higher education. Retired to half time two years before, he had taught through the fall quarter and had made plans to spend the winter in California. He occupied the position of head of the department of mathematics at the University of Washington for over thirty years, at various periods of which astronomy was included. He witnessed the growth of the university population from a total of some eight hundred for the academic year to approximately eleven thousand, including one thousand graduate students, in a single quarter. It was largely due to his high standards, energy and vision that the department of mathematics was competently manned and adequately equipped with library and other facilities to keep pace with this development.

Robert Edouard Moritz was born at Christianstahl in Schleswig-Holstein, the son of Karl R. and Maria Stahlhut Moritz on June 2, 1868. His early education was received in the public schools of Germany. At the age of twelve he came to the United States with his parents who settled on a farm in Nebraska. On the casual advice of a friend, young Moritz entered Hastings Academy in 1885, expecting to spend only a single term. But one term sealed his fate. By dint of the utmost frugality, of doing his own cooking, of sharply curtailing the normal hours of sleep, he was able to eke out his meagre earnings to cover the bare necessities and to remain in school—remain for seven years, at the end of which he was graduated from Hastings College in 1892. "He worked his way through college" has become a commonplace in American biography. It sounds like a simple formula, and there are of course many versions. But anyone lacking the actual experience can have only a faint conception of what those few words might connote in the short-grass region of Nebraska in the late eighties and early nineties—those years of acute and prolonged distress in the prairie states, under the scourge of hot winds, crop failures and mortgage foreclosures.

After a year spent in graduate study at the University of Chicago he returned to his Alma Mater where he held the chair of mathematics and physics from 1893 to 1898. In the meantime he attended the University of Chicago during two summer quarters, completing the requirements for the master's degree in 1896. That same summer he married Miss Cassia L. Kennedy of Aurora, Nebraska, who with two

sons survive him—one, Harold K. Moritz is associate professor of civil engineering at the University of Washington, the other, Donald B. Moritz lives in Minneapolis. An appointment as instructor in mathematics enabled him to continue his graduate work at the University of Nebraska, which awarded him the Ph.D. in 1901. The next year he studied abroad, chiefly under H. Weber and Th. Reye at the University of Strassburg, earning a second Ph.D. in 1902. Returning to the University of Nebraska, he served as adjunct professor for one year and as assistant professor for another.

In 1904 he was appointed professor and head of the Department of Mathematics and Astronomy at the University of Washington, succeeding the late Arthur Ranum. He threw himself at once into the scientific and educational work of the community and state. One of his first duties was to repair the university telescope, the lenses having been stolen the preceding summer. He prepared for a Seattle Sunday paper an article with diagrams on the forthcoming solar eclipse. And he opened the observatory to the public on certain nights, a custom that has prevailed to the present time. Holding a profound conviction of the value of mathematics in the curriculum, he wrote numerous articles for educational journals, both state and national. He was a principal speaker at the three-day sessions of one of the county institutes, discussing various aspects of the teaching of elementary mathematics on several of the programs. His final address seems to have made a deep impression for it was printed in full by popular demand in the local weekly paper.

The bibliography of his published books and papers contains about 75 titles, including his educational papers which comprise about a third of the total. In addition, he was a clever problem solver and for a dozen years beginning in 1920 he was a regular contributor to the problem department of the American Mathematical Monthly. His mathematical articles range over the fields of analysis, number theory, geometry and economics. Perhaps the most noteworthy are: *Generalization of the differentiation process* [Quotientiation], American Journal, 1902; *Ueber gewisse Infinitesimal-Operationen der hoeheren Operations-Stufen* (three parts totaling 60 pages), Tôhoku Mathematical Journal, 1921, 1922, 1923; and the monograph on *Cyclic-Harmonic Curves*, University of Washington Publications in Mathematics, 1923, pp. 1–58 plus 21 plates. The last is a discussion of the curves represented by the polar equation $\rho = a \cos (p/q)\theta + k$, where $p$ and $q$ are integers. A machine for drawing these curves, when $p, q = 1, 2, \cdots, 10$, built according to his design in the University shops, is in the possession of the Department of Mathematics.

His book on *Plane and Spherical Trigonometry* (John Wiley and Sons, 1911, 1913) is one of the most comprehensive treatises on trigonometry ever published in America. His *Short Course in Mathematics* (Macmillan, 1919) was an outgrowth of the course prescribed for the Students' Army Training Corps in the fall of 1918 when the University was turned into a training camp for soldiers, sailors and marines. Perhaps the best known is his *Memorabilia Mathematica* (Macmillan, 1914) the results of the painstaking labor of ten years, which is read and valued by every lover of mathematics.

He was an expert teacher, especially for the stronger students, whom he stimulated to their best efforts. Many factors unite to make the great teacher but a major secret of his success was his manifest sincerity and perennial enthusiasm.

He, usually accompanied by Mrs. Moritz, traveled widely—went several times to Europe, twice to the Orient, once around the world. They visited Alaska and Mexico and explored every section of the United States in their Model T.

He was a member of the American Mathematical Society since 1904 and a charter member of the Mathematical Association of America, serving on the first board of trustees, 1916–1918. He maintained his mathematical interest and activity to the last, reading a paper at the recent international congress at Oslo. His latest paper was presented before the departmental Research and Journal Club last spring on the centroid of a simplex in $n$-dimensional space.

<div align="right">R. M. WINGER</div>