Samuel Latimer Boothroyd

August 10, 1874 — April 4, 1965

Samuel Latimer Boothroyd, Professor Emeritus of Astronomy, died suddenly at the age of ninety on April 4, 1965, at his home in Cayuga Heights Manor. Active throughout his long life and rarely acknowledging infirmity, he had attended a meeting of the Senior Citizens group the day before his passing.

Professor Boothroyd was born on a ranch near Loveland, Colorado, on August 10, 1874, the son of Philip H. and Edith M. Boothroyd, immigrants from England. His mother was a woman of outstanding mental ability, and except for three years, his early education and training were received from her at their pioneer home. He attended Colorado Agricultural College and received the Bachelor of Science degree in Irrigation Engineering in 1893. Two years (1894-95) of graduate work at the University of Chicago were followed by two years (1895-97) of teaching as Professor of Mathematics and Astronomy at Mount Morris College, Mount Morris, Illinois. The next two years were spent as an assistant at the Lowell Observatory, Flagstaff, Arizona. It was here that he developed an interest in the observation of binary stars and the analysis of their orbital motion. His contact at Lowell was to serve him well when, many years later, he led two scientific expeditions from Cornell to this famous observatory.

After a year (1901) as Professor of Mathematics at Bellvue College, Bellvue, Nebraska, he returned as Associate Professor of Physics and Engineering at Colorado Agricultural College. There he received the degree of Master of Science in Astronomy in 1904. In this same year he began his association with Cornell as an Instructor in Civil Engineering. From 1908 to 1912 he was Assistant Professor of Geodesy and Topographical Engineering. It was during this period that he was the official surveyor for the University. Among his numerous activities in this capacity were the surveying of the Alumni Field and of an area on Fall Creek above Varna where it was proposed to build a reservoir.

In 1912 he became Associate Professor of Mathematics and Astronomy at the University of Washington, Seattle, remaining there until 1921 when he was recalled to Cornell as Professor of Astronomy and Geodesy in the School of Civil Engineering. In 1932 astronomy was established as a department in the College of Arts and Sciences, and Boothroyd became Professor of Astronomy, a title he held until retirement as an Emeritus Professor in 1942 at the age of sixty-eight.

Professor Boothroyd loved the out-of-doors, and his early home training and education as an engineer combined to make him an excellent leader of expeditionary investigations. His earliest endeavor of this nature occurred during the years in Seattle when he was for several summers (1905-09) a surveyor on the Alaskan-Canadian Boundary Survey. Accounts of his experiences were retold in later years on many occasions, always to the delight of his listeners.

On January 24, 1925, the Ithaca area was the scene of a total solar eclipse. Elaborate arrangements, in which Dr. E. C. Slipher of Lowell Observatory and Professor Boothroyd participated, were made to observe at Fuertes Observatory. Weather partially favored the occasion, and excellent photographs of the corona were obtained.

In 1931-32 he was field director of the Harvard-Cornell Meteor Expedition to the Lowell Observatory. His personal research was devoted to the measurement of meteor velocities by the oscillating mirror method, and his results indicated the presence of considerable numbers of meteors with hyperbolic velocities, that is, those entering the solar system from outer space.

In 1933 he again led a group of Cornell scientists to the Lowell Observatory to secure ultraviolet stellar spectra with the then new aluminized mirrors. Work was carried on at the Observatory and at 10,500-feet altitude on the nearby San Francisco volcanic peak. One hundred and seventy-four spectra of ninety-seven stars were obtained. Boothroyd's ability to adjust to primitive conditions and to improvise when funds and materials were lacking made him an outstanding expeditionary leader. Needless to say, his stock of stories from unusual experiences served to enliven many an occasion when circumstances were disheartening.

Although Professor Boothroyd published during his career numerous technical papers on binary stars, meteors, and stellar spectra, it is not unfair to say that the bulk of his writing was educational in nature. He collaborated with O. M. Leland on a booklet, *Determination of the Area of Land*, in 1916. His contribution on astronomy in the Comstock *Handbook of Nature Study* is noteworthy. He contributed regularly to *Annual Supplement of the Book of Popular Science* (Grolier Society) edited by Dexter S. Kimball, Dean of the College of Engineering. His *Workbook on Field Astronomy* was used for many years by students in civil engineering, as was *Astronomy Questions—The Solar System*, by students in arts and sciences. In spite of his extensive writings Professor Boothroyd once remarked that he favored the spoken word in comparison to the Written, a characteristic amply borne out by his many public lectures and his talks during the public nights at Fuertes Observatory when he patiently told of the wonders of the heavens to young and old. His listeners enjoyed his evident personal enthusiasm and sincerity of manner.

Students and colleagues alike respected Professor Boothroyd as a teacher. He was both a gentleman and a gentle man. There were a kindliness and a friendliness about him that brought encouragement to many an inexperienced and struggling student. He would recognize and point out a weakness, yet find something to commend.

He took great interest in and often became personally involved with causes he felt worthy of support, frequently at more than prudent sacrifice. For years he was active as a member of the board of managers of the Cooperative Consumers Society and of the Reconstruction Home, serving each organization as president.

Beyond his professional achievements and community activities, Professor Boothroyd is remembered for his personal characteristics. His tall, lean, almost frail figure was frequently seen at evening lectures and campus affairs. He was one of Cornell's inveterate walkers and even in the last years of his life he frequently walked from his home to downtown Ithaca. In the matter of food he held what many persons would regard as odd ideas. He ate no meat although it was served to his guests. He was also very definitely the "pure" water man. Since he strongly opposed the use of alcoholic beverages he was greatly upset when the Consumers Co-op, on which he had labored for years, began selling beer. He ground his own flour while bemoaning man's injustice to the wheat grain in conventional milling. He grew vegetables in quantity and was much opposed to the use of "poisons" in the garden—organic fertilizers, cleanliness and diligent effort would do the job, he felt.

His interest in astronomy continued to the last. While he did not enthusiastically support the large expenditures in space research, he nonetheless took great interest in and became quite excited over the feats achieved. He felt, however, that far better things could be done with similar expenditures of money and effort on other than scientific fronts. Something of his search for basic truth can be sensed in these attitudes, and a little of the pioneer spirit and idealism characteristic of the man is evident. There is a feeling that he typified a changing old order which yields place to the new. To many of us has come a personal loss in the knowledge of his absence.

Professor Boothroyd was a fellow of the American Association for the Advancement of Science, a member of the American Astronomical Society, the International Astronomical Union, the American Association of Variable Star Observers, the Society of the Sigma Xi, Phi Kappa Phi, and the Statler Club.

He was survived by his wife, Alice Bell, whom he married January 12, 1892, while she was a school teacher at Loveland, Colorado. (Mrs. Boothroyd died June 9, 1965, at the age of 91). He was also survived by two sons, Philip D. and Robert S., and by two alumnae daughters, Lucy (Mrs. Evert C. Abbe) '28 and Mary Alice (Mrs. Raymond V. Hemstreet) '35.

Carl Crandall, Paul L. Hartman, R. William Shaw