

Biographical Encyclopedia of Astronomers

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Brück, Hermann Alexander

Born Berlin, Germany, 15 August 1905

Died Edinburgh, Scotland, 4 March 2000

Hermann Brück was a distinguished astronomer responsible for the resurgence of interest in astronomy in post-war Ireland and for raising the Royal Observatory Edinburgh [ROE] to an internationally recognized research center. He served as Astronomer Royal for Scotland from 1957 until his retirement in 1975

Brück was the only child of Hermann Heinrich Brück, an officer in the Prussian army who was killed in action during the Battle of Lodz in 1914, and his wife Margaret. Educated at the Kaiserin Augusta Gymnasium, Charlottenburg, famed for its teaching of Greek, Latin, and mathematics, Brück matriculated at Kiel University in 1924. After a period there and at Bonn University, he moved to Munich. He studied there under the eminent physicist Arnold Sommerfeld and in 1928 gained his doctorate, which concerned the Wave mechanics of crystals. Brück fondly remembered this period, as a student of theoretical physics, throughout his career and long life. He followed his friend Albrecht Unsöld into the field of astro-nomical spectroscopy by securing a post at the Potsdam Astrophysical Observatory.

In 1935, Brück converted to Catholicism and, with the threat of Nazism, fled Germany a year later, taking refuge with Jesuits in Italy along with his first wife, Irma Waitzfelder (whom he married in Rome and who died in 1950). Brück's faith would remain an integral part of his persona, and he was a long-standing member and councillor of the Pontifical Academy of Sciences. For his services to the Roman Catholic Church, when Brück was 90, Pope John Paul II conferred upon him the Knight Grand Cross of the Order of Saint Gregory the Great

After a year at the Vatican Observatory, Brück came to England almost penniless in 1937 and secured a position at Cambridge. Here he worked under Sir Arthur Eddington, working on telecommunications while maintaining his interest in solar physics, and eventually progressing to the position of John Couch Adams, Astronomer. In 1946, Brück was made assistant director of the Cambridge Observatory.

In 1947, the Irish Prime Minister, Eamon de Valera, invited Brück to become director of the Dunsink Observatory (near Dublin) and professor of astronomy at the Dublin Institute for Advanced Studies. Here Brück joined a distinguished group of scientists (among them was his friend, Nobel laureate Erwin Schrödinger) and began the task of revitalizing Dunsink, which had fallen into disuse since the founding of the Irish state

The hosting of the International Astronomical Union's [IAU] triennial Assembly in Dublin in 1955 evidenced the success of Brück's initiative in reestablishing Irish astronomy. Among the exhibits were the photoelectric photometer developed by M. J. Smith, who had been Brück's student in Cambridge, and the ultraviolet solar work that formed part of the Utrecht atlas

Another Nobel laureate, Sir Edward Appleton, principal of Edinburgh University, offered Brück further challenges when, in 1957, Appleton appointed him professor of astronomy and Astronomer Royal for Scotland. Here, Brück was to initiate the development of innovative instruments for automated scanning of spectra, for measuring star and galaxy images, and for remote operation of telescopes, which led to the ROE operating the UK Schmidt Telescope in

Australia and the UK Infrared Telescope in Hawaii. In 1965, Brück first proposed that a large telescope be built in the Northern Hemisphere, but outside Britain. Site testing was carried out under ROE management, and the final outcome was the observatory at La Palma. These and other programs were to put the ROE at the forefront of the technological revolution embracing astronomy in the 1960s

Brück was an excellent educator and took great enjoyment and pride in his public lectures. One of his most memorable lectures, on the life and work of Angelo Secchi, was the opening address at IAU Colloquium 47 in Rome in 1978. Brück also expanded astronomy teaching at Edinburgh and introduced a new honors degree in astrophysics starting in 1967.

Brück remained at Edinburgh until his retirement in 1975 when his attention turned to the history of astronomy. With his second wife, Mary Conway, an astronomer herself whom he had married in 1951, Brück wrote the definitive work on the life of Charles Smyth,

Astronomer Royal for Scotland between 1845 and 1888. Another book charted the history of astronomy in Edinburgh

Brück was made a CBE in 1966 for his work at Edinburgh and received honorary degrees from the National University of Ireland and the University of Saint Andrews. He was a member of the Royal Irish Academy and a fellow of the Royal Society of Edinburgh.

Alastair G. Gunn

Selected References

Brand, Peter (2000). "Hermann Alexander Brück CBE, 1905–2000." *Astronomy and Geophysics* 41, no. 6:35.

Brück, Hermann A. (1983). *The Story of Astronomy in Edinburgh from Its Beginnings until 1975*. Edinburgh: Edinburgh University Press.

—— (2000). "Recollections of Life as a Student and a Young Astronomer in Germany in the 1920s." *Journal for Astronomical History and Heritage* 3, no. 2: 115–129

Brück, Hermann A. and Mary T. Brück (1988). *The Peripatetic Astronomer: The Life of Charles Piazzi Smyth*. Bristol: Adam Hilger.

Brück, Hermann A., G. V. Coyne, and M. S. Longair (eds.) (1982). *Astrophysical Cosmology*. Vatican City: Pontifical Academy of Sciences.