

Brück, Hermann Alexander

(1905–2000)

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Brück, Hermann Alexander (1905–2000), astronomer, was born on 15 August 1905 in Berlin, the only child of Hermann Heinrich Brück, an officer of the Prussian army, killed in 1914 at the battle of Łódź, and his wife, Margaret Anne, *née* Weylandt, (*d. c.*1945). He attended the Kaiserin Augusta Gymnasium in Charlottenburg. His mother would have preferred him to become a lawyer, but his uncle, a distinguished bacteriologist, urged that science could also be a respectable profession.

Brück started his university career in Kiel; but he found no inspiration there, and moved on after one semester. He was far more fortunate in Munich, where he completed his first degree. He was taught by the legendary, charismatic physicist Arnold Sommerfeld, in the exciting years when quantum mechanics was being formulated—indeed, he attended the colloquium where Heisenberg first presented the famous 'uncertainty principle'. He obtained his doctorate in 1928 for work on the physics of crystals. Sommerfeld then encouraged him to read the recently published book *The Internal Constitution of the Stars* by the eminent British astrophysicist Arthur Eddington; Brück thereafter focused his interest on astronomy. He moved to a post at the Potsdam observatory, and within a few years became a lecturer at the University of Berlin, where luminaries such as Max von Laue, Erwin Schrödinger, and Albert Einstein were on the faculty.

The pre-Nazi years in Berlin, about which Brück wrote a detailed memoir, were among the happiest and most productive of his life. But he left Germany abruptly in 1936. This was the start of a lengthy cosmopolitan career during which he contributed greatly to astronomy—especially to the modernization of observatories and the improvement of observational techniques. His first post after leaving Berlin was at the Vatican observatory in Castel Gandolfo, where he worked on stellar classification. Although he stayed only one year, this was a formative period spiritually as well as scientifically. Brück, previously a Lutheran, was received into the Roman Catholic church by Romano Guardini and Johannes Pinsk, two of the most distinguished theologians of the age. His intense commitment to the church continued throughout his long life, and of all the organizations to which he later belonged, none gave him greater satisfaction than his membership of the Pontifical Academy of Sciences. (He was especially proud to have been elected to that body when its president was the eminent cosmologist Georges Lemaître, whom he came to know well.)

Brück's next move, in 1937, was to the Cambridge observatories in England, where Arthur Eddington was the director. After war broke out he was interned as an enemy alien, but within six months his release was secured and he returned to Cambridge, becoming acting director after Eddington's death. In 1947 he received a personal invitation from Eamon de Valera, then prime minister of the Irish republic, to become director of the Dunsink observatory and professor of astronomy at the new Dublin Institute for Advanced Studies, where he joined his friend Erwin Schrödinger who had been invited to be professor of theoretical physics.

After a decade in Ireland, where he was particularly successful in promoting scientific collaboration between north and south, Brück moved again. On the personal initiative of Sir Edward Appleton, then vice-chancellor of Edinburgh University, he was invited to take up the posts where he made his most substantial and enduring contributions: director of the Royal Observatory in Edinburgh, and astronomer royal for Scotland. Brück's personal scientific interests were in the physics of the interstellar medium, questions of stellar evolution, and the formation of stars from diffuse interstellar material. But his impact was wider through his influence on others—his courteous dignity and traditional style (his everyday dress was a formal suit and bow tie) overlay an original intellect and a far-sighted innovator.

Brück's tenure at Edinburgh lasted from 1957 until his retirement in 1975, and during that time the observatory staff numbers expanded from eight to more than one hundred. He fostered the work of P. Fellgett on automatic plate scanning machines and that of V. C. Reddish (his successor at Edinburgh) on new telescopes. He thereby prepared the way for instruments which greatly boosted the UK's international standing in astronomy—especially the 40-inch UK Schmidt telescope in Australia, which produced a photographic survey of the southern sky, and the pioneering Cosmos machine which could automatically scan the resulting photographic plates at high speed. He also laid the groundwork for the UK infra-red telescope and the James Clerk Maxwell radio telescope in Hawaii. He championed the establishment of observing stations in climates better than that of Great Britain and was a prime advocate of a United Kingdom northern hemisphere observatory in the Canary Islands.

Brück's first wife was Irma Waitzfelder (1905–1950), whom he married on 8 September 1936 and with whom he had one son and one daughter. On 21 November 1951 he married Mary Teresa Conway (*b.* 1925), herself an astronomer; they had one son and two daughters. Throughout his long and active retirement he and Mary lived in Penicuik, near Edinburgh. They co-authored *The Story of Astronomy in Edinburgh* (1983) which traced the subject's emergence back to the Scottish Enlightenment, and also *The Peripatetic Astronomer* (1988) a highly readable biography of an eccentric nineteenth-century astronomer Charles Piazzi Smyth, one of Brück's predecessors in Edinburgh, who pioneered stereoscopic photography, but gained embarrassing notoriety through his obsession with the numerology of the Great Pyramid.

Brück was elected to the Royal Irish Academy in 1948, to the Royal Society of Edinburgh in 1958, and appointed CBE in 1966. He was elected in 1955 to the Pontifical Academy; he served on its council for twenty years, and gained special satisfaction from a study week he organized in 1981 on its behalf, the proceedings of which appeared as a book entitled *Astrophysical Cosmology*. On his ninetieth birthday Pope John Paul appointed him knight grand cross of the order of St Gregory the Great. He died in the Royal Infirmary, Edinburgh, from pulmonary embolism, on 4 March 2000, and was buried on 11 March at Mortonhall cemetery, Edinburgh. He was survived by his wife.

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Wealth at Death

£47,081.66: confirmation, Scotland, 2000