

BEYNON, Sir WILLIAM JOHN GRANVILLE (1914-1996), Professor of Physics involved in an international study of the ionosphere

Name: William John Granville Beynon
Date of birth: 1914
Date of death: 1996
Gender: Male
Occupation: Professor of Physics involved in an international study of the ionosphere
Area of activity: Science and Mathematics
Author: Mary Auronwy James

Granville Beynon was born 24 May 1914, at Dunvant, Swansea, the youngest of four children of William Beynon (a colliery checkweigher) and Mary (née Thomas). He went to Gwerton Grammar School and University College of Swansea, (1931), graduating BSc (Physics, 1st class honours, 1934), followed by a PhD degree (1939) for research in absorption and dispersion of ultraviolet radiation in organic liquids.

During 1938-46 he became Senior Scientific Officer at the Radio Division of the National Physical Laboratory, based at Ditton Park, Slough. This was the beginning of his collaboration with E. V. Appleton and the study of the ionosphere, the atmosphere at heights where concentrations of free electrons influences the propagation of radio waves. Two joint papers in the *Proceedings of the Physical Society* (1940 and 1947) formed a basis for the UK method of predicting radio-wave propagation conditions for radiowaves incident obliquely on the ionosphere.

He returned to University College of Swansea (1946-58) as Assistant (later Senior) Lecturer in Physics. With Dr. Godfrey Martin Brown as active partner, a group began a study of the ionosphere using the traditional method (since 1941) of making observations with pulsed radio signals. As professor and head of the Department of Physics at the University College of Wales (UCW), Aberystwyth (1958-81) he continued to direct the study of the physics of the upper atmosphere. With the availability of Skylark rockets, the construction of rocket-borne experiments was initiated at Swansea in the 1970s and formed part of the ionospheric research which he led at Aberystwyth to gain in situ measurements of plasma properties, in addition to the conventional radio soundings. He also introduced the group at Aberystwyth to the use of new techniques of incoherent radar, based on Thomson scattering from individual ionospheric electrons.

He took an active interest in international co-operation in solar-terrestrial physics. The International Council of Scientific Unions established the Mixed Commission on the Ionosphere in 1948 and he served as secretary for its nineteen year existence. This entailed the preparation of the ionosphere programme for the International Geophysical Year (IGY) and chairing a small terminating committee, one of its duties being the supervision of the publication of *Annals of the IGY* (48 volumes). He was appointed CBE in 1959 in recognition of his contribution to the project.

He realised when arranging the IGY for 1957-58 that some sections should continue researches until the period was at its quietest epoch in 1964-65. Relevant world-wide activity continued so as to include a study of this International Year of the Quiet Sun. In 1973 he was elected FRS for his role in international co-operation in solar-terrestrial physics and his scientific contributions to our knowledge and understanding of the ionosphere. He edited: *Proceedings of the Mixed Commission on the Ionosphere* (1948-58), *Journal of Atmospheric and Terrestrial Physics* (1976-89), and (with G. M. Brown) *Solar Eclipses and the Ionosphere* (1956); and published numerous papers with E. V. Appleton, G. M. Brown and others in scientific journals, which formed the basis of his DSc (Wales) degree in 1951.

He served as the first chairman (1965-76) of the Schools Council Committee for Wales. He became president of the Education Section of the British Association, and president or chairman of a number of other national and international committees in the sphere of education and physics. His skill in explaining the intricacies of upper atmosphere physics to lay audiences was recognised internationally, e.g. by being invited to present the 4th Goddard Memorial Lecture at the Smithsonian Institute, Washington, in 1969. He received many honours including Honorary Membership of the European Incoherent Scatter Scientific Association (EISCAT), Honorary DSc (Leicester, 1981), and a knighthood in 1976 for services to education and science.

He was also active locally. During the depression of the 1930s he founded a social club and helped organize summer camps for the unemployed of his village. His recreations included several sports, as well as amateur orchestral and choral music. During his period as lecturer he trained his village chapel choir. Having been a member of a Swansea youth string orchestra, he became co-founder and accomplished violinist of the Philomusica Orchestra of Aberystwyth.

He retired in 1981 as Emeritus Professor and Honorary Fellow of UCW, Aberystwyth, having been Vice-Principal in 1972-74. He married in 1942 Megan Medi, daughter of Arthur and Margaret James at Ebenezer Congregational Chapel, Swansea, and they had two sons and one daughter. He died 11 March 1996, at Aberystwyth.

Author

Dr Mary Auronwy James

Sources

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Further Reading

Wikipedia Article: [Granville Beynon](#)

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