

## OBITUARY

### SIR KINGSLEY CHARLES DUNHAM (1910–2001)

Sir Kingsley Dunham, one of the leading figures in British Geology of the latter half of the twentieth century, died at Durham on the 5th of April, 2001. He was born at Sturminster Newton, Dorset, in 1910. His father was an estate manager and the family moved north to Brancepeth, near Durham City, while he was still young. Dunham's early education was at Brancepeth School and later at the Durham Johnston School. Strongly supported and encouraged by his parents, he obtained matriculation and entrance to Hatfield College at Durham University. A talented musician (organ and pianoforte), he was awarded a college organ scholarship and played the organ in the college chapel. He intended to read Chemistry, but came under the spell of Arthur Holmes, the then Professor of Geology, a man of great ability and now widely regarded as one of the most distinguished geologists of the twentieth century. Kingsley Dunham was captivated by the eloquence of geological processes and patterns, often at the bounds of knowledge, as taught by Holmes. He changed to the Honours Geology course and completed his first degree.

After graduating, Dunham was offered a postgraduate studentship at Durham University to work under Holmes, and he chose to study the distribution of vein minerals in the Northern Pennine Orefield, a topic that he continued to research for the rest of his life. He was awarded a PhD in 1932, and a Commonwealth Fund Fellowship to work on mineralogy at Harvard University. He travelled widely in North America and completed a geological survey of the Organ Mountains with the New Mexico Bureau of Mines.

Returning to Britain in 1934, Dunham obtained one of the few posts available at that time as a geologist in the Geological Survey of Great Britain. His first assignment was to map the Old Red Sandstone in the vicinity of Chepstow. Later, he worked in south Cumbria and investigated the hematite ores of that area. During the Second World War, he was engaged on detailed investigations of the mineral resources of his former field area, the Northern Pennines (with the help of a Canadian Army drilling rig and crew). This study culminated in the publication in 1948 of the work by which he is best known and likely to be best remembered, *The Geology of the Northern Pennine Orefield*, Volume 1, an encyclopaedic account of the origin and development of the mineral field between the Tyne Valley and Stainmore. He was awarded an Honorary D.Sc. by Durham University in 1946 and became Chief Petrographer of the Survey in 1948.

Although deeply interested in the work of the Survey, he could not resist the opportunity to return to his old university when the Chair of Geology at Durham fell vacant in 1950. It was a time of university expansion and he planned and supervised the construction of phases one and two of the new geology/chemistry building. Under his strong leadership the Durham Geology Department expanded with a steady increase in undergraduate and postgraduate numbers. New

branches of geology were developed, particularly geophysics and engineering geology. Dunham strongly supported studies in field geology, and was an energetic and enthusiastic leader of field parties. Many old students remember the strenuous, but happy first year field classes, with up to 130 undergraduates following the leader over the Pennine hills, or sliding over seaweed-covered rocks on the coast, always trying to catch up. Dunham's most celebrated geological experiment was the drilling of the Rookhope Borehole in 1960 that proved, as he himself had first predicted thirty years earlier as a postgraduate student, the presence of a concealed granite beneath the Northern Pennines. A kindly man and always approachable, he took much interest in the welfare of his staff and students. They looked on him as a friend. Dunham was a gifted administrator and was much in demand for committee work in the university. He served as Sub-Warden of the Durham Colleges from 1959 to 1961. With strong connections to the metalliferous mining industry, he acted as a consultant to various mining concerns and found time to visit mines and prospects widely in Britain and abroad. In recognition of his scientific work up to this time, he was elected a Fellow of the Royal Society in 1955.

In 1967, he accepted the post as Director of the Geological Survey (at that time named the Institute of Geological Sciences). He was uncertain about leaving Durham, but was persuaded that his talents would be better used to lead, organize and oversee the expansion of the Survey's role and activities proposed by Government. New and modern laboratories for the analysis of rocks and minerals, and storage for the extensive Survey collections of rocks, minerals, fossils and borehole cores were planned. New fields of geology were pursued, such as geophysics, geochemistry and marine geology, that brought in specialists to augment the traditional geological field and laboratory staff. New international co-operation developed, with Survey staff seconded to many countries throughout the world. Dunham was a great traveller and made a point of visiting all his field staff, even those stationed at isolated and inaccessible places. A new headquarters office, near Nottingham, was planned, though it was his successor, both at Durham and at the Survey, the late Sir Malcolm Brown, who became the first Director to work from this site.

At this time he took on a heavy load of national and international administration. He served on the council of the Royal Society, was Foreign Secretary and a Vice-President for five years from 1971, and received the Royal Medal in 1970. He was President of the Institution of Mining and Metallurgy (1963–1964) and of the Geological Society of London (1966–1968). He received a knighthood in 1972. He kept up his academic interests and held honorary doctorates from twelve universities in Britain and abroad.

When Dunham retired from the Survey in 1975, he again returned to Durham to his old home that had been extended to provide more office and library space. He carried on writing up his geological work, producing two important books, Volume 2 of *The Geology of the Northern Pennine Orefield*,

with A. A. Wilson in 1985, and a much revised and updated second edition of Volume 1 in 1990. By this time, his sight was failing rapidly, and he found it progressively more difficult to see text on his computer screen. This was particularly unfortunate as he had enjoyed writing, a skill probably gained from his early mentor Arthur Holmes. He had kept up a steady production of scientific books and papers throughout his career. His list of publications contains well over 200 entries, 30 of which are contributions to the *Proceedings* of this Society between 1948 and 2001. Two of these were published a few weeks after his death.

Latterly, unable to write without the help of colleagues, he was still able to continue with other interests particularly music and gardening. Always a loyal Hatfield College man, Dunham regularly attended college events and enjoyed the many musical productions produced every term. He also made a point of attending musical performances in Durham Cathedral, often arriving by taxi on his own. Friends would find him feeling his way around the cloisters to the south-west door quite unable to see in the semi-darkness. Dunham had a great love of the cathedral and a wide knowledge of its architecture, building stones and its history. For many years he led parties of visitors on cathedral tours, perhaps the most memorable of which were weekly tours for the Open University Summer Schools that were much appreciated.

Kingsley Dunham joined the Society in 1948 at the time of post-war expansion of membership and activities. With characteristic enthusiasm he contributed regularly to the *Proceedings*, attended many of the Society's meetings and quickly became a popular field leader. It was a period of optimism and development in the Society when leading members and their families regularly attended field meetings that became convivial house-parties much enjoyed by everyone. Kingsley Dunham became President of the Society in

1958–1959. Members of the Society were welcomed guests in the Durham Geology Department for lecture meetings every year. In 1968, Dunham hosted a memorable joint symposium with the Society and the Geological Society of London entitled 'Displacements within Continents'. This meeting was attended by 330 members from the two societies, and 200 of them were present at a banquet in Durham Castle at the end of the meeting. He enjoyed big occasions and the Society benefited from his capacity to gather researchers together and promote co-operation and discussion, often at the margins of geological knowledge. He and his students conducted research widely in Britain and abroad from which the Society gained original work for meeting presentations, publications and venues for field meetings. His great contribution to Society activities was recognized by his election to Honorary Membership in 1976; his valued research contribution was acknowledged in 1963 when he became the second Sorby Medallist.

The sense of comradeship and friendliness generated by the Society was much appreciated by Kingsley and, whenever he could, he liked to attend meetings for the geological discourse and also to meet friends. Latterly, he always tried to attend the Durham meetings, sometimes staying only until after the break for tea, but going to meetings elsewhere became difficult. His last years were saddened by the death of his wife and constant companion, Margaret, in 1998, and his only son, Professor Ansel Dunham in the same year. The last time he attended a Society function was in October 2000, a memorial meeting in honour of Ansel, held in Leicester. With the death of Sir Kingsley Dunham, the Society has lost one of its most distinguished members and a loyal friend and supporter. He will be sadly missed.

*Tony Johnson*