

HUGH HAMSHAW THOMAS,

M.B.E., SC.D., F.R.S., F.L.S., F.G.S.

Born 29 May 1885. Died 30 June 1962.

It would require a memoir of ample dimensions and the work of several hands to do justice to the scientific achievements, to the wide interests, to the life history, personality and humanism, of Hugh Hamshaw Thomas (H.H.T.). Palaeobotanist of international repute, Cambridge plant morphologist, ecologist and evolutionist of great distinction—Museum Curator, Army and Air Force Officer, College Fellow, University Teacher, Historian of Science—these are some of the salient roles in a great career of service to science and education.

H.H.T. was born on 29 May 1885 in Wrexham, Denbighshire, the second son of William Thomas, J.P., who was connected with the Leicestershire Hamshaws of coaching fame. His mother was Welsh, descended from the old family of Lloyds of Nant-y-Frith. He went to Grove Park School, Wrexham, and in 1904 gained an open scholarship at Downing College, Cambridge, took a first in Part I of the Natural Sciences Tripos at the end of his second year and read for Part II of the Historical Tripos in his third year.

Under the enthusiastic guidance of A. C. Seward, Professor of Botany (later to become Master of Downing College), H.H.T. started investigations on the structure of palaeozoic fossil plants, and for an essay on the leaves of *Calamites* was awarded the Walsingham Medal in 1909. His first University appointment was Curator of the Museum in the Botany School which, over some fourteen years, he fashioned into an elegant reference collection indispensable for teaching and research; the organization of museums was a creative interest all through his life, and, as will be seen, was to be invaluable later in a very different setting.

H.H.T. spent the summer of 1911 in Sweden working under Professor Nathorst, the Swedish palaeobotanist, learning chemical techniques which he later developed for unravelling the internal structure of fossil plants. He also worked in the field collecting fossils and studying the plant ecology of Gothland which was later published.

In August 1914 H.H.T. was elected to a Fellowship at Downing College, but soon after joined up as a lieutenant in the R.F.A., with the Cheshire Brigade, serving in France and Egypt. In 1916 he was promoted Captain and transferred to the R.F.C. (later R.A.F.) becoming Photographic Officer, 5th Wing. Here he combined his skill as a pilot with his knowledge of photography, applying photographic techniques for gun-ranging and later for map-making in connection with the survey of Palestine. He was twice mentioned in despatches and was awarded the

M.B.E. and the Order of the Nile. He was able to visit Libya and in 1921 published his observations on the ecology of the Libyan Desert.

In 1923 H.H.T. was appointed to a Cambridge University Lectureship in Botany involving him in a heavy teaching programme but he continued to pursue his researches with vigour. Before the war he had become interested in Mesozoic floras. Critical examination of collections from the Jurassic rocks of Yorkshire, with the use of new preparatory techniques, enabled him to institute a new Class of primitive Angiosperms, the *Caytoniales*, together with other important new genera and species.

After his marriage in 1923 to Miss Edith Torrance, of Cape Town, he visited his wife's native country and made a large collection of fossil plants from the Mesozoic of Natal. These contained new genera, including some unknown to science, e.g. the *Corystospermaceae*. His researches directed his attention particularly to the evolution of flowering plants, involving critical scrutiny of the conventional description of the inflorescence. This fresh approach to problems of plant evolution—the 'New Morphology'—he advocated in a lecture tour of the United States in 1934 and gained wide support.

In 1924 H.H.T. was awarded the Sedgwick Prize, in 1926 he received the degree of Sc.D., and in 1934 was elected F.R.S. In 1937 he was appointed University Reader in Plant Morphology.

On the outbreak of war in 1939 he returned immediately from a botanical expedition in Jamaica to join the R.A.F.V.R., where he was engaged in aerial photographic intelligence work. He retired in 1943 with the rank of Wing Commander and was again mentioned in despatches for photographic intelligence relating to enemy industrial plant and rocket installations.

Apart from his work in the History of Science (separately mentioned below) and his active teaching and research, H.H.T. gave much time and thought in later life to the Learned Societies. In 1947 he was President of Section K (Botany) of the British Association for the Advancement of Science and was Member of Council for six years. For twenty-four years he was Secretary of the International Committee for the Nomenclature of Fossil Plants and at the 7th International Botanical Congress at Stockholm in 1950 he was President of the Palaeobotany Section. From 1955 to 1958 he was President of the Linnean Society of London and during the Darwin-Wallace Centenary Year (1958) was signally honoured by the presentation of the commemorative medal as being one of the twenty biologists of the world adjudged to have made the most outstanding contribution to our knowledge of Evolution. In 1960 he received the Gold Medal of the Linnean Society.

In recalling the activities of an unusually full life, what of the man himself? In 1920 H.H.T. was appointed Dean and also Steward in Downing College; the first appointment he held for seven years, the

second for seventeen. In 1950 he retired from his Readership and the University conferred upon him the title Emeritus Reader of Morphology; in the same year he was elected Honorary Fellow of his College, having been Fellow for thirty-six years. The facts speak for themselves. He loved his college and the sentiment was reciprocated by the alumni as by the Society as a whole. Fortunate were those privileged to be his pupils and to receive his patient guidance and kindly encouragement as Director of Studies or Supervisor in Botany; many occupying important academic positions today have good cause for thankfulness.

H.H.T. bore his learning with extreme modesty. A man of shrewd judgement and shining integrity, his counsel was highly valued, widely sought and generously given.

THE HISTORY OF SCIENCE

In the summer of 1936 H.H.T., as secretary of a Committee of the Cambridge Philosophical Society, collected pieces of scientific apparatus of historic interest from the various laboratories and colleges and exhibited them for a week in the East Room of the Old Schools. This exhibition aroused widespread interest. In the same year, with the blessing of the University authorities, a History of Science Lectures Committee, under the chairmanship of Dr. Joseph Needham, was instituted by the two Faculty Boards of Biology and the Faculty Board of Physics and Chemistry, for arranging courses of Lectures on the History of Science. H.H.T. was an original member of this Committee and contributed a lecture entitled 'Biological Theory from Linnaeus to Darwin', as one of a series in a general survey of the History of Science during the Lent Term, 1937. Continuing through the academic year of 1938, the lectures were brought to an end by the war. In 1942 the Committee was revived, with F. H. C. Butler as Secretary. Shortly afterwards, Dr. Needham left on a scientific mission to China and Professor Butterfield succeeded him in the Chair. Whilst the Committee was being reconstituted, Mr. R. S. Whipple, late Managing Director of the Cambridge Scientific Instrument Company, intimated a wish to present to the University his life-long collection of old scientific instruments, provided an assurance could be given that the collection would be permanently preserved, properly housed and actively studied. On his return to Cambridge from the Royal Air Force, H.H.T. took over the chairmanship of the Committee from Professor Butterfield during active negotiations with Mr. Whipple. On their happy conclusion, the splendid Whipple Collection was set up in the Old Schools in November 1944 and a week's exhibition was opened by the President of the Royal Society. This was the beginning of the Whipple Museum and of the introduction of the History of Science, as a new academic discipline, into the University. Both schemes gave H.H.T. great satisfaction.

The next creative activity in which he shared was the inauguration of

The British Society for the History of Science. He became successively Founder Member (1947); Member of Council (1951-1953 and 1958-1960); President (1953-1955); Vice-President (1955-1958); Hon. Member (1961). H.H.T. read three papers before the Society: 'Richard Bradley, a neglected plant biologist of the eighteenth century' (28 May 1951); 'Carl Linnaeus and his influence on the development of biology' (17 June 1957); the opening paper to the Darwin Symposium: 'The natural history setting of the "Origin of Species"' (14 March 1959). He gave two Presidential Addresses: 'The History of Science in Modern Education' (1954) and 'Pre-Linnaean Experimental Plant Biology' (1955).

It was a privilege to have worked with H.H.T. on two great projects and to have enjoyed his friendship for some twenty years. As a last tribute in words seasoned by time, in affection and respect, it may truly be said 'He was a verrey parfit gentil knight'.

F. H. C. BUTLER

A Memorial Service for Dr. Hugh Hamshaw Thomas was held in Downing College Chapel on Saturday, 13 October 1962, at which the Society was represented by the President, the Past-President, and the Hon. Secretary.