## OBITUARIES

## WILLIAM VAUGHAN LEWIS-1907-1961

Vaughan Lewis was one of the original members of the British Glaciological Society and one of its most active supporters. The loss the Society has sustained as a result of his untimely death in a road accident in Iowa is very severe indeed. To readers of this Journal it will have come as a great shock, the more so because, as an active glaciologist his work had become internationally known. For the grandeur of the mountains, of the ice they bear and the streams they nourish, is for us all to study. Alps, Himalayas and Rockies alike stand aloof for those to seek their secrets who have some of that combination of physical vigour, enthusiasm and liking for straightforward accomplishment with which Vaughan Lewis himself was in full measure endowed. With it he possessed a warmth of personality that endeared him to a very wide circle. To all he listened, and to all he gave.

Vaughan Lewis came of that able stock lying towards the eastern marches of Wales which has contributed so much to our professional intelligentsia; on both sides he had close associations with the countryside that bore him. The present writer has a happy memory of spending a few days with him on a farm belonging to a relative, nine hundred feet above the sea. From there, with clear gaze he could watch the work of rain and rivers; below, there lay the coast; behind, the hills rose to the Brecon Beacons where lie the corries and the moraines that tell the tale of the ice. All around, the generous growth of south-eastern Wales adorning the firm skeleton of the land gave background to his character.

Fair and athletic, he came to Cambridge from Pontypridd County Grammar School in 1926; entering at Gonville and Caius College he read for the Mathematical Tripos. His true capacity however became revealed when, under the admirable Cambridge system, having passed Part I he turned elsewhere. He took a "first" in both parts of the Geographical Tripos. He was also first reserve for the relay races against Oxford. Little wonder that he became such a keen observer of the agencies moulding the landscape before him, and an admirable exponent of the strenuous pursuit of knowledge in the field. Under Professor Debenham, the study of every aspect of physical geography was developing, and Lewis was at once appointed, after graduation in 1929, to a Student Demonstratorship in the Geography Department in which he continued to serve for 32 years.

He promptly took up the study of coastal evolution and his first paper appeared in the *Geographical Journal* in 1931, on the effect of wave incidence on the configuration of shingle beaches. This led to a paper on the formation of Dungeness. He emphasized the importance of constructive and destructive waves, rather than tidal currents. In "The evolution of shoreline curves" he discussed the effects of prevalent and dominant waves before the Geologists' Association.

In 1935 he went to Iceland. Work on the Vatnajökull convinced him not only of the extraordinary amount of melt water present, but also of the need to extend Willard Johnson's earlier bergschrund hypothesis.

His Icelandic field studies, extended by further journeys in 1938 and to Norway in 1939, led to a variety of papers on dirt cones, on snow-patch erosion and on miniature spits; the last he wrote up from some earlier field notes, in a short respite from wartime effort in 1943.

His conscience, his phenomenal physical energy and his willingness to undertake any task found full outlet during the war. With a much diminished staff and every kind of demand from the Services, the Department was under heavy pressure. Lewis, for example, conducted a survey course that provided 900 officers of the Royal Engineers with their initial training. When a hundred men at a time were out plane-tabling in a snowstorm his energy after a night on duty as an officer in the Home Guard was truly marvellous; and it was a returned warrior who gasped "I only hope I'm as fit when I'm 41". But twenty-nine hours' lecturing and



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demonstrating weekly, plus Home Guard, plus his never-forgotten solicitude for any undergraduate in difficulty and, always in the background, his care for his family and for the Unitarian Church of which he was a prominent member took their toll. Six months' leave, during which he was at last persuaded to rest, did much good.

In 1947 he organized a very memorable student party to Jotunheimen. This introduced a series of post-war Cambridge studies of glacier behaviour. Several younger research workers advanced the study under his example, and their work is now summarized in Norwegian cirque glaciers, 1960, which he appropriately edited. Of his work on Austerdalsbreen and his subsequent interest in pressure-release as an active element in glacial erosion others will write; his many papers in this Journal and the very active part he played in this Society bear witness to his liveliness of mind. One notable result of the 1947 venture should be mentioned, namely the very suggestive rotational-slip hypothesis which he first elaborated in 1949 in his contribution to the Ahlmann Volume of Geografiska Annaler. He began to consider pressure-release, resulting from variations in the ice load with consequent freeze-thaw action as a possible element in the evolution of valley steps, a subject which has given rise to much controversy for half a century.

But these by no means complete the tale of his contributions to physical geography. River grading had attracted his attention, and a short field trip to Derbyshire in war-time led to some interesting papers. Still another interest of his lay in percolation studies, deriving from the characteristic zest with which he took up such problems as the gentle Cambridgeshire countryside provides. The dry valleys at Pegsdon, just over the Hertfordshire boundary, were the subject of one of his latest contributions.

Lewis devoted much attention to a problem that besets all physical geographers who are tied to a University during term—how to study process in the laboratory. The present writer recalls a variety of damp but enthusiastic efforts with the wave tank and with a variety of substances. It was characteristic that he devised a kaolin model glacier which, to his great pleasure, he was invited to demonstrate at a Royal Society's conversazione. It was always his hope that the contribution that the geographer can make through exploratory reconnaissance and measurement of processes at work in the field would receive their acknowledgement from other exponents of the physical sciences. His success in so doing was, in this writer's opinion, one of his major contributions. Recognition of his work, in the award of a Fellowship by Trinity College, gave him and indeed all his colleagues the utmost pleasure. Quite apart from his contribution to science, his good judgement of men and his unsparing effort in the heavy work of a College tutor were highly appreciated.

From the more personal standpoint, rarely can there have been a more stimulating University teacher in his chosen field; suffice it to mention the long roll of his former students scattered through the universities of the world. There will be many who will recall that typically pure enunciation, not loud, but on account of its clarity pleasantly audible throughout the Department whenever he was lecturing. He was persuasive rather than dogmatic; and his contribution lay rather in the number of suggestive hypotheses, a product of a fertile, exploratory and observant mind, that he put forward. The work of water in all its forms, in the rivers, the ice and the sea, even underground, attracted him; fluidity of concept and readiness to modify in the light of later discoveries were characteristic. Glaciologists in particular will recall his contributions with pleasure, and with the greatest regret at the loss of a cheerful and generous-minded colleague in a land which he had long and eagerly looked forward to visit. To his wife and family, the sympathy of a very wide circle of his scientific associates who had met him or knew of his work will be expressed.

GORDON MANLEY

Outside Cambridge and the very large family circle of graduates and students who have worked with Vaughan Lewis on Vest-Skautbreen and Austerdalsbreen in Norway during the

last decade, few people perhaps realize to what extent his enthusiasm and inspiration were

responsible for the recent advances in our knowledge of glacier phenomena.

At one of his earlier lectures on Vest-Skautbreen work I remember being particularly impressed by the keen controversy which he led and by the way he had collected together a team of geographers, geologists, physicists and engineers to find out just how that small glacier was moving. It was not long afterwards that Lewis's enthusiasm overtook me and I found myself, together with John Nye, John Glen, Cuchlaine King and scores of willing assistants, thoroughly involved in a study of the motion of the much larger glacier in Austerdalen. Lewis had heartily inveigled us all into a lot of healthy, hard work. There was nothing he enjoyed more than to provide his students and friends with opportunities for testing their ideas about the action of glaciers and to join in the free discussion which invariably developed over the evening meal in camp.

In the midst of our work on Austerdalsbreen Lewis took on the task of tutor at Trinity College, but this job, in addition to his many other activities, proved too great a strain for him. He was obliged to relax for the sake of his health. It was then that his friends, who willingly relieved him, appreciated just how much he had undertaken. On his last visit to Austerdalsbreen in 1959 he had regained his usual vigour and he was already talking of his plans for the

trip to the United States and Alaska which came to such a tragic end.

Vaughan Lewis was a delightful companion, he treated everyone in the same friendly way and gained the respect of all. The Society has lost a great friend for there are many of us in whom he instilled a lasting interest in glaciology.

W. H. WARD

## ALAN W. REECE-1921-60

THE death of Alan Reece in an aircraft accident in the Canadian Arctic in May 1960 came as a shock to his many friends in the glaciological, geological and polar spheres.

He was a Londoner born and bred who had an absorbing interest in wide fields of polar work. After experience in the meteorological branch of the Royal Navy during the war he joined the Falkland Islands Dependencies Survey. He spent 1945 in charge of the base at Deception Island and 1946 at Hope Bay, where his glaciological interests developed. He joined the British Glaciological Society in 1947 as a founder member, while he was studying for a degree in Geology at Imperial College where he obtained his B.Sc. in 1949 and Ph.D. in 1958.

As a member of the Norwegian-British-Swedish Antarctic Expedition of 1949–52 his hard work and drive in arranging the details of stores and equipment were much appreciated as were his frank and lively comments, and his capacity for friendship. After writing up expedition equipment reports he spent three years in Uganda as a geologist before returning to polar regions in the summers of 1956 and 1957 as a field geologist in East Greenland. In 1959 he joined the prospecting firm of J. C. Sproule and Associates in Canada. While working from Resolute on Ellesmere Island on 28 May 1960, his light plane landed to help another plane down on the sea ice. Whiteout conditions which had developed at the time caused his plane to crash during the return to Resolute.

The loss of Alan Reece while engaged on active polar work will be mourned by his many friends in the Society, whose sympathy goes out to his wife and baby daughter.

G. DE Q. ROBIN