
Griffith Pugh

An 80th Birthday Tribute

MICHAEL WARD

(Plate 75)

It is a lucky man who finds himself in the right place at the right time, able to use all his talents to the full in order to make a major contribution. But PR was not the forte of this tall, flame-haired scientist whose work marked the start of modern high-altitude mountaineering. Our Honorary Member Griffith Pugh has never written his autobiography, but his life story is worth recording.

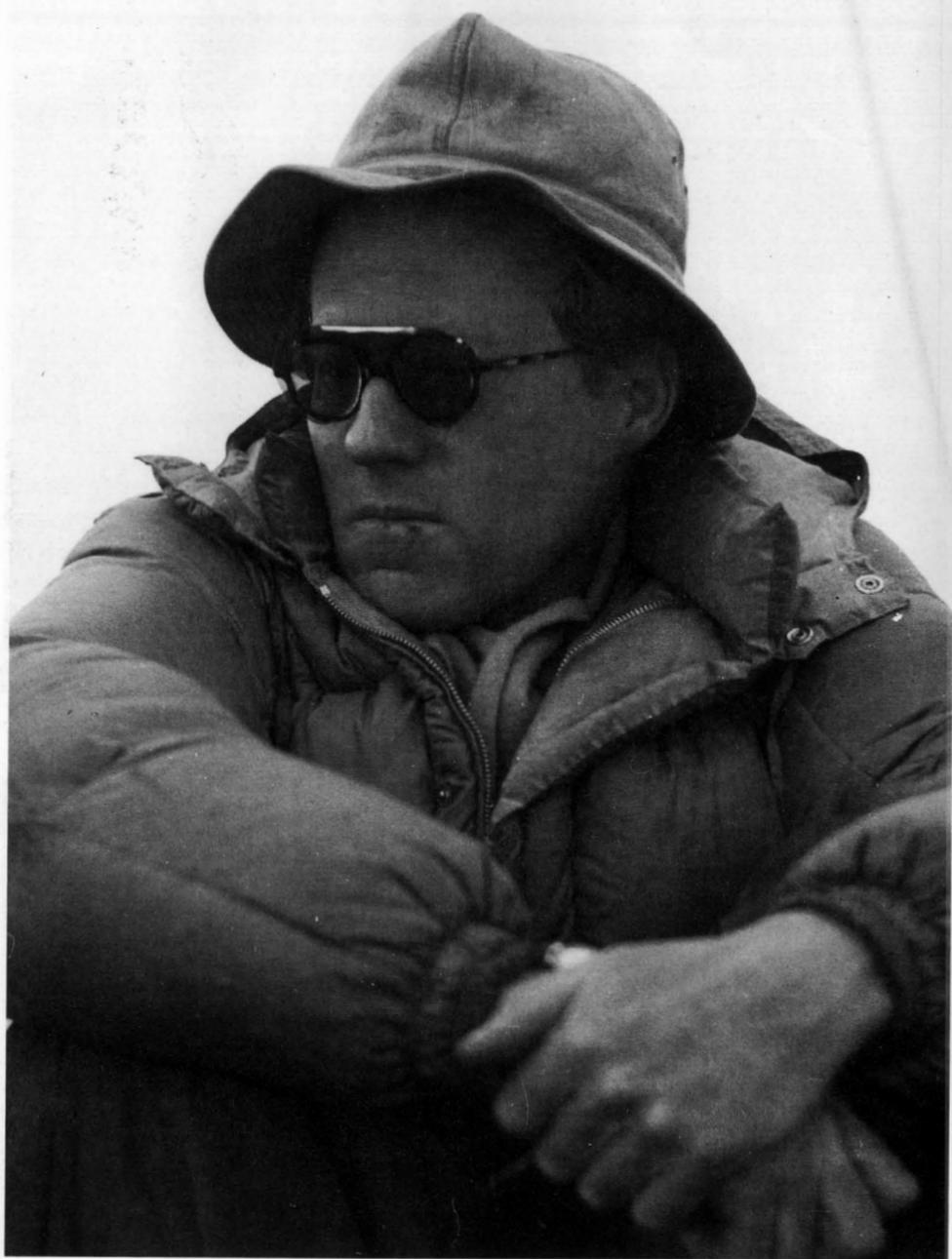
On 30 November 1989 only a handful of senior members of the Alpine Club were present at his 80th birthday party, but it was an occasion which the whole membership should celebrate with pleasure and gratitude.

Griffith Pugh, after reading Law for three years at New College Oxford, changed to medicine and qualified in 1938 from St Thomas's Hospital. During his student period he climbed over a number of seasons in the Mont Blanc range, the Engelberg and other regions and took part in University downhill, slalom and langlauf ski races. After competing in the FIS Downhill Championships at Innsbruck he was selected for the 1936 Winter Olympics in the 18km langlauf, but was unable to take part because of injury.

After one year's house jobs he became Medical Officer of a Territorial Battalion, the Bedfordshire Yeomanry, at the outbreak of war in 1939, and later joined the 26th General Field Hospital at the Radcliffe Infirmary, Oxford. Sent to the Middle East after Dunkirk, Pugh spent periods in Jerusalem doing tropical medicine, and in Athens where he saw many cases of frostbite during the Greek campaign. When the Germans invaded Greece, he was evacuated to Crete and then Cairo. From there he went to Iraq and, being fluent in German, escorted German refugees to the Turkish border. In the summer of 1942 he was in Teheran and Meshed looking after Russian children and Poles evacuated from Russia, and having to deal with a typhus epidemic.

In late 1942 he was summoned from Meshed at the request of the Chief Instructor, W J Riddell, to join the Ski Wing of the Mountain Warfare Training Centre at the Cedars of Lebanon, 2100m. (A D M Cox was the Chief Instructor of the Mountain Wing.) Individuals were sent from various units, some specialist such as the Long Range Desert Group (now the SAS), and others in the Middle East. Of these only 25 per cent were considered suitable for training.

Pugh remained at the Cedars until the summer of 1944 when he spent a short period as MO to the 44th Royal Tank Regiment in Sicily. However, between 1942 and 1944 he had also written a number of papers on personnel selection, fitness tests, load-carrying, nutrition and other relevant topics. The result was that, later in 1944, he was posted together with Cox and Riddell to



75. *Griffith Pugh – Everest 1953.* (Alpine Club Library Collection) (p 188)

Whitehall where they wrote a series of training manuals covering every aspect of snow and mountain warfare.

Discharged from the army in 1945, Pugh went to see Professor John McMichael at the Postgraduate Medical School at Hammersmith, where he was given a job on the strength of his research work on mountain troops and his great and varied experience. This School was the intellectual powerhouse of British medicine and gained a worldwide reputation which it enjoys to this day. McMichael became an FRS for his work on heart catheterization, the forerunner of cardiac surgery.

In early 1950, partly as a result of the Korean War, the Medical Research Council decided to set up a unit to study the effects of extreme environments on man. Pugh was an obvious choice but, as he had never run a department, he was asked to name a suitable individual. He suggested O G Edholm, at that time Professor of Physiology at the University of Western Ontario, Canada, and towards the end of 1950 this unit, called the Division of Human Physiology, was established at the Medical Research Council Laboratories at Holly Hill, Hampstead.

In early 1951 Murray (leader), Bourdillon, Secord, Tissières and myself proposed a reconnaissance of the Nepalese side of Mount Everest. As Tom Bourdillon's father, Dr R B Bourdillon, was a member of the MRC scientific staff, he questioned me (an RAMC officer in London) about the medical problems and passed me on to Pugh. In early 1951 Pugh had pinpointed the major problems relating to cold and altitude, strokes, dehydration, starvation, effects of supplementary oxygen at high altitude and the beneficial effects of sleeping oxygen. During the 1951 Everest reconnaissance, now led by Shipton, Pugh in London considered how to solve these problems and came to the conclusion that, though much could be done in a laboratory, only field work would provide the optimum solutions. He therefore joined the Cho Oyu 1952 expedition on the understanding that all personnel and equipment would be assessed rigorously. In the event, work on the Menlung La only involved Pugh, Secord, Colledge and Bourdillon; and the fact that the other members played little part in this programme was a factor in Shipton's dismissal from the leadership of the 1953 Everest expedition.

In 1952, too, the Swiss made two attempts on Everest, reaching 8500m, and in his historic report on the Cho Oyu expedition Pugh accurately assessed the reasons for their failure. As a result of the work of Pugh, the Bourdillons and others, the 1953 Everest expedition became the first science-led modern high-altitude party.

Thus the template of the expedition had been accurately crafted and its structure and thrust established by the time Hunt was appointed leader in the middle of September 1952.

After the first ascent of Everest in 1953, this successful *modus operandi* enabled mountaineers world-wide to climb all the 10 highest peaks in the world during the following seven years. Later, with the surge in climbing talent, routes of increasing difficulty became viable, and intensive training led to the first ascent of Everest without supplementary oxygen.

In 1957 Pugh was asked to follow up his Himalayan research by carrying

out work in Antarctica, and while there he conceived with Hillary the Silver Hut expedition 1960-61, which wintered for four months at 5800m in the Everest region. Whilst Pugh's work in the Lebanon and in the Himalaya so far had been consumer-orientated – that is, directed towards solving practical problems – this was an investigation into fundamental problems of oxygen transport. It has stood the test of time, is often quoted, and was the catalyst for a dynamic genre of research of increasing significance.

In the mid-1960s Pugh was approached by Kurt Hahn to investigate deaths occurring in young people taking part in adventure training in the British hills. With an average mortality of 30 deaths per year, this was a serious problem. In a brilliant series of field and laboratory experiments Pugh showed that the cooling effects of wind, movement and wetting could rapidly lead to exhaustion and hypothermia even in above-freezing temperatures. Some years later he was involved in the evaluation of athletes at altitude for the Mexico Olympics, the start of the burgeoning subject of Sports Medicine.

In his mountain work Pugh's philosophy was that *ideally*, in this type of field research, the investigator should be as competent, if not more so, than those he was working with, and that he should be able to climb, ski, carry loads and endure all the stresses alongside his team. For over a quarter of a century he lived up to this daunting discipline.

What has never been acknowledged is that he was as physically fit and as well qualified for the task in hand as any other member of the 1953 Everest expedition. Before it was fashionable, Pugh believed in training as it is understood today. More than once, in the friendliest possible way, he said on Everest that we were all amateurs. He was right.

Fame has come to many members of the Alpine Club, but few fully appreciate how much they owe to this redoubtable octogenarian – always ahead of rather than behind the times. Professionally Griff took the long view, provided against the worst and put his trust in knowledge. Since 1951 myriad climbers have been his beneficiaries. *Credite posteris!*