

OBITUARY

LOUISE ARNER BOYD, a leader of Arctic expeditions, died on 14 September 1972 in San Francisco. She was born in San Rafael, California, on 16 September 1887, of a wealthy family and was privately educated. Her long association with the Arctic regions began in 1924, when she visited Svalbard, and between 1926 and 1941 she organized, financed, and led seven summer expeditions to Arctic regions.

In 1926, she chartered a Norwegian sealer, *Hobby*, and cruised to Zemlya Frantsa-Iosifa, on which she is said to have been the first woman to set foot. On this trip she began to build up what became an extensive photographic record of Arctic topography and of sea and land ice. In 1928, she was about to sail again in *Hobby*, when news of Amundsen's disappearance reached her. She immediately placed her ship at the disposal of the Norwegian authorities and travelled with them some 16 000 km in the Barents and Greenland seas and along the coasts of Svalbard and Zemlya Frantsa-Iosifa in the search. In 1931, she spent two months on the Norwegian sealer *Veslekari* along the coast of east Greenland.

In 1933, 1937, and 1938, she led expeditions to east Greenland, all of them sponsored by the American Geographical Society (AGS). These trips were planned as an integral programme in which every inlet and passageway, ice permitting, was examined from about 72° to 78°N, an enormous undertaking. The results of the expeditions, *The fiord region of East Greenland* (1935) and *The coast of northeast Greenland, with hydrographic studies in the Greenland Sea. The Louise A. Boyd arctic expeditions of 1937 and 1938* (1948) were, over her name, special publications of the AGS.

It was her interest in photography that led to her close and lasting association with the AGS, where, under O. M. Miller's direction, new techniques of photogrammetrical survey were being developed. Her expeditions were the means of extending these techniques to the Arctic, where they were particularly useful, and of accomplishing a great deal of reconnaissance mapping that would otherwise have been impossible before the development of aerial photography.

Her intention to lead other expeditions to east Greenland was frustrated by the outbreak of World War II. Her last expedition was in 1941, when she made a photographic survey of the west Greenland coast for the US War Department. In 1955, she chartered a DC-4 to make a round-trip flight from Bodø, Norway, to the North Pole.

Miss Boyd received many honours and degrees, but she cherished most her election in 1960 to the Council of the AGS, the first woman to hold such office. It would be difficult to overestimate the importance of her contribution, through participation and generous financial support, to knowledge of the Arctic regions. Probably no woman since Lady Jane Franklin had done so much in this cause.

Alan Cooke

JAMES NORMAN CARRUTHERS, the distinguished oceanographer, died on 18 March 1973. He was born on 24 November 1895 and educated at Brunt's School, Mansfield. He studied one year at Nottingham University College before joining the Highland Light Infantry to serve in World War I. He earned a commission in 1917 and was seriously wounded in March 1918. Following his discharge, he studied geology at the University of Leeds, graduating with first-class

honours in 1920. He then joined the scientific staff of the Fisheries Research Laboratory in Lowestoft and specialized in the measurement and study of water movements. He developed a very apposite and reliable current log to secure continuous recordings of the flow of water past moored lightvessels. The wealth of information gained from this programme is still being used. Most of his publications between the two wars dealt with water movements of the North Sea and English Channel and with their effects on the temperature and salinity patterns and on the distributions and fluctuations of herring, plaice and cod. His persistence did much to keep physical oceanography going in England during years when it found little support. He took an active part in the meetings of the International Council for the Exploration of the Sea and the International Association for Physical Oceanography. No one was more welcome: his unfailing kindness, interest and sociability, together with his practical approach to science and wealth of knowledge made him the centre of social gatherings and scientific discussions alike. He knew all the prominent figures in marine science, and it is much to be regretted that he could never be persuaded to write the memories of which interested listeners heard snippets from time to time.

On the outbreak of World War II, he was appointed to the civilian staff of the Hydrographic Department. Here, whenever operations required, his remarkable knowledge of oceanographical literature enabled him to dig out all recorded information on subjects such as water movements, temperature layering, underwater topography, sediments, and life in the sea. He worked very long hours: everyone who sought his help will remember the large handwritten manuscripts, photocopies, maps, diagrams and references that came back by return post. Towards the end of the war, he helped Admiral Sir John Edgell with the careful preparations that led to the foundation of the National Oceanographic Council and the National Institute of Oceanography (NIO). When fighting ended in Europe, he was sent to Germany, where he played an important part in the speedy restoration of marine science, including the foundation of the Deutsches Hydrographisches Institut. In gratitude for this humane activity, the University of Hamburg later conferred on him the Diploma and Gold Medal of its Citizenship of Honour.

He came to NIO in 1953 as assistant director. He continued his study of water movements, devising a number of instruments to measure and follow the current, always striving for elementary principles of construction and operation, readily understood and easily made. His bottles, in which the tilt of a moored float is retained by the slope of a setting jelly surface that also clamps a compass, and other indicating devices, are still used. His post-war publications dealt mainly with elementary methods of sampling and measuring currents and with their applications to practical problems.

He treasured books and papers and was largely responsible for the wealth and accessibility of NIO's library. He seemed to know every relevant paper, and many authors will remember his reminders of references they had overlooked. It was always worth while letting him see a manuscript. He had taught elementary instruction courses in several countries, and he did all he could to help his students.

He regularly attended meetings of the Council of the Institut Océanographique in Paris and was awarded the Albert I Medal in 1964. He served on the Council of the Marine Biological Association for several periods between 1949 and 1962. He was a member of the Challenger Society for 50 years and, in 1965, he was

made an honorary member. In 1972, he was elected to Honorary Life Fellowship of the Royal Geographical Society. He is greatly missed by all his colleagues.

G. E. R. Deacon

I should like to add a footnote to Sir George Deacon's excellent obituary of Dr J. N. Carruthers. Early in 1946 Carruthers enlisted Quintin Riley and myself to visit Germany to help rescue the library of the Institut für Meereskunde, which had been evacuated from Berlin to Wunsiedel, a remote village in Bavaria. This great collection was then threatened with wholesale theft or dispersal. Our task was to investigate the situation and subsequently to arrange for the 40 000 volumes to be safely transported to Hamburg, where Carruthers was the chief agent responsible for gathering together the widely scattered German marine scientists, their instruments and their libraries. These libraries included the records of the *Meteor* expedition, 1925-27.

Carruthers' pre-war friendships with such men as G. Böhnecke, S. A. Defant and G. Wüst—and the fact that he could speak fluent German—were largely responsible for the relatively smooth reorganization of German marine scientific institutions under quadrupartite control during an extremely difficult and confusing transition period. From the ashes of the old Marine Observatorium, the Deutsche Seewarte and the Institute für Meereskunde, grew the new Deutsches Hydrographisches Institut (DHI), first under the direction of Captain C. Simpson, RN, and later under Dr Böhnecke.

Among the books which had been evacuated to Wunsiedel was the unique polar library of Professor Leonid Breitfuss, and in 1946 he was living in that village. It was through Carruthers' interest and active help that Breitfuss later agreed to sell his library to the Scott Polar Research Institute. This important acquisition filled many gaps in our collection of German and Russian publications. Breitfuss, then 81 years old, was given facilities by Dr Böhnecke to continue his writing as a special scientific attaché at the DHI until his death in 1950. At the request of the Scott Polar Research Institute, Carruthers was also instrumental in tracing a number of other polar authorities who were provided with facilities in Hamburg to prepare reports on German war-time activities in the polar regions. Amongst them were Konteradmiral Robert Eyssen, who commanded the surface raider *Komet* during her voyage along the Northern Sea Route and to the Antarctic in 1940-41, and Dr Franz Nusser, formerly Director of the Polar Archiv in Vienna, who had taken an active part in establishing a series of secret meteorological stations in the Arctic. Many had cause to be grateful to Carruthers for his knowledge and understanding at that time of reconstruction.

Brian Roberts

Many friends of the Scott Polar Research Institute were saddened to learn of the death in a motoring accident on 28 January 1973 of **DOROTHY LUCY DEBENHAM**, widow of Professor Frank Debenham, founder and first director of the Institute. "Mrs Deb" was born in 1888 in Melbourne, Australia, the eldest of four daughters of J. T. Lempriere, a business man and polo player. After her father's death in a riding accident in 1912, she took a pharmacist's course and worked to help support her family. She met Frank Debenham in 1915 and married him in 1917. They settled in Cambridge in 1919, where they brought up their six children.

The Debenham's house was always a most hospitable one, and from the 1920's to the 1960's, Mrs Deb entertained great numbers of polar explorers, from the senior figures of the Scott-Shackleton era to undergraduates aspiring to go north or south for the first time. Many Cambridge men will remember most especially the warm welcome always given at her Sunday afternoon "open house" at Waterbeach in the 1930's. Her life centred on family and friends, and she loved to travel. It disheartened her when she became too old to visit the remoter members of her far-flung family—two daughters in Africa and a son in Australia. Though increasingly frail in her last years, she remained as young in spirit as ever and spoke across the generations to research students and other young persons in the Institute with a warmth and interest that few elderly persons can show. Her slight figure, but great presence, will be much missed at the Institute's celebrations, which she always enjoyed.

Gordon Robin

ERIC STANLEY FRY, OBE, pioneer topographical surveyor and aerial photographer, died in Ottawa on 28 January 1973. He was born in Sandbach, Cheshire, on 1 July 1890. When he was 12, he suffered a serious case of sunstroke, which obliged him to leave school and may, perhaps, have explained his later fondness for life in the north. He emigrated to Canada in his teens and, after a variety of jobs, began work in 1910 for the Dominion Land Survey along the right-of-way of the Grand Trunk Railway. In 1915, he worked in northern Alberta. During World War I, he served in the Canadian Army on the Somme and at Vimy. After convalescing in Vancouver from war injuries, he rejoined the Dominion Land Survey. In 1920-23, he worked under John Richard Odium Vicars, whose dignity and integrity influenced him greatly. In 1924, Fry obtained his own commission as a Dominion Land Surveyor and, at about this time, learned to pilot aircraft. By 1926, he was serving as navigator and photographer on early aerial surveys, in the development of which Canada led the world and in which Fry played an active part.

Fry is perhaps best known for his "discovery" of the site of Goose Bay airfield and for ensuring its use by Canada. It was imperative, at an early stage in World War II, to find an air ferry route to take fighter planes and short- and medium-range bombers from the production lines in the United States to the war in Europe. Canada undertook to look for a site suitable for an airfield in Labrador (part of Newfoundland, then a separate Dominion), and the United States to look for sites in Greenland and Iceland. In June 1941, Fry flew to North West River and, according to a second-hand account (Carr, 1944, p 82-83), noticed the profile of a large terrace silhouetted against the setting sun. Investigation proved that this terrace offered every advantage, and Fry recommended it strongly. Construction began almost immediately, and Fry was there on 4 July 1942, when the first fighter aircraft arrived on their way to Britain. There was evidently some rivalry with the United States group that was searching for airfields to discover and claim a site in Labrador, and the Americans, headed by the President's son, Captain Elliott Roosevelt, were not pleased at being forestalled (Forbes, 1953, p 2-8).

Fry assisted in mapping the Joint Arctic Weather Stations and their routes of approach, and in 1952 he selected the site for the Royal Canadian Mounted Police's northernmost detachment at Alexandra Fiord, Ellesmere Island (now closed). In 1954, while taking observations on Cape Isabella, he discovered in memorable circumstances a record left in 1876 by the *Pandora* expedition (Fry, 1955). He retired in 1955, and is survived by his wife and two daughters.

References

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Nora T. Corley

ERNEST RICHARD CHARLES GIMPEL, the art dealer, died at his home in Cretingham, Suffolk, on 26 January 1973 after a long illness. He was born on 5 August 1912 at Vaucresson, Hauts-de-Seine, France, the son of René Gimpel and the nephew of Lord Duveen, both internationally distinguished art dealers. Charles was an early member of the French resistance and made a series of spectacular escapes from Nazi arrests until finally, in 1944, he was deported to German concentration camps; where he suffered greatly. Liberated in 1945, he and his brother Peter opened an art gallery, Gimpel Fils, in London, which rapidly achieved eminence and now has branches in New York and Zürich. He is survived by his devoted wife, Kay, and two sons, who continue the family tradition of creating art and of presenting it to the public.

The great importance of Gimpel Fils in the history of contemporary art is a matter of record. Less well known is Charles's individual contribution, personal and professional, to the development and commercial success of the Eskimo art forms that are so greatly admired today. Mr James Houston, himself an authority on Eskimo life and art, has sent the following paragraphs from Frobisher Bay, Baffin Island, Canada.

Charles Gimpel was an elegant, robust, red-cheeked man who had the courage and imagination to live many different kinds of lives. This caused the persons who knew him to think of him in a wide variety of ways. Sometimes he was very French, and sometimes very English, and he was a notable rugby player, an international art dealer, a resistance fighter, a stalwart man who survived the horrors of Buchenwald and Auschwitz.

Charles seemed magnetically drawn to the north. Many people who live here on Baffin Island believe that this was one of his favourite places, that here he lived one of his most cherished lives. Who knows exactly why? Perhaps it was because of the sharp sparseness of the Arctic world. Charles's mind and eye seemed to be in tune with the broad stretches of open tundra, the mountains and ice-strewn sea. Charles was a black-and-white photographer of great sensitivity. The starkness of Baffin Island seemed to delight his soul.

But to him this land, sea and sky were only backdrops for the Eskimo people. Charles sensed in them a realness and a vitality that grew out of their closeness to nature. He admired their free way of moving and laughing, their open way of thinking. Charles and the Eskimos understood each other in a way that happens to only a few travellers. Charles acquired only a little of the Eskimo language, but a rapport sprang up between them that was beyond words. Charles made an important photographic record of the lives of Eskimo artists in the Canadian eastern Arctic in a time of immense change. The Eskimos called him *Ukjuk* (Bearded Seal) because of the Edwardian whiskers that bristled from his cheeks.

Charles was deeply concerned that the Eskimo people had so naïvely relinquished their country and their original power, first to the trader and the missionary, then to a government controlled from the south. He felt strongly that the Eskimos should strive to regain some measure of independence through the development

of their cooperatives. He did everything he could to encourage the West Baffin Eskimo Cooperative at Cape Dorset and returned to them any profits he made from the sale of his Arctic photographs. Charles knew well from experiences in his other lives that mere money and freedom from want would not solve the many problems facing Eskimos as they became further entwined in a modern world.

I had the luck to share my Arctic house with Charles, when he visited Cape Dorset, and we often travelled together by dog team to the Eskimo camps, building a new snowhouse every night. He told me a lot about his life during those long cold journeys, but he said only a little about his illustrious uncle, the art dealer, Lord Duveen, or his wartime experiences, and then always most modestly. I knew him for years before I saw by accident the Auschwitz concentration camp number on his arm, and learned of the high honours bestowed upon him by the French government, including the famous *Compagnon de la Libération*, only when I read of them in his obituary in the *London Times*.

Charles loved elaborate jokes. Once at Cape Dorset in mid-winter, I told him that I was expecting a visit from some important government officials and that he should be awake and down to meet the airplane, when it landed on the ice, in order to help me give a good impression of the place. Charles came down, as I had directed, but to my horror he was dressed in his red silk bathrobe and slippers. His appearance was extraordinary in a temperature of -35°C and the officials were speechless. The Eskimos, however, were delighted, for most of them had never seen a bathrobe, and Charles, of course, was beside himself with pleasure.

Charles adored good conversation. He loved to pit an Arctic priest against a northern policeman, and against an anthropologist, set the fire of debate, then sit back and listen to their divergent points of view. It was his way of learning truths about the Eskimo world.

Charles Gimpel was among the first who recognized the qualities inherent in the best of contemporary Eskimo art. In 1953, at the time of the Queen's coronation, he arranged an exhibition of it at Gimpel Fils, his London gallery. He saw in good Eskimo art a wild freedom, a direct strength coupled with naïveté, qualities that one may also see in the works of a number of other contemporary British and American sculptors and painters whom Charles has represented.

Charles possessed a sharp clear vision of art that sometimes seemed to see into the future. I was with him when he first saw an *inukshuk*, the likeness of a human made in the ancient Eskimo way of piling up large stones to form life-sized images. These figures are used to help drive caribou across the flat open tundra or to mark a camp site. Charles immediately saw this *inukshuk* as an Eskimo art object of real significance. He was instrumental in sending the first three *inukshuks* south. It did not matter to Charles that it would take perhaps half a century for their importance to be widely recognized.

Only at some future date will the Eskimo people come to realize how much Charles did for Eskimo art, not only internationally, but here in Canada where so many were slow to see the importance of the best works and were content to sell carvings thoughtlessly on the level of a profitable souvenir trade. Charles's faith in contemporary Eskimo art did much to alter this blindness in others and he was indirectly responsible for "Sculpture/Inuit", the important international exhibition that has just completed a successful tour of Paris, Copenhagen, Leningrad, and London, as well as the United States and Canada. Charles Gimpel's selective eye, his sympathetic understanding, his early encouragement and splendid exhibitions of Eskimo art will not soon be forgotten. But for ourselves we shall miss his enthusiastic presence here in the long days of spring, when the seals are basking on the ice and the time for travelling has come.

DAVID LAMBERT LACK, FRS, British ornithologist and Director of the Edward Grey Institute of Field Ornithology since 1945, died on 12 March 1973. His interest in birds was world-wide and, in this brief notice, it is possible only to mention some of these interests which were particularly related to polar research.

Born in 1910, Lack was educated at Gresham's School, Holt, followed by Magdalene College, Cambridge, where he read zoology. As an active member of the Cambridge Bird Club, of which he was president in 1931, he quickly imparted his enthusiasm to others. It was he, more than anyone else, who established what a remarkable place the big open sedimentation tanks of Cambridge sewage farm provided for the study of migrant birds, a number of them from the Arctic. Many of his friends will recall how he taught us to identify waders and other species in this otherwise malodorous place. This interest was reflected in his first book, *The birds of Cambridgeshire* (Cambridge, 1934).

In the summer of 1932, he visited Bjørnøya with Colin Bertram. This year marked the beginning of the annual British university undergraduate expeditions to the Arctic. There had been a few earlier isolated examples, but nearly all of them had been organized and led by a senior graduate. The published results of this enterprise included ten papers, most of which were written jointly by the two members of the party: a general account in the *Geographical Journal*, 1933; 'Notes on the birds of Bear Island', *Ibis*, 1933; 'Nesting conditions as a factor controlling breeding time in birds', *Proceedings of the Zoological Society of London*, 1933; 'Notes on the animal ecology of Bear Island', *Journal of Animal Ecology*, 1938. There were also a number of systematic papers by specialists on the invertebrates they collected.

In the following summer, 1933, Lack joined with Colin Bertram and the writer of this notice in an expedition to Iceland and east Greenland. We were able to reach Scoresby Sund through the generosity of Dr Jean Charcot, who provided passages in *Pourquoi Pas?*, an unforgettable experience which helped to establish a pattern for closer international co-operation in polar research. Lack's published contributions included 'Notes on East Greenland birds, with a discussion of the periodic non-breeding of Arctic birds', *Ibis*, 1934 (a joint paper); 'Some insects from the Scoresby Sound region, East Greenland, with an account of the fauna of a nunatak', *Annals and Magazine of Natural History*, 1934; 'Habitat distribution in certain Icelandic birds', *Journal of Animal Ecology*, 1934. These Arctic papers, all written before he was 24, are worth recalling because they indicate the broad scope of his developing biological interests. They have become obscured by his many later and more important publications.

On leaving Cambridge, Lack became zoology master at Dartington Hall School, 1933-40, an appointment which was interrupted by the Second World War.

From Dartington, in 1938-39, Lack made an expedition to the Galapagos Islands [Islas Galápagos]. His subsequent interpretation of the geographical variation of the small finches of these islands, which 100 years earlier had stimulated Darwin's ideas about evolution, led to great advances in the understanding of species formation, competition between species, and the evolution of island faunas. The book in which he embodied these ideas, *Darwin's finches* (Cambridge, 1947), has become a classic.

In October 1940 he visited the East End of London with a pacifist service unit and was at once converted by what he saw. He could not any longer remain an active pacifist. At that time the government was looking for physicists to develop various military devices. But competent physicists were in short supply and Lack was one of those trained in other scientific disciplines who successfully filled this

gap. Between 1940 and 1945, he served in the Army Operational Research Group. His experiences were subsequently turned to good account in the development of radar techniques for the study of bird migration, a method which opened up a completely new understanding of this branch of ornithology.

When W. B. Alexander retired from the directorship of the Edward Grey Institute of Field Ornithology at Oxford in 1945, there was much discussion both in the University and among amateur ornithologists about the future of the Institute. A choice had to be made between its continuation as a focal point for popular ornithology in close association with the British Trust for Ornithology, or to integrate it into the mainstream of the University with responsibilities primarily directed to research and teaching. That the latter course was eventually chosen owed much to David Lack's advocacy of a long-term policy acceptable to the University. In these circumstances, he was by far the best qualified candidate for the directorship and it came as no surprise when he was appointed in 1945. He held this post with conspicuous success until his death, giving chief emphasis to the requirements of academic research, but continuing to further the interests of a very much wider group of ornithologists. This is not the place to recount in any detail his own major contributions to knowledge of birds. These will certainly be recorded in the *Ibis* and other journals. It is enough to say that he was more responsible than anyone else for re-initiating and furthering ornithology as a respected branch of zoology in British universities, a position it had not held since the death of Alfred Newton in 1907. He and successive members of his staff were able to demonstrate how their chosen subject could contribute to the general advance of wider biological problems like the natural regulation of animal numbers, habitat selection, distribution, behaviour patterns, evolution. His contributions were recognized when he was elected a Fellow of the Royal Society in 1951, and in 1963 he was elected a Fellow of Trinity College, Oxford.

Of his other publications relating particularly to polar ornithology, we may note the following: *Population studies of birds* (Oxford, 1966), which included chapters on the Yellow-eyed Penguin and various species of southern petrels, with a discussion of their contribution to current hypotheses concerning regulation of numbers. His views on these subjects were expanded in *Ecological adaptations for breeding in birds* (London, 1968). A more specialized Antarctic contribution was his paper on 'The endemic ducks of remote islands' published in *Wildfowl*, 1970; a study of the origin of subspecies of the genus *Anas* which occur on isolated tropical and sub-Antarctic islands.

His interest in the Antarctic had been kindled in 1943, when he very nearly became a member of the Falkland Island Dependencies Survey (now called the British Antarctic Survey). He would certainly have gone south to study penguins and petrels if the value of his work in the Army Operational Research Group had not prevailed.

Among Antarctic ornithologists who subsequently spent productive periods at the Edward Grey Institute working up their field observations under his supervision were Bernard Stonehouse, Bill Sladen and Lancelot Tickell. Like so many others, they could always rely on his helpful and skilled guidance in the preparation of their reports. David Lack will be remembered for his high standards of research, his lucid writing and his strong influence for better things in all aspects of life.

In 1949 he married Elizabeth Silva, herself an ornithologist who took an active part in his many projects. With her, he leaves three sons and one daughter.

In 1972, Lack was awarded the Darwin Medal of the Royal Society "for his distinguished and numerous contributions to ornithology and to our understanding of evolutionary mechanisms". The citation describing these contributions—"models of what can be achieved in organizing complex data by a writer with a clear and logical mind, aided by a graceful and stimulating mode of presentation"—ended with the following words: "Working with such distinction in a tradition of which Charles Darwin remains the prime exemplar, David Lack is pre-eminently fitted for the award of the Darwin Medal". This is a fitting epitaph.

Brian Roberts

EDWARD A. MCKENZIE, one of the last survivors of Scott's *Terra Nova* expedition, 1910-13, died at Sheerness, Kent, on 21 June 1973. He was born at Winterton, Norfolk, on 20 April 1888 and joined the Royal Navy when he was only 15, having declared that his age was 18. He travelled widely on many ships before applying to go with Scott, and he joined *Terra Nova* as Leading Stoker, RN. He spent most of the expedition with the ship, although he took what opportunities were offered to make short trips ashore. On return in 1913, he joined the Metropolitan Police. During World War I, he served in both the army and the navy and, in 1918, rejoined the police, from which service he was invalided out in 1942.

He never forgot his Antarctic experiences, and his home was a museum of photographs, models, and relics of the expedition. At H. G. Ponting's suggestion, he built a scale model of *Terra Nova*, which has been on exhibition in the Science Museum, South Kensington, for many years. In 1948, he assisted the Ealing Studios to make their film *Scott of the Antarctic*, and he had earlier served J. C. Dolman as model for that artist's famous portrait, "A very gallant gentleman", which shows Oates walking out into the storm. For many years he was a popular lecturer to school and local organizations on Scott's expedition and the Antarctic generally, and he was a loyal attendant over the years at Antarctic Club dinners. He leaves a son and daughter, who have kindly consented to present some of their father's Antarctic souvenirs to the Scott Polar Research Institute.

A. Stephenson

The distinguished Swedish ethnologist, **ERNST MANKER**, died on 2 February 1972. He was born on 20 March 1893, the son of a farmer and sea captain, on the island of Tjörn, south-west Sweden. After leaving school, he worked for a time on his father's farm, then at the age of 25 resumed secondary education. In 1924, he obtained a BA degree at Gothenburg University and, between 1925 and 1938, he held temporary posts in Stockholm's Etnografiska Museet, while devoting his main energy to ethnographical investigations in Swedish Lapland. In 1939, he became the first director of the Lapp department of Nordiska Museet, Stockholm, where he organized the files and collections related to Lapp culture into an invaluable research tool for systematic use and quick reference.

From about 1930 onward, Manker published a great many scientific articles and monographs, as well as many popular books about Lapland and the Lapps. In 1938, he founded the series *Acta Lapponica*, which he edited until 1961. Perhaps his most important work, which appeared in this series, are two huge volumes on the Lappish magic drum, a special interest that occupied him until the end. He was president of Svenska Fjällklubben from 1949 to 1958. The University of Stockholm awarded him an honorary doctorate in 1953, and he received the Svenska Turistföreningens Dag Hammarskjöld Medal in 1967.

Even in retirement, his capacity for work remained undiminished. In addition to Lapp subjects, he wrote increasingly about the culture of Tjörn, his birthplace, thus returning to an early interest, for, as a young farmer, he had written many articles on agricultural problems. His life and mind embraced the practical and theoretical, and he consciously used this breadth of knowledge so that his writing might be both useful and beautiful. No one worked harder than Manker to increase general interest in the Lapps and respect for them as a minority people: in this work, too, he used both scientific fact and artistic expression to great effect. In 1933, a Lapp leader writing in *Samefolkets Egen Tidning*, said that Manker had established himself as a conscientious "discoverer" of the interesting and neglected aspects of Lappish life and that he was "a man with an alert truth-loving intellect and a warm sympathetic heart". And so he always remained.

Bo Sommarström

AMEDEO NOBILE died in Rome on 11 July 1972. He was born at S. Angelo dei Lombardi, Avellino, on 23 September 1889, the younger brother of General Umberto Nobile, the polar explorer. Amadeo collaborated in two of his brother's expeditions, the trans-polar flight in *Norge* in 1926 and the flight to the North Pole in the dirigible *Italia* in 1928. He was responsible for the meteorological observations during both of these expeditions and he published the results of this work. He later taught physics at the University of Bari and the University of Perugia. His published works are mainly related to dirigibles, meteorology, and to actuarial and financial statistics.

S. Zavatti

LESLIE BOWDEN QUARTERMAIN, MBE, who died at Wellington, New Zealand, on 28 April 1973, was New Zealand's leading Antarctic historian and an enthusiastic promoter of interest in the Antarctic and its affairs. He was born in Hororata on 10 June 1895 and educated at Christchurch Boys' High School and Canterbury University College. After eight years as an assistant master at his old school, he became head of the English department at Wellington College in 1930, a post held until 1956. While at Wellington, Quartermain helped to found the New Zealand Antarctic Society. He was elected to its first council in 1933 and served as president from 1957 to 1959. His interest in the Antarctic can be traced back to his early youth at Christchurch, where he witnessed the return to Lyttelton of Sir Ernest Shackleton's *Nimrod* expedition in 1909, and afterwards attended a lecture by the great explorer. In 1910 he was among the crowd that waved farewell to *Terra Nova* bearing Captain Scott on his last expedition to Antarctica. In August 1950, the New Zealand Antarctic Society began to publish *Antarctic News Bulletin* with Quartermain as editor; this he developed from a humble mimeographed newsheet into the present bulletin, *Antarctic*, with its emphasis on the international aspect of Antarctic research and a worldwide circulation. His 18 years as editor brought Quartermain, who was an avid correspondent, into touch with innumerable Antarctic explorers ranging from veterans of the heroic era to the newest recruits to the polar scene. In 1959, having retired from teaching, Quartermain joined the newly established Antarctic Division of the New Zealand Department of Scientific and Industrial Research as its information officer. The establishment of the Division signalled New Zealand's determination to take a continuing active part in the scientific exploration of her Antarctic territory, and Quartermain, appropriately, at once began work on chronicling the history of the Ross Dependency. In 1957, the first volume was published by Oxford University

Press as *South to the Pole: the early history of the Ross Sea Sector, Antarctica*. A second volume, *New Zealand and the Antarctic*, was published by the New Zealand Government Printer in 1971. Quartermain was by no means an armchair student of the Antarctic. He visited the continent on three occasions, first in 1957 as a member of United States' Operation Deep Freeze II, then again in 1960-61, when he went as leader of the team to restore Shackleton's hut at Cape Royds and Scott's hut at Cape Evans—a visit described in his book *Two huts in the Antarctic* (1963); he returned finally in 1968, at the age of 73, as the guest of the Antarctic Division. In 1971, with the completion of *New Zealand and the Antarctic*, Quartermain, now in retirement, began work on another book to commemorate some of the lesser known men who had played significant parts in the exploration of Antarctica. He was still engaged on writing *Antarctica's forgotten men* when he died; his daughter hopes to be able to complete the manuscript for publication. This brief account of Les Quartermain's career must necessarily restrict itself to his polar interests. His energy and optimism stemmed from a faith well rooted in the Presbyterian Church of which he was an Elder. As a teacher his influence on youth, both in school and church circles, was widespread; he wrote a number of short books especially for young people, including *The Ross Dependency in pictures* (1965), *Down to the ice* (1966) and *South from New Zealand; an introduction to Antarctica* (1964). Quartermain's services were recognized publicly by the award of the MBE in 1967. He would have been as thrilled by the decision of the Canterbury Branch of the New Zealand Antarctic Society to award him their annual trophy for an outstanding contribution on Antarctic affairs. Alas, he died only a few days after the decision was made.

H. G. R. King

GERALD SELIGMAN, founder of the International Glaciological Society, died on 21 February 1973 after a long illness. He was born on 26 March 1886 at Clapham Park, London, and in 1900 went to Harrow School, which he left three years later to go to the South-Eastern Agricultural College at Wye in Kent. There he became interested in the lectures on geology and chemistry, the latter given by Sir John Russell, who had a great influence on him. On leaving Wye in 1905, he went to Trinity Hall, Cambridge: he read for the Natural Sciences Tripos, graduating in 1908.

After a visit to North America, where he climbed his first mountains, he joined his brother, Richard Seligman, in his newly founded company Aluminium and Plant Vessel, which manufactures specialized process plant and containers for the chemical engineering and brewing industries. Soon afterwards, Seligman served at home and in East Africa during the First World War and then returned as a director to the APV company, where he remained for another 12 years, concentrating on the sales side, which he did not particularly enjoy, although he remained on the Board until 1957.

At an early age he had become fascinated by mountains and by skiing, so that he spent nearly all his holidays in the Alps or Norway and became a competent and enthusiastic ski-mountaineer. He had joined the Ski Club of Great Britain very soon after its foundation, and was elected to its committee in 1921. Between 1923 and 1936, he edited the Club's news bulletin, *Ski Notes and Queries*, which he developed from a small leaflet to a sizeable publication containing, among other items, a regular section about developments in equipment and techniques. His own contributions included many signed and still more anonymous items about

such subjects as ski and snowshoe designs, ski waxes, ski-mountaineering, snowcraft and icecraft. Seligman became vice-president of the Club in 1925 and was president from 1927 to 1929. In 1936 he became an honorary member of the Ski Club of Great Britain.

In the late 1920's, Arnold Lunn, then editor of the *British Ski Year Book*, invited him to review a German monograph on snow and avalanches by W. Welzenbach. The fascination of snow had for many years held him firmly, but this task concentrated and kindled his interest—initially in the formation of snow cornices. In 1931, he resigned from business to devote the greater part of his time to these studies. His spare time in the summer months—when not spent in mountains—was largely devoted to lawn tennis and sailing. He was subsequently able to spend whole winters in the Alps and to devote himself to writing articles, scientific papers, and reviews on glaciological and related subjects. His early investigations were concerned with the nature of falling snow and the mechanics of avalanches. The results of this work were published in a series of articles in the *British Ski Year Book*. Later he spent a year at the Scott Polar Research Institute, bringing these articles up to date in a book, *Snow structure and ski fields*, (London, 1936). This classic work was reprinted in 1962.

What came particularly to intrigue Seligman was the evolution of the snow crystal into glacier ice. In 1936, he decided to visit the Jungfrauoch with the intention of following this transition from the surface down to the bottom layers of a glacier (Aletsch Gletscher). The next year he also spent some time there in company with J. D. Bernal, F. P. Bowden, M. F. Perutz, T. P. Hughes and H. Bader, the latter being at that time a member of the Swiss Snow and Avalanche Commission. In 1938, he spent the whole summer at the Jungfrauoch as leader of a research party, of which Hughes and Perutz were again members, with A. E. Benfield and E. A. Ferguson. Several important papers were published and some of them went much further into glacier physics than Seligman's original theme. These expeditions set a new pattern for glaciological research. This advance, however, was interrupted by the Second World War and Seligman spent several unhappy years in charge of the Meteorological Office station at Holyhead.

Just before the first Jungfrauoch expedition, J. E. Church of the Agricultural Experiment Station, Reno, Nevada, USA, had invited Seligman to form a British group within the International Commission of Snow, as it was then called. This group, founded in 1936 with Seligman as president, became the Association for the Study of Snow and Ice, and later still—through the transitional name British Glaciological Society—the International Glaciological Society. The new society, devoted to the study of snow and ice in all forms, was housed for a short time in the building of the Royal Geographical Society and, since 1952, has been at the Scott Polar Research Institute in Cambridge. It has grown into an organization with a thousand members in 33 countries, an international council, and branches in many parts of the world. Activities include the holding of regular meetings and publication of the *Journal of Glaciology*, which Seligman founded in 1947 in collaboration with Launcelot Fleming (now Dean of Windsor), Robert Moss, and the writer of this notice. For the next 21 years Seligman devoted nearly all his time to editing this journal. He was president of the Society until 1963, when Sir Vivian Fuchs succeeded him. In recent years failing health forced him to reduce active work, but even after retiring from the editorship in 1968, he retained a great interest in the subject, the Society and its *Journal*, while finding his enforced inactivity most frustrating to his active spirit. His name is commemorated in the Society's Seligman Crystal, a singularly beautiful glass prism



Gerald Seligman at Rosenlairi, Switzerland, 1947.



Captain Charles W. Thomas in 1955.

Photo: US Coast Guard.

awarded from time to time to those who have most advanced the subject he loved. On his retirement in 1963, he was the first to receive this award.

His contributions to glaciology were not confined to the Society and its *Journal*. He was President of the International Commission of Snow and Ice from 1951 to 1954. The Royal Geographical Society awarded him the Back Grant in 1940 and the Victoria Medal in 1959. The University of Innsbruck recognized his work with an honorary degree of PhD in 1963.

Gerald Seligman's friends will remember different facets of his many interests, all of which he promoted with vigour: for example, I remember fierce political arguments with J. D. Bernal, initiated, I believe, at the Jungfrauoch, where their implacably opposed political views were very well aired in those airless tunnels (I mention this as only one example); Seligman's wonderful kindness and hospitality at Little Dane, his attractive Tudor House at Biddenden in Kent, where so many glaciologists found a welcome; the endless discussions about how best to nurture and develop his infant organization for the study of snow and ice, and what form its publications could most suitably take (or would it perish without them?); the inevitable controversies over editorial complexities, glaciological bibliography, terminology and attempts at closer definition of the subject-matter of glaciology and consequently the scope of the *Journal of Glaciology*. Many will have memories of a great deal of energy expended on all of these issues. Some compromise had to be found among the differing interests of ski-mountaineers, engineers, meteorologists, physicists and explorers. It should not be forgotten that, like other babies, the International Glaciological Society was born in long travail, and it was later nurtured with jealous and loving care. Seligman's special paternal rights were often difficult to dispute, more especially because his devotion to this cause was always so sincere. He was quite averse to any forms of compromise or pretence, a circumstance which both warmed and hardened the hearts of those who sometimes found it difficult to agree with his conclusions. He liked to hold firmly to ideas which needed some adaptation for an international organization. But more than anything else we should remember (as John Glen has recorded in the *Journal of Glaciology*) that he created a society and a journal which gave glaciology its own special means of intercommunication between workers throughout the world.

Brian Roberts

Rear Admiral CHARLES W. THOMAS USCG (Ret) and his wife, Lorinda Thomas, were killed by a speeding automobile in Ushuaia, Argentina, on 3 March 1973. Thomas had stopped at Ushuaia on return from an Antarctic cruise on which he had served as ice pilot and lecturer in the tourist ship *Lindblad Explorer*.

Thomas was born on 3 September 1903 in Pasadena, California, but went to high school and entered college in Bellingham, Washington. In 1922, he was admitted to the US Coast Guard Academy in New London, Connecticut, from which he graduated in 1924. He saw a wide variety of service in the Coast Guard before World War II, and in 1943 he was given command of the USCG cutter *Northland*, one of the vessels of the Greenland Patrol, a group organized to prevent or limit German use of Greenland as a base of operations and for weather stations. During summer 1943, his crew occupied and dismantled a Nazi weather station on Sabine Ø and, in November, they established a high-frequency direction finder on Jan Mayen to intercept enemy transmissions and to reveal their source. These tasks were accomplished in difficult conditions of ice and weather in

a ship that, as he later wrote, was so far from being an icebreaker that "she could not break her way out of a paper bag" (Thomas, 1958).

In 1944, he took command of the new USCG icebreaker *Eastwind* and, in a surprise attack by night, captured the personnel of another Nazi weather station on Lille Koldewey, an island about 76°40'N off the coast of east Greenland. This capture has been described as the northernmost action ever fought, and it produced a number of secret German documents, including codes, of great importance to the Allied war effort at large. Soon afterward, he captured the German ship *Externstiene*, which had been beset after supplying the weather station at Lille Koldewey (Blyth, 1951; Thomas, 1958). This was the only capture at sea of an enemy surface war vessel made by a United States naval force during World War II (Thomas, 1951, p 220). From August 1945 to November 1946, Thomas commanded the Greenland Patrol.

In 1946-47, during Operation "Highjump", Byrd's fourth Antarctic expedition and the largest exploratory venture in the Antarctic up to that date, Thomas commanded the USCG icebreaker *Northwind* with great success during a year of exceptionally difficult ice conditions. In 1948, still with *Northwind*, he reestablished the Coast Guard's annual Bering Sea Patrol, which had been discontinued during the war. These experiences, 1944-48, are described in popular fashion in his only book, *Ice is where you find it* (Thomas, 1951). Between 1949 and 1955, he held a number of administrative posts of increasing importance, and he took an active part in the planning and execution of the United States' International Geophysical Year (IGY) expeditions to Antarctica, Operations "Deep Freeze" I and II, 1955-56 and 1956-57. On 1 November 1957, after 33 years of active service, he retired from the Coast Guard as a rear admiral and immediately accepted the directorship of Arctic Operations for the US National Committee of the IGY.

From 1958 until his untimely death, he held a variety of university appointments, including that of assistant director of the Hawaii Institute of Geophysics, 1963-69, and was later Professor of Science at Nathaniel Hawthorn College in Alton, New Hampshire. He also devoted himself with great enthusiasm and enjoyment to oceanographic and related research, which led to articles in learned journals on pollution of the sea, marine biology, polar navigation, and the analysis of cores of ocean sediments. If not unique, it is certainly unusual for a retired professional seaman of long service to turn with success to fundamental scientific research. The range of his research is abundant testimony, if more were needed, of a remarkably adaptable and ingenious mind.

Thomas is survived by two children born to his first wife, the former Anna M. Jensen of Ivigtut, Greenland, who died in 1967. The second Mrs Thomas had been on the faculty of the University of Hawaii when they married in 1968, and she leaves a son by an earlier marriage. Thomas's papers will be deposited in the Center for Polar Archives, Washington DC.

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Alan Cooke

GWYNNE MEYLER THOMAS, a physicist interested in the aurora, died after a long illness on 22 March 1973. He was born on 18 December 1931 and spent his childhood in Fishguard, Pembrokeshire, where he was educated in local schools. During holidays, he worked in his father's bakery, experience useful to him in Antarctica, where he shared the task of breadmaking with the cook at Halley Bay.

He graduated with first class honours in physics at the University College of Swansea in 1953 and took his PhD there in 1956. His doctoral research was concerned with the emission of electrons from cold metal surfaces produced by the application of high electric fields. In November 1956, he sailed with the main party of the Royal Society International Geophysical Year Antarctic Expedition to Halley Bay as auroral and airglow observer, and he remained there until January 1959. He then went to the University of Edinburgh to work up his observations on the aurora at the Balfour Stewart Laboratory under James Paton. He was soon offered a temporary assistant lectureship there and, in 1960, was appointed lecturer in natural philosophy.

On completing his auroral publications, he became interested in the application of statistics to problems in physics, at first in geomagnetism and later in optics. Examining the superpositional nature of the daily geomagnetic variations, he discussed the problem of resolving the variations into components with different prime movers. In a further paper, he searched for superposed effects in the solar daily variations of the geomagnetic field. At the time of his last illness, he was working on photon emission. He began to have difficulty in walking in 1971, and was diagnosed to have a rare and untreatable paralytic disease. He continued to teach from a wheelchair, until increasing weakness made that effort impossible. He faced his growing disability and approaching death calmly and with good humour.