

obituary

Roderick O. Redman, FRS, a leading British optical astronomer, has died at the age of 69.

Professor Redman studied mathematics at St John's, Cambridge, gaining his Ph.D. in 1929. At Cambridge, he was greatly influenced by Sir Arthur Eddington, Plumian Professor of Astronomy, and took up his first appointment with the Dominion Astrophysical Observatory at Victoria, British Columbia. He returned to the Cambridge Observatory in 1931 to become its Assistant Director and was elected a fellow of St John's in 1932. In 1937, he became Chief Assistant at the Radcliffe Observatory in Pretoria, South Africa, where he started his researches on astronomical photometry. While in South Africa, he made an expedition to the total solar eclipse of 1940, from which he obtained high dispersion chromospheric spectra superior to those obtained previously. Returning to Cambridge in 1947 as Professor of Astrophysics, he fully integrated the Solar Physics Observatory into a new unit, called the Cambridge Observatories. Under his direction, they rapidly recovered from the difficulties of the war years. His enthusiasm and warmth were his major assets in re-equipping the observatory with good modern instruments. Redman led an equally successful expedition to Khartum in 1952 and served as President of the Royal Astronomical Society from 1959–61. Much of his time before and after his retirement

was devoted to the planning and construction of the 150 inch Anglo-Australian Telescope and the success of this instrument owes much to his enthusiasm. After his retirement, he also took part in the planning of the Northern Hemisphere Observatory.

Anatolii Arkad'evich Blagonravov, academician and one of the leading figures in the Soviet space programme, died on February 4 at the age of 90.

Blagonravov, a Lieutenant-General of Artillery, and a full Member of the Academy of Sciences of the USSR since 1953, became attached to the Soviet space programme during the 1950s as a rocket designer. In 1959, he addressed the press conference held in connection with the launching of Sputnik 1. From 1960 onwards, he published a number of works on space research, including *Physics of Cosmic Space* (1962). He was an early member of the Pugwash movement, Deputy Representative of the Soviet Union at the UN Committee for the Peaceful Use of Space, and Chairman of the Commission of the Academy of Sciences of the USSR on Space Research and Utilisation. He was a full member of the Czechoslovak Academy of Sciences, and a Member of the International Academy of Astronautics, and held a number of Soviet medals and awards, including the Order of Lenin (five times), the Order of the Red Banner of Labour (three times) and Hero of Socialist Labour.

Clarence Ray Carpenter, the psychologist and anthropologist, died in Athens, Georgia, on March 1 at the age of 69.

Dr Carpenter studied monkeys and apes for the clues they gave to human behaviour and began his studies on the social life of monkeys in Central America in the 1930s. In 1937, he was a leader of the Asiatic Primate Expedition to Thailand and Sumatra, and studied gibbons in Siam from the point of view of the evolutionary background of human society. In 1939, he travelled from India with 500 macaques that he resettled on Santiago Island, off the east coast of Puerto Rico, observing them set up home. In 1960, Dr Carpenter took a census of the howler monkeys of Barro Colorado Island, Canal Zone, hoping that a study of their ways would serve as a conceptual bridge between the realms of lower animals and man. From 1940–69, he was on the staff of Pennsylvania State University and became emeritus professor of psychology and anthropology, directing the use of closed-circuit television for educational purposes there. As a leader in promoting educational film and television techniques, he served on the Commission on Instructional Technology and on the Advisory Committee of the US Office of Education, and was a past-president of the Joint Council of Educational Communications and the Association for Higher Education. Dr Carpenter was a former editor of *Behaviour* and of the *Journal of Evolution*.

announcements

Awards

Her Majesty the Queen has approved the grant of a **Royal Charter** to the **Institution of Metallurgists** at a meeting of the Privy Council. **Dr W. E. Duckworth** will be succeeded in May as president by **Sir Montague Finnieston, FRS**.

The Zoological Society of London has made the following awards: **Scientific Medal** to **P. F. Baker** (ionic transport across cell membranes) and **H. Kruuk** (behaviour and ecology of gulls and carnivores); **Stamford Raffles Award** to **A. E. Ellis** (study of molluscs); **T. H. Huxley Award** to **I. G. Priede** (circulation during swimming in trout); **Silver**

Medal to **E. Hosking** (animal photography and educational zoology); **Frink Medal** to **J. Z. Young, FRS** (original contributions to wider implications of Zoology).

A. R. Ubbelohde, CBE, FRS, has been awarded the **George Skakol Memorial Award** by the American Carbon Society for contributions to the understanding of the intercalation of graphite by elements and compounds, and of the electrical and thermal properties of graphite.

The Society for Analytical Chemistry has awarded its **Gold Medal** to **R. L. Mitchell** for contributions to emission spectroscopy for trace elements.

International meetings

April 15, **Biochemistry of Blue-Green Bacteria**, Aberystwyth (Meetings Officer, The Biochemical Society, 7 Warwick Court, Holborn, London WC1R 5DP, UK).

April 16, **Mechanisms of Biocidal and Biostatic Activity**, Aberystwyth (Meetings Officer, The Biochemical Society, 7 Warwick Court, Holborn, London WC1R 5DP, UK).

April 30–May 3, **Protides of Biological Fluids**, Brugge, Belgium (XXIIIrd Colloquium on Protides of Biological Fluids, Simon Stevin Instituut, Jerusalemstraat 34, B-8,000 Brugge, Belgium).