

# obituary

**Francis J. Weiss**, the biochemist and economist concerned with developing food resources, died on January 21, at the age of 76.

Dr Weiss was born in Vienna, receiving doctorates in chemistry and economic statistics at the University there. He worked in the biochemistry institute of the University of Vienna until the Nazis occupied Austria in 1938, at which time he left for England. A year later, he went to the United States, where he was a consultant to the Board of Economic Warfare and the Sugar Research Foundation. In the fifties, he was a consultant on the staff of Senator Hubert H. Humphrey, studying chemical agriculture and new methods of processing grains. Later, he was a consultant to the International Cooperation Administration and the Department of Commerce. From 1959 to 1969, he was a specialist in the science and technology division of the Library of Congress.

**Vladimir Aleksandrovich Fock**, academician, and one of the leading theoretical physicists in the Soviet Union, died on December 27, 1974, five days after his 76th birthday.

Fock, who graduated from the University of Petrograd (now Lenin-

grad) in 1922, throughout his working life remained connected with this University, teaching and researching there. He also at various times worked at the State Institute of Optics, the Leningrad Institute of Physics and Technology, and the Institute of Physics of the Soviet Academy of Sciences. In 1932 he was elected a Corresponding Member, and in 1939 a full member of the Soviet Academy of Sciences. Fock's basic research was concerned with quantum mechanics, quantum electrodynamics, electromagnetic diffraction and radiowave propagation, the general theory of relativity, mathematics, and mathematical physics, in all of which fields he established new basic concepts. He is particularly associated with the establishment of the scalar relativistic wave equation for a particle with no spin in an electromagnetic field, which he derived independently of similar work by the Swedish physicist O. Klein (the 'Klein-Fock equation'). His name is also associated with spaces of an increasing number of dimensions ('Fock spaces'), which he used to obtain a quantum description of systems with a variable number of Bose particles. For his services to Soviet science, Fock was awarded the Order of Lenin (four

times), a Stalin Prize (now State Prize) in 1946 and a Lenin Prize in 1960. He was also a member of a number of foreign and international academies and learned societies.

**Matthew W. Stirling**, the distinguished archaeologist, died on January 23, at the age of 78.

An anthropologist and archaeologist associated with the Smithsonian Institution for more than 40 yr, Dr Stirling travelled widely in Central and South America, discovering "America's oldest dated work"—a stone monument bearing a date equivalent to 291 BC. He has headed many important expeditions in the Americas and in Europe, but will be known primarily for his contributions to middle American anthropology and archaeology. Under the auspices of both the Smithsonian and the National Geographic Society, Dr Stirling led the team of archaeologists who uncovered the La Venta, or Olmec, civilisation dating back more than 1,000 yr. Dr Stirling was born in California and graduated from the University there in 1920. He was affiliated with the Smithsonian from 1921 until his retirement in 1958. He also served as head of its bureau of American Ethnology from 1928 to 1947.

## announcements

### International meetings

March 13–14, **Global Tectonics in Proterozoic Times**, London (Executive Secretary, Royal Society, 6 Carlton House Terrace, London SW1Y 5AG, UK).

April 20–23, **Cybernetics and Systems Research**, Vienna (Secretariat of the Austrian Society for Cybernetic Studies, Schottengasse 3, A-1010 Wien, Austria).

May 6, **Crop Protection**, Gent, Belgium (The Secretary, Faculty of Agricultural Sciences, State University, Coupure links, 533, B-9000 Gent, Belgium).

### Reports and publications

#### Great Britain

Proceedings of the Royal Irish Academy, Vol. 75, Section A, No. 14: Shrinking and Boundedly Complete Bases of Projections. By J. J. M. Chadwick. Pp. 95–102. 38p. Vol. 74, Section B, No. 18: Biology of the Rudd Scardinius erythrophthalmus (L.) in Irish Waters.

By M. Kennedy and P. Fitzmaurice. Pp. 245–304 + plates 7–10. £1.47. No. 19: Curare and Post-Mortem Changes in Skeletal Muscle of Pietrain Pigs. By J. V. McLoughlin. Pp. 305–312. 18p. No. 20: The Upper Devonian and Lower Carboniferous Stratigraphy of the Whitegate Area, Co. Cork. By I. A. MacCarthy. Pp. 513–330 + plate 11. 36p. No. 21: The Action of Acid on Bisthiosemicarbazones and the Formation of Some Novel Heterocycles. By R. S. McElhinney. Pp. 331–380. 76p. No. 22: The Relationship Between the Acid and Basic Rocks near Carlingford, Co. Louth. By S. De and A. B. Poole. Pp. 381–402 + plate 12. 57p. No. 23: Identification of the Marine Species of the Genus *Vaucheria* in Ireland. By J. P. Cullinane. Pp. 403–410 + plate 13. 32p. No. 23: A Revision of the Caribbean Species in the Genera *Columnea* L. and *Alloplectus* Mart (Gesneriaceae). By B. Morley. Pp. 411–438. 37p. (Dublin: Royal Irish Academy, 1974.) [1912]

Birth Control in Runcorn and Coalville: a Study of the F.P.A. Campaign. By Isobel Allen. (Vol. XL, Broadsheet 549.) Pp. 57. (London: PEP, The Social Science Institute, 1974. Orders to Research Publications Services, Ltd., Victoria Hall, Fingal Street, East Greenwich, London, SE10.) £1. [1912]

Bulletin of the British Museum (Natural History). Geology, Supplement II: Ordovician Brachiopoda from the Shelve District, Shropshire. By A. Williams. Pp. 1–163 + 28 Plates. (London: British Museum (Natural History), 1974.) £12.80. [1912]

Missing Evidence for the Story of Past Life. (Palaeontology Leaflet No. 5.) Pp. 6. (London: British Museum (Natural History), 1974.) 5p. [1112]

Radioactive Fluorescers in Dental Porcelains. By M. C. O'Riordan and G. J. Hunt. (NRPB R25.) Pp. 16. (Harwell, Didcot: National Radiological Protection Board, 1974.) [1112]

Health and Personal Social Services Statistics for Wales, No. 1. Pp. vii + 130. (Cardiff: HMSO, 1974.) £2.15 net. [1312]

### Other Countries

Oil and Security. Pp. 197. (Stockholm: Stockholm International Peace Research Institute, 1974. Distributed by Almqvist and Wiksell International, Stockholm, and Humanities Press, New York.) Sw.Kr.42; \$9. [1911]

United States Department of the Interior: Geological Survey. Bulletin 1368-A: Superficial Deposits of the Iliamna Quadrangle, Alaska. By Robert L. Detterman and Bruce L. Reed. Pp. v + 63 + plate 1. (Washington, DC: Government Printing Office, 1973.) \$2. [2111]

Australia: Commonwealth Scientific and Industrial Research Organization. Twenty-sixth Annual Report, 1973/1974. Pp. 102. (Melbourne: CSIRO, 1974.) [2111]

Australia: Commonwealth Scientific and Industrial Research Organization. Annual Report of the Division of Chemical Physics, 1973/1974. Pp. 76. (Clayton, Victoria: CSIRO, Division of Chemical Physics, 1974.) [2111]

Landscape Planning. Vol. 1, No. 1, June 1974. Published quarterly. Pp. 1–122. Subscription price of Vol. 1: Dfl.80 plus Dfl.8 for postage and handling. (Amsterdam: Associated Scientific Publishers, PO Box 211, 1974.) [2111]

Guide Lines for the Preparation of Tables of Food Composition. By D. A. T. Southgate. With contributions by J. C. Somogyi and E. M. Widdowson. Pp. 57. (Basil, London and New York: S. Karger, 1974.) Sw.fr.19; £2.80; \$7. [2211]

Lovo Geomagnetic Observatory Year Book 1973. Pp. 36. (Stockholm: Sveriges Geologiska Undersökning, 1974.) [2211]

Koninklijk Nederlands Meteorologisch Instituut Mededelingen en Verhandelingen, No. 93: Optimal Track Selection and 3-Dimensional Flight Planning: Theory and Practice of the Optimization Problem in Air Navigation Under Space-Time Varying Meteorological Conditions. By H. M. De Jong. Pp. 140. (De Bilt, Nederland: Kon. Nederlands Meteorologisch Instituut, 1974.) Dfl. 55. [2511]