

has a collection of glass, assembled by the late Joseph Kenworthy and attributed to the Bolsterstone glasshouse. An account of the history of the industry has been prepared by the deputy director, Mr. G. D. Lewis] (*The South Yorkshire Glass Industry*. Pp. 4. Sheffield: The City Museum, 1964. 6d.). The author directs attention to an increasing awareness of the lack of knowledge concerning many of the fast-disappearing industrial monuments which played an important part in Britain's technological development. Of this destruction, the Catcliffe glass-cone speaks eloquently. It is the last survivor of at least six such cones known to have been built in the area and is the oldest in Europe; only five others remain in Britain.

Archæology in Northern Rhodesia and Turkey

IN the journal *Man* for May-June 1964, besides a number of interesting anthropological articles, there are two of more archæological importance. Prof. Desmond Clark directs attention to a small number of special-shaped stone vessels from Northern Rhodesia which he equates with some already known from South-West Africa (Waterbeg) and Tanganyika. He further suggests an affinity with others from further north in East Africa, and postulates a small migration of a pastoral people passing south and south-west. The article is illustrated. No dates can be given. There is also an account of some crude and primitive animal paintings in a small cave site in the Taurus mountains in Turkey. The site is not far from the town of Seydişihir. The cave is visible from miles away in the east-facing side of a hill called Dolmus Tokadi. There are well-worn tracks up to the site. Prof. Solecki, of Columbia University, does not suggest a date earlier than the Neolithic, and compares the new finds with those from Çatal Hüyük, some 85 km to the east, over the mountains, on the Konya plain described a few years ago by James Mellaart. Another somewhat similar find of a painted ibex has been cited by Y. Bostanci from near Beldibi, 140 km to the south-west over the Taurus Mountains. All these rock-shelter sites form an interesting group.

Commercial Oil Production in Australia

A FEW months ago a brief account was given of the Moonie oilfield, Queensland, the successful results of exploratory drilling there, the potentialities of the area, and particularly the start of a pipe-line from Moonie to Brisbane, 187 miles long (*Nature*, 201, 1080; 1964). On March 25, 1964, the Queensland State Minister for Mines, Mr. Evans, unveiled a plaque at the Moonie field to commemorate a great occasion: the beginning of commercial oil production in Australia. It is recorded that full-scale pumping of the oil through the 187-mile, 10-in. pipe-line then officially commenced, and that production installations are fully automated in the field, all operations being monitored from a central control station at Moonie (*The Australian Mineral Industry Quarterly Review*, 16, No. 4; June 1964). The list of failures in the search for petroleum resources in Australia during half a century or more is depressingly long, but enterprise, determination and patience have at last deservedly met with commercial success. Fully backed by the Commonwealth Government, implementing the Petroleum Search Subsidy Act, 1959, the Moonie strike, though not spectacular by world standards, is an obvious incentive to the vigorous pursuit of more as yet undefined oil-pools in Queensland, if not elsewhere in the Australian continent. In the section on petroleum in this number of the *Review* there is a summary of the present exploratory operations, from which it is clear that Queensland has a strong lead over the other territories in Australia in the matter of drilling activities, judged by the number of wells and total footage completed. It is a measure of progress that drilling activity in Australia in 1963 broke all records and showed an

increase of more than 60 per cent over the records for 1962 in both the number of wells and annual footage.

Range Action in Table Bay Harbour

RANGE action in Table Bay Harbour is well known and is of frequent occurrence. It consists of regular oscillations of the water surface which are initiated by oscillations of similar period in the sea outside the harbour rather than directly by wind or barometric pressure changes. The spectrum of such long waves, recorded at a point on the west coast of the Cape Peninsula, has been examined by Prof. J. and Dr. Mollie Darbyshire (*South African Journal of Science*, 60, No. 6, June 1964). The natural periods of oscillation of the Duncan Dock have been calculated and the selection, by the dock itself, of certain periods from the broad band of the external spectrum is indicated. The amplitude of the shorter oscillations of period 1-6 min is dependent on the amplitude of the ordinary surface waves, whereas the longer ones, of period 15-60 min, are associated with oscillations of the water mass on the continental shelf caused by atmospheric pressure disturbances. Examples of both types of range action, taken from the tidal records in the Duncan Dock, are described.

Urea as a Fertilizer

UREA has held promise as a fertilizer for many years because it contains much more nitrogen than the popular nitrogenous fertilizers, is readily soluble in water and undergoes rapid hydrolysis to liberate ammonia. It is, in fact, an intermediate in the decomposition of calcium cyanamide, which was the first nitrogen compound to be synthesized from atmospheric nitrogen on a commercial scale, and has been used in large quantities as a fertilizer. The commercial production of urea was rather slow to develop and it has been manufactured in the main to satisfy the demand for urea-formaldehyde resin. Some of the earlier agricultural experiments with urea were discouraging since biuret could be present in amounts that were toxic; furthermore, under certain conditions the ammonia arising from hydrolysis of urea could impair the germination of seeds and adversely affect young seedlings; and finally, loss of ammonia from the soil reduced the efficiency of urea as a source of nitrogen in comparison with ammonium salts or nitrates. A fully documented account of the advantages and disadvantages of urea as a fertilizer, of its behaviour in different soils and of the results from field experiments with a variety of crops is given by J. K. R. Gasser in *Soils and Fertilizers* (27, No. 3. Pp. 175-180. Commonwealth Bureau of Soils, Rothamsted, 1964). The uncertainties regarding its value are cleared up and the precautions necessary in order to achieve parity with other nitrogen fertilizers are described. This is a timely review of the position and with the collected references on the subject will be a valuable guide to anyone interested in this particular fertilizer, which is now produced industrially from ammonia and carbon dioxide on a very large scale and sold at a price comparable with other nitrogenous compounds.

Fellowships in Medicine

THE following appointments have been made by the Medical Research Council to fellowships in medicine to be held in the United Kingdom, the United States, Canada and Taiwan for the academic year 1964-65.

Clinical Research Fellowships

Dr. P. A. Murphy, registrar, Radcliffe Infirmary, Oxford, to the Department of the Regius professor of Medicine, Oxford; Dr. P. Richards, registrar, St. George's Hospital, London, to the Department of Medicine, Post-graduate Medical School, London; Dr. R. Summerly, registrar, St. Thomas's Hospital, London, to the Medical Research Council Unit for Research on the Experimental