

Archæological Excavations at Colchester

SYSTEMATIC archæological excavation on the central part of the site of the ancient British city at Colchester must, it is announced, cease permanently at the close of October, when this area of some twenty acres is to be developed for building. It will be remembered that the discovery of a British settlement here was made eight years ago in the course of preparations for the Colchester by-pass road; and that since that date, with the co-operation of the local authorities, a Committee of Excavation, under the auspices of the Society of Antiquaries of London, has been engaged in the archæological exploration of the site. Not only has the defensive system been investigated, but also a very large number of antiquities, estimated at something in the neighbourhood of a million, and including fifty tons of pottery, has been recovered. This site has, in fact, proved one of the most prolific of ancient British sites yet examined. The central area now under examination, it was hoped, would afford some evidence of the place of residence of the British king, Cunobelinus; but so far nothing of this nature has come to light. Among the more important objects recently reported in the present season's work are an iron box four inches square and one and a half inches deep. This contains a powder believed to be a pigment used by the potter. A Roman dagger, 15 in. long, has also been found. Although systematic investigation must cease as soon as building operations begin, local members of the Committee will continue to oversee the work of foundation-digging in the interests of archæology.

Burials of Saxon Age in Kent

ONE of the most important discoveries of burials of Saxon age in recent years is recorded from Risley, Horton Kirby, four miles south of Dartford, in Kent. In the course of road-making on the housing estate of the District Council, burials were brought to light in which were human bones, spear-heads, the umbo of a shield, pottery fragments, and an almost complete glass vessel. Fortunately the finds were brought to the notice of the Dartford Antiquarian Society, and their character as Saxon or Jutish recognized. Further excavation made it evident that this was the site of an extensive cemetery, although another, excavated in 1867, existed only a mile away to the north. That the present site had been in use for burial purposes even before Saxon times was indicated by a Roman cinerary urn and a circular cist burial. The prevalence of inhumation points to a Jutish origin, the period of the burials being from the sixth to the ninth centuries of our era. The people must have been of exceptionally fine physique, as a number of the skeletons are those of men more than six feet in height. So far more than seventy graves have been exposed. The burials as a rule are shallow, not more than two feet deep. In one instance only have valuables been found—in the grave of a woman, in which were five gold brooches and four beads of amethystine quartz. The brooches, it is stated in a report on the excavations in *The Times* of September 16, were circular, of filigree work, with precious stones inset, and represent a style of ornament peculiar to

Kent, of which this is the westernmost example. One fine burial of a warrior with shield-umbo, sword and spear, is to be removed and reassembled complete, with the bones, for exhibition. The excavations are being continued on a part of the site which is to be set aside as an open space. A selection of the finds has been on view in the Dartford Borough Museum.

Meare Lake Village

THE three habitations (Nos. xx, xxii and xxiv), which have been examined by Mr. H. St. George Gray and Dr. Arthur Bulleid in the course of the current season's investigation of the eastern division of Meare Lake Village, Somerset, by the character of the finds, more particularly those in hut No. xxii, have emphasized both the importance of the weaving industry in the economy of the inhabitants, and their appreciation of personal ornament of a colourful type. In hut xxii, in which five superimposed hearths of stone and clay have been uncovered, no fewer than twelve combs for beating down the weft and woof threads have been found, with bobbins, loom weights and a dozen spindle-whorls of stone, bone or baked clay. Among other finds were half a dozen saddle querns, hammer-stones and whetstones, a polished flint axe converted into a hammer, flint scrapers, bone awls and modelling tools, iron tools, bone gouges and handles and other objects of red and roe-deer antler, including a 'gaming piece'. A scapula, or shoulder-blade of ox, is ornamented with the dot-and-circle pattern. By far the largest series of remains, however, it is stated in a report on the excavations in *The Times* of September 16, may be classed as personal ornaments. These include two toggles or dress-fasteners, one finely engraved with four rows of dot-and-circles, the other of a zoomorphic character, having one end resembling the head of a fish. A remarkable large flat brooch is of bronze, of which the surface was probably inlaid with enamel. The finest of the armlets of Kimmeridge shale is carved, while jet appears in the village for the first time in the form of a bead. Another bead of amber has been found, and beads of glass are numerous, the colours being blue, dark red, yellow and black. Some of the beads of clear glass ornamented with yellow spirals were found in a group. The smallest beads (blue) are only two millimetres in diameter. Canine teeth of the dog had been pierced for suspension as a necklace. In hut xxii more pottery, mostly cooking wares, has been found than in any other dwelling.

Twenty Years of Polish Science

WHEN Poland regained its independence in 1918, a new impetus was given to Polish science and culture, which had had to struggle against adverse conditions for so long. The present year marks the completion of twenty years of constructive achievement in many directions. Much that has been achieved in general science has been recorded in *Nauka Polska*, a comprehensive publication issued at least once annually by the Mianowski Institute for the Encouragement of Science in Poland, which is concerned with the history, organization and

co-ordination of scientific effort. The recently published volume for 1938 (No. 23) includes in its 400 pages contributions by several leading Polish men of science. Thus, Prof. B. Kieskowski discusses the question whether philosophy can be considered as a science, and gives cogent reasons for an affirmative answer. Prof. W. Semkowicz has two lengthy contributions, the first being devoted to a comprehensive account of scientific and philological work at Cracow, the seat of the Polish Academy of Sciences and of the Jagellonian University, since the establishment of the republic. The second article is a survey of the special needs of science to-day. There is an informative description, by Dr. W. Siemaszko, of recent advances in phytopathology both in Poland and elsewhere. This branch of applied botany is of special significance to a country like Poland, which has a large agricultural industry as well as extensive forests. Particular attention is given to the organization and co-ordination of research, and reference is made to the facilities for planned researches in Poland, Czechoslovakia, Britain and America. Of immediate interest, too, is a contribution by Dr. J. Golabek on Polish cultural facilities in Czechoslovakia and the collaboration between men of science in these two Slav countries. A section devoted to reviews makes reference not only to books, but also includes résumés of articles that have appeared in scientific periodicals. This volume of *Nauka Polska* concludes with a bibliography of works dealing with the 'science of science' for the years 1935 and 1936.

National Museum of Canada

THE annual report for 1936-37 of the National Museum of Canada marks good progress, particularly in the resumption of field investigations. During the summer of 1936, field parties were engaged in biological work on the Pacific coast, ornithological investigations in Manitoba, a special biological survey of Thelon Game Sanctuary, botanical surveys in Ontario and the Arctic, archaeological excavations in Ontario and the Arctic, anthropological studies of French-Canadian art and handicrafts, and the effect of the contact of the white man upon Indian culture. As a result, much material has been added to the collections and scientific information of value has been obtained. To the naturalist, one of the most interesting investigations is that mentioned in Dr. R. M. Anderson's report on the work of the Biological Division. A survey is being made of the region about Horseshoe Lake, which was burned over about a hundred years ago and now shows the conditions that follow natural reforestation in British Columbia. Now these blocks of second-growth timber are acting as reservoirs of wild life, islands of refuge in the midst of a country which had been burned so that all small wild life was destroyed. For long stretches the burnt area showed no trace of a mammal, and the destruction of mossy ground, cover and rotten logs removed such as weasels, shrews, snakes, frogs and slugs. From the protection of the natural refuges the fauna is beginning to recolonize the burnt-out regions.

A Century of Sociology

IN the R. R. Kale Memorial Lecture 1938 to the Gokhale Institute of Politics and Economics, Prof. C. S. Ghurye reviewed the social process in the light of a century of sociology. Social process, he considers, has two aspects: the nature of cultural development as reflected in the trend of thought about man as a living entity, and the process by which the individual is assimilated into the cultural flow of the times. Although Protagoras gave effective currency to one of the fundamental requisites of science—to take experience as the only category strictly knowable for the human intellect—the ethical outlook afterwards overshadowed or eliminated the scientific spirit, and Prof. Ghurye considers that it was not until Montesquieu that human experience was again viewed with the eye of a man of science. In his argument, the force of human motives first received real recognition. Stressing the significance of the English contribution to the advancement of knowledge on the Comtian plane, he pointed out that the social life of man is becoming the centre of attraction and motivation the principle of explanation. The psychology of motivation found its scientific liberator in Shand, who sought the explanation of human motivation in the social behaviour of man and not in his biological activity.

SCIENTIFICALLY, the proper planning of a good life must rest on the understanding of life, and the psychological study of the individual and society should precede the study of man as a political and a moral being. In conclusion, Prof. Ghurye, discussing the institution of marriage, urged that in view of the importance of the first few years of the individual's life in the social process, if accommodation of the individual into his social mould was to be smooth and harmonious, the environment in those years must be provided by a small group, the individual constituents of which are highly sympathetic. Such a group is only ideally provided in the family unit. Prof. Ghurye made an earnest plea for the institution of a chair of sociology in the Gokhale Institute.

Photographic Reproduction of Documents

AN exhibition is being held at the Science Museum, South Kensington, of many types of apparatus for the photographic reproduction of documents, suited to both occasional and extensive use, and adapted to varied requirements. It comprises several original types of cameras and projectors, suitable for amateur and professional use. Some of the apparatus is arranged to utilize standard commercial general utility miniature cameras. Other cameras shown are designed specifically for the purpose of book-reproduction—in whole or in part—in reference libraries, together with the corresponding projecting apparatus for magnifying the film images to enable natural size or enlarged images to be viewed or prints to be made. Finally, there are exhibits illustrating the use of photographic apparatus specially designed to provide at cheap rates both single and multiple copies of documents without reduction of their natural sizes. The exhibition, which has been arranged in con-