

lives and destruction of buildings of no military significance such as universities and scientific and other learned institutions. In this connexion we have received a copy of the following cable from the "Subsecretario Instruccion Publica" addressed to the president of the Royal Society of Medicine: "The Regular Air Force of Germany and Italy is demolishing the cities of Spain. The University of Barcelona like the Cajal Institute in Madrid has been almost completely destroyed. The same has happened to other centres of culture. During the last three days of terrible and continuous bombing, more than a thousand people were killed in Barcelona alone. We Spaniards of liberal and democratic convictions who only devote ourselves to literary and scientific activities protest against these monstrous crimes. At the same time we appeal to the sensitivity of our English colleagues and ask for their help in the defence of the independence of our country as well as of the universal principles of humanity, justice and law which the Spanish Republic implies. We ask you to bring to bear all your influence on the British Government so that it may take steps to avoid these barbarous atrocities, which are directed not only against defenceless human beings but also against the civilization and peace of the world. Jacinto Benavente (Nobel Prize); Ignacio Bolivar (naturalist); Pio Del Rio Hortega (biologist); P. Bosch Gimpera (archeologist); Enrique Moles, D.Sc.; Jose Xirau, D.L.; A. Duprier, D.Sc."

#### Exhibition of British Archaeology

THE exhibition illustrating finds in Britain and Northern Ireland in the course of archaeological exploration during the last five years at the Institute of Archaeology of the University of London, Regent's Park, London, which was opened by Sir Charles Peers on March 21, is unique and the occasion historic. No exhibition of the kind has been held before, nor has so widely varied a collection of archaeological material been assembled for temporary exhibition previously. Considering the relatively brief period during which the work of excavation has been carried out, the exhibition shows a remarkable and healthy activity in practical archaeological study in Great Britain such as, it is probable, could not be paralleled elsewhere. The area covered includes England, Scotland, Wales and Northern Ireland, and the exhibits are drawn from sites in more than thirty counties. In time they range from the pre-glacial industries of East Anglia to Stuart pottery from the ditch of the Tower of London, lent by the Office of Works. Among the sites of major importance represented are Verulamium, of which the close of excavation just comes within the period, Miss Kenyon's excavations at the Old Jewry Wall of Leicester, with its evidence of Belgic occupation, and Dr. R. E. Mortimer Wheeler's exploration of Maiden Castle, with the interesting evidence of cannibalism and the remains of the last defenders of the fortress in A.D. 43. Material which should prove of intense popular interest is that from Castle Dore in Cornwall, which removes King Mark,

father of Iseult, from the category of legendary figures and makes him a historical personage. Recent activities in, and discoveries by, air photography are well displayed. The exhibition will remain open daily from 11 a.m. to 4 p.m. until May 2.

#### Electron Diffraction and Surface Structure

IN opening the discussion on electron diffraction and surface structure before a joint meeting of the Physical and Chemical Societies held on March 17, Prof. G. I. Finch compared electron diffraction with other methods of surface structure examination, and cited cases where the microscope or X-rays may give a wrong impression of the structure of deposits and of the size, shape and chemical nature of thin crystal line films. He described, among others, a striking experiment on the orientation of fatty acids by friction, which seems to have a direct bearing on the nature of the mechanism of lubrication. Thus the previously unorientated molecules in a stearic acid layer deposited on a metal surface can be made to point in a common direction by rubbing. If the surface be rubbed in all manner of ways, it is the last stroke only which determines the final direction of orientation of the stearic acid chains. Prof. Finch also gave an account of new experiments which confirm the conclusions previously arrived at by electron diffraction as to the structure of the polish layer on calcite. Sodium nitrate crystals were found to orientate in such a way as virtually to continue the structure of calcite when deposited on the polish layer on a cleavage face and which electron diffraction had shown to be of single crystal structure integral with the main crystal. A calcite surface cut and polished in such a manner as to be steeply inclined to all cleavage planes, however, gives a halo pattern characteristic of an amorphous layer, and on such a surface the nitrate crystals do not orientate but point in all directions just as they do when grown, for example, on a glass surface. After heating, which causes this amorphous polish layer to recrystallize, the sodium nitrate crystals orientate once more.

#### The Fulham Power Station

THE Institutions of Civil Engineers and Electrical Engineers had a joint meeting on March 22 to discuss the new Fulham Power Station, which when complete will be the largest municipally owned base-load station in the British Isles. The station lies east and west, with the boiler house on the east, and is situated 60 ft. from the river frontage along the west bank of the Thames from Wandsworth Bridge. The first half of the paper was written by J. F. Hay and describes the constructional work, and the second half, by W. C. Parker and H. Clarke, discusses mechanical and electrical considerations. A point which has come prominently forward during recent years is the necessity of having as wide a specification as possible for the coal used. The effect of having two of the base-load stations on the Thames equipped with the same kind of stoker and similar methods of feeding is making a considerable demand for a special type of coal from the coalfields, and this both increases