

British Association met at York last summer. The conditions were exceptionally propitious, as not only were there within reach of York sites of sandy heath typical of the geographical environment preferred by Tardenoisian man, upon which, moreover, numerous finds of implements had been made, but also the fact that Mr. J. G. D. Clark was to open the session with a paper on the mesolithic age in Britain ensured that the otherwise preponderating attention to be given to the north of England in this series of communications would be placed in proper perspective.

The advances which have been made in the study of the typology of mesolithic implements now make it possible to work out the geographical distribution of characteristic forms with a relative certainty, if not with an absolute precision, while a number of pregnant suggestions emerges as to their derivation and development. Thus Mr. Clark holds that, while the Upper Palaeolithic industries of Britain already showed microlithic tendencies, the Tardenois culture is to be regarded as intrusive in both its first and second phases, and late Tardenois, though in all probability a local development in its British manifestation—the 'trapezoid' implement is said to be peculiar to Britain—also has indications of continental influence. Thus in the Pennines the 'broad blade' industry, the non-geometric Early Tardenois industry, is certainly of continental derivation, while the Middle Tardenois, which extended as far as the Isle of Man, points to Belgium. At the same time, the view thus taken of late Aurignacian industries must be kept in mind in considering sites which show a sequence of cultures, such as those described by Mr. A. L. Armstrong.

The study of types leads Mr. Clark to divide Britain into two provinces, of which Province A is characterised by the absence of the tranchet axe or pick, while the microliths are present both in the early non-geometric forms and in the later geometric forms, some of them of extremely small size. In Province B, the south-east of England, on the other hand, the tranchet axe is found, but the place of the geometric forms of Tardenois industry is taken by the still surviving non-geometric forms.

In the working out of the sequence and relation of the phases of Tardenois cultures, the investigations of Mr. F. Buckley in the Pennine chain are especially significant, although the whole chain has not been covered and his conclusions are drawn only from certain selected sites, such as Standedge Ridge, Yorks, where the whole chain narrows down to a single ridge, along which mesolithic man must have passed in avoiding the valleys. Various mesolithic sites under the peat have been excavated. These sites contain the relics of two distinct peoples or races of Tardenois folk. Of these one is known as the folk of the 'broad blade' industry, the other as the people of the 'narrow blade' industry. The implements of the former are predominantly of the non-geometric type and include many pointed blades, while among those of the latter are numerous small geometric tools. This people used open-air encampments and wandered freely over the hills; but the 'broad blade' folk travelled along the watershed ridge and erected huts or wigwams on their camping sites. The hearths have yielded wood remains, giving some data as to tree distribution in mesolithic times.

An important contribution to the discussion of

mesolithic problems, comprehensive in its view, was made by Mr. A. L. Armstrong's account of his investigation of the Tardenois and pre-Tardenois cultures of north Lincolnshire in the light of evidence afforded by a number of sites in that area. Here a series of stratified sections and occupied sites exhibits a continuous sequence of industries, embracing the Upper Palaeolithic and the whole of the Mesolithic periods. Mr. Armstrong has recently discovered Aurignacian flint implements in glacial gravels at Hardwick Hill, east of the Trent. These are heavily rolled, owing, it is suggested, to the wave action of an estuary or glacial lake, and point to the existence here of palaeolithic man before the last glaciation—possibly a band of hunters who had penetrated the swamps and taken up their residence on the dry uplands of the Cliff Range and, probably, also on the Wolds. They appear to have inhabited this region through the last phases of the glacial epoch and to have remained until the appearance of mesolithic peoples, the Azilian and Tardenois. The latter eventually dominated Lincolnshire, according to the indications of a number of stratified sites.

Of these sites the earliest is a late-Developed Aurignacian (Creswellian) station, discovered by Mrs. E. H. Rudkin, and excavated in February last, on the western escarpment of the Lincolnshire cliff above Willoughton. At Sheffield's Hill, near Scunthorpe, a similar occupation site, but of later date, gives evidence of the final phase of the developed Aurignacian, upon which early Tardenoisian was imposed. At Risby Warren, Scunthorpe, where systematic researches have been carried out for eleven years, there is stratified evidence of occupation levels ranging from developed Aurignacian, which is quite free from Tardenois influence, to the earliest neolithic, full neolithic and bronze ages. The Tardenois culture is represented by several horizons and can be classified broadly as early and late. This site, Mr. Armstrong claims, in virtue of its abundance of stratified material and its numerous occupation zones, representing the whole of the Tardenois period, is to be regarded as the type station of Tardenois culture in England.

University and Educational Intelligence

WALES.—The University Court at its meeting on December 15 decided to award the degree of D.Sc. *honoris causa* to Prof. Francis Ernest Lloyd, professor of botany in McGill University, and Prof. Robert Robinson, Waynflete professor of organic chemistry in the University of Oxford.

THE Institute of Sociology, Le Play House, 65 Belgrave Road, London, S.W.1, has now been incorporated as a company limited by guarantee. This is the final step in a scheme for permanently establishing and endowing the Institute, which was initiated in 1920 through the generosity of the late Mr. and Mrs. Branford. Under an order of the Chancery Court, the whole of Mr. Victor Branford's estate, subject to the temporary reservation of a portion for the benefit of relatives, passes to the Institute. The present officers of the Institute are Dr. R. R. Marett (president), Rector of Exeter College, Oxford; Mr. C. H. Rigg (honorary treasurer), and Mr. A. J. Waldegrave (chairman of council).