## VIII.

A COLLECTION OF TARDENOISIAN IMPLEMENTS FROM BERWICK-SHIRE. By J. GRAHAM CALLANDER, F.S.A.Scot., DIRECTOR OF THE NATIONAL MUSEUM OF ANTIQUITIES.

Amongst the recent additions to the collections in the National Museum of Antiquities is a representative series of so-called pigmy implements, fashioned from various kinds of stone. This acquisition is important, as it is the first comprehensive collection of Scottish microlithic implements, belonging to pre-Neolithic times, received into the Museum.

The implements were found on the farm of Dryburgh Mains, in the parish of Mertoun, Berwickshire (O.S. 6-inch Map, Sheet XXX.), which lies within a bend of the River Tweed, on its left bank. One part of the farm occupies a strip of haugh land about a quarter of a mile wide and rather more than half a mile in length, standing at an average elevation of about 20 feet above the river, and barely 300 feet above sea-level; at the northern end of the haugh is a slight ridge rising from the bank of the river, but towards the south and south-east the ground flattens out. The rest of the farm runs up a steep slope, and extends some distance to the south across an elevated plateau, the highest point of which is about 550 feet above Ordnance datum.

The microliths have not been found generally over the whole area of the farm; but as some parts consist of stiff clay, which does not crumble under the influence of rain and frost like the lighter soil on the other portions, it may be that the clayey fields contain relics which have not been exposed. Still, it has been the experience in certain districts, in both England and Scotland, that the distribution of these tiny implements is often very local. So far, the Dryburgh specimens have been found only on the parts of the farm where the soil is free, but even on them there are barren stretches. The implements are found in goodly numbers over a considerable part of the haugh land and on two restricted areas on the upper plateau. The soil at the lower level is a sandy clay, about 12 inches deep, resting on beds of gravel and shingle.

All the relics have been turned up by the plough during agricultural operations, no excavations having been made to determine whether they are to be found in the undisturbed layers under the soil.

The whole of the smaller implements in the collection are illustrated

in figs. 1 to 4 and all the scrapers in figs. 5 and 6; but, in addition, there are many chips, flakes, and cores, two of the latter, formed of baked clay-

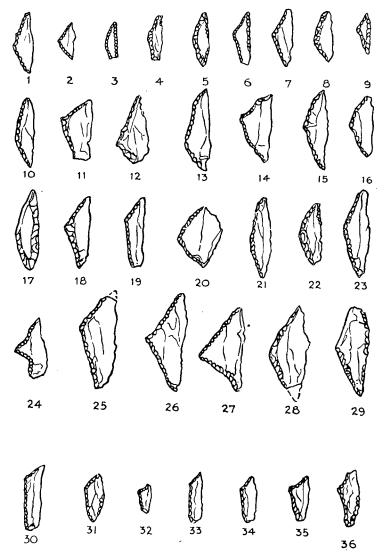


Fig. 1. Tardenoisian Implements of Flint and other Stone from Dryburgh Mains, Berwickshire. (†.)

stone, being shown in fig. 7. The implements illustrated in figs. 1, 2, and 3 include triangles, crescents, small blades with battered backs and pointed

tools, while those shown in fig. 4 consist chiefly of notched implements. Regarding the scrapers it is to be noted that, as a whole, they are of

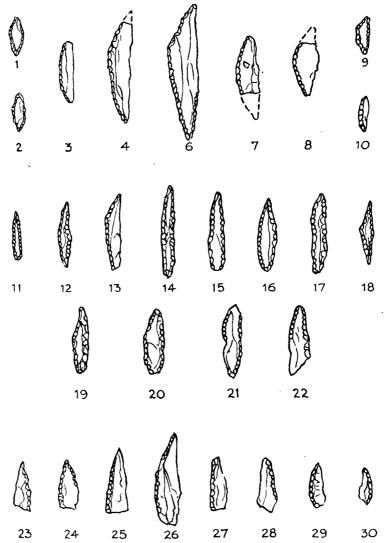


Fig. 2. Tardenoisian Implements of Flint and other Stone from Dryburgh Mains. (1.)

much smaller size than those in a typical collection belonging to Neolithic times, and also that their thickness in relation to their diameter is considerably greater.

It has to be considered whether some of the scrapers may not be later than Tardenoisian times; but while a few may be so, the general

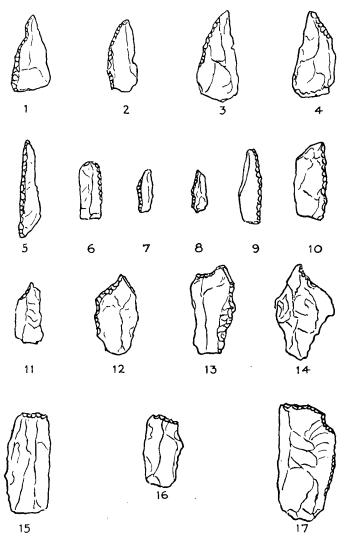


Fig. 3. Tardenoisian Implements of Flint and other Stone from Dryburgh Mains. (1.)

facies of the collection is quite different from that of a representative collection of Scottish Neolithic scrapers, say from Aberdeenshire, Wigtownshire, or Berwickshire. Besides, there is an absence of arrow-vol. LXI.

heads and other typical Neolithic tools, such as saws, knives, or borers. It would seem that generally the scrapers belong to the same time as the smaller implements.

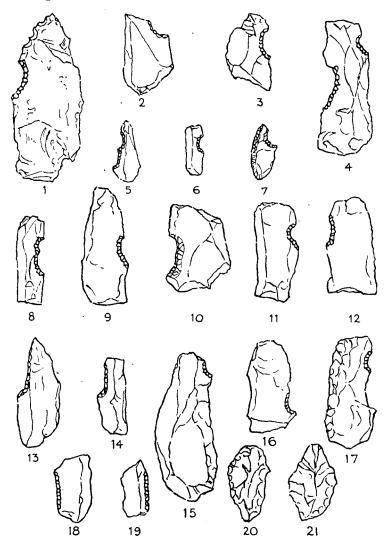


Fig. 4. Tardenoisian Implements of Flint and other Stone from Dryburgh Mains. (1.)

For the purpose of comparing the Dryburgh microliths with those found on other Scottish and English sites, I sent copies of the first four illustrations reproduced here to Miss Hilda M. Leslie Paterson, F.S.A.Scot., who has found those implements near Banchory on Deeside; to Mr A. Leslie Armstrong, F.S.A.Scot., F.S.A., who has collected many from

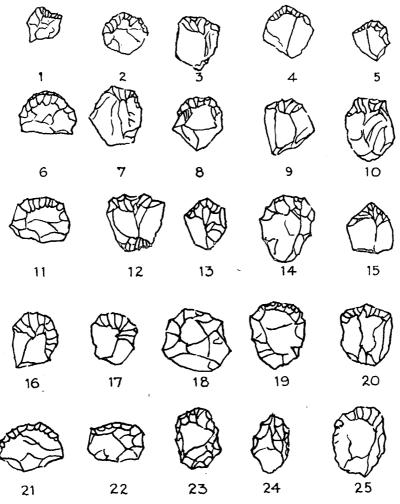


Fig. 5. Tardenoisian Scrapers of Flint and other Stone from Dryburgh Mains. (1.)

Scunthorpe, Lancashire, and dug up others outside Mother Grundy's Parlour, Derbyshire; and to Mr Francis Buckley, who has located many Tardenoisian sites in the Pennines and other sites on the Northumberland and Durham coasts. To these archæologists I am much indebted for their information and opinions.

Miss Paterson can parallel amongst the Deeside specimens twenty-five of those shown on fig. 1, Nos. 4, 14, 18 and 23 to 25 on fig. 2, and many

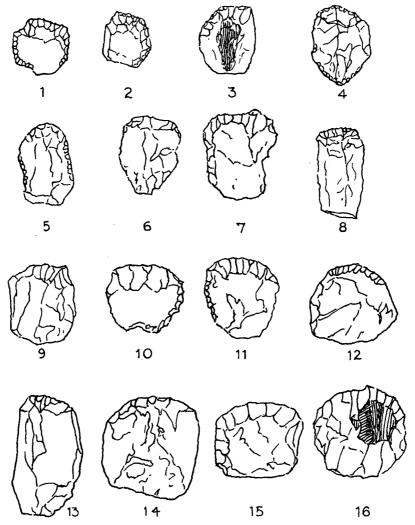


Fig. 6. Tardenoisian Scrapers of Flint and other Stone from Dryburgh Mains. (1.)

knives, much the same as those shown on fig. 3, and many scrapers and hollow scrapers, "some of the last being very tiny indeed." Mr Armstrong states that he has found specimens similar to all those figured, except No. 24 on fig. 1, at Scunthorpe, although notched implements are rare;

while from the upper middle zone at Mother Grundy's Parlour he has got examples resembling Nos. 25 and 26 on fig. 1, Nos. 2 to 4 and 12 to 17 on fig. 3, and Nos. 2, 3, 9, and 10 on fig. 4. Mr Buckley says: "The group is not related to our Yorkshire Belgian (broad-bladed) series in any recognisable way. The Yorkshire Belgian series has an abundance of truncated

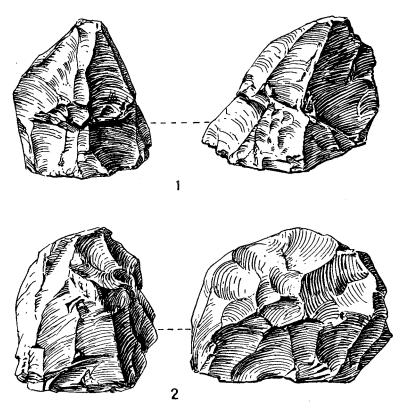


Fig. 7. Cores of baked Claystone from Dryburgh Mains. (1.)

blades and scrapers of a special form, and *all* these types appear to be absent from your Berwickshire series. Also the Yorkshire Belgian series contains very few tools such as Nos. 1 to 9 on fig. 1, and 7 to 30 on fig. 2. When they do occur they receive a prominence in illustration which may give a false view of their actual rarity.

"On the other hand, the whole of the Berwickshire group is very like the narrow-bladed series of pygmies found on the Northumberland and Durham coasts. I regard these as being a developed and late form of the narrow-bladed pygmy series of the Pennine Chain, which contains pygmies exceedingly well cut and shaped, and a large proportion of either angle gravers or micro-gravers."

Apart from the very small size of so many of the objects the most striking feature of the collection is the variety of stone utilised in their manufacture. A considerable number are made of flint, many of a green or green and brown chert, and others of chalcedony, quartz, jasper, and even of baked claystone. It is very evident that flint was a scarce commodity in this part of the country, and that the men who made the implements took advantage of any local material which lent itself to splitting and flaking. Green chert, of which so many of the objects are made, it may be said, is found in discontinuous, lenticular bands in the Lower Silurian (Ordivician) formation, right across the south of Scotland, from Irvine and Ballantrae in Ayrshire to East Lothian and Berwickshire. Even in later times, during the Neolithic period, this material was often made into arrow-heads and scrapers in the central and eastern parts of southern Scotland.

The implements found near Banchory, as also those from Scunthorpe and Mother Grundy's Parlour, are of flint, but many of those from the Pennines are of chert.

Twenty-one of the objects shown on fig. 1 are of chert, eleven of flint, three of chalcedony, and one of quartz; eleven on fig. 2 are of chert and eighteen of flint; six on fig. 3 are of chert, nine of flint, one of chalcedony, and one of jasper; and twelve on fig. 4 are of chert, eight of flint, and one of quartz. Taking the whole four groups, fifty are of chert and forty-eight of flint. When we analyse the scrapers, of those shown on fig. 5, ten are of chert, twelve of flint, two of chalcedony, and one of quartz; and on fig. 6 two are of chert, thirteen of flint, and one of chalcedony; that is twelve are of chert and twenty-five of flint. It would thus seem that flint, if it could be got, was preferred for the manufacture of the larger implements. This is what might be expected, as flint is a more tractable material than chert.

These small implements, so far as is known at present, are not found, generally, in those parts of Scotland which have yielded Neolithic flints. As in England and other countries, their occurrence seems to be very local.

They are found in quite a number of localities on Tweedside other than Dryburgh Mains, sometimes on the haugh land near the river, and sometimes on the higher ground some distance away, the stretch of country where they have been discovered extending for a distance of nearly twenty miles as the crow flies. I am informed that examples have been found on Fairnington near Roxburgh, the Fens, in the parish of St Boswells, and at Cleckmae, in the parish of Melrose, all in Roxburgh-

shire; at Whitrighill, in the parish of Mertoun, Berwickshire; and at Smedheugh and other localities near Selkirk.<sup>1</sup> Also, I have seen two specimens in a general collection of flint implements from Westruther, Berwickshire, and a number from Craigsfordmains, Earlston, in the same county, have been illustrated.<sup>2</sup>

Turning to the south-west of Scotland one naturally thinks of the Glenluce Sands, which have produced such enormous numbers of flint implements; but, although a few microliths have been reported from that area, after examining the very extensive collections in the National Museum and belonging to Mr Ludovic M'Lellan Mann, F.S.A.Scot., I have, up till now, found no evidence that a Tardenoisian industry existed there in the same sense as at Dryburgh Mains and near Banchory on Deeside. Certainly, a fair number of fine needle-like tools, some with battered backs and some dressed along both sides, are contained in the two collections named; but typical crescents, triangles, and microgravers are absent. A small collection has been recovered from an area, measuring only a few yards square, on the Shewalton Sands near Irvine in Ayrshire.

Returning to the eastern parts of the country, a few sporadic finds are to be noted. One pigmy implement found on Traprain Law, and one example from the sands near Gullane in East Lothian, are preserved in the National Museum; and Mr James E. Cree, F.S.A.Scot., has three others found in the last-named locality. The Gullane area has been systematically searched for many years by Mr Cree, Mr James S. Richardson, and several other archæologists of my acquaintance; but, although a good harvest of flint implements has been found, only the four examples mentioned are of Tardenoisian types.

In Aberdeenshire, which contains the only extensive deposit of flint in Scotland and which is so rich in flint implements, no Tardenoisian sites have yet been reported, the site near Banchory being just over its southern border. It may be suggested that such sites do occur, but have not been recognised by collectors, because they were chiefly interested in arrow-heads and other well-known types of implements. Still, on the farm of Jericho, in the parish of Culsalmond, which I have had under the closest observation for more than twenty years and which has yielded more than one hundred and thirty arrow-heads and many hundreds of other worked objects of flint, not a single Tardenoisian implement has been found. The same has to be said about the farm of Foulden Moorpark, Berwickshire, which has also been carefully examined for twelve years.<sup>3</sup>

<sup>&</sup>lt;sup>1</sup> Supra, p. 111. <sup>2</sup> Proc. Berwickshire Nat. Club, vol. xv. (1894-95), p. 168, Pl. ii., Nos. 5 to 13. <sup>3</sup> Proc. Soc. Ant. Scot., vol. lviii. p. 112.