

III.

NOTES ON SOME STONE AND FLINT IMPLEMENTS FOUND NEAR
DRYBURGH, IN THE PARISH OF MERTOUN, BERWICKSHIRE.
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The parish of Mertoun, Berwickshire, has yielded no inconsiderable number of objects of archæological interest, and some of these have already been figured or described in standard works or in the published *Proceedings* of this and other kindred Societies. There are, however, in the hands of private collectors, many that have never been recorded, and in the present contribution I desire to direct attention to some of the more interesting objects that I have myself obtained, at intervals during the last four or five years, from the ploughed lands of a restricted area in this parish.

About a mile beyond the village of Newtown St Boswells, in the direction of Dryburgh Abbey, a public footbridge carries us from Roxburghshire into Berwickshire. Immediately after crossing it we come to what is popularly called "The Old Monk's Road," and if we proceed along it, in the direction of the ford across the Tweed, we reach the haugh-lands of Dryburgh. To the right the ground rises abruptly to a considerable eminence, crowned by a colossal statue of William Wallace, erected by the eleventh Earl of Buchan in 1814. On the surface of these haugh-lands, and on the fields adjacent to the monument, flint and other silicious materials occur in considerable quantities, and numbers of primitive implements and other objects of antiquarian interest are annually exposed by the plough.

Flakes and spalls are, as might perhaps have been expected, the most numerous relics. They exhibit considerable variation as regards size, material, and flaking, and a good many of them, as indicated by their blunted edges, appear to have been used as knives or scrapers without further chipping. The material is mostly flint, chert, or quartz, but it includes also one or two interesting examples of pitchstone. The largest flake found measures 2 inches in length. In some cases the flakes exhibit on their surfaces the scars of other flakes, and in others again the outer coating of the nodule is apparent and indicates that a proportion of the flakes and spalls has been taken from weathered or water-rolled pebbles of variable texture and description. Some of the flakes carry the bulb of percussion or conchoidal fracture on the flat or inner face, and many show evidence of secondary treatment.

Cores and nuclei of similar materials and of varied size and character

have been found in considerable numbers. For obvious reasons no two are exactly alike, and special attention is directed to the interesting examples with a characteristic shoulder. A few of the specimens show the crust of the pebble, and others exhibit distinct evidence of having been subjected to the action of fire. Chert pebbles have been frequently picked up, but unworked nodules of flint have not been observed, and this circumstance seems to suggest that the flint was brought to the locality in an already broken or partially flaked condition.

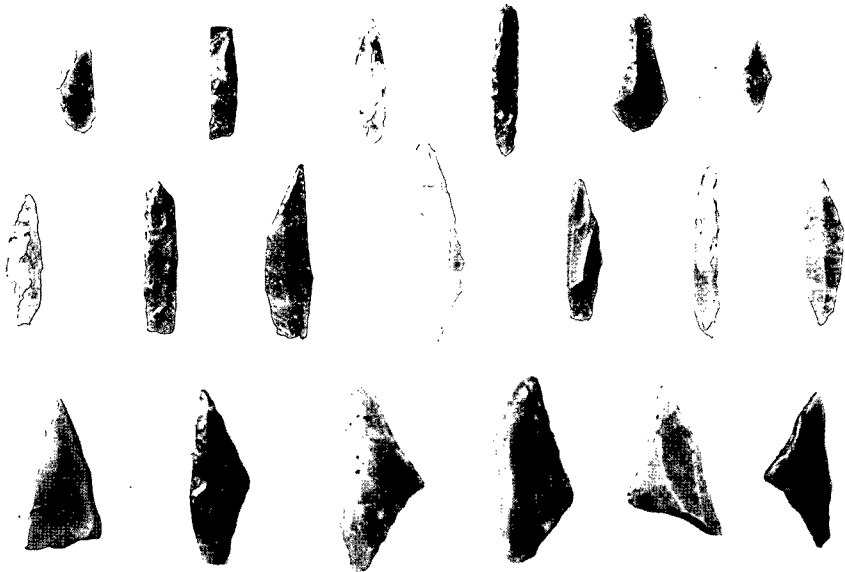
Of manufactured flint-like implements scrapers are by far the most abundant, and while the series includes most of the well-known types in a variety of materials, it possesses one special characteristic in the smallness of the examples. The tiny specimens, averaging not more than half an inch in diameter, of which there are twenty-eight out of a total of sixty-two, are carefully fashioned, and some show traces of calcination. Associated with the scrapers we should, perhaps, include a series of what may be termed notched flints. Specimens of this class are by no means uncommon elsewhere, and in this collection they are represented by twenty examples. They vary greatly in shape, but are usually portions of clean, well-struck flakes, and at first some of them might easily be passed over as ordinary waste pieces. A closer examination, however, reveals the fact that at the ends, or sides, or both, there are small semicircular notches, of varying size, carefully flaked out to a cutting edge from one side only. It has been suggested that such tools were used in the making or straightening of arrow-shafts or in the fabrication of bone pins and needles.

Arrowheads are uncommon. Two specimens only have been found, and they are both of the barbed type and of very small size. The smaller of the two, which has been subjected to the action of fire, was found on the high-lying grounds in association with a scraper, also calcined, and, while the reverse side shows slight traces of secondary working round the edges, it appears on the upper side only to have been subjected to surface flaking. It has a somewhat blunted point, short barbs, and very thin tang. The other, of a more elongated type, with slightly curved edges and short barbs, has been made in similar fashion, the upper side only being beautifully surface-flaked and the reverse trimmed only round the edges. It was found on the haugh-lands.

Reference has already been made to the fact that many of the flakes found on the site appear to have been used as knives or scrapers without further chipping, but in addition to these there are a few knives that afford evidence of special care and beauty of workmanship.

Of all the artefacts of flint or other silicious material, however, that have been recovered from this area, by far the most interesting and

important are the so-called "pigmyes." These remarkable and delicately manufactured implements of crescent, triangular, pointed, and rhomboidal forms, to which the term "pigmy" was first applied by the late Rev. Reginald A. Gatty, have been known to archæologists for many years. Priority of discovery appears to belong to the late Mr Thomas Honeywood of Horsham, who, as the result of many years' close observation, accurately described the most common type of pigmy in the



Examples of Pigmy Flints found near Dryburgh.

following terms: "The next type is very curious. They are small, generally about one inch in length, and about a quarter of an inch in width, and appear at first sight to be mere chippings or waste pieces, but on examination we find evident proof of design in their manufacture. Of this type I have dug up above one hundred specimens, and every one alike, having a sharp point at the end, also a sharp cutting edge on the right side; but on the left side they are thick and chipped away, evidently for some special purpose. . . . What their use was it is impossible to say, but . . . these specimens might have served as arrow-points."¹

They were later noted by the late Mr A. C. Carlyle, of the Archæo-

¹ "Discovery of Flint Implements near Horsham, in St Leonards Forest," *Sussex Arch. Coll.*, 877, p. 180.

logical Survey of India, who discovered them in the caves of the Vindhya Hills, and almost simultaneously they were found by the Rev. R. A. Gatty, and by Messrs Law and Horsfall on the Pennine Chain in England.¹ They have since been met with in many widely separated North African and continental areas, and further discoveries have been reported in England from Scunthorpe, Lincolnshire; Lakenheath, Cambridgeshire; Hastings and Brighton, Sussex; Sevenoaks, Kent; Enstone, Oxfordshire; and the Isle of Man: in Ireland they have been found in the Isle of Aran; and in Scotland certain forms have been found at Shewalton Sands, Ayrshire, and on several sites in Roxburghshire and Berwickshire, but hitherto, we believe, specimens of the well-defined Indian crescentic types have only been recorded for one locality.² They are usually exceedingly small, sometimes being less than half an inch, and very rarely exceeding an inch and a half in length, and they are characterised by special forms and a unique method of working the flint, supposed by some archæologists to have been effected by means of a slot in a piece of bone very like the wards in a key. Various purposes have been assigned to these beautiful little implements, but the question of their use is extremely difficult to answer, and so far no conclusive explanation has been given by the authorities. Some have supposed that they were tied to the points of arrow-heads; others that they formed lateral barbs of harpoons; others that they were tattooing instruments; others that they were connected with some domestic work of women, such as carding wool, cloth, or hide; others that they were fish-snags, or borers for making holes in skins or other harder substances like shell; others that they were used as needles, the flints being affixed to the cord or fibre by resinous gum in much the same manner as the modern shoemaker fixes his birse; others that they were carving tools; and others again that they were employed in the fabrication of bone pins, needles, etc. These suggestions as to their use are, at present, largely based upon conjecture; and as harpoon heads of stag's horn set with sharp pieces of flint along two edges have been found in Denmark, and small perforated shell discs have been found in Spain, and rubbed-down pieces of "geru" or red hæmatite, with rounded stones for pounding the mineral into a pigment, have been found in India in association with pigmies, we need not assume that their use was in every case uniform. Indeed, it appears obvious, in view of the highly specialised forms of the different types, that each class was designed for some special purpose; and whatever

¹ *Chambers's Journal*, May 1905; and *Proc. of the Yorkshire Geolog. and Polytechnic Soc.*, 1882.

² "Pigmy Flint Implements: Their Provenance and Use," 1913. Reprinted from the *Trans. of the Lancashire and Cheshire Arch. Soc.*, vol. xxx. p. 14, and footnote p. 22, and Report of the British Association Meeting at Dundee, 1912.

these uses may have been, it is clear that the makers on the Vindhya Hills and the makers at Dryburgh had the same ideas in their minds. These delicate little implements were believed by some archæologists to be the work of a pigmy race, and although the characteristic smallness of all the Dryburgh flints may appear to make the pigmy series all the more complete, I do not think it necessarily implies a relationship between the size of the implements and the size of the makers. The theory, indeed, appears to be wholly negatived when we remember that the actual remains of prehistoric man hitherto discovered in this country are mostly of a normal type. No area has yet been found that yielded only subnormal types. It is doubtful even if we would be justified in identifying them solely as the product of a particular race or wave of population which has migrated westward in the directions in which they have been found, because, as Sir John Evans has pointed out, they may merely show that some of the requirements of daily life and the means at command for fulfilling them being the same, tools of the same character have been developed irrespective of time or space. In the Dryburgh series—the first of which was found on 25th December 1911—all the forms, including a single rhomboid, a type always rare in English collections, are represented, and they exhibit the same variation in regard to the material from which they are fabricated as do the other products of the site previously described. This is an important point, and I lay stress upon it because it may help to determine the age of these pigmies, inasmuch as it seems safe to assume that, in consequence of this feature, they must be regarded as belonging to the same period as the other flints with which they are found associated as surface finds. With regard to the site itself there is, in this connection, a special interest, because it presents a wonderful parallel to other stations both in this country and on the Continent, where similar pigmy flints have been found in abundance. In a pamphlet entitled "Observations on some very small Implements of Flint," the writer, Monsieur de Pierpont, gives a full description of his discoveries on the high lands above the river Meuse, and he states that "these plains are protected on one side. . . . Polished flints are absent. Great flakes and all that defines the most flourishing Neolithic period are absent. The little points only are found." The description is very similar to that given by the late Rev. Reginald A. Gatty with regard to the Scunthorpe finds. He says: "Scunthorpe may be described as a sandy district. . . . The ground rises rather abruptly"; and "It is interesting to observe again the absence of large tools." These accounts, and many others that could be quoted, are equally descriptive of the Dryburgh area, where, as we have already indicated, the ground is

of a sandy character, rising abruptly to a considerable eminence, and with an entire absence of large or polished flints.

The objects previously described are the industrial products of man's manipulative skill, but there are other varieties of stone implements, such as hammers and anvils, that serve to illustrate the means by which he accomplished these results. At first these implements would be hardly distinguishable from natural objects, but in the case of all the Dryburgh examples the pittings and abrasions are so distinct as to leave no doubts as to the purposes for which they had been utilised. A fine anvil stone $8\frac{1}{2}$ by 5 inches, with pittings on both sides and the edges abraded, was picked up on the haugh-lands on 21st March 1913, and close beside it lay a neat little core of very dark chert. A second example, found on the higher ground on 1st December 1914, is smaller, but the abrasions are equally clear and indicate use also as a hammer stone, evidently for finer work. The hammer stones are usually river-worn stones, and one specimen found on the haugh-lands, on 22nd December 1911, illustrates very clearly the method of grasping the tool, that portion of the stone which was held in the hand being indicated by the absence of abrasions. We have also an example of the stones with cavities on each side to afford a firmer grip for the finger and thumb. These form a numerous and well-defined class.

But in addition to these implements we have others that are in no way associated with the operations of the flint-worker. Among these are stone-sinkers, polishers, or smoothers, and stones chipped wholly or partially round the edges from one face only. Of these objects the waisted stones, generally supposed to have been used as net or line sinkers but which, according to one authority, may have served a variety of purposes, have been found in large numbers. They are usually, but not always, discovered in the vicinity of water, and they occasionally have two or more notches in each side. They vary considerably in size and weight, one of the specimens measuring only $\frac{3}{4}$ inch in length, $\frac{1}{2}$ an inch in breadth, and weighing less than a quarter of an ounce; and others measuring 9 by 4, or $7\frac{1}{2}$ by 5 inches, and weighing 2 lbs. $3\frac{1}{2}$ ozs., and 1 lb. 15 ozs. respectively.

The polishers or smoothers of quartz, of which there are twelve examples, are commonly worked or polished to a convex surface on one side, and occasionally also on two sides. They are identical in form with those found by me on the site of the Roman fort at Newstead, near Melrose, and illustrated and described in a previous paper to this Society;¹ so that, beyond recording their presence on the Dryburgh area, it will not be necessary to describe them further.

¹ *Proceedings*, vol. xlviii. (1913-14), pp. 339, 340.

The chipped stones are made from ordinary flattish river-worn stones, and the characters that give the stones their main interest are such as must have been imparted to them by artificial means. In the partially chipped examples there is a marked difference of form between the two sides of the stones. The one is smoothly rounded by the action of water and by friction against other stones, while the other is carefully chipped from the one face. The purpose for which they were intended is not clear, but they would prove useful implements in the operations of skinning, and, I believe, something of a similar kind was, at one time, in use among the native tribes of India and North America for that purpose. Those chipped wholly round the edges are roughly circular, and similar in type to the well-known specimens from the Culbin Sands. It has been suggested that they served the purpose of pot-covers.

Among other objects that belong to a comparatively recent date, we have a fine example of a mould for casting buttons of lead or pewter. It is made of slate, somewhat rhomboidal in shape, and has two very finely engraved matrices of elaborate design measuring 1 inch and $\frac{7}{8}$ inch in diameter respectively on the one side, and a single, slightly imperfect, matrix measuring $\frac{5}{8}$ inch, also of intricate design, on the other side, which has been somewhat mutilated at one end by the plough. These moulds were used both as open and closed moulds, but in the latter case they were provided with small stud-holes or notches for guiding and fixing the component part—the cover (*cf.* Graham Callander in *P.S.A. Scot.*, vol. xlvii.). The Dryburgh specimen is one of the open type, and it should probably be assigned to the seventeenth century.

In seeking to determine a chronological position for the silicious implements, we notice first of all that throughout the entire series similar materials, from which to fabricate them, have been employed, and this feature leads me to believe that they are mutually related and contemporaneous. The presence of the characteristic shoulder cores and minute working both point to a very early period, and although it has been demonstrated that cores and implements of the same types as these Dryburgh examples were made on the Continent during the late Palæolithic Age, we find here that, in keeping with several areas in this country, there is an admixture with tools, *e.g.* barbed arrow-points and polishers, of a somewhat later period, and even with relics of more modern times.