

II.

NOTES ON STONE AND FLINT IMPLEMENTS FOUND ON THE FARM OF FOULDEN MOORPARK, BERWICKSHIRE. BY ROBERT KINGHORN, F.S.A.Scot.

At the term of Whitsunday 1911, we—the other members of our household and myself—entered into the occupancy of the farm of Foulden Moorpark, on the Foulden estate, then the property of Sir James Wilkie Dalzell of Binns. Very shortly after commencing the cultivation of the land for the turnip crop, it became apparent that the scene of our labours had been an inhabited site in prehistoric times. Few days passed without flint implements and chips being found. Our interest being aroused, a careful look out has been kept for these relics of the past. During our twelve years' tenancy of the farm, which ended Whitsunday 1923, fifty stone and over four hundred flint implements have been found; while flint chips, obviously struck off in the manufacture of tools, must be numbered by the thousand.

Moorpark Farm (fig. 1) extends to about 126 acres, and is situated on the ridge of ground which, commencing near Berwick-on-Tweed, ends somewhat abruptly at Chirnside. The farm from its highest point in the field known as the Freestonehill, about 460 feet above sea-level, has a slope to the south and east, its lowest part being in the Crawlea field, 376 feet. Before being drained about forty years ago, the lower parts of the farm were wet and abounded in marshy spots. The higher parts, being of light porous soil, have never required much drainage, and have always been dry. In accordance with this, we found that the flints were most numerous in the high and dry fields, and in the low parts were mostly found on the knolls and a dry ridge. It is perhaps worth noting that the area of low, flat land between Moorpark and the farm of Foulden Hill, before being drained, was a series of shallow lochs and marshes extending to an area of about 30 acres. In the memory of old people I have met, these lochs were much frequented by wildfowl, and no doubt would abound with fish in prehistoric times. From the high ground down to the margin of the old-time loch runs a low ridge of ground which would furnish dry footing at all times of the year. That this ridge was made use of is proved by the fact that flints and chip-pings have been more numerous found down its course than on either side. No doubt the settlement derived its supply of wildfowl and fish from this source. The site seems to have had its focus in the Freestonehill field, particularly on the edge of a terrace with a rather sharp

fall to the south. From this part an extensive view is obtained across the valleys of the Whitadder and Tweed to the Cheviot Hills. By reason of its southerly aspect and dry situation, this would be a desirable spot for inhabitation. Near here three axes have been found within a radius of about 50 yards. Altogether six axes have been found in this one

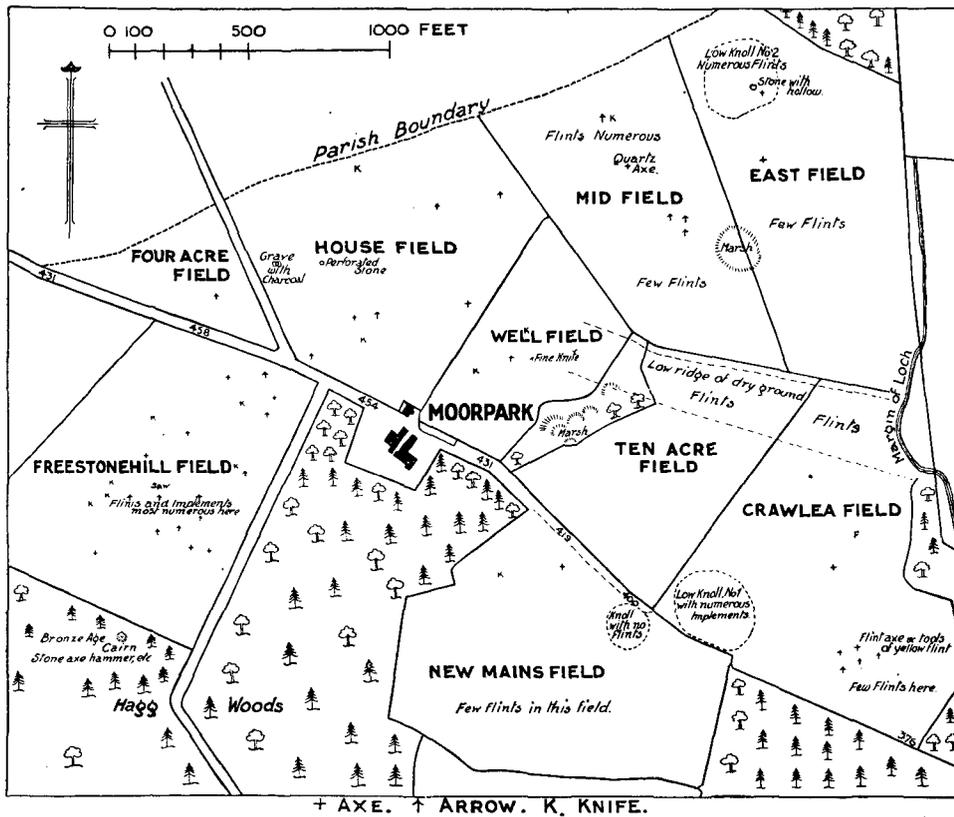


Fig. 1. Map of Foulden Moorpark Farm, showing localities of finds.

field. It has also furnished a large proportion of the flints. In the lower fields the two knolls most productive of implements are marked on the map. Knoll No. 1 is situated in Crawlea field. It is quite a low rise in the ground, but is sandy and dry. A curious fact is, that a similar knoll only about 50 yards away, and to all appearance even better suited for occupation, has been entirely barren. Knoll No. 2 is in the East field, and has furnished a good many objects. That the district was inhabited into the Bronze Age is proved by the excavation of two cairns of that

period containing cists conducted by Mr J. Hewat Craw, F.S.A.Scot., in 1913, in the adjacent Hagg Wood, the results of which were communicated by him to the Society, and published in the *Proceedings*, vol. xlviii. p. 316. I may add that the site of another cist was excavated by me in 1914 in the House field. Some stones were found to impede the plough, and on digging them out a pit of forced earth was found. About 18 inches from the surface a good deal of charcoal was recovered, but no other relics. The relics found in association with the burial mounds in the Hagg Wood were two food-vessels, a stone hammer, and flint knives and scrapers. Although a careful look-out has been kept, no trace of bronze has ever been found.

It is one of the interests connected with collecting stone and flint implements on so restricted an area as that of Moorpark, that one is almost certain to find examples of nearly all the tools used on that area. As the detailed description shows, their variety is surprising, and proves how far specialisation of tools had been carried. It is also interesting to note the relative numbers of the various types. Although it is somewhat difficult to place every implement according to type, the various kinds shading into each other, an analysis gives the following approximate results. Of stone implements hammer-stones head the list, thirty-one having been found. Axes are next with fifteen whole or broken specimens. Apart from axes and hammers, very few tools of stone appear to have been used. Two anvil stones, half of a perforated stone, and a stone with a hole drilled some distance into it complete the list. Of the flint implements, including a few of chert and quartz, the thumb- or horseshoe-scraper heads the list with one hundred and fifteen specimens. This is, I believe, in accordance with the fact that this species of implement was the most common tool of prehistoric man. Scrapers with longer handles, many of them not so rounded on the working edge as the horseshoe variety, number forty-one; arrow-heads of the various types, forty; knives, various, forty; implements which may have been used either as knives or scrapers, forty-four; boring points, seven; gravers and pointed tools, fourteen; hollow scrapers, three; small worked flints, twenty-one; saws and toothed flakes, ten; implements of unusual shape, seven; flints of a somewhat nondescript nature, which may have been used as knives or scrapers, as all bear secondary chipping, sixty-six.

In giving a more detailed description of the various tools, the hammer-stones are round, water-worn pebbles of quartz or quartzite with flat sides, battered round the edge with use. Only on two of a longer type, measuring $4\frac{1}{2}$ inches and 5 inches long by 3 inches wide, do traces of shaping and grinding appear. Of the fifteen axes found only

four were entire. The best specimen from Freestonehill is of greenstone, measuring 4 inches long by $2\frac{1}{2}$ inches wide. It was found a few months after our entry into the place. The largest entire axe found, measuring $5\frac{1}{2}$ inches by $2\frac{3}{4}$ inches, also from Freestonehill, of a hardened sedimentary stone, is exceeded in size by an axe from Crawlea field, of which the fragment, 5 inches long, is apparently little more than the half. A



Fig. 2. Flint Axe and Scrapers. (†.)

curious feature of the fractured surface is that it has been ground into a hollow curve. Perhaps after being broken the butt part may have been used to grind other axes into shape. An axe of hardened mudstone, measuring $4\frac{1}{2}$ inches by $2\frac{1}{2}$ inches, is much wasted. A small flint axe (fig. 2, No. 1) found by me in Crawlea in 1917, measuring $3\frac{1}{2}$ inches by $1\frac{1}{2}$ inch, is of yellow-brown mottled flint, made with bold flaking without any subsequent grinding or polishing. It was found in a low, flat part of the field where few flints occur. About the same time other four implements of similarly coloured flint (fig. 2, Nos. 2 to 5) were found. This axe

is the largest implement of flint found on the place. The other four flints—scrapers—are also decidedly larger than the average. One wonders if some man of the Stone Age suffered the loss of his entire kit of tools of yellow flint in the marsh. One day, walking through the Mid field, I noticed a piece of white quartz of unusual shape. On picking it up it was found to be part of an axe. Unfortunately, the fragment is small, but there is enough to show that the implement must have been a fine one of beautiful colour and finish. One side is rounder than the other. The edge shows the flattening characteristic of many stone axes. This fragment, along with the fine axe of white quartz¹ in my collection from another part of Berwickshire, proves that prehistoric man fashioned so intractable a material as quartz into cutting implements of great beauty of shape and finish. A fragment of an axe from the knoll in the East field looks as if it had been subjected to the action of fire. Another greenstone axe comes from the same part. A small greenstone axe from the Freestonehill, measuring $3\frac{1}{4}$ inches by $1\frac{1}{8}$ inch, is the smallest found. The other axes are of hardened sedimentary stone and call for no detailed description.

One day, when ploughing in the House field, in lifting the last furrow the plough went a little deeper than usual, and turned up a stone which on examination proved to be the half of a perforated stone of a hard reddish sandstone. It measures about $3\frac{1}{2}$ inches in diameter by $1\frac{1}{8}$ inch thick. The hole, $\frac{1}{2}$ inch in diameter, is worked from both sides, and is put through in a slightly slanting direction. A stone of quartzite from the knoll in the East field is roughly circular except at a part of the edge, which is straight; it measures $2\frac{3}{8}$ inches across and $1\frac{1}{2}$ inch thick at one edge, but is considerably thinner at the other. It has a hole $\frac{5}{8}$ inch in diameter drilled into it to a depth of $\frac{1}{2}$ inch. On the other side the stone is slightly hollowed, and at the deepest part shows the commencement of another hole. On the greater part of the surface the stone has been roughened by picking. Perhaps this was done to give the hand a more secure grip. The two anvil stones are water-worn quartzite stones of a longish shape. Both are broken and have the natural surface mostly destroyed by use.

IMPLEMENTS OF FLINT, CHERT, ETC.

The one hundred and fifteen thumb-scrapers found vary in size from $\frac{5}{8}$ inch to $1\frac{3}{4}$ inch across. They are of all degrees of workmanship, some specimens being finely made and others showing little care bestowed on them (fig. 3). The base is mostly straight or slightly rounded. One

¹ This axe is now on view in the Museum.

specimen is noticeable for having the base a hollow angle, and another, No. 7, is made of green radiolarian chert. Twelve bear evidence of calcination. The forty-one scrapers with longer handles than the horse-shoe type (fig. 4, Nos. 1 to 9) range in size from $\frac{1}{2}$ inch by $\frac{5}{8}$ inch to $1\frac{1}{2}$ inch by 2 inches. A fine scraper of the duck-bill type, but with slanted edge, is from the Freestonehill. Two, of which one is calcined, are small

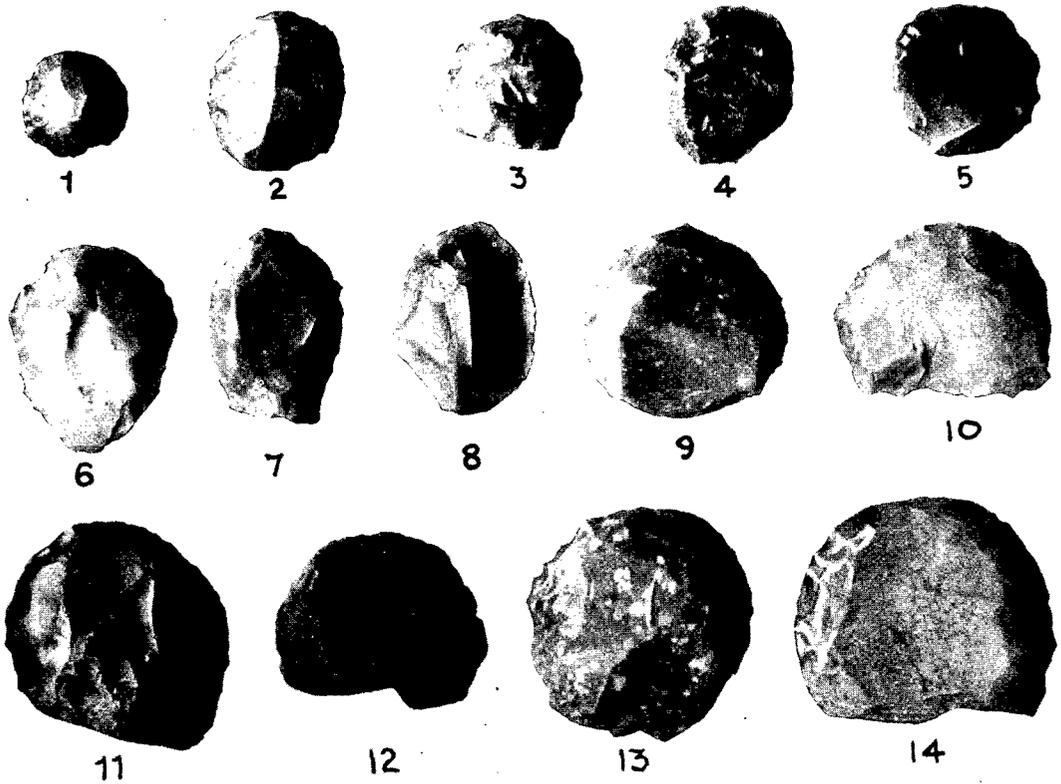


Fig. 3. Flint Scrapers. (†.)

scrapers with handles narrower than the head, giving them a tanged appearance. Another has a hollow worked in the base.

Of the forty arrow-heads found, of which fifteen are illustrated in fig. 5, all are of flint except one, No. 3, which is of dark grey chert. Of the various types, six are barbed and stemmed, five lozenge-shaped, twelve leaf-shaped, and nineteen triangular, or nearly so, some having a slightly rounded base. No. 1, a beautiful barbed and stemmed specimen, $1\frac{1}{4}$ inch by 1 inch, was found on the farm of Foulden Hill in a field

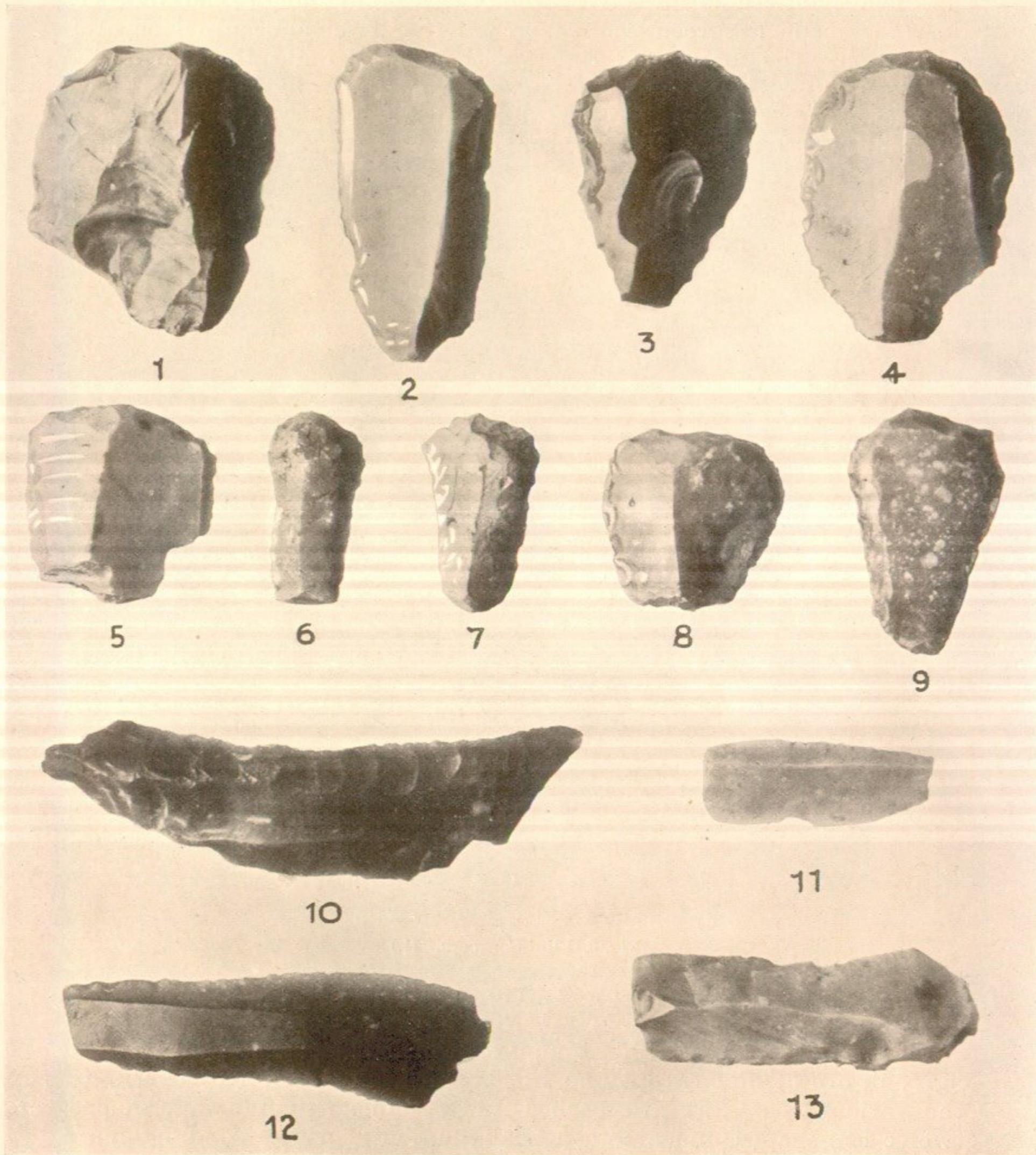


Fig. 4. Flint Scrapers and Saws. (†.)

adjoining Moorpark. The smallest of the class, No. 2, is $\frac{11}{16}$ inch by $\frac{5}{8}$ inch. The finest of the lozenge type, No. 6, is $\frac{9}{16}$ inch by $\frac{1}{2}$ inch, and shows

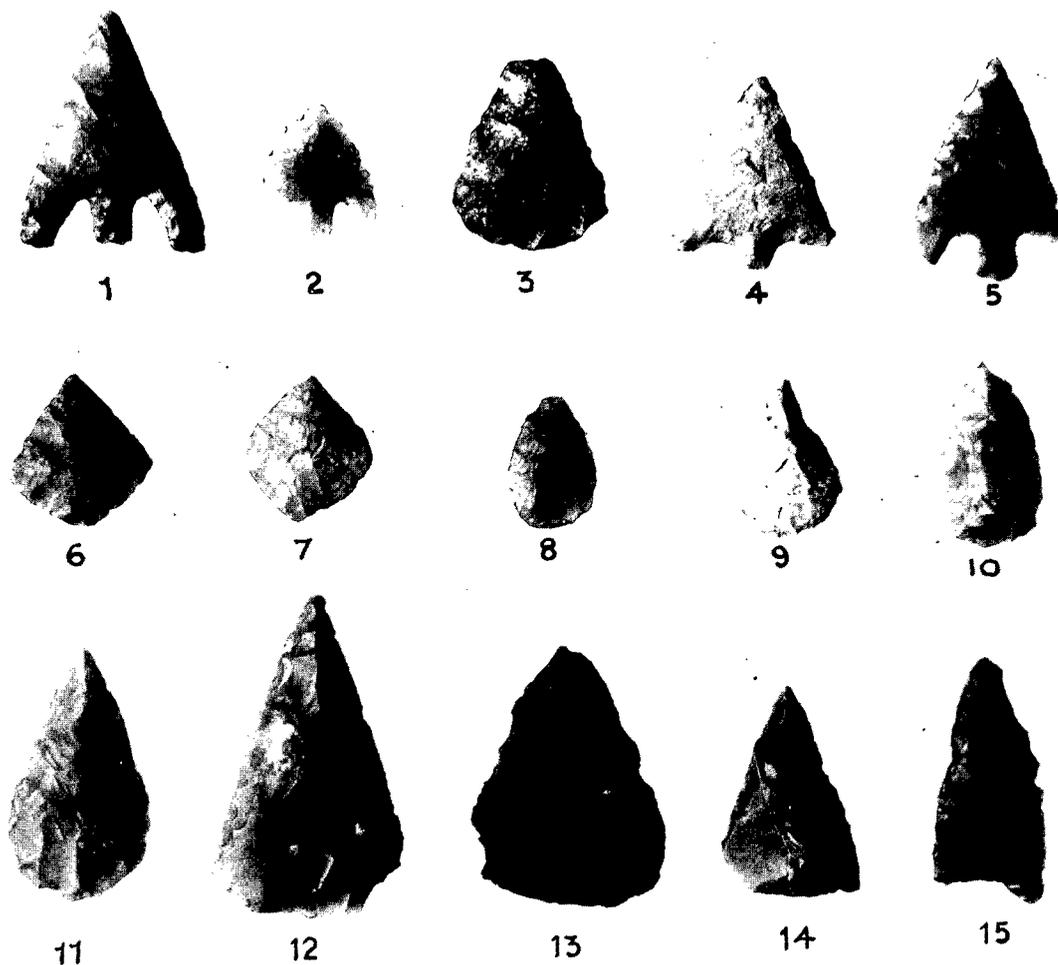


Fig. 5. Flint Arrow-heads. (4.)

workmanship of a very high order. No. 15, from the Freestonehill, measuring $1\frac{1}{4}$ inch by $\frac{5}{8}$ inch, is of the ordinary lop-sided type, with the secondary chipping mostly on the short side and hollow base; and another from the same field, with point and base broken off, is noteworthy as

having the finest ripple-flaking of any flint found. Three from their larger size may have been spear-points.

The knives, of which thirteen are illustrated in fig. 6, number forty. No. 1 is a finely worked curved knife from the Freestonehill, $2\frac{5}{8}$ inches by $\frac{5}{8}$ inch in size. No. 5 is of radiolarian chert, somewhat roughly made. No. 7 is a large knife, measuring $2\frac{1}{8}$ inches by $1\frac{3}{8}$ inch. No. 8, an imperfect knife, is $1\frac{1}{2}$ inch by $1\frac{1}{2}$ inch in size, and well made with bold flaking. No. 10, which is finely chipped all round the edge, is of pitchstone. No. 12, $1\frac{7}{8}$ inch by $\frac{1}{16}$ inch, has two hollows worked out opposite each other $\frac{3}{4}$ inch from the point. No. 13, a knife with double curve, $2\frac{5}{16}$ inches by 1 inch, has a hollow worked out near one end. There are also other forty-four implements, which might serve the double purpose of knives or scrapers; in many cases it is difficult to say which.

Of the ten saws and toothed implements, a few are shown in fig. 4, Nos. 10 to 13. No. 10, from the Freestonehill, is the largest, 3 inches by $\frac{1}{16}$ inch; one edge is dressed and finely toothed. No. 11, $1\frac{1}{16}$ inch by $\frac{1}{16}$ inch, from the House field, has been much used, the teeth being worn away except for $\frac{5}{8}$ inch of its length. No. 12, from the same field, is toothed on both edges. It is remarkable for the neatness and fineness of the serrations, which number 28 to the inch.

The graters and borers number fourteen, several being illustrated in fig. 7, Nos. 1 to 7. In No. 1, 3 inches by $\frac{5}{8}$ inch, the natural curve-fracture of the flint is taken advantage of to make a very keen point. Amongst the others are examples of an interesting class, having the point in an oblique direction.

Two of the hollow scrapers, which number three, are illustrated in fig. 7, Nos. 8 and 9. No. 8 is worked into two small hollows, while No. 9 has a broad, shallow concavity.

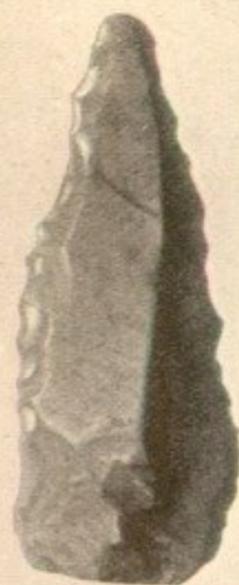
Of the ten flints worked to a long point, Nos. 2 and 3 are like knives, but could serve the double purpose of knife and borer. No. 4 is triangular in shape and resembles an arrow-head.

There are twenty-two flints of small size which might be taken as pigmy flints, but none of them shows the characteristic forms of that class.

A number of implements, of which only one specimen has been found, are as follows:—A core-like object, 1 inch across the under side, which has the outline of a horseshoe-scraper. It is about $\frac{3}{4}$ inch thick and is contracted upwards, giving it the appearance of a miniature horse-hoof. Secondary working shows round the lower margin. The only implement I can find that it bears any resemblance to is the keeled scraper, an implement of the Upper Palæolithic which has been traced down to at least Azilian times. The material is a quartz-like stone. Fig. 7, No. 15, is a



1



2



3



4



5



6



7



8



9



10



11



12



13

Fig. 6. Flint Knives. (1.)

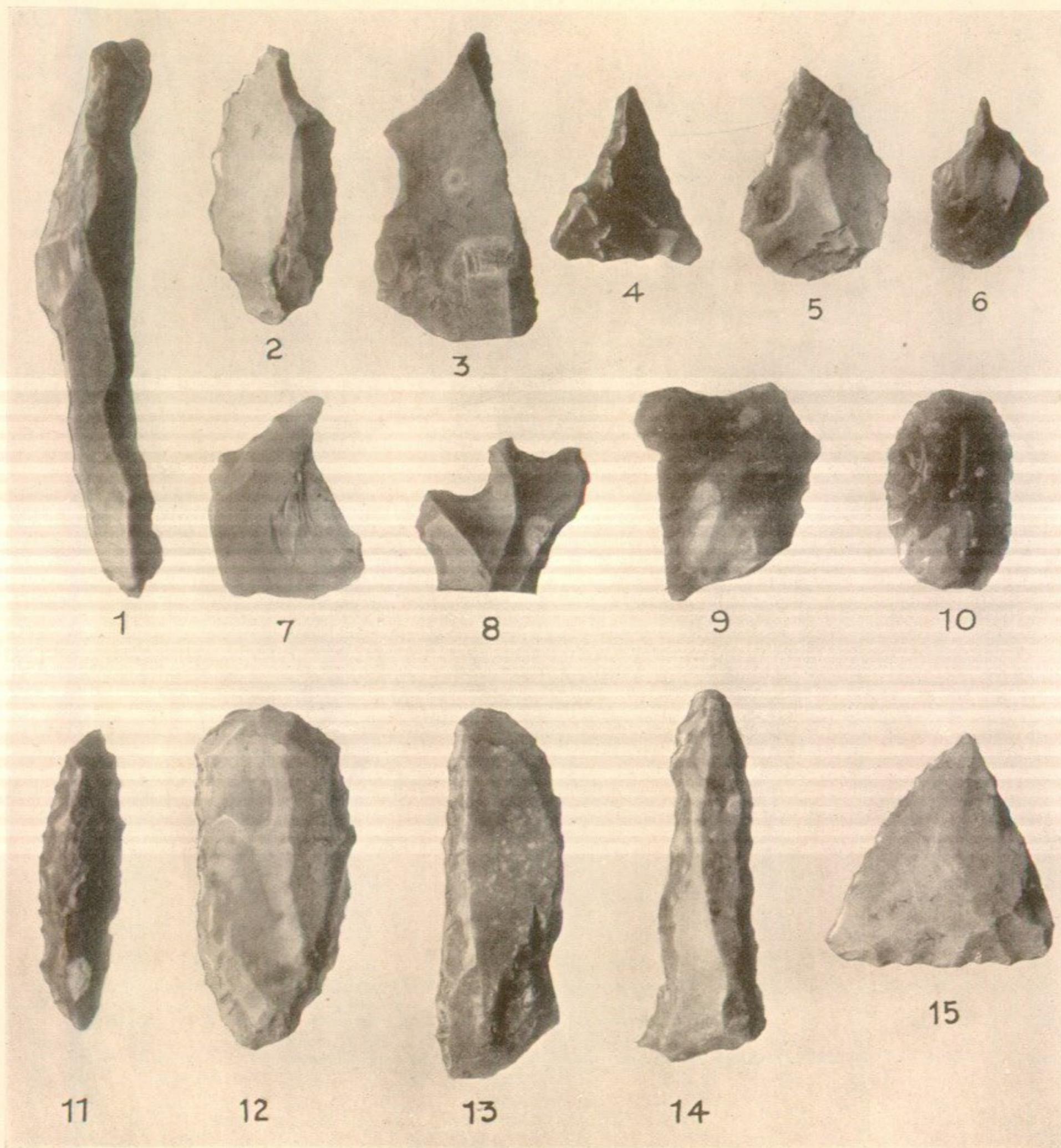


Fig. 7. Miscellaneous Flint Implements. (†.)

triangular implement, worked along two sides towards a point with the base split to a thin edge. The worked sides measure $1\frac{3}{8}$ inch in length and the base $1\frac{1}{4}$ inch. No. 11 is a beautifully shaped and worked implement of ornamental appearance, measuring $1\frac{5}{8}$ inch by $\frac{7}{16}$ inch by $\frac{3}{16}$ inch. One face is flat, the other rounded. It tapers with a curve to a point at both ends, giving it a willow-leaf outline. No. 10 is a thin ovoid implement, measuring $1\frac{1}{16}$ inch by $\frac{3}{4}$ inch, carefully worked all round. One face shows the bulb of percussion reduced by flaking. It might be a small knife. There are a small implement of chalcedony, almost round, measuring $\frac{9}{16}$ inch diameter, and a fine translucent piece of the same material flaked to a knife point, from knoll in the East field. A lozenge-shaped piece of dark coloured flint, measuring $1\frac{1}{2}$ inch by $1\frac{2}{16}$ inch by $\frac{9}{16}$ inch, is battered on the angles. In addition to the tools, many cores and lumps of worked flint have been found. Many of the cores are worked to a small size, showing that economy of this material was practised. The knife of pitchstone and other three fragments of this material are notable as proving the distance this glassy mineral was carried by prehistoric man, Arran being the probable source of supply. One fragment measures $1\frac{1}{2}$ inch by 1 inch by $\frac{1}{2}$ inch. Chalcedony is abundant in the soil.

In conclusion, I would like to say that there must be many similar sites to Moorpark in our land awaiting investigation. No one is in so good a position to do so as the farmer and the ploughman. They alone are able to search for relics in the course of their daily labour. It takes practically no time from their work. The eye catches the sparkle of the flint. A moment transfers it to the pocket, to be examined at leisure. I can testify that many a time after finding a fine specimen the toilsome day seemed to go better.