

ART. II.—*Eskmeals sand-dunes occupation sites —
Phase I, flint working.* By J. CHERRY, B.Sc.

Read at Seascale, July 13th, 1962.

IN 1960 I became interested in the sandhills sites to the north of Ravenglass, visiting those which had already been discovered. A search of the microlithic¹ and later flint sites² at Drigg, revealed a number of worked artefacts which had become exposed by the shifting sands. Knowing how carefully these sites had been combed, I decided to go to the sandhills to the south of Ravenglass, where the late Miss Fair had reported a flint site in 1936^{3 4 5} to see if any fresh material had been uncovered. Most of this area is now within the boundaries of the Proof and Experimental Establishment, and permission was obtained from the Superintendent to search the ground at the northern end of the Monk Moors gun-range.

The purpose of this paper is to describe the results of our survey and to record the position of the sites discovered. For the sake of completeness, I have included a separate note on some of the published and unpublished finds of the late Miss E. Markham. It is intended to describe finds of iron bloomeries and mediaeval pottery in later papers.

Map references are quoted from the 6-in. Ordnance Survey Sheet SD. (34) 09 SE.

¹ D. Nickson and J. H. Macdonald, *A Preliminary Report on a Microlithic Site at Drigg, Cumberland*, CW2 lv 17.

² D. Nickson and J. H. Macdonald, Private communication.

³ M. C. Fair, *A Sandhill Site at Eskmeals, West Cumberland*, CW2 xxxvi 20).

⁴ M. C. Fair, *Flint Implements from Eskmeals and West Cumberland Sandhill Occupation Flint working in the Sandhills*, CW2 xxxvii 100 and 214.

⁵ M. C. Fair, *West Cumberland Prehistory. A Petit Tranchet Derivative from Eskmeals Sandhills*, CW2 xxxviii 311.

Sites and Finds.

Site I (Map Ref. 30814943).

Situated west-north-west of Eskmeals station, outside the gun-range, in an area of sandy gravel with large broken pebbles and a few pieces of iron slag, it is bounded on the north and east by dunes. Here we found a few flakes, a rather battered core, and a honey-coloured flake scraper. The latter is roughly circular, about 1 in. in diameter, and exhibits fine secondary working round half its circumference.

I believe this to be the area reported by Miss Fair in 1936 as hearth A.

Half a mile north of here we picked up fragments of a saddle quern and rubber. (Map Ref. 30814950.) These were brought to my attention by Mr C. Bryant of Seascale, who noticed them lying on the well sanded gravel of the 25-ft. raised beach. We were fortunately able to find all the fragments of the rubber and all save two fragments of the quern. The rebuilt pieces are illustrated in fig. 8.

Site II (Map Ref. 30794938).

This site has produced the greatest weight of flint debris, and although there was a heavier concentration in two places near the centre, flakes and chippings were scattered over an area 250 ft. x 300 ft.

The floor consists of gravel in the typical fulls and swales of a raised beach, the swales having a covering of sand. Dunes lie to the north and south, whilst to the east are the remains of a house and outbuilding. The house is almost completely buried by the blown sand. On the side of the northern dune, about halfway along the site, are the remains of two small brick sheds. These were used until about 1930 in conjunction with tests to improve safety conditions in coal mines.

I have obtained a description of this area in 1930 from a man who worked on the mines project, and this has

convinced me that there has not been a great deal of change on the site itself from that time. This would also add weight to the reasoning that Miss Markham's flint-chipping floor was further north, since she could scarcely have missed this site had she ventured south.

At the south-eastern end of the site are scattered pieces of iron slag, whilst in the centre was an area containing broken mediaeval pottery.

We have so far found the following flint artefacts: 47 scrapers, 10 knives, 8 utilised flakes, a broken arrow-tip, 1 fabricator and 25 cores, together with a number of pieces of doubtful purpose. In addition to the flint we found 1 segmented blue-glass bead.

Site III (Map Ref. 30794935).

It is due west of the house known as "Broom-Bank", in a narrow valley between the dunes, about 250 yds. south of site II.

The beach formation is the same as at the previous site, but the ground falls fairly sharply from the west towards the centre of the area. The main concentration of flint flakes was at the lower end of the slope, although pieces were picked up at the eastern and western ends of the gravel bed. The finds include 18 scrapers, 2 blades, 2 arrowheads and 5 cores, together with a number of worked pieces of flint of doubtful purpose.

Site IV (Map Ref. 30814930).

Located on the seaward side of the look-out tower, south-south-west of Eskmeals station, the site is more open than those further north, and the gravel beds are more overgrown. Part of the ground is low-lying and rather damp, covered with scrub, grasses and low-growing plants, with gravel showing through here and there. Towards the north the ground rises several feet and the area is edged with sand-dunes. Immediately to the south

is a level space marked on the Ordnance Survey map as "Vickers Gun-Range Target".

The region in which flakes and chips occur is quite extensive around site IV. Artefacts have been found to the west near to the present storm-beach, and away to the south-west. One or two pieces exhibiting doubtful secondary working have been found in these areas, but nothing really definite has been picked up as yet.

The finds include 10 scrapers, 1 fabricator, 4 blades, 3 utilised flakes, 3 knives, 1 borer, 3 tanged and barbed arrowheads, 1 single-barbed arrowhead and 11 cores, together with 9 pieces of doubtful purpose.

It is worth noting that the artefacts from this site generally exhibit better workmanship, are more varied in type, and have a much lower proportion of scrapers than sites II and III.

Site V (Map Ref. ? ? ? ?).

Unfortunately the site discovered by Miss Markham in 1935 was not clearly referenced in CW2 xxxvi 20. Despite some hours of search I have not been able to locate the place with any degree of certainty. Indeed, it is highly likely that it is once more covered by sand. A possible clue was found at Tullie House, on a note in a box of flint flakes which belonged to Miss Markham. This mentions that the finds were made by "the big lake of Vicars". I feel sure that this is a mis-spelling of "Vickers", due to the fact that a farm close to Miss Markham's home was owned by a man named Vicars. The only place where I have seen a considerable stretch of water is at Map Ref. 30804941. This area sometimes floods in winter. People who were living in the district in 1935 speak of skating on a large frozen lake somewhere in the region mentioned.

My reference for the site is only a surmise and I doubt whether we shall ever know for certain.

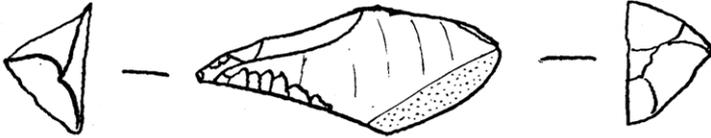
As far as we have been able to ascertain, Miss Mark-



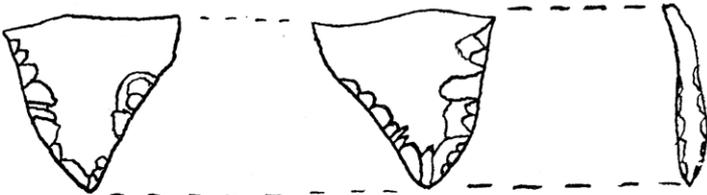
50. 2/1.



51. 1/1.



42. 1/1.



36. 1/1.

FIG. 1.— Bead and flints from site II.

ham's flint collection includes: 3 arrowheads, 1 tranchet derivative arrowhead, 36 scrapers and knives, 1 serrated blade, several utilised flakes and some pieces of doubtful purpose.

I have not been able to trace any of the arrowheads, but from drawings and photographs^{4 5} it would appear that none of them had pronounced barbs. The tranchet derivative arrowhead falls into class C.1 of Professor Clark's classification.

Site VI (Map Ref. 30814950).

We have so far found here a saddle quern and rubbing-stone together with a few nondescript flakes of flint. The quern and rubber are fully described under fig. 8.

Here again we have raised beach and partially overgrown sand-dunes. The dune to the north is not static and the beach pebbles are often partially covered with blown sand. Over the low dune to the south is a wide stabilised plain covered with a poor sort of grass, with gravel showing here and there. The eastern edge of this plain reaches to the banks of the river Esk.

Fig. 1.

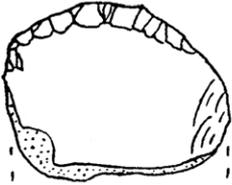
No. 50. Segmented glass bead. This was found at the south-east end of the site in association with flint flakes about 20 yds. from the scatter of iron slag.

It is greenish-blue in colour, 1 cm. long, 0.5 cms. in diameter and has three segments. The hole is large and irregular, being oval at one end and round at the other. There has been heavy weathering both inside and out.

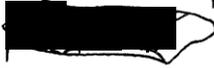
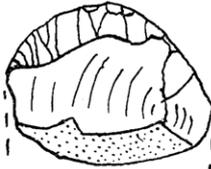
Dr D. B. Harden of the London Museum says of it, "I am convinced however that the bead is pre-Roman, and has been made by winding on a core. It is not at all like the pre-Roman segmented beads except in so far as it is segmented. I would suppose it to be Iron Age."

According to H. C. Beck's classification⁶ the bead is

⁶ H. C. Beck, "Classification and Nomenclature of Beads and Pendants", *Archaeologia* 77 (1927) 1.



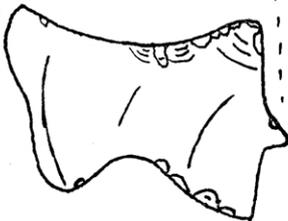
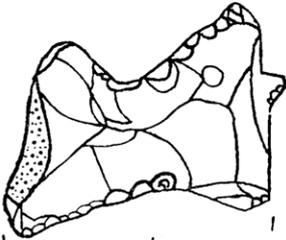
1.



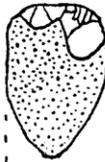
22.



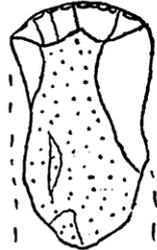
13.



48.



19.



7.

FIG. 2.—Flint scrapers from site II. (Scale 1:1.)

in group XVII, Multiple Beads Sub group A: Beads — Family A.1 — Segmented beads (a). Small, not more than $\frac{1}{4}$ in. in diameter.

No. 51. Fabricator of dark grey flint, 6.2 cms. long and triangular in section. One end is blunted and worn smooth. Resolved flaking along two edges bordering an unworked face forms a double-edged tool. This type of fabricator does not occur earlier than the Neolithic period. There is some slight flaking along the remaining ridge.

No. 42. Borer of creamy white flint with a trace of the cortex of the original pebble still adhering. One face exhibits a negative bulb with well defined rings. The borer's point is at the bulbar end, which exhibits the only secondary working. The piece is 2.7 cms. long.

No. 36. Sub-triangular piece of slightly patinated honey flint. It is pressure-flaked on both sides of two edges, the remaining edge being snapped. This piece could well be a broken tranchet derivative arrowhead.

Fig. 2.

No. 1. Scraper made from a flake of creamy flint with some cortex still adhering. The flaked edge is 4 mm. deep.

No. 22. Scraper made from creamy grey flint with most of the cortex removed. The flaked edge is 7 mm. deep and is concave in outline.

No. 13. This is an excellent example of the use of small pebbles for tools. It is made of creamy grey flint, 2 cms. at its maximum width with a considerable amount of cortex still adhering. The edge is steeply worked and is about 6 mm. deep.

No. 48. This is a flake of dark caramel flint, 3.8 cms. long and 2.7 cms. wide. It is an odd and interesting piece. Both of the curved edges are worked and it seems to have been intended as a hollow scraper and an awl.

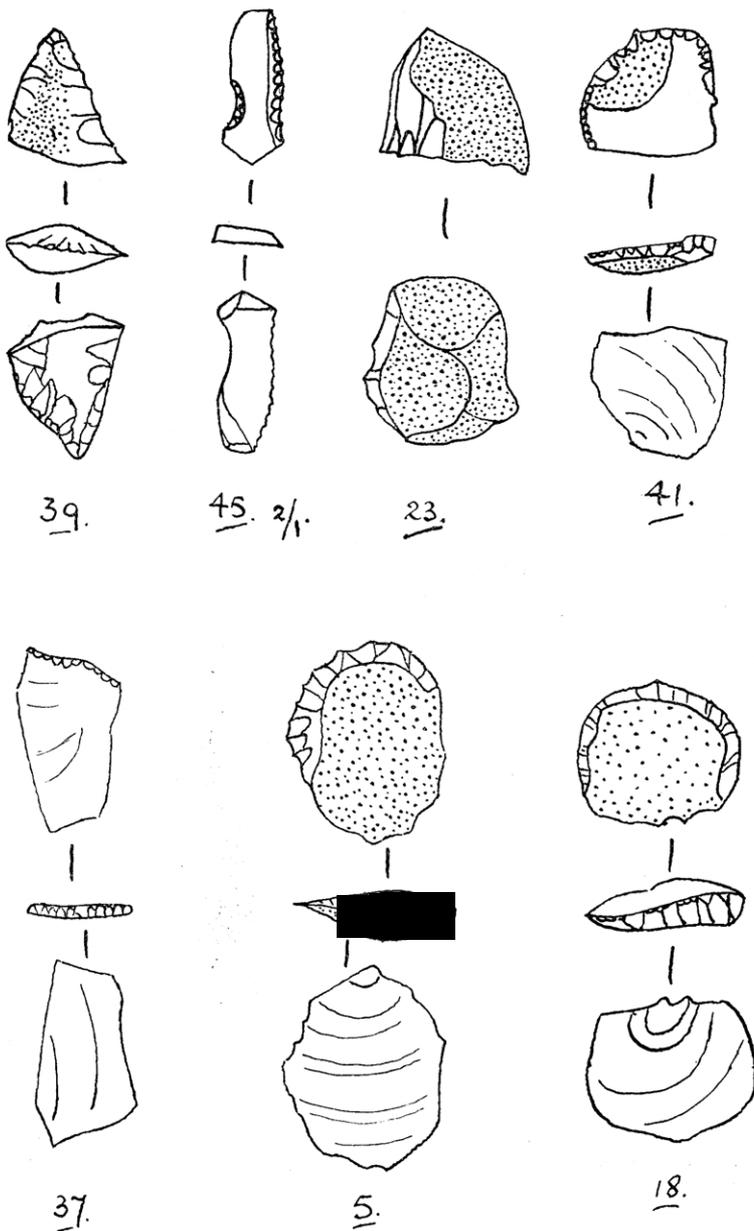


FIG. 3.—Flints from site II. (Scale 1:1.)

No. 19. Tiny end scraper made from a small pebble of creamy flint with light brown cortex.

No. 7. Larger end scraper, 3.2 cms. long, made from a flake of creamy pink flint with only a trace of cortex. There is a fracture down one side so that it might originally have been a wider implement.

Fig. 3.

No. 39. Tip of a broken arrowhead of patinated honey flint. It would appear to have been part of a larger and thicker arrowhead than any we have found so far at Eskmeals, with the exception of a single barbed arrowhead found almost a mile to the south. I have picked up an arrowhead at Drigg, the tip of which is somewhat similar. The Drigg arrowhead is tanged but not barbed.

No. 45. Tiny patinated blade worked with the micro-lithic blunted-back technique. The bulb of percussion has been removed. On the side opposite the worked edge there is a notch, which may be natural although it appears to have been worked. This piece shows the possible retention of the notched blade by people of Secondary Neolithic culture, who maintained some of the hunting and fishing traditions of Mesolithic times.

No. 23. Very steeply-worked scraper of grey flint with light brown cortex.

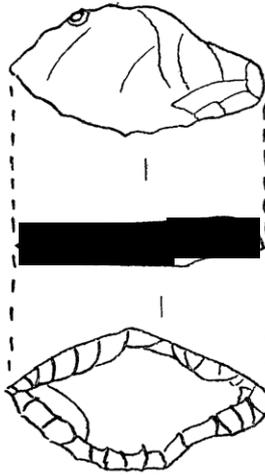
No. 41. Fragment of a broken knife in creamy flint with brown staining. It is roughly in the shape of a segment of a circle, with pressure flaking around the curved edge and down one side.

No. 37. Thin flake of grey flint, snapped on three sides, it is finely blunted along one of its shorter sides, and may have been part of a knife.

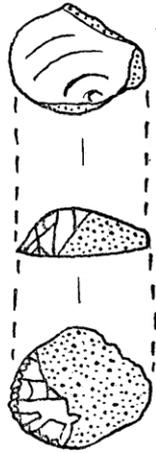
No. 5. Scraper made from a thin flake of creamy flint with a large amount of cortex adhering. It is an example of the utilisation of every possible piece of flint in an area where flint was comparatively scarce and small in size.



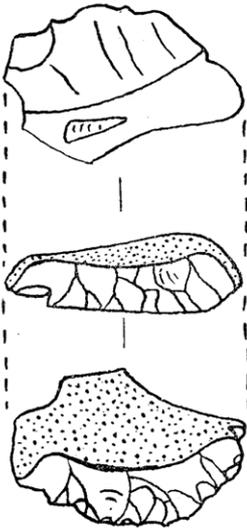
A1



A12



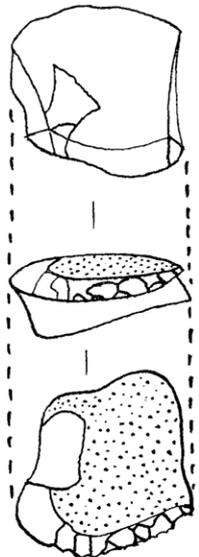
A.7.



A15.



A10.



A2.

FIG. 4.—Flints from site III.

No. 18. Similar to no. 5. Almost the whole of the workable circumference of the pebble has been flaked. The angle of the worked-edge varies from 80° to 30° approximately.

Fig. 4.

A1. Serrated blade of caramel flint 3.5 cms. long, worn smooth by the sand. The bulb of percussion has been removed and the piece is rather indeterminate. It was probably a knife.

A12. A very interesting piece made from white flint 3.2 cms. long and 1.9 cms. wide. There is secondary working all round the edge of one face, and one end has been flaked to form a tang. It bears some resemblance to the tanged flakes of the Bann River culture of Northern Ireland⁷ although it is smaller. Similar tanged flakes have been reported from the Isle of Man.⁸

A7. Thumb-nail scraper of honey flint. It is only 1.8 cms. at its greatest width and has a large amount of cortex adhering. Despite its small size the pebble is conveniently shaped and may be held without difficulty.

A15. Pale honey scraper with less steep flaking than the others from this site; the depth of the worked edge is 1 cm. at its maximum. It has obviously been bigger but is snapped across the underside.

A10. A tiny knife made from a sub-rectangular flake of honey flint, showing clearly defined conchoidal rings. It has secondary-working on two edges and might have been part of a larger blade.

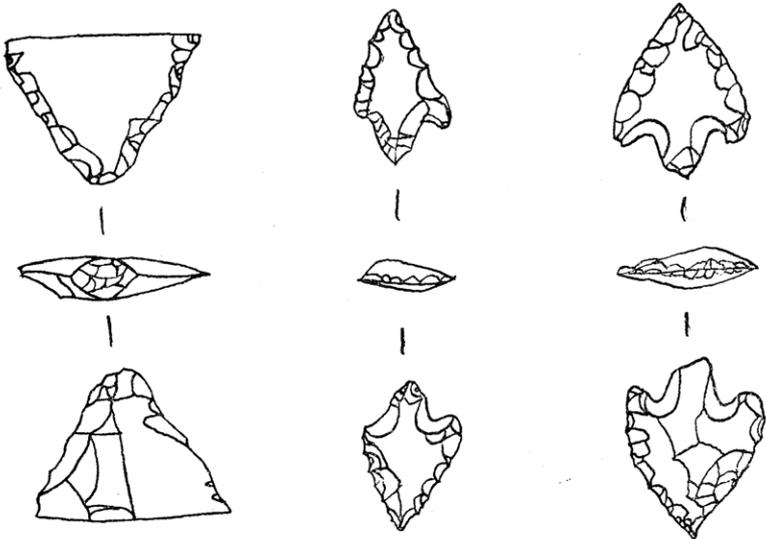
A2. Scraper of grey translucent flint with some cream cortex still adhering.

Fig. 5.

A3. Sub-triangular piece of creamy flint with secondary flaking down two edges of one face. This artefact has

⁷ H. L. Movius, "A Neolithic Site on the River Bann", *Proc. Roy. Irish Acad.* 43C (1936).

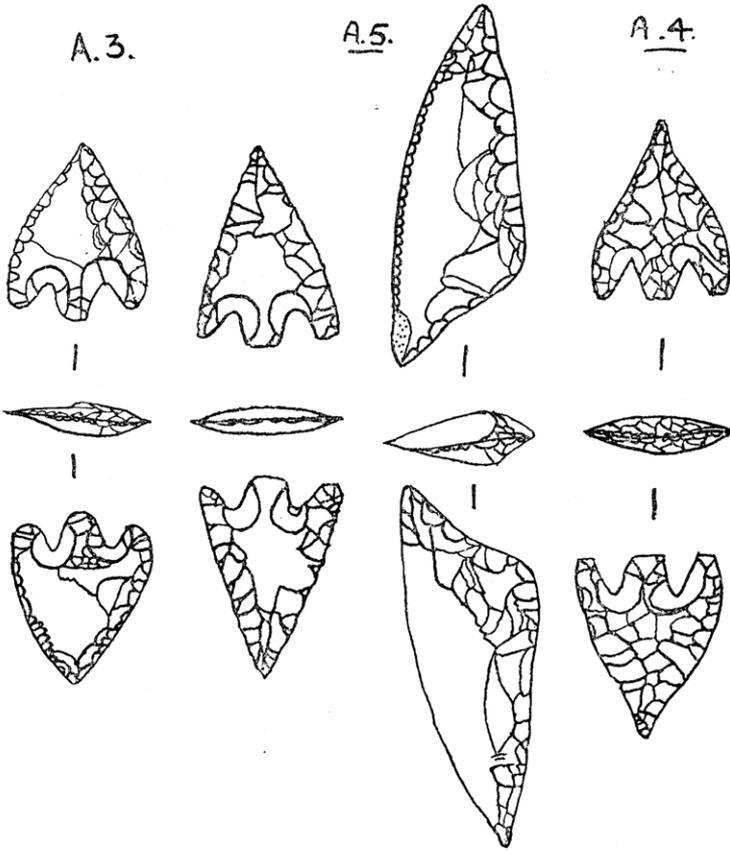
⁸ J. G. D. Clark, "The Prehistory of the Isle of Man", *Proc. Prehistoric Soc.* 1 (1935) 70.



A.3.

A.5.

A.4.



B.15.

B.39.

B.16.

B.17.

FIG. 5.—Tanged flake and arrowheads from sites III and IV. (Scale 1:1.)

clearly been broken, but as with A12 (fig. 4) there may be a connection with the Bann River flakes.

A5. Minute tanged and barbed arrowhead of white flint. One barb is missing and the other is not very pronounced. The whole effect is rather crude.

A4. Small tanged and barbed arrowhead of honey flint, it is heart-shaped and quite well made.

B15. Tanged and barbed arrowhead with the barbs as long as the tang. It is well made from a thin, mottled, honey-coloured flake. One side of the flake shows more pressure flaking than the other. This seems to have been an effort by the knapper to obtain a flake of uniform thickness, and hence a balanced arrowhead. The tip is most heavily patinated, and it is interesting to note that this was the only part of the arrowhead protruding from the ground, when it was found. Arrowheads made from thin flakes are comparatively rare on the Drigg, Walney and Eskmeals sites.

B16. Very fine example of a single-barbed arrowhead, made from grey translucent flint 5 cms. long, 1.8 cms. wide and 0.6 cms. thick. It was found lying in a patch of peaty sand and gravel which had been disturbed by a vehicle. Its excellent condition could well be due to its having been buried in the peaty sand. This piece has been classified by Professor Graham Clark of Cambridge as belonging to class H of his petit tranchet derivatives.⁹ They were in use from the end of the Neolithic period until well into the Bronze Age.

The original tranchet arrowhead was mounted with its cutting-edge at right angles to the shaft. To assist in mounting it into the cleft shaft, the two sides bordering on the cutting-edge were flaked. The pressure flaking on the straight side and shorter curved side of B16 corresponds to this, the shaft lying along the straight side. The retouch on the curved cutting-edge is rather unusual and appears to be an extra refinement.

⁹ J. G. D. Clark, "Derivative Forms of the Petit Tranchet in Britain", *Arch. Journal* xci (1934) 32.

B17. Fine tanged and barbed arrowhead of translucent honey flint, with little or no patination, which was found a few yards from B16 in similar soil conditions. The workmanship is very good, and the tang and barbs are the same length. It is thicker than B15. This type of arrowhead is generally given an early Bronze Age date, being sometimes found in association with Beaker pottery.

B39. Tanged and barbed arrowhead of lightly patinated honey flint. It is 2.6 cms. long and 1.9 cms. across its base. The barbs are not quite as long as the tang, whilst the point and cutting-edges are finely trimmed and still quite sharp. Although it is longer than the other Beaker type arrowheads from this site it is similar in width, and length of barbs.

Fig. 6.

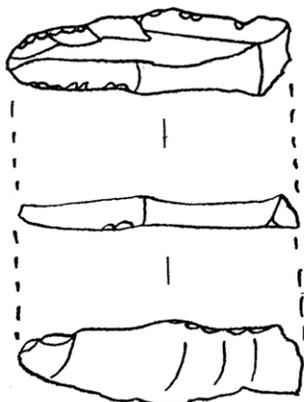
B4. Thick white blade, heavily patinated and well smoothed by the sand. It was probably used as a knife.

B31. Borer of creamy flint with a damaged tip. It is triangular in section and there is some secondary working along two of its edges, so that this useful little tool may also have been used as a knife.

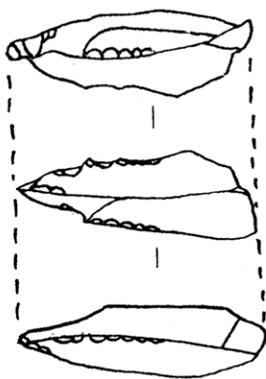
B19. Small oval piece of grey flint measuring only 1.7 cms. at its maximum. It is thicker at one end, the thickness varying from 5 mm. to 2mm. There is secondary working almost all the way round the edge of one face. Both ends have been snapped so that it must have been a little longer. It is doubtful whether this piece could have exceeded 2 cms. even allowing for the snapped ends, so that it is difficult to imagine to what use it could have been put. At the moment we are classifying this as a scraper.

B1. Honey scraper, steeply worked, with a crack from the flaked edge towards the bulb of percussion.

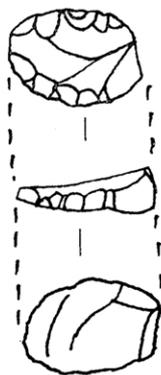
B9. Core rejuvenation flake of creamy flint which has been utilised along one edge as a knife.



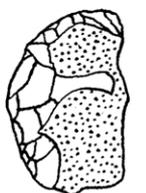
B.4.



B.31.



B.19.



B.1.



B.30.



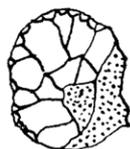
B.9.



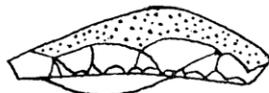
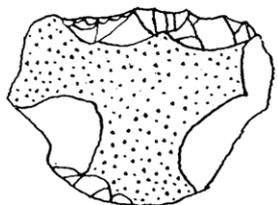
B.22.



B.7.

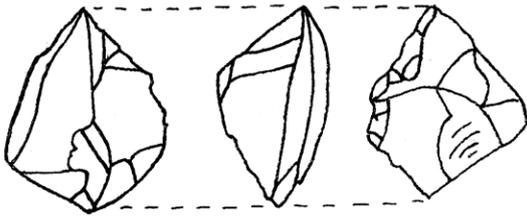


B.24.

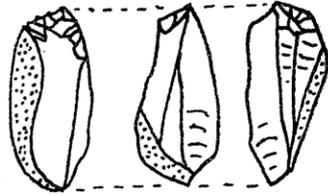


C.1.

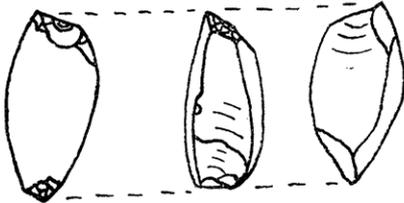
FIG. 6. Flint from site IV. (Scale 1:1.)



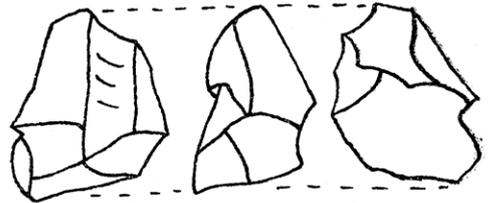
69.



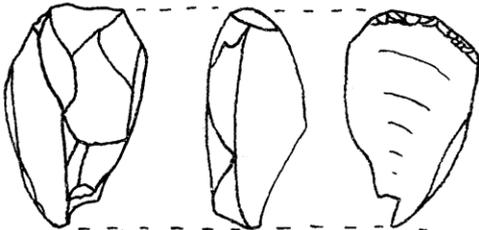
A.38.



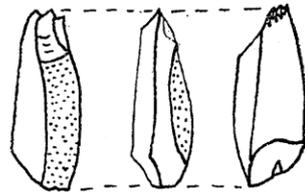
72.



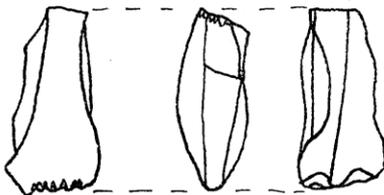
A.36.



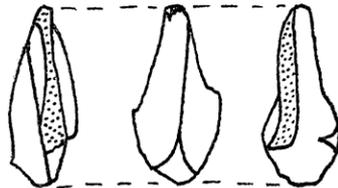
71.



B.43.



B.38a.



B.38.

FIG. 7.—Cores from sites II, III and IV. (Scale 1:1.)

B7. Scraper of grey flint from which all cortex has been removed. The workmanship is good, and it was obviously intended to be larger but has fractured along its width.

B24. A small scraper of honey flint, one of a couple that were found in a "blow-hole" in a sand-dune, where the gravel had been exposed, about 50 yds. north-west of the main chipping-floor.

B30. Tiny thumb-nail scraper found on the main chipping-floor. It has been struck from a grey flint pebble, and almost all the cortex still adheres. The workmanship is very fine, as indeed it would have to be since the scraper measures only 1.4 cms. at its maximum width.

B22. Broken scraper of creamy flint from which all the cortex has been removed. This piece was found in a very small patch of gravel about 30 yds. south-west of the edge of the main chipping-floor.

C1. A rough scraper of honey flint with light brown cortex. There is a fracture on the underside, and it looks as though this tool has been made on the remains of an older scraper. There seems to be traces of older, more patinated secondary-working on the back of the pebble.

This piece has been included because it was found in the area suggested as Miss Markham's 1935 site.

Fig. 7.

67, 71, 72. Creamy honey cores from site II. 72 being butted at both ends.

A36, A38. Honey flint cores from site III. A38 still has cortex adhering.

B38, B38a. Light honey flint cores from site IV.

B43. Caramel honey flint core from site IV.

The cores from site IV are noticeably smaller than those from the other sites. The rings of percussion indicate that flakes have been removed by blows at both ends of the cores. This could have been caused by the flint being rested on a hard surface, such as a large pebble, whilst the blows were struck at one end only.

Fig. 8.

The quern is roughly oval, 17 in. long and 10 in. wide, made from millstone grit. It has obviously been much used since it is worn quite concave and smooth. The height of the ends from the ground is 4 in., whilst that of the middle is only $2\frac{1}{4}$ in. A flat surface has been pecked on the base of the quern to enable it to stand firmly.

The rubber too shows signs of wear, its rubbing surface having been worn convex. When the rubbing-stone is standing on the quern, their surfaces are almost complementary. There is a small area on top of the rubber which is worn smooth, and which acts as a very convenient rest for the thumbs. The rubber is $10\frac{1}{2}$ in. long, $7\frac{1}{2}$ in. wide and $3\frac{1}{2}$ in. thick, but this is not typical as they are not usually so large as this.

The quern is rather larger than the saddle querns of the Romano-British period and is undoubtedly earlier in date. Querns of this type were in use in the Bronze Age and even earlier.

Discussion.

The discoveries have exceeded our most optimistic expectations; the natural movement of the sand since 1935 has revealed that the extent of occupation in the Bronze Age was even greater than was at first supposed. The material that we have found is typical of the pebble industries of the coastal sites, being similar to that part of the Drigg and Walney flint which has been dated to the same period (^{2, 10, 11, 12, 13, 14, 15, 16}). Both Drigg and Walney have, of course, some material which is earlier in date than that from Eskmeals, and I am not making comparison with this.

¹⁰ M. Cross, *A Prehistoric Settlement on Walney Island*, pt. I, CW2 xxxviii 160.

¹¹ *Ibid.*, pt. II, CW2 xxxix 262.

¹² *Ibid.*, pt. III, CW2 xlii 112.

¹³ *Ibid.*, pt. IV, CW2 xlvi 67.

¹⁴ *Ibid.*, pt. V, CW2 xlvii 68.

¹⁵ *Ibid.*, pt. VI, CW2 xlix 1.

¹⁶ *Ibid.*, pt. VII, CW2 l 15.



FIG. 8.—Saddle quern and rubber (Map. Ref. 30814950).

Tanged and barbed arrowheads have been found at Walney, whilst I myself have found one at Drigg. There is one small point of difference in the shape of the arrowheads; the cutting-edges of all but one of the Eskmeals tanged and barbed arrowheads are slightly curved, and tend to present a heart-shaped effect. Whereas the edges of the arrowheads from the other local sites are generally straighter, giving an overall triangular effect.

A broken tanged and barbed arrowhead was found during the excavation of a cairn on Mecklin Park in 1959, by the S.W. Regional Group of the C.W.A.A.S. under the direction of Mr W. Fletcher. The tang is narrow and much longer than the barbs. Its straight cutting-edges, narrow tang and even the type of flint are different from the Eskmeals arrowheads, but in overall size and lengths of barbs it most nearly resembles A4 and A5. The cairn has been dated to the Early Bronze Age.

If we accept the evidence of the arrowheads, for we have little else to guide us, it would appear that site IV is the earliest and with site III represents an Early Bronze Age culture. It is unlikely that the single-barbed arrowhead is later than 1350 B.C. We have not so far found a complete arrowhead on site II, but the microlithic connections of no. 45 (fig. 3) have already been mentioned, as also the probable broken tranchet derivative arrowhead no. 36 (fig. 1), so that this site, too, could be early.

Two single-barbed arrowheads have previously been reported in our *Transactions*. These were found at Walney Island in 1939 and at Roanhead on the Furness mainland opposite Walney, in 1954 (¹¹ and ¹⁷). They both fall into the same group of Professor Clark's classification as B16, but the fine retouch on the cutting-edge of the latter is absent on the other two.

It was noticed that some of the finds had a resemblance to material of the Bann River culture of Northern Ire-

¹⁷ F. Barnes, *Further Prehistoric finds from Furness*, CW2 liv 6.

land, and several pieces were despatched to Mr A. P. Collins of the Archaeological Survey of Northern Ireland. He gave as his opinion that they showed no strong Bann characteristics, but that AI2 was a very unusual and interesting piece. He applied the description of "tanged-leaf" arrowhead and wrote, "I am reminded of the practically 'Mesolithic' technique shown on a tanged arrowhead from Shewalton Moor, Ayrshire."¹⁸

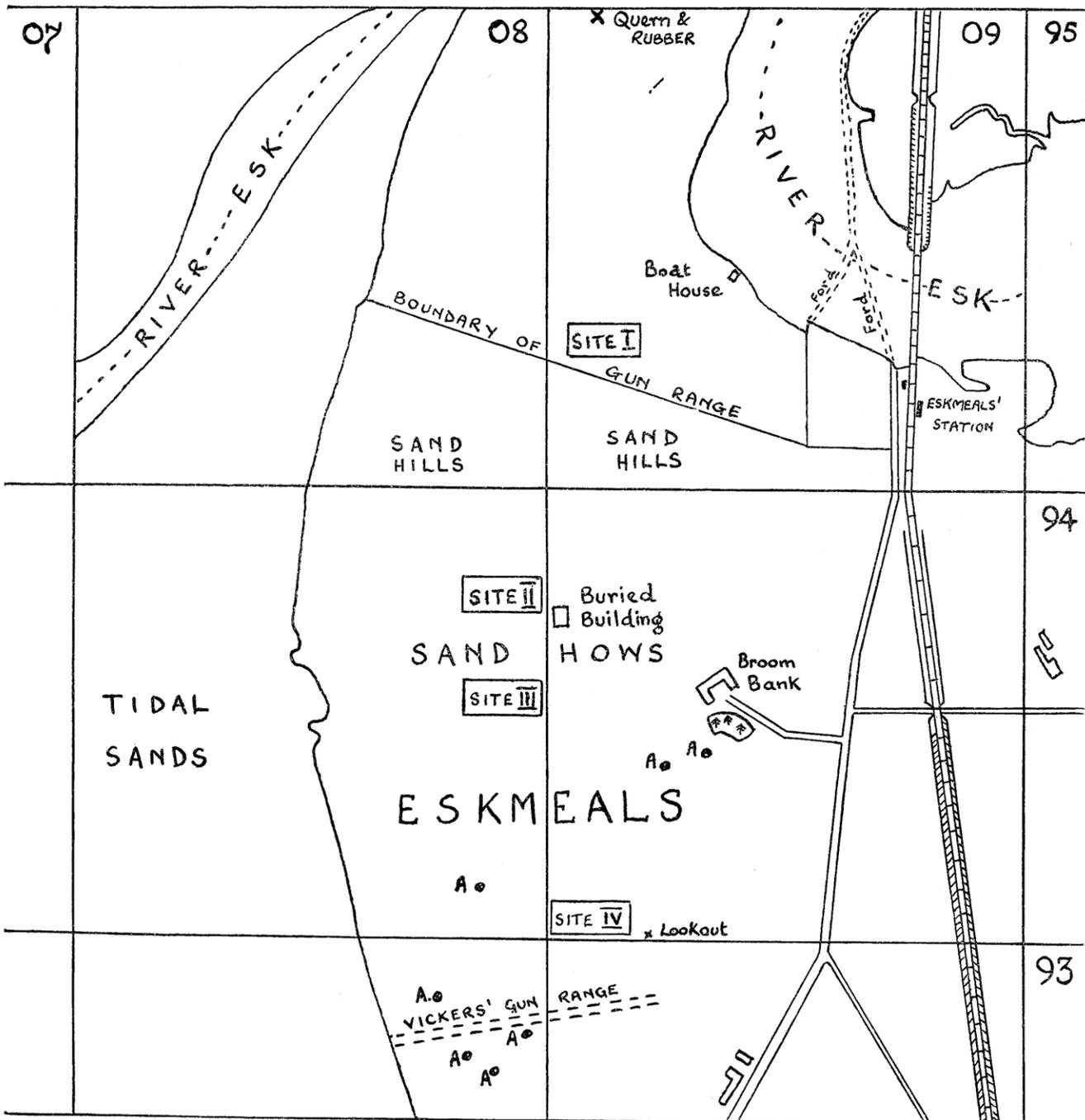
Few good examples of cores have been found so far; none have exhibited the regular pattern of narrow-blade scars common in Mesolithic flint working techniques, and there is no evidence of prepared striking platforms. Many of the cores had cortex still adhering and were heavily butted at one or both ends.

Whilst the absence of narrow-blade scars and prepared striking platforms seems to rule out any strong Mesolithic affinity, the paucity of well defined cores could be due, in some measure at least, to the dearth of large flint pebbles. Similar cores from Walney have been ascribed to a "poverty industry" by Professor Clark (¹¹).

The blue-glass bead is unique in this area, no segmented beads having been found as yet, at Drigg or Walney. Bead dating is very difficult, and there is no doubt that more research will be necessary before we can date the bead with any degree of certainty. If an Iron Age date can be confirmed, it will be an important chronological link, indicating the possible continuity of habitation at Eskmeals between the Bronze Age and the Romano-British period. No segmented beads of true glass are referable to the Bronze Age, but they have been found in this country in contexts varying from Early Iron Age to Romano-British times (e.g. Cold Kitchen Hill in Wiltshire). They have also been reported from Irish sandhill sites and bogs (¹⁹), with suggested dates

¹⁸ J. G. D. Clark, *The Mesolithic Age in Britain* (Cambridge, 1932) 26.

¹⁹ H. C. Beck and J. F. S. Stone, "Faience Beads of the British Bronze Age", *Archaeologia* lxxxv (1935) 204.



Based on the Ordnance Survey Map with the sanction of the Controller of H.M. Stationery Office.

Fig. 9.—Map of Sites.
tcwaas_002_1963_vol63_0005

A=flakes only found.

varying from 250 B.C. to the Dark Ages. Although we have not been able to make direct comparison, from photographs and written descriptions the Eskmeals bead most nearly resembles the earliest Irish types.

The wide variation in the degree of patination of the flint is interesting. The patina on B16 and B17 is particularly slight, whilst that on the broken arrowtip 39, and the blade B4 is quite heavy. Since patination is mainly indicative of the conditions under which the flint has been lying (²⁰), no attempt has been made to use it for relative dating.

The map (fig. 9) defines the positions of the Eskmeals sites together with the places where man-made flakes and chips have been found. It demonstrates the extent to which flint knapping has occurred.

Enquiries have shown that the Vickers Range was laid down on an area of sandy gravel, and in view of the quantity of flakes found in its proximity, it seems likely that a chipping-floor was covered by rubble during the building of the range.

Table I shows the weight of flint debris and the number of worked artefacts collected from sites II to IV, in order to illustrate their relative use.

TABLE I.

Site.	Number of Artefacts with Secondary Working.	Weight of Debris.
II	79	10 lbs. 13 ozs.
III	37	6 lbs. 2 ozs.
IV	41	6 lbs. 10 ozs.

Excavation has not been attempted so far. On coastal dune sites dating by strata is often impossible, since the archaeological remains are usually precipitated to a common level by the continual movement of the sand. Hence we cannot make any deductions from the finds of

²⁰ R. F. Schmalz, "Flint and the Patination of Flint Artifacts", *Proc. Prehistoric Soc.* xxvi (1960) 44.

mediaeval potsherds in association with flint. Excavation therefore, whilst it might materially increase our collection of flint, would not necessarily add to our store of knowledge.

The saddle quern is the only evidence we have to show that Bronze-Age man made more than a transient stay here, coming only to make whatever flint tools and weapons he needed, then moving on. Even an itinerant people must have left some evidence of occupation such as middens or possibly fragments of pottery, and we intend to devote more time during the coming year to searching for this type of occupational evidence.

Acknowledgements.

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My wife has assisted in the survey and in the preparation of this report, while our son Peter found his first arrowhead at the age of six.

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