was only a few inches, and nowhere more than fifteen. The flints were almost invariably lying flat and near the surface. I could not see any sign of a definite stratum.

There is a small spring about 100 yards away. My experience is that wherever flints abound in this district a supply of water is in the immediate vicinity.

A small number of the specimens are unpatinated; the great majority are patinated a lightish blue, and some are white. Only one has been noticed with well-defined iron-moulding, though many similar ones from the ploughed fields in the neighbourhood are much marked with iron stains. A few have small “quicksilver” spots on them.

In size they vary from minute splinters to (a few) pieces of 3½ in. by 2½ in. Their shape is as varied as their size. Signs of recent fracture are unknown, except those palpably due to my own exertions with the pick. All arêtes are undamaged.

As will be seen from the accompanying exhibit, the finds include:—A much-battered hammerstone, a small chopping tool, a “nosed” implement, various forms of round scrapers, a “cone,” two conical implements (one with straight, the other with curved spur), side scrapers, end scraper, a small “dos rabattu,” a fairly-worked borer, cores (in all I have about 20, of which one or two appear to have been used as push planes), many blades and flakes (some worked, others used), etc.

I recently submitted some of the above to Mr. Reginald Smith, F.S.A., who kindly examined them, and wrote saying that he recognised “several cave-types that may have survived into Neolithic times, but at present are only proved for the late Palæolithic period.”

To judge from the details and Plate CXXIII, which accompany the paper, it would appear that this floor is, in many respects, similar to that described by Mr. Moir in Part IV. of the Proceedings. But, owing to its proximity to the surface, occasional flints of later date are probably mixed with those of a more ancient culture.

A NEOLITHIC SITE NEAR THETFORD.

BY H. DIXON HEWITT, F.I.C.

Read at Norwich, January 25th, 1915.

This site is in the parish of Thetford S. Peter, near Two-Mile Bottom. It is distinct from that described by Mr. F. N. Haward last year,* being on the other (eastern) side of the Thetford-Mundford road and of the G.E.R., and somewhat north of the Vitriol and Manure Works. The implement types, too, differ greatly.

Flints from Workshop Floor near Porthcurno, Cornwall.

1, 2, 3, Scrapers; 4, Plane; 5, 6, Side-Scrapers; 7, 8, 9, Conical Implements; 10, Scraper, engrailed edges; 11, 12, Flakes; 13, Long Scraper; 14, Borer.
Plate XII.

Implements from Neolithic site near Thetford.
In 1906 I obtained one or two scrapers in the roadside belt adjoining the site on the west. Southwards the land dips down to the little valley which probably gave the name to Two-Mile Bottom, but the characteristic flakes of the site seem to thin out directly the slope becomes definite; and what flakes there are, are of more recent type and condition. From this low level site came several harpoon barbs in Mr. H. H. Halls' collection, and a barbed arrow-head and many other implements found by Mr. W. G. Clarke. The site is thus on a slight plateau about 80 ft. above O.D., and about 60 ft. above the river. Northward it is very indefinitely bounded, as flakes and implements are strewn about on the open breck and among the furze and bracken for a quarter of a mile or more, but the more characteristic patinas seem soon to disappear. Eastwards the flakes thin out, and at last a nearly barren area is reached, about a furlong off the main road.

The following is a fairly complete list of the definite tools I have found:—Scrapers, convex, 32; scrapers, concave, 7; axes, various types, 10; points, 4; discs, 2; knives, true (not flakes), 1; knife-scrapers, 1; diagonal-ended scrapers, 1; borers, 2; fabricators, 1; cores, hammerstones, pot-boilers, flakes; total, 61.

The convex-edged scrapers may be divided into longish and round types, the numbers being 13 of the former and 17 of the latter, while the remaining two are those found in 1906, which are more or less triangular in outline, one having a ferruginous patch on it like certain cave Palaeolithic implements. Two of the longish scrapers are of a decidedly pear-shaped outline, and apparently designedly so, and two, perhaps three, appear to be Cissbury-type implements. One round scraper (Plate XII., 7) is of exceptionally good workmanship; another made from a very truncated flake shows a ledge or step in the flaking on the back which might well have been utilised in hafting it. At least three of the scrapers have a notch in the middle of the worked edge; in two cases this appears to be more recent than the main work, and could have been caused by the tine of a cultivator; but in the other case the notch is apparently contemporary with the main edge. Obviously such an edge could not be used in the ordinary way as a scraper. The scrapers generally incline to be rather heavy and above the average size: maximum 80 by 54 mm., minimum 28 by 26 mm.

Concave-edged scrapers are a type of tool I am somewhat sceptical about; many so-called are only flakes that have been stamped on by man or beast, or struck by an agricultural implement. However, several show chipping apparently coeval with the main flake.

The axes include some rather remarkable specimens: two of these I have already exhibited before this Society, viz., a white half-round one of definite Cissbury type (Plate XII., 2), and a beautiful square one (size 6+ by 45 mm.). (Plate XII., 5) There are three similar but less finished specimens, and a heavier one, also of square hatchet, not celt-like, form. This shows a cleverly flaked ledge, apparently to facilitate hafting; while another, which
may be a waster of this type, has been used as a hammer-stone. Another small quadrangular chipped flint may also be a spoilt axe, and a sharp-pointed implement may be part of one of the more usual types.

The two implements classed as "points" (Plate XII., 3) are particularly interesting. They appear to be the first stage in the transformation of a triangular flake into a leaf arrow type. There is not much secondary work on either, but what there is, is of characteristic parallel-flaking type. A broken worked flake appears to be the remains of a larger implement of this class; while another implement, which may be a broken harpoon barb or a triangular knife, came from the extreme north of the site, and may not properly belong to it. Its patina or lack of it is different to most of the specimens.

One worked disc (Plate XII. 6) is a core implement of the type often called sling-stones: it is not much patinated. The other is a heavy scraper-like implement of the "plane" type, made from a portion of a massive flake. (Plate XII., 8.)

The only true knife is rather interesting. It is a damaged crescent-shaped one with apparently a smashed back ("dos rabattu"), although it may be a core-top flake, as explained by Mr. Haward in his paper. It has lost nearly all its cutting edge by recent damage. The implement called a knife-scraper is a large flake implement (size, 101 × 74 mm.) worked all over one side only. (Plate XII., 1). It seems to have lost a small piece at the other end. Although it might possibly be used as a skinning-knife, in my opinion it is a variety of axe or adze. The type can be duplicated from Grime's Graves.

The diagonal-ended scraper looks rather like a graver or burin but is not made like a burin. Two or three of the unworked flakes are much more like burins, but as their end edges appear to be quite accidental and not due to re-chipping, I do not claim them as finished tools. The one fabricator is a very rough tool, somewhat bent, and may be a crude pick. One borer is a large heavy implement and may not be a borer at all, but a striking implement. The other is even more massive and might be classed as a pick. It strongly recalls certain Eolitic and Palæolithic types. (Plate XII., 4.) This implement shows strong signs of friction and abrasion on each side of its point. Pot-boilers and cores call for no particular comment, except that one of the former looks rather like the remains of a "tea-cosy" implement, and another like a burnt scraper. Very few of the cores are symmetrical, and I brought away only two, viz., one which has been used as a hammerstone and another semiconical specimen. The flakes were some of very large size; others are long and narrow and showed considerable affinities to the pseudo-Magdalenian implements of Mr. Haward's floor, especially in the battering behind the bulb. Several others, too, show the facetteted butt or striking platform seen on some Grime's Graves flakes, and held by some to be a legacy of the Mousterian culture. One of the best scrapers shows this very clearly.
In condition the implements vary considerably, ranging from nearly white (the Cissbury axe and scrapers are probably survivals or importations) to nearly black, but the majority show a fairly strong blue patina. In many cases the patination is very one-sided. The material, too, is variable, ranging from all varieties of glacial drifted flint, to what I think I am correct in saying is Grime's Graves "floor-stone."

As to the chronological place of the culture represented by this floor, I am inclined to place it immediately following the Methwold-Cranwich-Cissbury stage, which is itself a later or local development of the Grime's Graves culture. The three or four true Cissbury implements are, as I have said, perhaps survivals or importations: it would be natural for Stone Age man of any period readily to note the implements of his predecessors and in many cases to carry them home either as curiosities or amulets, or possibly for use. Perhaps the strongest features of the site and the most unusual ones are the large number of square or squarish axes to the exclusion of the "celt" type, and the presence of the primitive "point" implements to the exclusion of true spear-heads or arrow-heads. The big thin scraper-knife is quite a Grime's Graves type, but the "lump" and other types so common there are not represented here. The facetted butts of a few of the flakes suggest Mousterian influence. Again, the thin narrow flakes often with chipping behind the bulb and diagonal ends suggest Magdalenian influence, but in the present state of our knowledge I cannot claim any direct connection with these periods.

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SOME EXPERIMENTS ON PATINATION.

BY H. DIXON HEWITT, F.I.C.

Read at Norwich, January 25th, 1915.

The experiments on which these notes were made were undertaken to clear up a little of the mystery which has been thrown around the subject by well-meaning but not always chemically-minded people. Much has been said lately on the necessity for prehistorians being also geologists, but it is perhaps too much to ask that they shall, in addition, be chemists. But a very little knowledge of chemistry would have averted some of the blunders and mis-statements met with on the patination problem. These notes contain no really original idea, but were made on experiments proving what to most chemists are well-known facts. The experiments were carried out in the brief intervals of routine work in a very busy laboratory, unfitted with any special re-agents or apparatus for the work.

Silica is, chemically speaking, the dioxide of the element silicon, a body which does not appear to exist in a free state in nature, and