good authority that both the first characters occasionally recur in modern Europeans.

The absence of Neolithic implements might be urged against the claim that the remains are of that period, unless the two or three flakes found on the heap are accepted as evidence. Neolithic implements, however, occur in the parish, and a find of stone implements (presumbably Neolithic) is reported to have occurred some years ago in the next field down the slope. This field runs right down to the main Bures road, and is called on the old Parish Map, "Button Piece." These implements are stated to have gone to the British Museum.

There is an interesting local tradition that Little Cornard, especially the part in which these remains were found, was once the scene of a great battle, generally assigned to the period of struggle between the Danes and Saxons, but possibly much earlier. It may well be that the hillside is the burial-place of the victims of some prehistoric tribal fight or later encounter.

As regards the mineral condition of the bones, a rough test with dilute hydrochloric acid showed that traces of organic matter still remain in them, but the yellowish residue left is very soft and incoherent and breaks up readily on agitation; of course "unsized" bone was used for this test.

Putting all the evidence together, I think we can claim with considerable probability that the remains are those of a woman of well beyond middle age, and that they are of the Neolithic period—using the term in its broadest sense. But I am quite prepared to assign a much later date, viz., Anglian, to the remains, should any further evidence turn up to prove it.

The bones here referred to were exhibited for a short time at Norwich Castle Museum and were then transferred to Ipswich Museum, the authorities of which have accepted them as illustrating a phase in the development of the inhabitants of the County of Suffolk.

## SOME BARNHAM PALÆOLITHS.

BY W. G. CLARKE.

Read at Norwich, October 7th, 1912.

The parish of Barnham, in North-West Suffolk, a little over two miles from Thetford, has never been noted for its flint implements, and the few found there have for the most part gone unrecorded. The finding of some implements there in the early part of 1912 induced me to trace as many previous specimens as I could, and by the kindness of Mr. H. Muller (Eltham), Mr. G. J. Buscall Fox (Upper Tooting), Mr. C. F. Newton (Saham

Toney), and Mr. H. Dixon Hewitt (Thetford), I have examined a series of implements of more than usual interest on account of the succession of periods which they represent.

CHELLEAN.—In 1882, Mr. A. G. Wright obtained "two flint implements from the gravel near Barnham" (Geological Memoir of Ely, Mildenhall, Thetford," p. 80). These are now in the possession of Mr. G. J. Buscall Fox. One is the broad end of an ochreous pear-shaped implement (2\frac{3}{4} in. by 2 in.)—apparently Chellean—and probably found in the gravel-pit east of the village.

Acheulean.—The remaining implements seem to have come from one or the other of two clay pits, one near the brickyard, and the other nearly half-a-mile south-east of St. Gregory's Church. This was described by Mr. F. J. Bennett, F.G.S. ("Geological Memoir of Ely, Mildenhall, Thetford," p. 55), as showing "brown sandy loam, with a black layer, which seems to rest on and pass into stiff brown and grey clay, beneath which, in the middle of the section, is brown bedded sand, with ferruginous bands, getting clayey at the bottom, rising in a boss. A clean cut at the western end showed dark slate-coloured clay almost black at the lowest part, and with land-shells; bones also are said to have been found. Boulder clay surrounds the brickearth (of which a thickness of about 20 feet was seen), but no junction-section occurred, so that it is doubtful whether the latter is above or below the former."

In October, 1912, Mr. H. Dixon Hewitt made the following notes on the section exhibited:—

About 1905, Mr. H. Muller of Eltham, found and bought a number of Palæolithic implements from Barnham. One, 4½ in. by 2½ in., having a very rough surface, with some striations, was found on the surface of a disused pit near the brickyard, which is almost half-a-mile distant from the brickearth pit. implement is ochreous to ruddy orange and grey in places where disintegration has begun, with later chipping bluish-grey. The other implements came from the brickearth pit, and comprise:-(1) a flat-backed racloir with bulb removed, chipped on one side to a cutting edge, the other being untouched. It has a dull ochreous patina, and is  $3\frac{1}{2}$  in. by  $2\frac{1}{2}$  in. (2) A flake with bulb not in the middle of the base, which gives it a twist, flat-backed, with dull ochreous patina, 23 in. by 21 in. (3) Almost symmetrical ovate, 5 in. by 3 in., very cherty, with iron-stains, light ochreous patina. (4) Twisted ovate, greenish-yellow to ochreous patina, well chipped, 3½ in. by 2½ in. (Plate LXV. B.) This was used by the workmen to clean their spades. (5) Twisted ovate,  $4\frac{1}{4}$  in. by  $3\frac{1}{4}$  in., with ochreous patina, almost orange on one side, and more lustrous than the others. (6) A boldly-chipped long ovate, 7 in. by 4 in., pale yellow patina (Plate LXV. A.) (7) Boldly-chipped long ovate,  $6\frac{1}{4}$  in. by  $3\frac{1}{2}$  in., mottled blue and ochreous patina (Plate LXV. c.) (8) Apparently the base of a large ovate, broken and rechipped, the present size being 5 in by  $3\frac{3}{4}$  in. The patina is ochreous and lustrous, and all the secondary chipping is on one side of the implement. Mr. A. J. Orchiston, of Thetford, has a boldly-chipped ochreous ovate  $3\frac{1}{2}$  in. by  $2\frac{3}{4}$  in., with cream and ochreous

patina. All these are apparantly Acheulean.

MOUSTERIAN.—In the spring of 1912 I visited the pit, and found half-a-dozen flakes in the brickearth, one with a mottled bluish patina, the others all ochreous, varying from almost white to chestnut. One, 4½ in. by 2½ in., has two bulbs of percussion and one reverse bulb in a space of \$\frac{2}{3}\$ in., evidence of attempts at flaking. There are two aretes on the other side, the space between one and the edge of the flake being occupied by secondary Another is 6 in. by 4 in., and 2 in. in thickness; another 5 in. by 5 in., and  $1\frac{1}{4}$  in. in thickness, has on the bulbar side a lustrous cream patina, and on the other a similar patina much mottled with mahogany colour and covered with striations Though the characters of these flakes are insufficient for them to be positively assigned to any particular period, Mr. Reginald Smith, F.S.A., of the British Museum, thinks they are more likely to be Mousterian than anything else. In the same pit Mr. H. Dixon Hewitt subsequently found a flake 2 ins. long with slightly ochreous patina, the flint pebble from which it had been struck having been brown in colour. This flake had minute edge Mr. Hewitt also found a heavy scraper-like implement with curious purple patination, much striated; and a brown implement with crimson patches, much striated, and with a greater resemblance to the Kentish coliths than East Anglian palæoliths.

Aurignacian.—Another of my finds was a flake with a bluish patina, 3 in. by  $2\frac{1}{2}$  in., and remarkable for the fact that it has been rechipped, the later chipping showing black and lustrous. Mr. Reginald Smith says that this flake is evidently newer than the others, and must therefore be either Aurignacian, Solutrean, or Magdalenian, as it came from the brickearth itself. The chipping is so unlike Solutrean that this may be eliminated, and one may therefore speculatively date one flaking as Aurignacian, and the rechipping as Magdalenian. One of Mr. Buscall Fox's implements, about which little is known, and it may not come from this pit, is a white patinated carinated plane (3 in. by 2 in.), presumably of the Aurignacian period.

SOLUTREAN.—In May, 1912, I purchased from this pit an implement totally different in type and patina from any of the preceding, and there is little doubt that it is one of the few unquestionably Solutrean pieces yet found in East Anglia. There is

good evidence that the early Solutré leaf-shaped blades occurred in the district, and there can be little question that this is a shouldered point, or pointe-à-cran of the late Solutré stage (Plate LXVI.) It is 23 ins. in length to the fractured base, which is 1 in, in width. The vertical depth to the shoulder is 24 in., and it is chipped inwards for about half-an-inch. The implement is a quarter-of-an-inch in thickness in the centre, and slopes to fine and most delicately-chipped edges. Mr. Reginald Smith says it is practically identical with one in the British Museum from Laugerie Haute—a typical site of the Solutré period—and also with a knife from the Thames assigned to the Neolithic age. Barnham implement was found in the wash-mill at the brickyard, but the clay is only procured from the one pit. No evidence is adduced as to the level at which the implement was found, but as the top two to three feet of soil are always removed before the clay is worked, it must have come from below that depth.

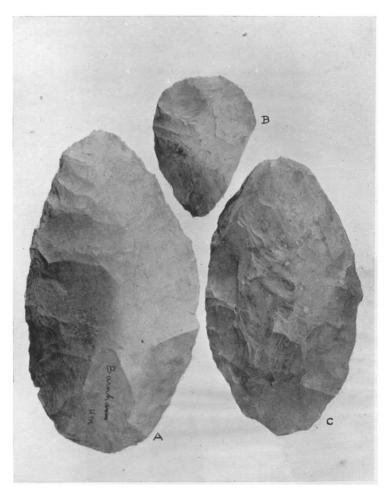
Describing these pointes-à-cran, MM. G. and A. de Mortillet state that they "caractèrisent le niveau supérieur du Solutréen," and add that "Dans les pointes à main les retouches étaient faites par percussion en frappant de petits coups secs. Dans les pointes en feuille de laurier et à cran, elles ont été produites par compression, au moyen d'une série de pressions successives "

## STONE IMPLEMENTS FROM MILLSTREAM STATION, WESTERN AUSTRALIA.

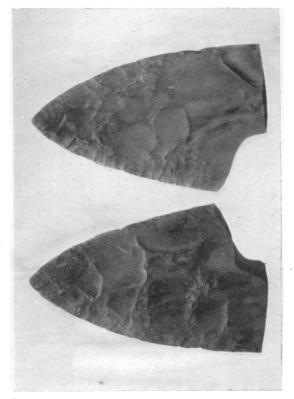
By R. S. NEWALL.

Read at Norwich, October 7th, 1912.

The Blacks nowadays are tame, but when Fortescue came up in about 1856 exploring, he had considerable bother with them, and even now in the Kimberley district, some 500 miles away, they are still in the Stone Age, and cannot be trusted. To-day at Millstream, stone implements are only used for circumcision and cutting out spears. The spears are made of hard wood and barbed both ways so that it is impossible to pull or push them out, and the blacks cut them out with a hot flake. The fire in which the flake is heated must not be lighted with a match but with a fire stick. By using a stone and not a knife they maintain that they do not get blood poisoning, and that the wound heals sooner. I showed one of my large black flakes to a native woman, and she said, "He good fella stone, he cut'em out spear, he borrow lan." Whether she meant a flake was called "borrow lan," or the kind of stone upon which the flake was made was "borrow lan" I could not make out, but on showing her another, a vellow coloured scraper, she said, "He bad fella,



Acheulean II. Implements - Barnham. (H. Muller's Collection).



Solutrean Implement—Barnham. Nat. Size. (W. G. Clarke's Collection).