

## PRE-HISTORIC PIT-DWELLINGS AT ELLESBOROUGH.

Half a mile east of Ellesborough Church, an elongated isosceles triangle is enclosed by Combe Hill (in the Chiltern range) on the east, the road between Butler's Cross and Chequers on the west, and on the north by the road from Butler's Cross towards Wendover, which forms the base of the triangle. The ground thus bounded has a gentle slope towards the west, and on it golf links have been somewhat recently established.

In process of making an additional bunker for the game, the actual spot being now known as "Green No. 8," a quantity of bones and scraps of pottery were brought to light. Dr. E. G. Woollerton, of Wendover, informed Mr. A. L. Liberty, who was good enough to pass the news on to me, and accordingly on Nov. 21, 1907, I went over there, calling on the way on Dr. Woollerton in Wendover, but unfortunately neither he nor Mrs. Woollerton were at home, and I had to proceed, with the vaguest idea where I ought to go, or what I should find.

At the Club House, in the hamlet of Combe, towards the southern, apical termination of the triangle, was the very civil caretaker, but no member, or out-door *employé*; and no information or particulars were obtainable as to where, or under what circumstances the assortment shown me, had been found; nor could I even ascertain in what direction to proceed in search of the site. Nothing remained to be done but to make bold to carry off the collection for the County Museum.

During the washing of the scraps, the curiously slimy, adhesive character of the dark soil forming the matrix was extremely striking. In washing relics from the ground, one's great object, on account of the fragile condition of most of such finds, is to soak them as little as possible, and only to give each piece

from a few seconds up to a very few minutes in water, just sufficiently long to soften the matrix and allow of its being brushed off, while the most delicate objects are not immersed in water at all. Nearly all these pieces, however, had perforce to lie in water for an hour or two, and in some cases through a night, and even then had to be fairly scrubbed before the peculiar soil could be removed. Whether this was sewage, or other animal matter I could not determine; there was no perceptible smell, but it was obviously foreign to the locality, where the soil is chalk. Some of the mud from the washing pans was sent to Professor W. Wright, D.Sc., F.S.A., etc., who had kindly offered to analyse it, but it was too much washed out to allow of its nature being determined.

On Dec. 4, in response to a letter from Dr. Woollerton, I again went over, and this time was fortunate enough to meet Captain Hugo B. Burnaby, secretary and treasurer of the Golf Club, and Mr. Hodgkinson Smith, and was shown the spot where the things had been found.

The Society has to thank Captain Burnaby on behalf of the Club for courteously placing the services of the ground-man and two labourers at my disposal, to dig deeper than was required for golf purposes, for the further exploration of one of the two sites which was still open; and also the Trustees of the Chequers Court Estate (through our member, Mr. Septimus F. Beck, of Great Missenden), for allowing me to take everything for the County Museum.

Unfortunately rain began even before the digging was commenced, and before very long it amounted to a relentless deluge; and although the men pluckily stuck to their work, it was impossible to explore with the desired care, and note-taking was hopeless, as paper would have been reduced to pulp almost before a single word had been written; while the exigencies of golf precluded postponement.

At the base of the abruptly rising Combe Hill, the foot-hill at first slopes down at a gentle gradient until, roughly parallel to Combe Hill above, a slight ridge intersects the ground, possibly the remains of an old hedge-bank. Below this slight ridge or brow, there

is at this spot a small transverse depression, caused by a water course or miniature valley, the portion above the ridge having been apparently levelled by ploughing. The fall of the ground there increases to (roughly) about 2ft. 6in. in 20 yards, below which width it is again nearly level. The new bunker is immediately at and below the ridge.

The exposed site where the bones and pottery lay, was a circular hole, or cylinder, like a (very shallow) well, about 6ft. 6in. deep; the diameter of the lower portion was about 5ft.; while the upper three feet were some 2ft. 6in. wider, the change in diameter being quite sudden and clearly defined. The other site where things had been found was pointed out to me, now levelled and turfed; it was likewise exactly on the lower side of the ridge, and about 10 yards further south, or nearer the Club House.

In spite of the imperfection of the investigation, it may be fairly assumed that these two pits are examples of the rather mysterious—because not thoroughly understood—pit-dwellings; and as they are apparently invariably in clusters of a score or so, it is probable that there are other pits awaiting discovery on this ground.

The bones and pottery scraps were massed as thickly in the peculiar dark soil as currants in the richest cake, but no object of metal or worked flint was met with; in fact, stones of all kinds were conspicuous by their absence.

The pottery is of several varieties, the most striking being fragments of smooth, almost polished, black ware of remarkably good paste. As they were turned up, glistening with the wet, they could hardly have been told from pieces of unpolished jet showing the natural cleavage. The largest fragment (measuring in its widest directions about 5in., by  $3\frac{1}{2}$ in. high, and varying from  $\frac{7}{16}$  to  $\frac{5}{16}$ in. in thickness), is from the widest curve of the jar or urn. The upper fracture is an almost perfect straight line, horizontal, or at right angles to the direction of the height, thus allowing the diameter to be ascertained. This is  $16\frac{3}{4}$ in., giving a maximum diameter for the jar of about  $17\frac{1}{2}$ in. The fracture cuts off the extreme tops of a line of incised

chevrons encircling the vessel as ornamentation. The lines composing them average nearly  $\frac{5}{16}$  in. (= 8 mm.) in length, the apices and bases being at an average distance of just  $\frac{1}{2}$  in. (= 13 mm.) apart. Three-quarters of an inch below the upper row of chevrons, is a second row, the lines averaging 11 mm. (rather over  $\frac{4}{16}$  of an inch), giving a width of 14 mm. (=  $\frac{1}{2}\frac{1}{6}$  in.) between each point. The maximum diameter of the jar is  $\frac{1}{16}$  in. below the lower row of chevrons. They were incised by a tool having its point about 1 mm. wide.

The second fragment (about  $1\frac{1}{4}$  in. high, barely 2 in. wide) is so similar to the last, that it is probably the work of the same potter: it is, however, only  $\frac{5}{16}$  to  $\frac{2}{16}$  in. thick. It is also a fragment from the widest part of the jar, and the upper line of fracture is again so straight and horizontal that the diameter can be ascertained to be about  $8\frac{3}{8}$  in., or barely  $8\frac{5}{8}$  in. for the maximum. It likewise shows the remains of a row of incised chevrons at the upper edge, and a second row underneath, only divided from the first by an interval of about  $\frac{1}{8}$  in. The sides of the chevrons here are 9 mm. (= barely  $\frac{3}{8}$  in.) long, and the points are about 11 mm. (=  $\frac{4}{16}$  in. apart). The lines are slightly finer than those of the previous example. The maximum diameter comes about  $\frac{1}{16}$  in. below the lower row of chevrons.

The third fragment is even glossier and smoother than the first two, and is from the upper part of a jar. (It averages some 2 in. in height, by 2 in. in width below, diminishing upwards to a portion of the lip,  $1\frac{1}{8}$  in. in width.) It has also been ornamented by chevrons, so far as can be deduced from one complete line 29 mm. (=  $1\frac{5}{16}$  in.) long, with a portion of others proceeding diagonally from either end. Following the lines on their lower side, is a single row of impressed dots, and a portion of another straight line remains below the complete one, but not parallel with it; there is some indication of a possibly circular head to it, about  $\frac{5}{16}$  in. diameter. The greater part of the incised pattern on this piece is filled in with white, but this seems to be merely chalk which has adhered accidentally, and not an intentional pigment. The engraving shows a more broadly pointed tool than the previous

examples, and reaches to  $\frac{1}{2}$  in. from the lip, which is perfectly plain. The neck for about an inch in depth, was upright, or inclined very slightly inwards towards the mouth, which, so far as so small a fragment admits of measurement, shows a diameter of about  $9\frac{1}{4}$  in. The thickness is about 8 mm. above, and 9 at the lower edge.

A fourth fragment of this ware is thinner, and no doubt formed part of a somewhat smaller jar; it had a straight neck about  $1\frac{1}{8}$  in. high, below which it expanded tolerably rapidly. The upper end of the bulge has been ornamented by groups of upright lines about  $3\frac{1}{2}$  mm. apart, and about  $\frac{3}{8}$  in. long. The two groups of which parts remain are divided by an interval of about  $1\frac{7}{8}$  in. The right end of the fragment shows two lines, and the left end three lines, but one cannot tell how many there may have been to each group.

A fifth fragment shows a portion of perfectly plain lip, surmounting a neck about  $1\frac{1}{2}$  in. high, which leans outwards about 8 mm. The neck is  $\frac{5}{16}$  in. thick, and the bottom of the fragment (the beginning of the bulge) is over  $\frac{3}{8}$  in. thick.

A sixth fragment (measuring 3 in. wide,  $2\frac{1}{4}$  in. high, 5 mm. thick) has just above the maximum width, a row of chevrons with a horizontal line running along their tops and bottoms, converting them into triangles. The side lines are about  $\frac{7}{8}$  in. long, and the apices are rather over  $\frac{3}{4}$  in. apart. The alternate triangles—those having their apices downwards—are filled with dots; in the only perfect example these number seven—three in the top row, then two, one, and one. The adjoining triangle has part of the surface scaled off, rendering it uncertain whether the lower single dot was originally present. The triangles pointing upwards are plain. The top fracture is along the line of the upper horizontal incised line, and appears to have been ground smooth, so as to allow of the lower portion of the jar being still used after the upper part had been broken. Exterior diameter at this fracture  $5\frac{1}{2}$  in.; maximum ditto about  $6\frac{1}{2}$  in.

There are several additional scraps of this ware, which, however, afford no guide to diameter or form, and are without ornament. The men stated that by

far the greater quantity of this ware was left in the first pit-hole found.

On submitting samples of this pottery to Mr. Reginald A. Smith, F.S.A., at the British Museum, it was found that in all that vast collection there was nothing to match them; they are, however, so far similar to some urns from the Champagne district of France, that Mr. Smith refers the Ellesborough pieces to that quarter, and assigns to them a date of the third or fourth century, B.C.

It would seem as if we had here the remains of the actual *batterie de cuisine* brought over by an immigrant family, though the distance inland is considerable on both sides of the Channel.

There are various other qualities of black pottery, some less glossy, and others of a rusty black of porous quality, all apparently of different degrees of inferiority of paste to the glossy pieces. A few of the glossy pieces have lost more or less of their surface by scaling (like a sand-faced brick), and it is just possible that one or two of the rusty-looking pieces had originally a polished surface. The majority, however, have certainly not lost their surface, and are not wheel-turned; one such (No. 7) is a fragment of the upper part, having a perfectly plain mouth, exterior diameter about 5 in., with a neck about an inch high inclined slightly outwards, and showing a very plain impression of the potter's thumb.

No. 8 is a small, much-rubbed fragment, showing three parallel lines 2 mm. apart, running diagonally down to the right, beginning  $\frac{1}{8}$  in. below the mouth, which is plain, and there is only a *quasi* neck of  $\frac{3}{8}$  in.

Another variety is a very smooth ware of a burnt umber colour, shading to black in places. The inner side may be like the outer, or dull black, or light red, the two latter being no doubt the result of heated stones or live embers being put in them. One of the largest of these scraps, with black inner side (measuring about 3 in. in greatest height by nearly 4 wide, 8 mm. thick at the upper end, and 10 at the lower), shows the remains of incised chevrons 3 in. in the side, with a second row above, the bases of this upper row coming about half-way down in the alternating spaces,

below the apices of the lower row. There are three upright lines scratched in the space between the sides of the lower chevron. A quite small scrap of similar ware also shows the remains of lines. This class is wheel-turned.

The last class of pottery to be mentioned is not wheel-made: it includes three or four varieties, all very coarse, insufficiently baked, and very liable to crumble even when sized. Most of it is of a dull blue-grey colour exteriorly, inclining in some places to dull brick-red, in others to a sienna tint; interiorly it is chiefly dull red. I have pieced the upper half of one jar. Its exterior diameter at mouth is about 8in., but not being a perfect circle, it varies  $\frac{1}{4}$ in. more and less. It has a flattened lip, and is thence slightly compressed for about an inch downwards, to form a rudimentary neck, and expanded again only to the width of the mouth, the greatest diameter being again reached only  $1\frac{3}{4}$ in. below the mouth. It then diminishes fairly rapidly. The piecing reaches a maximum depth of 6in., where the reduction is  $1\frac{3}{8}$ in. from the upright (all round). There is no guide as to the total depth, and the only one as to the bottom of this variety is a fragment (agreeing in all particulars with the above jar, but not necessarily belonging to it), 4in. high, with a tiny bit of the actual bottom,  $1\frac{3}{4}$ in. long, by about  $\frac{5}{8}$ in. in the direction from surface towards centre. The reduction from the upright in this depth, so far as can be judged from so small a fractional remainder of the bottom, is  $1\frac{1}{2}$ in. (all round).\* The entire surface of this pottery has been scraped for shaping and reducing, with some sort of rounded edged tools from  $\frac{1}{4}$ in. in width, downwards, not impossibly the little finger-nail of the potter.

From this extreme of rudeness, there is a tolerably complete graduated series of scraps leading up to the above-mentioned non-wheel-turned black specimens.

In October, 1908, we obtained half a dozen very small scraps of another variety of rude pottery,

---

\* Deducting the rudimentary neck from the former measurement, and allowing for the extreme rudeness of the pottery, the slope or reduction in the two cases is much the same, and these data would make the jar  $10\frac{3}{4}$ in. high, with a slight ogee curve.

which had been thinly distributed in the soil moved in making another new bunker at some distance north. A few flint flakes which we also obtained there, were apparently intermingled with this pottery, but I cannot vouch for the archæological horizon, though they were all evidently "surface" finds, as the cutting was only about 2ft. 6in. deep, and was through unmoved chalk rubble. This pottery would seem to be at least much nearer the neolithic age than the varieties previously described.

These scraps are much thinner than the last (averaging about  $\frac{1}{4}$  in. only), are of a rather lighter and warmer grey tint, full of particles of silex, and more or less yellow in fracture; two from mouths have a slight, out-turned rim; while two, showing no intentionally added silex, are quite black and ash-like in fracture, though dark grey externally.

Mr. R. A. Smith, who has seen these scraps since the above was in type, pronounces them to be probably domestic ware of the neolithic age, which is of the greatest rarity, nearly all the pottery of this period which has come down to us, having been made for funereal purposes.

The very great interest attaching to the question of the origin of domesticated animals, renders it incumbent on anyone having the opportunity of handling any such bones whose period is ascertained owing to undoubted association with human relics of which the age can be fixed, to do his best to put on record some brief description of them. A great difficulty lies in so large a proportion being fragmentary or immature, so that more often than not it is unsafe if not impossible to say more than (what is almost a truism as regards the bones of all ancient breeds of domestic animals), that a given example "is small," or to compare it vaguely with a more perfect specimen.\*

The largest object found was a tolerably complete Ox skull, the horn-cores broken off short (doubtless in skinning), and the premaxillaries, nasal bones, etc.,

---

\* Of all the tame animals (mammals) whose domestication in this country dates from prehistoric times, the pig is the only one whose origin does not seem to admit of doubt, although even in its case, its pedigree is quite unknown.



missing, the maxillæ imperfect, and without the lower maxilla. The remaining anterior portion of the skull, comprising the maxillæ and palatine, is broken away from the posterior portion; the malars and lachrymals, except a small portion of the right lachrymal, are likewise broken away, and I found them subsequently among the other bones, showing that the two portions of the skull had been purposely placed in juxtaposition. It was lying right side up, resting partly on the shoulder between the larger and smaller diameter of the pit, and partly supported by the débris below. It is (almost as a matter of course) a typical "Celtic short-horn," but of the larger size, as the following measurements (so far as the incompleteness of the specimen allow of their being taken) show; the measurements marked with an asterisk are those given by Owen in his original description of *Bos longifrons* in his "British Fossil Mammals and Birds" (1846):—

	<i>Inches.</i>
The basal length (from lower edge of the foramen magnum) would be, if complete, fully ... ..	16 $\frac{1}{2}$
*Breadth between the roots of the horns; above... .. 6 $\frac{5}{16}$ , below	7 $\frac{1}{8}$
Narrowest point in forehead, about lin. below horn-cores, measured between uprights ...	6 $\frac{1}{2}$
*Breadth across the middle of the orbits ... ..	6 $\frac{5}{8}$
Greatest width between postorbital processes (=frontal width) ... ..	7 $\frac{3}{4}$
*From supra-occipital ridge to nasal bones ...	(?)
From ditto (=the notch) to anterior end of frontal ... ..	9 $\frac{1}{8}$
From ditto (=ditto) to a line between posterior walls of orbits (= postorbital processes) ...	5 $\frac{7}{8}$
Alveolar processes (measured between first and last teeth) ... ..	4 $\frac{1\frac{5}{8}}{16}$
*Circumference of base of horn-core... ..	7 $\frac{1}{4}$
*Length of horn-core following outer curvature	(?)
*Span between tips of horn-cores ... ..	(?)
Diameter of horn-core at base in plane of forehead ... 1 $\frac{1\frac{5}{8}}{16}$ . Ditto in transverse direction	1 $\frac{5}{16}$

The forehead down to the posterior walls of the orbits is strongly convex in both antero-posterior and transverse directions, and opposite the orbits there is a deep concavity or depression. There are marks of numerous knife cuts round the bases of the horn-cores, and on the upper parts of the forehead.

This skull had been thrown away or at least roughly treated after complete maceration (no doubt by cooking), and besides losing the anterior bones as above mentioned, and various minor damages, had come in two transversely, having become disarticulated on either side of the malar bones and left lachrymal (part of the right lachrymal remains articulated to the posterior portion), and these three bones had been lost sight of. At some time later the two principal portions were carefully placed as found on the south-east side of the shoulder of the pit, the right side up, facing the pit's centre, in juxtaposition, so that they came away together, and it was not until the skull was cleaned subsequently that it proved to be in separate halves, with the intermediate bones missing. Was this careful placing in position merely the amusement of a child, or does it suggest any superstition on the part of an adult?

An ox's head, or part of one, is sometimes found with burials of the neolithic age. See Greenwell, "British Barrows," pp. 168, and foot-note, and 230; Bateman, "Vestiges," p. 82; "Ten Years' Diggings," pp. 126, 129; Hoare, "Ancient Wilts," Vol. I., p. 199. Portions of an ox head were found by me in the largest barrow on Cockmarsh, near Cookham, Berks, in 1874.

The following are the other ox bones found, all representing rather small, but not very small animals, or about the size (say) of the Jersey breed, and decidedly larger than the Dexter or Brittany breeds, with which one usually associates *Bos longifrons*. Part of left frontal and horn-core, the latter considerably flattened at base,\* having a circumference of  $7\frac{1}{4}$  in.,

\*This flattening is much more marked than in *Bos primigenius* or in (I believe I am correct in saying, any) modern European domestic breeds, but seems characteristic of *Bos longifrons*, which reminds one of its suggested connexion with the Indian humped cattle.

but measuring  $2\frac{1}{2}$  in. in diameter in plane of forehead, by  $1\frac{1}{6}$  in. in transverse direction. 5 pieces of right, and 5 of left rami of lower mandibles, which cannot be paired owing to several being merely scraps, and may represent more than five animals. A left metacarpal,  $6\frac{7}{8}$  in. in extreme length. A right metatarsal  $8\frac{1}{6}$  in. in extreme length. A left ditto, 8 in., and less stout than the last. Also, a first cervical vertebra; portions of 3 femurs belonging to different animals; portion of a tibia; 2 astragali, of different animals; a calcaneum; 2 phalanges; and sundry scraps.

The Horse bones comprise: a right metacarpal wanting distal epiphysis, representing a slight young animal approximately 12 hands or 12 hands lin. A left tibia, almost perfect,  $13\frac{3}{8}$  in. in extreme length, probably giving an approximate height of 13 hands. Two right ditto, of immature animals of about 12 hands. Two fragments of femur—one being of quite a young animal.

The Sheep bones include: Six rami of lower mandibles, the only adult specimen retaining the angle (the symphysis absent) measures from mental foramen to posterior margin, at one-third distance from angle to condyle, 125 mm. From mental foramen to opposite the inferior maxillary foramen, 103 mm. The other adult specimens are all much the same size. A portion of left horn-core and frontal has the former  $3\frac{5}{8}$  in. in circumference at base; diameter in antero-posterior direction,  $1\frac{1}{2}$  in., and in the transverse direction  $\frac{1}{8}$  in., and was probably nearly 5 in. long when whole, the horn itself being of course longer. There are several "long bones," but all so imperfect that measurements would be difficult, except one young femur, which without both epiphyses measures  $5\frac{3}{4}$  in. A young tibia likewise wanting both epiphyses measures  $5\frac{1}{2}$  in., and a second one is probably its fellow. Most of the bones belonged to lambs.

Signs of gnawing (? by a dog) are only recognizable on two or three pieces, though this may account more or less for the general fragmentary condition; and there are a few bones which probably belonged to an immature dog of a small breed about the size of a

large terrier, but I have not sufficient dog material for satisfactory comparison.

There is one fragment (possibly there are two fragments) of red deer horn.

Pig bones are not numerous, and are all broken, and almost all immature. The distal portion of an adult humerus shows quite a small animal.

There were a few fragments of charcoal in the pit, but no accumulation, and several of the pieces of pottery still had soot adhering to them, but nothing was found that could be regarded as a hearth. From previous finds of similar pits, they must be regarded as human habitations, and these must have been utilised as *cloaca*, or at least as receptacles for rubbish, after they were no longer required for their original purpose. The whole of the contents are doubtless practically contemporary, though it may have taken many months to gradually fill up a pit, as the domestic pottery every now and then met with an accident, and bones of the various animals eaten, and other rubbish, accumulated. It seems evident from the filling up of these pits, that their former inhabitants had not died out, or removed from the immediate locality. On the contrary, it suggests that when a pit had become (probably from its filthy condition) judged to be no longer fit for habitation, a new one was dug close by, and the old one used as a convenient receptacle for "unconsidered trifles."

A further find on this ground—this time of Anglo-Saxon burials—towards the end of October, 1908, must be deferred until the next number to allow time for expert examination of the skulls, etc.

Anyone interested in the subject of Pit-dwellings, is referred to a paper by Mr. Reg. A. Smith, F.S.A., in *Surrey Archaeological Collections* (1908), XXI, 192, "Romano-British remains at Cobham," in which references are given to numerous other papers on the subject. But as only one pit has up to the present been investigated at Ellesborough, any comparison would be premature.

A copious bibliography concerning domestic cattle and their origin (filling 21 closely printed pages the size of THE RECORDS) is given by Mr. R. Hedger

Wallace in the *Trans. Nat. Hist. Soc. of Glasgow*, Vol. V. (new ser.), March, 1900, p. 436, but without any very convincing conclusion.

On the origin of domestic horses, however, one can hardly conceive a more interesting paper than one by Professor J. Cosser Ewart, M.D., F.R.S., "On Skulls of Horses from the Roman fort at Newstead, near Melrose, with Observations on the Origin of Domestic Horses;" in *Trans. Roy. Soc., Edinb.*, Vol. XLV., Part III. (No. 20), p. 555 (Edinb., 1907). Or the same writer's introduction to "Prjevalski's Horse," by W. Salensky, translated by Capt. Hayes (London, 1907). "The Origin and Influence of the Thoroughbred Horse," by Professor W. Ridgeway, M.A., F.B.A., (Cambridge, 1905) is also very interesting, though not altogether convincing.

ALFRED HENEAGE COCKS.

The plate illustrating some of the Pottery found at Ellesborough not having been completed in time, will be issued with the next number for binding with this article.