

Recent Excavations at Silbury Hill.

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SILBURY HILL is said to be the greatest artificial mound in Europe; it is 125 feet high, and covers about five acres of ground; the summit is flat and is 103 feet diameter.

Various conjectures have been formed as to its original purpose; one of these is that it was a sepulchral monument, and another, that it was erected for religious worship in connection with the so-called Druidic temple at Avebury, which is exactly one mile distant from it. The question of the date of its erection has also been much discussed.

In the belief that this great mound had been raised as a tumulus, it has on two occasions been opened. In the year 1777, the Duke of Northumberland, and Colonel Drax, brought miners from Cornwall, and sunk a shaft from the summit to the base of the hill. In 1849, the Archaeological Institute caused a tunnel to be made from the south side to the centre of the hill, when the original nucleus or starting-point was found, consisting of concentric layers of material. In neither of these examinations was any trace of sepulture discovered, but merely a few fragments of stags' horns, probably the tools used by the builders when excavating the chalk rock, of which this mound is chiefly composed.

From these two examinations it may reasonably be inferred that the mound is not sepulchral; for if so, we should naturally expect to find, in the primary centre of the hill, the body of the great dead, for whose honour it was raised.

In describing the tunnel of 1849, the Dean of Hereford, in his *Diary of a Dean*, says: "Nothing could be more evident than the existence of the primary heaping of the mound, through the centre of which, or very nearly so, the elevated tunnel was cut.

At the floor of this was traceable the line of the original turf of the natural hill, and it was clear to demonstration that this had not been cut through. No cist, therefore, had been found below that line in any part yet examined. . . . One thing is manifest,

that the examiners of 1777 did not hit the actual centre of the tumulus, whilst we have excavated its very core."

Now, had this mound been erected as a monument, we should expect to find it placed on an elevated situation where it could be seen from afar, but, on the contrary, it is placed on very low ground, at the very bottom of a gently-rising down; and this fact has been referred to by Duke, who, in his *Druidic Temples* says: "This peculiar spot is a hollow nearly surrounded on all sides with moderately rising ground;" and also by the Rev. A. O. Smith, who, in his *Silbury*, says: "Standing as it does on comparatively low ground, and surrounded with undulating downs, which tower above it, very limited indeed is the view from the summit."

Had it been raised on the summit of one of these "undulating downs" it would have been visible for many miles around. The barrows in this neighbourhood are placed on the hill tops, and are remarkably prominent objects in the landscape.

On looking down from the summit of Silbury Hill to the meadow below, a well-defined line is seen, which plainly marks out the area whence was obtained the chalk used for making the hill; the land within this line is under the level of the adjacent ground, and in summer the grass grows here of a brighter green, owing to the greater amount of moisture in the soil.

It will be seen that this boundary line extends in the form of a circle, nearly surrounding the base of Silbury Hill, at a distance of 100 feet on the north and east; but to the west it includes a larger area. On the south is a deep trench separating the mound from the adjacent high ground, and across this part a narrow causeway or ridge of chalk rock was allowed to remain when the rest was removed, and this appears to have been the only approach to the mound. Even between this causeway and the hill there is still a great gap of some depth. There may possibly have been two approaches on this side.

A special survey of Silbury Hill has been made for me by Messrs. Ashmead, and the accompanying plans were prepared by them. The southern boundary of the meadow is a steep escarpment formed by the removal of the chalk from the sloping side of the rising down. Here chalk has been removed to a depth of over 40 feet from the original surface of the down as shown in plan No. 2.

Having for some time past thought that an excavation in the meadow at the foot of

the mound would disclose the depth from which the chalk had been removed, and would also throw some light on the origin of the hill, I applied to the owner of the meadow, Mr. Pinniger, and obtained from him leave to sink a shaft there. Subsequently, he kindly gave me further permission, so that this autumn I was enabled to have ten shafts sunk in the meadow, to the west and north of the hill, at the spots shown on the plan. All these shafts passed first through about a foot of dark surface soil, and then through white alluvial clay, until the undisturbed chalk rock was reached; this solid chalk being the limit of depth of the excavated material used in constructing the mound.

In shafts Nos. 1 and 8, marks of the original workers were visible in the form of notches or steps in the chalk.

The measurements prove that the chalk had been generally removed to a depth of about 16 feet, but near the foot of the hill this depth was increased to about 21 feet below the present level of the meadow, and this has all been replaced by alluvium.

Near the mound, the alluvial clay in the moat contained a large admixture of chalk rubble which has rolled from the hill; but further from the mound, at shaft 6, there was not one fragment of chalk rubble in the entire depth of 15 feet; but only fine white tenacious clay, with a few fractured flints and some bones.

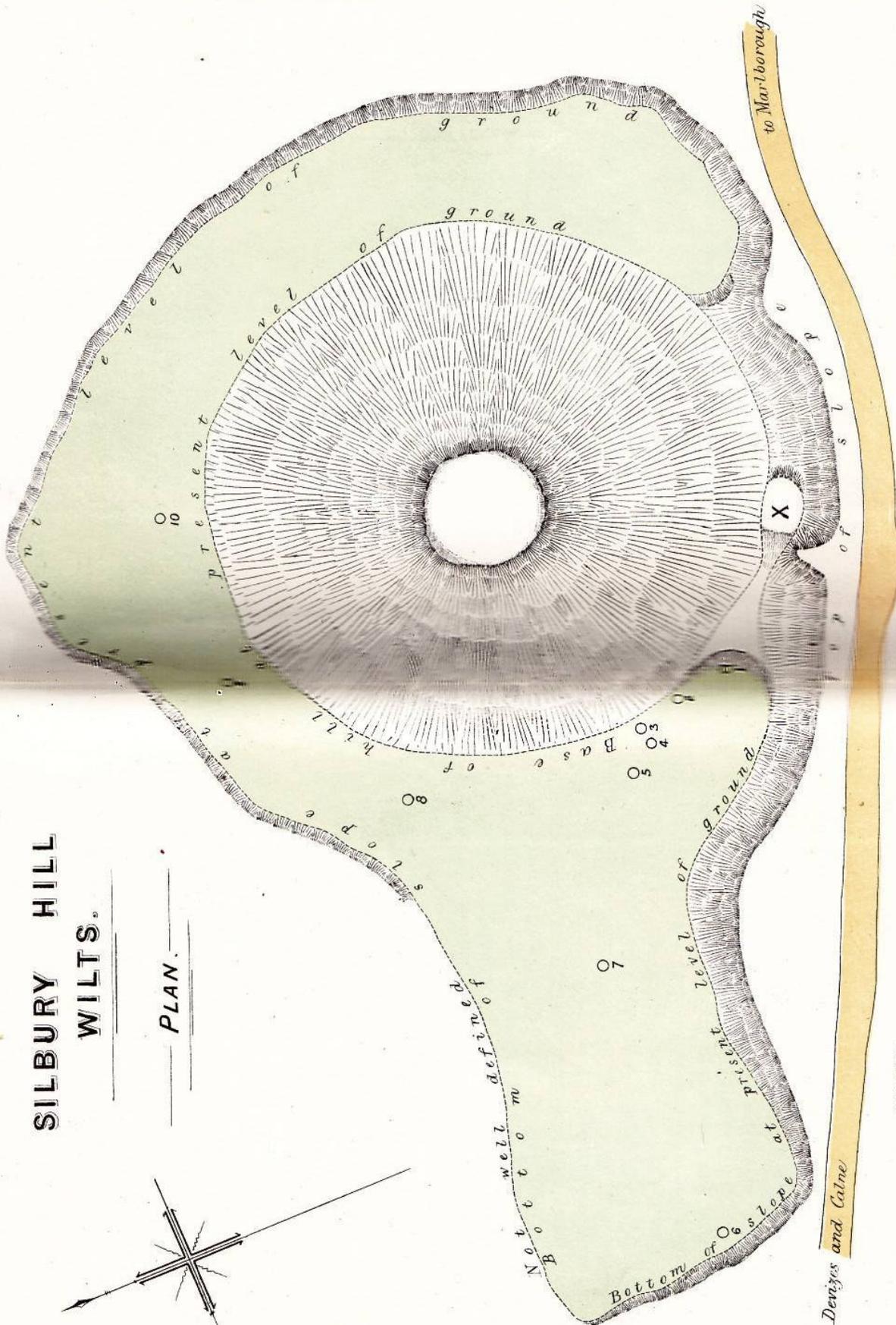
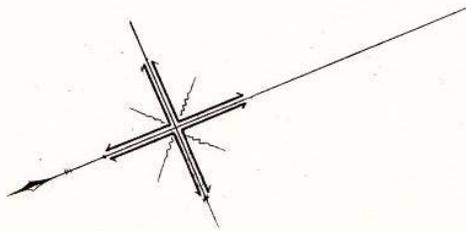
A very large part of the chalk used in making Silbury Hill was obtained from the west side; here, instead of a trench 100 feet wide, a large area has been excavated to a depth of over 20 feet near the hill, and 15 or 16 feet elsewhere.

All the chalk and earth required for making this great mound was probably carried in baskets on the heads of men, women, and children, from the trench, although it could have been obtained with far less labour from the high ground to the south, had there not been some motive which led the builders to take the materials.

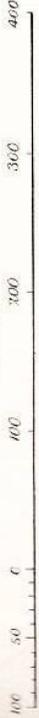
It may appear strange that the hill was formed by this method, but in our own day, vast railway embankments in Europe and India have been thus made. Sir Thomas Brassey, in his book *Work and Wages*, refers to "the Italian villagers, men, women, and children, carrying earth in baskets on their heads," to construct railways.

SILBURY HILL WILTS.

PLAN.



Scale of Feet.



NOTE

Refuse from tunnel 1849 marked thus X
 Shafts sunk in 1886 shewn thus 9

from Devises and Catne

Plate XVII

SILBURY HILL WILTS.

SECTIONS

From WEST to EAST.

present level of ground

probable original slope of hill

From NORTH to SOUTH

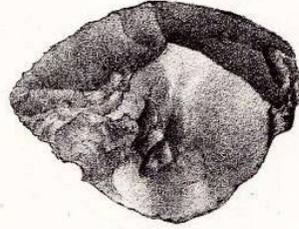
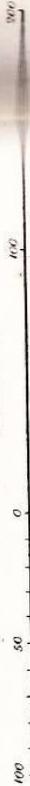
surface of ROAD ground

probable original present level of ground

NOTE

Ground undisturbed shewn thus
 Ground once excavated, since }
 filled in by Alluvial deposit. } "

Scale of Feet.



Worked Flint, N^o 5 Shaft.

for traces of human workmanship. Besides other flints, one well-worked *flint implement*² rewarded this search. In another shaft also (No. 6), flint flakes were found in the alluvium. These flints I sent to the highest authority upon flint implements, Mr. John Evans, D.C.L., P.S.A., who kindly examined them, and wrote as follows: "The flints from No. 5 shaft are, I think, *all artificial*. One, which is very well wrought, may be either an unfinished arrow-head as you suggest, or a small knife such as is sometimes found in the interments in barrows. The flakes are probably the waste pieces from chipping out some large tools, though some of them have been used as instruments for cutting and scraping. The evidence you have obtained shows that flint has been in use since Silbury Hill was formed, for cutting instruments, for I think that the knife or arrow-head from shaft 5 must be accepted as probably not later than the Bronze period, to which most of our flint arrow-heads belong; and further, I think that any doubt that may have existed as to the mound being pre-Roman may now be dispelled."

These finds reveal the important fact that, long after Silbury Hill had been erected, the neighbourhood was inhabited or visited by a people who made and used flint weapons. The time was so long after the formation of the mound that not less than 5 feet of alluvium had accumulated in that part of the trench which these flint-workers occupied when they temporarily encamped there, lighted their fires, cooked their food, and formed their flint weapons.

The time of their stay must have been either summer or autumn, for in the spring and winter months the level of their encampment, which is 9 feet under the present surface, would be always under water, because it is much below the level of the adjacent stream which forms the only drainage for this district. In the winter of every year this meadow is now frequently submerged by the overflow of the stream.

Besides their weapons, these flint men left behind some remains of the animals which supplied them with food; and Professor Lloyd Morgan has identified the bones of deer, ox, and pig; also of man's faithful companion, the dog. More remarkable still; there was found in this black layer, a human bone, broken into two pieces. It is a femur, possessing peculiar characteristics of some interest, from the fact of the *linea*

² See Plate 2.

aspera being developed to a very unusual extent.

I wish to call attention to the lower jaws and to the fragments of bones from this black layer. These fragments are just such small hard pieces as we now see left uneaten by dogs, and these are evidently the dogs' leavings. Sir John Lubbock, in his account of the Danish Kitchen Middens describes a similar fact; and he alludes to the frequent occurrence of the lower jaws of animals which the dogs had left there uneaten.

We may infer that some of the food was cooked by boiling, for the small Sarsen stones found associated with the other remains, have all been burnt, and probably have been used as potboilers.

It does not follow that the builders of Silbury Hill were actually the same race as the flint workers, whose traces were found in the trench. A long interval of time must have necessarily elapsed to account for the deposit of 5 feet of alluvium; so these men may have supplanted some previous race of dwellers, but if so, it simply carries back the date of the erection of Silbury Hill to a still more remote period.

In every shaft but one many bones of animals were found in the alluvium at all depths. Professor Lloyd Morgan has kindly examined these, and finds they belong exclusively to ox and deer. It is remarkable that not any bones of sheep were found in these excavations, although that animal has for many centuries been most abundant in Wiltshire.

In addition to the objects already referred to, a brass coin of Marcus Aurelius was found 6 feet under the surface in shaft No. 2; and in another shaft, an iron arrow point was found; these things however, bear but little on the date of the mound.

As the outcome of these excavations, I have ascertained that Silbury Hill was originally surrounded by a deep trench or moat. Also, that it was erected by a people, probably a rude race of hunters, so little advanced in civilisation that they were using flint implements a long time after the hill was built. This discovery places the date of the erection of Silbury Hill at a very early period, possibly many centuries before the arrival of the Romans in Britain.