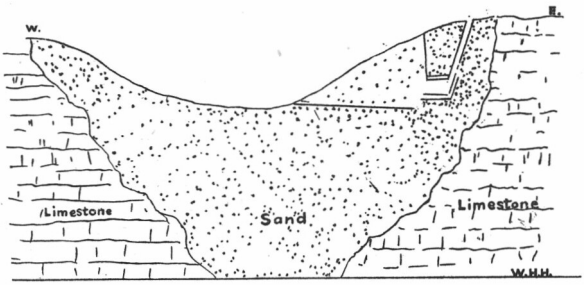
NOTES ON AN ANCIENT KILN AT PARWICH.

By W. H. HANBURY, F.G.S.

ON Mr. R. Bunting's Low Moor Farm at Parwich there is a deep solution-hollow in the limestone. This hollow, like similar pits and depressions in the limestone further north, was until recently filled with sand.

Before the work of removing the sand began, the surface was a turf-covered, saucer-like depression, as shown in the diagram. There was not the slightest indication that the surface had ever been disturbed.



Section across Sand-pit
Not to scale.

Excavation began at the bottom of the depression and the sand was worked out in a series of terraces. Nothing of archæological interest was noticed until March 1944, when the workmen on the highest terrace on the east side of the pit laid bare a stone structure in the face of the terrace.

The discovery was reported to Mr. Nash by Mr. L. M.

Waud, District Executive Officer of the War Agricultural Committee. Mr. Nash at once communicated with me and on April 11th we visited Low Moor Farm accompanied by Mr. Andrew Smith who took photographs, one of which is here reproduced.

The structure was a small rectangular chamber built of slabs of millstone grit, the nearest exposure of which is at Sheen Hill, to the N.W. of Hartington, seven miles away. The internal dimensions of the chamber were: 1 ft. 8 ins. wide, 1 ft. 10 ins. high and the same from back to front. The back slab had a backward slope of about 30°. A sloping flue led upwards to the surface about 8 ft. from the base of the structure. This flue at the time of discovery was filled with blocks of limestone, most probably thrown down in later times to fill up a hole dangerous to sheep and cattle.

When first disclosed, a gritstone slab formed the top of the chamber. Limestone blocks were used in building the flue and also as a backing to the gritstone chamber.

It seems evident that the builders of the chamber drove a heading into the sandy slope, constructed the chamber and flue, and then filled in with blocks of limestone.

Two questions arise: 1. What was the purpose of the structure? and 2. When was it built? It was undoubtedly a kiln or furnace, but its purpose is not apparent. When it was first disclosed it contained a cake of indurated lime, pieces of limestone, sand, and fragments of charcoal.

The presence of lime led to the suggestion that it was a lime-kiln, but the capacity of the kiln and its construction make it unsuitable for lime-burning.

The lime may be accounted for by the action of heat on the limestone forming the lower part of the flue.

It was too small for a pottery-kiln and unsuitable for lead-smelting. The use of gritstone slabs in the construction of the kiln, and its position facing the westerly winds, suggest that the object of the builders

was to obtain a high temperature. The appearance of the slabs proves that they were successful. It is probable that the cutting in the bank had a wide entrance and narrowed towards the kiln so as to concentrate the wind.

May not the kiln have been used for melting down scrap bronze? We know that during the Bronze Age broken tools, weapons, and other objects of bronze were carefully preserved, and collected by men who were specialists in re-casting the metal. Numerous collections of scrap-metal, known as " bronze-hoards," have been found. The bronze was melted down in clay crucibles and then re-cast.

It is significant that in proximity to the kiln, clay and sand, suitable for making crucibles and moulds, were found.

The kiln, or furnace, would be quite capable of providing a temperature high enough to melt bronze, and might even have been used to smelt the more easily reducible of the copper-ores, such as the oxide and the carbonate, both of which could be obtained from Ecton, little more than six miles away.

All this is pure speculation, for, unfortunately, not a single object, not even a potsherd, was found on which to base a reasoned conclusion.

There can be no doubt that such material evidence existed, but it was unnoticed by the workmen, and would be carted away with the sand before the existence of the kiln was suspected.

Taking everything into account it does not seem to be unreasonable to assign the kiln to the Bronze Age.

The presumption of this early date is strongly supported by the condition of the site before it was disturbed.

According to Mr. Bunting, the surface, thickly covered with turf, had a perfectly uniform slope from the edge to the bottom of the depression. There was not the slightest indication of disturbance. This means that the kiln and the approach to it had been entirely

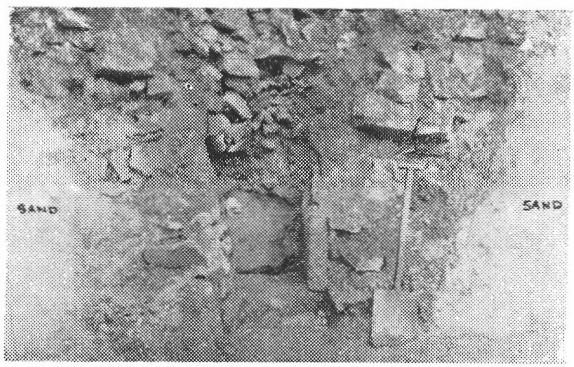


Photo. by Andrew Smith

ANCIENT KILN AT PARWICH

Facing p. 94

obliterated by the action of natural forces over a long period.

When thinking of the Bronze Age, it should not be forgotten that the use of bronze did not come to an abrupt end in 500 B.C. when iron was first introduced into this country. There was an overlap of many centuries in the use of the two metals; just as flint implements and weapons were used long after the introduction of bronze.

As late as the Roman Invasion of Britain Cæsar tells us that iron was very scarce, and was used as a form of currency (*Gallic War* v, 12).

The most beautiful work in bronze was done after the introduction of iron, and workers in bronze carried on their craft well into the Christian era.

It is unfortunate that it was not possible to preserve the kiln. The hanging wall of sand in which it was left by excavation before it was revealed would, in a very short time, have collapsed under the influence of gravitation and the weather.

I wish to express my thanks to Mr. L. M. Waud for reporting the discovery; to Mr. Bunting for his kindly welcome and helpful information; to Mr. Andrew Smith for his valuable photographic record; to Mr. S. T. Nash and Mr. Horace Jones for enabling me to pay several visits to Low Moor Farm.