

# NOTES

## A LOST WHITE HORSE ON PITSTONE HILL?

Documentary evidence from the adjacent parishes of Pitstone in Buckinghamshire and Aldbury in Hertfordshire suggests the sometime existence of another feature on Pitstone Hill, or Nowers Hill as it is sometimes known (SP 948142), to add to those detailed by James Dyer and A. J. Hales in 1962 ('Pitstone Hill – a study in field archaeology', *Records of Bucks* XVII, 49–54). The hill is traversed by the Romanized Icknield Way and by Grim's Ditch; excavations on its lower slopes have provided evidence of both Iron age and Roman settlements, together with a Saxon cemetery. A map of the area also appears in *Records* XXIII (1981), p. 24.

A Pitstone parish map of 1809/10 shows three adjacent small closes on the north-west side of Pitstone Hill called the first, second and third White Horse pieces, lying roughly below the flint mines identified by Dyer and Hales. Near these closes and at the foot of the steepest part of the hill, a lane of some antiquity crosses the county boundary into Pitstone from Northfield in the parish of Aldbury, on the south-west side of the hill. It seems probable that this is the lane mentioned in the will of Henry Partridge of Aldbury, 1630 (HRO 100 HW 91), which in-

cludes a bequest of an acre of ground in North Field 'adjacent to a way called White horse way'. An earlier bargain and sale of 1580/1 (HRO 37463) between Thomas Turnour of Hemel Hempstead and Francis Wynche of Aldbury includes three roods in Nokeden Furlong butting into 'Whight Horse'. A court baron of 1669 indicates that Noke Deane was also in North Field.

The Aldbury evidence seems to indicate that there might at some time have been a physical feature to link up the references in the two parishes, and a white horse cut into the chalk on Pitstone Hill and dating before 1580 seems a possibility. No visible evidence remains on the ground and no mention of such a feature has been found in the early histories of either parish.

Quarrying by Tunnel Cement has almost certainly cut away the surface of the three White Horse pieces, and perhaps the lower slopes of Pitstone Hill itself. If any monument existed, however, it is likely to have been cut into the most prominent part of Pitstone Hill, which is still untouched.

Jean Davis

## TWO MEDIEVAL SEALS

In *Records of Buckinghamshire* Vol. 31 a Note by Brian Spencer (Museum of London) recorded two thirteenth-century seal matrices which had been donated to the Buckinghamshire County Museum. By chance two further seal matrices have been brought to the Museum for identification in the past twelve months:

1. A lead seal-matrix was found near Halton House by Mr F. E. Kingman, bearing the

inscription + S(IGILLUM) WALTERI DE MOR, in a mixture of Roman and Lombardic lettering, and with the sun and crescent moon as a central motif. A late twelfth or early thirteenth-century date is suggested by the Museum of London. In *Bucks Feet of Fines* (BAS Records Branch 1940) there occurs an entry for Amice, widow of Walter de Mora, dated 27 October 1227: this could refer to the same Walter.



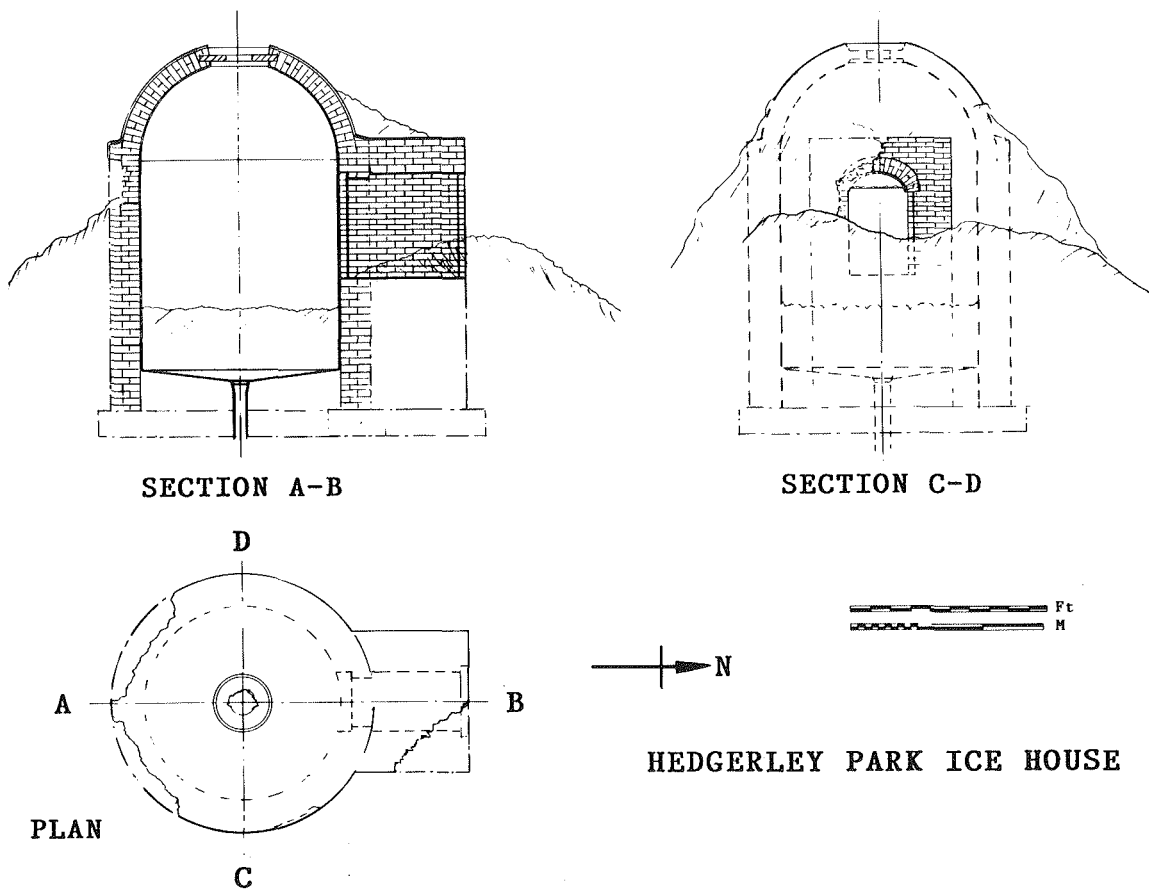


Fig. 1. Ice house at Hedgerley Park, plan and sections.

the year 1817 for Charles Shard.<sup>2</sup> The ice house is probably contemporary. It is mentioned in a document of 1842 commuting tithes in the parish, which was surveyed some years previously.<sup>3</sup> There is no evidence of any previous house on the site.

By 1841 the estate had passed to Rice Richard Clayton<sup>4</sup> and after his death was sold by his son, in 1881, to Mrs Ellen Stevenson, widow of Captain Henry Stevenson. She lived there until it was sold by her daughter, Mrs Hugh Norris (to whom it had been made over some years previously for tax reasons) in 1931.

Turves and timber were then stripped from the land and it was exploited for sand and gravel by its new owner, Richmond Watson. Hedger-

ley Park house was undermined by the mineral working and became unsafe, being demolished in the mid 1930s. Mineral working and rubbish dumping continued until the early 1960s after which the site was left unrestored until recently when a new owner set about reclaiming the land.

At the time that the ice house was built, a lake was close by, but this was filled in some time before 1900,<sup>5</sup> so that if the ice house was still in use after the filling in, there would have been a distance of one-third of a mile (536m) to carry ice from the next lake. When the ice house was last used for its original purpose is unknown.

Situated approximately 350 yards (320m) north-east of the site of the mansion, the ice



Plate I. Ice house Hedgerley Park; the dome from the east.

house is set in a large overgrown excavation at map reference SU 982869. It stands exposed on a mound, the surrounding ground having been removed during mineral working, and is not easily accessible, as the clay subsoil is slippery and the area is overgrown. On three sides it is easy to pass it by without seeing it, as it looks like just another foliage-covered spoil heap.

Built of red stocks, the ice house is a circular, domed building, with an entrance passage protruding from its north side. Cement rendering covers the dome externally as well as the whole of the visible interior, with the exception of the passageway. Rendering was applied to keep the structure dry, and the smooth sides allowed the ice to slip down and be compacted, thus avoiding air pockets which would occur if ice were caught up on rough brickwork. Air pockets could cause quicker dissolution of the mass.<sup>6</sup>

At the top of the dome is a circular opening,

having a  $16\frac{1}{2}$ " (419mm) diameter. No cover is present.

The entrance, which has collapsed to the east, has a flat, arched opening  $2' 9"$  (838mm) wide, with a height of  $3' 4"$  (1016mm). A build-up of earth in the doorway was ascertained by probing to be  $3' 9\frac{3}{4}"$  (1162mm) deep, making the original dimensions  $7' 1\frac{3}{4}"$  (2178mm) by  $2' 9"$  (838mm). A  $6' 4"$  (1930mm) long passage ends with an inner doorway measuring  $4' 9\frac{3}{4}"$  (1467mm)  $2' 6"$  (762mm). No doors remain.

There is a drop of one foot (305mm) from the doorway onto an earth floor in a circular chamber, with a diameter of  $9' 10"$  (2997mm). From the floor to the base of the dome it is  $7' 4"$  (2235mm) and  $12'$  (3660mm) to the top. Again, by probing, the original floor level has been established to be  $3' 7"$  (1092mm) below the present level, making a height of  $15' 7"$  (4750mm) from the floor to the top of the dome. A drain was found in the middle of the floor.

Possibly the chamber was partially filled in to prevent animals falling in and becoming trapped.

Internally, the condition of the structure is good (although the walls have recently been covered in graffiti) but is poor externally, with the brickwork and rendering deteriorating.

I would like to thank the landowner, Mr Norman Grundon, for his help and co-operation, Mr Ted Evans for his drawing, probing and helpful practical knowledge and my wife, Hilary, for her help.

Michael Rice

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2. The Parish of Hederley Overseers rate and account book 1760–1825 (BRO, PR 99/11/3).
3. Hedgerley Tithes award, 1882 (BRO, PR 99/27/1R).
4. Census, 1842.
5. Tithes map. Amendments made by Revd Mr Matthews in 1900 and entered in the schedule and on the map.
6. S. P. Beamon, *Subterranea Britannica*, pers. comm.

## TWO GEOLOGICAL SITES IN THE NORTH BUCKS AREA

### *Introduction*

Two geological field trips were organized in 1990, as part of the Natural History Section's introduction of geology into its programme. On the first occasion, members visited the Leighton Buzzard area to examine the Cretaceous Lower Greensand and Gault Clay, while the second was organized to view the Jurassic Oxford Clay of Newton Longville, near Bletchley. The Society records its thanks to George Garside Sand Ltd and London Brick Co. for granting access to their pits so readily.

### *Mundays Hill, Leighton Buzzard*

The sand quarries around Leighton Buzzard have long been of interest to geologists for their exposure of the complex junction of the Woburn Sands of the Lower Greensand (Aptian) and the overlying Gault Clay (Albian), the highest formations of the Lower Cretaceous.

The Society's Natural History Section visited Mundays Hill Quarry (SP937280) on 21 July 1990, principally to examine the stratigraphical boundaries and to search the fossil-yielding strata which form part of the Gault Clay outcrop which extends across Buckinghamshire in front of the Chalk scarp of the Chilterns. The

Mundays Hill section was partly described by Owen, 1972, and the sequence is illustrated in Fig. 1.

Caught up in the ferruginous-cemented topmost beds of the Lower Greensand (the Carstone) are apparently broken lenses of sandy fossiliferous limestone (the Shenley Limestone). An earlier held notion was that the entire Gault Clay section had been overturned by Glacial action and that Shenley Limestone correlated with the topmost Albian 'Red Chalk' of East Anglia. The discovery of stratigraphically significant ammonites from the Shenley Limestone has demonstrated a pre-Gault age for the limestone and finally laid this idea to rest. The Gault Clay exhibits a typical succession of fossil faunas as recorded elsewhere in the country.

On this occasion, the Shenley Limestone was obscured by quarrying debris; only the Carstone could be observed at the Greensand Gault junction. Members were impressed by the extent and variety of the Woburn Sands which are a valuable resource used in the glass and filtration industries. Yellow, orange and red hues gave way at the top to the purer silver sands. Massive current bedding and tidal

bundles gave evidence of the high-energy, shallow, marginal marine environment in which these sands were laid.

The party also occupied itself by collecting from the seam of phosphatic nodules at the base of the Varicosum Subzone just above the base of the Upper Gault Clay (see Fig. 1).

Ammonites and their fragments were common and included *Euhoplites* sp., *Hysterocheras varicosum*, *Prohysterocheras goodhalli*, *Beudanticeras* sp., and *Hamites* sp. (the uncoiled heteromorph). Specimens of the small translucent belemnite guard *Neohibolites* were

abundant on the weathered clay slope. Bivalves included *Inoceramus concentricus* and rarer *Inoceramus sulcatus* (the latter from below the nodule bed). The bivalves *Nucula* sp. and '*Ostrea*' sp. were present and the nodules themselves often exhibited an epifauna of encrusting '*Ostrea*' spat, being the only hard surfaces on the sea floor at the time of deposition. Crinoid (sea lily) ossicles, fish vertebrae and teeth and gastropod fragments were also found.

The Basal Varicosum Nodule Bed was of particular interest to members cognizant of the late nineteenth-century Coprolite Industry in the Cheddington-Ivinghoe and Ford districts,

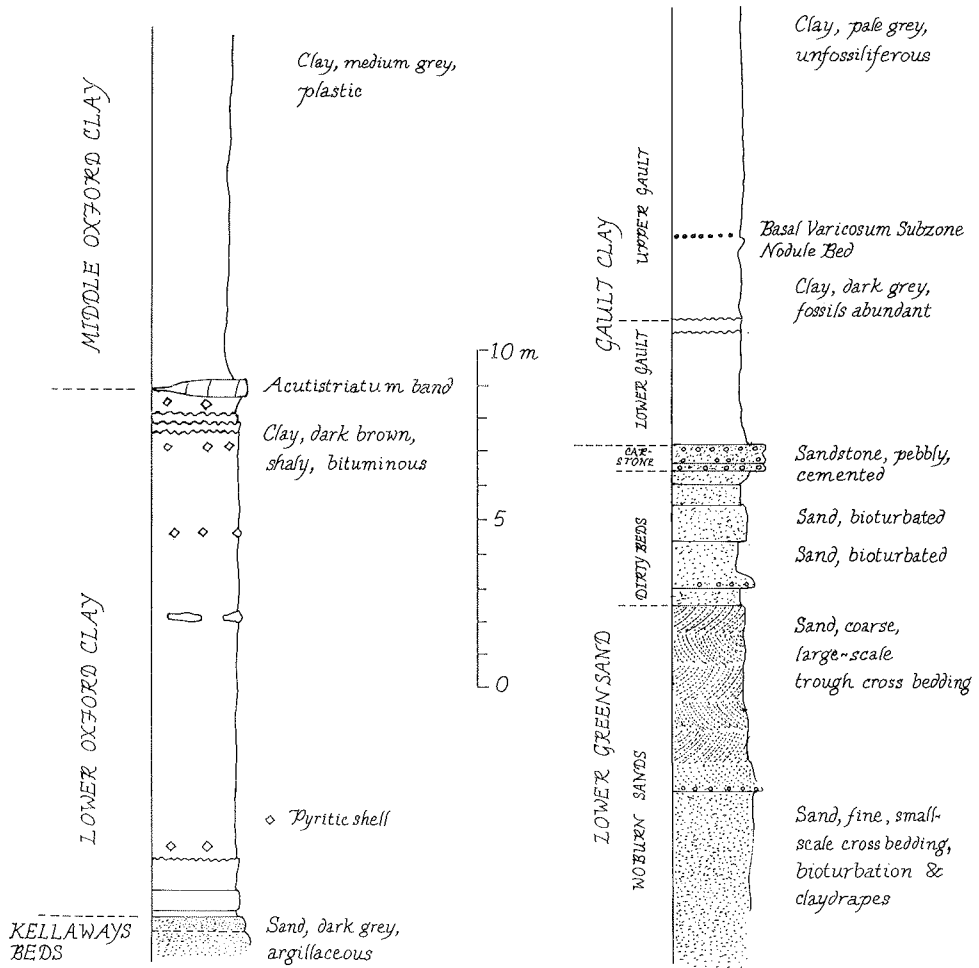


Fig. 1. Stratigraphy of (left) Newton Longville Brick Pit, and (right) Munday's Hill Sandpit, Leighton Buzzard.

as it was this bed that was extracted for the manufacture of superphosphate fertilizer (O'Connor, 1990). Those struggling in the digging for fossils in the clay would reflect on the toil of the Coprolite workers who removed 5m of clay overburden to exploit this thin seam.

#### *Newton Longville*

On 18 August 1990, a party of about eight members met at Newton Longville to visit London Brick Co.'s Oxford Clay pit where Oxford Clay has been extracted over many years for the manufacture of fletton bricks.

The clays contain a high percentage of organic matter which, when ignited by a small charge of coal, enables the bricks to fire themselves (the Fletton Brick Process). The Middle Oxford Clay overburden, without the same high organic yield, is excavated and discarded in the pit. The weathered, useless clay stripped off is known to the brick makers as 'callow' while the pits themselves are called 'knotholes'.

Exposure in the pit was excellent with a continuous section available throughout the Lower and much of the Middle Oxford Clay (Callovian Stage). In addition, a deeper than usual excavation in the pit floor had revealed

2m of fine sandy clay of the Kellaways Beds, containing the ammonite *Sigaloceras* sp.

The section, which has been previously recorded by Calloman (1968) and Horton *et al.* (1974) is illustrated in Fig. 1. The Lower Oxford Clay remains fairly constant in thickness and facies along its outcrop in the English Midlands.

Several horizons of particular interest were brought to the group's attention. The base of the Oxford Clay, where it overlies the sandy Kellaways Beds, is rich in large belemnites and the large oyster *Gryphaea* sp. Higher in the section, occasional shell-beds mark periods of interrupted clay deposition when fine material

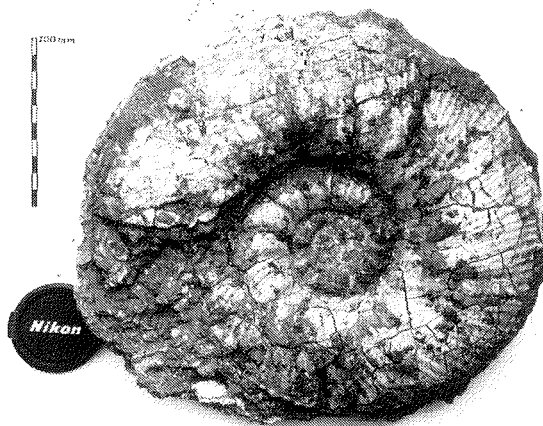


Plate I. *Erymnoceras coronatum*, an ammonite from the Lower Clay, Newton Longville Brickpit.

was winnowed away leaving behind a concentration of heavier shell material. The most impressive of these shell beds contained large *Erymnoceras coronatum* (Plate I), some with a shell replaced by iron pyrite. A hard, lenticular limestone was an obvious marker in the pit face, and many blocks (rejected as brick clay) had been returned to the pit. This bed, the Acutistriatum Band, is a widespread marker horizon, rich in fossils. In this same bed at the former brickpit in nearby Loughton (now the Milton Keynes Bowl) crocodile bones and decapod crustacea have been found fossilized.

At a slightly lower level, a layer of large discoidal septarian concretions was found.

The Middle Oxford Clay was examined for its characteristic ammonite fauna of *Peltoceras* and *Perisphinctes*, both preserved, uncrushed, in solid iron pyrite, unlike those in the Lower Oxford Clay which, although preserved in their original aragonite shell, are invariably crushed flat.

The site of a recent crocodile skeleton discovery, on the working surface behind the excavator, was picked over, and a few fragments of bone discovered in the spoil and surrounding disturbed clay. The skeleton was discovered by the Harrow and Ruislip Geological Society on a visit earlier in 1990.

A large glacial channel, filled with outwash deposits was still visible along the old pit face. These inspecting this found a mixture of rocks and fossils from the Midlands and Northern England. Some pebbles and boulders still exhibit scratch marks as evidence of their transport by Pleistocene ice.

This probably will have been the group's last opportunity to examine Newton Longville as the brick factory was closed within a month of the visit and the pit will consequently slowly degrade or be filled.

M. J. Oates and K. M. Rowland

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