

Fig. 1: location plan of ice-house and associated features.

(drawn by Tony Venis)

Pinner Hill Ice-house

PAT CLARKE
 TONY VENIS
 KEN KIRKMAN

PINNER HILL GOLF CLUB House was until 1920 a large privately-owned country house. There has been a house of this type on or near the site since just before the Civil War at the latest. The present house incorporates work of c 1780, c 1810-20, and the years 1865-72. Present out-housing seems to date from about 1830 (stables), early 1800s (equipment

store), and mid-1800s (equipment store and professional's shop). The garden wall appears to be of 18th century date on the east side, and 19th century on the south side.

The ice-house lies 40m (130ft) northeast of the Club House (NGR TQ 10963 91582) (see Fig. 1) and

is shaded on the east by a yew tree. The round hole in its roof has been visible for many years.

The excavation

The purpose of the excavation was to explore the ice-house and adjoining remains, and to determine the dates of their construction and the relationships between them.

The ice-house had been used as a dustbin for 10-15 years. The basement area adjacent to the ice-house tunnel, which had been backfilled with rubble, was partially cleared by a mechanical excavator and the point at which to start excavating was found by probing the ice-house tunnel roof until the entrance was located. The excavation exposed the partially filled-in tunnel entrance, allowing the top layer of rubbish (mostly cans) to be removed at greater speed than through the 0.6m (2ft) hole in the dome. (*Dome* is the hemispherical top of the ice-house; *drum* is the remainder of the cylindrical construction). The next layer of household refuse and decorators' rubbish took longer as it had to be removed by the bucketful. When all the rubbish was out, it left a floor of earth with a paving slab under the hole in the dome, and another inside the access doorway from the tunnel. Thus the drum had earlier been converted into a walk-in storeroom by filling with about 1.5m (5ft) of earth and clay.

The removal of about 8.5m³ (300 cu ft) of earth and clay took the major part of the overall effort, as each bucket-load had to be hauled to the surface *via* a tripod and pulley arrangement. The final act of cleaning was to scrape off as much as possible of the clay still adhering to the drum walls.

Construction of the ice-house (Fig. 2)

The ice-house, which measures 2.79m (9ft 2in) in diameter by 3.66m (12ft) in height internally, is constructed in a variety of bricks. Those in the dome are pink and appear to date to the early 1800s, resembling those in the rear wall of the stable. The dark red bricks of the outer skin of the drum seem to be 18th century and are laid in a soft white mortar. Similar bricks are to be found in the east wall of the kitchen garden (now the car park). The hemispherical dome has a 0.56m (22in) diameter hole, tapered for a bung. There is a brick floor with a slight fall in the centre to a yard gully, which is probably Victorian but could be later. The gully has a 254mm (10in) square hand-made perforated terracotta grating with trap and connection to a 100mm (4in) drain.

A tunnel, with an entrance just below ground level, runs for c 4m (13ft) from the basement of a demolished building. It has a door at each end and one in the middle. Its walls, which seem to be of Victorian brick, are 228mm (9in) thick. A shallow arched roof, of bricks similar to those on the outside

of the drum, gives a maximum headroom of 1.78m (5ft 10in). The floor bricks are bright red and cannot be dated. The tunnel's width of 0.70m (2ft 3½in) reduces to 0.61m (2ft) at the entrance to the ice-house. There are two steps up from the tunnel to the ice-house, reducing the headroom at the entrance to 1.22m (4ft). The threshold is 1.664m (5ft 6in) above the ice-house floor. The ice-house walls are 356mm (14in) thick up to about 0.7m (2ft 3½in) above the dome springing, and 228mm (9in) thick above this point. The walls on the south side of the tunnel have partly collapsed inwards between the central door and the chamber door due to the weight of heavy machinery and the presence of door frame rebates.

Associated areas

The area to the west of the ice-house was partially excavated. Earlier maps show that there were a number of buildings between the ice-house and the roadway to the stables. The last surviving buildings comprised a decorative clock and bell tower, built in 1869 and demolished in 1961, a building with a double-pitched slated roof, adjoining it on the south side, and a lean-to building adjoining the north side of the tower. The yellow brick of the tower's upper part probably matched the new front of the main house. The other outbuildings seem to have been mostly of light red Victorian brick. The evidence for these buildings is a photograph taken in the 1940s, and the 1935 O.S. map.

Excavations started at the western end of the ice-house approach tunnel, and four walls of a basement structure were uncovered. All the bricks still in place are Victorian. Where the tunnel opens into the basement of the out-house, the bricks on either side of its entrance differ from each other, those on the south side resembling those inside the tunnel. The north and south jambs of the entrance do not match each other. The basement measured 3.2m (10½ft) square externally, and it seems reasonable to assume that it represents the clock tower. This assumption was confirmed by superimposing the results of a plane table survey on to the 1935 map.

The relationship of ice-house, tower complex and filled-in brick-lined pond to the south is shown on Fig. 1.

At the eastern end of the south wall of the basement, the entrance to a second tunnel was found. It is brick-built with brick arched roof (found demolished) just below ground level. The breaking of the roof of the tunnel appears to have been done to allow it to be back-filled with rubble.

Approximately one metre (3ft) of the tunnel was excavated, and it appeared to be straight-jointed at

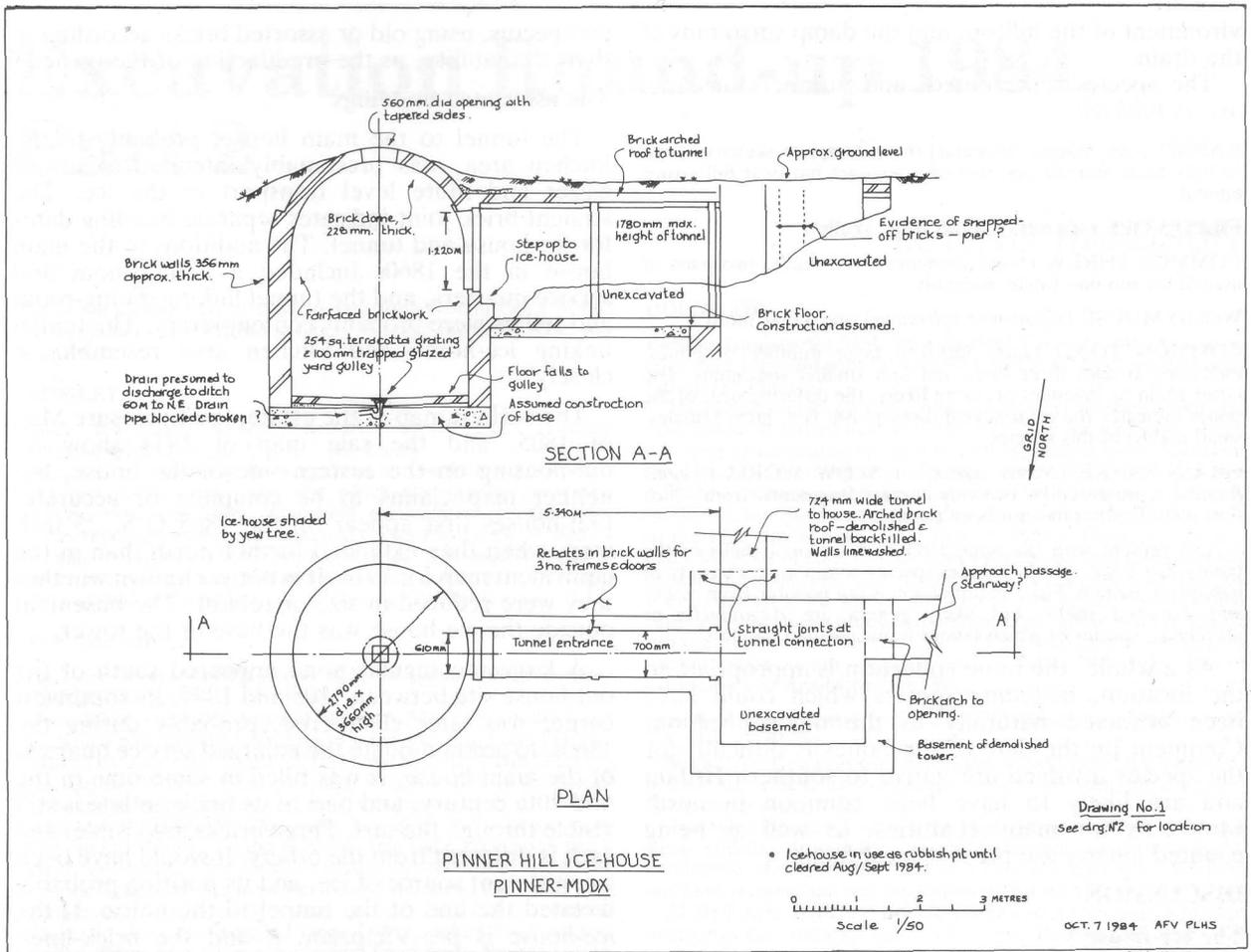


Fig. 2: plan and section of ice-house.

(drawn by Tony Venis)

its junction with the basement. Its walls are lime-washed. Evidence was found, adjacent to the north-west corner of the filled-in pond, of a void and brickwork just below ground level. This is indicated on Fig. 1, together with the assumed route of the tunnel.

The excavations were required to be filled in on completion of the clearance of the ice-house, and it is proposed to re-open them in 1985 with a view to recovering all extant foundations to both west and south of the tower complex. This area does not affect the golf course.

On completion of the clearance of the ice-house, a test was carried out on the drain to determine its outfall. Two buckets of water were emptied into the gully and the water was found to run away. However, at a later visit following heavy rain, some 250mm (10in) of water was found in the ice-house. This drained away after a few days. We had been

advised that the drain discharged into a ditch some 60m (200ft) to the north-east. There is a broken 100mm (4in) clay drain pipe there, but after limited rodding and removal of rubbish only a trickle of water was noted. The sump shown on Fig. 1 was found to be nearly full, and the line of the drain connection to the ditch seems to indicate that the drain served the sump, but is now blocked and broken. The angle of the discharge from the ice-house gully was in the general direction of the sump. Site levels have not yet been taken. It is clear that the drain to the ice-house has become broken and blocked.

The animal bones (by Liz Sagues)

The collection of animal bones extracted from the drain has been cleaned, sorted and identified, revealing the presence of a variety of small mammals and amphibians typical of the lightly wooded en-

vironment of the hilltop, and the damp surrounds of the drain.

The species represented, and numbers of each, are as follows:

RABBIT (*Oryctolagus cuniculus*) three complete skeletons, two of fully adult animals and one of a younger but near full-grown animal.

FIELD VOLE (*Microtus agrestis* three skulls¹).

COMMON SHREW (*Sorex araneus*) three skulls, two pairs of mandibles and one single mandible¹.

WOOD MOUSE (*Apodemus sylvaticus*) one molar tooth¹.

COMMON TOAD (*Bufo bufo*) a large number of bones, indicating at least three large and four smaller specimens. The latter could be juveniles or, more likely, the differing sizes of the bones indicates the clear sexual dimorphism (i.e. large females, small males) of this species.

GRASS SNAKE (*Natrix natrix*) or SLOW WORM (*Anguis fragilis*) represented by two tiny dentary fragments, from which firm identification has not been possible.

Also present with the animal bones were snail shells of the family *Zonitidae*, which includes species common in a variety of habitats in Britain. Firm identification is not possible from empty and damaged shells, but likely genera are *Aegopinella* or *Oxychilus*, species of which favour moist, shaded habitats.

As a whole, the bone collection is appropriate to the location, including species which could have been attracted naturally to the damp location. Comment on the date of the bones is difficult, for the species involved are native to southern Britain and are likely to have been common in north Middlesex for many centuries, as well as being counted among the present local fauna.

DISCUSSION

The Ice-house

The ice-house is not known to have been shown on a map or referred to in a document. The prospectus issued for the sale in 1844 gives considerable detail of the interior of the house, its facilities and amenities. Since an upstairs W.C., a pump inside the kitchen and extensive wine and ale cellars are mentioned, it is surprising to find no reference to the ice-house. Nor is it mentioned in a subsequent sale of 1920.

The ice-house could have been constructed in the late Georgian period, suffered some deterioration, and have been relined in the Victorian period. Such deterioration might account for its absence from the 1844 document.

On the other hand, the owner from 1844 to 1872, A. W. Tooke, commissioned many buildings which used a wide variety of bricks and he may have altered existing structures. The ice-house could have been built after 1844, hence no reference in the sale

1. Limb bones, vertebrae, etc. are also present, but skulls provide the most secure identification.

prospectus, using old or assorted bricks according to their availability, or the predilection of the owner.

The associated buildings

The tunnel to the main house, probably to the kitchen area, was presumably intended to afford easier and more level transport of the ice. The straight brick joint indicates separate building dates for ice-house and tunnel. The additions to the main house in the 1860s included a dining-room and service quarters, and the tunnel linking dining-room and cellars were probably contemporary. The tunnel linking ice-house and kitchen area resembles it closely.

The earliest map of the estate, the Enclosure Map of 1805, and the sale map of 1844 show no out-housing on the eastern side of the house, but neither map claims to be complete or accurate. Out-houses first appear on the 1865 O.S. 25 inch map, when they extended further north than in the equivalent map for 1914. It is not yet known whether they were reduced in size or rebuilt. The basement outside the ice-house was the base of the tower.

A large rectangular pond appeared south of the out-house site between 1805 and 1844. Its southwest corner was later chamfered, probably during the 1860s, to accommodate the enlarged service quarters of the main house. It was filled in some time in the mid-20th century, and part of its brick outline is still visible through the turf. Three bricks are visible, and each is different from the others. It would have been a convenient source of ice, and its position probably dictated the line of the tunnel to the house. If the ice-house is pre-Victorian, it and the brick-lined pond may have been created together.

Conclusion

The ice-house could be late Georgian or Victorian. If the former, it was probably built early in the 1800s and relined much later. If the ice-house is Victorian, it was built probably by A. W. Tooke during the early part of his ownership, and either built to stand alone and be entered from the open air, or more likely giving into the out-house shown on the 1865 O.S. map. Maybe the ice-house, first out-houses, and tunnel to the main house were constructed together. The absence of mention in the 1844 sales document probably tips the balance in favour of the ice-house being Victorian. It is hoped that further excavations in 1985 will lead to better dating.

Acknowledgements

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