# LOWNDES PARK EARTHWORK MOUND; WINDMILL OR BURIAL MOUND? AN ARCHAEOLOGICAL INVESTIGATION

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A large circular mound standing at the highest point of Lowndes Park in Chesham, Bucks has been described locally as 'the rolling pin', windmill mound or prospect mound and was scheduled in the 1950s as a possible Bronze Age round barrow. The land on which the mound stands formed part of a manor estate, first recorded in the early 13<sup>th</sup> century and passed through varied ownership until it became part of the Lowndes family estate in the 18<sup>th</sup> century. This paper describes archaeological exploration of the mound by the Chess Valley Archaeological and Historical Society. Excavations into the sides of the mound uncovered no evidence that this was a prehistoric structure and only post-medieval items were found. A rough, brick platform which appeared to be the remains of a building was found at the lowest level in a trench on the mound top. Above this was a pit of later date, which contained building rubble, animal bones, metal items and a large quantity of bottle glass. Analysis of the glass identified wine and mineral water bottles with a range of dates from 17th to 19th century. It seems likely that the mound once carried a view-point turret, gracing the grounds of Bury Hill House, owned by the Skottowe family. This house and the turret were probably demolished in the 19th century when the Lowndes family purchased Skottowe's land. The large void generated by removal of the turret was used as dump for waste from Bury Hill House or Lowndes manor.

# INTRODUCTION

# **History of Lowndes Park**

In the 12<sup>th</sup> and 13<sup>th</sup> century the area which now includes Lowndes Park in Chesham was part of a manor estate owned by the king but subinfeudated in 1252 to the Sifrewast family. The manor acquired the name of Chesham Bury by 1416 (Page 1925) and was held by the Earl of Oxford from 1490. By 1656 a mansion house, Bury Hill House, stood immediately to the north of the Church and this together with the manor had passed to the Whichcotes family. The house and land were purchased by John Ware, then Sherriff of Buckinghamshire, in 1730 and were eventually passed on to his grandson Coulson Skottowe (Lysons & Lysons 1806). During the 18<sup>th</sup> century the grounds were landscaped with the addition of an ornamental lake and an avenue of elm trees.

In 1712, land adjacent to the church and in and around the town was owned by the Lowndes family and William Lowndes, an influential politician and Secretary to the Treasury, rebuilt The Bury, a large house lying to the south of the present park, west of and adjacent to St Mary's Church (Lysons & Lysons 1806; Hunt 1977; Foxell & Foxell 2004). Bury Hill House stayed in the hands of the Skottowe family until 1802, when the land was purchased by the Lowndes family, who demolished the old house and added the grounds to those of The Bury. Over the next 200 years the Lowndes family became influential both nationally in politics and law and locally within Chesham as its major benefactor.

From 1802, the land was let out for grazing and in 1845 the elm avenue was felled, replaced with a single row of elms in the 1890s. During World War One, the park was used for training soldiers in bridge construction across the lake, now known as Skottowes Pond. In 1953 the Lowndes family donated the land to the Urban District Council and the park was dedicated as a public open space in 1972 (Chesham Town Council 2010).

#### **The Earthwork Mound**

A large earthen mound of circular plan, *c*.20m in diameter, stands at the highest point of Lowndes Park (Fig. 1; site code LP10; SMR 0184500000; CAS 01845). This feature has variously been described as the 'rolling pin', a post-medieval garden feature, windmill mound, prospect mound or a prehistoric round barrow. It was scheduled as a possible bowl barrow by the Inspectorate of Ancient Monuments in 1955.

The topography supports the idea that this structure may be a burial mound. From the mound there are extensive views northwest and west into the Pednor valley, and across Chesham and the Chess Valley to the south and southeast. There is a clear view across Chesham to East Street where a unique beaker bowl (SMR 0187500000) taken from a funerary context was found, and archaeological investigation by Birmingham University has uncovered prehistoric artefacts including Neolithic/Bronze Age sherds (SMR 0568200000), Middle Bronze Age pits, a ring ditch, a round barrow, a rubbish pit and Bronze Age ceramics (Halstead 2008; SMR 0803700000). However, the Lowndes earthwork shows no surface evidence of an outer ditch which might be expected if this were a bowl barrow. Inspection of the mound identified a concave depression at its highest point, suggestive perhaps of exploratory excavation in the past, although it may equally well mark a deflation surface created by human and wind erosion. A search through the Bucks aerial photograph archive identified a 1979 photograph (Fig. 1) which revealed that the mound lies in the southwest corner of a large sub-rectangular enclosure. This feature is barely detectable in the present day and has clearly been much reduced by erosion and/or ploughing.

# ARCHAEOLOGICAL WORK

#### **Geophysical survey**

Resistivity and magnetometry surveys of the mound were carried out using a TRCIA twin probe

resistivity meter with readings at 1m intervals and a dual sensor Bartington Grad601 magnetometer with readings every 50cm.

The resistivity results (Fig. 2) showed a nearcircular structure some 22 metres in diameter enclosed at its base by a narrow, darker (low resistance) ring. This ring appeared to lie immediately under the outer edge of the mound and could be interpreted as a narrow ditch surrounding the mound. However there was no evidence to suggest the presence of a bank associated with such a ditch, as seen in Bronze Age barrows. An irregularly spaced series of dark anomalies were revealed immediately adjacent to the mound. These correspond largely to tree-throw holes, remains of a circle of trees which presumably died and were removed. A replacement set of cherry trees have been planted at similar spacing but slightly closer to the mound. The depression in the surface on the top of the mound was associated with a high level resistance "C" shaped signal.

Magnetometry survey across the same grids identified a scatter of high signal responses, the largest of which corresponded to the largest treethrow holes (Fig. 2). The strength of these signals suggested the presence of metal scatters; perhaps not surprising as the mound is a popular location in a public park. Another high signal response partly coincided with the "C" shaped resistivity feature at the top of the mound. The low signal resistivity feature around the base of the mound was not detected. If a ditch had been present in the past and subsequently filled with humic soil, containing burnt or decomposed particles, a weak, positive magnetic anomaly might have been expected.

Two 20m Wenner arrays (Fig. 3) were used to explore the profiles of the enclosure bank on its south and west side. The arrays were positioned to coincide with Trench 2 and Trench 3 (Fig. 4) which were later dug to explore the bank/ditch. The array layout comprised probes set at 1m intervals providing a vertical profile of up to 3m depth. The profile obtained for the southern side of the bank crossing the Trench 2 area is equivocal. Centred on metre 13 there is slight increase in the resistivity spreading over c.3m which may be due to the remains of a former bank; there is no evidence of an associated ditch. The profile recorded for the western bank, where Trench 3 was eventually placed, is relatively uniform along its length with no indication of bank or ditch.



FIGURE 1 Map of Lowndes Park Chesham showing the position of the mound. Inset is an aerial photograph showing a large sub-rectangular enclosure and the mound in the north-west corner; photo ref. 1 926 7941 18<sup>th</sup> Oct 1979



A Resistivity across mound, refined data





C Magnetometry across barrow

FIGURE 2 Scale images of geophysics survey across the mound. A – Enhanced resistivity signals across the mound. B – Raw resistivity signals showing a dark ring around the base of the mound and a "C" shaped signal at its centre. C – Magnetometer signals across the same area (shows grid)



FIGURE 3 Wenner arrays across the enclosure bank. The top array crosses the position of Trench 2 with an arrow indicating the bank position. The bottom array crosses the position of Trench 3



FIGURE 4 Lowndes Park. Position of trenches (numbered rectangles) relative to the earthwork enclosure (dotted line) and mound (hatched circle). Two circles indicate the position of fixed surveying points

# Excavation across the enclosure ditch/bank

# Trenches 2 and 3

Two trenches were placed across the enclosure bank (Tr 2 and Tr 3; Fig. 5), the exact position of which was determined by the survey data and aerial photograph in conjunction with local visible topography. Trench 2 (1 x 4m) was placed where the bank was running north-east to south-west at the top of the park. Excavation here revealed that the sub-turf loam (Tr2-000/001) was c.20cm deep and contained scattered fragments of tile, nails, bone fragments and flecks of charcoal. Two pieces of post-medieval glazed grey ware were also recovered. Beneath this was a layer of clay, flint rich silt (Tr2-002) containing occasional small tile fragments and rusty nails of square cross-section. At c.35cm in depth, stiff orange clay was encountered (Tr2-003), sterile of finds but containing many large flints. This seemed likely to represent bank structure but could not be distinguished from the natural substratum with confidence. Further excavation beyond 50cm depth found no variation in the clay substratum, and extension of the trench by a further two metres to the west uncovered the same stratigraphy. Notably there was no evidence of a ditch lying to the west of the visible bank.

Trench 3 (4 x 1m) trench was placed across the enclosure bank in the north-west area of the park (Fig. 4). Here the ground slopes down in a north easterly direction, towards the road and the enclosure bank forms the top of the slope. The sub-turf soil (Tr3-000) comprised a light-brown silt with a scatter of small pebbles and flint fragments to a depth of around 10cm. Below this was a layer of closely packed flints which had accumulated in a circular patch (Tr3 -001), roughly in the mid-line of the trench (Fig. 5). This lay on the surface of an

orange/brown clay-rich silt (Tr3-002), which varied in depth between 10cm and 20cm. At the south end, the variation in depth was due to a shallow ditch (Tr3-003) underlying the circular feature mentioned above and cut into stiff orange clay (Tr3-004). Occasional fragments of tile and brick were found in Tr3-000 and Tr3-002 along with pieces of glass, ferrous metal, a sherd of postmedieval pot and several pieces of the same clay pipe.

# Excavation of trenches on the mound

The nature of the excavation, position, size and depth of trenches, on this scheduled monument were as agreed with the English Heritage Inspector of Ancient Monuments.



FIGURE 5

Above – Trench 1 West facing section scale drawing – a representative section of the profile. Contexts shown: 000 sub-turf loam; 001 deposit of clay-rich loam with many flints and occasional peg tile fragments (black); 002 natural, stiff orange clay with flints; 003 deposit of chalk nodules Below – Trench 3. Scale drawing of 1.5m of the east facing section at the south end of the trench to show the small ditch. Lowermost dotted line indicates the deepest extent of excavation. Contexts shown: 000 sub-turf loam; 001 comprises the flint "cap" which lay above the position of the ditch; 002 deposit of

clay-rich loam with occasional flints; 004 is the ditch cut; 003 is natural, stiff orange clay with flints

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# Trench 1

A 3 x 1m trench (Tr1) was opened in the sloping north-west face of the mound. The sub-turf loam (context Tr1-000) comprised a layer of small to medium size flints and pebbles in a light brown, clay-rich substrate c.10cm in depth. At the mound base (outermost from centre of the mound) the subturf soil was darker and free of flints to a greater depth. For most of the trench length the sub-turf loam overlay a layer of larger angular flints in a darker brown, clay-rich silty soil (Tr1-003), c.25cm in depth, but this layer gradually petered-out towards the outermost end of the trench. A decorated copper-alloy button together with occasional fragments of peg tile, modern glass and clay pipe were recovered along with fragments of postmedieval pot, peg tile, occasional bone and oyster shell.

The final depth to which Trench 1 was excavated was *c*.90cm at the innermost (relative to centre of mound) southern end and 10cm at the outermost end. At around 70cm depth at this innermost point, natural stiff orange clay with large angular flints was encountered (Ctx Tr1 -003). This layer extended across the entire base of the trench, followed the natural lie of the land, and was considered to be undisturbed, natural substratum (stratigraphy is summarised in Fig. 5). At the junction between Ctx Tr1-003 and Ctx Tr1-001 a single tile fragment was recovered.

At 15cm depth at the north end (outermost from centre of the mound), a surface comprising chalk lumps 5-10cm in size was uncovered. This feature (Tr1 -002) was c.40cm wide and c.10cm deep and extended away from the mound base. Further excavation of this feature, to either side around the base of the mound, confirmed the presence of chalk on both sides. The only find from this context was a fragment of worked, hard grey volcanic stone.

#### Trench 4

An identical 4 x 1m trench (Tr 4) was opened in the south face of the mound. The sequence of deposits was identical to those encountered in Trench 1, except in one regard. Here, the layer of chalk was encountered not only at the outermost part of the trench but over the entire area exposed by excavation, immediately beneath the sub-turf loam at 15cm depth. This layer (Tr4-001), showed greatest depth, c.10cm, in the central area of the sloping side of the mound, and was made up of chalk pieces

comparable in size to those encountered at the outer base of the mound in Trench 1. The coherence and depth of the chalk declined towards the innermost (highest) end of the trench. Very few finds were recovered from Trench 4 apart from fragments of tile, glass and metal.

#### Trench 5

A 2 x 2m trench (Tr 5) was opened on the top surface of the mound which was a flat area c.7 xc.5m maximum. Trench 5 was positioned to overly the strong "C" shaped resistivity anomaly shown in Fig. 2. The turf capping was removed with care and the underside inspected (Tr5-000) for finds as various artefacts, some obviously modern, lay near to the surface immediately beneath the grass. These included modern beer bottle caps, foil, plastic biro fragments and coins dating to the 1960s embedded in the loamy matrix. Immediately below this at between c.10-25cm depth rounded pebbles, fragments of peg tile, glass, pot and bone fragments began to appear and increased in frequency with depth, although distribution was patchy (Tr5-001). Occasional groups of well-preserved animal bones were encountered. At 25-50 cm depth the deposit (Tr5-002) consisted almost entirely of broken bottle glass, peg tile and brick fragments (Fig. 6) with minor patches of ash and flints. This accumulation of domestic waste was interpreted as dumping into a void or a purposefully dug pit. In the north-west corner of the trench, a small area with no building materials and glass was encountered which appeared to mark the edge of the pit. Notably, this area contained a layer of chalk nodules (Tr5 -004) which appeared to be contiguous with that seen in Trenches 1 and 4 and indicates that sometime in the past the chalk layer may have extended across the top of the mound.

In the south east corner at c.32-42 cm depth a cluster of soft, handmade, unfrogged, red brick fragments was uncovered (Fig. 7, top). Removal of the top disturbed layers uncovered a well-defined, triangular platform of neatly arranged brick fragments, many with traces of lime-wash and mortar, at c.50cm depth (Fig. 7, bottom). All the brick fragments were clearly re-used, not mortared together but were tightly packed with no soil between. Without removing the exposed surface, the front edge of this feature was cleaned down, revealing that there were at least three further layers beneath. Excavation was halted leaving these lower layers in



FIGURE 6 Trench 5. East facing section showing packing of bottle and tile fragments



FIGURE 7 Trench 5. South east corner of trench showing an angled brick feature which may represent the foundation for a small building most of which remains unexcavated. A. Uppermost surface. B. Final excavation surface

situ. While none of the bricks were complete, larger fragments were measured; these varied in depth from 5.5-6.4cm and in width from 9.4-9.8cm.

In the remainder of the trench at the same level as the second layer of bricks, c.50-55cm, finds of CBM and domestic debris ended and clay-rich soil with occasional flints and pebbles was exposed (Tr5-003). This seems to represent a continuation of the deposit identified as Tr1-003.

#### **Pottery and Building Material.**

by Marion Wells

Tile and brick was recovered from all trenches although the majority (c.90%) came from Tr 5 (1347 pieces weighing 43kg). Most of the material was roof tile with many of the tiles having peg holes; brick fragments were also recovered some with vitrified glazing together with one piece of a large floor tile 4cm thick with a polished face. Dating such material is difficult: however, it was all hand made and is most likely post-medieval.

In total, 604 sherds of pottery weighing 9.95kg were recovered. Table 1 shows details of number of sherds and weight for each trench. The over-whelming majority of pottery was post medieval/

early modern, dating from 17<sup>th</sup> to 19<sup>th</sup> centuries. However, a single small rim sherd of late medieval pot was recovered from Tr5-002.

Red earthenware dominated the pot assemblage (87% by weight) (Table 1) and consisted in the main of sherds from large, internally glazed, shallow bowls with a rim diameter of c.30cm, and pancheons with a rim diameter of c.40cm or larger. This earthenware, which was not sufficiently valuable to have been transported very far, was probably locally made. Likely sources are the kilns in Chesham, Leyhill or Great Missenden (Cauvin & Cauvin 1979; 1992; Cauvin 1996; Wells 2002). There is no evidence for kilns producing any fine wares in the locality.

Glazed whiteware (domestic china) accounted for a further 10.5% by weight of pot sherds, amongst which were two pieces of a very delicate and colourful bone china cup. The remaining sherds comprised unglazed earthenware with an applied white slip, sherds of pale blue tin-glazed pottery from the 17<sup>th</sup> or 18<sup>th</sup> century with the inscription 'AR', and one rim sherd of a slip-trailed dish from Staffordshire or Bristol, made of buff earthenware with a yellow internal glaze patterned with brown feathering.

Fabric	Description	T	r 1	Ti	r 2	Tr	• 3	T	r 5
		no	g	no	g	по	g	no	g
White earthenware	int. & ext. glaze			2	15			228	1000
Tin glazed earthenware		1	10					14	75
Red earthenware	ext. glaze unglazed int. glaze int. & ext. glaze white slip sherd with handle	1 2	10 10	1	330	1	5	5 75 170 74 13 2	80 1900 4905 890 450 55
Stoneware				1	50			12	105
Buff earthenware	yellow glaze; brown feathering							1	50
Medieval								1	10
TOTALS		4	30	4	395	1	5	595	9520

TABLE 1 Summary of fabrics and glazes on pottery recovered during excavation of Lowndes Park mound. N = numbers of sherds; g = weight in grammes.

## Glass

#### by Jill Hender and Birgitta Thwaites

The total number of glass fragments unearthed during the excavation at Lowndes Park was 3960, weighing 73.7kg. Of those fragments 3711, weighing 32.7kg, were discarded as they were body sherds and deemed too small to be useful for dating purposes. The remaining 249 pieces, largely made up of intact bases and necks, weighed 41kg, and were retained for analysis (Table 2).

All the glass is post-medieval in origin. The majority of bases, necks, and body sherds appear to come from wine bottles, although no wine bottle seals were found. All bottles were handmade, though none were recovered intact and dating relied on examination of features such as sagging punt dimensions, shape of bottle sides, necks and neck strings. This method may not be as accurate as dating achieved with intact bottles. Many of the fragments are iridescent and exfoliating and are of green glass, apart from a single neck of black glass and a base, neck and shoulder of brown glass. It is worth noting that all bottles were made of coloured glass until 1845 (Shopland 2005).

There was no evidence of vertical or horizontal mould seams, or of encircling horizontal marks that are indicative of rotation in a mould during blowing (Wills 1977), thus it was possible to conclude that all date to pre-1821, when the three-piece mould bottle was introduced (Shopland 2005). Several bottle necks have diagonal striations emanating from the rim, but these appear to be stretch marks which arise during formation of the neck (Fletcher 1972).

## Stoppers

A single stopper (top diameter 25mm; neck length 24mm), turquoise in colour and not iridescent, is likely to date to the early 19<sup>th</sup> century and appears to be from a pharmaceutical bottle.

#### Bases

86 bottle bases recovered from Trench 5 are described below. Dating of bottles by the form of their bases relies on assessing kick-up depth, width and height and whether the bottle wall is straight or curved/ballooning and/or sagging. In summary:

- Eleven bases are wide with diameters between 100mm and 130mm and do not have straight sides. These features suggest bottles of the mallet type with a date in the range of c.1720–40; more upright forms of wine bottles were not introduced until c.1740 (Dumbrell 1983).
- ii) There is a predominant group of 69 similar bases which can be dated to c.1770-80. Characteristically they have a maximal diameter between 85mm and 100mm and a punt kick-up of 18mm to 45mm (average diameter/kick-up ratio = 2.93), are straight sided and are slightly sagged (Hume 1969; Wills 1977).
- iii) Four bases are very narrow, measuring 71-75mm, and have been identified as true cylindrical bottles which appeared *c*.1780–90 (Dumbrell 1983).
- iv) One base of very thick glass has been dated to c.1790-1800.
- v) A bottle base of brown glass, not sagged and with straight sides, showed the lowest punt kickup, 15mm, and the highest diameter/kick-up ratio of 5.67. Punt kick-ups varied over time and

		-	-			
Description	Tr	ctx 000	ctx 001	ctx 002	Total	
Body sherds	1	N/A	N/A	N/A	2	
Body sherds	5	3	0	0	3	
Stopper	5	0	1	0	1	
Seals	5	0	1	4	5	
Bases	5	0	3	83	86	
Necks	5	2	3	152	157	
Total number					254	
Weight kg					41.1	

TABLE 2 Summary description of glass fragments recovered from Trench 5. Total number and weight are given.

became shallower in the earliest years of the  $19^{\text{th}}$  century (Dumbrell 1983), so that this base has been given the tentative date of *c*.1800–10.

#### Necks

157 necks were recovered from Trench 5. Dating of bottles by the structure of the neck relies on assessing i) the overall neck profile *i.e.* slender/tapering or bulbous; ii) whether the glass strings around the neck are double or single; iii) the profile of the string-rim far from the lip, *i.e.* thin, thick, flat, bevelled, or rounded; iv) the relative position of the strings to the lip rim. The dating of these specimens is described below.

 i) One neck (Fig. 8, 35) has a tapering shape with a single rounded string-rim. It has been dated to c.1650-60, since at this date the string-rim was "applied well below lip" (Dumbrell 1983). Another example is similar but the string-rim is thin and flat. These features suggest a slightly later date, *c*.1680 (Dumbrell 1983).

- ii) Two necks (Fig. 8, 32) have very large lips, 33-35mm inside/43mm outside. There is a possibility that these are preserve bottles (Wills 1977), although given the general nature of the dumped material they are more likely to be wine bottles with an early date of *c*.1680–90.
- iii) One neck differs in colour from the majority, being olive green. It is very slender/gracile, with a very narrow lip (19mm inside/25mm) and probably dates to c.1700. Six other tapering necks with single string-rims have been given dates in the range c.1720–1750 (Fig. 8, 38).
- iv) Single string-rims would normally indicate a date of pre-1770 (Shopland 2005). However, ten neck specimens with single string-rims near to the lip have slightly bulbous rather than



FIGURE 8 Examples of neck forms amongst the bottle fragments recovered from Trench 5. Specimen numbers shown are referred to in text.(5cm scale bar shown)

tapering necks (Fig. 8, 42) and thus may represent a transition period in bottle making which occurred c.1750-70 (Dumbrell 1983). Similarly, the combination of a double string-rim with a tapering shape may also represent this transition period, such that four of the Trench 5 necks with these characteristics (Fig. 8, 46) have also been given c.1750-70 dates.

- v) A large group of 124 necks were very similar with double string-rims, chunky and slightly bulbous directly underneath the rim (Fig. 8 sp. 31). They measure 67-85mm in length, 20-26mm inside the lip and 30-40mm outside the lip, and some have grooves emanating from the rim. They can all be dated to *c*.1770–80.
- vi) Five necks are 88mm to 100mm long, a feature suggestive of c.1790-1800 date.
- vii)Substantial string-rims usually indicate a later date, and for this reason two necks have been given dates in the range c.1790-1810. One other neck which, at 57mm, is the shortest recovered (Fig. 8, 10) has a very thick top ring; both features suggest a date of c.1800-20.

A bar chart (Fig. 9) summarises the distribution of dates assigned to the bases and necks. The two profiles are very similar with a large peak for dates between c.1770-80, with a moderate number lying between c.1720 and c.1770. The earliest date is c.1650-60 and the latest is c.1790-1820. (Full descriptions and details of all glass are available on request to CVAHS).

#### Seals

Five seals of green glass, measuring *c*.40mm in diameter, bearing the coat of arms of Welbeck-Pyrmont and the words 'PyrmontWater', were recovered from Trench 5 (Fig. 10). The coat of arms consists of nine quartered arms topped by a crown. There is an 8-pointed star in the centre; lions demi-rampant on each side; 3 shields above and 3 below; a cross in the 1<sup>st</sup> and last quarters and 3 Helms in each of the 3<sup>rd</sup> and 7<sup>th</sup>. Pyrmont Water bottles with seals were common in the period *c*.1720–70; those with the words 'Piermont Water' and a simple star being representative of the early years and those with the legend 'Pyrmont Water' flanking a crowned shield of arms being later *c*.1745–70 (Hume 1969).

Pyrmont water came from Bad Pyrmont, or Piermont, which is today a popular spa resort in northern



FIGURE 9 Barchart showing the relative distribution of bottle finds from Trench 5 by date. (Full details are available on request to CVAHS)

Germany. The mineral water of Pyrmont was a favourite of the Hanoverian George I, and he made Pyrmont fashionable, visiting Bad Pyrmont regularly to take the water. By 1717, Sir Isaac Newton and Dr John Bateman, president of the Royal College of Physicians, had commended Pyrmont water and vast amounts of it were imported in sealed bottles. By 1730, a year's sales included 64,375 three-pint bottles and 7,702 larger ones. Pyrmont Water was also artificially manufactured in London (Willich 1802). Joseph Priestley devised a process for impregnating water with air and published in 1772 a pamphlet entitled 'Impregnating Water With Fixed Air, In Order to Communicate to it the Peculiar Spirit and Virtues of Pyrmont Water, and Other Mineral Waters of a Similar Nature". It is of interest that Captain Cook experimented with Pyrmont water as a possible cure for scurvy, which was a particular problem for seamen at the time.

# **Other Finds**

#### Metal

The sub-turf loam of Trench 5 on the top of the mound yielded a 1957 sixpence and three decimal pennies dated 1977, 1999 and 2002, found along-side modern metal bottle caps.

At a lower level in Tr5 (Tr5-001) the metal finds included a small copper-alloy thimble, probably for a child, which has no maker's mark and was machine-made. Since machines for thimble making arrived in the late 17<sup>th</sup> century it is possible that the thimble is of that date. There was also a copperalloy buckle approximately 3cm square with an iron tang to provide strength, dated to 17<sup>th</sup> to 18<sup>th</sup> century, and a mock livery button stamped out of copper alloy with a bird on a branch, made in two parts with a separate shank. An iron scissor blade was recovered, but since such items were made over a long period of time with little change in form, they are difficult to date.

An interesting find in context 002 was a fork (Fig. 10) with an ivory/bone pistol grip handle and two iron prongs, dated to the 17<sup>th</sup> /18<sup>th</sup> centuries. Such forks were not used for putting food into the mouth, but for keeping fingers out of dishes and jars and, at that time, were generally found only in relatively high-status homes (Addy 2010). Up to the end of the 18<sup>th</sup> century it was not regarded ill mannered to put the knife in the mouth. The relative rarity of forks in the post-medieval period is

illustrated by the absence of forks from 17<sup>th</sup>/18<sup>th</sup> century houses (mostly survivals from the medieval period) in the excavated village of Great Linford, Milton Keynes (Zeepvat & Mynard 1992), although knives were found (Taylor-Moore 2007; Tyrell personal comm.).

Other less frequent finds from all trenches included fragments of clay pipes and small pieces of slag. A fragment of worked volcanic stone, probably part of a quern stone from Tr1- 002, and the tip of a slate pencil from Tr5-001.

#### Bone

144 bones were recovered from Trench 5, 106 from Cxt 002, 23 from Cxt 001 and 15 from Cxt 000 (Table 3). Bones from cattle made up 20.1% of the assemblage (48.6% if cattle-size fragments included); sheep bones accounted for 20.2% of the assemblage when sheep and sheep-size are combined. Other large mammals included equid which was represented by two teeth, a deciduous molar from Cxt 001 and an adult premolar from Cxt 002, and pig, identified from femur and mandible fragments, also from Cxt 002. The nature of this assemblage points to cow as the favoured meat source and it is notable that in addition to good, meat-bearing body parts such as fore-leg and hind-leg, non-meat bearing elements usually regarded as butchery waste, such as vertebrae and foot bones, are also present (Table 3). These finds suggest that the cow bones represent waste from butchery of whole carcasses rather than household discard of selected prime meat bones. The larger bones were clearly chopped and sawn indicating preparation of joints of meat and several were gnawed by a carnivore, presumably dog.

Thirty-three of the bones from Cxt 002 were at one time articulated and represent the partial remains of a young cat with humeri just fusing and unfused distal metacarpal. The highly fragmented skull, one mandible with teeth, ribs and forelimbs were present, but hind limb bones, femur and tibia were absent, but perhaps remain scattered through the unexcavated portion of the pit. The gnawing of bones suggests the presence of dogs which may have been pets; the cat remains may also have been household familiars. More surprising was the find of two carapace fragments from a tortoise in Cxt 001; this too may have been a rather exotic pet. Pets, especially dogs, were a feature of well-to-do households by the 17<sup>th</sup> century, and there is



FIGURE 10 Two finds from Trench 5; Above – fork with bone 'pistol' handle; Below – seal from Pyrmont water bottle

evidence that the tortoise was also admired. Archbishop Laud of Canterbury (1633–1645) kept a tortoise whose remains can be viewed today at Canterbury amongst the Archbishops Treasures (Harris 2010). Tortoise long-bones, heralded as the first evidence of the tortoise as a pet in Britain, were recovered in 2010 during an excavation at Stafford Castle, Staffordshire, mixed with those of dogs and cats and dated to the late 19<sup>th</sup> century. They were thought to have been pets of the caretakers of the castle (Thomas 2010).

# **Oyster Shells**

A total of 27 shells were found most from Trench 5 with a small number from Trench 1.

# INTERPRETATION AND CONCLUSIONS

Excavation associated with the enclosure bank provided very little evidence for an accompanying

ditch. This could in part be explained by the hot dry weather of July which had baked the ground and in places caused the near-surface clay to crack. However, no clear ditch cut or fill could be identified in Trench 2 or its extension. The observations made during excavation of Trench 3 were very similar, except that at this location there was some evidence for a shallow, partially disrupted ditch. It was not possible to determine a date for the earthwork enclosure.

# Trenches on the mound

Excavation on the mound provided no evidence that this was a Bronze Age structure. One of the resistivity anomalies had hinted at the presence of a ditch closely encircling the mound, but no evidence for this was found. In addition, wider geophysics surveys around the mound found no evidence for an outer ditch. Excavations in all three trenches found only post-medieval items; for

Taxa	NS	%NS	element	cattle NS	cattle-sz NS	total NS
equid	2	1.4	mandible	1	5	6
cow	29	20.1	mandible with teeth	2	0	2
cow sz	41	28.5	teeth	4	0	4
sheep	4	2.8	horn core	1	0	1
sheep sz	25	17.4	humerus	4	0	4
pig	2	1.4	radius	1	0	1
cat	33	22.9	rib	0	15	15
dog sz	3	2.1	vertebra	4	4	8
tortoise	2	1.4	pelvis	2	1	3
uid	3	2.1	femur	1	1	2
Total	144		tibia	2	1	3
			astragalus	1	0	1
			calcaneum	1	0	1
			carpals/tarsals	3	0	3
			metapodial	1	2	3
			phalanx	0	2	2
			Îb	0	6	6
			fragments	0	5	5

TABLE 3 Left-hand table summarises the taxa recovered from Trench 5 by number of specimens (NS) and percentage of total (%NS). Cattle are most common and the right-hand table details (number of specimens NS) the range of cattle bones and cattle-sized bones recovered.

example peg-tile fragments occurred in all contexts above the natural clay in Trench 1 and Trench 4. The trench placed on the upper flat surface of the mound (Trench 5) yielded large quantities of postmedieval artefacts, the majority of which were tile, glass bottle fragments, pot and bone. No materials earlier than the post-medieval period were encountered. Thus current evidence suggests that this mound is not a Bronze Age barrow but was created at a later date for another purpose.

Some caveats should be noted at this point in the discussion. For example, only a small proportion of the mound has been excavated: the volumes of deposits excavated in Trenches 1, 4 and 5 accounts for only c.2.5% of the total mound volume. However the three excavations into the mound together represent a substantial cross section of this structure. We estimate that only a small barrow, c.1m high and c.12m in diameter, could remain undetected within the unexcavated portion of the mound. It is possible that such a mound could have been enlarged to make a more impressive feature sometime during the centuries which followed. Excavation cutting into the central base centre of the mound would be required to explore this possibility.

The layer of chalk rubble on the surface of the mound is intriguing; it is most obvious in Trench 4, where it reached a depth of 10cm in some places. There is also evidence of such a layer in Trench 5 although here it does not seem to cover the entire outer surface, although may have done so sometime in the past. The chalk layer suggests a deliberate addon, the material for which would have had to be transported to Lowndes Park - and raises the question of its purpose. It seems very unlikely that this is an indicator of the presence of a Bronze Age barrow since post medieval tile was recovered from trenches 1 and 4 below the level of the chalk. Furthermore, the layer on the surface of the mound is not substantial, the chalk pieces are small and distribution is uneven. Nevertheless it was noteworthy because many of the Wiltshire and South Downs barrows were capped in local readily available chalk to increase visibility and prominence in the landscape (Wiltshire Heritage Museum 2010; Martin 2008).

The top surface of the mound is flat and comprises about  $35m^2$  in area, of which  $4m^2$  were investigated by excavation. The pattern of deposition suggests deliberate dumping, presumably into a large pit, which judging by the domestic waste

showing in the cleaned trench baulks, was larger than the area of the trench. The only evidence for a pit edge/cut occurred in the northwest corner of the trench.

The finds made in this trench suggest at least two major episodes of activity. The earliest was the building of brick foundations or a platform on the mound. It is clear from nature of the brick structure (Fig. 7) that it was not intended to support a significant building. While the bricks are carefully laid in what must have been either a square or rectangle several layers deep, none are whole and all appear to be reused. Bricks are difficult to date, these are relatively narrow in depth (5.5-6.4cm) clearly hand-made and a 17<sup>th</sup>-18<sup>th</sup> century date is possible. Without more information it is only possible to speculate on the function of these brick foundations; one reasonable suggestion is that the brick structure is all that remains of the base for a small "viewing turret" or gazebo set up on a mound to give extensive views, to the south-east along the Chess Valley and to the north-west along the Pednor Valley. Such a feature might have been part of the improvements made to the grounds of Bury Hill House by the Skottowes, when the lake and elm avenue were added to the parkland, sometime post-1730 and pre-1800. This scenario finds support from a naïve painting by an unknown artist and dated 1750 on display in Chesham Town Hall. The scene shows the Skottowe and Lowndes manor houses either side of the church and on the hill behind, a tower-like building on a mound (Fig. 11). The position of this feature is very similar to that of the present-day mound.

Some time after the demolition and removal of this building there was an episode of dumping quantities of bottles, building debris, mostly tiles, and domestic waste in the form of pot and bones. The bottle neck count, based only on unbroken necks, indicate that more than 150 bottles were dumped but if broken fragments are included, probably exceeded 200. The majority of these are wine bottles and since they appear to have been discarded as one event, are likely to have resulted from clearing a cellar or bottle midden. Other material – pot, bones, shellfish shells and tile – was gathered up for disposal at the same time. Detailed analysis of the bottle fragments suggests a range in date



FIGURE 11 Picture of Chesham Town by an unknown artist dated 1750. The picture shows Bury Hill House to the right of the church and The Bury to the left. The look-out turret on the mound is visible in the top right corner approximately in the position of the present-day mound. *Copyright Chesham Town Council* 

from the earliest 1650 to latest 1820, with the majority dating 1770–80. We can surmise that the earliest date for this dumping episode is the first half of the 19<sup>th</sup> century. This would fit well with a time when the Lowndes family had purchased the Skottowe's land, demolished the Bury Hill Manor and by 1840 was making changes to the adjacent parkland. Following removal of the base of the viewing turret there may have been a large void/pit to fill. The contents of this large rubbish pit perhaps reflect the continued clearance of the demolished Bury Hill Manor site. However, it is equally possible that it represents clearance of a bottle dump or cellars during a later phase of rebuilding at The Bury, the Lowndes family residence.

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