Report on the Archaeological Excavation of Barrow 11, Petersfield Heath, Petersfield, Hampshire

January 2015
NON-TECHNICAL SUMMARY

This document sets out the results from an archaeological excavation of Barrow 11, Petersfield Heath, Petersfield, Hampshire, carried out as part of the People of the Heath Project under the auspices of Petersfield Museum. The project aims to investigate the history and prehistory of Petersfield Heath, and is funded by the Heritage Lottery Fund and the South Downs National Park Authority. The archaeological work was carried out from 9th September – 27th September 2014. A single trench was excavated, running from the centre of the barrow to beyond its outer edge, which revealed that the barrow was of turf construction with no surrounding ditch. An artefact assemblage recovered from the close to the centre of the barrow is almost certainly related to a burial, although no human remains were encountered in the trench.
PROJECT BACKGROUND

1. Petersfield Museum has received funding from the Heritage Lottery Fund (HLF) and the South Downs National Park Authority (SDNPA) for a four-year project to understand and conserve the prehistoric barrow cemetery on Petersfield Heath. The museum has appointed Dr. Stuart Needham (independent researcher) and George Anelay (West Sussex Archaeology Ltd) to direct the project, which will involve local volunteers in most aspects of the project’s fieldwork. The Heath is owned by the Petersfield Heath Trust and managed by Petersfield Town Council.

2. The 21 known barrows on Petersfield Heath are all Scheduled Monuments and as such Scheduled Monument Consent is needed for any intrusive fieldwork impacting upon them. A Written Scheme of Investigation (WSA 2014) was drawn up by West Sussex Archaeology Ltd (WSA) to accompany and inform the successful application for Scheduled Monument Consent relating to the excavation of Barrow 11 (Scheduled Monument No. 32534).

3. This report details the results of the archaeological excavation, which was carried out from the 9th September – 27th September 2014 by volunteers under the supervision of Ken Mordle and direction of George Anelay of West Sussex Archaeology Ltd. The project archive will be deposited with Hampshire Museums Service.

4. Barrow 11 is situated c.150m to the north-east of the lake on Petersfield Heath. The Heath itself lies on the eastern side of the town of Petersfield in Hampshire (see Fig.1). The Barrow sits at 54m aOD and is centred at OS grid reference SU 7555 2301. The underlying geology of the site is the Folkestone Beds of the Lower Greensand series.
OBJECTIVES

1. The overarching archaeological objectives of this project fall into four main categories: firstly, to clarify better the spatial extent of individual monuments; secondly to understand better their condition and the risks they are subjected to; thirdly to establish the constructional character and date of a variety of the monuments, including all of the five or six different types present; fourthly to piece together as full and as long as possible a palaeo-environmental history for the immediate environs and the local catchment. The recovery of burial deposits is not a primary objective of this project. However, we will be ready at all times to deal appropriately and responsibly with such remains should they be encountered in our excavations.

2. With specific reference to Barrow 11, regarding the first objective, the excavation aimed to clarify how much of the current profile of the monument is a result of more recent slumping or damage and to establish its earlier form, including whether it is encircled by a ditch. With regard to the second objective, a number of the barrows have been planted with trees and the excavated trench should demonstrate the level of harm this does to the underlying deposits. Such damage is currently thought to be considerably more severe when the trees fall, evidence for which is to be seen in this and many of the other barrows. Thirdly the constructional character and date of Barrow 11 will be established by the cutting of a continuous section from the exterior to the interior. This will ensure not only that all the main structural components have been exposed for recording, but will also enable the recovery of material for radiocarbon dating from key deposits. In the process it will also be possible to deduce the monument’s construction history, for example whether it was multi-phase. In addition, this continuous section will seek to meet the fourth objective by enabling the collection of a comprehensive series of palaeo-environmental samples from each of the barrow deposits.

HISTORICAL BACKGROUND

1. Petersfield Heath is home to one of the most impressive and diverse barrow cemeteries in the South-East of England. The barrows are considered to be of national importance and therefore have the highest level of state protection as Scheduled Monuments. There are 21 known barrows within the complex, probably mostly dating to between 2200 and 1500BC, but an unknown number of barrows are no longer discernible and scatters of prehistoric worked flints suggest that human activity dates back much further. The barrows themselves comprise a mix of 'styles', some of them specialized forms that are rare outside Wessex. The cemetery has not been studied comprehensively since the 1920s, when archaeologist Stuart Piggott, initially as a student at
Churchers College, found several low-profile monuments and produced an overall plan of the cemetery.

Figure 2 Piggott’s plan of the barrows on Petersfield Heath. Barrow 11 can be seen to the north of centre.

2. Barrow 11 itself is thought to be a bowl barrow, c.2.5m high and c.20m in diameter. A group of pine trees have been planted upon the barrow, probably in the 19th century. There is some evidence for damage to the form of the original monument, such as the large shallow scoop in its eastern flank. There are no surface indications of an encircling ditch, but a very slight step in the ground surface is visible to the north of the mound and a platform known to have served as a golf green abuts to the west.

3. A topographical survey undertaken as part of the project over the summer of 2014 indicated that Barrow 11 was situated on a very low natural rise with the barrow’s diameter being measured as c.25m and
its height c.1.5m. The results of the excavation confirmed this approximate estimation of its original diameter and revealed that its overall height from the land surface at the time of construction was probably c.1.75m.

4. A geophysical survey undertaken as part of the project in late June 2014 likewise found no clear evidence for an encircling ditch, although a band of lower resistance readings was visible around the mound’s lower slopes. The results of the excavation suggest that the varying bands of resistance are probably a result of the degree of disturbance to the upper levels of the barrow, with higher resistance (darker shades in Fig.3) reflecting greater disturbance. Such disturbance tends to concentrate on the summit or upper slopes of the mound and is almost certainly largely a result of historic tree growth and falls; certainly early 20\textsuperscript{th} photographs of the barrow show a greater number of trees than exist today. The lighter band marks the less disturbed deposits of the barrow itself, with the slightly darker band beyond being the undisturbed geology.

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{resistivity_plot.png}
\caption{Resistivity plot over Barrow 11. The pine trees are marked in blue. The excavation trench is outlined in red.}
\end{figure}
RESULTS

Figure 4 Plan of the trench over the topographical survey of Barrow 11.

1. The excavation comprised a trench 24.5m long and 3m wide running approximately north-south. The trench’s south-western corner was placed as close to the centre of the barrow as was possible based upon the topographic survey, in order to create a continuous section from the centre of the barrow to beyond its outer edge. Subsequently a 1m (north-south) by 1.2m (east-west) extension was added to the trench’s south-western corner in order to further excavate an archaeological feature partly lying within the original trench.

2. The upper layers within the trench were found to be heavily disturbed and therefore the top c. 0.75m of the mound was removed in three spits of consistent depth (Nos. (1), (2) & (7) in Figs.7 & 8). As each spit was removed the surface of the underlying material was cleaned and examined for significant changes in composition. At the base of spit (7) the disturbance largely ceased and, after cleaning the surface of the underlying material, a photographic record was made and any visible
features recorded and excavated (only three were noted, feature nos. [5], [8] & [42], all of which, at this level, were the bases of features cut from high in the mound and linked to the disturbed material already removed). The material underlying spit (7) was then excavated down to the base of the mound in four more spits (Nos. (10), (11), (12) & (15) in Figs.7 & 8), each being c.0.25m thick. At the base of each spit the underlying material was once again cleaned and examined for significant changes in composition, but none were noted until the base of spit (15), when the surface of a grey sand (No. (16) in Figs.7 & 8) devoid of turfs was revealed. At this juncture the excavation of spits ceased and the remaining layers were removed stratigraphically (Nos. (13), (14) & (16) in Fig.7). All the deposits excavated from the trench were sieved through a mesh size of 10mm, with all recovered material retained for processing.

Figure 5 Barrow 11 looking south after the removal of spit (7). The turf stack of the mound is clearly visible in the middle ground, with the underlying grey sand (13) in the foreground.

3. As noted above much of the top c.075m of the mound has suffered from disturbance, although not to a uniform degree. This disturbance would appear to have been caused by a variety of agencies: it is clear from the existing trees situated upon the mound that much reworking of deposits is likely to have resulted from root action, the falling of trees and the subsequent refilling of tree-throw holes; there has clearly also been a certain amount of animal burrowing into the mount, as testified to by the presence of two gin traps in feature [40] (see Fig.8) and two animal burrows excavated within the trench to the north of the mound; a third source of disturbance is probably human activity, as suggested by the unusually regular form of feature [8] which would appear to be a
trench dug into the surface of the mound (see Figs. 7 & 8), although it is unclear for what purpose, since it stops well short of the base of the barrow; the final source of disturbance, or rather reworking, would appear to be the gradual leaching of the soils within the mound which has largely removed the humic matter from the turfs, where they have survived the depredations of trees, animals and humans, to the point that, where affected, they are almost indiscernible. The depth and severity of this leaching seems to vary according not only to the nature of the material through which it takes place, but also, and perhaps more significantly, to the nature of the material above. This can clearly be seen in the turfs below and to the north of feature [5], here the depth and extent of the disturbance seems to have led to the turfs beneath leaching out to a much greater degree than elsewhere. That this is not an original dip in the surface of the turf mound is testified to by both the presence of washed out turfs extending right up to almost the surface of the mound in amongst this area of reworking, but also to the close match between its extent and the absence of darker turfs beneath.

4. The black and white stripping so strikingly noticeable within the materials of which the mound is comprised leaves little doubt that the mound was constructed of turfs, taken from an underlying geology of white sand. Despite the extent of the disturbance described above, the turf and sand stack could still be seen in places within the trench extending up beyond the top 0.75m, for example to the immediate south of feature [5], where it rises to within 20cm of the existing barrow surface (see Fig.7). Indeed it is quite likely that the height of the mound as seen today is close to that originally constructed, with subsequent activity having the effect of merely reworking the upper turf layers, rather than greatly adding to or reducing them. There was no evidence during the excavations, or recorded in the sections, that the mound was built of anything but interleaved lenses of turfs and white sand. This is not to suggest that the mound was constructed in one episode of activity, there are intriguing variations in the placement and density of the turfs where they are still clearly delineated. This is particularly the case towards the centre of the barrow, at the southern end of the excavated trench.

5. Below the turf stack a layer of grey sand was revealed of fairly uniform thickness (c.0.15m) extending throughout the trench (Nos. (13) & (16) in Figs.7 & 8). Its lack of humic content indicated that it did not represent a buried turf line, but instead its grey colour was almost certainly a product of leaching from humic layers above. Underlying this was a layer of white sand (No.(14) in Fig.7), differentiated from the grey sand (13) & (16) only in colour. This is almost certainly a natural deposit, but here at a depth too deep for the leaching which has effected the layer above. Below this was a compact black sand (No. (17) in Fig.7) with an extremely convoluted surface, provisionally thought to be due to erosion in a harsh environment such as under peri-glacial conditions.
Figure 6 West face of the excavated trench, looking south-west. The scale is 2m.
Figure 7 West section of trench. The spits are shown in blue.
6. The apparent lack of a buried turf line beneath the barrow was something of a surprise given those found at the neighbouring and ostensibly similar barrow cemetery at West Heath (Drewett 1976 & 1985). This may have been the result of the stripping of the turfs at the time of the construction of Barrow 11 for use within the mound, or alternatively the landscape could have been already denuded of turfs as a result of other activity, possible linked to the construction of other barrows within the surrounding cemetery.

7. At the extreme southern end of the original trench, and close to the base of the turf stack, within the lowest spit (No. (15) in Figs.7 & 8), fragments of a Bronze Age dagger and a whetstone were recovered from the sieving of the soil. Their locations being known to within a 25cm radius, a close examination of the section alongside, revealed a very fine line of light brown material extending east-west for approximately 0.7m from the west baulk (see Fig.8). The trench was subsequently extended to the south in order to establish a context for the two artefacts. Within this extension the southern limit of a feature was observed again showing as a fine brown line extending c.1m from the west baulk. To the south of this line the turfs were noticeably denser than elsewhere in the mound.

8. Upon excavation the feature was found to contain at its base a stack of artefacts consisting of two carstone rubbing stones (SF2 & SF3 in Fig.10) and nine worked flints (SF4 – SF12 in Fig.10), seven of which are almost certainly blanks for arrowheads. To the west, at a distance
of c.0.7m lay a single worked flint, probably a fabricator (SF13 in Fig.10). It is close to this latter artefact that the bronze dagger fragments and whetstone originated. Traces of the brown material noted in the section and at the rear edge of the feature were also noted as two layers present intermittently across its base. It is suggested that these traces represent the very fragmentary and degraded remains of a wooden container, the lid of which had eventually collapsed under the weight of overlying soil. No indications were found within the excavated trench of either an associated cremation or inhumation burial. A 100% sample was collected of all the brown material and the soil within its limits, largely thought to be collapse from above. These are currently awaiting processing.

Figure 9 The trench extension, looking south-west. The denser black turfs beyond the burial feature can be clearly seen to the left of the image and in the section at the top. The scale is 50cm.

Figure 10 Plan of the burial feature and associated artefacts.
9. There is a very clear distinction between the turfs to the south of this central feature and those to the north. The turfs to the south directly abut the wooden container in a near vertical line, for which there would seem two possible explanations: either the turfs here were stacked up against the wooden container, or they have been cut back to allow for it to be placed against them. The container/turf stack interface to the north is very different in character. First the density of turfs interleaved with sand is much the same both inside (the collapsed material) and outside the container; only in retrospect is it apparent that some of the turfs dip more suddenly at the interpreted interface. Second there is no clear evidence that the turf stack to the north was cut back to accommodate the container. The implications of these observations will be explored more thoroughly in the final report.

![Figure 11](image)

**Figure 11** The stack of carstone and flint artefacts (to the left of the image). The scale is 50cm.

10. A close examination of the neighbouring sections allows for a tentative reconstruction of the dimensions of the possible wooden container based upon its surviving visible traces and the form of the surviving turfs as described above. It would seem clear from the sections that the trench extension was not wide enough to take in the two ends of the feature, which would seem to have extended c.0.2m to the east of its east baulk, and an unknown distance to the west. Its width is more certain and, based upon the turfs in the west trench section, can be suggested as c.0.4m. Its height, judging by the height of the turfs on its southern side, would have been at least 0.45m, with the near vertical nature of the cut back suggesting a box-like structure.
11. Such a feature, particularly when associated with the assemblage of recovered artefacts, would suggest the presence of a burial. However, as noted above, no burial was identified. It is entirely possible that traces of such a burial may survive beyond the excavated trench, bearing in mind that the feature extended beyond its limits, although it is also possible that an inhumation burial has been entirely dissolved by the soil conditions. The feature seems to have been large enough to have accommodated an inhumation, but cremations are also sometimes known to occur in over-size containers. Only the excavation of the remaining parts of the burial feature would enable this to be resolved.

12. In addition to the artefacts described above a significant quantity were recovered from the overlying mound. Within the upper disturbed portions many of these were of modern date and reflect the nature of the activities that have taken place upon the Heath in more recent times. These included fragments of numerous wine, beer and mineral water bottles. Scattered fragments of glass were found even in the very lowest levels of the barrow, indicating the depth of some of the disturbance (see Fig.6). Also numerous, but in this case consistently through all layers of the mound, were struck flints of Mesolithic to Bronze Age date. It is probable that these were imported with the turfs themselves from their place of origin, quite possibly the immediately surrounding area.

CONCLUSION

1. Returning to the initial objectives of this excavation, it will be remembered that the first was to clarify how much of the current profile of the monument is a result of more recent slumping or damage and to establish its earlier form, including whether it is encircled by a ditch. As has been set out above, the current appearance of the mound, certainly in the area of the excavated trench, would appear to be very similar to that when first constructed, with the exception that it has become grassed over. Its height was probably about one and three quarter metres and its diameter close to twenty five. No trace was found of an encircling ditch, despite the trench being pushed out to well beyond that needed to pick up such a feature.

2. The second objective related to an assessment of the severity of any damage inflicted upon the barrow, particularly by trees. The evidence from the excavated trench would seem to be that the first three quarters of metre of the turf stack has been significantly altered by disturbance, some of which will have been a result of tree action, but also through past human and animal activity and the ongoing process of rainwater leaching. The extent of the tree damage is probably best illustrated by the geophysical survey, where correlation with the excavation results suggests that the dark areas shown indicate the extent of root disturbance to the turf stack.
3. The third objective concerned the constructional character and date of the barrow. The former objective has clearly been met in terms of the overall composition of the barrow, with its turf and sand stack seen to extend unbroken from the base to close to the top of the surviving monument. However, and perhaps inevitably due to the comparatively limited extent of the excavation, there are questions still remaining over the exact phasing and form of this turf construction. The turfs visible in the west section, particularly towards its southern end, suggest that the monument is not of uniform build throughout. In addition the probable burial towards the centre of the mound has only been partially explored and many questions remain concerning its exact form and its relationship with the surrounding turfs. The one indication of date thus far comes from the dagger and whetstone, which are of types thought to date to circa 1750 – 1500BC; however, these may relate to only one event in a longer sequence of activity. While some of these questions may be answered by the ongoing post-exavcation programme, including the processing of radiocarbon samples taken from the burial area, it is probable that some can only be answered by further excavation.

4. The final objective was to enable the collection of a comprehensive series of palaeo-environmental samples from each of the barrow deposits. This has been successfully carried out and the samples are currently undergoing analysis at the University of Reading.

5. The implications of having identified a burial context at the centre of Barrow 11 are significant for more than just its obvious intrinsic importance for understanding the Petersfield Heath cemetery. At West Heath, the next barrow cemetery to the east, as many as nine barrow were excavated ahead of destruction, yet in only two were burials identified. It was suggested at the time that while this may just be result of the acidic soil conditions, there was also the possibility that some, if not a majority, of these monuments may never have contained burials at all (Drewett 1975, p.142). It is significant to note, however, that at West Heath the burials that were revealed were either found in distinct pits dug into the buried land surface beneath the turf stack, or, in one case, were in a Collared Urn standing on it. It may be wondered whether any burials would have been detected if not in pits or durable containers, for example any simply placed on the old land surface. At Petersfield Heath, it was only the discovery of the dagger fragments and whetstone that led to the recognition of the fragmentary traces of the possible wooden container in the adjacent section and the identification of significant, although subtle, variations in the turf stack. In the light of this it is possible that some or all of the West Heath barrows, and indeed “cenotaph” barrows elsewhere on aggressive soils, may have once been constructed over inhumations contained in simple organic containers or none at all.
6. The results from these excavations will be used to inform the objectives of the next phase of the project, which is to involve the excavation of two more barrow monuments in June 2015.

BIBLIOGRAPHY


West Sussex Archaeology Ltd 2014 *Written Scheme of Investigation for the Archaeological Excavation of Barrow 11, Petersfield Heath, Petersfield, Hampshire*. Unpublished.