Report on the Archaeological Excavation of Barrows 8, 9, 10, 11, 16, 17 & 19 Petersfield Heath, Petersfield, Hampshire

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NON-TECHNICAL SUMMARY

This document sets out the results from archaeological excavations carried out into Barrows 8, 9, 10, 11, 16, 17 & 19, 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 26th April – 14th May 2016 (Barrows 8, 16 & 17) and 29th August – 30th September 2016 (Barrows 9, 10, 11 & 19).

Barrow 8 proved to be a single ditchless turf stack bowl barrow, c.0.6m high, positioned upon a natural sand ridge. Just to the north of the centre of the barrow a Collared Cremation Urn was found sitting within a small pit.

Barrow 9 was found to have no encircling ditch, and the limited extent of it exposed, indicated that at least part of it may have been constructed of a different material from the others so far investigated.

Barrow 10, despite being been badly damaged by badger tunnelling was shown to be a ditchless turf stack bowl barrow, c.1m high.

Barrow 11 had been previously excavated in 2014, but a new trench was dug to examine further a probable burial deposit found in that year. The results indicated that, with the exception of some organic material, the extent of the burial deposits had already been exposed.

Barrows 16 & 17 proved to be of similar form to each other, being enclosure barrows with an internal ditch. Both contained charcoal deposits within their ditches and associated pits.

Barrow 19 was shown to be another enclosure barrow, this time with an external ditch. An inverted Collared Cremation Urn was found within a small pit close to the inner tail of the bank, whilst a large central pit was located, but only partially excavated.

PROJECT BACKGROUND

Figure 1 Site location. © Crown copyright. All rights reserved. License number: AL100036068

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 involves 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 previously accepted barrows on Petersfield Heath are all Scheduled Monuments and as such Scheduled Monument Consent is needed for any intrusive fieldwork impacting upon them. Written Schemes of Investigation were drawn up by West Sussex Archaeology Ltd (WSA 2016a & 2016c) to accompany and inform the successful applications for Scheduled Monument Consent relating to the excavation of Barrows 8, 9, 10, 11, 16, 17 & 19 (Scheduled Monument Nos. SM32533 [8], SM32532 [9 & 10], SM32534 [11], SM32537 [16 & 17] & SM32538 [19]).

3. This report details the results of the fourth and fifth of six archaeological excavations. The fourth excavation was carried out from the 26th April – 14th May 2016 (Barrows 8, 16 & 17) and the fifth from the 29th August – 30th September 2016 (Barrows 9, 10, 11 & 19) by volunteers under the supervision of George Anelay (Barrows 16, 17 & 19), Ken Mordle (Barrows 8, 9 & 10) and Stuart Needham (Barrow 11), and under the overall direction of George Anelay of West Sussex Archaeology Ltd. The project archive will be deposited with Hampshire Museums Service.

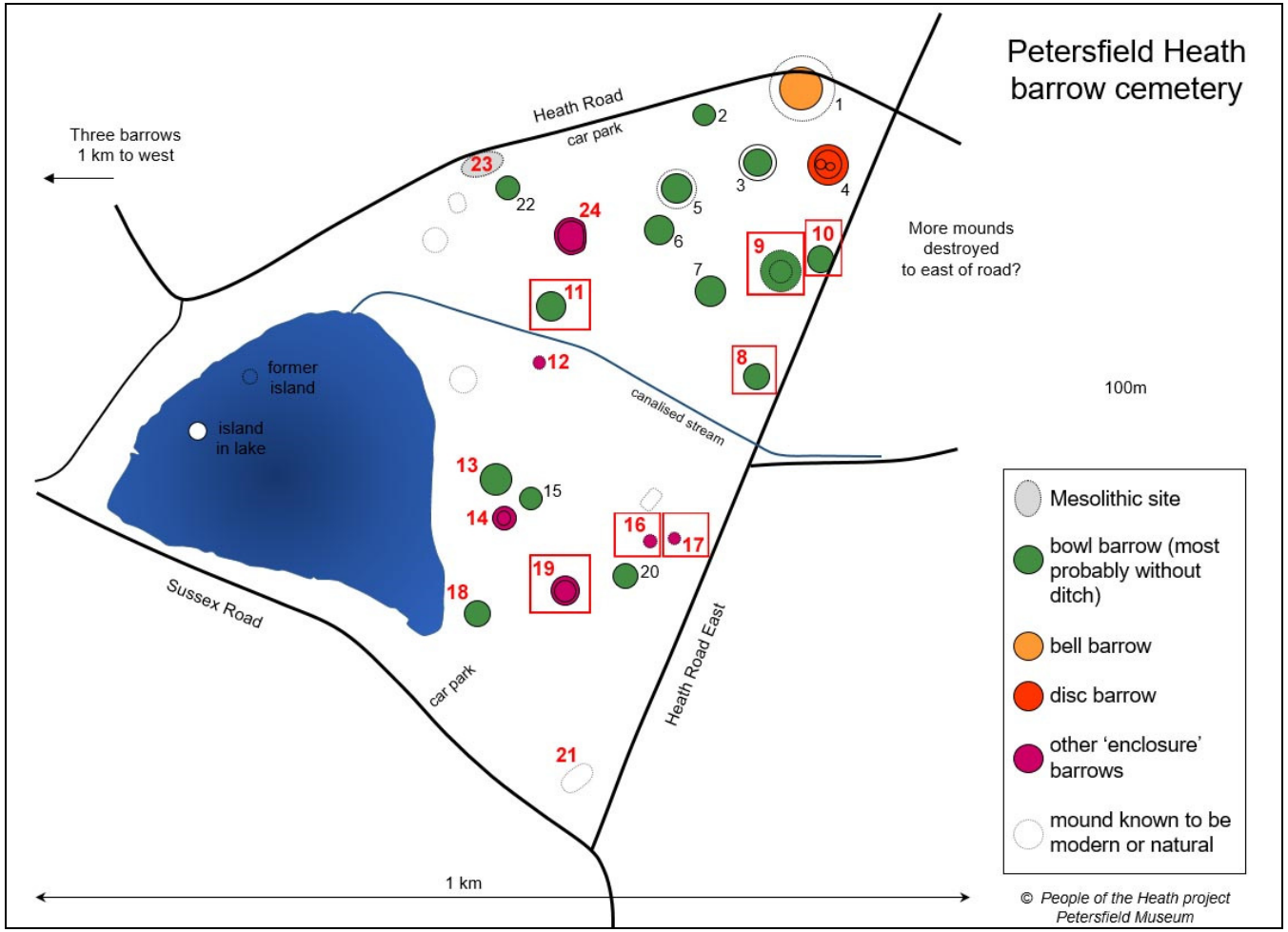

Figure 2 Schematic plan of the barrow cemetery on Petersfield Heath.
Barrows 8, 9, 10, 11, 16, 17 & 19 are boxed, while all excavated barrows are numbered in red.

4. Petersfield Heath is situated on the eastern side of the town of Petersfield in Hampshire (see Fig.1). The underlying geology of the site is of Folkestone sandstone, Upper Marehill mudstone and Upper Pulborough sandstone, all of the Lower Greensand series. In addition roughly half the Heath is covered by superficial deposits, including a band of Sussex Rother Terrace deposits around its southern and western sides and a block of Head deposits in the area of the lake and its outflow. The excavated barrows are positioned as follows (see Fig.2):

    - Barrow 8 lies c.340m to the east-north-east of the lake on Petersfield Heath, at 56m aOD and is centred at OS grid reference SU 7577 2295.

    - Barrow 9 lies c.400m to the north-east of the lake on Petersfield Heath, at 57.25m aOD and is centred at OS grid reference SU 7579 2305.

    - Barrow 10 lies c.440m to the north-east of the lake on Petersfield Heath, at 57.25m aOD and is centred at OS grid reference SU 7584 2307.

    - Barrow 11 lies c.150m to the north-east of the lake on Petersfield Heath, at 55m aOD and is centred at OS grid reference SU 7555 2301.

    - Barrow 16 lies c.220m to the east of the lake on Petersfield Heath, at 58m aOD and is centred at OS grid reference SU 7566 2277.

    - Barrow 17 lies c.240m to the east of the lake on Petersfield Heath at 58m aOD and is centred at OS grid reference SU 7568 2277.

    - Barrow 19 lies c.120m to the east of the lake on Petersfield Heath at 59.5m aOD and is centred at OS grid reference SU 7556 2271.

OBJECTIVES

1. The overarching archaeological objectives of this project fall into four main categories: first, 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..

2. With specific reference to the barrows which are the subject of this report, regarding the first objective, these excavations aimed to clarify how much of the current profile of the monuments is a result of more recent modification or damage and to establish their earlier form, including whether they are encircled or flanked by a ditch or ditches. Particular questions were to determine the exact form of Barrows 8 and 19, whether Barrows 9 & 10 have been significantly truncated, and to confirm or revise the earlier identification of Barrows 16 & 17 as saucer barrows.

3. With regard to the second objective, the fact that root action, animal activity and neglect can have a significant impact upon the monuments on the Heath has already been demonstrated in the case of Barrows 11, 12, 14, 18 & 21 (WSA 2015, pps.9-10 & WSA 2106, p.35). It was expected that the excavation of Barrows 8, 9 & 10 would add to this evidence. However, Barrows 9 & 10 appeared to have suffered from more than just the growth of large trees on them. Barrow 9 lies on the edge of the cricket pitch and it was thought probable that its north-western side had been significantly re-modelled, while Barrow 10 appears to have been clipped by the road on the east side and has a stepped profile on the cricket-ground side. Barrows 16 & 17, like Barrow 12, seemed to have been casualties of neglect, leading likewise to their almost complete disappearance, and so it was hoped that establishing their exact locations and condition would allow for improved management of the surviving sub-surface features of these more subtle monuments in the future. Barrow 19 also appeared to have been a victim of neglect and human disturbances, although remaining more discernible on the ground, and it was hoped that establishing its full dimensions, in particular the circuit of the ditch, which is currently the route of a footpath on two of its sides, would similarly lead to its improved management into the future.

4. Thirdly the constructional character and date of Barrows 8, 9, 10, 16, 17 & 19 was to be established by the cutting of sections through the whole or part of each monument. This would ensure that the main structural components were exposed for recording, and would also give potential for the recovery of material for radiocarbon dating from key deposits. In addition, such sections would also meet the fourth

objective by enabling the collection of a comprehensive series of palaeo-environmental samples from each of the barrow deposits.

5. Finally, in the case of Barrow 11, it was proposed to complete the excavation of the presumed burial found during the course of the first excavation; this could not be undertaken at the time given the agreed SMC and time constraints. By excavating the remaining parts of this nationally important burial context, it was hoped that we would be in a considerably better position regarding its interpretation

HISTORICAL BACKGROUND

1. Petersfield Heath is home to one of the most impressive and diverse barrow cemeteries in the South-East of England. The complex is considered to be of national importance and 21 barrows, mainly probably dating to the Bronze Age, have the highest level of state protection as Scheduled Monuments. An additional site (Site 24) has since been dated to the Early Bronze Age by the People of the Heath project, while an early 19th century map suggests that the cemetery once extended to the east of Heath Road East in an area now covered by housing. The barrows 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, added several low-profile monuments to the more obvious barrows mapped by the Ordnance Survey and produced an overall plan of the cemetery. His plan was subsequently published by Leslie Grinsell in his overview of Hampshire barrows in the *Proceedings of the Hampshire Field Club*.

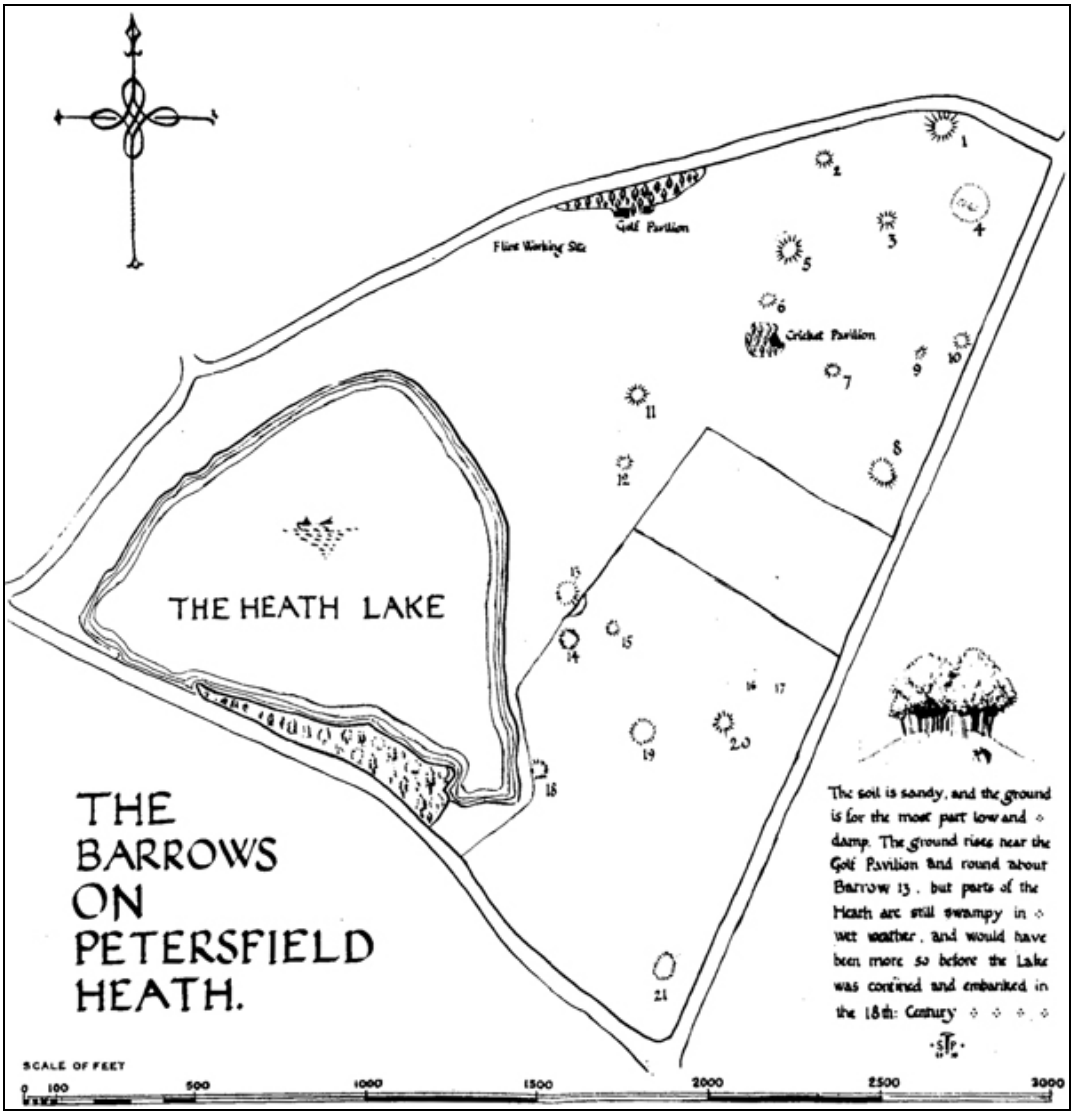

Figure 3 Piggott's plan of the barrows on Petersfield Heath

2. Barrow 8 was identified by Piggott and Grinsell as possibly two conjoined bowl barrows, although it was later thought to be either an oval barrow or one bowl barrow on a natural ridge. Due to the uncertainty over its form, its exact dimensions were difficult to state, although Grinsell describes it as 48 paces long and 30 paces wide. There is no trace of an encircling ditch or flanking ditches. On pre-WWII, and later, aerial photographs it appears as a tree covered mound. A geophysical survey undertaken as part of the project in October 2015 was inconclusive.

3. Barrow 9 was identified by Piggott as a bowl barrow, at the time completely covered with gorse, so no measurements were taken, although he estimated that it was probably about 100 paces in circumference and c.7 feet high. There is no trace of an encircling ditch, but a linear depression runs along its foot on the eastern side. A topographical survey undertaken as part of the project in 2015 indicated that the barrow was c.1.4m high and c.20m in diameter, although a study of South Downs National Park Lidar data suggests that it may have been heavily truncated to the north and west. A geophysical survey undertaken as part of the project in June 2016 suggested the possibility of an encircling ditch.

4. Barrow 10 was identified by Piggott as a bowl barrow, c.90 paces in circumference and c.6ft high. He noted that it had been dug into on its western side and that in addition lumps of both clay and chalk had been brought out by rabbits from the mound itself. A topographical survey undertaken as part of the project in 2015 indicated that the barrow was c.1.3m high and c.20m in diameter, although apparently truncated on both its western and eastern sides. The linear depression which passes to the east of Barrow 9 continues northwards to pass Barrow 10 on its western side. A geophysical survey undertaken as part of the project in June 2016 suggested that there may have been previous excavation into the mound's centre.

5. Barrow 11 was identified by Piggott as a bowl barrow, c.8 feet high and c.100 paces in circumference, with no visible ditch. A topographical survey, undertaken as part of the project in 2014, indicated that the barrow was situated on a very low natural rise with its diameter measuring c.25m and its height c.1.75m. A geophysical survey undertaken as part of the project, also in 2014, likewise found no clear evidence for an encircling ditch. This barrow was the subject of the first excavation carried out as part of this project (for a summary of the results see para.7 below).

6. Barrow 16 was identified by Piggott as a possible saucer barrow, 8 paces in diameter with an encircling ditch c.1-1½ft deep. The neighbouring Barrow 17 he identified as another possible saucer barrow of similar dimensions, but added that it was "rather modern looking". Neither appear very convincingly on historic aerial

photographs, although the area in which they lie would appear to be rough grassland and scrub. They are now impossible to discern with any certainty and, although the modern Ordnance Survey mapping marks the position of Barrow 16, its drawn dimensions are far too great to be the monument Piggott describes. A geophysical survey undertaken as part of the project in October 2015 located what is almost certainly Piggott's Barrow 17 and a further geophysical survey carried out in March 2016 likewise located a faint trace of Barrow 16.

7. Barrow 19 was described by Piggott as an intermediate between a disc and a saucer barrow. He recorded its bank as measuring 26 paces in diameter with an external ditch and remains of an internal tump. A topographical survey undertaken as part of the project in 2015 indicated that the bank was c.20m in diameter, with the external ditch giving an overall measurement of c.25m. A rectangular depression noted within the circle of the bank is considered to be probably modern in date, and indeed disturbance in the centre can be seen on aerial photographs back to the 1920s, although, as mentioned above, Piggott thought a tump was present. A geophysical survey undertaken in 2014, as part of this project, had already clearly indicated the bank, ditch and central depression.

8. The first excavation carried out as part of this current project was undertaken in September 2014 and included the cutting of a single trench into Barrow 11. This trench ran from the centre of the barrow to beyond its outer edge, and it revealed that the barrow was entirely of turf construction with no surrounding ditch. An artefact assemblage recovered from close to the centre of the barrow was almost certainly related to a burial, although no human remains were encountered, and the feature within which they were found extended beyond the excavated trench. A radiocarbon date of 1885 - 1690 cal BC (95% probability) was obtained from charcoal associated with the assemblage (WSA 2015).

9. The second excavation was undertaken in June 2015 and involved the cutting of a trench into each of Barrows 18 and 21. The "L"-shaped trench excavated into Barrow 18, which ran from the centre of the barrow to beyond its outer edges, revealed that the barrow was of turf construction with no surrounding ditch. No features or artefacts associated with the barrow were recovered from within the trench save for a single ferruginous sandstone block from within its turf stack. The trench excavated into Barrow 21, which ran across the monument and beyond its outer edges, revealed it to be a natural sand mound (WSA 2016b).

10. The third excavation was undertaken in September 2015 and involved the cutting of trenches into Barrows 12, 13 & 14. A sewer-main trench previously dug through the site of Barrow 12 was re-opened and its sections fully recorded. The barrow ditch was found to survive to either side, buried under a thin overburden. Small areas of excavation

explored the ditch and two other features. No internal mound was evident and the former external bank had largely been levelled. A single trench was excavated into Barrow 13, running from the centre of the barrow to beyond its outer edge, which revealed that the barrow was of turf construction with an encircling ditch, dug after the turf stack had been formed. A burial pit was excavated from close to the centre of the barrow containing a cremation, probably contained within a fabric bag with a wooden handle, and an associated artefact assemblage. A single trench was excavated into Barrow 14, running across the centre of the monument and beyond its outer edges, which revealed that it consisted of a single ditch and external bank, with no internal mound. An oval pit and a post-hole were excavated close to the centre of the monument, the former containing a significant quantity of charcoal (WSA 2016b).

RESULTS

Barrow 8

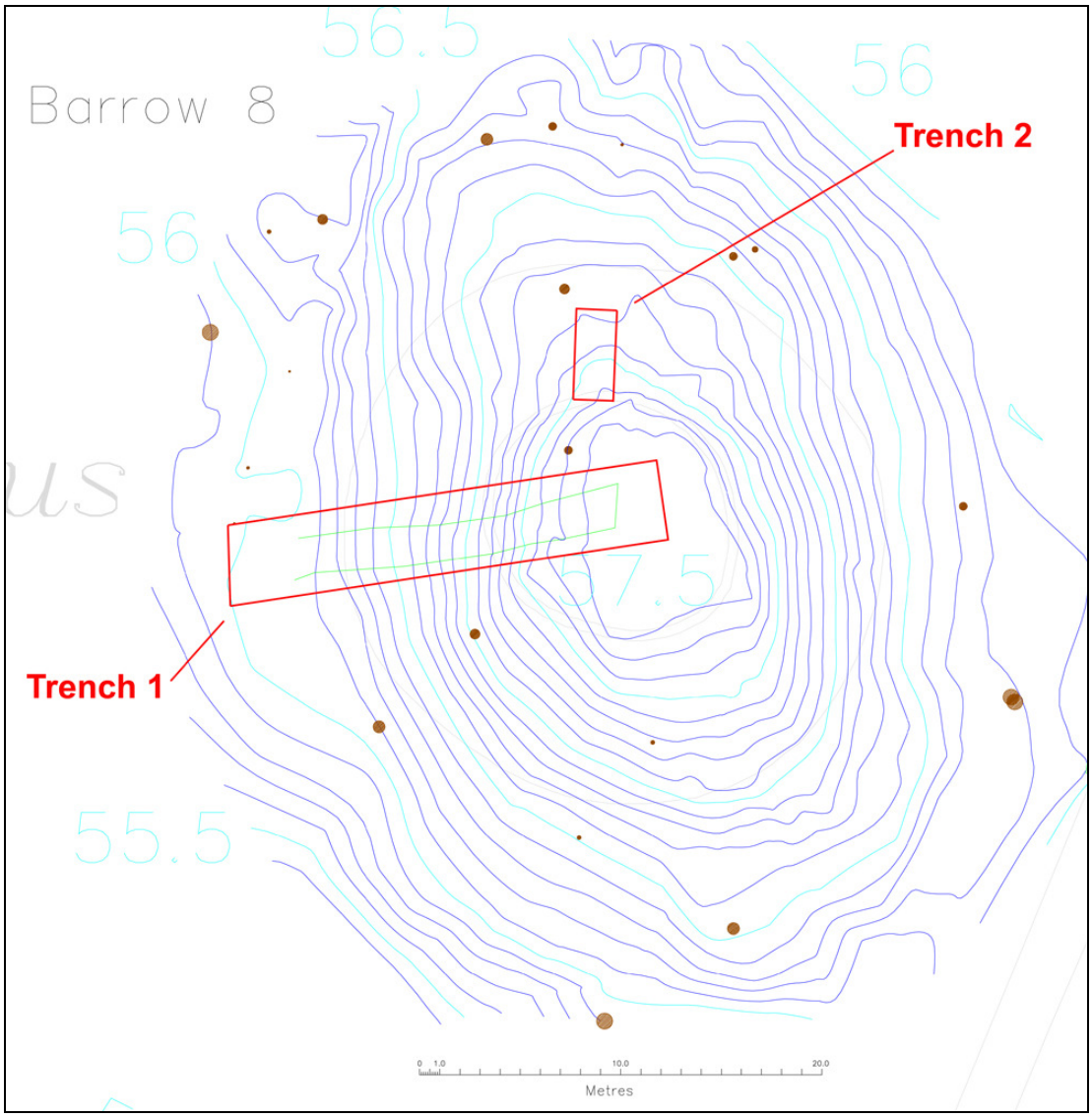

Figure 4 Location of Trenches 1 & 2 into Barrow 8, overlain on topographic survey

1. Two trenches were excavated into Barrow 8. Trench 1 was orientated east-west and ran from the centre of the mound to its base. It was 21.5m long and 4m wide. Trench 2 was orientated north-south and ran along the spine of the mound. It was 4.5m long and 2m wide. These trenches were positioned to determine the extent of the monument, since some doubt existed as to how much of the visible mound was man-made, as opposed to natural. The results demonstrate that the bulk of the mound is composed of geological sands, with a modest barrow positioned on its summit.

2. After the completion of the excavations, two deeper sondages were excavated by machine into the north-west corner of Trench 1 and the south-west corner of Trench 2. These revealed that the geology of the

mound consisted of an upper layer of pale white/buff sand, c.0.7m thick in Trench 1 and c.0.8.thick in Trench 2. The upper surface of this layer was encountered throughout both trenches. Underlying this layer in Trench 1 was a mottled black/brown clay/sand, c.0.2m thick, which in turn sat upon a yellow/orange clay/sand, the upper surface of which was iron rich. This latter layer extended to beyond 2m below the current ground surface. In Trench 2 the mottled black brown clay/sand was intermixed with the yellow/orange clay/sand to the base of the sondage, c.1.9m below the current ground surface. It is clear from these sondages that the bulk of the mound is composed of geological clay/sand, with an upper surface of white/buff sand separating it from any overlying archaeological deposits.

3. Overlying the natural geology was a subsoil (2), up to c.0.3m thick. This consisted of lenses of dark grey and light grey sands, which were not consistent across the trench, and probably reflect localised variations in the composition of the ground surface over time, including disturbance from vegetation growth, often penetrating into the underlying white/buff sand geology. Capping this subsoil, and forming the modern topsoil, was a layer of red/brown loose humic material (1), up to c.0.2m thick.

4. At a point c.8.75m from the east end of Trench 1 in its south section, and c.7.8m in its north section, the historic topsoil rises up to the east over a layer of mottled grey/black sand (5), evidently formed of turves composing the stack of the barrow mound. This layer continued into the southern end of Trench 2 for up to c.0.9m. The turf stack had clearly been much disturbed by later rooting, animal disturbance and leaching, and survived at its greatest extent to only c.0.3m high. Indeed the overlying historic topsoil (2), where it covers layer (5), was almost certainly also once composed of turves, which have lost all their definition as a result of these processes. In many places even the lower parts of the turf stack (5) have been diffused. It is likely that in its original form the barrow would have stood no more than 0.6m high.

5. Beneath this turf stack (5) there was an intermittent buried soil (140), c.0.02m thick, composed of a black humic sand. Its intermittent nature suggests that either there was little soil or vegetation cover over the natural mound when the barrow was constructed, or that the ground had been partially stripped of turves for use in construction or for some other reason. In the southern part of Trench 1 the white/buff natural sand (137) was separated from the overlying turf stack (5) and its intermittent buried soil (140), by a mound of grey sand (9), with fine lensing, that rose up to a height of c.0.3m and extended c.7.55m westwards and c.2.5m northwards from the trench's south-east corner. This mound is probably the result of wind-blown sand accumulating on the natural ridge on which the barrow was later sited, a process already noted in the case of Barrow 21. If this was indeed the case, then it is unlikely that a consistent layer of soil and vegetation ever formed in this location. The overlying barrow was positioned on the crest of this ridge, making use of its prominent situation overlooking the low ground to the

south, and incorporating the rounded sand mound (9) within its height, while itself presenting a flat-topped appearance to the world around.

6. Both under, and within the lower parts of, the turf stack (5) in the western part of Trench 1, spreads of decayed or burnt wood were found. These appeared to be concentrated in two locations, one (18) towards the north-east corner of the trench, extended for c.1.7m east-west and protruded c.0.4m from its northern section, the other (19) lay further to the west and extended c.2.85m east-west and protruded c.1.15m from the baulk. The former of these (18) appeared to be incorporated into the very lowest layers of the turf stack (5), while the latter (19) lay wholly beneath it. Samples of both have been taken and sent for analysis. The exact nature and purpose of this wood is not, at this stage, clear.

7. Underneath the turf stack (5) and centred c.2.9m from the trench's southern baulk and c.1.35m from its eastern, an oval pit [14] was revealed, within which sat a Bronze Age Collared Urn /1\. It had clearly not been positioned under the centre of the barrow, but was instead c.3m to the north, and was placed within its pit before the turf mound was formed above. The pit was only slightly larger than the urn it contained, with the exception of a slight widening to the north-west in which had been placed a dished object /2\, with a possible second flat object above. Both these are likely to originally have been organic, but are preserved now as hardened sand/clay. The pit, after the placing of the urn, had been backfilled with a dark grey sand (15), containing dense charcoal, especially in the upper part. The uppermost fills of the urn itself (16) & (17) are likely to be formed of an overlying turf, slumped into its opening. The urn was lifted with its contents in situ and, following CT scanning at Salisbury Hospital, the contents were micro-excavated in the conservation studio of the Hampshire Cultural Trust. Stratigraphic excavation confirmed a complex internal structure. Charcoal was frequent in some deposits, but no bones were found. The structure shows that there had originally been an organic container within the pot that has since decayed. Further probable organics, surviving as hardened sand forms, cling to the exterior of the urn. Their form could suggest elements of strapping, perhaps to lower the pot into its tightly fitting pit.

8. Two other archaeological features were noted in the trenches: three modern post-holes were found [11], [134] & [136], all cut through the subsoil (2) and of similar dimensions. Their position around the outside of the barrow mound suggest that they once may have supported a fence erected in the past to enclose the monument. To the west, at the extreme end of Trench 1, two north-south running linear depressions were exposed [144] & [132], filled with grey and light brown sands. They probably represent the remains of an old trackway running past the foot of the mound, although their exact date is not known.

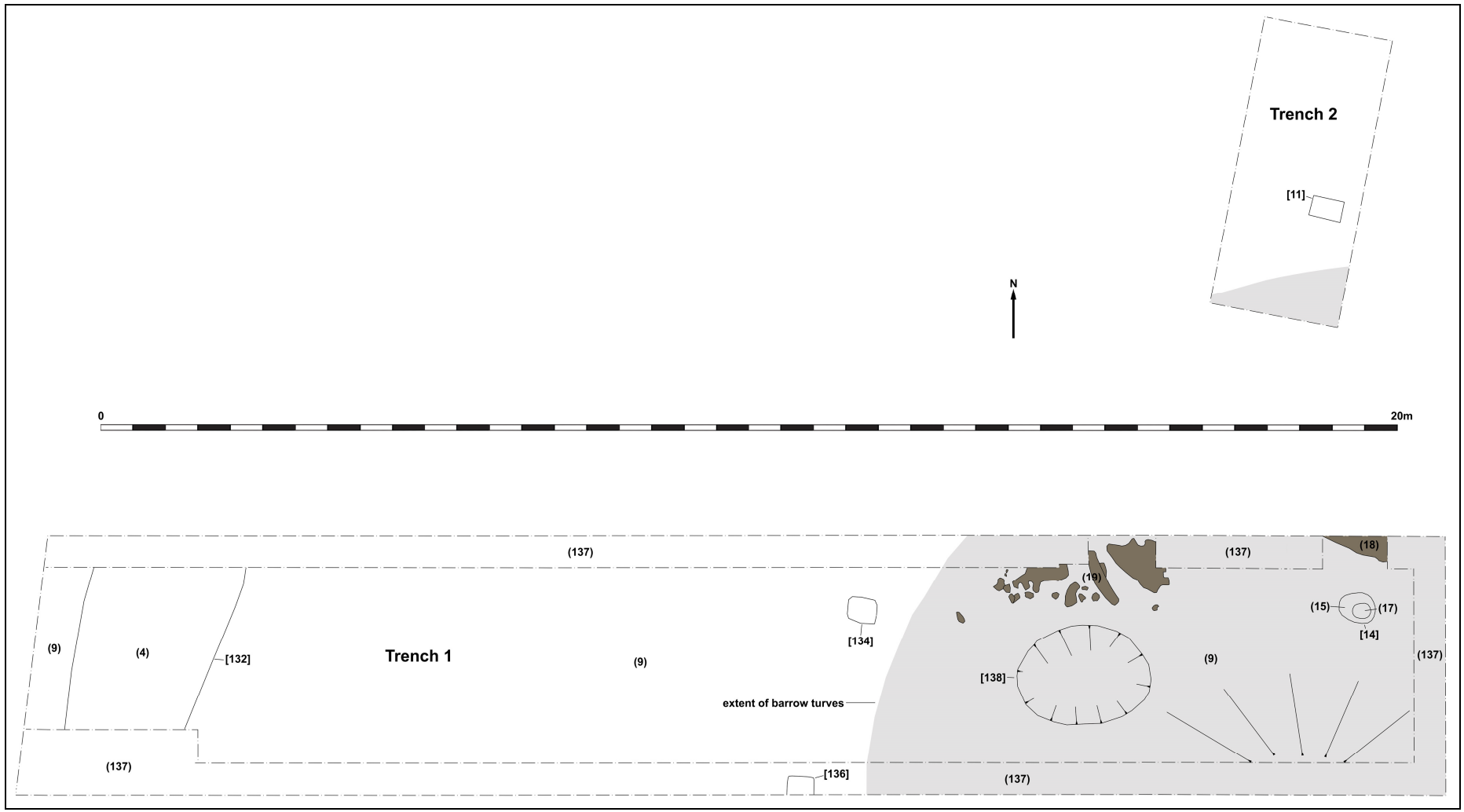

Figure 5 Plan of Barrow 8

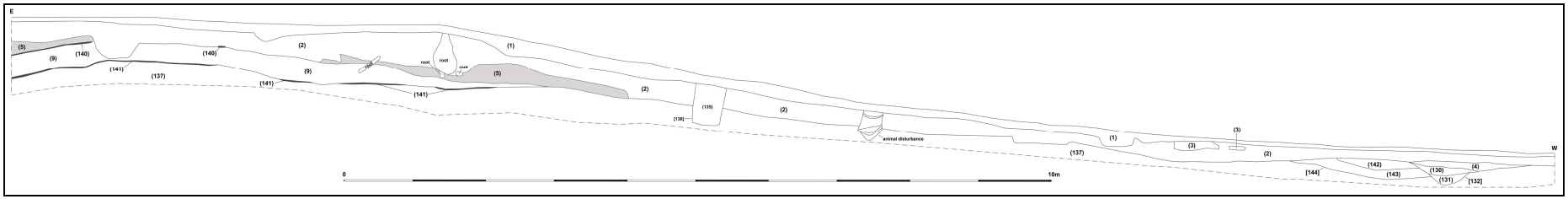

Figure 6 South section of Barrow 8 trench

Figure 7 South section of Barrow 8 Trench

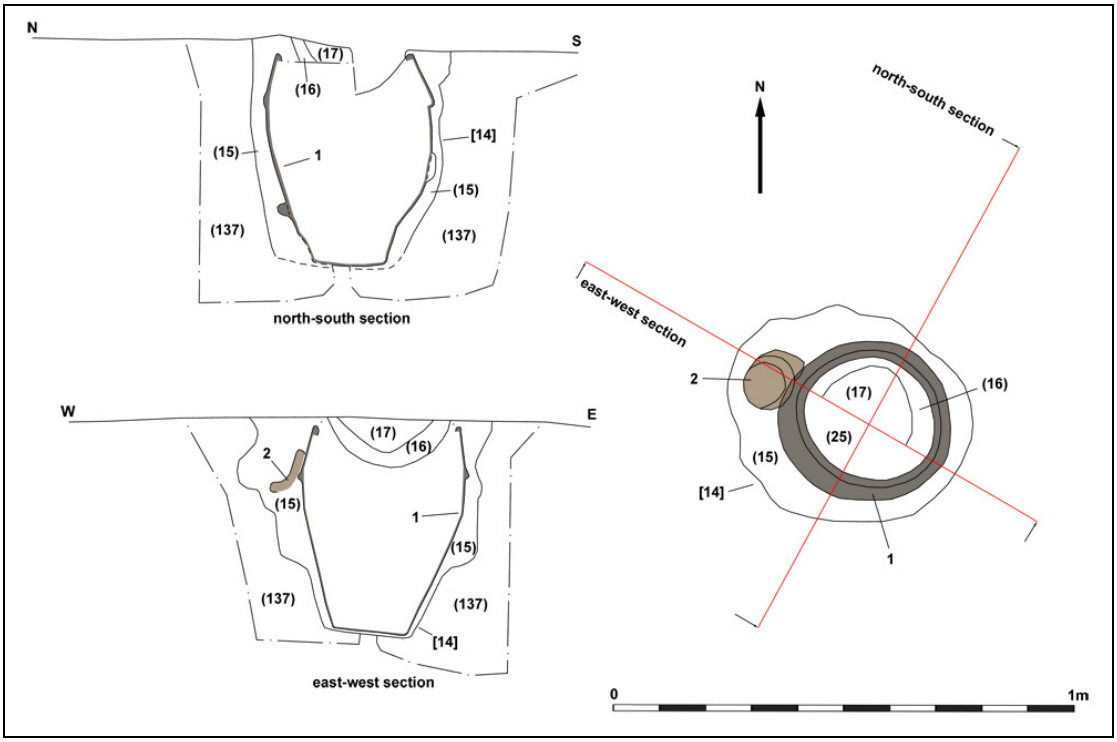

Figure 8 Plan and sections, Barrow 8 Collared Urn pit

Figure 9 The Collared Urn pit in Barrow 8, looking east

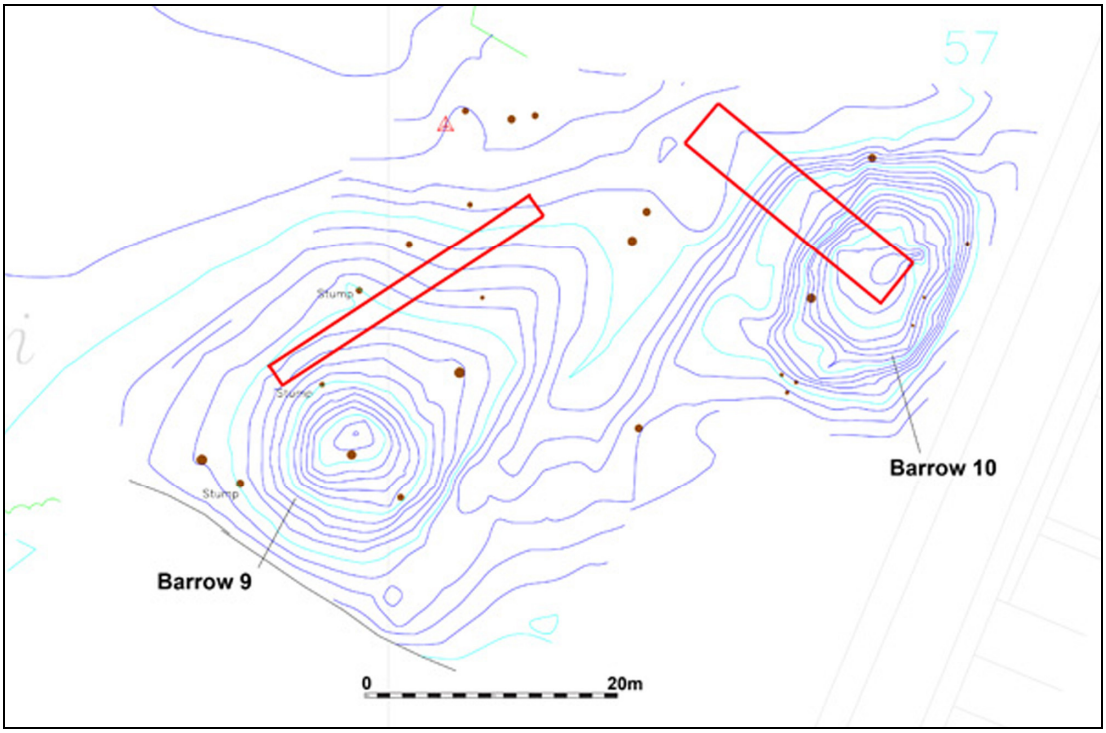

Figure 10 Location of the trenches into Barrows 9 & 10, overlain on topographic survey

Barrow 9

1. A single trench was excavated into the north-west side of Barrow 9, 25m long and 2m wide, running from the outer part of the mound in the north-west to well beyond its outer edge, to the north-east. In addition to testing whether the mound had any encircling features, this long trench was designed to confirm how much of the hillock was natural and how much artificial.

2. The geology within the trench consisted of fine white silt (8), up to 0.2m thick, overlying a mottled black/brown silt, up to 0.12m thick, which in turn capped an orange silt extending beyond the base of the trench.

3. Overlying the natural geology was a subsoil (2), up to c.0.2m thick. This consisted of a grey silt, showing frequent root disturbance. Capping this subsoil, and forming the modern ground surface, was a layer of red/brown loose humic material (1), up to c.0.2m thick.

4. Towards the southern end of the trench, one the south-east side, the subsoil (2) overlay a layer of orange/brown silt (3), up to 0.25m thick. This layer (3) extended for c.9m along the south-eastern side of the trench, but thinned north-westwards and only just reached the north-western section. Beneath this orang/brown silt (3) was an intermittent layer of dark grey/black humic silt (4), up to c.0.04m thick, capping the underlying geology (8). This layer would appear to be a buried soil, which could be seen continuing to the north at the base of the subsoil (2), wherever it had survived.

5. The identification of the orange/brown deposit (3) with the surviving remains of Barrow 9 would seem probable in the light of its position, however its composition is significantly different from all the other barrow mounds so far investigated on the Heath. The closest parallel would be with the material excavated from the ditch surrounding Barrow 13, which had been piled over its turf stack, although no ditch was identified surrounding Barrow 9. However the fact that layer (3) lies on the very edge of the surviving barrow, allows the possibility that it enveloped a turf stack lying to the south-east.

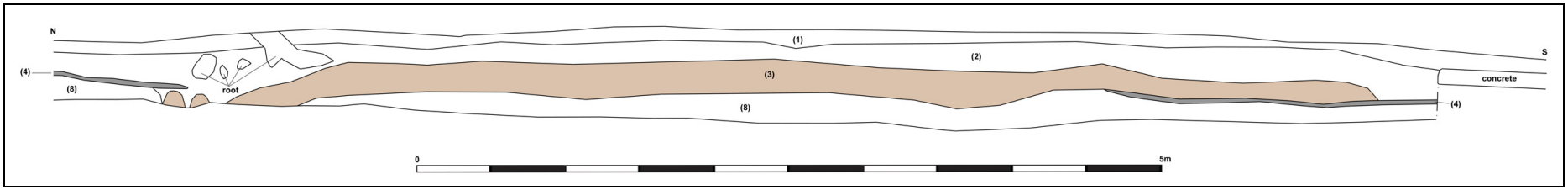

Figure 11 The south end of the east section across Barrow 9

Figure 12 The south end of the east section across Barrow 9

Barrow 10

1. A single trench was excavated into Barrow 10, 20m long and 4m wide, running from the centre of the mound and to the west, well beyond its outer edge.

2. Under the barrow itself, and extending up to c.9m from the east end of the trench, the geology consisted of pale yellow/grey silt (115), but to the west of this it changed to a brown silt (114). A deeper sondage in the trench's south-west corner revealed that this brown silt overlay a green/yellow silt, extending to a depth c.0.9m below the current ground surface.

3. Overlying the natural geology was a subsoil (102), up to c.0.15m thick. This consisted of a grey silt, containing frequent root disturbance. Capping this subsoil, and forming the modern ground surface, was a layer of red/brown loose humic material (100), up to c.0.1m thick. Both these layers rose up and over the barrow itself, with the humic layer (100) maintaining a broadly consistent thickness. The grey silt layer, re-numbered (103) as it covered the barrow, varied considerably in its depth, since it filled all the numerous intrusions made as a result of animal and root disturbance.

4. The barrow itself was composed, as elsewhere on the Heath, of turves (107). These turves most frequently consisted of a black humic silt overlying a pale grey silt, although in places the silt changed to a pale yellow colour. The turf stack survived in places to c.0.9m in height, and was probably originally c.1m high in total, with any turves in the upper part totally reworked by subsequent disturbance. Below the turf stack a buried soil (111) was preserved in places, but it would appear not to have been present throughout, even where the turf stack survived intact. This would suggest that either the underlying turves had been removed before the barrow constructed, or that the original turf cover was intermittent.

5. The most striking feature of Barrow 10 was the scale of the damage that had been done to it by later man-made and natural disturbance, most noticeably the burrowing of badgers. Throughout the trench their holes were found destroying the turf stack, for which they showed a clear preference over the hard geology below.

6. Approximately five metres to the west of the surviving turf stack of the barrow, the ground falls away, losing c.0.6m in height over a distance of c.4.5m, before levelling out once again. On the flat space between the stack and the edge of this slope a series of ruts were recorded, almost certainly formed by wheeled traffic. The closest of these ruts to the barrow was overlain by the upper two of three layers found mounded up against the surviving outer edge of the turf stack. The lowest of these (113) was a grey sand, above which lay a grey/brown

sand (108), which was in turn overlain by a dark grey/brown sand (106). A further patch of pale grey/brown sand (112) over the turves to the east may be linked. There was a degree of mixing between the three layers (106), (108) & (113), indeed on the north side of the trench they were almost indistinguishable, suggesting they had built up as part of one process. It is unclear whether they were formed as a result of erosion from the barrow, or material being thrown up against it, although the latter is more likely considering the colour and composition of at least the upper two layers (106) & (108). They certainly are not contemporary with the barrow. It is possible that the trackway, which the cart ruts testify to, was periodically re-cut, with the upcast being piled up against the barrow sides.

7. The original dimensions of Barrow 10, on its western side, are hard to determine. It is possible that the use of the trackway described above resulted in the loss on some of its western edge; certainly its profile as recorded in the sections would seem rather too abrupt for a typical slumping stack. Whether the barrow ever extended to the outer edge of the flat platform upon which it sits, before the ground falls away to the west, is unclear. Certainly the current shape of the barrow, shown to be rather rhombic from the contour survey, suggests that it has been curtailed on both the east and west sides.

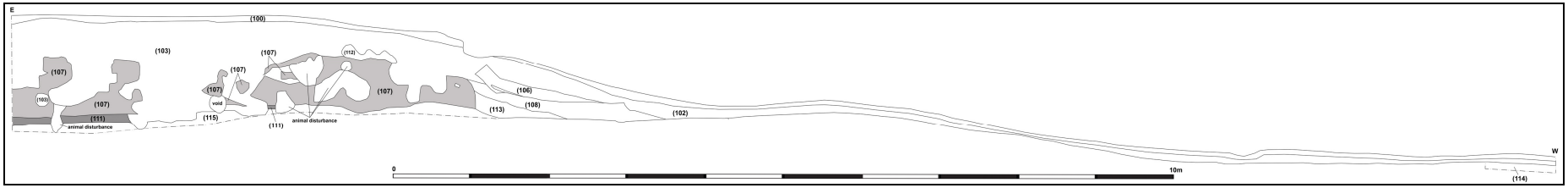

Figure 13 South section into Barrow 10

Figure 14 Barrow 10, looking east, showing the extensive badger tunnelling and the cart ruts in the foreground.

Barrow 11

1. The September 2014 excavation into Barrow 11 had exposed an artefact assemblage lying within traces interpreted as the decayed remains of a box or coffin. These were recovered from the close to the centre of the barrow and very likely relate to a burial, even though no human remains were encountered. It was thought possible that the full extent of this burial lay beyond the confines of the 2014 trench, and therefore the area previously investigated was re-opened and extended.

2. In the event no further artefacts were encountered, and although small patches of organic traces were found at the same level as the above-mentioned box close to the west, it is not clear these are remnants of the very same structure. The remains were carefully lifted and it is hoped that examination and analysis will help to identify their character.

3. The relationship between the very dark inner core of the mound and its more 'zebra-stripped' covering was further examined. It is concluded that they are not temporally discrete events, but instead different compositions within a probable single building episode.

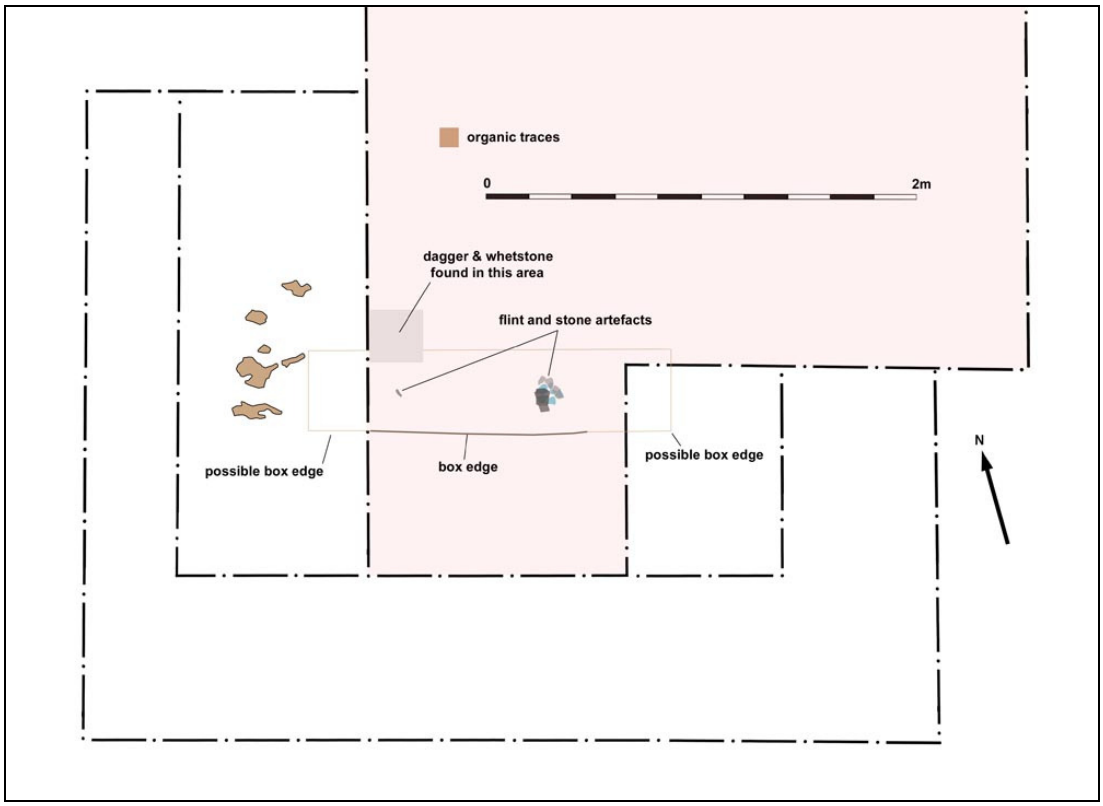

Figure 15 Plan of the extension to Barrow 11. The 2014 trench is highlighted in pink

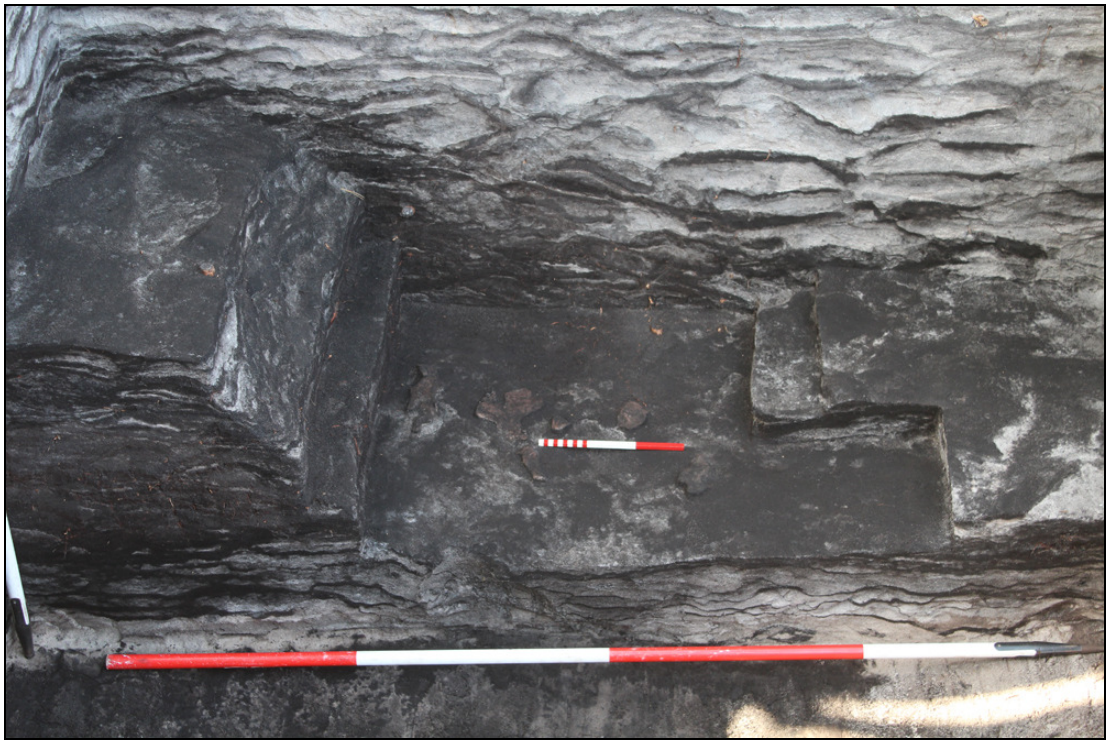

Figure 16 The organic traces in Barrow 11, looking west

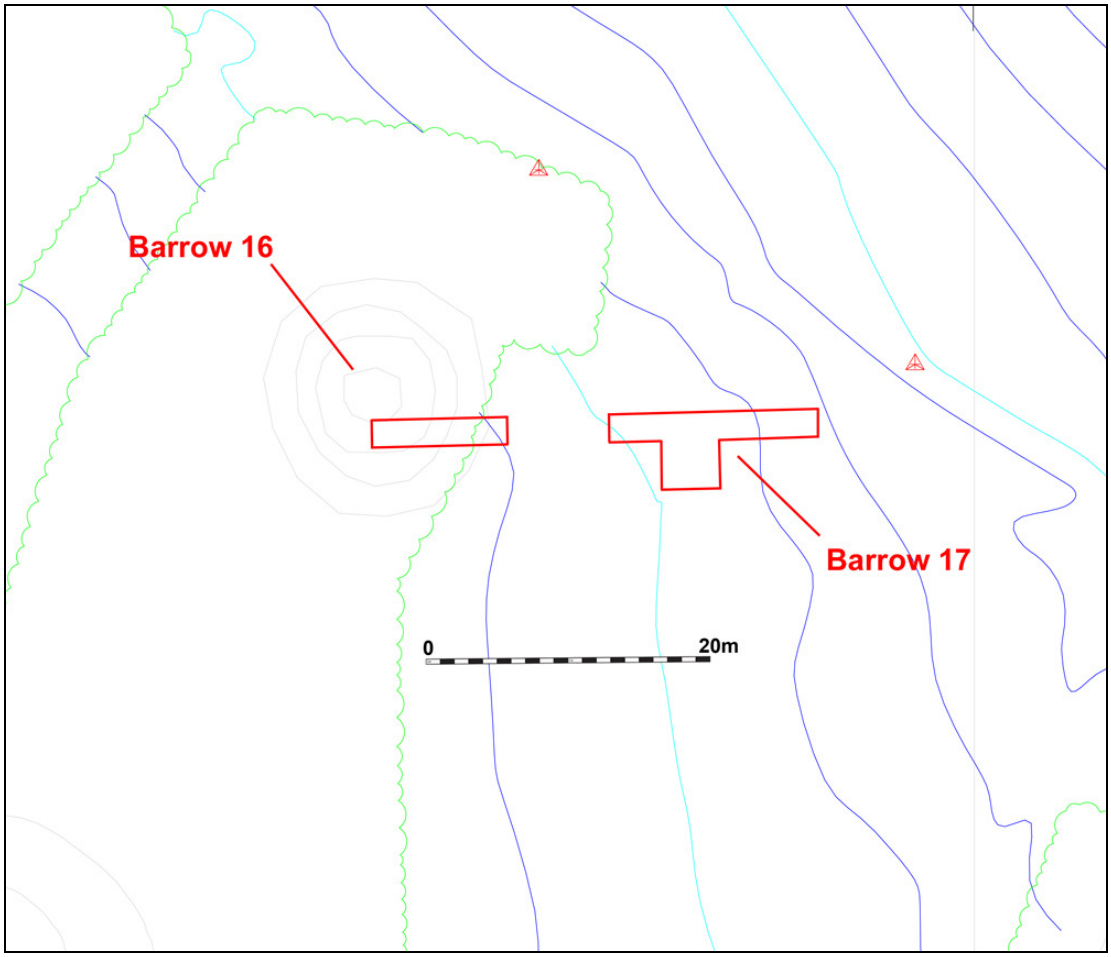

Figure 17 Location of trenches over Barrows 16 & 17, overlain on topographic survey

Barrow 16

1. The excavation trench across Barrow 16 was 10m long and 2m wide, running east-west across its centre, as indicated by the geophysical survey results.

2. The underlying geology consisted of a layer of pale grey/white sand (75), overlying a mottled brown sand (76), which in turn sat upon a yellow/orange clay/sand. This last layer was only reached in the sides of a land drain trench, which ran across its centre. Likewise the depths of these natural layers were only recorded within the land drain trench, where the upper pale sand (75) was up to c.0.35m thick and the brown sand c.0.15m thick; the underlying yellow/orange clay/sand extended beyond its base.

3. Overlying the natural geology was a subsoil (29), (49), (71) & (72), up to c.0.2m thick. This consisted of lenses of dark grey/black humic sands (72), light grey sands (29) & (49) and dark red/brown humic material (71). These lenses were not consistent across the trench, and probably reflect localised variations in the composition of the historic ground surface.

4. This subsoil was cut by a circular ditch [10] & [12], c.6m in diameter between the centres of its base. The ditch itself varied in width around its circuit, from c.1 – 1.2m, probably as a result of later erosion, and had a depth of only c.0.15m. The base of the ditch was flat or slightly concave. On the outside of this ditch the disturbed remnants of a low bank (74) were found, composed of pale grey sand, probably originating from the ditch. This bank was c.1.4 – 1.8m wide and survived up to only c.0.1m high. The bank appears to have extended up to the ditch's outer edge, although later root disturbance may have spread its original dimensions.

5. A single small pit or scoop [54] had been cut into the inner face of the ditch on its eastern side, which extended c.0.25m into the interior. Its full dimensions were not recordable due to later root disturbance and the cutting of the land drain, but it was c.0.15m deep and over 0.45m in diameter.

6. The fills in both the ditch [10] & [12] and pit [54] consisted of similar lenses of dark and light grey sands (11), (13), (14) & (30) as found in the subsoil through which the ditches were cut. The presence of modern pottery within the lower part of the fill suggests that either they were infilled over a considerable period of time, or that the shallow fills were sufficiently soft for material to move down within them. Within the fills frequent fragments of charcoal were found, particularly concentrating in the small pit [54], although nowhere in the concentrations found in Barrow 17 (see below).

7. A small c.0.2m square pit [70] was also found, c.1m to the north of Pit [54], again overlapping the inner ditch edge; it was c.0.05m deep and filled with dark grey sand. While it could be contemporary with the ditches and pits, its square dimensions would also be consistent with a more modern origin. Crossing the centre of the monument was a ceramic land drain, composed of abutted cylindrical pipes, each c.0.3m long. Its form suggests that it dates to the second half of the 19th century.

8. The shallow nature of this monument has left it vulnerable to disturbance caused by root action and animal burrowing. Small trees have been, and are still, growing over it and in its immediate vicinity, and the roots from these were seen to have disturbed the layers within the shallow archaeological features. The same was true of animal burrowing, which was also noted within the trench.

Figure 18 Barrow 16, looking west

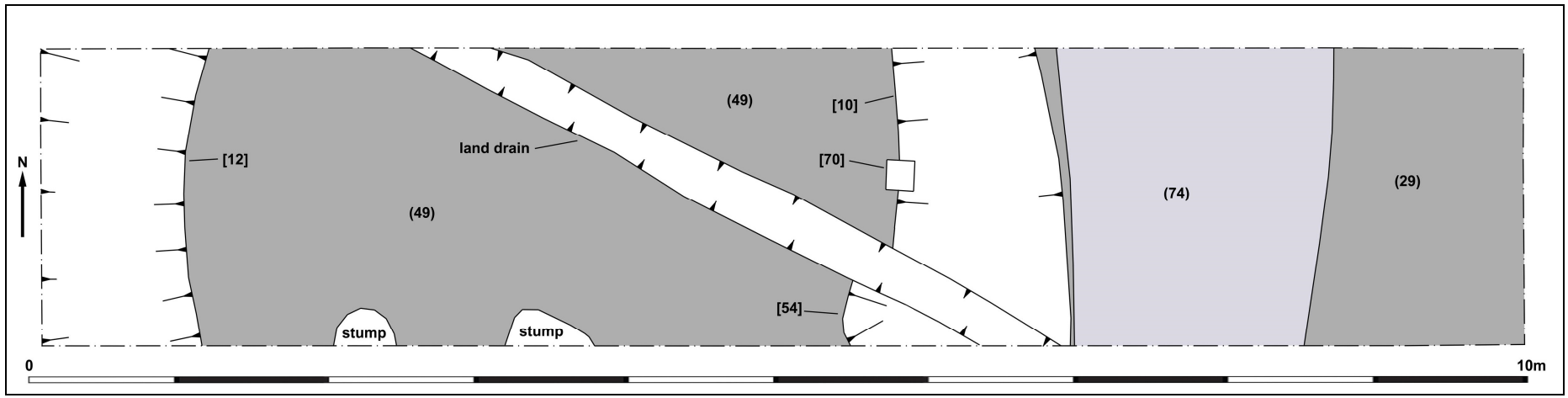

Figure 19 Plan of the trench across Barrow 16

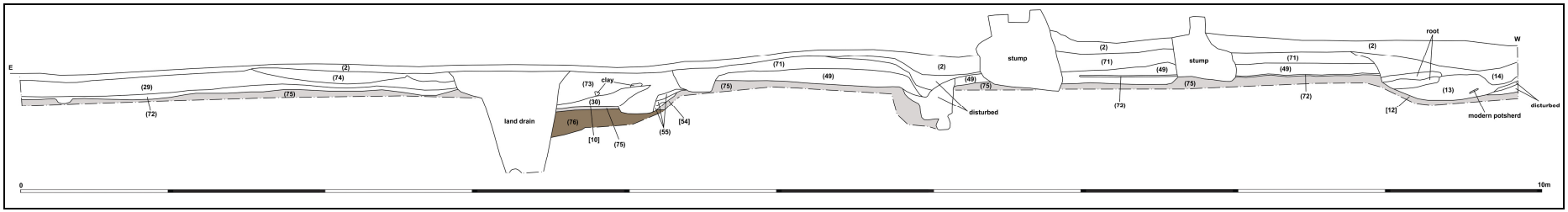

Figure 20 South section of the trench across Barrow 16

Barrow 17

1. The excavation trench through Barrow 17 was initially 15m long and 2m wide, running east-west across its centre, as shown on the geophysical survey results. This was subsequently enlarged to the south, by the addition of a rectangular extension measuring 3.5m north-south and 4.2m east-west, in order to take in the complete southwest quadrant of the barrow.

2. The underlying geology of Barrow 17 consisted of a layer of pale grey/white sand, overlying a mottled brown sand which in turn sat upon a yellow/orange clay/sand - the same sequence as seen beneath Barrow 16. The lowest layer was only reached at the base of the central pit [24] and the land drain trench. The depth of these natural layers was only recorded within central pit [24], where the upper pale sand was c.0.3m thick, the brown sand c.0.15m thick, and the underlying yellow/orange clay/sand extended beyond its base.

3. Overlying the natural geology was an historic topsoil (44), up to c.0.15m thick. This consisted of lenses of dark grey sands, light grey sands and dark red/brown humic material. These lenses were not consistent across the trench, and probably reflect localised variations in the composition of the historic ground surface.

4. This historic topsoil was cut by a circular ditch [6] & [16], c.6m in diameter between the centres of its base. The ditch itself varied in width around its circuit, from c.1.2 – 1.5m, probably as a result of later erosion, but its depth was more regular, at c.035m. The base of the ditch was flat or slightly concave, whilst its sides sloped from c.50º- 80º. On the outside of this ditch was a low bank (20) & (21), composed of pale grey sand, probably originating from the ditch. This bank was c.2m wide and up to c.0.15m high. On its western side the bank extended right up to the ditch's outer edge, but on the east there was a c.0.25m berm. It is possible that originally a small berm extended around the whole perimeter, but that subsequent weathering has lessened its width or completely removed it.

5. Two small pits or scoops had been cut into the inner face of the ditch on opposing sides, one to the south-west [66] and one to the north-east [67]. That to the south-west [66] extended c.0.5m into the interior and was c.0.7m wide and c.0.2m deep, with a slight lip of natural sand between it and the neighbouring ditch. That to the north-east [67] extended c.0.4m into the interior, was over c.0.5m wide and c.0.35m deep, with no separation between it and the neighbouring ditch.

6. The fills in both the ditch [6] & [16] and pits [66] & [67] consisted of similar lenses of dark grey sands, light grey sands and dark/red brown humic material (7), (17), (19), (25), (26), (28), (40), (46), (51), (60), (62), as the historic topsoil through which the ditches were cut. It is probable

that these lenses have built up over of a considerable period of time, with modern glass being found within them. They were not consistent throughout, with variations in their thickness and compostion, presumably again reflecting localised changes in vegetation and erosion. However at the base of these fills an intermittent layer of charcoal (15), (18), (27), (31), (32), (47), (56), (57), (58), (59), (61) & (63) was found. This was found to concentrate within the two pits and the adjacent parts of the ditch, with outlying patches to the south.

7. Two further features were cut through the historic topsoil (44) and could be contemporary with the ditches and pits. These were two small rectangular pits [64] & [65], c.0.25m x c.0.2m and c.0.1m deep, filled with dark grey sand. Their positions relative to the two pits [66] & [67] might suggest a relationship, however they contained no charcoal. The north-eastern of the two [65] was cut by the land drain trench [68], and therefore must pre-date it. While a prehistoric date is possible, their size and shape would be consistent with the posts of a more recent fence.

8. After the infilling of ditches, and the establishment of a new topsoil over the bank, subsequent activity over the monument was confined to animal burrowing, the cutting of a land drain, the excavation of a large pit within the circular ditch and then the levelling of the ground with orange sand. It would appear that at least some, and possibly all, the animal burrowing, pre-dates these other activities, since the land drain cuts through a number of their infilled holes. The land drain itself, composed of abutted cylindrical red ceramic pipes, each c.0.3m long, is likely to date to the second half of the 19th century. The large circular pit [24], c.1.9m in diameter and 0.5m deep, was filled with an upper layer of light grey sand (22), over a primary fill of dark grey sand (23) containing an abundance of charcoal, broken glass and rusted iron. The glass dates to the first quarter of the 20th century. The purpose of this pit is not clear, it may have been excavated in an attempt to investigate the ditched monument, but its position off-centre would perhaps argue against this. Clearly it had been used to dispose of significant quantity of rubbish, possibly the debris from a bonfire, but the fire does not seem to have been within the pit itself. The final phase of activity on the site was its levelling with orange sand, which filled all the remaining pockets of deeper ground, such as the partially infilled pit [24] and monument's ditches [6] & [16]. It is likely that this took place in preparation for this part of the Heath's incorporation into the golf course in the mid-20th century.

9. Pending the results of radiocarbon dating of the charcoal found at the base of the ditches, it can only at present be assumed that this monument, and neighbouring Barrow 16, each comprising a circular bank and ditch, are of prehistoric date. If such were shown to be the case, then it is clearly of a different class to the majority of the barrows within the cemetery. They share close similarities with Barrow 12 in terms of its size and shape and may all be of the same type. Its exact

function is hard to determine. The presence of such abundant charcoal within the primary fills of ditches and pits in Barrows 16 and 17 suggest that the deposition of burnt material was an important part of their role, possibly initially in the pits cut into the inner face of the ditches, and then spilling out into the ditch around. Whether such charcoal is linked to cremation pyres, or from some other source, may be determined by the planned analysis of the 100% samples taken from these deposits. The presence of the small square or rectangular pits in the same relative position to the larger circular pits cut into the sides of the ditches in both Barrows 16 and 17, strongly suggests that these too are of prehistoric date.

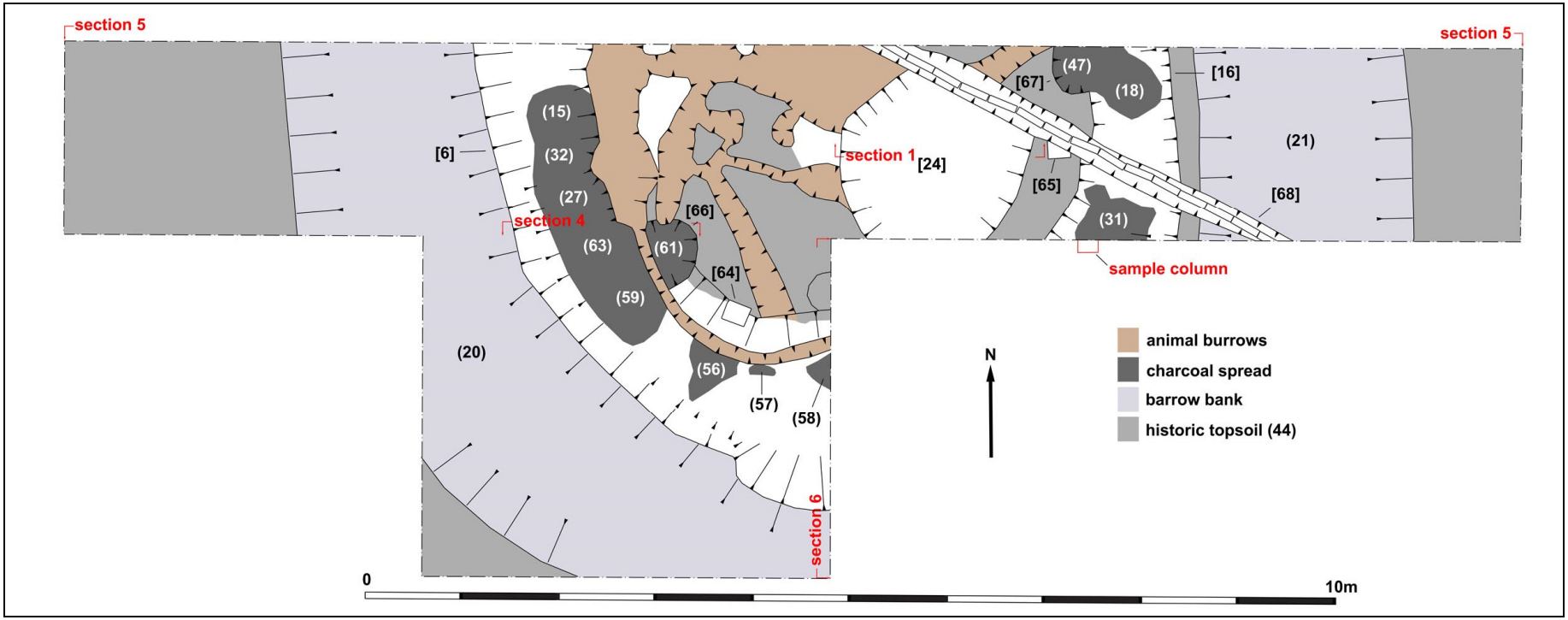

Figure 21 Plan of the excavation trench over Barrow 17

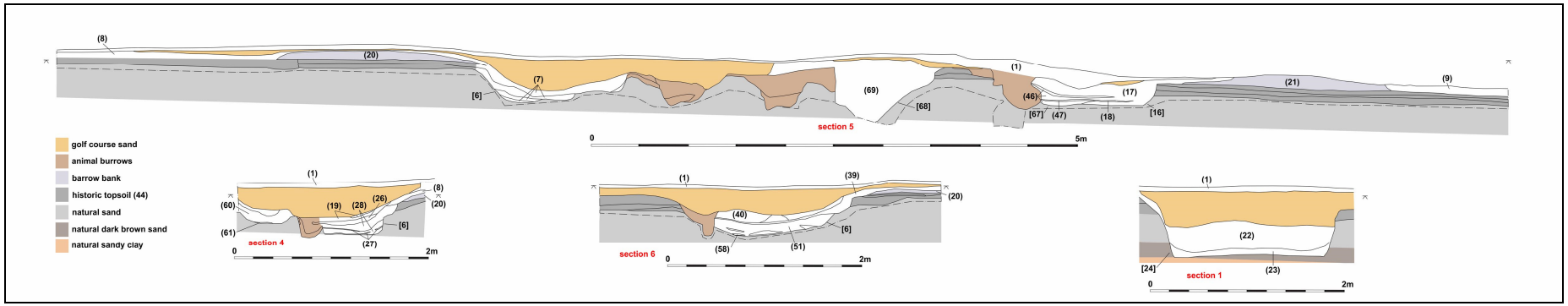

Figure 22 Sections across Barrow 17

Figure 23 Barrow 17, looking south-east

Barrow 19

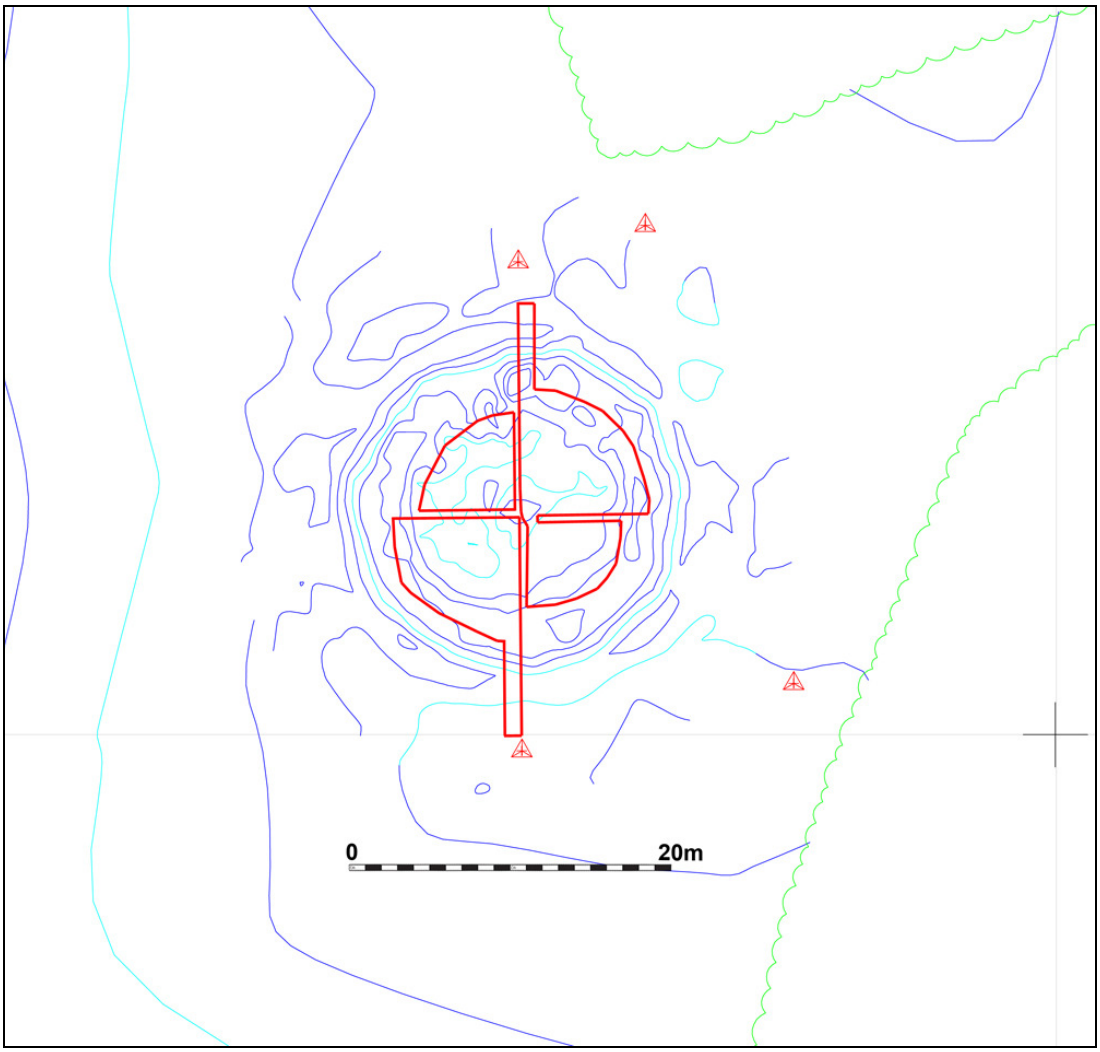

Figure 24 Location of trench over Barrow 19, overlain on topographic survey

1. The excavation trench cut into Barrow 19 was divided into four quadrants, the south-eastern and north-western of which extended to the interior base of the encircling bank, while the south-western and north-eastern continued up the bank to its summit. Two extensions were also cut, to the north and south, which were 1m wide and projected to beyond the outside edge of the external ditch (see Fig.4).
2. The base geology consisted of alternating strata of brown sands and yellow clays, the highest of which was a mottled brown sand. This was in turn overlain, where surviving, by a pale grey/white sand. Capping the geology, again where it survived, was a dark grey/black sand (9) & (12), representing an historic humic land surface. Within this land surface, and in the upper part of the geological sand below, a significant scatter of Mesolithic flints were recovered. This adds to the evidence for Mesolithic activity extending further south-east along the ridge which ends with the denser scatters adjacent to, and under, Barrow 13.

3. Five archaeological features were revealed within the trench: the encircling ditch; its accompanying bank; an earlier ditch or pit on the north side; a large central pit; and a small pit in the north-east quadrant containing a burial urn.

4. The encircling ditch [41] & [42] proved to be c.1.5m deep below the surface of the geology. Its width varied, probably a result of the collapsing of the sides, rather than any original significant design variation. The bases of both segments exposed were flat, or slightly concave, and were 0.4 - 0.55m wide. The sides, where they remained largely intact, sloped steeply, at an angle of 75º-85º. On the south side of the south ditch this steep slope continued upwards to close to the top of the ditch, indicating that in its original form, the ditch may have been steeply sided in its full profile. If this were to be the case, then it is estimated that it might have been less than 1m wide at most, thus having very little splay. The overall diameter of the monument between the centres of the two ditch segments was 21.25m.

5. On the inside of the encircling ditch was a low bank, composed of mottled yellow clay (43) & (46). The remains of this bank were very slight, surviving to a height of only 0.1-0.12m in both sections cut through it. Below the bank the historic topsoil (44) & (47) was preserved in a thin layer, c.0.03m thick. In the north section, the width of the bank was impossible to determine due to later animal disturbance, but in the south section, where it was better preserved, it would appear to have been c.2.4m wide.

6. The lowest fills in the south ditch were composed of sands (61) & (60) and clays (59) presumably washed from its sides at an early phase of its existence. Above these was a much thicker fill (58) of a more mixed composition, comprising sands and clays. This deposit may represent a slower accumulation of material eroding from the sides of the ditch, filling it to approximately two thirds of its total depth. Cut into the surface of this layer was a square-cut feature [62] noted in both sides of the narrow excavation trench. It was filled with two contrasting sands, to the south a very dark brown (57) and to the north a very pale grey (56). In the east section the feature was c.0.4m wide, with the darker part being the smaller, whereas in the west section both halves were of equal dimensions. Its length must be in excess of c.0.5m, since it extended across the excavated trench. While it is not clear what this feature could be from the limited extend exposed, it is obviously not contemporary with the formation of the barrow, but instead was dug into the partially in-filled ditch at a later time. It is possible that the darker part (57) may represent decayed organic matter, such as timber, placed against the outer face of this slot, although the adjacent pale sand (56) would seem a poor choice as a packing material.

7. Overlying fill (58) and feature [62] were a further series of slump fills. On the south side was a thick layer of mottled brown sand (53), while

on the north side, much thinner alternating layers of dark brown (50) & 52) and pale grey sands (51). Cut into the surface of these layers was an irregularly shaped feature [54] containing a fill (55) of alternating lenses of clays and sands. Its character suggests that it is probably an animal burrow. Sealing this, and overlying fills (50-3), was a layer of mottled clay, spilling-in from the north side. This material is similar to that composing the bank to the north (43) and it is probable that it represents its slumping or deliberate slighting. Its distance from the surviving remains of the bank suggests that either the entire outer edge of this bank had collapsed into the ditch, or it has been deliberately carried across the intervening space.

8. The final layers within the ditch were found to be continuous with those to the north and south of its edges. First came a layer of dark sand (26), indistinguishable from that underlying and indeed overlying the bank (44) & (45), which probably represents a phase of topsoil development. Above this was a pale grey sand (24), which again overlay the adjacent bank and may have formed as wind-blown sand spread across the heathland. This was in turn capped with another layer of dark humic sand (25), which continues to the north and south of the ditch.

9. The lowest layers in the north ditch were again composed of layers of sands (36), (37) & (39) and clays (35) & (38) presumably eroded off the ditch sides. Above these, as seen in the south ditch, were fills of a more mottled nature, composed of mixed clays and sands (33) & (32). Overlying these was a thick layer of dark grey brown sand (31), which evidently had eroded from higher up the ditch's sides. Towards the base of this fill a single large sherd of unabraded Bronze Age pottery was recovered. Above this, and at a similar level to that in the south ditch, was a layer of mottled clay (63), spilling into the ditch on its inner side. Again, it would seem likely that this is bank material (46), but in here in considerably less quantity than on the south side. Overlying this layer was of grey brown sand (30), similar to (31), but lighter in hue. A dished layer (29) overlying this to the north is likely to be root or animal disturbance, while to the south the layers mirror those over the south ditch, with a dark sand (64) indistinguishable from those above and below the adjacent bank (47) & (48), a pale grey sand (65) over that and finally a dark humic sand (66).

10. To the north of this ditch there would appear to be an earlier feature [72], which it partially cuts. It was c.0.9m deep, with a base over 1.2m wide, and its surviving side sloping at a 60º angle. Its lowest fill was composed of mottled sand and clay (70), overlain by a hard very dark brown sand (71). Above this was a slumping fill of pale grey sand (73), overlain by a second layer of dark brown sand (73). It is possible that this feature is a ditch or pit which pre-dates the construction of the adjacent bank and ditch.

11. At the centre of the area enclosed by the bank and ditch, a large central pit [13] was revealed. Its shape was irregular, suggesting in fact that it might be two intercutting pits, both a roughly oval in plan. In this case then each would measure approximately 2.5m by 1.5m, with one exactly central and the other lying just to the north-east. It was not possible to determine with any confidence, from the limited area excavated, whether one of these pits cut into the other, but there was a suggestion in the drawn section that the north-eastern one may be the earlier. The lowest visible fill consisted of a dark brown mottled sand (81), within which, just to the east of the section line, the rim of a prehistoric pot was exposed, but left *in situ*. The narrow diameter of this pot suggests that, if it were of a Bronze Age date, it could either be an inverted urn or an upright pot of smaller dimensions.. Above this fill was a layer of mottled yellow clay (79) & (80), which seemed to be cut by a fill of mottled dark brown mottled sand. At the northern end of the pit a final layer of lighter mottled brown sand overlay (80). While it would be premature to over-analyse the results of the partial excavation of this feature, it is tentatively suggested that there were two pits, the north-eastern of which might pre-date the more central. The upper fill of the latter seems to have been dug into subsequent to its initial infilling.

12. To the north-east of the central pit, and just within the inner limit of the encircling bank, a small pit [18] was revealed containing an inverted Bronze Age Collared Urn. The pit was oval in shape, being c.0.7m north-west to south-east and c.0.45m across. The urn filled the south-eastern part of the pit, leaving only a small space between its sides and the edges of the pit, the fill being of dark black/brown sand (20) & (22). To the north-west a wider gap had been left, or made, and in this a number of ephemeral objects of slightly hardened sand or silt were found (SF228; SFs236-49), seemingly resting on a scattering of unworked flints. The nature of these objects is unclear; it is possible that some were originally organic, since having been mineral-replaced. A further four such objects were found to the south-east of the urn (SFs251-2, SF254 & SF258) but these are likely either to be of natural origin or in the case of SF254, ceramic. These items are currently undergoing further analysis. In addition, and packed close around the urn on its southern side, were a number of fragments of a second Collared Urn (SFs229-35, SF250, SF253 & SFs255-7). All the objects within the pit, except flint SF227, lie within a band extending from 5cm below the main urn's top down to about 15cm below; the lowest 11cm of the urn had no adjoining artefacts against it. A CT scan of the urn carried out at Salisbury hospital revealed that it contains cremated bone. It is currently being excavated in the conservation laboratory of Hampshire Cultural Trust.

13. All these prehistoric features were covered by a layer of red-brown peat (2), (8) & (28), containing modern artefacts. The peat was overlain by the current sandy topsoil (1) & (7), the combined depth of which varied from c.0.15-0.45m. Dug through the peat layer, but overlain by the topsoil, were two ceramic land drains, probably dating to the 19th

century, running east-north-east to west-south-west across the barrow, 15m apart.

14. Throughout the barrow, but particularly in its northern half, numerous recent and historic animal burrows were found. These often extended well into the geological layers, and had been particularly damaging to the remains of the northern bank. It was noted that these burrows, and the northern of the land drains, narrowly avoided the smaller burial pit [18]. It is indeed possible that some small-size archaeological features have been entirely lost as a result of this damage, although no artefacts, aside from worked flints, were found in the surface of any of the burrows.

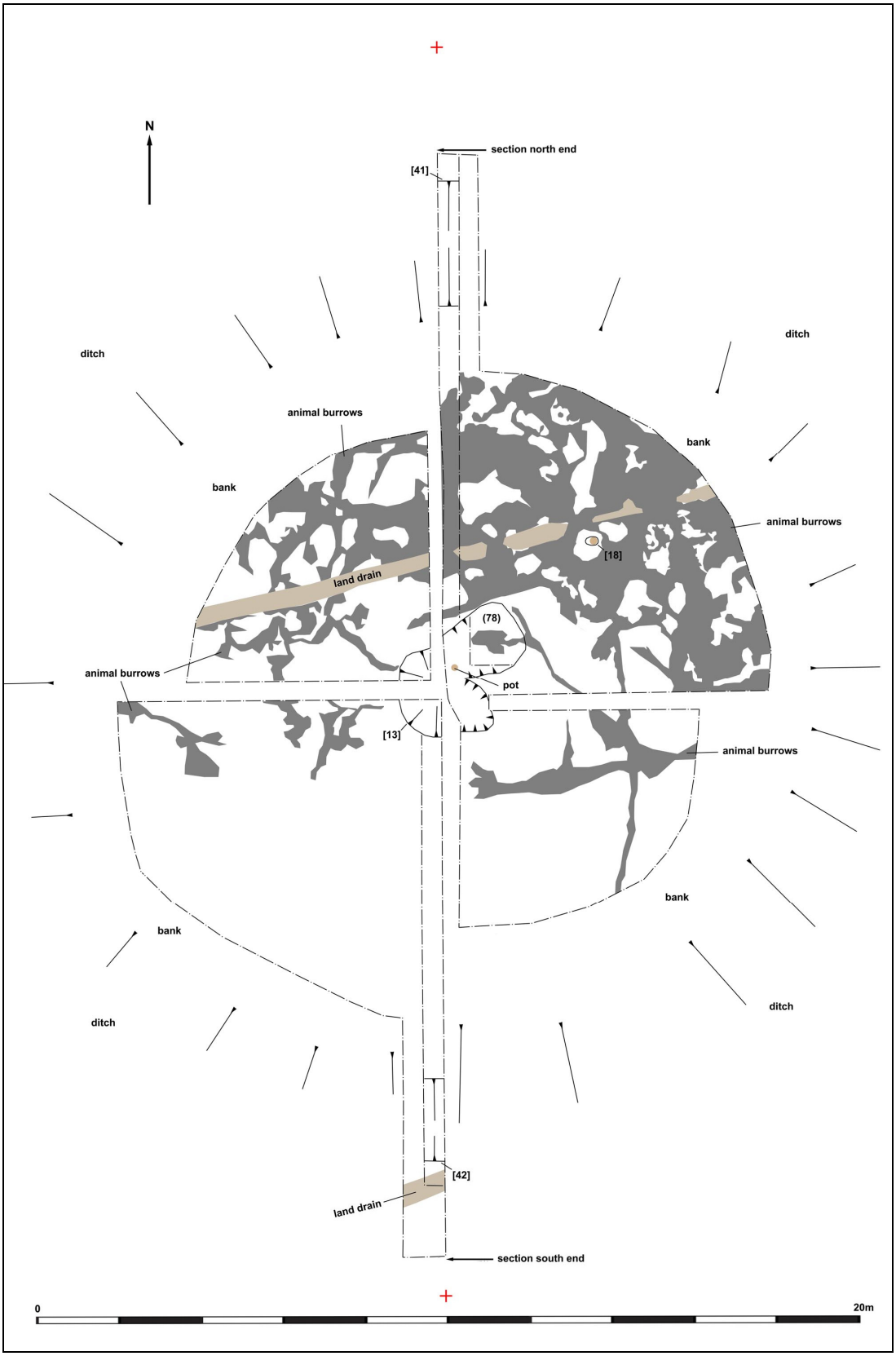

Figure 25 Plan of the excavation trench over Barrow 19

Figure 26 Barrow 19, looking west. The Collared Urn pit can be seen in the nearest quadrant

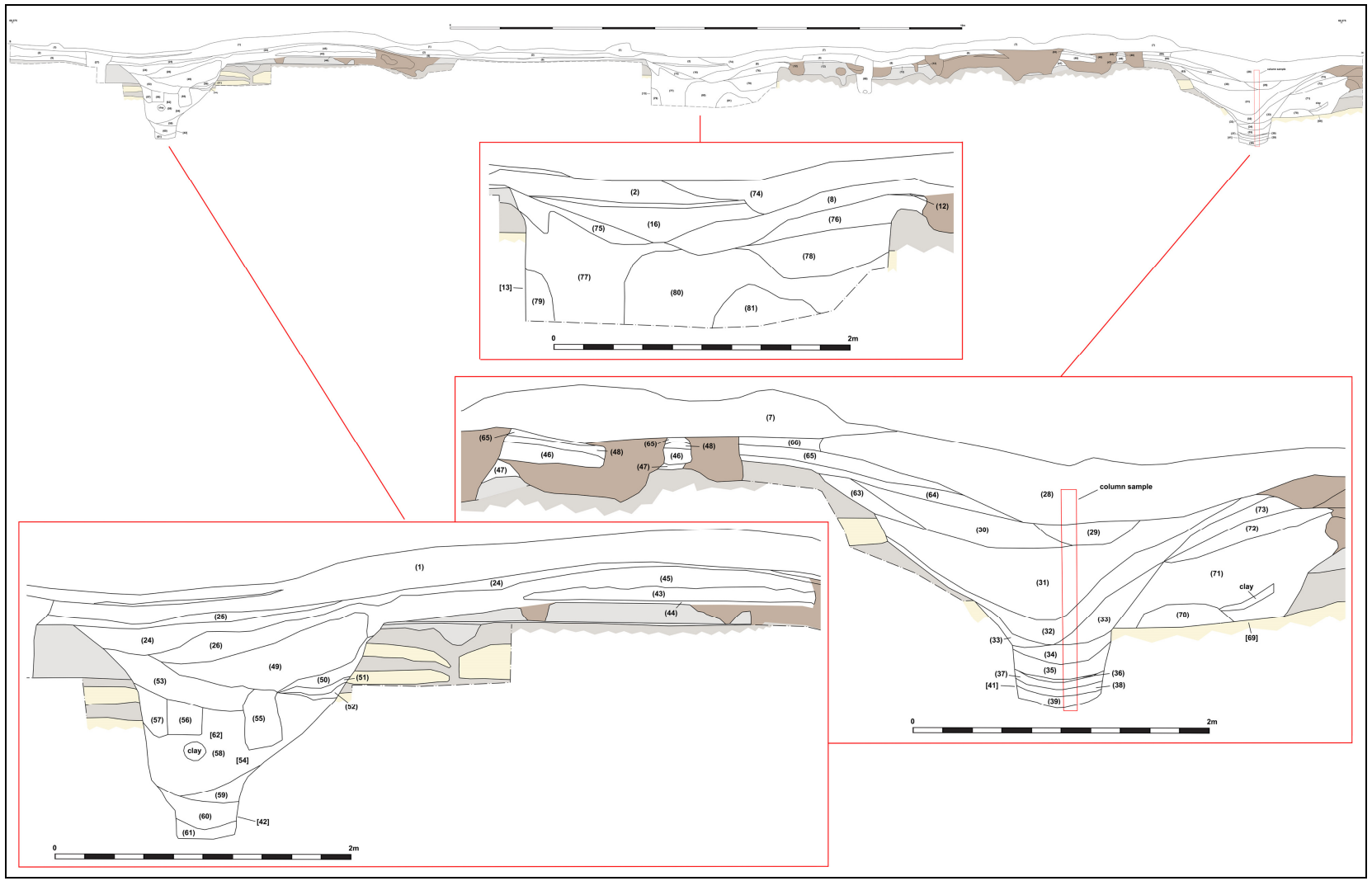

Figure 27 Section across Barrow 19

Figure 28 Section across south ditch, Barrow 19

Figure 29 Section across north ditch, Barrow 19

Figure 30 The central pit, Barrow 19. The pot rim is just behind the scale

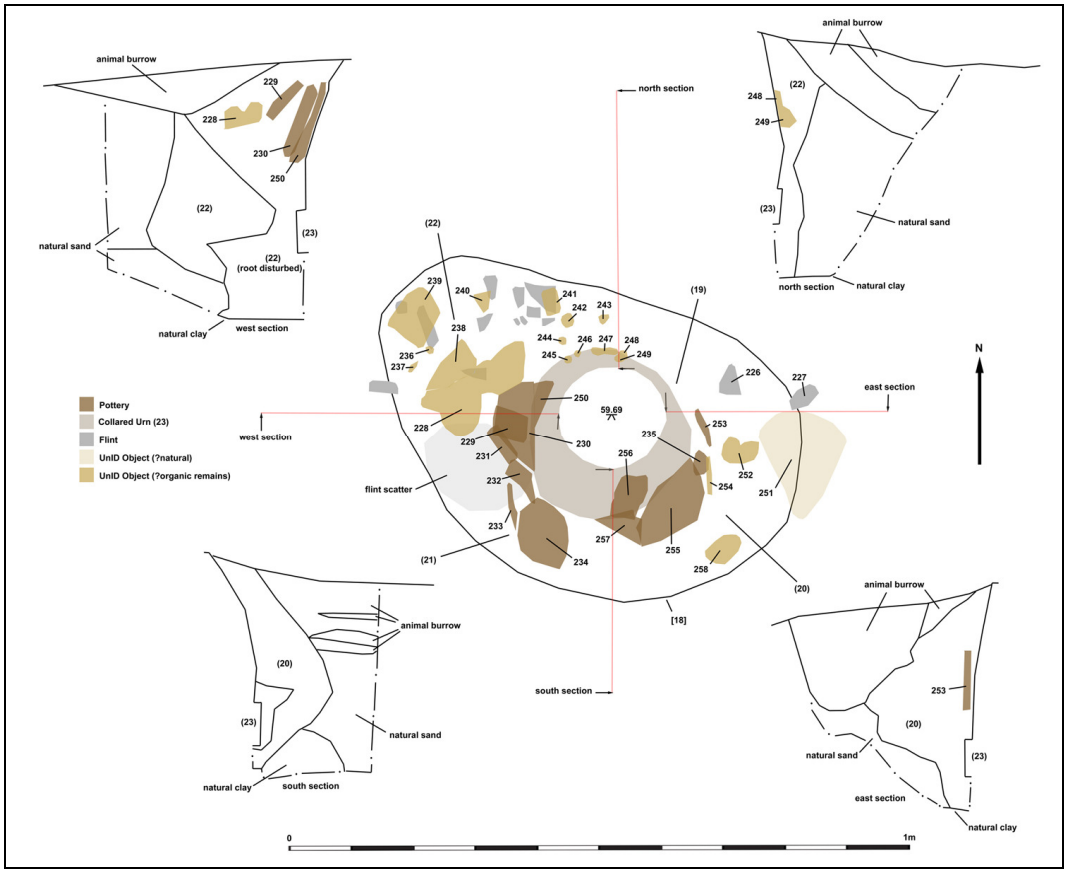

Figure 31 Plan and sections, Barrow 19 Collared Urn pit

Figure 32 The Collared Urn pit in Barrow 19, looking north-east

CONCLUSION

1. Returning to the initial objectives of these excavations, the first had been to clarify how much of the current profile of the monuments is a result of more recent modification or damage and to establish their earlier form, including whether they are encircled or flanked by a ditch or ditches. Particular questions were to determine the exact form of Barrows 8 and 19, whether Barrows 9 & 10 have been significantly truncated, and to confirm or revise the earlier identification of Barrows 16 & 17 as saucer barrows. The results have shown that Barrow 8 is not an oval barrow, or two conjoined bowl barrows, but a single, small bowl barrow sited upon a natural sand ridge. Barrow 19 would appear to be neither a disc nor a saucer barrow, but instead of simple enclosure form. The identification of the level of truncation to Barrows 9 & 10 has been more problematic, with more extensive excavation required to demonstrate this. It is possible, however, that Barrow 10 has lost some of its western side to a subsequent trackway; it may also have been truncated on its unexamined eastern side. Barrow 16 & 17 are not saucer barrows in the strict definition. Their purpose and date remains unclear, although we hope that the latter will be provided by radiocarbon dates taken from the charcoal found within the lower fills of their ditches and associated pits.

2. The second objective of these excavations was to investigate further the effects of root action, animal activity and neglect on the monuments. Once again the impact of root and animal action has been clearly demonstrated, the former having a particular impact on the shallower monuments, such as Barrow 16, and the latter having been found to have been devastating to Barrow 10, in which a badger sett has caused widespread destruction. The disappearance of Barrow 16 & 17 as discernible features within the landscape means that their future protection was uncertain, but it is hoped that, now that their positions have been firmly established once more, their future management can be much improved. The same is true of Barrow 19, with respect to having identified its outer ditch.

3. The third and fourth objectives were to establish the constructional character and date of the barrows and to enable the collection of a comprehensive series of palaeo-environmental samples from each of the barrow deposits. Of the six monuments investigated two have been shown to be simple barrows (8 & 10) constructed of stacked turves and varying in height from 0.6m to 1m. The third mound barrow (9) was only investigated on its periphery, which was made of silt; this might conceivably have been added to a turf core. One of the remaining three (19) has been classified as an enclosure barrow, with the other two (16 & 17) being of uncertain identification, but again of enclosure form. Radiocarbon dates should be forthcoming from the wood and urn contents from Barrow 8, from the charcoal in the pits and ditches of Barrow 16 & 17, and from the urn contents in Barrow 19. Palaeoenvironmental samples have been collected from five of the

barrows, and await full analysis. The deposits in Barrow 16 were considered to be too at risk of contamination to be worth sampling, and those from Barrow 9 too peripheral.

4. The re-opening of the centre of Barrow 11 greatly helps interpretation of the nature of the supposed burial deposit with grave goods. It established that the deposit was largely excavated in 2014, but may have extended to the west a short distance as indicated by patches of possible decayed organics. Again no human remains were encountered and, if originally present, they must have been unburnt and destroyed by the acidic soil.

5. The burials found within Barrows 8 & 19 are of a very different form to those previously excavated in Barrows 11 & 13. The latter were accompanied by distinctive groups of artefacts, most notably in the form of flint arrowhead pre-forms and utility stones, whereas the former were contained in Collared Urns accompanied only by organic remains or, in the case of Barrow 19, parts of a further urn. Overall the variety in the forms of burial deposits found so far within the barrows on Petersfield Heath is matched only by the equal disparity in monument types. It is hoped that the results from the ongoing analysis of the artefacts, together with the radiocarbon dates, and the final season of excavations, will go some way towards providing an explanation for this diversity.

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