BA (Hons) in Archaeological Studies

A Detailed Investigation of a Forgotten Mound on Brean Down

Cover image: Brean Down from the air (source: WANHS 2015)

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Abstract

On the easternmost tip of Brean Down, Somerset, there lies a roughly circular mound of unidentified provenance. Set far apart from the prehistoric barrows and cairns that dot Brean Down's peaks, this mound has received little attention and only the most cursory archaeological investigation until now. Given that this mound lies outside of the scheduled area it was prudent to conduct a detailed investigate to ensure that appropriate protection was afforded to it. This study seeks to determine the origin and purpose of the mound, and in doing so assess its significance as a heritage asset. By combining a desk based assessment with non-intrusive and intrusive fieldwork, this study sought to reassess previous interpretations of the mound. Having considered alternative interpretations, this dissertation will argue that the evidence suggests that the mound in question is an artificial rabbit warren, dating from the post-medieval period.

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Introduction

Where the Carboniferous Limestone of the Mendip Hills meets the coast of the Bristol Channel an imposing promontory bisects the sandy shore of the Berrow Flats from that of Weston Bay (see Figures 1 and 2). At 97m in height and over 2km in length, this undulating headland constitutes the final landlocked descent of the Mendip Hills into the turbid waters of the Bristol Channel. This promontory is Brean Down, and its grassy northern slopes and sheer southern cliffs have been a focal point for human activity for thousands of years.

Most of Brean Down is a scheduled monument (List entry number 1008211) on account of the rich archaeological features that adorn its crests and slopes. Most notable among these are several Bronze Age round barrows, a Roman Temple, prehistoric field systems, an Iron Age hilltop enclosure, a Victorian fort and numerous features pertaining to the Second World War. In addition to the numerous archaeological features on top of the headland, excavation of the sand cliff, on the southern side of the Down, has revealed evidence for human activity stretching back to the Palaeolithic, as well as the remains of a modest Bronze Age settlement and an Sub-Roman cemetery. Despite numerous archaeological investigations into the heritage assets of Brean Down, a mound on the Down's easternmost point has received only the most cursory consideration until now. Given that the mound in question lies outside of the scheduled area, it is important that its significance is assessed, so as to ensure that it receives appropriate protection. Therefore, via both

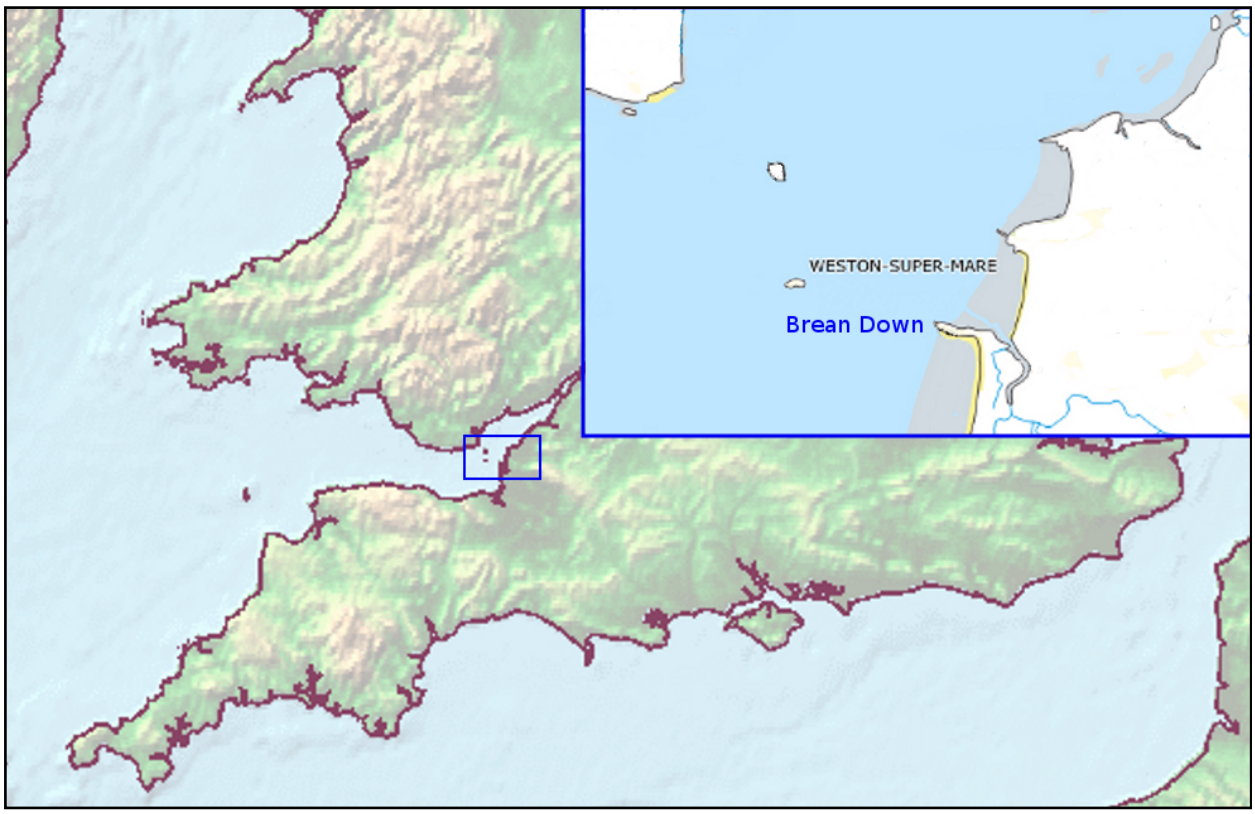


Figure 1: *Map showing the location of Brean Down (after: Edina 2015).*

non-intrusive and intrusive methods of investigation, this study will attempt to uncover the true nature of this mysterious mound. In the following sections, the means of investigation that were employed in exploring the mound will be explained in detail. Having explained the methods of investigation, the findings of this study will be described and discussed. Finally, this study will interpret the results and consider their implications for the mound's origin, its significance within the wider landscape, and its importance as a heritage asset.

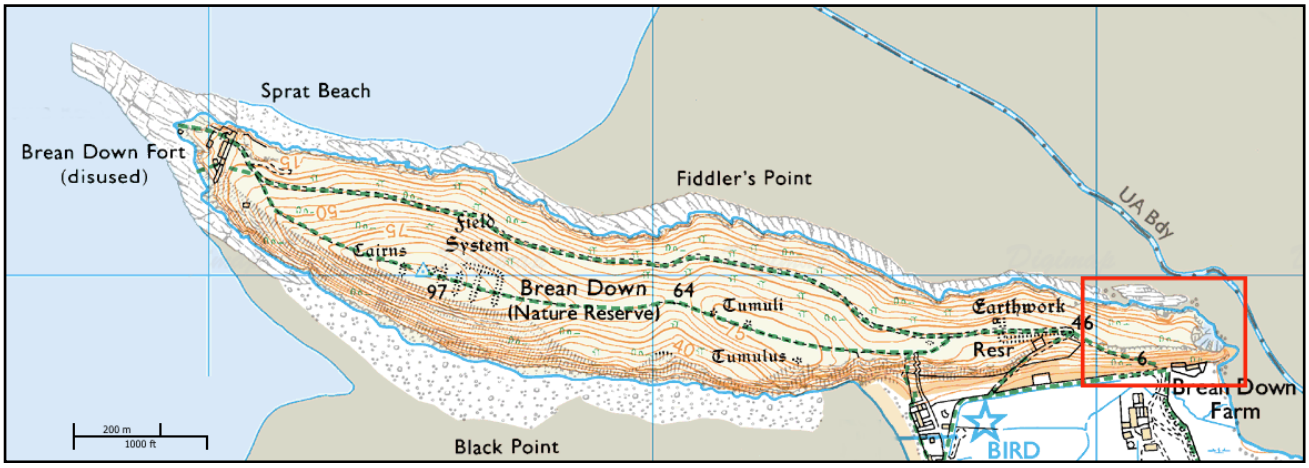


Figure 2: *Map of Brean Down. The eastern end of the Down is highlighted in red and expanded in Figure 3 (after: Edina 2015).*

Aims and methods

The aim of this research was to identify the true nature of a mysterious mound located just outside the scheduled area (see Figure 3), on the northern slope of the landlocked eastern side of Brean Down at ST 3018 5887. Designated as feature 118,922 by the National Trust and Monument Number 1065945 by English Heritage (Pastscape 2015a), this mound, measuring 10.5m in diameter and approximately 0.72m in height, has not previously been studied in any detail. This study sought to determine the archaeological potential of the mound by evaluating its significance as a heritage asset and interpreting the feature in relation to its wider landscape setting. To achieve this aim it was necessary to identify that the feature was the result of human activity and to determine the period of its construction, as well as the typology of the feature. This was achieved by employing the following methods:

- **Desk based assessment:** To determine if any known historical activity had taken place at the site that could account for the mound's existence.
- **Geophysical survey:** To identify the mound's structural composition.

- **Test pit excavation:** To validate anomalies within the geophysical survey and test assumptions about the mound's origin and typology.

Each of these methods will be discussed in detail below.

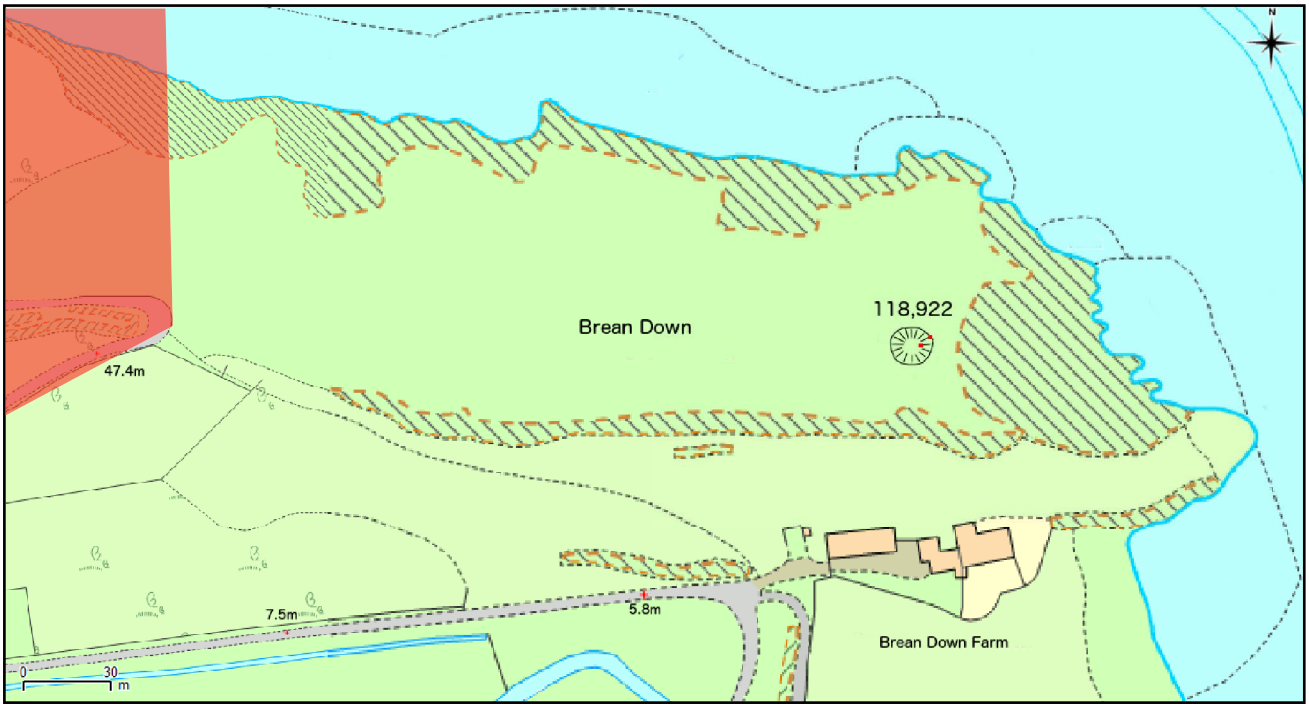


Figure 3: *Map showing the location of mound 118,922. The two red dots on the mound indicate the locations of the two test pits. The extent of the scheduled area is shaded in red (after: Edina 2015).*

Desk based assessment

A desk based assessment of the site was conducted via map regression and a review of literature pertaining to the site. The following maps of Somerset, were consulted: Day & Masters 1782, Greenwood 1822 (Harley & Dunning 1981), and Ordnance Survey maps (Ordnance Survey 1887; 1903; 1931; 1971). None of the maps showed any historical structure in the immediate vicinity of the mound, and other than the 18th century quarrying of the limestone cliff, immediately east of the mound, there was no indication that the site's immediate surroundings had been altered in any discernible way since 1782. Therefore, no evidence was found for any modern structure being the cause of the mound. In addition to map regression, multiple sources were consulted to understand the history, extent and findings of any prior archaeological investigation in the site's vicinity; the results of which are discussed in the following section.

A summary of previous research - literature review

A small number of researchers have investigated the various archaeological features of Brean Down since the early 19th century. The earliest recorded account of intrusive archaeological investigation is by Rev. John Skinner, an antiquarian of local renown whose excavation methods would later draw much criticism (Mullin 2011, 122). On the 4th of November, 1819, Skinner and his brother enlisted the help of three men to excavate four barrows on Brean Down. That the excavation of four sizeable round barrows took Skinner an afternoon to complete speaks volumes about his excavation methods, suggesting the lack of rigour and diligence so commonly associated with antiquarian investigations. Having completed the task, Skinner concluded that each barrow had been previously excavated; although it is not entirely clear as to the factors that led to his conclusion other than a lack of skeletal remains (Skinner 1819, 111). Skinner interpreted one barrow as having been constructed by Romans, on account of finding traces of Roman pottery, and the remainder he interpreted as having been constructed by Danes. His interpretation was very much a product of its time, wherein evidence of the human past was interpreted within a historical framework due to a lack of comprehension regarding prehistoric periods. Following Skinner's excavations there is no record of further intrusive work at Brean Down until the 20th century, and these excavations would shift focus away from the windswept heights of the Down and to the sand cliff formed against its southern side. Accidental finds of human bone had established the existence of archaeological deposits within the sand cliff by the start of the 20th century (Knight 1902, 299), but it was not until the nineteen-twenties that the first investigations to employ modern archaeological excavation methods were conducted.

The earliest excavations of the sand cliff were conducted by members of the University of Bristol Spelaeological Society, beginning with Cooper's excavation of human remains from a Sub-Roman cemetery (Cooper 1921). In 1936, Dr. And Mrs. Taylor excavated a Beaker burial, which they discovered within a near vertical section of the sand cliff (Taylor & Taylor 1949). Dr. Taylor would go on to investigate the sand cliff deposits in conjunction with Donovan and ApSimon, resulting in a detailed account of the stratigraphy, finds from the Palaeolithic through to the 17th century, geology, soil composition and environmental evidence (ApSimon *et al.* 1961; ApSimon 2000). The most recent excavation of the sand cliff deposits was conducted by Bell in response to increased erosion, and resulted in the discovery of two Bronze Age circular structures replete with evidence for salt extraction, leather working and domestic living (Bell 1990).

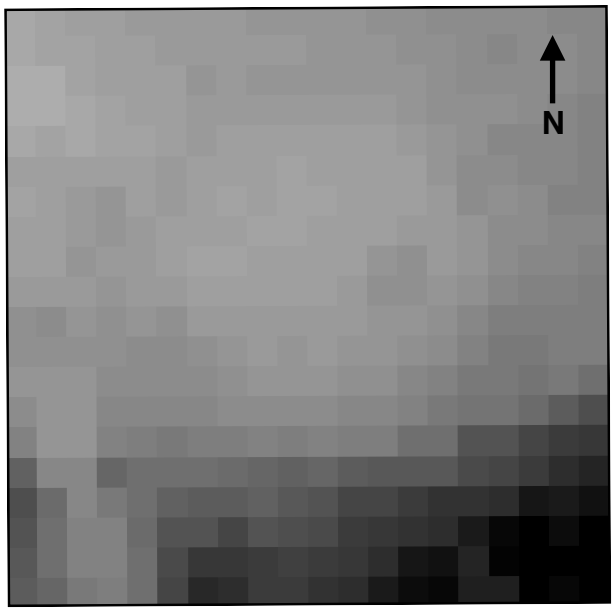
In addition to the research centred on the sand cliff, excavations have been conducted at both the hilltop enclosure (PRN 10115) and the Romano-British temple (PRN 10117). In 1974, Ian Burrow (1976) excavated a section of the nominal 'hillfort' rampart that lies approximately 250m from mound 118,922. Burrow's aim was to provide conclusive evidence for the chronology of the

earthworks and conclude the long running debate over whether or not the hilltop enclosure was an Iron Age enclosure or, as had previously been argued (Phelps 1836, 109, 136), a Roman or Post-Roman structure. Burrow concluded that the enclosure was constructed in the Iron Age on account of pottery finds and radiocarbon dates; however, there was evidence of reuse during the Roman period (Burrow 1976, 148). Turning his attention away from the sand cliff, ApSimon excavated the remains of a Romano-British temple located on top of the eastern most of the Down's two peaks, concluding that it was constructed around 340 AD (ApSimon 1965).

With regard to mound 118,922, very little previous research has been conducted. Hazel Riley (1995) surveyed the mound on behalf of the Royal Commission on the Historical Monuments of England (RCHME) in 1995, concluding that it was either a pillow mound or spoil from the adjacent post-medieval quarry. Nick Hanks, a Conservation Officer for English Heritage, became aware of the mound as a consequence of his conservation work at Brean Down (Hanks 2000; 2012). Hanks monitored the erosion of the sand cliff and the condition of numerous archaeological features across the length and breadth of Brean Down over the course of 15 years. Referencing the work of local author and amateur historian Robert Legg (Legg 1993, 45-9), in conjunction with reports made by Rev. Skinner in relation to a circular Roman structure on the nearby island of Steep Holm, Hanks suggested that the mound may be the remains of a Roman signal station; positioned so as to aid the ingress or egress of vessels from the mouth of the River Axe. It was with a view to validate Hanks' theory that this study was originally undertaken. However, the results of the geophysical survey suggested a different interpretation.

The geophysical survey

The primary aim of the geophysical survey was to determine the structural make-up and morphology of the mound. Given the varied interpretations of the feature, it was determined that a resistivity survey would be best suited to determine or eliminate some of the options. For example, if the mound was the remains of a Roman signal station or pharos, one would expect to see higher resistance around the mound's circumference where one would expect external walls to have been. Alternatively, quarry spoil would return a fairly uniform response of high resistivity due to being entirely constituted of stone. A Bronze Age hut platform, or earthen round barrow would most likely return a pattern of low resistivity due to its earthen make-up retaining higher moisture than the surrounding natural context, which tends to consist of a thin layer of colluvial soil over limestone bedrock. In conducting the survey, a GeoScan RM15-D Resistance Meter was used in conjunction with a PA20 Multi-Probe Array, configured to use twin probes. The twin probe configuration was chosen because it allowed for rapid coverage of the survey area and does not rely on consistent insertion depths to provide accurate results; something that was important given



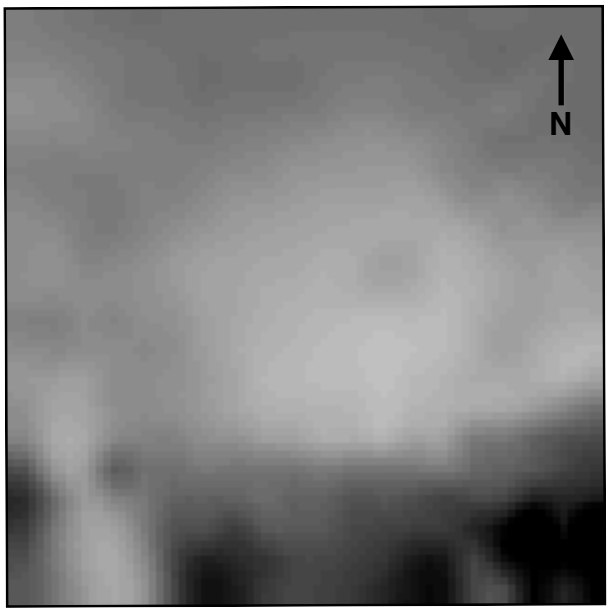


Plate 1 (left) *Raw image results of the resistivity scan. (source: author via Geoplot software 2014).*

Plate 2 (right): *Scan results after image processing and enhancement (source: author via Geoplot software 2014).*

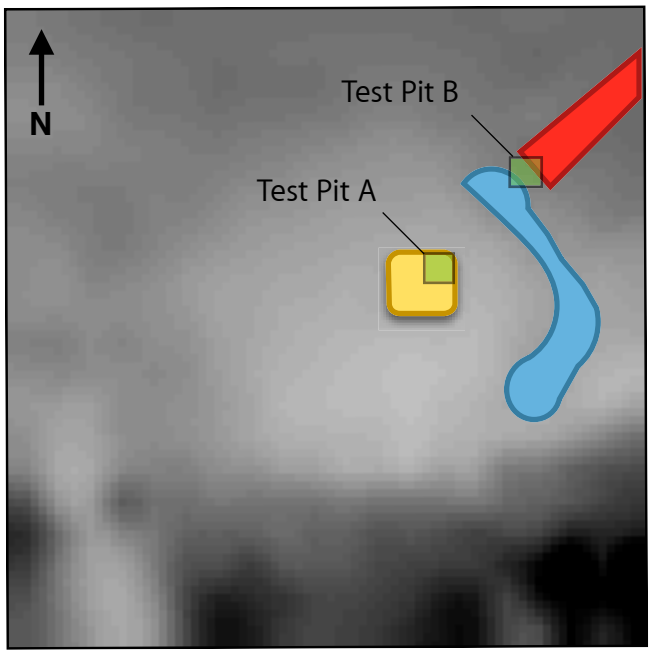


Plate 3: *Enhanced image of the resistivity scan results. Key features targeted for intrusive investigation, and the location of the two test pits are shown. The Yellow, blue and red shadings represent the location of anomalies indicated by higher resistivity. The test pit locations are shown in green (source: author 2014).*

the highly variable soil depth on Brean Down.

The resistivity survey was conducted on Sunday, February 16th, 2014. The weather was sunny and dry although the ground retained a high degree of moisture after consistent rain for a number of days following the wettest winter in the southwest of Britain since records began. The survey was conducted by measuring a 20m square grid using tape measures. The grid was aligned to the cardinal points, such that the traverses ran along a north-south axis. The mobile probe array was walked across the grid in a zig-zag pattern starting from the south-westernmost grid square, and walking from south to north then north to south on alternating traverses of the grid. Readings were taken every metre within the grid, resulting in 400 individual readings. The results are shown in Plates 1 and 2, both in their raw format and after processing via the GeoScan Geoplot v.3.0 software. The processing algorithms applied in creating the final image were: Despike, low pass filter, high pass filter and Interpolate.

It was noted during the course of the survey that the bedrock was very close to the surface in the area that formed the southern side of the grid, with a greater depth of soil apparent on the northern side of the survey area. Whilst scanning the mound itself, the probes frequently made contact with stone suggesting that a sizeable quantity of stone resided within the mound's matrix; albeit not in so dense a configuration as to show up markedly in the scan image. The resulting scan image shows the mound in light relief against a darker natural context. The bedrock can bee seen as dark grey and black areas in the lower portion of the images, correlating to the southern end of the grid. The mound appears to be roughly circular. While no obvious walls were apparent in the image, there was a hint of more resistant material around the periphery of the mound; particularly on the western side (highlighted in blue in *Plate 3*). There is also a 4m square section of high resistivity within the south-west quadrant of the mound's centre (highlighted in yellow in *Plate 3*). On the north-west edge of the mound, some stones protruded from the earth and appeared to descend away from the mound towards the River Axe. On the image, this area appears as a linear stretch of higher resistance material than the surrounding soil (highlighted in red in *Plate 3*).

The excavation

The excavation was conducted over 4 days in the spring of 2014, between the 17th and the 20th of May. Two 1m square test pits were excavated until the natural land surface was reached. The test pits were designated A and B, with A being positioned a couple of metres east of the mound's centre, so as to partially reveal the anomaly detected via geophysics, and test pit B positioned on the northern edge of the mound to reveal a cross section of the mound's peripheral stratigraphy and any features associated with the mound's extremity that might reveal the nature of its construction and purpose. The north-eastern side was selected over alternative positions for pit B

because it aligned on a faint linear anomaly shown in the geophysics results, as well as being on the lower side of the mound, and therefore a likely location for the accumulation of artefacts or debris that may have fallen down the slope, away from the feature. The Excavation was conducted entirely by hand, using trowels, and as part of the agreement with the National Trust none of the archaeological features discovered were removed.

Test Pit A

Test Pit A was dominated by two axis of large irregular stones of local origin, designated as context 6. The highest concentration of stones was in the southwest corner of the test pit, corresponding with the easternmost side of the anomaly identified by the geophysical survey. Many of the stones rested directly upon others. A few of the topmost stones were not in direct contact with those below, but were instead suspended within the matrix of context 3, suggesting that context 3 came later than context 6 and that either initially, or over time, the upper-most stones of context 6 toppled to their present position, pinning a small amount of context 3 between them and the lower stones of context 6. Such movement of stones, whether by natural or human action, could account for the apparent divergent axis of stones within Test Pit A, as these gully-like axes did not provide a

Plate 4: *Test Pit A - The large stones are context 6 and appear to form one or more gullies, with a higher concentration of stones toward the surface in the SW corner of the Test Pit (source: author 2014).*

sense of perpendicular delineation, as one might expect from a burial cist, but were more haphazard in their alignment. An alternative hypothesis to explain the presence of context 3 between some of the large stones of context 6 is to suggest that contexts 3 and 6 were constructed simultaneously, such that the introduction of the earth/stone matrix of context 3 sometimes interrupted the placement of the stone structure designated as context 6.

Context 3 was comprised of a friable mid-reddish-brown sandy-silt, replete with frequent small limestone inclusions. It appears to have been used to fill gaps around the larger stones, that formed the mound's core (context 6). The stones included within context 3 were mostly smaller fragments of the same local limestone, but yellow sandstone was also present as well as infrequent pieces of red ochre and two small stones of quartz; both approximately 3cm in diameter. It was within this context that small finds 2 (mammalian bone fragment - see Plate 6) and 3 (flint thumbnail scrapper - see Figure 4) were discovered. Interestingly, both context 3 and 6 appear to have been placed directly upon the exposed bedrock, as there was no discernible change in context at any point prior to where both contexts met the underlying bedrock in Test Pit A. Given the shallow nature of the soil upon that part of Brean Down, it is possible that in order to accumulate enough material to complete the mound it was necessary to scrape back the earth to the bedrock, and perhaps even break stones from the bedrock for use in the construction. It is worth noting that the bedrock reached beneath Test Pit A, in the north-western corner, was comprised of the same yellow sandstone as a number of the stones found within context 3 and 6. The natural bedrock of the Down is typically limestone, so encountering a contiguous layer of sandstone was perplexing. However, this could be the result of the mound having been constructed over a fissure in the carboniferous limestone, into which Triassic colluvium had accreted, forming the sandstone layer. Alternatively, it is possible that a large sandstone block resides beneath the position of Test Pit A, filling the northwest quadrant of the test pit.

Test Pit B

Even before removing the turf, a large stone, approximately 20cm wide by 15cm high could be seen protruding through the matted grass roots in the southeastern corner of Test Pit B. Upon removal of the topsoil it became clear that this stone was suspended upon a matrix similar, if not identical, to Context 3 in Test Pit A; a moderately sorted friable mid-reddish-brown sandy-silt with frequent small stone inclusions. As with context 3, this new context (labeled context 4) saw a gradual increase in stones towards its lowest extent. At the lower reaches of context 4 the number of small irregular stones increased and lay directly upon the limestone bedrock. At the time of excavation, this increase in stones was labeled context 5, but later reappraised as being just a continuation of context 4. Beneath the lowest extent of context 4, on the northern side of Test Pit B, the bedrock cut

Plate 5: *Test Pit B - context 4/5 can be seen in the upper two-thirds of the test pit, with the bedrock cut ditch in the foreground. A piece of hematite can be seen sticking out of the western section (right of image), and numerous yellow sandstone inclusions can be seen exposed in context 4 (source: author 2014).*

sharply down into a ditch that spanned the length of the test pit, parallel to its northern side. The finds in Test Pit B were minimal, comprised of mollusc shells, two lumps of clay (both approximately 7-10cm in diameter), two small pieces of ochre (one of which was embedded in the SW-NW section), two small unworked flint flakes (small finds 1 and 4) and four small river pebbles. All of which were discovered within context 4. In a soil sample taken from context 4, at the point at which it met with the bedrock, a small flake of coal measuring 12mm by 5mm was discovered.

The finds

Other than environmental remains, stones and mineral deposits, the only finds discovered were a flint thumbnail scraper (Small Find 3), a fragment of unburnt mammalian bone (Small Find 2 - see Plate 6) and two unworked flint flakes discovered in Test Pit B (Small Finds 1 & 4). The bone fragment will be discussed on page 14, along with the other faunal remains. The flint scrapper was roughly delta shaped, milky white with the patina of age, and measured 28mm along its longest side, 22mm in width and 4mm in depth at its thickest point. The dorsal side contained some cortex

Plate 6: *Small Find 2 - Fragment of unburnt mammalian bone (source: author 2014).*

around the proximal end, suggesting that the tool was fashioned from a primary flake. The striking platform responsible for detaching the flake was visible and a eraillure flake could be seen to have split from the ventral side, starting from the point of percussion and resulting in a shallow hinge fracture; most probably the result of a flaw in the flint abruptly terminating the percussive force. The diffused bulb of percussion, may suggest that a soft hammer, such as a deer antler, was used to detach this flake from its core (Andrefsky 1998, 18). Based on the author's first hand experience of flint knapping, it would appear that the subsequent flakes were also removed with a small soft hammer, as the flakes are small and shallow, suggesting a degree of control that would be extremely difficult to achieve with a hard hammer. A further ten flakes had been detached from the dorsal side of the primary flake in an attempt to form a crude but workable scraper by applying abrupt retouch to the curved edge, starting from the distal end and working around clockwise toward the proximal end of the flake. Two scars on the ventral side of the flake, at the distal end, suggest further reworking or damage through use. The final stage of modification could be observed along the curved edge, where the tool had been finely retouched along the dorsal side, presumably to refresh the edge after it had been dulled through use. Based on morphology, this type of flint tool is classified as a button or thumbnail scraper on account of the angle of the edges not being acute enough to be effective as a cutting tool and because the tool's size is no larger than a button or a thumbnail. Thumbnail scrapers are distinct to the Early Bronze Age (Butler 2005, 168).

Both ApSimon and Bell discovered similar tools in contexts associated with the Early Bronze Age while excavating at Brean Down. ApSimon discovered a delta shaped scraper with retouch around the edges, which was no bigger than a thumbnail, in a context with Beaker pottery

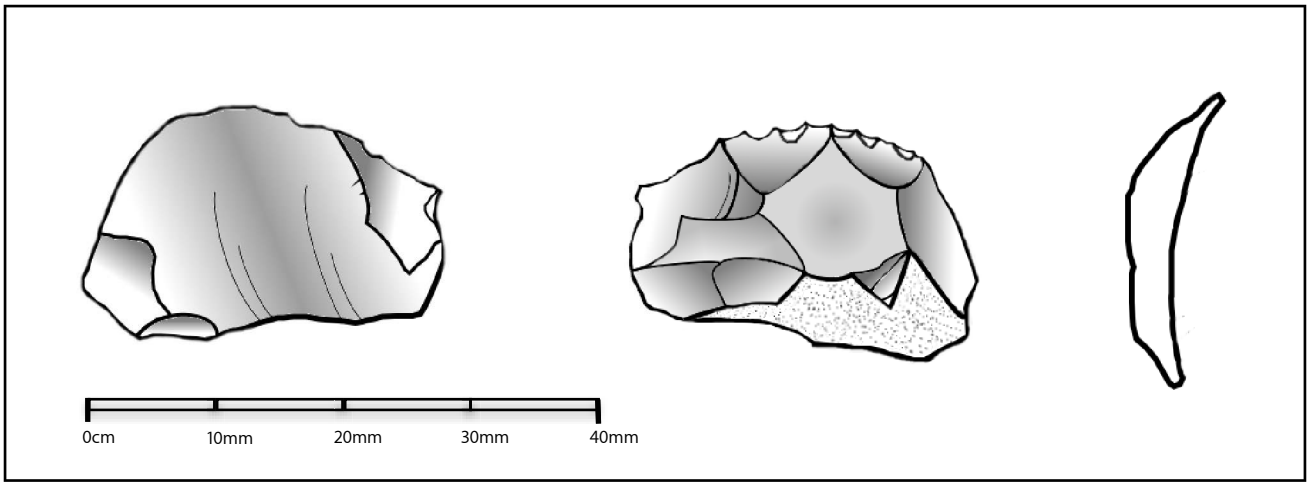


Figure 4: *Illustration of Small Find 3 - a flint thumbnail scrapper discovered in Test Pit A. From left to right: ventral side, dorsal side, cross-section (source: author 2014).*

associated with the Early Bronze Age during his excavation of the Brean Down sand cliff. He remarked that the scraper was of a type frequently found in 'Beaker contexts' and was comparable to artefacts discovered at Gorsey Bigbury (ApSimon 1961, 119). Years later, Bell discovered a thumbnail scraper approximately 25mm in width with a semicircular distal edge displaying retouch along the dorsal side, which also retained some of the flint cortex (Bell 1990, 153-4) suggesting that Bell's thumbnail scraper was also a primary flake. Bell's thumbnail scraper was discovered in context 62 of his sand cliff excavation; a context associated with beaker pottery and yielding radiocarbon dates of 3810+_ 90 BP (HAR-8990), 3460+-80BP (HAR-8547) and 3390+_90 BP (HAR-8993) (Bell 1990, 26). The two unworked flint flakes found in Test Pit B gave no indication as to their provenance, and were devoid of any signs of percussive force.

Geology

A number of foreign stones were discovered in both test pits, with a particularly high percentage in Test Pit B. The most numerous form of foreign stone was a yellowy sandstone, which occurred as an occasional inclusion within both contexts 3 and 4. The sandstone rocks were often angular and ranged in size from small to large, as defined by the MOLAS manual (6mm-20mm and 60mm-120mm respectively) (Museum of London Archaeological Service 1994, 34). The river pebbles, lumps of clay and ochre from Test Pit B have already been mentioned above, but in addition to these, seven pieces of quartz were discovered within Test Pit B, and two from Test Pit A, all of which were small and angular.

Environmental analysis

The following sections detail the environmental findings from the excavation. These consist of the molluscan and faunal finds from both test pits. While a soil sample was taken from context 5, it was only analysed via dry sieving following the discovery of a fleck of coal within the sample. Since this strongly indicated a post-medieval date, the decision was taken not to subject the sample to further lab analysis, as post-medieval palynological information would contribute little to an understanding of the site and structure.

Molluscan evidence

Three different mollusc species were evident in sealed contexts associated with the mound's construction. Three complete shells and three fragments belonging to *Cepaea nemoralis*, a single complete shell belonging to *Oxycillius cellarius* and two shells belonging to *Helix aspersa* were discovered in context 3 of Test Pit A. Three additional complete shells of *Cepaea nemoralis* were discovered in context 4 of Test Pit B. The three *Cepaea nemoralis* fragments from context 3 have been interpreted as representing a single individual, as one fragment comprised the shell apex and the other two were from the shell spire and were of similar size and patterning as the apex fragment. The molluscan evidence is summarised in table 1 below.

Number of individuals by species (NISP)			
	Cepaea nemoralis	*Oxycillius cellarius*	*Helix aspersa*
Test Pit A Context 3	4	1	2
Test Pit B Context 4	3	0	0
Total	**7**	**1**	**2**

Table 1: *Number of molluscan individuals as evidenced by both complete and fragmented shells.*

Faunal evidence

Seventeen faunal bones or bone fragments were discovered in total, all within context 3 of Test Pit A. No faunal remains were discovered in Test Pit B. Most of the bones belonged to an apparent single individual of European Rabbit (*Oryctolagus cuniculus*); comprised of four complete metatarsals, one complete metacarpal, one complete phalange, one partial sternal rib, one partial vertebral rib, one partial and one fragment of lumbar vertebrae, one partial ilium, one partial sacrum and one partial humerus. The remaining three bones were avian, from an undetermined species; comprised of one fragment of humerus, one fragment of femur and one complete radius.

Faunal remains from Test Pit A - Context 3		
Species	**NISP**	**MNI**
O. cuniculus	14	1
Avian	3	1

Table 2: *Number of faunal remains discovered in Test Pit A. No faunal remains were recovered from Test Pit B.*

Finally, consideration must be given to the fragment of bone discovered in Test Pit A, which was excluded from the table above on account of it being deposited by human action. This fragment appeared to be a mid-section of a large mammalian limb bone; perhaps the tibia of a member of the *Bos*. species. However, the incomplete nature of this highly weathered fragment make it very difficult to determine either the precise bone or species.

Interpretation of the environmental evidence

Oxycillius cellarius is a carnivorous species, and has been found amid the rock work of cairns and amid the bones of Neolithic long barrows, where it is assumed to have feasted on the decomposing flesh of the interred bodies (Evans 1972, 34, 188). Its presence amid the soil and rocks comprising context 3 is unsurprising as the faunal remains found within the same context would have provided suitable sustenance. The snail could have found its way into the mound either through gaps in the rock work, if the rock work was exposed, or through animal burrows. Alternatively, the shell of a deceased individual may have been accidentally interred as part of the construction process. The number of *C. nemoralis* individuals discovered is unremarkable since the species was common from prehistory until the present day, with a greater abundance existing within southern Britain between the Neolithic and Iron Age periods (Evans 1972, 174). The inclusion of two *H. aspersa* shells within context 3 suggests that the mound is not prehistoric, as the species is assumed to have been introduced to Britain during the first century AD (Evans 1972, 175). However, Bell discovered *H. aspersa* shells in prehistoric contexts during his excavation of the sand cliff at Brean Down (Bell 1990, 248). Bell attributed this anomaly to post-depositional factors, such as rabbit burrowing, which resulted in snail shells from later periods being redeposited into the Middle-to-Late Bronze Age contexts in which they were found. Given that the *H. aspersa* shells discovered at 118,922 were within close proximity to rabbit bones in the same context (context 3), it is possible that they were introduced from later soils as a consequence of burrowing.

The close association of numerous rabbit bones suggest an articulated individual died within the mound. The bones pertaining to *Oryctolagus cuniculus* were all discovered within centimetres of each other and had a linear distribution from hindlimb, through pelvic and vertebral bones toward bones from the forelimbs. The bones were uncooked and therefore suggest the remains of an individual that was not butchered, but died naturally amid the mound. The rabbit's inclusion within the mound demonstrates that at some time during the mounds history it has been occupied by one or more rabbits. However, no evidence was encountered of recent burrowing. The avian bones were more dispersed than those of the rabbit, and so could have been included accidentally as part of the mound's construction.

Discussion

From the results of the excavation, mound 118,922 does appear to be the result of deliberate human action. While haphazard in places, the mixture of stones and the alignment of some of the larger ones within Test Pit A suggest deliberate placement. Contexts 3 and 4 seem synonymous and most likely form a continuous layer across the mound. It would appear that the large gullies of stone encountered in Test Pit A were the earliest phase of construction, having been placed directly onto the bedrock. Some of the stones were possibly taken from a narrow ditch cut into the bedrock, that was encountered in Test Pit B and could conceivably extend around the mound's circumference. The stone from this ditch was likely extracted and used to form the gullies of stone encountered in Test Pit A. While removing the bedrock, either some Triassic colluvium was encountered and added to the geological mix of construction materials, or some sandstone boulders were brought in from further afield for inclusion in the monument. In addition to the sandstone, other geological anomalies were encountered during the mound's excavation, in the form of ochre and clay. The clay could have been sourced from Brean Beach, to the immediate south of Brean Down, where 'blue clay' facies are known to extend from 2.68m to 5.03m AOD (Allen & Richie 2000, 44). The ochre could have been sourced from the Mendip Hills, as prominent ochre deposits exist at Compton Martin, Axbridge, Sandford Hill and Banwell Hill (British Geological Survey 2014). Banwell Hill being the nearest known ochre mine lying approximately 5km due east of Brean Down. Not only is Banwell Hill the nearest known source of ochre, but also a source of quartz crystal; pieces of which were also discovered in both Test Pits. The digging of the ditch and placement of the stones gullies would appear to have been immediately followed by the dumping of soil and stones in the form of context 3/4. Context 5 was reinterpreted as being just a part of context 3/4 with a higher percentage of stone inclusions, and therefore contexts 3, 4 and 5 most likely represent a single phase of construction. The discovery of a fragment of coal within the lowest and therefore oldest stratigraphic layer (Test Pit B - context 5) suggests a post-medieval date for the mound. However,

since only a single small fragment of coal was discovered, one cannot entirely rule out the possibility that the location of the coal fragment was the result of taphonomic processes (both worms and roots were encountered to within millimetres of the underlying bedrock). Therefore, in interpreting the mounds typology as an archaeological feature, it is paramount to reconsider all previous interpretations in light of the evidence.

In light of the evidence uncovered through this study, the previous interpretations of mound 118,922 shall be reconsidered starting with Hanks' signal beacon theory, which inspired this investigation. Hanks' theory stemmed from observations regarding the proximity of the mound in relation to the mouth of the River Axe and the similarities in its morphology to a mound on Brean Down detailed by Legg (1993) and Skinner (1832), which - while attributed to the Danes by Skinner - was interpreted as a Roman signal station by Legg on account of archaeological finds and its position in relation to Cardiff bay. Hanks believed that mound 118,922 may have been a second signal station standing watch over the mouth of the River Axe, which would have provided passage for ships transporting lead from the Roman dock at Axebridge (Hanks 2000). The recent discovery by archaeologists from Bristol University of a sub-rectangular building on the crest of Steep Holm (Rowe 2014) lends credence to the existence of a signal station on the island; however, if 118,922 was a Roman structure, one would have expected to find evidence for stone walls or the traces of foundations in both the geophysics and in Test Pit B, on the periphery of the mound. Furthermore, if the mound was the remains of a Roman signal station, one would expect to have found some evidence pertaining to the Roman period such as pottery, ceramic building materials or other architectural debris. Consequently, the lack of Roman finds or any evidence of walls or foundations from either the geophysics or excavation of 118,922 suggest that the mound was not a Roman structure.

The only other scholar to have documented an interpretation of the mound was Hazel Riley, who wrote an interim report for the RCHME in which she suggested that the mound was either quarry spoil or a pillow mound (Riley 1995). It should be noted that this study disagrees with the measurements of the mound as recorded by Riley. Her estimate was that the mound measured 6.5m across its north-south axis and 8m from east to west, with a height of 0.7m; dimensions that are commensurate with the average pillow mound. Based on measurements taken in the field, this study concluded that the mound is far more circular than Riley's assessment would suggest; having an average diameter of 10.5m. However, Riley's estimate of height aligns with the measurements taken during the excavation, with bedrock recorded at 72cm below the surface in Test Pit A, toward the centre of the mound. With regard to Riley's interpretation, it seems highly unlikely that the mound was the result of quarry spoil because the adjacent post-medieval quarry cuts into the sea cliff on the easternmost extremity of Brean Down, and it would have been far easier to allow the spoil to fall into the sea rather than cart it to the top of the cliff and deposit it in a neat pile.

Furthermore, the amount of spoil that would have been produced by the quarry far exceeds the amount represented by mound 118,922, thus the majority of the quarry spoil has not been deposited along the clifftop, which in turn raises the question of why a few metric tons of spoil would have been treated differently than the rest. Two other post-medieval quarries are evident along the northern cliff face, not far from the location on 118,922, and neither of those show signs of quarry spoil being amassed at the clifftop; thereby reinforcing mound 118,922's status as an anomaly. Consequently, this study refutes the interpretation of the mound as being the result of quarry spoil; however, Riley's other interpretation of the mound is worthy of further discussion.

Riley's suggestion that 118,922 could be an artificial rabbit warren deserves further consideration, especially in light of the historic association of Brean Down with rabbit farming. The earliest reference to a rabbit warren on Brean Down comes from 1361 AD (Knight 1902, 303), and in 1610 AD there was a court case regarding a group of poachers who were charged with damaging the warren (Baker 1919 as cited by Bell 1990, 89). A deed dating from 1637 states that the "warren called Brean Down" was sold by the then owner, Thomas Bond (Knight 1902, 290), demonstrating the strong association of Brean Down with rabbit farming in the post-medieval period. Both ApSimon (1961) and Bell (1990) noted traces of a building on the sand cliff of Brean Down, not far from Brean Down Farm. Bell suggested that this structure may have been the warrener's lodge, which was referenced in the court case cited by Baker (1919) along with another building described as the home of Thomas Bond, which is almost certainly the farmhouse of Brean Down Farm (Bell 1990, 89). If the structure discovered by ApSimon and Bell was the warrener's lodge, then it would have been approximately 620m from mound 118,922 and close to the modern stepped path leading to the top of Brean Down. Another footpath leads from Brean Down Farm to the top of Brean Down just 200m from mound 118,922. Both paths were shown on maps as far back as the 1840s and could have provided access to rabbit warrens along the top of the Down. At least one other mound on Brean Down has been interpreted as a pillow mound (monument number 191311) (Pastscape 2015b), although this interpretation has been contested (Hanks 2007) it does lie within easy access of the two paths leading up from the farm and possible warrener's lodge. Consequently, the historical record clearly demonstrates a strong association between Brean Down and rabbit farming, and the existence of the Brean Down warren is supported by the archaeological evidence of structures associated with post-medieval rabbit farming, which in turn raises the question as to whether mound 118,922 could be an artificial rabbit warren, or to use the term favoured by archaeologists: a pillow mound.

The term pillow mound was coined by O.G.S. Crawford (1921, 431; Crawford & Keiller 1928, 18), who likened their shape to that of pillows. Despite their name, pillow mounds vary greatly in size and shape, and are found throughout Britain, both in upland and lowland locations. Most appear to be post-medieval (Sheail 1971, 41), but some date from the medieval period (Williamson

2007, 48). What is apparent is that these mounds were designed to mimic the preferred burrowing conditions of rabbits; most likely as a way of introducing them to land set aside for rabbit farming (Bosanquet 1928, 205). The reason such artificial warrens were required is not well documented, but it was most likely a means of providing a breeding ground for the animals while simultaneously controlling their movement. Medieval documents depict rabbits as an expensive delicacy, whose fur was a lucrative export (Austin 1988, 153). Prior to the 18th and 19th centuries wild rabbits were not abundant in the British landscape, and careful management was required to establish and maintain a colony (Matherson 1941; Austin 1988, 153*)*. Therefore the need for artificial rabbit warrens reflects the need to protect, control and nurture populations of a lucrative form of livestock from the middle ages through to the modern era. Having established the existence of a post-medieval rabbit warren in the vicinity of Brean Down, it is important to establish whether the landscape location of mound 118,922 makes sense for the placement of a pillow mound associated with that warren.

The placement of mound 118,922 against the slope of the hill is in keeping with numerous examples of pillow mounds from upland areas. Rabbits prefer to burrow into sloping ground on well drained soil (Bettey 2004). Brean Down should therefore be an ideal environment for rabbits, as slopes abound and the thin soil cover and limestone geology provide excellent drainage. However, as Hanks (2015 pers. comm.) notes, rabbits do not tend to favour the top of Brean Down because the soil is often too shallow for burrowing, and instead they prefer to burrow in the sand cliff near where the warner's lodge was located. Williamson (2007, 55) suggests that in upland locations with thin soil it would be even more important for rabbit farmers to provide artificial warrens for the rabbits than in lowland locations, and this would certainly be true of Brean Down. Furthermore, the remote upland location of mound 118,922 aligns with the findings of The Dyfed Archaeological Trust, whose survey of pillow mounds in Carmarthenshire demonstrated a preference for construction along high open moorland and the edges of sea cliffs (Murphy *et al*. 2013, 8). The Dyfed Archaological Trust survey identified both groups and individual pillow mounds, with one group (PRN 13546 & 105390/4) located on a north-eastern hill slope in much the same way as mound 118,922 (Murphy *et al*. 2013, 10). As to why a warrener based at the foot of Brean Down might decide to build a pillow mound on top of the Down, rather than in the favourable soil of the sand cliff, it is worth considering the effort that would be involved in maintaining a warren on the sand cliff or levels versus the effort required to maintain a warren on top of the Down.

While the natural conditions favoured by rabbits for burrowing are more readily available on the sand cliff at the base of Brean Down, the conditions on top are more conducive to warren maintenance and livestock control. While it is apparent that rabbit farmers attempted to recreate favourable conditions for rabbits in the construction of pillow mounds, the main purpose of these structures was to facilitate breeding in a contained environment that would allow the animals to be

easily caught when it was time to do so, and maintain purity of stock in the case of selective rabbit breeding. When left to burrow in natural terrain, rabbits can dig deep and extensive burrows from which it is either impossible to extract them or impossible to guard every exit in order to catch them. Medieval and post-medieval rabbit farmers constructed artificial mounds of stone and earth, which were build so as to ensure limited burrowing depth and limited options for egress. This was often achieved by building on top of shallow soil and excavating a trench down to bed rock around the mound (Austin 1988, 136; Warren as cited by Crawford 1928, 22-3; Williamson 2007, 39). In some instances stone lined tunnels were constructed within an earthen mound (Austin 1988, 145-7; Williamson 2007, 40-1) to further guide the rabbit toward predictable entry and exit points. With the rabbits contained in this fashion, ferrets were used as a means of flushing the rabbits out of the mounds and into waiting nets (Clarke 1925, 138; Bettey 2004, 390) as depicted in a 14th century Queen Mary Psalter (see figure 5). In the extensive sand cliff or deeper soils on the lower slopes of Brean Down, controlling the movement of rabbits would have required the construction of a wall to contain them; a technique favoured by warreners in locations without natural barriers such as water (Haynes 1970, 148; Williamson 2007, 65-70; Harting 1898, 59). However, on top of Brean Down, the cliffs and sea would act as natural barriers to contain the rabbits and the shallow soil would ensure that the rabbits could not dig so deep as to be irretrievable without substantial damage to the mound. The natural boundaries of Brean Down would also have made it easier to prosecute poachers, as the natural escarpment of the promontory would have made for a clear legal

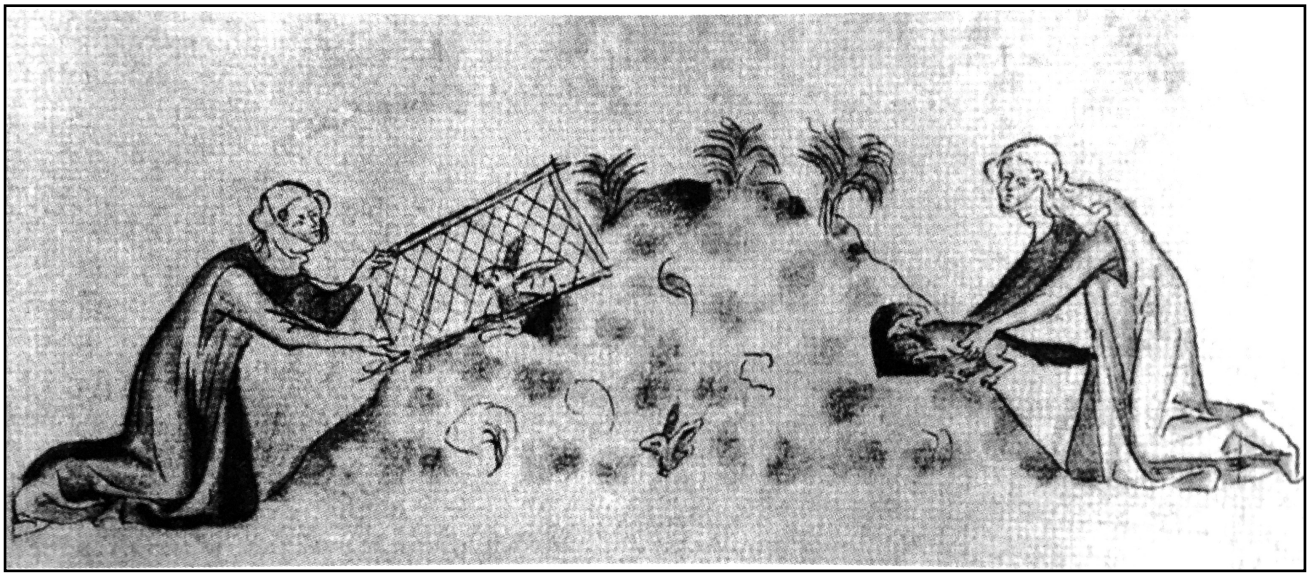


Figure 5: *Illustration of pillow mound, showing the method employed in the medieval period to catch the rabbits using purse nets and ferrets (source: 14th Century Queen Mary's Psalter as cited by Williamson 2007, 14).*

boundary as well as a physical one. Consequently, the location of mound 118,922 does appear to make sense for the siting of an artificial rabbit warren.

Mound 118,922's proximity to the Iron Age hilltop enclosure, which lies approximately 250m due east of the mound, is in keeping with numerous examples in which pillow mounds are found in close proximity to prehistoric earthworks (Cunliffe 1984, 13-4; Davies & Philips 1926; Aston 1985, 114; Collis 1983, 103, 107; Thackeray 1982; Price 1881; Warren 1928 as cited by Crawford 1928, 24). In fact, so frequently are pillow mounds found in close proximity to prehistoric earthworks that for a long time they were assumed to be prehistoric features themselves. For example, Warren (1926, 221) concluded that the pillow mounds he excavated in Epping, Essex were Iron Age funeral pyres, despite having been informed by locals that they were built as rabbit warrens within living memory. Pilsen Pen hillfort, Dorset, has a series of pillow mounds contained within a bank, which had previously been interpreted as an Iron Age religious enclosure until excavations in 1982 identified them as rabbit warrens (Thackray 1982). Price (1881) excavated a number of pillow mounds at Herefordshire Beacon, Herefordshire, in the expectation that they were linked to the Iron Age hillfort. It was only when Pitt Rivers informed him that they were artificial rabbit warrens that Price curtailed his excavation and chose to backfill the mounds. Williamson (2007, 58) suggested that the frequent associate of pillow mounds with prehistoric earthworks could indicate that rabbits were already using such earthworks for burrowing, and that pillow mounds may have been deployed to encourage the rabbits into a controlled warren system in which they could be contained and caught with less effort. It therefore seems that the location of mound 118,922 - upon a slope, in free-draining soil and in close proximity to prehistoric earthworks - is indeed in keeping with the landscape requirements for pillow mounds, but it is important to also consider the morphology and construction of 118,922 to determine whether it could indeed be an artificial warren.

The morphology and construction of mound 118,922 appears to accord with numerous examples of upland pillow mounds, and many of its peculiar features make sense when interpreted as such. While pillow mounds derive their name from the rectangular, pillow shaped variants encountered across much of Britain, there are numerous examples of circular mounds, with similar morphology to that of mound 118,922. It appears that pillow mounds constructed on high ground with shallow soil are all the more likely to be higher and more rounded in construction (Williamson 2007, 55). Around one in five pillow mound groups contains at least one circular mound (*ibid.*, 60). Examples of circular mounds have been found on the uplands of Dartmoor (Linehan 1966, 132; Haynes 1970, 148) and Gloucestershire (Davies & Philips 1926, 16-7), as well as numerous examples recorded by Crawford and Keiller (1928) both on the Cotswold hills and the chalk uplands of Wiltshire. In addition to those discovered in the south of England, circular pillow mounds have been found upon uplands at Bryn Cysegrfan, Ceredigion, Wales (Murphy *et al.* 2013, 15; Austin 1988, 138-9). Mound 118,922's solitary nature and size are also in keeping with other examples of circular pillow

mound. To quote Williams (2007, 60), "Circular mounds can also, on occasions, occur in isolation, where they can easily be mistaken for small barrows. Most have diameters of 5-15m". Therefore, it can be seen that mound 118,922, which is circular, isolated and rounded in appearance, with a diameter of 10.5m, conforms to the morphological grammar of other pillow mounds.

The construction method of mound 118,922 is congruent with that associated with post-medieval pillow mounds, in that the mound appears to be a single phase, dump construction of earth and stone. The ditch cut into the bedrock of Test Pit B is in keeping with the ditches cut by rabbit farmers to both provide material for the mound's construction and to allow for improved drainage (Williamson 2007, 53). Further examples of such trenches have been encountered during excavations at Trowlesworthy, Dartmoor (Haynes 1970), Bury Hill Camp, Gloucestershire (Davies & Phillips 1926, 16) and Bryn Cysegrfan, Ceredigion (Austin 1988). If 118,922 is a pillow mound then this ditch should be expected to continue around the majority, if not the entirety of the mound; however, only further excavation can demonstrate this conclusively, as the shallow profile and stoney infill of the ditch do not show up well on the geophysics results. The fact that the ditch does not appear to be substantial enough to have provided all the material for the construction of the mound is also in accord with other examples of pillow mounds. For example, in excavating pillow mounds in North Yorkshire, Villy (1929) noted that 'The mounds often contain more material than could have come out of the ditch, so that some of it was carrier to the spot'. This reflects the findings from both test pits on Brean Down, where non-local geology was discovered mixed in with local soil and limestone; augmenting the local material used to construct the mound. In addition to the overall construction method being in accord with that of other pillow mounds, the internal features of 118,922 also make sense when interpreted in this way.

The internal features of mound 118,922, uncovered within Test Pit A, consist of a series of large stones arranged in diverging/converging gullies with a number of larger stones seemingly capping the mound toward its centre; both of which can be explained as features of artificial rabbit warrens. Upland examples of pillow mounds have often been found to include medium and large stones, often in complex arrangements (Williamson 2007, 40-2). Austin's (1988, 146) excavation of pillow mounds at Bryn Cysegrfan revealed a dump construction of loamy soil and stone over a core of stone capped gullies that were evidently intended as initial burrows for the rabbits (*ibid.* 154). His description of these gullies aligns closely to the 'crude system of drainage' described by Davies and Philips (1926, 10) in a pillow mound that they excavated and mistakenly interpreted as a Roman structure. A pillow mound excavated at Llanelwedd, Powys, throughout the mid-to-late nineteen-sixties, revealed lines of stones running the length of the mound with fan like traverses running off of the main stone lines (Spurgeon 1966, 1967, 1968, 1969, 1970). Similar artificial burrows were discovered by Silvester (1995) in his excavations of pillow mounds at Y Foel, Llanllugan. Noting that not all of the pillow mounds had artificial burrows beneath them, Silvester suggested that these

mounds might be for the initial rabbit colony, who were given a helping hand from the farmers to establish themselves, while future generations were simply provided with an earthen mound in which to create their own burrows (Silvester 1995, 84). If Silvester is correct, then it is possible that mound 118,922 could represent an early warren, placed in a remote location so as to protect the rabbits from predators and poachers ahead of further colonisation, and the large stones discovered in Test Pit A could be the remains of stone-lined artificial burrows.

The concentration of larger stones toward the centre and top of mound 118,922 could be interpreted as capping stones designed to deter rabbits from burrowing through the top of the mound and thereby restricting their ingress and egress to the sides, as well as protecting the mound from the elements. Pillow mounds excavated at Castell Odo, near Aberdaron, Caernarfonshire (Alcock 1960, 120-1) and at Shute Shelve, near Axbridge, Somerset (Sylverton 1956, 5) all had a collection of large stones capping the mound in this fashion. A reinforced roof would have served two purposes. Firstly, it would concentrate the rabbits' burrows to the sides of the mound, which would allow the farmers to catch the rabbits from the periphery using purse nets without needing to climb on top of the mound where they would risk damaging the structure. Secondly, if the rabbits were allowed to burrow through the top of the mound there would be vertical shafts exposed to the elements, which could become waterlogged with time, reducing the suitability of the mound for burrowing. The importance of avoiding such waterlogging was highlighted by Haynes in his study of artificial warrens at Trowlesworthy, Dartmoor, where the roofs were constantly maintained through the addition of earth and peat to avoid flooding (1970, 148). Therefore, the high resistivity anomaly identified in the geo-physics, and subsequently revealed to be a concentration of larger stones toward the centre of the mound, could be interpreted as capping stones similar to those observed in other pillow mounds. However, not all the discoveries within mound 118,922 can be so easily explained by the rabbit warren hypothesis.

While much of the evidence supports the interpretation of mound 118,922 as a post-medieval pillow mound, there were some discoveries that require further explanation. The discovery in Test Pit A of a Bronze Age flint scraper and the mammalian bone fragment could simply be the result of earlier archaeological debris being incorporated into the mound, unintentionally, through the piling of earth from the local vicinity. However, the frequent inclusion of foreign stone is more perplexing, as it suggests a sizeable quantity of material was brought to Brean Down from elsewhere in order to construct the mound. It seems peculiar that there would be a need to bring such a quantity of stone from further afield given that the ample supply of limestone on Brean Down should have sufficed for the purposes of building a free-draining mound for rabbits to burrow in. However, the inclusion of foreign stones within pillow mounds is not without precedent. Both Price (1881) and Warren (1926; 1928 as cited by Crawford 1928, 23) commented on the inclusion of foreign stones and material within the mounds they excavated, and while neither provided

insight into why such material should be present there is a common factor between their mounds and 118,922. Both the mounds excavated by Price, along the Malvern Hills, and those excavated by Warren, in Essex, were associated with prehistoric earthworks. Mound 118,922 is also located near to both an Iron Age enclosure, and a Bronze Age settlement (Bell 1990) as well as ten round barrows associated with the Bronze Age (PRN 11450) (Somerset Council 2015). It is entirely plausible that some of the material discovered within mound 118,922 could have been taken from a Bronze Age barrow and repurposed.

The reuse of material from prehistoric earthworks, including Bronze Age round barrows, is not without precedent in the construction of pillow mounds (Rackham 1989, 163-5; Williamson 2007, 144-9), and may explain some of the peculiar geology encountered in mound 118,922. While the materials used in the construction of Bronze Age round barrows are largely determined by local geology (Ashbee 1960, 41; Greenwell 1877, 5), there are examples of round barrows on the Mendips in which sandstone had been deliberately intermixed with limestone, such as the barrow at Tyning's Farm, near Charterhouse, which contained Old Red Sandstone blocks faced with upright limestone slabs (Fowler 1976, 63; Taylor 1951, 120). If the sandstone encountered in 118,922 is not local to Brean Down - perhaps from intrusive accretions formed in fissures within the limestone bedrock - then it may have been brought to Brean Down for use within the construction of a barrow. As to why the suggestion of bringing such material to the top of Brean Down should make any more sense for the construction of a round barrow than for a pillow mound, it is worth considering the influence of ritual and religion in the contravention of logical and practical action. It would make no sense to carry large quantities of foreign stone from outside of Brean Down for the construction of a rabbit warren; however, the inclusion of non-local geology within a round barrow could have had symbolic meaning, perhaps imbuing the monument with the symbolic power associated with the places from which the materials were obtained (Scarre 2011, 13). The quartz and ochre encountered in Test Pit B, could also have come from a round barrow, or earlier monument on Brean Down, as both ochre and quartz have a strong association with the dead in British prehistory and are often found in association with burial contexts (Grinsell 1953, 272-3). Furthermore, the reuse of material from barrows, as a practical consideration, makes perfect sense; since there can be no easier way to construct an artificial mound than to dismantle an existing one and reposition it in accordance with the warrener's requirements. Consequently, the foreign materials encountered within mound 118,922 could indicate the reuse of materials from a prehistoric barrow or cairn to save effort in the construction of an artificial rabbit warren. Ultimately, the interpretation of mound 118,922 as a pillow mound is far more in keeping with the evidence than alternative interpretations, even with the presence of foreign stone.

Prior to the excavation of mound 118,922 there were other possible interpretations for the mound, including it being an outlying burial or clearance cairn, but the discovery of coal in the

lowest stratigraphic layer, the presence of Post-Roman fauna (*Oryctolagus cuniculus* and *Helix aspersa*), and the close alignment between the characteristics of the mound and those of other pillow mounds from the west of Britain made such interpretations untenable. If for a moment the notion is entertained that the coal fragment discovered in context 4 was a later addition, which found its way into the mound on account of taphonomic processes, the evidence would still favour a post-medieval date on account of the faunal evidence. Furthermore, the mound's construction appears to be single phased, on account of the intermixing of contexts 3 and 6 in Test Pit A and the lack of stratigraphy. Prehistoric mounds excavated on the rest of the Mendips have revealed more complex stratigraphical sequences (Lewis 2007, Taylor 1951). The historic record, faunal remains, morphology and landscape situation of the mound all support the pillow mound hypothesis. While only a small amount of the mound has been excavated, nothing encountered suggests that 118,922 is a particularly unique or well preserved instance of pillow mound, and therefore the protection currently afforded to it - by being on National Trust land that is routinely monitored - is sufficient for its continued protection as a heritage asset.

Conclusion

Having considered the previous interpretations of mound 118,922, only one interpretation aligns closely with the historical and archaeological evidence. The desk based assessment conducted as part of this study identified no evidence of a modern structure at the location of the mound, but did reveal historical evidence for the existence of a warren at Brean Down from the mid-fourteenth century up until at least the mid-seventeenth century. The finding of coal within the lowest stratigraphic layer of the mound, which was laid directly upon the exposed bedrock, strongly suggests a post-medieval date for its construction. The situation of the mound within the landscape makes sense in terms of the placement of an artificial warren, in that it is remote from predators and poachers and surrounded by natural boundaries that would ensure the containment of livestock. The fact that the mound backs on to a slope, near a sea cliff and within a short distance of prehistoric earthworks fits well with the locations of other pillow mounds observed by archaeologists across the upland regions of the south and west of Britain. Furthermore, the features of the mound, revealed via the geophysical survey and subsequent excavation, were entirely in keeping with numerous examples of pillow mounds observed across Britain. The large stones of context 6 resemble the stone lined borrows built by farmers within artificial warrens, and the bedrock cut ditch encountered in Test Pit B aligns with other examples of pillow mounds in which such ditches were used to ensure good drainage and act as a terminus for burrowing activity. Finally, the finding of articulated rabbit bones within the mound demonstrate the presence of rabbits at some point within the mound's past, and given that rabbits do not presently favour this

part of Brean Down due to the shallow soils it seems all the more likely that the specimen encountered was brought to the location through human action. Consequently, this study concludes that mound 118,922 is almost certainly a pillow mound; an artificial rabbit warren historically associated with Brean Down Farm.

Despite this study's conclusion, there remain opportunities for future research in relation to mound 118,922. The importance of the mound as a heritage asset lies mostly in its comparative potential. If it is a pillow mound, then it is neither a rare type of monument, nor is it a particularly unique or well preserved example. However, through comparison with examples on Dartmoor and the Welsh uplands, it may be possible to identify the degree by which the post-medieval industry of rabbit farming was standardised across southern and western Britain, and to determine the function that round pillow mounds played within post-medieval warrens. In addition to such comparative research, a detailed assessment of the foreign stones encountered during the excavation, with an aim to identify the exact origin of the stones, would inform archaeologists of the distance from which such materials were brought. Such a study could attempt to identify whether the same foreign material was present in Bronze Age cairns within the region and therefore determine whether mound 118,922 was partially constructed from material robbed from a cairn or barrow upon Brean Down, or whether the foreign material was brought to Brean Down solely for the construction of the pillow mound. Either conclusion would provide useful insight into pillow mound construction and potentially into the symbolic association of geological materials in the Bronze Age of south-western Britain.

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APPENDIX A: Stratigraphical sequence of test pits

Context list

Context No.	Test Pit	Date encoutered	Notes
1	A	18/05/2014	Top soil. Moderately sorted, friable, mid-reddish brown sandy-silt with occasional to frequent limestone inclusions. Context started with infrequent limestone inclusions then led to more frequent inclusions of small stones.
2	B	18/05/2014	Top soil. Moderately sorted, friable, mid-reddish brown sandy-silt with occasional limestone inclusions. Modern beer bottle neck found embedded just below turf.
3	A	18/05/2014	Moderately sorted, friable, mid-reddish brown sandy-silt with frequent limestone inclusions and occasional large stones.
4	B	18/05/2014	Moderately sorted, friable, mid-reddish brown sandy-silt with frequent small, medium and large stone inclusions, mostly limestone with some sandstone and other mineral deposits.
5	B	20/05/2014	Moderately sorted, friable, mid-reddish brown sandy-silt with frequent small, medium and large stone inclusions, mostly limestone with some sandstone and other mineral deposits.
6	A	20/05/2014	Large stones, mostly limestone, but with occasional sandstones, piled on top of one another and built directly upon bedrock.

Table 3: *Context list as recorded during excavation.*

Harris matrix

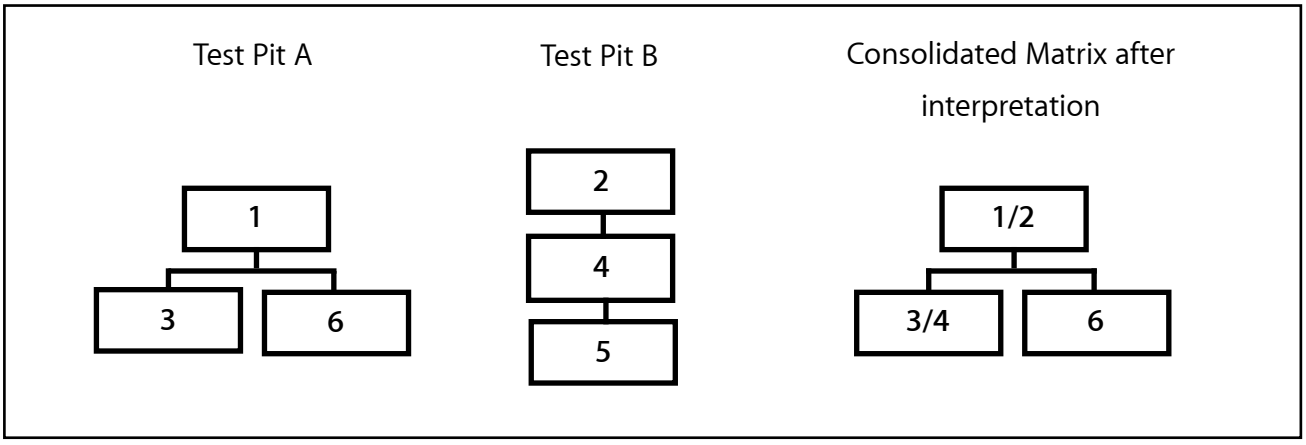

Figure 6: *Harris Matrices from left to right: Test Pit A as recorded during excavation, Test Pit B as recorded during excavation, combined matrix following comparison and interpretation (source: author 2014).*

APPENDIX B: List of small finds

Find Number	Context	Artefact material	Level	Description
1	4	Flint	31.68m	Unworked flint flake.
2	3	Bone	32.42m	Fragment of mammalian bone, uncooked.
3	3	Flint	32.43m	Worked flint flake tool. Thumbnail scrapper.
4	4	Flint	31.53m	Unworked flint flake.

Table 4: List of small finds.

APPENDIX C: Section drawings of test pits

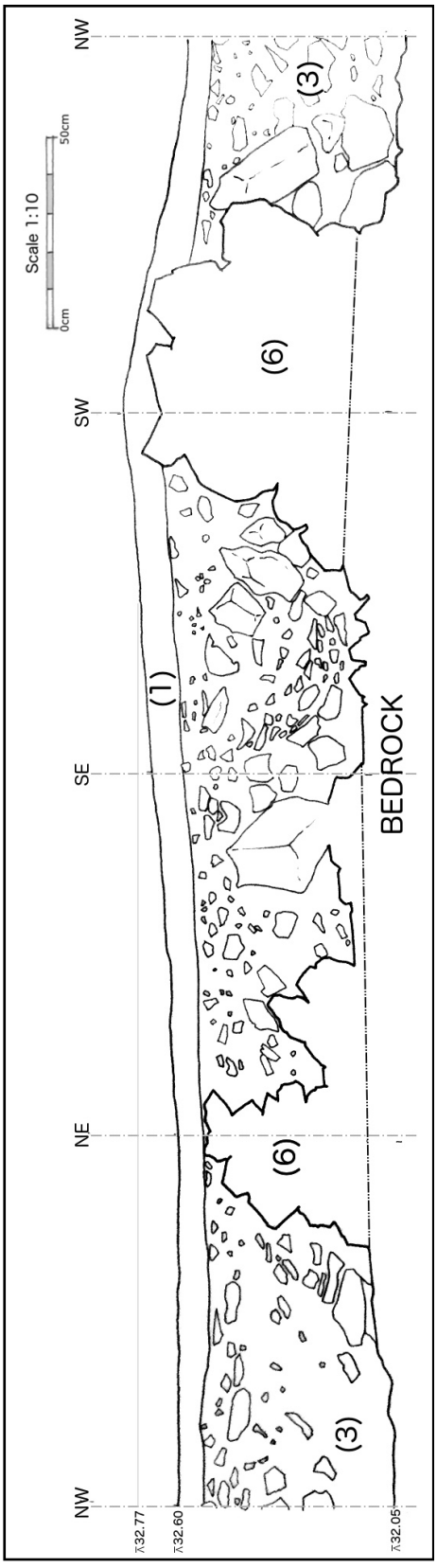

Figure 7: *Section drawing of Test Pit A (source: author 2014).*

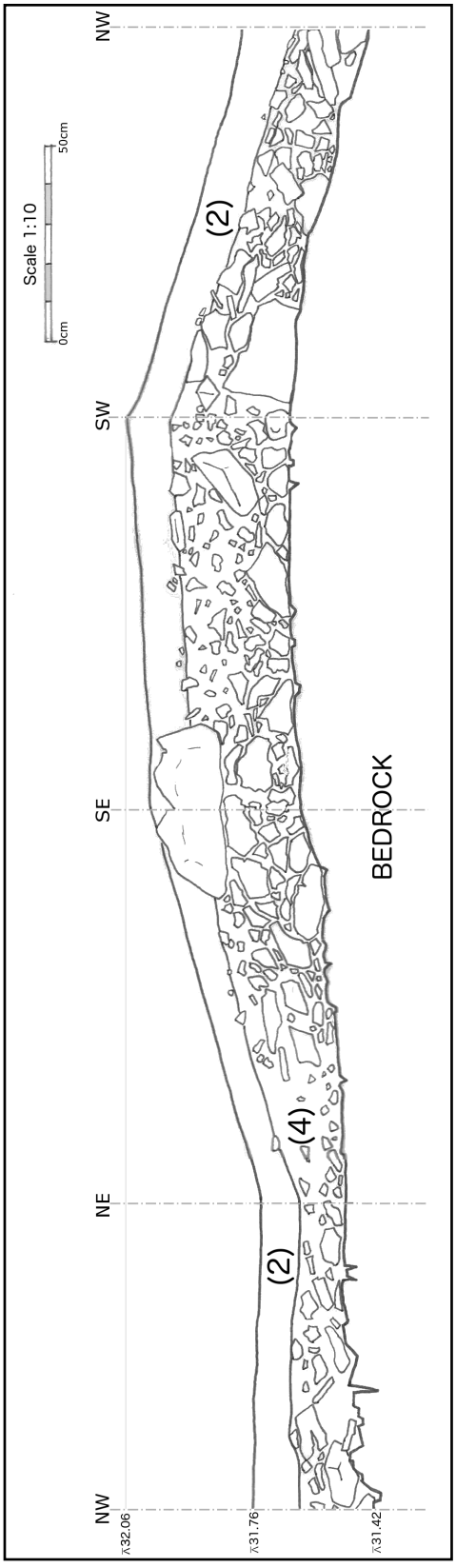

Figure 8: *Section drawing of Test Pit B (source: author 2014).*

APPENDIX D: Plan drawings of test pits

Test Pit A - Context 3

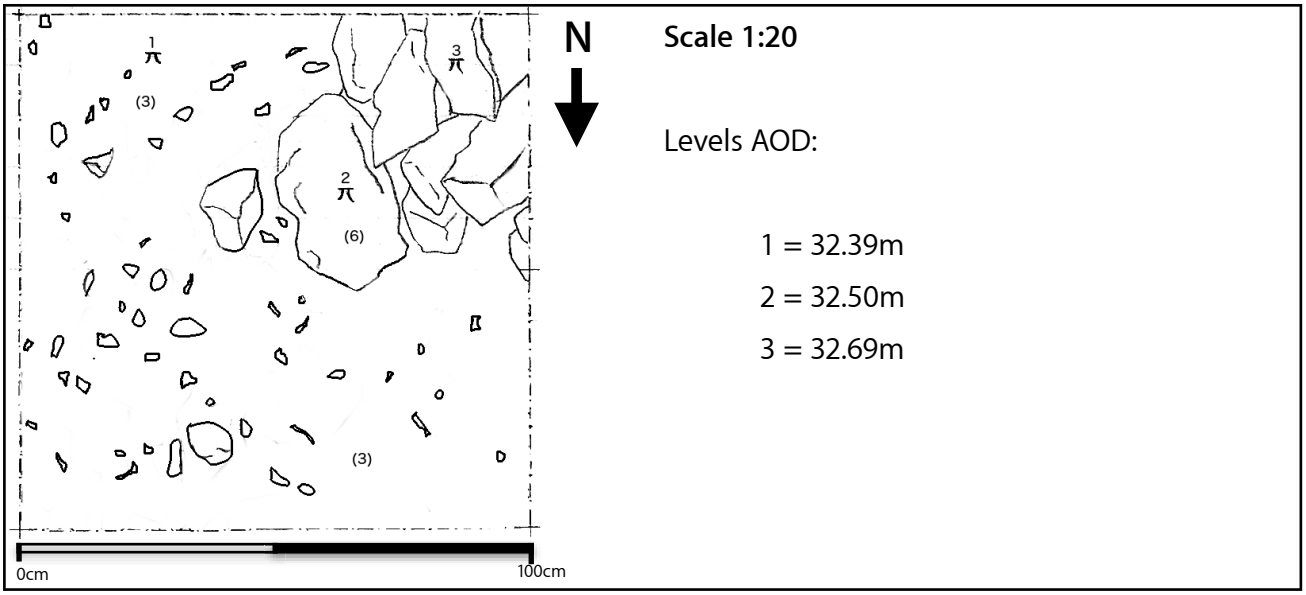

Figure 9: *Plan of Test Pit A after removal of context 1 (top soil). Context 6 is already visible in the SW corner. The remainder of the plan is constituted by context 3 (source: author 2014).*

Test Pit A - Context 6

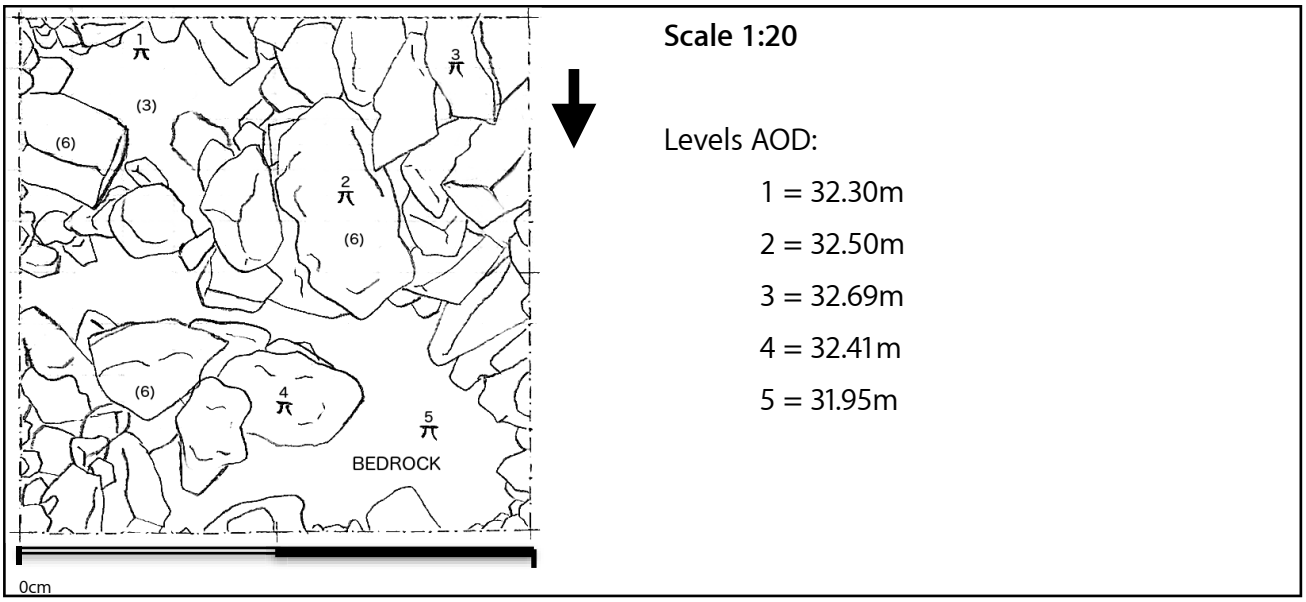

Figure 10: *Test Pit A after removal of context 3. Context 6 is visible on top of bedrock (source: author 2014).*

Test Pit B - Context 4

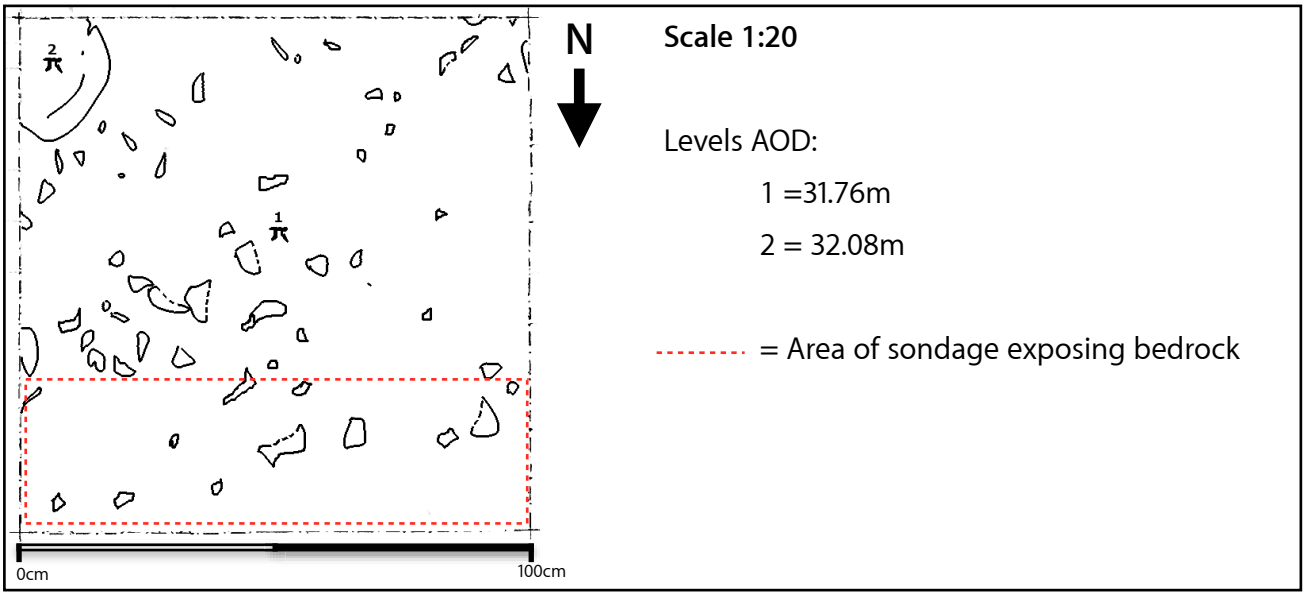

Figure 11: *Plan of Test Pit B after removal of context 2 (top soil). Context 4 is visible (source: author 2014).*

Note: A sondage was cut in the northern side of Test Pit B to determine the depth of context 4. Context 4 was found to meet the bedrock at 31.22m AOD.

APPENDIX E: Map showing the geophysics results and test pits

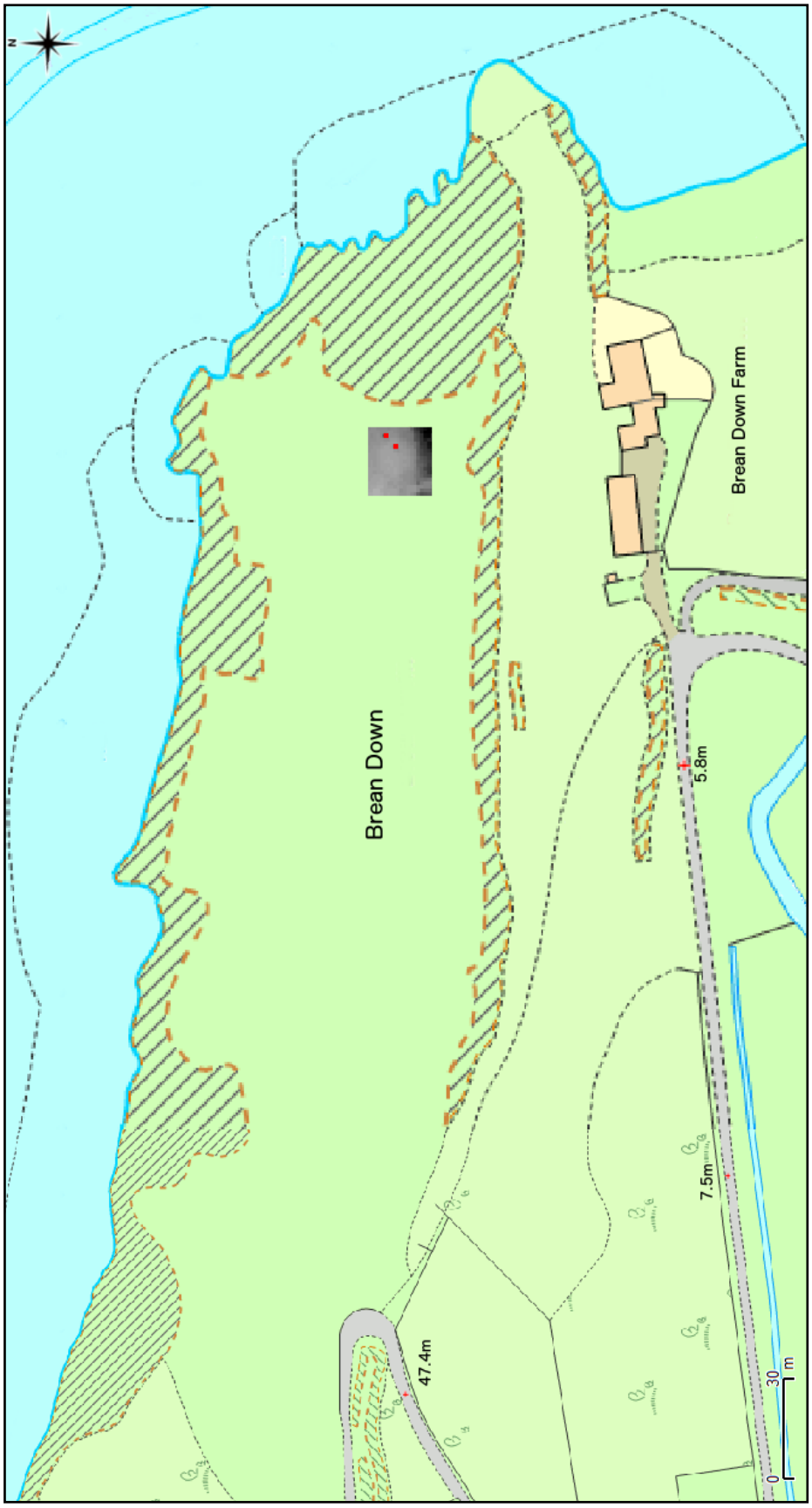

Figure 12: *Map showing location of geophysical survey. The location of the test pits is shown in red (source: author 2014).*