

Summary

The excavation of the Teigncombe prehistoric roundhouse on Dartmoor was carried out to examine and quantify the precise nature of the impact of bracken rhizomes on sensitive archaeological deposits. Careful excavation combined with detailed recording of artefact distributions together with pottery and environmental analysis have provided an informative insight into both the character of the occupation within the building and how this may have been affected by subsequent depositional and erosive episodes. The excavation methodology was tailored to maximise the recovery of information relating to both the archaeological story and the factors that may have influenced or distorted it.

Background

The uplands of South-West England are an incredibly rich source of archaeological information. Vast areas of relict landscapes provide an insight into the lives of countless generations of prehistoric and later people. Each generation left its mark and together created palimpsests which are amongst the most informative in Britain. The importance of these was recognised by early antiquarians, modern scholars and even successive Governments. The earliest systematic campaign to record the uplands was carried out by the Dartmoor Exploration Committee who between 1894 and 1906 worked at breath taking speed at various locations across the moor. Throughout the 20th century various groups and individuals collectively considerably enhanced our appreciation of the scale and significance of the archaeology. Extensive field surveys carried out by Jeremy Butler, the late Royal Commission for Historical Monuments (England), English Heritage (now Historic England), University Departments and many individuals together amassed a substantial body of work and over the years various syntheses have been produced. Every June a tide of bracken sweeps in across much of the archaeology, rendering it largely invisible until the following winter. Bracken plants emerge from underground rhizomes (roots) which inevitably displace archaeological deposits. Apart from some research in Scotland on very different geology, no quantifiable work had ever been done to determine the type and extent of any disturbance. On the face of it, Dartmoor's archaeology looks wonderful, but might the bracken rhizomes be causing untold damage. Excavation seemed to be the only viable way to provide empirical proof, but what, where and how? In 1998 the roundhouse at Teigncombe was identified as an ideal candidate for this important research and with much appreciated support from Debbie Griffiths (Dartmoor National Park Authority), the owners (Duchy of Cornwall and Mr and Mrs Edmondson) and Robert Isles (English Heritage) everything was in place for an investigation which was to extend over six seasons from 1999 until 2005.

No rules existed regarding the methods required to find out what bracken rhizomes were doing to the archaeology. The methodology therefore, by necessity was developed and refined as work progressed. As well as recording and assessing the impact of the bracken rhizomes on the archaeology it was essential to also collect, record and analyse the more traditional archaeological information to allow the character and development of the house to be understood. Our perception of prehistory on the moor is an evolving picture and the results of the Teigncombe excavation inevitably add only a little to our understanding. Perhaps more significantly, this work emphasises how much more remains to be learned. The Teigncombe roundhouse does not stand in splendid isolation and indeed forms a minute part of a complex landscape.

Location

The Teigncombe roundhouse is situated on the granite uplands of Dartmoor in the South-West of England. Dartmoor is known for its archaeological remains and amongst the most impressive are the extensive prehistoric field systems and associated settlements (Fig. 1). The Teigncombe roundhouse stands on a relatively steep north-east facing slope overlooking the valley of the River Teign within historic enclosed fields at a height of 375m above sea level at NGR SX 66808655. It forms part of an extensive and well preserved prehistoric field system to which it is linked by a substantial lynchet. The Kestor coaxial field system lies within the North Teign prehistoric territory and includes two broadly contemporary settlements, parts of which continued in use into the Iron Age (Fig. 2). The coaxial field system includes a large number of fields arranged on a single prevailing axis, subdivided by transverse boundaries. Within the area defined by the fields there are two settlements. The largest of these survives as a scatter of at least 41 roundhouses extending around the northern and eastern slopes below Kestor. The houses survive as circular or oval walls surrounding an internal area and their internal diameters range from 3.5m up to 10.4m with the average being 6.87m. Some of the houses in this settlement are amongst the most impressive on Dartmoor with over twenty having walls standing above 1m high. Two of the houses were excavated between 1951 and 1952 by Lady Fox and in

the large one within Round Pound evidence of iron smelting was recovered (Fox, 1954). It is now accepted that this activity dated to the Early Medieval period. The second settlement lies south of Kestor and survives as a group of four roundhouses associated with at least five small rectangular fields which themselves form part of the coaxial field system.

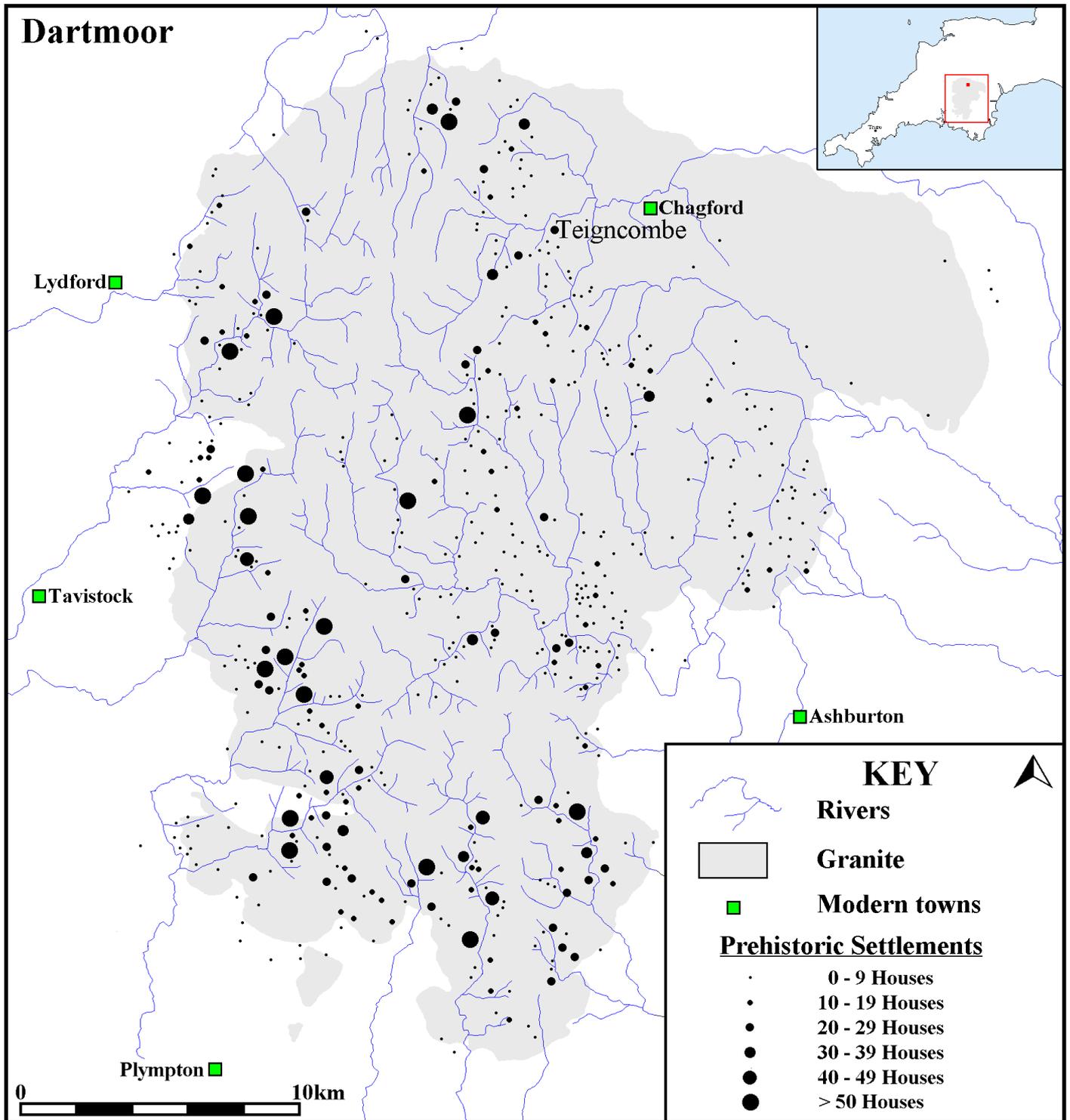


Fig. 1 Map illustrating the distribution of prehistoric settlements on Dartmoor.

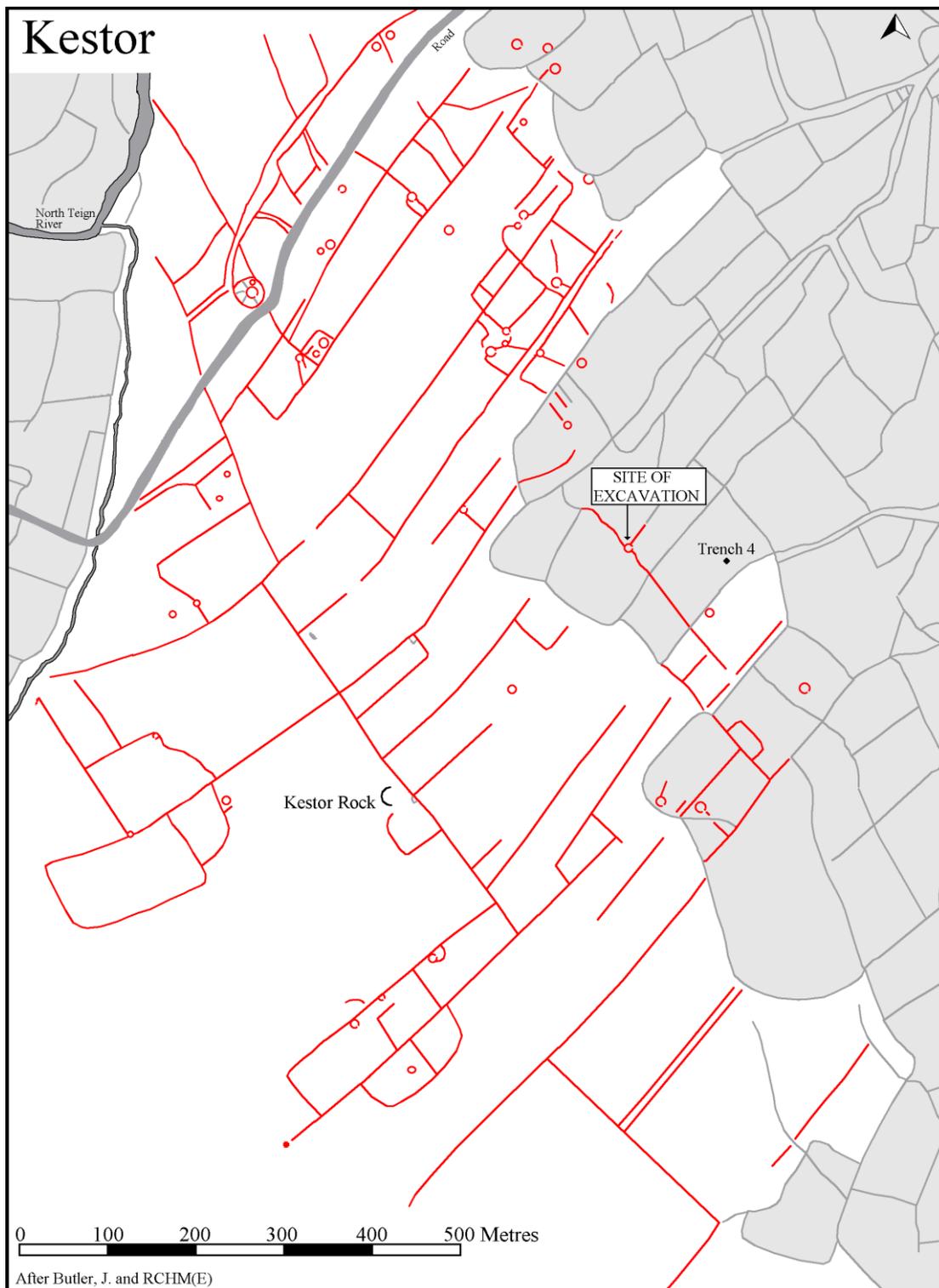


Fig. 2 Map showing the position of the Teigncombe roundhouse within the Kestor coaxial field system. Prehistoric features are shown in red. The extent of the historic fields is shaded grey.

Methodology

The archaeological techniques employed at Teigncombe to investigate the impact of bracken rhizomes on archaeological deposits, features and structures were developed and refined as the excavation proceeded. Given that the primary aim of the project was to quantify the relationship between the rhizomes and archaeology some traditional survey and excavation methods needed to be adapted.

Pre-excavation earthwork survey

The first task carried out at Teigncombe was the earthwork survey. During May 1999 a plane-table survey of the building was carried out at a scale of 1:50 (Fig. 3). This survey was carried out before the emergence of the bracken plants and apart from the house walls and internal earthworks two visible tree stumps were recorded.

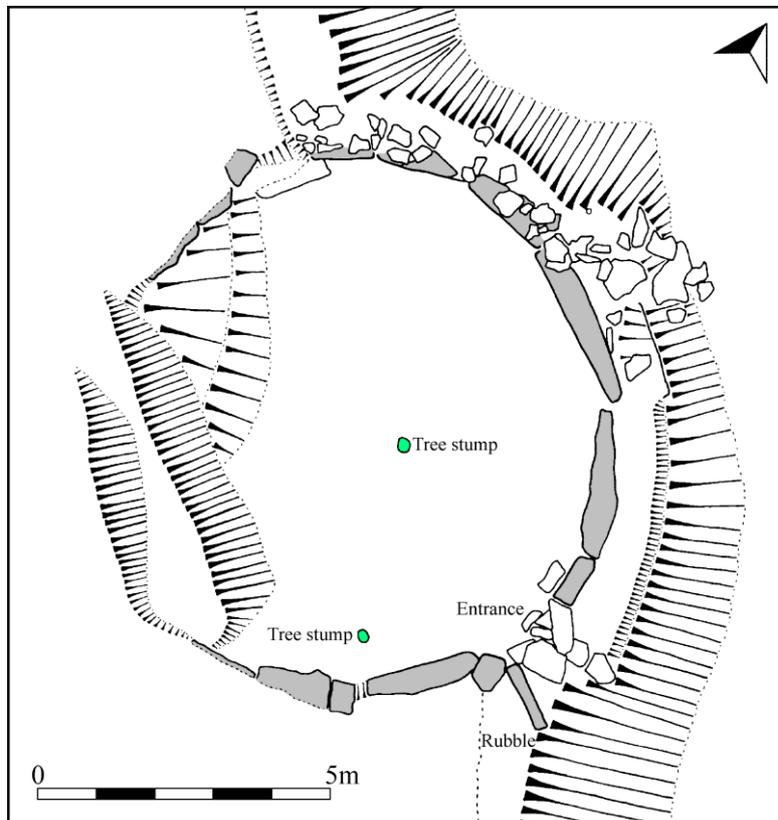


Fig. 3 Pre-excitation earthwork survey.

The Bracken Plant Survey

During the two weeks prior to the excavation a detailed survey of the bracken plants (stipes) growing within the building was carried out. This survey was carried out at a scale of 1:20, with the position of each stipe being plotted using a plane-table. Each plant was allocated a unique number and this was entered next to the position plotted on the plane-table. Information concerning the height and number of fronds on each plant were recorded on a pro-forma sheet. A total of 2291 bracken plants were recorded and Fig. 4 shows the distribution of those within the house.

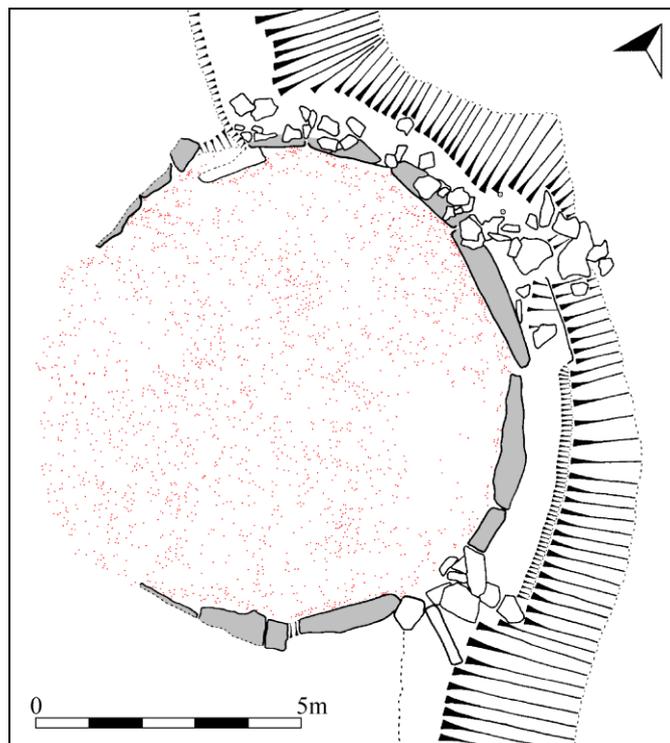


Fig. 4 Plan showing the distribution of bracken stipes (plants).

The Contour Survey

Once the bracken had been recorded and removed, a contour survey of the interior of the house was carried out to provide a benchmark against which future archaeological contexts, artefacts, samples and of course rhizome distribution could be measured. Depth has an impact on the nature of rhizome damage and it was therefore crucial that the precise form and position of the original pre-excitation land surface be recorded. The contour survey was carried out using a theodolite to record the level of the ground. Readings were taken at 200 mm horizontal intervals throughout the building and a detailed plan produced (Fig. 5).

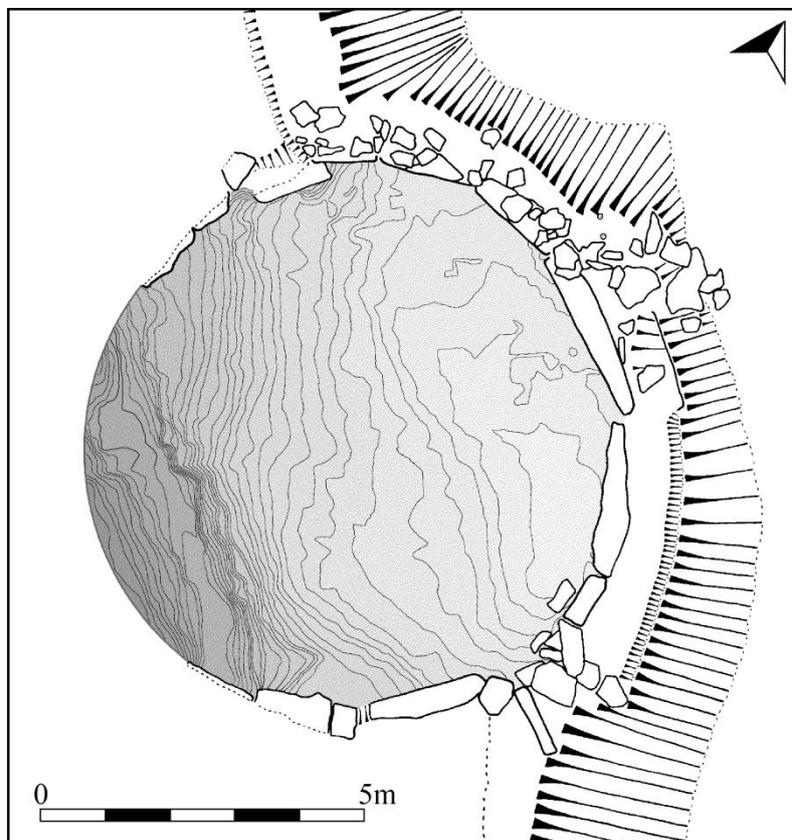


Fig. 5 Contour survey of the roundhouse. Contour lines are shown at 50mm intervals. The shading darkens with increased height. A steep east facing slope within the western part of the house is clearly discernible.

Excavation

At the outset the intention was to examine the house in four separate trenches separated by a cross shaped baulk whose edges would provide the crucial information on the relationship between the archaeological deposits and bracken rhizomes. To help understand soil processes all artefacts were three-dimensionally, recorded and soil samples taken at strategic locations. The final scheme broadly followed this outline, but a large number of adaptations and refinements were developed and experimented with throughout the course of the investigation. Full details are available in the archive (RAMM Accession Number: 19/2016).

Excavation Methods

Seven trenches were opened in and adjacent to the house. The position of these trenches is shown in Fig. 6.

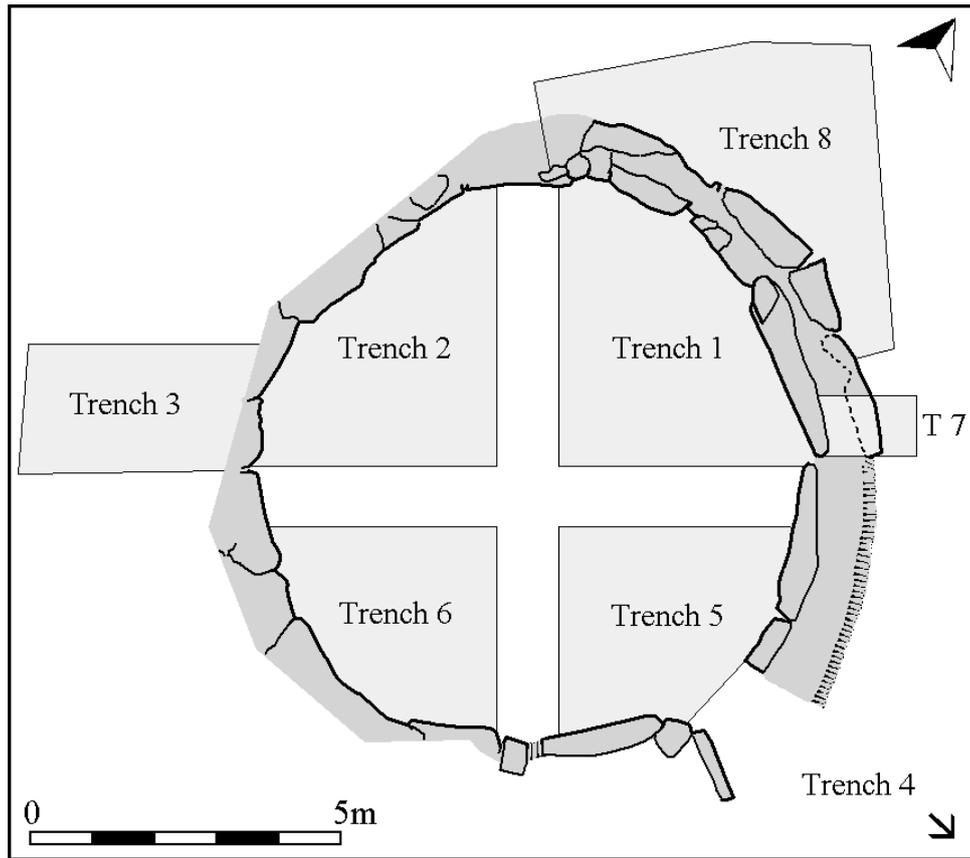


Fig. 6 Plan showing the position and extent of excavation trenches within and adjacent to the house.

Turf Removal

Within the house, the turf in all four trenches and the baulks was removed carefully using trowels to minimise damage to the underlying rhizome mat and maximise retrieval of artefacts. The same technique was employed in Trench 7, but in Trenches 3, 4 and 8 the turf was removed by mattock.

Open Area (Fig.7)

The open area method of excavation was adopted and utilised with refinements, except in Trench 1 where the historic hillwash deposits were examined by a series of interlocking pits. The refinements to the widely accepted open area methodology were required to enable an assessment of the impact of the bracken rhizomes on the archaeological features and structures. These refinements are fully considered in the detailed archive report. The main adaptations included recording the precise position of every artefact and carefully searching for and recording evidence of both current and historic rhizome damage.



Fig. 7 Open area excavation within the house during the final season.

Revealing and recording the position of rhizomes was a time consuming activity. The excavation of the rhizomes involved using trowels and spoons to painstakingly remove the soil between each rhizome until eventually the mat was revealed. The rhizome mat was then photographed to illustrate its character and then planned photogrammetrically (Fig.8).

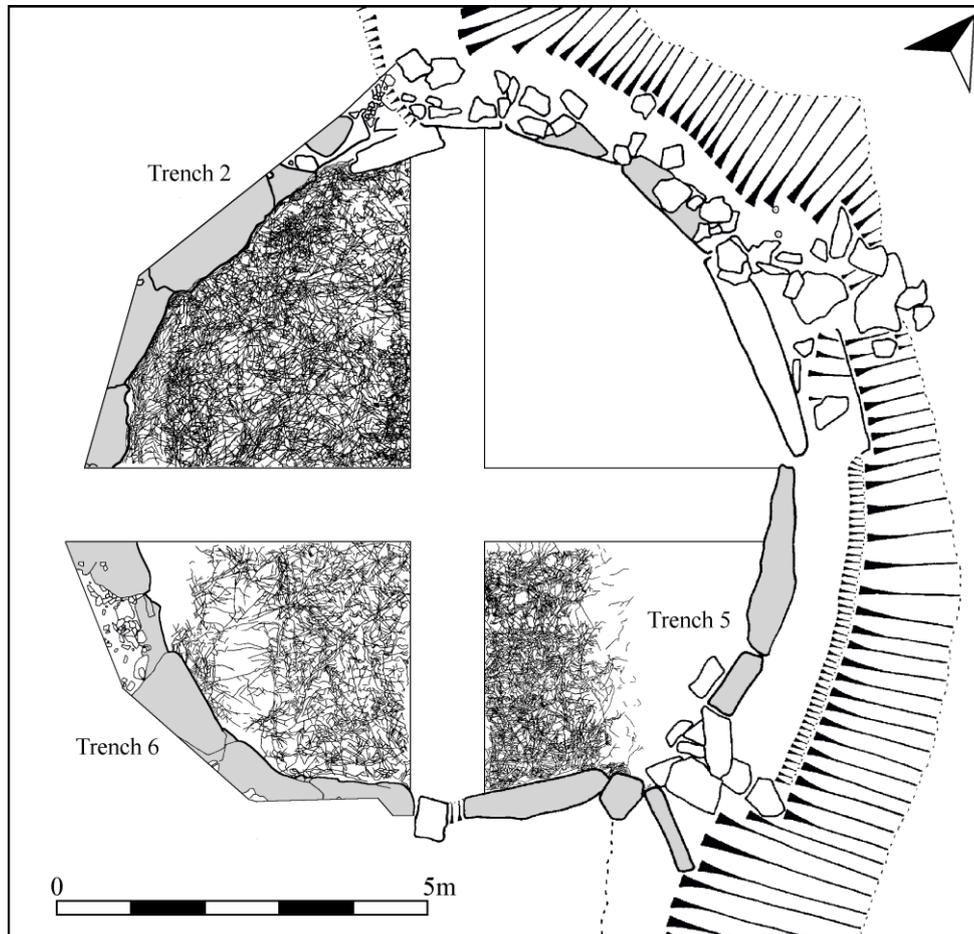


Fig. 8 Plan showing the parts of the rhizome mat that were planned during the excavation.

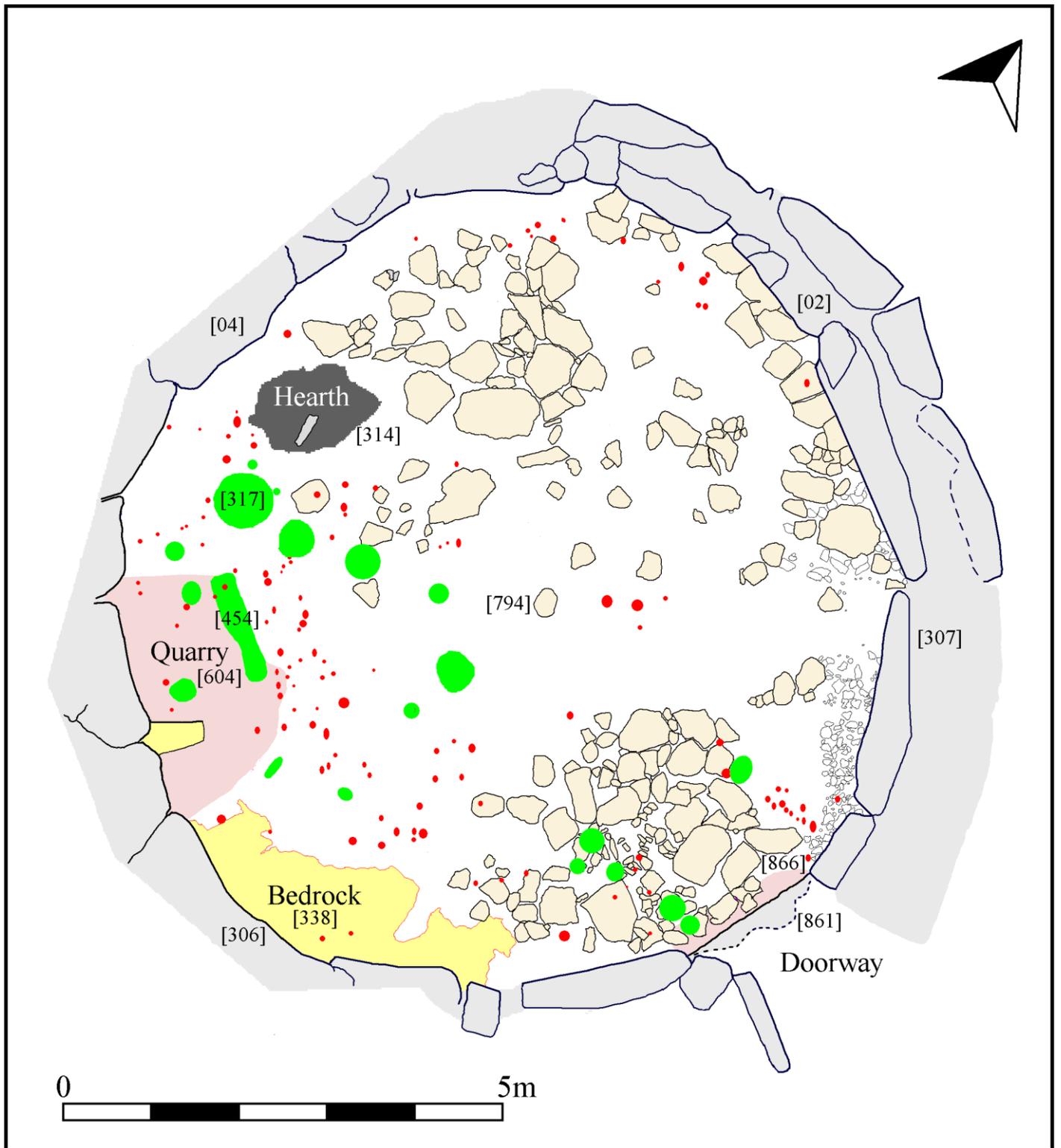


Fig. 10 Plan of the excavated house showing many of the principal features. Post holes and other cuts are shown green and stake holes are shown red.

1 Granite bedrock

The local granite bedrock was revealed in the western part of the house during the course of the excavation. The most obvious exposure was in the area adjacent to the south-western wall [306] of the house where a highly jointed slightly sloping surface was visible [338]. There was no prehistoric occupation layer above this granite and it is therefore very likely that this surface formed the floor level in this part of the building. Adjacent to and immediately to the north the granite bedrock was also exposed in the base of a small quarry [604] which had been excavated during the construction of the house. Large slabs of granite were also encountered in other parts of the excavated area, but these were not truly part of the bedrock because they had been dislodged and re-deposited by solifluction processes.

1.1 Subsoil

Subsoil was exposed in most areas of the excavation (Fig.11). Generally it included bright yellowish-brown hard compacted gritty clay with large coarse angular to sub angular fragments of granite. The subsoil was however not uniform in character and in some places layers or lenses of red, yellow or dark brown sands and silts were observed. The deepest single deposit of sands and silts was found within an irregular shaped 2.33m long by 1.45m wide and 0.27m deep hole [863] which was identified as a natural hollow formed by weathering. The subsoil had originally been exposed over much of the house during its construction when some of it was removed and re-deposited in the eastern part of the house. Differentiating between undisturbed and re-deposited subsoil was difficult and generally one could only be sure of a subsoil interpretation once the overlying material had been cleaned several times without any artefacts being recovered.



Fig. 11 Subsoil exposed throughout most of the house. View from north-west. (Scale 2m and 500mm).

1.2 Buried Turf

In the eastern part of the house in the vicinity of the orthostatic wall a number of patches of fine light grey or black silt and clay were identified as buried turf. No substantial layer was recovered and therefore it would appear that most of the turf and topsoil had been cleared from the area before the construction work had commenced.

2 Middle Bronze Age - platform cut

The first task carried out by the MBA house builders was to strip the turf and topsoil from the area they had selected. The next stage was to remove subsoil and associated granite slabs from the upper part (western) of the area to create the platform on which the house would be built. This platform is believed to have measured approximately 14m in diameter and sloped gently upward and westward at 6° above the horizontal. The resulting sloping interior would have ensured that the house did not flood. At its deepest western extent the resultant scoop measured up to 1.6m deep. In all, about 125m³ of material would have been removed to create the platform. The surface of the platform consisted mainly of subsoil [294, 310, 318 & 862] with the occasional granite slab, although in the south-west quadrant the granite bedrock [338] was exposed. Any granite slabs and the subsoil removed would have almost certainly have been piled close by for use in the house construction. During the platform construction works, bedrock that would have protruded into the living quarters was encountered in the deepest part of the construction site and this had been quarried away before the house was built. Indeed the character of the rock meant that when one large slab of granite was eventually prised clear, it left behind a large cavity measuring up to 0.74m deep [604]

which was immediately backfilled with subsoil [603] (Fig. 12). The stone from this “quarry” would probably have been utilised in the house walls. Within the area of what was to become the house other rocks were dislodged [512 and 791] and these were backfilled with material [511 and 790]. The upper edge [010] of the scoop created to receive the house was identified during the course of the excavation and its character is most easily appreciated in Fig. 13.



Fig. 12 Half-sectioned quarry [604]. View from south-east. (Scale 500mm).

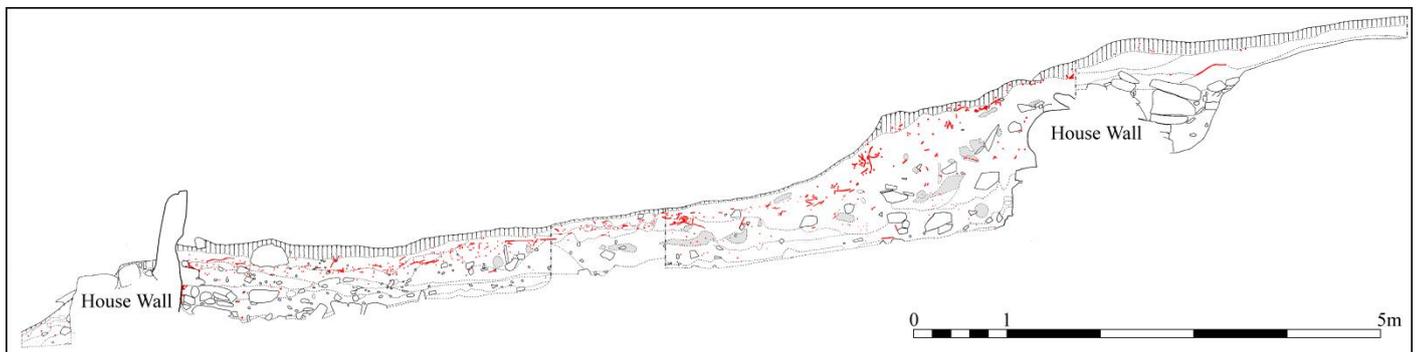


Fig. 13 North facing section across the roundhouse. Rhizomes shown red and disturbed ground grey.

2.1 Wall Construction

The house walls were erected on the carefully prepared platform. The walls are composed mainly of large edge set orthostats with rubble infill (Figs.14 & 15). The eastern wall [02 and 307] stands up to 1.19m high internally, is 1.4m wide and is of double orthostatic construction with at least ten substantial visible orthostats. The orthostats are each firmly held in place by a variety of small trig stones jammed into their bases and rubble infill [e.g. 331 and 336] placed behind them to ensure that the inner face was fully supported by the outer orthostats. Additional support was provided by a low bank [725] of re-deposited subsoil placed against the inside of the eastern wall. All the original orthostats remained in their original positions and this is a testimony to the builder's skill. The western wall [04 and 306] stands up to 1.34m high and is of rather different construction with a mixture of single orthostatic and coursed construction. The lower course of the inner face includes mainly edge set orthostats topped by large horizontally laid slabs. The exception to this is the walling built over the earlier backfilled quarry [604]. In response to the less firm ground, a foundation of small flat rocks was laid over the subsoil fill and above this a substantial horizontal slab was placed to distribute the weight more effectively (Fig. 16). The character of the outer face was only investigated at one location and this seemed to indicate that the western wall had no clearly discernible outer face (Fig. 13). This would suggest that the gap between the wall and the edge of the platform cut was backfilled with loose rubble [09] either during or shortly after the completion of the wall itself.

A large but rather crude recess in part of the wall may represent a cupboard, but we can be more certain that one particularly large orthostat was split after it was brought to the site to ensure that it fitted the house plan. The technique used to split this slab could not be ascertained because only a single face of the stone was available for inspection and this provided no clues on the method used, but this detail provides conclusive evidence that the Bronze Age farmers on Dartmoor were capable of splitting granite. All of the house walls were built onto the carefully prepared surface [e.g. 869], but the inner threshold stone [861] was placed into a construction trench [866]. This is perhaps surprising given that the threshold stone was not expected to carry the same heavy loads as the walls. However the doorway gap would have been the weakest part of the wall and therefore in order to prevent the orthostats on either side being pushed into the gap, the threshold stone was provided with additional strength and stability by its insertion into a carefully prepared foundation hole (Fig. 17). This attention to detail clearly illustrates an understanding of fundamental engineering principles. Originally the doorway was probably faced by an edge set slab on either side. Only the south-western slab survived and this had been displaced slightly. The doorway was not excavated.



Fig. 14 House walls. View from south-east. (Scale 2m and 500mm).



Fig. 15 House walls. View from north-east.



Fig.16 East facing section across quarry [604] under house wall [306]. (Scale 500mm and 250mm).



Fig. 17 Threshold stone [861] and its construction trench [866]. (Scale 500mm and 250mm).

2.2 Middle Bronze Age - Stakes and posts erected

The date or sequence of most of the 147 stake holes (Fig. 18) found during the excavation could not be established with any degree of certainty and hence some need to be dealt with here and again separately at Phase 5. The 15 post holes, however, all probably dated to the MBA (Fig. 19). Six of the post holes [413; 450; 608; 704; 757 and 759] contained only MBA pottery and whilst the remainder contained no dateable material, their position relative to the dated examples means that they are all likely to have been contemporary (Figs.20 & 21) . The situation with the stake holes is much more complicated. Only five contained dateable material, three were MBA and the other two EIA. The stake holes therefore belonged to both periods, but unfortunately it was not possible to date the majority. None of the stake holes in the western part of the house contained MBA material, it is therefore more likely that a substantial proportion of those ones are of EIA date. Some would have undoubtedly have been erected in the new house, but many others were clearly added during subsequent years.

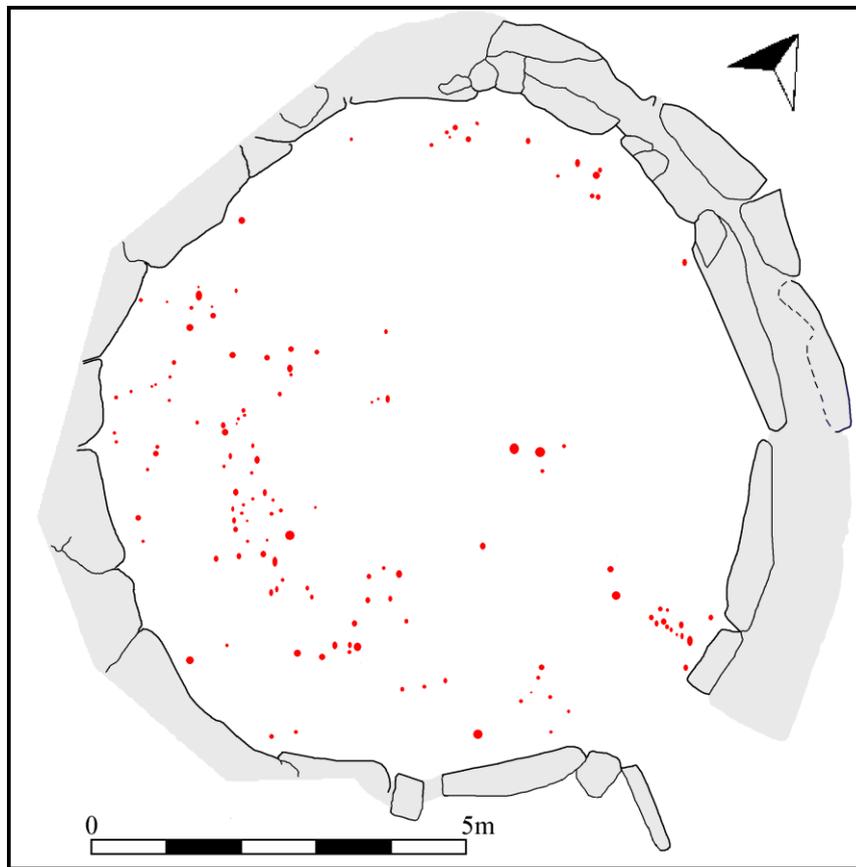


Fig.18 Distribution of all stake holes.

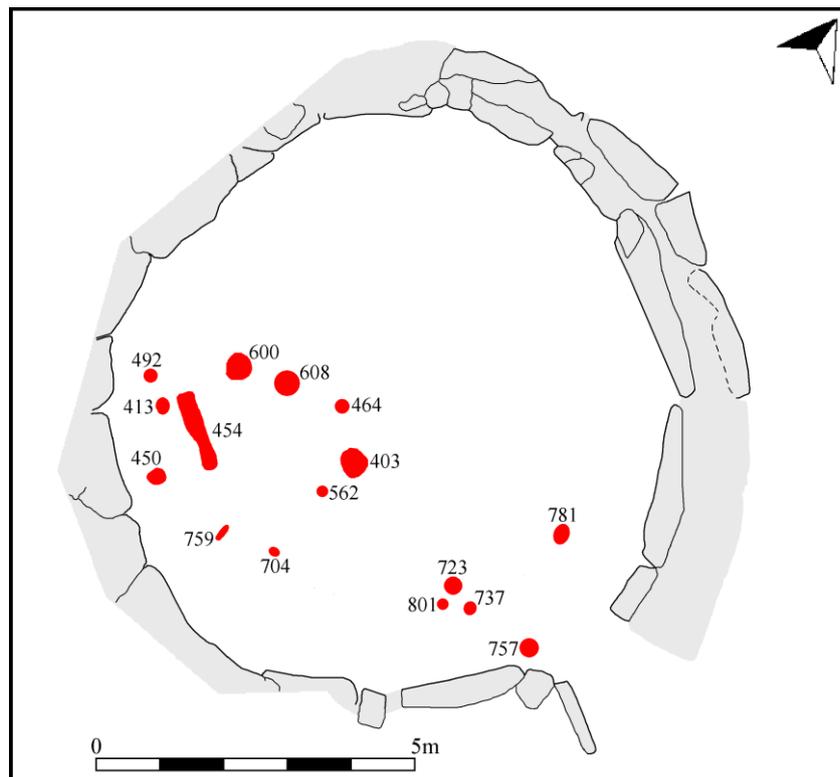


Fig. 19 Position of post holes and linear hollow [454].

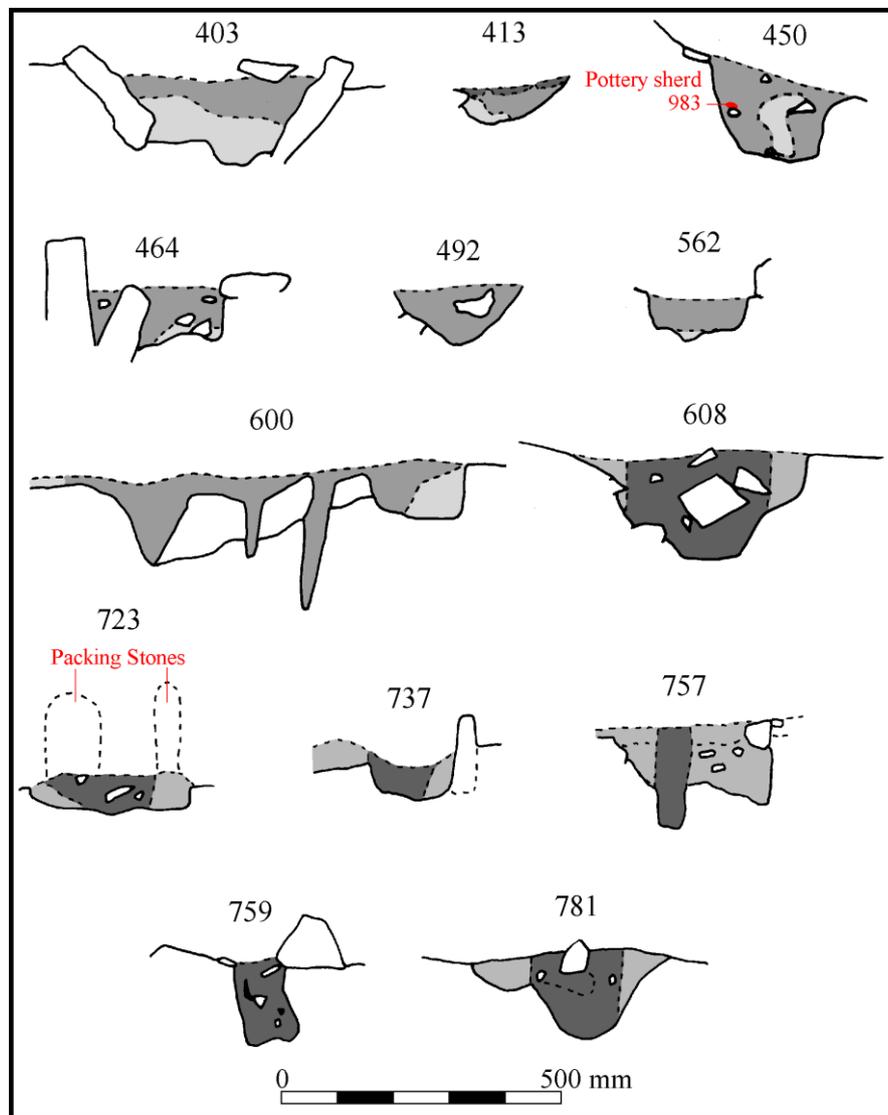


Fig. 20 Sections across post holes.



Post hole 492



Post hole 608



Post hole 781

Fig. 21 Three half-sectioned post holes. (Scale 250mm).

No ring of post holes suggestive of roofing support was found and it therefore likely that either the posts were all placed on pads, which were subsequently removed, or the roof had no or perhaps only one internal support. The substantial character of the wall means that the walls could have carried the weight of the roof. However an edge set stone [794] in the centre of the house propped by smaller slabs on the east and west may be the remnants of a support for a central post.

Given that the post holes do not appear to have supported the roof they therefore must have held posts that had some form of internal purpose. The post holes in the area adjacent to the doorway can be easily resolved, together with a line of associated stakes holes, into a pair of partitions which would have effectively extended the doorway passage into the house (Figs.22 & 23). The area defined measured 2.2m long by 1.55m wide and was paved

throughout its length. This structure would have had two obvious advantages. It would have considerably reduced draughts within the building and would have created 'private areas' behind the partitions. In addition it would have influenced movement flows within the house. This arrangement would have undoubtedly restricted light to the house as a whole, but it is perhaps worth noting that the hearth area at the other end of the house would have not suffered and because any door could have been closed less often the hearth area at least could have been lit naturally more frequently. Whatever the explanation this is clear evidence of experimentation with the internal layout. This particular experiment does not appear to have been successful, after a period of time the partition was removed and new flagstones laid in the area west of the doorway (shown green in Fig. 25). The post hole [757] closest to the door may have also supported a door.

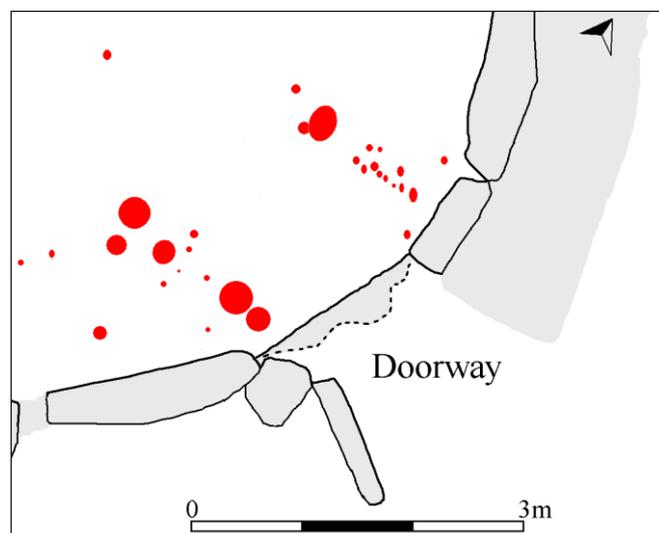


Fig. 22 Plan showing lobby partition post and stake holes.



Fig. 23 View from above of stake holes and post hole forming the eastern side of the lobby partition. (Scale 2m).

The remaining post holes were in the area west of the centre of the house and their distribution suggested a near circular structure with an internal diameter of 2.7m denoted by nine post holes. The clarity of the distribution suggests very strongly the presence of a circular timber structure within the house rather than the result of piecemeal additions over the years. The purpose of this structure will inevitably remain enigmatic and the possibility of it representing a small shelter built within the abandoned house in the time before the EIA re-occupation should not be entirely ruled out. For the moment a place within the new Bronze Age house seems most likely because no independent evidence of a period of occupation between the MBA and EIA has been identified.

Within the area defined by the circular post hole structure was a sharp –sided linear hollow [454] which contained 35 sherds of MBA pottery and a single sherd of EIA material (SF895). The ends of the hollow were deeper than the central part and it may therefore have contained a pair of posts with some form of horizontal structure between (Fig. 24). Although situated within the circular post hole structure this feature may have represented the remains of an internal fitting because it lay parallel to the house wall in this part of the building. The single sherd of EIA pottery is considered likely to have been re-deposited by burrowing animals.

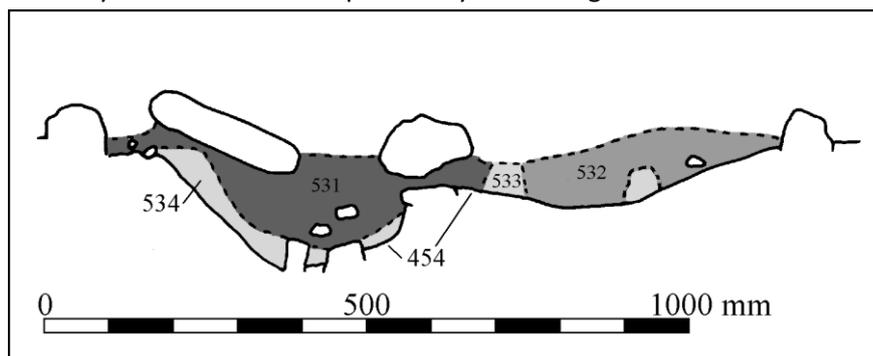


Fig. 24 West facing section along linear hollow [454].

Most stake holes were found in the western part of the house, where the majority were found in discrete linear arrangements between 1.5m and 2.2m from the house wall (Fig.18). This distribution has undoubtedly been influenced by differences in soil conditions which inevitably made it difficult to identify stake holes in those areas where the fill was similar or even identical to the material through which they had been cut. This said the concentration of stake holes in areas adjacent to the house walls indicates that the internal structures were largely confined to the edges of the living space and the central area appears to have been largely open. It was not possible to rationalise most of the stake holes into any particular patterns and thereby suggest the shape or function of the fittings that they represent. Six stake holes contained artefacts. Of these, three [789, 798 and 819] contained at least one sherd of MBA pottery, two [442 and 452] each contained a sherd of EIA pottery and it was not possible to positively date the sixth. The stake holes containing MBA pottery were all adjacent to the doorway and the two containing EIA material were in the western part of the house. It is clear that the stake holes belong to the two main periods of occupation. Stratigraphy indicates that at least a further two stake holes in the western part of the house are likely to be of EIA date. Stake holes [707 and 711] both cut the fill [453] of linear hollow [454] which is known to be of MBA date. The evidence therefore strongly supports the idea that many of the stake holes in the western part of the house were EIA and indeed there is actually no definite proof that any of them were of MBA date. This said, excavations of other houses with only Bronze Age occupation have identified similar arrangements of stake holes and it therefore extremely likely that at least some of the holes had Bronze Age origins, although on the basis of the evidence most are likely to have been EIA.

The only other structure which may have been built at this time is the hearth. The hearth area was situated within the north-western part of the house and survived as a charcoal rich spread sitting within a shallow hollow [314]. Cut into the subsoil below this hollow a single edge-set slab [799] represented the only remnants of the hearth itself. A shallow flat-bottomed hollow [317] situated adjacent to and south of the hearth may have represented a deliberately levelled area for storage purposes. Clearly this structure could belong to a later period but without contrary evidence it seems most appropriate to allocate it to the earliest possible phase.

3 Middle Bronze Age - Occupation material and features

A variety of structures and features relating to the occupation of the house during the MBA Age survived (Fig. 25). It was not possible to differentiate between some MBA and EIA material. In particular the occupation layer containing material from both periods was visually and texturally identical. This meant that it was only possible to identify the true extent of each layer during the post-excavation stage of the project when the detailed analysis of the position of dateable pottery sherds revealed for the first time the true extent and character of the two occupation layers. For this reason some contexts records have been allocated to Phase 3 and Phase 6 (EIA).

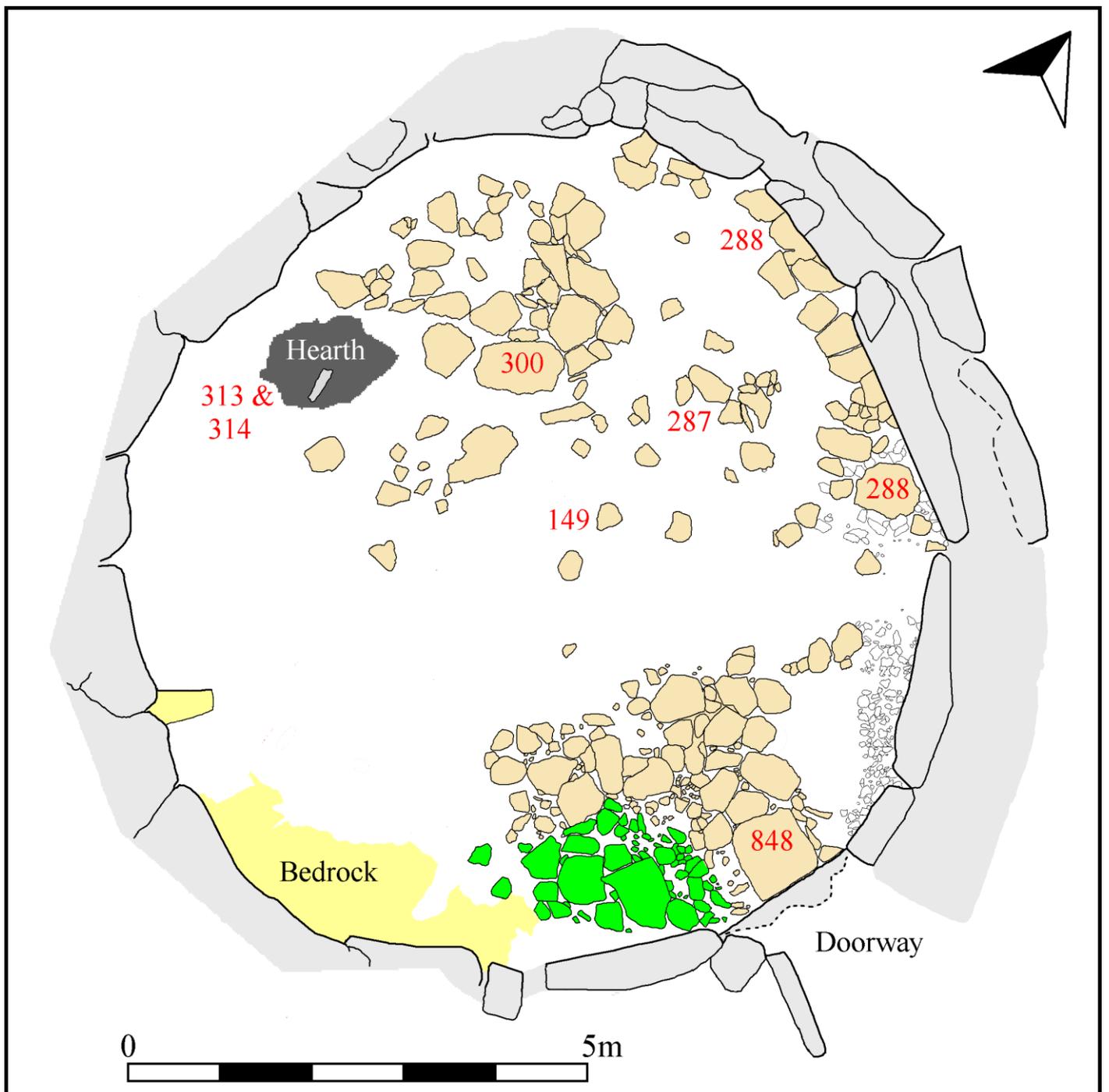


Fig. 25 Plan illustrating the position of principal features in Phase 3. The green flagstones were added at a later date during the MBA.

The main structures and features belonging to this period were the occupation layer [e.g. 279; 298; 299; 319; 320; 321; 322; 324; 511; 612 and 724] and flagstone surfaces [149; 287; 288; 300 and 848]. The occupation layer spread over most of the house, varied in depth and survived largely as dark brown very fine silty sand with some stones. The deposit was up to 0.30m deep in the area north of the doorway and did not extend into the south-western part of the house. This material represented the built up floor level which when dry would have been very hard. Over the years any hollows or holes [e.g. 303; 512; 702 and 716] that developed would have been backfilled. Using the pottery data and its detailed locational information it was possible to create a contour map showing the interface between the MBA and EIA ceramics and by default the approximate shape of the MBA surface in the period just before the EIA material started to accumulate. This work revealed a large irregular shaped hollow [325] in the area adjacent to the doorway and a series of cuts (Fig. 26). The two cuts nearest to the door would have been associated with the fitting of a new door and the remaining five were probably related to internal fittings. It is worth emphasising that traditional excavation techniques would not have identified the hollow or most of the cuts which were presumably stake or post-holes filled with identical material to that through which they had been cut.

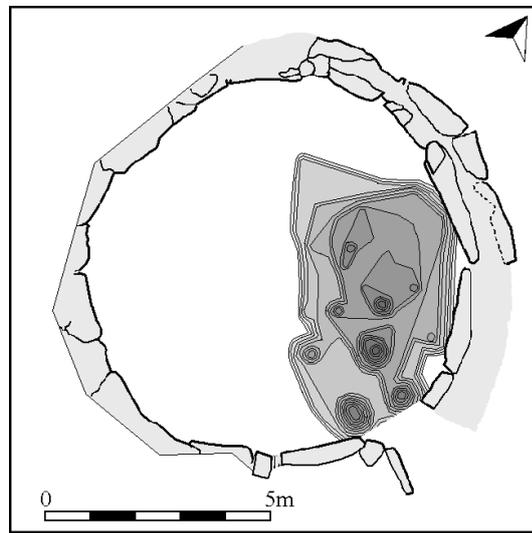


Fig. 26 Contour plot illustrating the irregular shaped hollow [325].

This surface was hard enough to withstand moderate use, but in those areas which were subjected to particularly heavy activity, the floor was reinforced by flagstones. Three main flagstone areas were identified. The first, around the doorway, [848] would have obviously experienced particularly heavy usage (Fig. 27). An especially fine flagstone was placed adjacent to the threshold stone and clearly demonstrated an appreciation of the need for a solid surface on which to place one's feet when stepping down into the house from the doorway. A slight erosion hollow filled by dark brown silty grit [659] below this stone indicates that for at least a short time (perhaps only during building works) the house had no flagstone surfaces. The flagstone surface within the doorway was laid over a period of time. The stones laid at the start of the buildings life sat straight on top of subsoil or re-deposited subsoil containing no artefacts whereas those laid at a later date (shown green in Fig. 25) were built upon the occupation layer found in other parts of the house. The original flagstone surface was confined to the lobby identified from post and stake holes and then spread a short distance into the house. This lobby would have been removed when the additional flagstones (shown green) were added.



Fig. 27 Flagstone surface [848]. View from north.(Scale 500mm).



Fig. 28 Flagstone surface [300]. View from above and north.(Scale 2m).

The second area of flagstones [300] was situated in the northern part of the house adjacent to the hearth [799] (Fig.28). This area would have seen particularly heavy use because of its proximity to the fire. The third discrete flagstone area [288] was situated adjacent to the north-east wall of the house. Given its proximity to the wall it is very unlikely that this area witnessed particularly heavy footfall activity and the paving of this area must have been the consequence of some other need. A significant number of separate flagstones were revealed in the area between the hearth and north-eastern surfaces. These may represent the remnants of a surface that was once more complete which was subsequently robbed or maybe the result of localised repairs using flagstones instead of earth. If

the former, the surface adjacent to the wall [288] could have represented an outlying part of a floor that once extended over much of the northern part of the house (Fig 29).



Fig. 29 Flagstone surface [288]. View from north. (Scale 2m and 500mm).



Fig. 30 Area of earthen floor overlying subsoil. (Scale 500mm).

Much of the central part of the house was provided with a hard earthen floor which would have been topped up with fresh material as slight erosion hollows appeared (Fig. 30). In this way and over time the floor level increased and gradually spread over the flagstones, hiding them from view. The material used to maintain the floor incorporated stray sherds of pottery and other materials into the floor. A total of 506 sherds of MBA pottery were found within this flooring material and three dimensional recording of their positions has enabled a detailed discussion of their deposition and the post-depositional processes they have been subjected to (see Archive).

3.1 Middle Bronze Age – Posts and stakes removed

This phase represented the end of MBA occupation at the house. It is very likely that the remaining posts and stakes were removed. Whilst the evidence is somewhat contradictory and the posts within post holes [450, 608, 737 and 781] appear to have rotted in situ the majority had clearly been removed. As none of these posts supported the roof, the fate of the roof at this time is unknown. The absence of charcoal indicates that the building was probably not destroyed by fire. The timber doorway lobby was almost certainly removed before the end and it is therefore interesting to note that two of the post holes [737 and 781] associated with this structure were apparently left to rot in-situ. This may suggest that they had been cut at the base rather than being dug out. We can however be more certain of the fate of the flagstones most of which had become buried beneath the earthen floor.

4 Desertion

The condition of the house following its abandonment is not known with any certainty. The roof may have remained in place for a number of years and indeed its frame may even have survived into the EIA, but eventually a lack of maintenance coupled with Dartmoor weather would have certainly seen the loss of its thatch. The building would have lost its weather proofing and the previous hard floor surfaces would have turned to mud during the winter months and erosion of the now exposed surfaces would have occurred. The profile of the floor in the south-eastern part of the house at this time is known from detailed analysis of the distribution of pottery sherds and indicates the presence of an uneven hollow [325]. Elsewhere within the house the picture is less clear but given the prevailing slope some movement of material eastward is almost inevitable. Some flagstones within the northern part of the house may have been removed at this time.

5 Early Iron Age – Returning to the house

After an interlude, the house was reoccupied and refurbished in the EIA. Dating evidence comes from 361 sherds of pottery and structurally from the fresh flagstone surface [559] adjacent to the doorway (Fig. 31), deliberate levelling of the floor [560; 726 and 805] and at least six stake holes [442 ;452; 552; 707 and 711 and 756.4] were cut during this time. The precise nature of the occupation is not known with certainty. The effort spent laying a new flagstone

floor, erecting a new door frame and levelling the floor together with the implied re-roofing of the building suggest a degree of effort consistent with full reoccupation. Furthermore, the stake holes suggest that structures were erected within the building and this, together with a spread of pottery suggesting that an earthen floor was being painstakingly maintained, point to full blown habitation. Whether this was on a seasonal or permanent basis is not clear from the evidence. It is however extremely unlikely that the building was being used simply to house animals and some level of human habitation fits the evidence most comfortably. Indeed as has already been demonstrated, it is possible that a large proportion of the stake holes in the western part of the house were created during the EIA implying a level of activity comparable with that in the MBA.



Fig.31 Flagstone surface [559]. View from north. (Scale 2m and 500mm).

6 Early Iron Age - Occupation Material

The layers containing substantial quantities of EIA material were visually and texturally identical to those deposited during the MBA. For this reason it was not possible to differentiate between the different deposits during the course of the excavation. However careful analysis of the pottery distribution has allowed identification of the EIA floor level and confirmed that the inhabitants re-modelled the floor surface using some of the MBA earthen flooring material to backfill the hollow [325] within the south-eastern part of the house.

The duration of the EIA occupation is not known but it is likely to have been related to farming activities in the vicinity. There is no evidence that the house burnt down or was dismantled and all we can be certain of is that it was abandoned. Certainly by the Roman period enough remained for the building to be a focus of interest.

7 Roman – pottery only

Romano-British interest in the house is implied by the recovery of 11 sherds of Roman pottery from the house (Fig. 32). However no structural evidence was revealed and it is therefore very unlikely that the house was reoccupied during this time. It may have been used as a temporary shelter with perhaps a flimsy roof being draped across some of the orthostats. More likely, the existing walls alone may have provided welcome shelter to travellers seeking respite from the prevailing westerly winds. It is possible that the pottery was derived from sherds scattered with manure in the field above, but the relatively narrow date range combined with the number of sherds and their distribution suggest that it much more likely that they were deposited within the house itself and not the result of secondary deposition. The discovery of any Roman material on Dartmoor is significant and demonstrates that whichever interpretation is accepted, the moor continued to be used, as one would expect. All the contexts from which Roman material was recovered contained re-deposited artefacts of prehistoric date, but all the sherds were in

appropriate locations within the stratigraphy and provided a clear indication of the build-up material within the house in the early historic period.

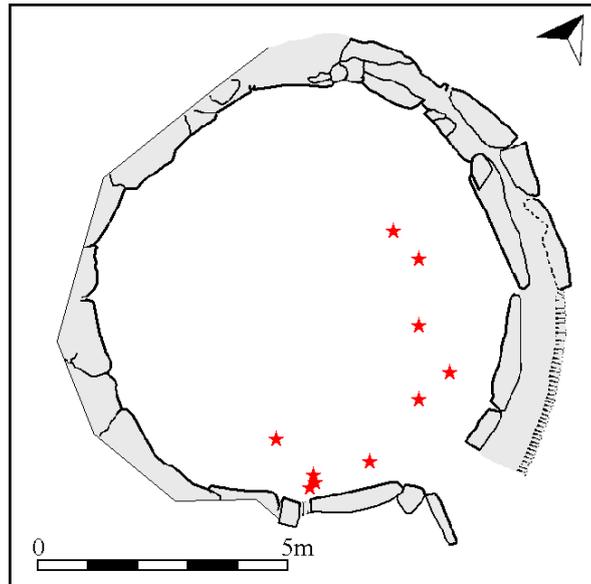


Fig. 32 Plan illustrating the position of Roman pottery sherds.

8 Historic Period – The disappearing house

During the historic period the house gradually filled up with soil and rubble (Figs.33 & 34). Most of the soil washed into the building from the hillside above. This was probably not a gradual process, but rather a series of isolated events when exposed soil combined with a torrential downpour would have resulted in significant accumulations over a short period of time. As well as hillwash deposits some dumping of rubble also occurred [282; 337 and 926]. These stones were probably collected from the nearby field and would appear to confirm arable activity which in turn would help to explain the substantial build-up of material within the house. The presence of a few sherds of medieval and post medieval pottery suggests the fields were being manured. Eventually the western wall of the house became totally submerged.

Evidence for reuse of the building during the historic period was limited to a cluster of large granite slabs adjacent to and north of the doorway [326] and heightening of the eastern wall [864]. The stones in the doorway may represent the remnants of a crude wall placed across the entrance and might therefore indicate reuse as an animal pound or shelter during the post-medieval period and the walls may have been strengthened as part of this activity. Clearly any re-use would have happened in the period before the western wall became completely buried.

As the soil built up bracken would have flourished and the house was probably covered in bracken during most of this period. In the medieval period in particular the dense rhizome mat would almost certainly have spread through the earlier prehistoric layers and it was during this time that the rhizome damage would have occurred. Further damage to the archaeology was caused by animal burrowing, tree roots and erosion. All three damaging agencies were found to have extended into the prehistoric occupation material. The burrows were found generally in the drier western part of the building, tree roots throughout the house and erosion in the eastern part. The erosion episodes would have been caused by vast amounts of water pouring into the building and quickly forming a channel that removed the earlier deposits. Later flooding episodes ensured that the resulting gullies were soon filled again.

To the north-east of the house a shallow ditch [860] was cut. This ditch was almost certainly cut to divert surface water which flows through this area after heavy rain and carry it away to a ditch leading downslope alongside the nearby field boundary. This ditch was re-cut [667.1] on at least one occasion.



Fig. 33 South facing section across the hillwash deposits. (Scale 500mm).

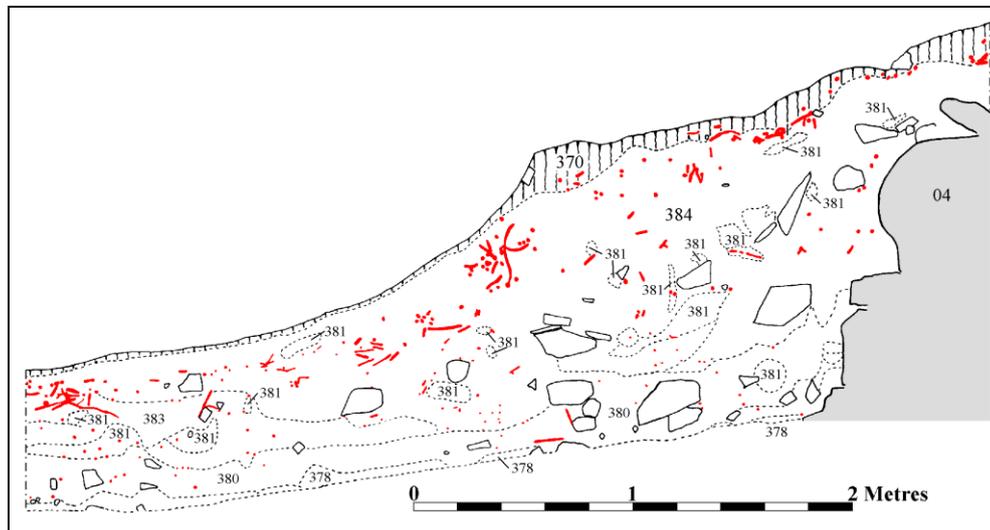


Fig. 34 North facing section across the hillwash deposits. Rhizomes shown red.

9. Modern - Turf and Topsoil

Turf and topsoil covered much of the site and most of it belongs to this phase. The turf and topsoil in parts of the eastern area of the house belong to a later phase because it overlay post-1976 deposits.

10. 1976 - Buried Turf

In the period following Joe Turner's identification of the house in 1976 and the subsequent felling of the trees within the building in the same year, a substantial inundation of soil [01] into the lower part of the structure occurred. This event probably followed the disastrous loss of tree cover in the early 1990's and covered the original turf and topsoil [05 and 328].

11. Post 1976 – More hillwash deposits

The final depositional event prior to the excavation was the accumulation of a substantial body of silts [01 and 297] in the lowest parts of the house. The presence of modern finds including several pieces of yoghurt pot within this material confirmed its recent origin and thanks to the discovery of two buried tree stumps it proved possible to establish with certainty that all of this soil had accumulated since around 1976 when the trees were cut down. We were therefore able to conclude that in just over 20 years around 5m³ of material had accumulated within the house. Much of this material probably arrived in one or more events rather than gradually and the rhizome mat in these areas had not adjusted to the change in ground level and was therefore considerably deeper than elsewhere.

The Pottery

Henrietta Quinnell with petrographic comment by Roger Taylor

The assemblage consists of 968 sherds weighing 5633 grams. Of these 571 sherds 4241 grams are Bronze Age, 361 sherds 1263 grams are EIA and 10 sherds 42 grams are Roman. In addition there are 26 sherds 87 grams unclassified, generally small and abraded which are not considered here further. All sherds were individually numbered, three-dimensionally recorded with weight, abrasion and other details recorded on an archive Excel [spreadsheet](#). Illustrated vessels are indicated by subdivisions of Fabrics, for example P3.1 is of Fabric 3. In cases where vessels have complex patterns of joins, these are indicated on supplementary diagrams.

Seven fabrics were initially identified by study of the inclusions with a x10 lens: these fabrics were subsequently broadly confirmed by examination of illustrated examples under the petrological microscope. Fabrics are soft, with some variation, and all are friable, the latter factor due in part to acid soil conditions. Details of Fabrics by sherd number, weight and context are provided by Table 6.1.4 in the archive.

Abrasion

Recording of abrasion on sherds is based on the system devised by Sorenson (1996) for Bronze Age midden material at Runnymede with some modifications. The following descriptors and numeration are used in the report and on the database.

<i>Very fresh</i>	1; Sorenson Grade 1, hardly ever applicable
<i>Fresh</i>	1/2; colour of core slightly patinated but unaltered surfaces with sharp corners and edges
<i>Moderate abrasion</i>	2; core colour patinated, some definition in the sharpness of corners lost
<i>Abraded</i>	2/3; core colour patinated, slight rounding of corners and slight erosion of surfaces
<i>High abrasion</i>	3; core colour patinated, rounding of corners and of sherd outline, surfaces somewhat eroded

Bronze Age

Fabrics

Fabric 3 Gabbroic 136 sherds 1010 grams. Mean sherd weight 7.4 grams.

P3.1 Generally oxidised 5YR 5/6 yellowish red, but parts of interiors reduced 5YR 4/1 dark grey. Common coarse to very coarse inclusions, some up to 7mm. *Feldspar* soft white altered to hard cleaved angular grains, 0.05-3.5mm: *rock fragments* grey sub-rounded micaceous foliated, possibly micaceous hornfels fragments, 1.4-7.5mm; granitic fragments quartz/muscovite, quartz/biotite/feldspar, 3, 3.5 and 4mm: *quartz* translucent colourless sub-angular grains, 1.0 to 2.2mm: *magnetite* black glossy magnetic sub-angular grains, 0.2-1.7mm. *Comment* gabbroic admixture fabric, with micaceous hornfels and granite probably added to gabbroic clay relatively locally but not on-site. P3.3 has varied rock fragments including sandstone of uncertain source and P3.5 fragments of probable aplite. This fabric appears to mix gabbroic clay with local granitic rock temper. Some sherds of gabbroic fabric without added inclusions are present in the assemblage and their place of manufacture is not known.

Fabric 6 Gabbroic variant 93 sherds 942 grams. Mean sherd weight 10.1 grams.

P6.1 Generally oxidized 5YR 6/6 reddish yellow, with core and interior reduced 5YR 3/1 very dark grey. Common inclusions generally coarse, some up to 8mm. *Feldspar* abundant soft white altered angular to sub-angular grains, and some harder cleaved and angular grains 0.05-3mm, rarely 8.5mm: *amphibole* light to medium grey cleaved and fibrous grains, 0.1-1.5mm: *rock fragments* a scatter of off white to buff, some with buff outer surface and dark interior, very fine-grained ?biotite hornfels, 1.2-6mm: *quartz* transparent to translucent colourless to white angular to sub-angular and rare, rounded grains, 0.2-2mm: *magnetite* sparse black glossy sub-angular, 0.5-1mm: *mica* muscovite cleavage flakes, 0.2-0.5mm: matrix very fine grained feldspar and mica. *Comment*. A gabbroic fabric with

minor additions of rock fragments from local sources. P6.2 is a similar gabbroic fabric but with additions of hard dark grey basaltic fragments with white elongated plagioclase phenocrysts: it is likely that these are derived from the Lizard area, and that the basaltic fragments were deliberately crushed for addition to the clay. The fabric was originally distinguished by its dark grey and white inclusions. Some of it appears to have been potted in the Lizard, some fairly local to the site.

Fabric 2 Rock tempered, North Dartmoor, 272 sherds 1466 grams. Mean sherd weight 5.4 grams.

P2.2 Generally reduced 5YR 5/1 grey but with oxidised patches 5YR 5/3 reddish brown. Moderate generally coarse inclusions, occasionally up to 7mm. *Rock fragments* pale grey to buff, soft altered angular to sub-angular fragments, 0.1-7mm, fine-grained quartz/feldspar aplite, with some containing small feldspar phenocrysts: *mica* muscovite cleavage flakes with rounded edges up to 0.21mm: *quartz* very rare transparent rounded grains, 0.15mm: *matrix* smooth clay with some fine mica. *Comment based on P2.2 and sherds 720 and 738.* A rock tempered fabric in a matrix with very sparse indigenous mineral content. The aplitic fragments in P2.2 are an added component which links the area of manufacture to the Dartmoor area. The fine grained igneous basic rock inclusions in 720 and 738 possibly come from the Okehampton area. The smooth mineral-free matrix clay suggests an estuarine or tidal river source for P2.2 but the other sherds examined used clay from streams flowing off the Moor. Fabric 2 appears to be a set of rock tempered fabrics associated with the northern fringes of Dartmoor.

Fabric 5 Grog and local rock 51 sherds 442 grams. Mean sherd weight 8.7 grams.

P5.1 Exteriors patchily oxidised 5YR 6/8 yellowish red, with core and interiors reduced, 5YR 3/1 very dark grey. Sparse inclusions, c 5% grog up to 3mm and 5% rock up to 4mm. *Grog* buff sub-angular to sub-rounded fragments, some containing quartz grains (c 0.1mm), 1-3mm: *vein quartz* sparse translucent angular grains, some showing parts of crystal faces, 1.5- 2mm, rarely 4mm: *rock fragments* light buff fine-grained sub-rounded aplitic granite, fragment, 5mm: *quartz* sparse transparent to translucent angular to sub-angular and some rounded polished grains, 0.1-1.2mm: *feldspar* sparse soft white altered sub-rounded grains, 0.1-0.5mm: *mica* sparse muscovite cleavage flakes up to 0.15mm, biotite 0.1-0.6mm: *matrix* smooth clay with very fine muscovite, and a scatter of limonite and quartz grains less than 0.5mm. *Comment.* A ?estuarine clay with sparse indigenous mineral content extended with grog, some vein quartz, aplite and sparse granite derived grains. P5.2a and 5.2b are similar to P5.1 but contain a scatter of rock fragments, possibly sedimentary or hornfels fragments in addition to the other inclusions. P5.2a and P5.2b are separate vessels, although probably made by the same potter and from the same clay source. Generally an estuarine clay with grog and rock fairly local to the site.

Fabric 7 Granite derived with crushed granite 19 sherds 381 grams. Mean sherd weight 20.0 grams.

P7.1 Generally oxidized 5YR 5/6 yellowish red, but irregularly, with patches of reduction 5YR 4/1 dark grey. Sparse inclusions, generally coarse/very coarse up to 5mm. *Rock fragments* granite, medium grained, angular fragments, quartz/feldspar/biotite (internal grain size, 0.1-0.1 mm), 1-5mm, sandstone, a single rounded fine-grained fragment 5mm: *quartz* transparent to translucent colourless angular grains, 0.5-2mm, rarely 4mm, and some small well-rounded and polished grains, 0.1-0.2mm, rarely 3mm: *feldspar* white altered angular grains, 0.5-2.5mm: *tourmaline* black vitreous grains, 0.5 and 1mm: *mica* muscovite cleavage flakes 0.1-0.5, biotite cleavage flakes 0.1-0.2mm: *matrix* smooth clay with fine muscovite flakes. *Comment.* A smooth clay extended with angular granite fragments and with sparse rounded polished grains pointing to an estuarine source for the clay. However P7.2 appears to have a matrix of local stream clay.

Comment on the Fabrics

The Fabrics are groupings of material with broadly similar lithologies, but with some variation. There is a great deal of complexity in the clays and in the added inclusions, with much of both materials being brought some way before potting. The only previous work on the petrology of Dartmoor Bronze Age fabrics (Parker-Pearson 1990: 1995) demonstrates this complexity which was summarized into two groupings which are too broad to be now useful. Parker-Pearson's work demonstrates the extensive use of broadly estuarine clays, with numerous samples shown to have 'rounded' quartz grains, considered by Roger Taylor to be indicative of a coastal source.

The gabbroic admixture Fabrics 3 and 6, with clay sourcing to the Lizard in Cornwall, together comprise 40.1% of the Bronze Age assemblage on sherds, 24.8% on weight and between 45.5% and 40.7% on vessel numbers (see below). Much of the gabbroic clay was mixed with fairly local inclusions. The comparatively large gabbroic

component may reflect the position of Teigncombe close to the upper Teign Valley and the access this provides to the Devon coast. The presence of gabbroic vessels in Devon in the MBA has been well demonstrated in recent work: on at least four other sites close to the South Devon coast there are gabbroic vessels with the clay transported, and then potted mixed with local inclusions (Quinnell 2012, Fig.1). The only vessel from a MBA Dartmoor settlement previously recognized as gabbroic is Fig.13.1 from Smallacombe Rocks (Radford 1952: Parker-Pearson 1990, No 80). However the new assignment of two vessels from Kestor (see below) as gabbroic, pace the data presented by Parker-Pearson, suggests that more may be present than he recognized. This is supported by Roger Taylor's recent identification of a small gabbroic component, but without local inclusions, in the assemblage from a hut circle at Bellever (Quinnell forthcoming).

The other three Fabrics, 2, 5 and 7, show the use of both estuarine clays and clays deposited by streams/rivers flowing off Dartmoor, most probably forming where the water flow slowed as it reached lower land just off the Moorland edge. Most of the inclusions in Fabric 2 may have come from the area around Okehampton. The components of Fabrics 5 and 7 may have come from the general locality of the site.

All Fabrics except 7 have a broadly similar distribution across the structure: the sherds of Fabric 7 are concentrated in a small area in the south-west of the structure (Archive 5.3, Figs.103 - 123).

Fabric 3 gabbro	Fabric 6 gabbro variant	Fabric 2 rock N Dartmoor	Fabric 5 grog local rock	Fabric 7 granite
7	3 or 4	6 to 10	4	2

Table 1 The number of distinguishable vessel in each Fabric with a minimum of 22 and a maximum of 27 vessels identified.

Chronology and affinities

Five radiocarbon dates were obtained from residues on sherds of Fabrics 2, 3 and 5: these could not be related to enumerated vessels. The results, calibrated with OxCal 4.05 and subjected to posterior density modelling, indicated that the sequence started 1500 - 1320 cal BC and ended at 1410 -1230 cal BC: the boundary between lower occupation, context 612) and upper occupation lies at 1410 – 1310 cal BC. This places the hut circle firmly in the MBA, but only provides a broad indication of the length of occupation. The general ceramic style in use on Dartmoor, as throughout Devon and Cornwall, in the MBA is Trevisker (Quinnell 2012). The basic styles or forms of Trevisker pottery are based on analysis of Cornish material from both Early Bronze Age funerary/ceremonial contexts and MBA settlements (Parker-Pearson 1990; 1995); these are all jars of different sizes. Many Devonian MBA forms, such as bowls, do not conform to the Cornish styles and for these the term 'Trevisker-related' may conveniently be used (Quinnell 2012).

All the gabbroic Fabrics 3 and 6 vessels, 10 or 11 in number, are jars, as are one in Fabric 2, three in Fabric 5 and two in Fabric 7, a total of 16 or 17. Between five and nine vessels in Fabric 2 (P2.1 and similar) and one vessel in Fabric 5 (P5.1) are bowls, a total of between six and ten. Bowls do not generally occur in Cornish assemblages but these are known from Dartmoor. There are examples from Legis Tor Huts 1 and 2 and from Raddick Hill Hut 11 (Radford 1952, Fig.10) and these also occur in the assemblage from Castle Hill in East Devon (Quinnell 2012, Fig.10, 21).

	Fab 3	Fab 6	Fab 2	Fab 5	Fab 7
Jar Parker-Pearson Styles 3/4 size appropriate for cooking Incised decoration	P3.1 P3.2 P3.3	P6.1			
Jar Parker-Pearson Styles 3/4 size appropriate for cooking Plain					P7.1 P7.1
Jar Parker-Pearson Style 3/4 size appropriate for cooking Decoration uncertain	P3.5		P2.2		
Jar Parker-Pearson Style 3/4 size		P6.1 }			

appropriate for cooking uncertain	Decoration		P6.2 }			
Jar Parker-Pearson Style 3/4 size appropriate for individual eating/drinking Incised decorated, also finger nail					P5.2a P5.2b P5.3	
Unassignable to Style Cord impressed	P3.4					
Trevisker related straight sided jar size appropriate for cooking Incised decoration		P6.2				
Trevisker related bowl with everted rim Plain			P2.1 ++++			
Trevisker related bowl, rim unmodelled Incised decoration				P5.1		

Table 2 The range of vessel types.

None of the vessels is much over 200mm in rim diameter and vessels of a type to be interpreted as storage jars are not represented. The assemblage from the hut circles at Dean Moor (Fox 1957, 58) similarly included no vessels over 8" or 200mm in diameter which might be interpreted as storage jars. The overall function of the Teigncombe assemblage appears to have been cooking and food preparation. There are a few vessels appropriate for individual eating and drinking. There is no literature on the use of bowls but some use for the serving and eating of food seems appropriate.

Only one of the vessels has cord impressed decoration. MBA assemblages both in Cornwall, on Dartmoor and elsewhere in Devon, have a mixture of plain, cord impressed and incised (including finger nail) modes, with incised decoration the most common. It is now accepted that there are no chronological implications for different decorative modes, except for a very short period at the end of the MBA post-dating the Teigncombe assemblage (Woodward and Cane 1991).

There is some chronology in the development of use of hut circle with pottery in context (612) below flags 648. The accumulation of this started 1500 -1320 cal BC and ended at 1410 – 1310 cal BC. Vessels containing sherds found in (612) are P3.1 and P5.2b, with other sherds from these vessels in occupation layers such as (319). There are also vessels represented by single sherds, small jar P5.3 and a bowl as P2.1. There is nothing distinctive about this group of vessels. Plots of the distribution of sherds of P3.1, and P5.2b (Archive Section 5.3) show fairly tight groups of sherds: presumably (612) extended beyond the covering flags and the uncovered part then merged as (319) accumulated above the flags.

The overall number of vessels is quite small, and may only represent a small proportion of those used during the MBA at the roundhouse.

The structure does not appear to have been abandoned in any formal way. Its end appears to tail off, with some posts rotting in situ. If this was the case, there would have been no formal processes connected with the deliberate abandonment of the structure. It is therefore appropriate that there are no distinctive sherds, or indeed other artefacts, in post sockets which were the results of structured deposition unlike the Bellever hut 6.1.2 circle (Quinnell in prep.).

Illustrated Bronze Age vessels

P3.1 (Fig.35) Seven joining sherds; probably more sherds from this vessel that do not join. Rim sherds SF976 (319), with joining SF975 (319), joins SF349 (319), joins SF1155 (612). These last two rim sherds join another group of sherds SF722 (319), SF973 x 2 (321). All contexts occupation west except (612) beneath flags (848). Archive Fig.5.3. 169 shows findspots from all contexts grouped on the south side of the doorway. Jar with slight neck and simple out-turned rim with internal bevel c 200mm in diameter and crude incised chevron pattern. The outer surface preservation of this vessel varies greatly with the smoothed surface cracked off in some places. Moderate abrasion.

P3.2 (Fig. 35) SF369 joins SF214 both (279) occupation. Jar with neck and out-turned rim, top of rim missing, rough incised chevrons. Neck diameter c 150mm. Surface smoothed. Moderate abrasion.

P3.3 (Fig.35) SF202 (299) occupation. Jar with flat-topped externally expanded rim diameter c 200mm, with vessel wall beneath rapidly thinning; traces of vertical incisions. Surface smoothed. Moderate abrasion. Another rather thicker vessel with similar decoration is represented by SF943 (319) and a more out-turned rim by SF865 (279).

P3.4 (Fig. 35) SF1113 (279) occupation and additional but not joining sherd SF914 (319) occupation west have shoulder decoration of double line parallel twist cord forming part of a bordered design. Surface smoothed. Abraded.

P3.5 (Fig. 35) SF301 (321) occupation west. Out-turned rim with comparatively smooth surface and thin-wall. SF679 (321) probably represents two plain body sherds from this vessel. Surface smoothed. Moderate abrasion.

P6.1 (Fig. 35) SF310 (319) occupation west. Flat-topped rim with external expansion from jar, closely spaced lightly incised vertical lines below. Surface smoothed. Abraded.

P6.2 (Fig. 35) SF697 (base), SF881 (319); SF926, 919, 1043, 854, 368 from (319) occupation west, SF861 (320) occupation east, SF250 (321) occupation west, SF405, 965 (279) occupation. The distinctive character of this vessel makes sherds easy to distinguish. Vertically sided vessel, rim with internal and external bevels c 240mm in diameter, smoothed surface with parts of thick incised line decoration. Surface smoothed. Abraded. Archive Fig.5.3.181 shows the sherds scattered over the downhill half of the structure.

P6.3a (Fig. 35) SF1149 (279) occupation. Everted rim. Surface smoothed. Abraded.

P6.3b (Fig. 35) SF1106 (279) occupation. Body sherd with unusually rounded body, on fabric possibly part of P6.3a. Surface smoothed. Abraded.

P2.1 (Fig. 36) SF770 (319, 2 sherds), SF993 (319), SF 672 (319) occupation west. Rim and adjoining sherds from plain straight sided bowl, slightly everted rim c 210mm diameter, with smoothed surfaces. SF996 joining SF 1007 (both 319) is almost certainly part of this vessel. Moderately abraded. Archive Fig. 5.3.166 shows sherds from this vessel in a tight group south-west of the entrance. Between four and eight vessels of very similar form are represented by rim sherds; the actual numbers of vessels depends on the regularity or otherwise of the rim around the vessel. SF799 (319), S 736 (319), SF751 (319), SF1000 (319), SF343 (319), SF1263 (612), SF935 (319), SF319 (319) and SF1266 (612). Most of the rims are reduced, whereas the body sherds are oxidised; this makes it difficult to judge which of the body sherds might belong to which vessel.

P2.2 (Fig. 36) SF893 (453) hollow (454). Horizontal lug with two facets in oxidised fabric; no wall sherds adjoining but some sherds may belong to this vessel. Smoothed surface. Moderately abraded. The lug certainly comes from a jar rather than a bowl.

P5.1 (Fig. 36) SF934 (279) occupation layer, SF858 (319) occupation west, SF520 (319), SF1151 (611) buried turf forms one block, and SF384 SF696 SF851 (all 319) occupation west forms another. Archive Fig.5.3 172 shows sherds from all contexts spread in a narrow north-east to south-west cord some three metres in from the doorway. Rim c 150mm diameter and straight side from bowl with coarse incised chevron design. Surface smoothed. Moderate abrasion.

P5.2a (Fig. 36) SF559 (319) SF271 (319) occupation west SF235 (304) hillwash possibly joining SF558 (319). Archive Fig.5.3 175 shows the findspots grouped tightly in a small area to the west of the doorway. Small jar with everted rim c 110mm diameter and vertical incised lines. Surface smoothed. Moderate abrasion. Fabric analysis indicates this is a separate vessel from P5.2b.

P5.2b (Fig. 36) SF1069 (319) occupation west SF1268 (612) beneath paving (848). Archive Fig.5.3 178 shows the sherds close together on the west side of the doorway. Central part of jar similar to P5a with small horizontally perforated lug. Surface smoothed. Moderate abrasion.

P5.3 (Fig. 36) SF1285 (612) beneath paving (848). Neck sherd from small jar with vertical finger nail decoration. Surface smoothed. Moderate abrasion.

P7.1 (Fig. 36) SF554 (321) occupation west. Joining sherds from jar, of probable biconical shape, with simple everted rim c 210mm diameter, found inside uppermost. Surface well smoothed and little worn. Fresh breaks.

P7.2 (Not illus.). SF653A, 543, 541, 664 (321) occupation west. Similar vessel to P7.1 but slightly different fabric. Surface smoothed. Moderate abrasion. Archive Fig.5.3.184 shows sherds in a tight group close to the west side of the house.

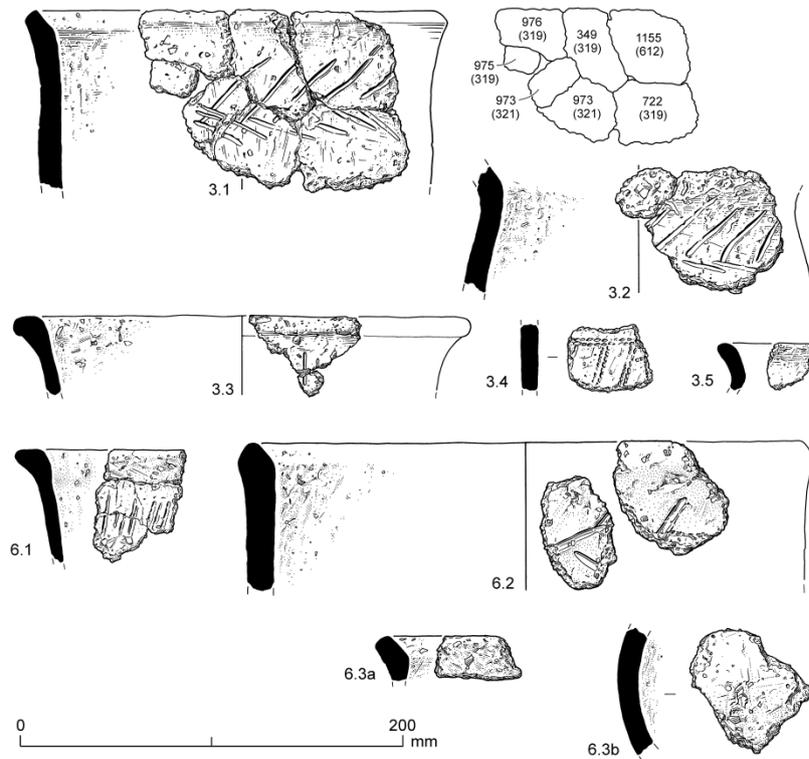


Fig. 35 Gabbroic Bronze Age vessels, Fabrics 3 and 6. Scale 1:3 (drawn by Jane Read).

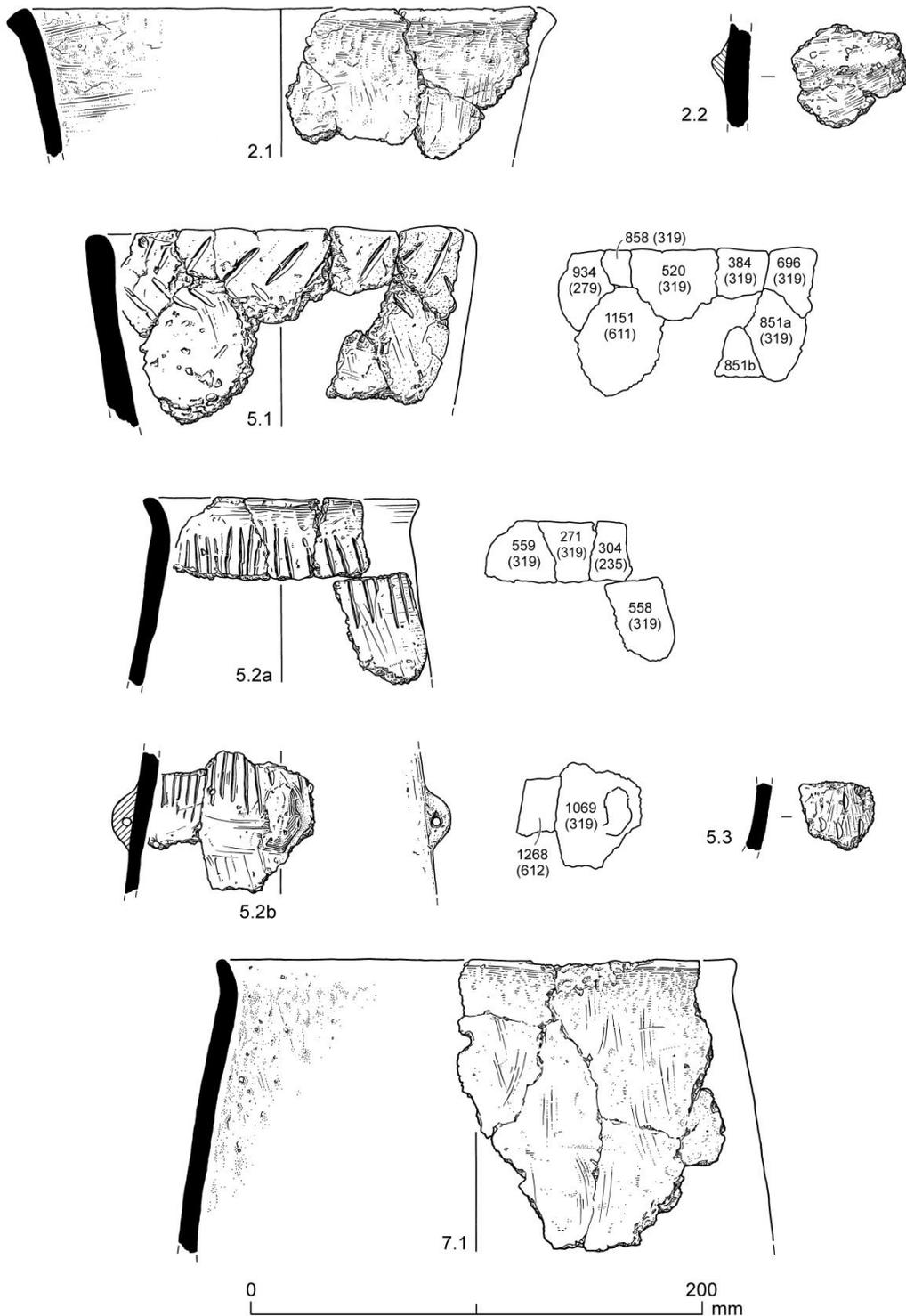


Fig. 36 Bronze Age vessels in Devon Fabrics 2, 5 and 7. Scale 1:3 (drawn by Jane Read).

Early Iron Age

A number of contexts are indicated in the stratigraphic account as forming an EIA horizon across the structure; of these stake holes 442 and 452, levelling 560 below flags 559 and levelling 726 contained some EIA sherds but without formal characteristics. Most of the EIA material however, including the illustrated pieces, was recovered from the earthen floor within the eastern part of the building where it had accumulated as a result of routine maintenance.

Fabrics

Fabric 1 Local stream temper in estuarine clay 322 sherds 1099 grams. Mean sherd weight 3.4 grams

P1.4 Generally reduced 5YR 3/1 very dark grey but oxidized patches on exterior 5YR 6/4 light reddish brown. Moderate generally coarse inclusions, some up to 2mm. *Quartz* transparent colourless angular to sub-rounded abraded grains, 0.3-2.2mm: *feldspar* white opaque to translucent variably altered, angular to sub-rounded grains, some showing cleavage, 0.2-1.5mm: *mica* biotite, brown cleavage flakes with abraded edges, 1.2mm; muscovite sparse composite flakes, 0.05-0.15mm: *tourmaline* black vitreous angular to sub-angular grains, and rare striated crystal fragments, 0.1-1.2mm: *limonite* a scatter of soft brown sub-angular to sub-rounded grains, 0.1-1mm: *matrix* smooth, finely micaceous clay. *Comment based on examination of P1.4 and P1.5.* A granite derived temper probably sourced from within the area of the granite. Some grains are abraded or show some degree of rounding indicating a stream sand source. The clay used appears to be estuarine.

Fabric 4 Granite derived, local clay 39 sherds 164 grams. Mean sherd weight 4.2 grams.

P4.1 Generally reduced 5YR 3/1 very dark grey but oxidized patches on exterior 5YR 4/4 reddish brown. Sparse to moderate generally coarse inclusions, some up to 4mm. *Quartz* transparent to translucent colourless angular grains, 0.5-2.5mm: *feldspar* translucent colourless to white angular to sub-angular grains, some showing cleavage, 0.4-1.2mm: *tourmaline* black vitreous angular and some striated crystalline grains, 0.5-0.8mm: *matrix* generally smooth clay with some fine mica and smaller mineral grains. *Comment based on examination of P4.1 and P4.2* limonite, biotite and composite granite grains also occur in P4.2. A sparse granite derived fabric with a granite derived temper, all components coming from within the area of the granite: the smooth clay matrix contains some fine-grained fragments of the tempering minerals.

Comment on Fabrics

Neither of these fabrics has been identified previously. The components of Fabric 1 indicate transport, probably of the estuarine clay for mixing with stream sand probably coming from a source around the edge of the granite.

Illustrated Iron Age sherds

P1.1 (Fig. 37) Joining rim sherds SF627 (279) and SF767 (279) occupation, SF34 (279) and SF401 (320) occupation east are probably rim sherds from the same vessel. Upright rim from shouldered vessel, with impressions on rim top producing a 'cable' effect. Rim diameter uncertain but probably c 200mm. Smoothed surfaces. Moderately abraded.

P1.2 (Fig. 37) SF429 (319) occupation west. Simple out-turned rim c 150mm diameter with smoothed surfaces. Moderately abraded.

P1.3 (Fig. 37) SF 107 (279) occupation. Fragment of thick slightly rounded upright rim from a large straight-sided vessel as surviving fragment. The only other sherds which are likely to come from this vessel are SF113 (279) which make up part of a base and base angle. Moderately abraded.

P1.4 (Fig. 37) SF347 (319) occupation west. Part of rounded shoulder with smoothed surfaces. This could be part of P1.1. Moderately abraded.

P1.5 (Fig. 37) SF1115 (279) occupation. Part of neck and shoulder with smoothed surfaces, with a rounded shoulder. Part of a small hole made after firing present in top break, probably to assist the joining of a break with a metal pot clamp. Moderately abraded.

P4.1 (Fig. 37) SF383 (319) occupation west. Rounded shoulder from small bowl, surface smoothed. Moderately abraded.

P4.2 (Fig. 37) SF1074 (279) occupation. Part of a simple out-turned rim broadly similar to P1.2 in Fabric 1. Surface smoothed. Moderately abraded. A second small rim SF 372 (319) had a slight internal bevel.

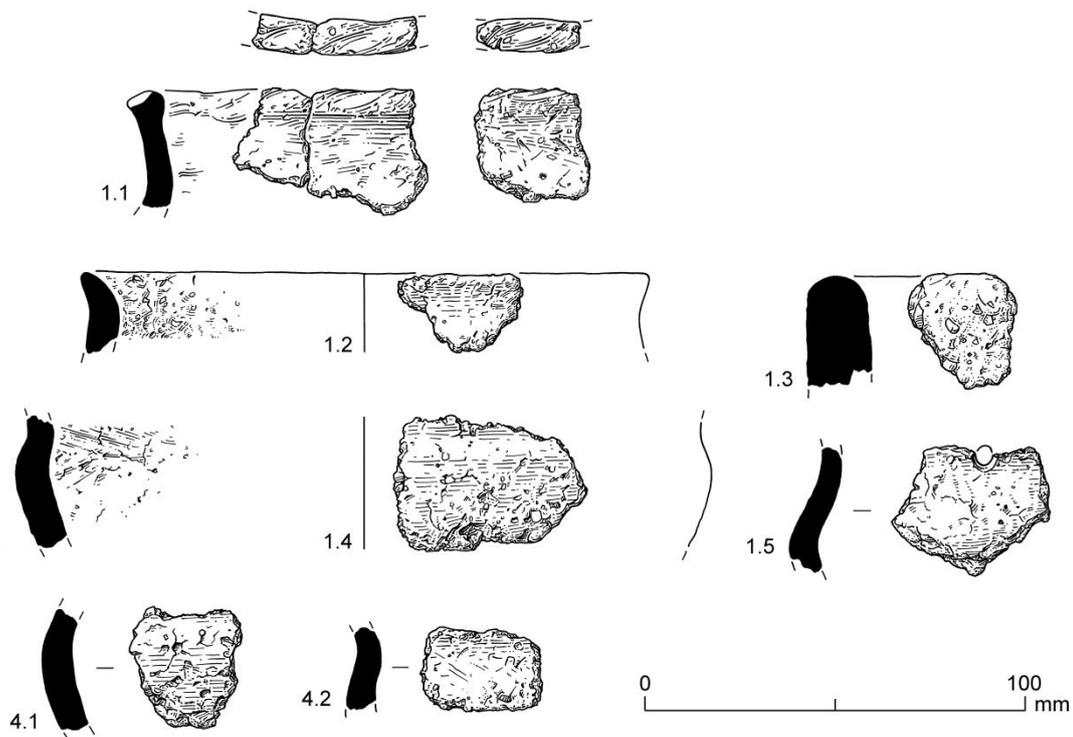


Fig. 37 Iron Age vessels. Scale 1:2 (drawn by Jane Read).

Comment

It is now well established that pottery was not in use in any quantity in the EIA of Devon (Quinnell 1999, 52): this references most of the material known at the turn of the millennia, a situation which has not greatly changed. Three other hut circles sites, all on the east side of Dartmoor, have published references to EIA pottery. The first is Hut 3 at Metherall. Here sherds excavated by Worth (1935) were considered by Silvester (1979, 179) to be EIA 'the sherds come from a round-bodied vessel with everted rim. The granitic fabric is hard and thin, and the exterior has been smoothed'. The second is the hut circle within the Round Pound at nearby Kestor (Fox 1954). It is shown below that the most distinctive of its pottery can now be identified as Trevisker, with only some sherds belonging to the Iron Age. The iron working has now to be re-dated to the early post-Roman centuries. The third site is Foales Arrishes, where the pottery, illustrated by Radford (1952, Fig.13) has been variously described as EIA (Todd 1987, 156) or Late Bronze Age (Silvester 1979, 177). The author has examined this material and agrees with a Late Bronze Age date. These sites do not provide informative comparanda for Teigncombe.

The 1st millennium BC ceramic sequence is better understood in Cornwall than in Devon (Quinnell 2011 a). Here a 'traditional' EIA group, with large shouldered jars and carinated jars/bowls, belongs to the 8th and 7th centuries, while the 'Plain Jar Group' (PJG) belongs to the 6th to 4th centuries. This has variations on small, usually necked, cooking pots as its most common form, with the larger storage jar component much reduced or absent. Fabrics now contain small inclusions and are thinner than in the earlier periods. (This is reflected at Teigncombe in the small mean sherd size of Fabrics 1 and 4, compared with the thicker Bronze Age fabrics.) The dating of the PJG group is supported by radiocarbon determinations and its necked cooking pots appear to form a sequence with the subsequent decorated necked jars of South-West Decorated wares (SWD) in the Middle Iron Age. The little that is known of EIA pottery in Devon fits this pattern very well and in places is supported by dates. The assemblage from the Raddon hillfort (Quinnell 1999) belongs to the earlier EIA grouping, while the sizeable assemblage from Blackbury hillfort, intermixed with SWD material but without supporting radiocarbon, belongs with the later PJG (Young and Richardson 1954/5). All the Teigncombe vessels, except P1.3, fit well with the Plain Jar Group, variations on small necked cooking pots with rounded shoulders. The distinctive decorated 'cable' rim has its best parallel in a vessel from Dainton near Newton Abbot (Willis and Rogers 1951, Fig.6, No 1). This sizeable (866 sherds) assemblage appears to run continuously from the Late Bronze Age through at least to the Plain Jar Group. Part of the site with Late Bronze Age features was re-excavated and published by Silvester (1980). The remainder has been re-excavated (Smith and Humble 1986): the finds confirm the general date range but a full report is awaited. For Teigncombe a

date somewhere in the 6th to 4th centuries BC appears moderately secure for all vessels except P1.3. This, although Iron Age Fabric 1, is a simple straight and thick walled vessel which would not be expected amongst PJG material. Either it is a component of the PJG assemblage – and we know so little of this in Devon for any certainty – or it is a stray piece belong to Late Bronze Age Plain broadly 11th to 9th centuries BC (Quinnell 2011 a, Fig.1,1).

The post-firing hole in P1.5 suggests mending of a broken vessel with an iron clamp, a practice which has been shown to be present to some extent in the EIA of North Cornwall (Quinnell 2011 b, 183) but which no evidence is available currently among the limited EIA material known from Devon.

Roman

Context	Description	Samian	SED BB1	SW BB1	ESGW	Totals
279	Occupation	1/1 SF71	1/1 SF97		1/3 SF572	3/5
304	Historic hillwash		1/4 SF211	1/6 SF646		2/10
319	Occupation W		1/3 SF345	2/17 SF662 SF663	1/4 SF353	4/24
322	Occupation E				1/3 SF260	1/3
Totals		1/1	3/8	3/23	3/10	10/42

Table 3 Details of Roman sherds

The samian sherd is a fragment of a small Dr 27 cup, of South Gaulish fabric, likely to be of late 1st or early 2nd centuries AD. The other sherds have no formal features. The three SE Dorset black-burnished sherds from the Poole Harbour area of Dorset belong to a fabric which is common in Devon throughout the Roman centuries. The South-Western black-burnished sherds are of a fabric currently thought to be passing out of use in the mid-3rd century AD (Holbrook and Bidwell 1991, 94). Exeter Sandy Grey Ware (ESGW) is probably from a source in the Exeter area thought to have ceased production in the later 2nd century AD (ibid, 155). All fabrics occur at Exeter from the first military contexts in the 60s AD. The group, if the sherds are so interpreted, therefore dates to either the later 1st or the earlier 2nd century AD. The sherds are generally moderately or highly abraded.

This small group appears to be the first recorded find of Roman pottery from Dartmoor. The closest geographical find spot of Roman pottery is Rushford Barton just north-east of Chagford and some four kilometres east of Teigncombe (Bidwell and Silvester 1988, 45): this is of South Devon fabric and likely to belong to the later Roman centuries, reputedly found with Roman coins (P. Bidwell pers. comm.). The nearest find spot of Roman period material provides the large stone Trethurgy Bowl probably imported from Cornwall (Quinnell 1993) found complete at Holy Street (SX 68838763) between Teigncombe and Chagford in 1987 by the then owner Sally Meadows: this remains in her ownership. The Holy Street Bowl is likely to date to the later Roman centuries.

Revised dating for the pottery from the 1950s excavations at Kestor

In April 2004 all available pottery in the RAM Museum, Exeter, was examined and compared with the assemblage from Teigncombe. Numbers refer to those illustrated in the excavation report (Fox 1954). The remainder is stored in numbered bags.

Round Pound Centre Hut

No 1 In floor. A typical flat-topped Trevisker rim with some external expansion. This is comparable to Teigncombe Fabric 3, gabbroic: it was thin-sectioned by Parker-Pearson (1990, 30 No 100) and referred to as 'greenstone + ?' but the constituents recorded are entirely compatible with gabbroic ware.

No 2 In floor. Elongated lug which occurs on Trevisker vessels but unusual at a later date. Fabric 3, gabbroic; Parker Pearson No 101.

No 3 In floor. Medieval – 11th-12th centuries AD.

No 4 In floor. Jar rim with possible finger decoration on its top (not shown in published drawing). Relates to vessels with cable rims as P1.1 at Teigncombe. Fabric similar to Teigncombe Fabric 2, not an Iron Age fabric at Teigncombe.

No 5 Missing

No 6 In floor. Medieval, date as No 3,

Bag 1 Several body sherds with rock and ? grog.

Bag 2 Scrap

Bags 3 and 10 Body sherds mainly Fabric 2

Bags 4, 5 and 7 Body sherds Fabric 1 (Two medieval sherds Bag 4).

Bags 6, 8, 11, 13 and 14. Medieval date as No 3.

Hut 1

No 7 Posthole. Base with ? grog, Bronze Age type fabric.

Bag 9 Post hole. Fabric 1 ? sherd. Joining sherd group Fabric 3 gabbroic: enough residue for radiocarbon dating.

Bag 12 Post hole. Fabric 1 ? sherd and Fabric 3 gabbroic sherd

Comment

Fox's EIA dating for the Kestor Round Pound Hut has become generally accepted (e.g. Todd 1987, 156). It should be remembered that the excavation and its report happened before the identification of Trevisker Bronze Age pottery and that little reliable published comparanda was available to Fox in 1954. While the dating of the pottery has not previously been questioned, there has been critical comment on the place of iron working in a substantial structure and the possibility raised that the iron working could be medieval (Silvester 1979, 179). Peter Crew, currently studying the iron working debris, has obtained a radiocarbon date for this. Beta-202300 1520 ± 50 BP calibrating to 428 - 633 AD (95.4%) was obtained on charcoal fragments extracted from a bulk sample from 'E quarter of the furnace' (Fox 1954, 39, fig. 9): the charcoal was all oak of indeterminate age. This situates the iron working in the post-Roman period, while the quantity of medieval sherds now recognized, in addition to those published by Fox (1954, 54), emphasizes that there was also medieval usage of the structure.

The distinctive Trevisker character of Nos. 1 and 2 make it almost certain that the Round Pound hut circle was MBA in origin and thus broadly contemporary with all the others in the surrounding landscape. All the non-medieval body sherds could also be of Bronze Age date except those of Fabric 1 which may be EIA. On form only No 4 is definitely EIA: its fabric is a little different to Fabric 2 at Teigncombe. Trevisker, EIA and medieval sherds were all found in the floor, suggesting that at different dates the hut circle was cleared out before re-use. A non-ceramic post-Roman phase becomes the third of four in this sequence of use.

The material from Hut 1 is more limited though closely tied to a single posthole. Grogged fabrics are Bronze Age rather than EIA in Devon and there is currently no known definite occurrence of EIA gabbroic fabric in Devon. The 'Fabric 1' material is not identical to the Iron Age fabric at Teigncombe. It seems highly likely that this Hut was also of Bronze Age, rather than Iron Age, date.

Acknowledgements

Thanks to John Allan for arranging access to the Kestor material at the RAM Museum, Exeter and to Peter Crew for providing details of the Kestor radiocarbon date.

The Worked Chert and Flint

(By Martin Tingle, Peninsula Archaeology)

Introduction

The assemblage is composed of 37 pieces weighing a total of 247.5g. This includes a flint spall recovered from an environment sample of context 463 which weighed less than a gram. Details of individual flints by weight and context are provided by *Table 6.2.2* in the archive.

Raw Materials

Almost all the assemblage is flint, except for two pieces of greensand chert, a broken flake (623) and a single uncorticated flake (575). The majority of the flint appears to derive from secondary deposits such as river gravels or possibly beach deposits. The flint is largely unpatinated and varies in colour from a lustrous dark grey/black (603 & 2024) reminiscent of the chalk flint deposits of Beer Head or Wilmington to a mottled pale grey white (183, 192 & 395) more typical of the tabular deposits on Haldon. In a study of an assemblage from nearby East Week, small quantities of flint from the Bovey Basin and Haldon were identified but the source for the majority of the pieces (85%) was unknown (Newberry, 2002, 24).

Composition and Technology

Find	No.	Wgt. g.
Blade	1	4
Broken Flake	10	15
Secondary Flake	2	116
Uncorticated Flake	3	29
Spall	1	0.5
Core	1	28
Core Fragment	2	31
Scraper	7	38
Retouched Flake	4	31
Arrowhead	2	5
Piercer	2	20
Utilised Piece	1	24
Gun Flint	1	6

Table 4 The composition of the assemblage

The assemblage as a whole is typical of one from a location that is some distance from a flint source (Figs. 38-39). There are a high proportion of recognisable retouched tools compared to flakes and the fact that broken flakes outnumber intact examples by 2 to 1, probably indicates that flakes were not simply debitage but were also used as tools. There is little evidence of *in situ* flint reduction. There are no primary flakes present and the single core has been reduced to the point where further flake detachments would have been almost impossible. As above, 3 of the 5 retouched flakes are broken and all but 2 of the 7 scrapers are worn or broken at the tips. Two pieces, a side scraper (661) and a retouched flake (537) exhibit extensive wear gloss. The latter piece may be part of a sickle. It has the typical lunate profile but is smaller than usual, suggesting that it may have formed one part a composite sickle blade.

Both piercers are made on blade like flakes, one of which (33) seems almost unused while the working point of the other (192) is almost completely worn smooth. The utilised piece is a small finger shaped piece of 'burrow form flint' entirely covered by water worn cortex apart from two patches of wear at either end.

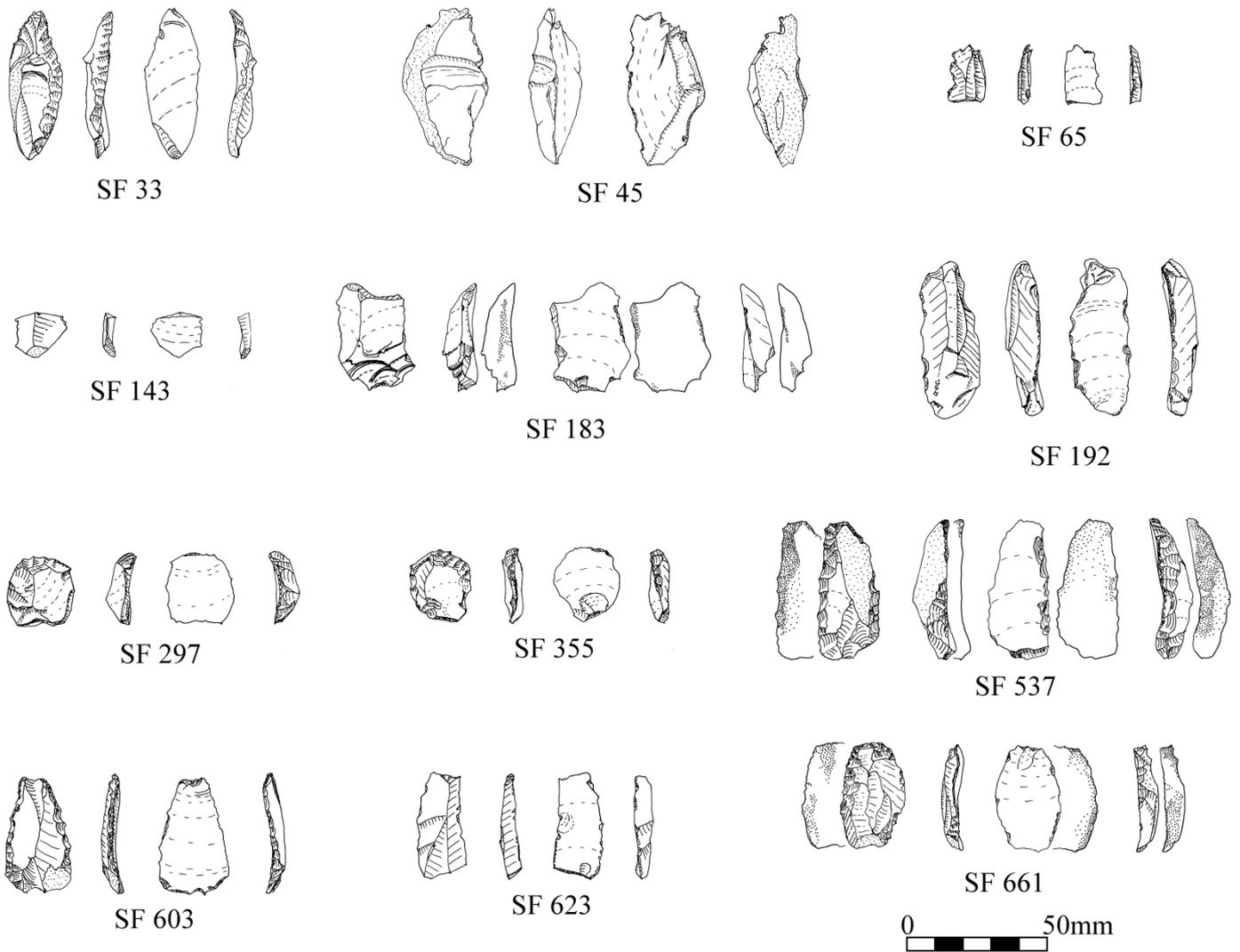


Fig. 38 Flints (Drawn by Janet Daynes).

Distribution

The plan of worked flint within the building shows an almost classically random distribution. This is perhaps to be expected if as seems likely much of the material was re-deposited within the building by processes of natural erosion.

Dating

Despite the age of the building the assemblage at Teigncombe derives from a very broad span of prehistory. The two clearly datable artefacts are an oblique and a chisel arrowhead (802 & 801), both of which date from the later Neolithic.

The use of greensand chert in the southwest is very commonly associated with the Mesolithic but rarely with Neolithic or later activity (Tingle, 2006, 17). There are two examples of greensand chert in this assemblage: a broken flake (623) and an uncorticated flake (575).

Conclusion

Although it has been claimed that the use of flint could continue into the Iron Age, actual evidence for this remains slight (Young & Humphreys, 1999). The assemblage from within the house at Teigncombe comprises largely of re-deposited material from above the prehistoric floor levels some of which may have originated from the adjacent hillside. It is in summary a small and quite varied assemblage attesting to a range of activities taking place in the immediate area before the house was constructed. Whether any of the assemblage relates to activities associated with the house itself is unknown.

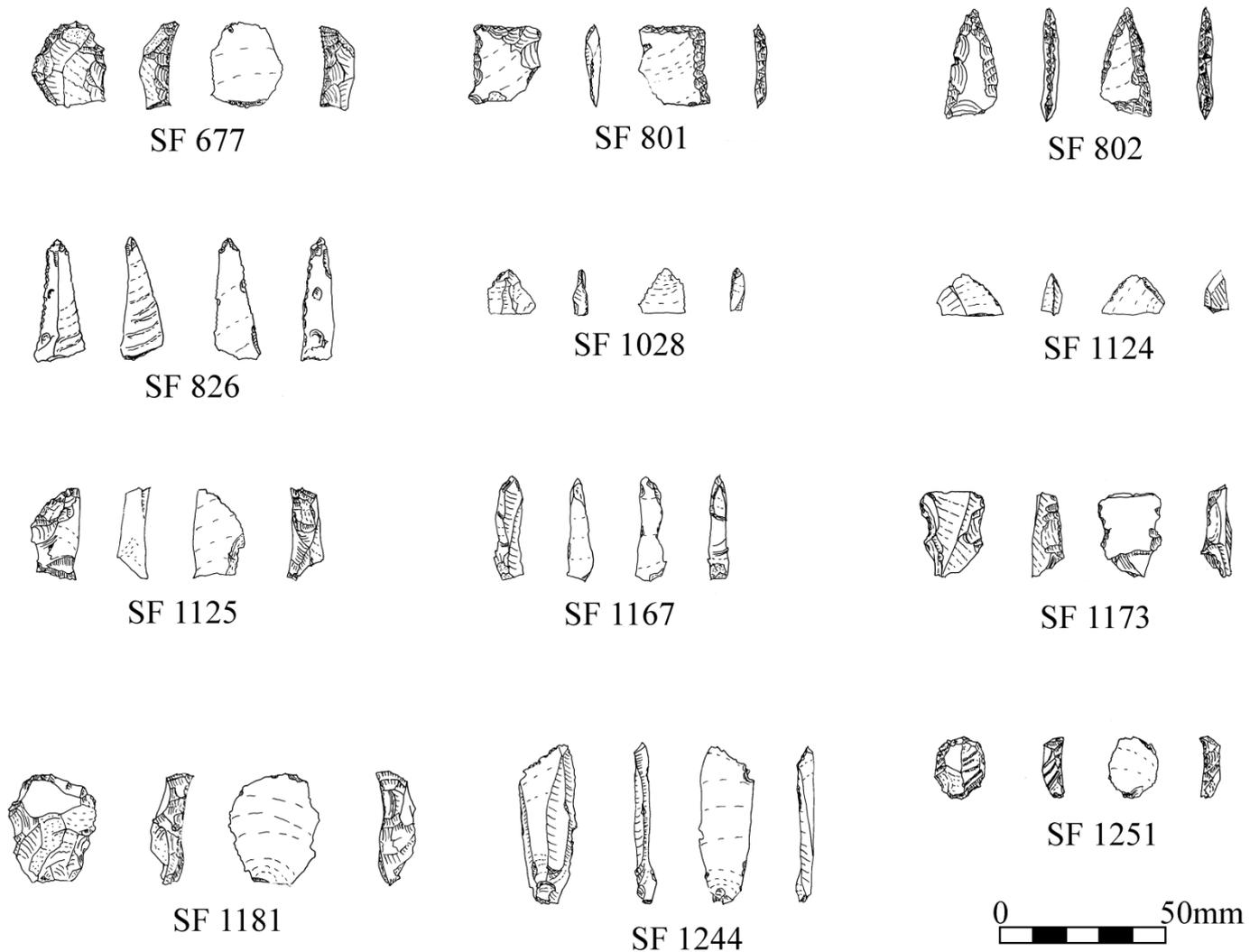


Fig. 39 Flints (Drawn by Janet Daynes).

Terminology

Throughout this analysis the term 'cortex' refers to the natural weathered exterior surface of a piece of flint while 'patination' denotes the colouration of the flaked surfaces exposed by human or natural agency. Following Andrevsky (1998, 104) dorsal cortex is divided into four categories; the term primary flake refers to those with cortex covering 100% of the dorsal face while secondary flakes have cortex on between 50% to 99% of the dorsal face. Tertiary flakes have cortex on 1% to 49% of the dorsal face while flakes with no dorsal cortex are referred to as uncorticated.

A blade is defined as an elongated flake whose length is at least twice as great as its breadth. These often have parallel dorsal flake scars, a feature that can assist in the identification of broken blades that, by definition, have an indeterminate length/breadth ratio.

Stonework

(Henrietta Quinnell with petrographic comment by Roger Taylor)

A table of 75 items with petrographic comment by Roger Taylor is filed with the archive. Some significant aspects of the assemblage are discussed below.

Whetstones

S1 (Fig. 40) SF198 (304) historic hillwash. 89 x 60 x 13mm, 119g. Whetstone using siliceous siltstone tabular cobble, unmodified except for wear which has caused facets on all surfaces, also faint random scratches on flat surfaces and slight traces of hammering on two of the more angular corners. Pinkish brown colour indicates probable source in the South Devon Permo-Triassic area.

S2 (Fig. 40) SF714 (321) occupation west. 71 x 18 x 9mm, 22g. Whetstone shaped to neat rectangle, wear on all surfaces but transverse scratches on one side only. Traces of a darker 'veneer' which also carries scratches and so formed during use, possibly result of handling. Carboniferous slate from fairly close to granite margin.

S3 (Fig. 40) SF253 (321) occupation west. 104 x 70 x 25mm, 209g. Grooved whetstone using unmodified cobble. Wear and grooves on both principal surfaces, scratches around grooves, some percussion use on corners. Siliceous siltstone with distinctive pinkish hue, from the South Devon Permo-Triassic area.

S4 (not illus.) SF66 (279) occupation. Part of whetstone using tabular cobble, maximum surviving dimension 63mm, 56g. All four surfaces used with traces of polish on one surface and slight hammering on tip. Fine grained micaceous sandstone, possibly from South Devon Permo-Triassic rock. Brownish coating relating to use as S2.

Material not immediately local to the site

In addition the following appears to have been brought for some distance, as with the whetstones either from Carboniferous rocks around the periphery of the Moor or from Permo-Triassic rocks in the lower Teign Valley or elsewhere in South Devon.

SF632 (11) topsoil. Broken chert cobble sourced to Carboniferous rocks around the Moor.

SF810 (299) occupation. Quartz veined chert fragment, sourced to Carboniferous rocks around Moor.

SF 838 ((319) occupation. Angular fragment of altered elvan with small quartz phenocrysts, pinkish colour, possibly derived from Permo-Triassic of the lower Teign Valley area.

SF 691 (453) hollow [454]. Fragment of fine grained sandstone/siltstone, maximum dimension 110mm, fracture probably intentional, pinkish hue probably derived from Permo-Triassic rocks as SF838. Possible rubbing stone use, with fine random scratches on rubbing surface.

Hematite possibly used as pigment

SF331 (299) occupation Water worn haematite pebble, iron ore or pigment source, smooth surface with fine scratches, suggests use as pigment source.

Other material

Some 18 stream cobbles, either of granite or other local rocks, are of convenient hand-held size and, though none of them have definite wear traces, could have been collected for the potential as rubbing stones or hammer stones. Some 18 pieces of tourmaline, either fragments from local mineral veins or stream pebbles, may have been collected for their weight, possibly suggesting mistaken potential as a metal source. About a dozen stream pebbles are of vein quartz often with colourful staining which could have made attractive pieces to collect.

Comment

Most of the stonework relates to Bronze Age activity, only S1 from (304) historic hillwash among the distinctive artefacts might be of later date.

The stonework may be compared with the assemblage from the eight MBA hut circles excavated by Fox (1957) on Dean Moor. There also the most distinctive artefacts were whetstone, including three grooved examples, but none of these appear to have been modified as S2. There also whetstones were made of sandstone or slate, from rocks in the South Brent area, about four miles south, rather closer than the source for S1 and S3-4. All the whetstones at Dean Moor are described as 'broken in antiquity'. There are three grooved whetstones from Dean Moor. The only other published examples from Devon appear to be the two from a ring cairn of MBA date at Shallowmead on Exmoor; the discussion on these includes some general background on the type in Southern Britain (Quinnell 1997, 26-8).

The neat shaped rectangular whetstone S2 is not paralleled among the Dean Moor assemblage which may have comparanda stretching back into the Earlier Bronze Age (see examples illustrated from Wiltshire by Annable (1964). Many of these earlier examples are perforated, as is a fieldwalking find from Rowridge near Tiverton in Tiverton Museum AC No 85-1975 (Dymond et al forthcoming): this is of a similar moorland periphery lithology to S2 and has a similar black coating. One of the 28 whetstones retrieved from the Shaugh Moor enclosure similar to S2 but rather larger (Wainwright & Smith 1980, Fig.20, S4); the whetstones at Shaugh Moor have a wide range of lithologies, generally local.

Dean Moor produced a saddle quern fragment and a complete muller, items totally absent from Teigncombe. There was a single rubbing stone, but the large number of cobbles without apparent usewear at Teigncombe is not

paralleled. The Shaugh Moor enclosure and its hut circles produced 32 saddle querns, four mullers, and around 35 rubbing stones, all from fairly local sources (Wainwright & Smith 1980, 104). Excavation strategies have obviously influenced the retention of stonework: some possible significance of the differences among the assemblages commented upon here will be considered further in the final discussion.

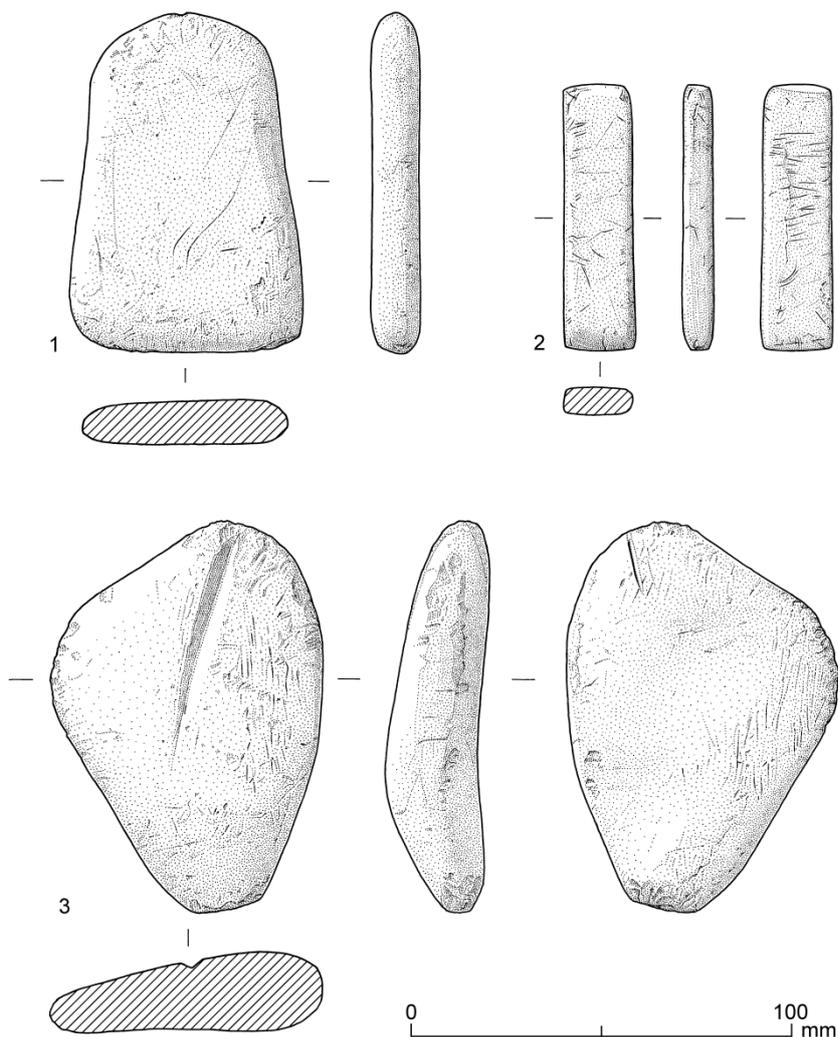


Fig. 40 Whetstones (Drawn by Jane Read).

Artefact Displacement Analysis

The three dimensional recording programme for all artefacts enabled a detailed assessment of the stratigraphy using the position of the artefacts to inform our understanding of the depositional and post-depositional processes at work within the house. The information was analysed in two different ways. The first was to examine the artefact distributions in plan view and the second was to examine the data in sectional view. Full details of the methodology and results are available in the archive. This work was carried out primarily to examine the impact of historic rhizome activity on the distribution of artefacts

The plan view analysis involved examining the level of each dateable pottery sherd within separate 200mm grid squares within the building and a range of outcomes recorded using a different colour onto a plan of the building (Fig. 41). The colours used for this exercise were:

- Green: Stratigraphy entirely appropriate
- Red: Stratigraphic anomaly identified
- Blue: Only MBA pottery present
- Grey: Only EIA pottery present
- Purple: Only Roman pottery present
- Yellow: No dateable pottery found

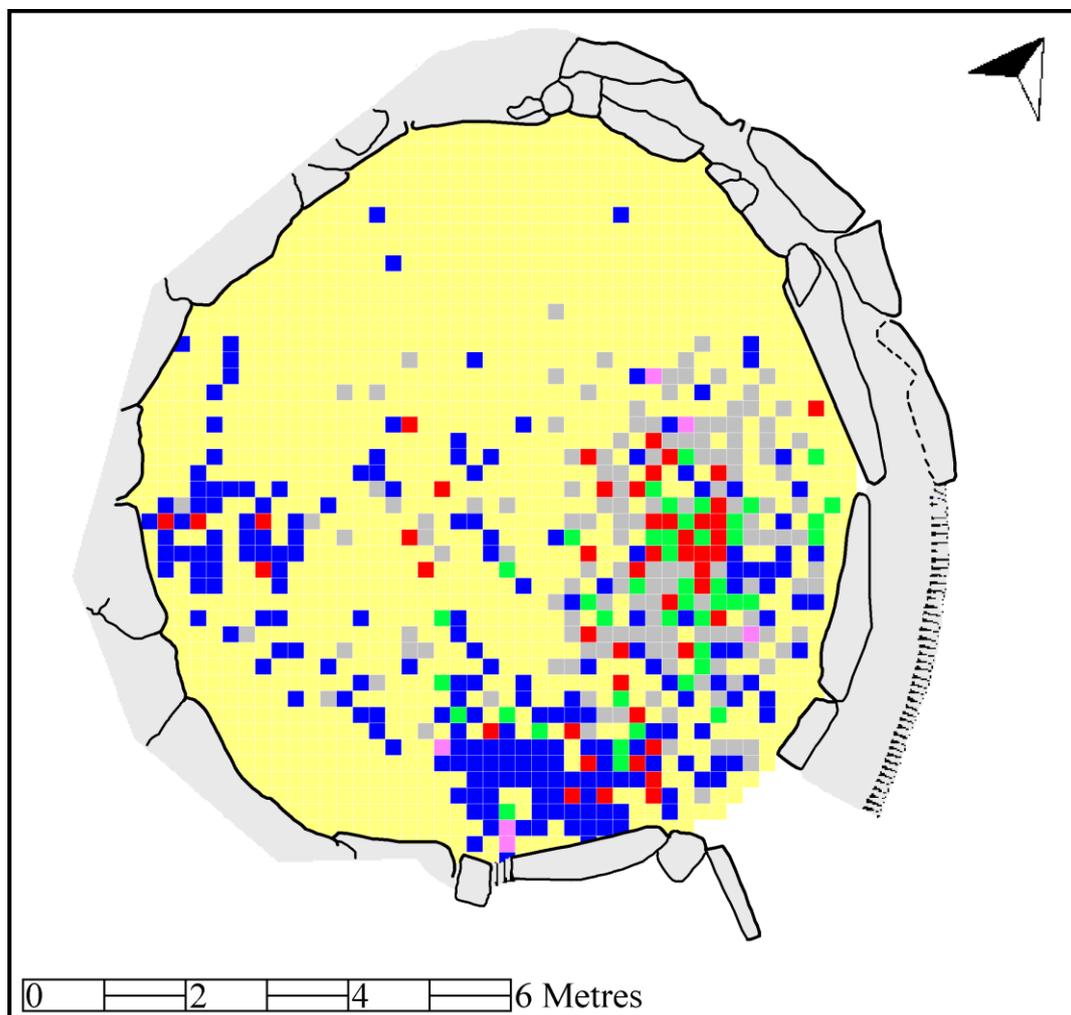


Fig. 41 Plan showing the results of the plan view analysis.

This work illustrated an unhelpful lack of correlation between the distributions of different dateable artefacts and this combined with substantial areas containing no artefacts meant that it was not been possible to identify any specific areas of post-depositional disruption. However, it was possible to establish that the disruption to the stratigraphy was highly localised with adjacent areas producing very different results and this in turn has suggested that the observed anomalies are extremely unlikely to be the result of large-scale disruptive events such as a rhizome infestation.

The sectional view analysis was carried out using the artefact location data to create a series of artefact sections within the house using data from a series of 0.20m wide zones through the deposits. Using this technique it was possible to view the relative position of all artefacts found within each zone. The reason for recording the position of all the artefacts was to examine the impact of bracken rhizomes on the stratigraphy. It proved impossible to equate any displacement visible in the artefact sections with rhizome activity, but the data generated allowed an unprecedented and detailed view of the other activities occurring within the house (Fig.42). The technique has allowed us to maximise the recovery of data and indeed has allowed the identification of features and events which excavation alone failed to identify. In this regard it has been possible to reconstruct the character of the house floor in the period immediately preceding the EIA re-occupation and provide an insight into the character of the floor levelling and maintenance operations that were carried out in the EIA. The positions of a small number of cuts were also identified where the fill of the feature was identical to the surrounding ground. This work also highlighted those areas where stratigraphic anomalies were present and provided the necessary information to allow informed interpretations. The technique also confirmed that over large parts of the site the stratigraphy was entirely appropriate and there was no evidence for any catastrophic post-depositional disturbance. A comprehensive picture of the character of the deposit within the house was obtained allowing a level of detailed interpretation beyond what would have been possible using traditional artefact recording techniques. It is certain that our understanding and appreciation of this house has been considerably enhanced by the adoption of this recording technique and the analysis that it has permitted.

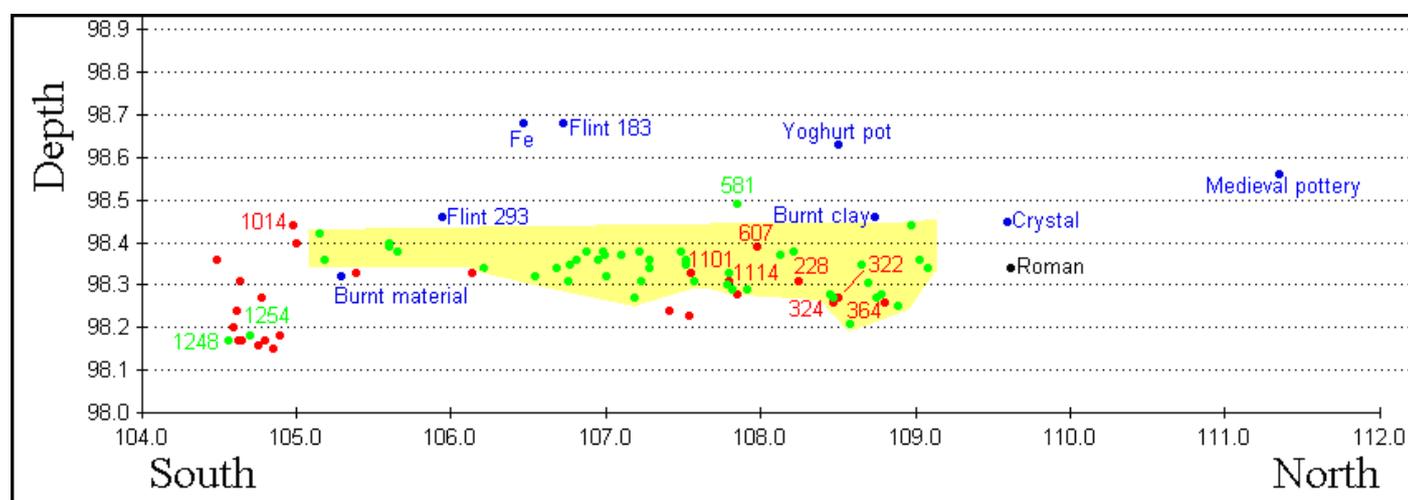


Fig. 42 An example of an east facing artefact section showing the range of stratigraphic information available for interpretation. Red (MBA pottery), green (EIA pottery), black (Roman) and blue (other).

This section illustrates the amount of detail available for analysis and interpretation. In this instance the artefact section contains pottery from four phases of activity at Teigncombe. The hollow [325] is clearly discernible (yellow) and contains several sherds of re-deposited MBA pottery [228,322, 324, 364, 607, 1101 and 1114]. The material used to fill this hollow was clearly derived partly from Bronze Age deposits, presumably within the house. There are seven highly abraded sherds within the EIA layer. Of these, five were EIA and two [228 and 364] were MBA. The presence of so many highly abraded EIA sherds is significant and indicates that the layer was probably created some time after the house was re-occupied or was formed in a piecemeal manner over a period of time. The Roman sherd seems rather lower in the profile than one would expect. This sherd may have been displaced downward, but on balance it seems much more likely that the sherd does indeed represent the Roman ground level and if so provides a tantalising explanation for the paucity of finds within the northern part of the house. The depth of the Roman sherd suggests that only very shallow prehistoric deposits survived here by the Roman period. Natural erosion seems most likely culprit and some of the highly abraded re-deposited sherds may have originated from this part of the building. The cluster of artefacts adjacent to the southern wall is of considerable interest. The MBA sherds were in the fill of post hole [757] and the two EIA sherds [SF 1248 and 1254] were associated with stake hole [756.4]. Flint [SF293] was unlikely to be of EIA origin, but flint [SF183] was certainly re-deposited relatively recently. EIA sherd [SF581] was situated above the floor level and had clearly been re-deposited in the historic material indicating that it had been eroded from elsewhere.

Small scale artefact displacement analysis

During the course of the excavation a flagstone which had clearly been displaced by a tree root was revealed. This observation precipitated the idea that rhizomes encountering a pottery sherd might be capable of similarly displacing the artefact. The decision was taken at the start of 2004 season to record the angle of each artefact relative to the horizontal plane using a clinometer. In all 556 artefacts were recorded this way providing a total sample of just under 50%.

At no point was it possible to demonstrate a pottery sherd being displaced by a rhizome, however on one occasion a small tree root was observed to have displaced a sherd. The principle is therefore sound and because it is known from fossilised rhizomes found under many flagstones that the entire house was once infested with bracken it logically follows that many sherds may have been displaced slightly.

Analysis of the resulting information indicates that the average angle of all artefacts was 47° from the horizontal. This figure seems higher than one would have expected and would seem to confirm the type of tilting that could have been caused by rhizome activity. Clearly without a control it was not possible to be certain that this figure is unusually high and more importantly it is not possible to compare the data set with unaffected examples because it is believed that the whole house will have been affected. This said the figure does appear to confirm that the angle of artefacts from the horizontal is high and rhizome activity is certainly a plausible cause. Demonstrating that the tilting was a consequence of a post-depositional process is crucial for the rhizome explanation to be accepted. If the tilting was a result of a depositional process one might expect there to be a significant difference between the EIA and MBA material whereas if the figures for sherds from the two periods were similar clearly a post-depositional explanation is more likely. The average tilt of MBA sherds was 47° whilst that for the EIA material was 50°. This represents a difference of around 3° with the MBA material being slightly less tilted than the EIA.

If it is accepted that the artefacts have seen post-depositional tilting there are two main possible causes. The first is bracken rhizomes and the second is animal poaching of the artefact rich deposits. The later explanation would have also caused anomalies in the artefact stratigraphy causing considerable mixing at the same time, whereas the rhizome explanation would result in tilting alone. The artefact section analysis does not support the animal poaching hypothesis because there is no evidence for the kind of mixing one would expect and therefore rhizomes are the much more likely culprit. Bracken rhizomes would therefore appear to be capable of tilting the sherds but not of moving them up or down within the profile. This discovery is a positive one and confirms that the overall distribution of artefacts is not likely to have been meaningfully influenced by rhizome activity.

Artefact Distribution Analysis

The three dimensional recording of all artefacts meant that detailed analysis of artefact distributions could be carried out to help our understanding of the activities, deposition and post-depositional processes within the house. The distribution of five separate types of artefact evidence were analysed and the results are fully considered in the archive. The five types of artefact evidence considered were:

- all artefact types
- condition of pottery sherds
- fabric of pottery sherds
- weight of pottery sherds
- individual vessels

This work generated large numbers of individually informative illustrations which provided a detailed insight into the character of artefact distribution and have been used to inform the conclusions drawn in this report. Space however forbids the full publication of this material here and instead a few examples (Figs. 43-50) are highlighted with the remainder available in the archive.

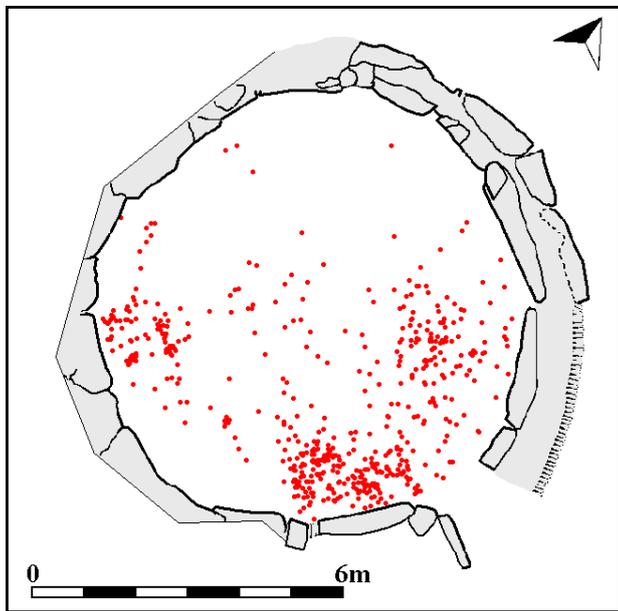


Fig. 43 Distribution of MBA pottery

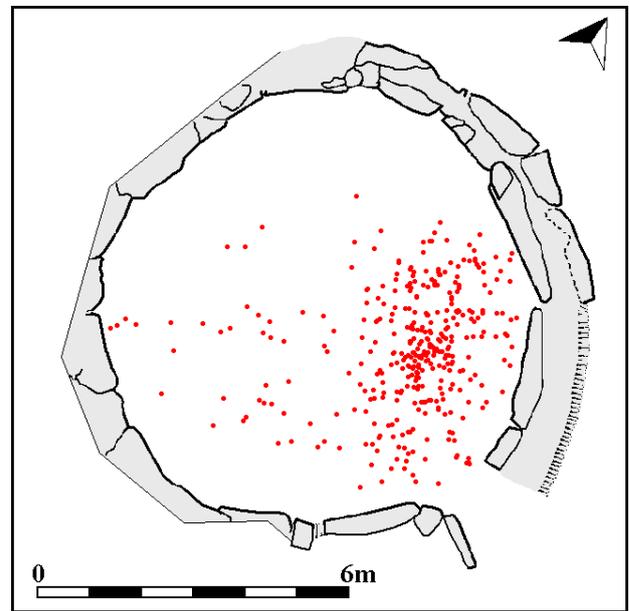


Fig. 44 Distribution of EIA pottery

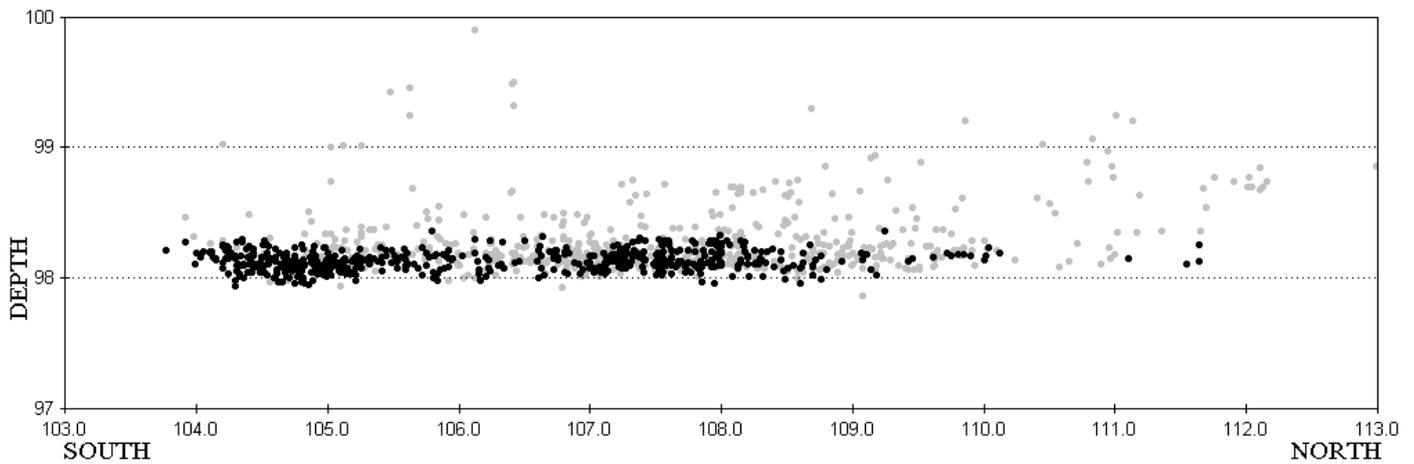


Fig. 45 East facing artefact section of MBA pottery (black). Other finds are shown grey.

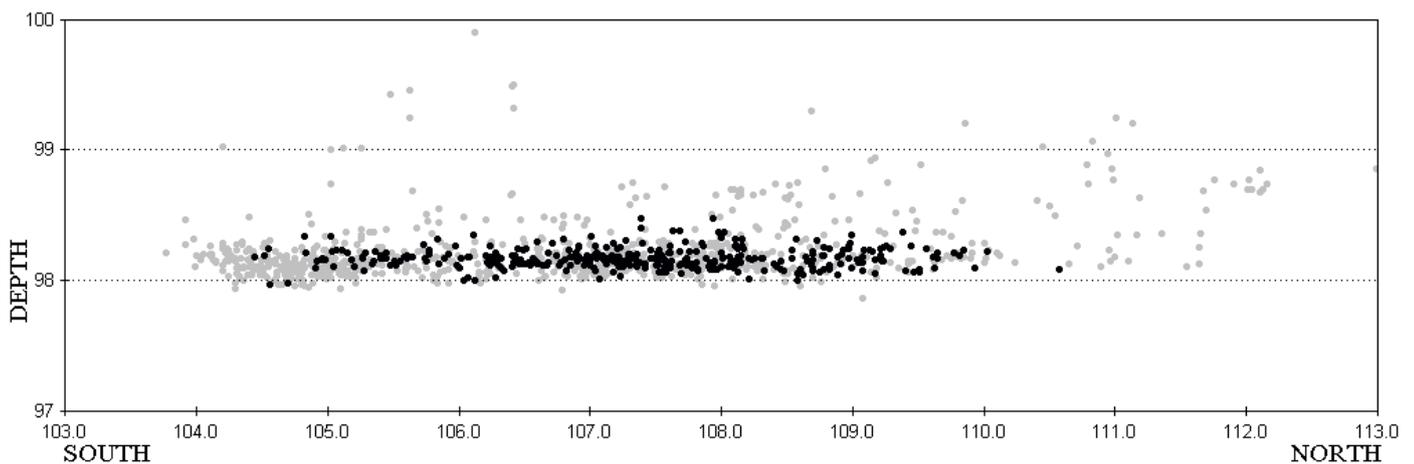


Fig. 46 East facing artefact section of EIA pottery (black). Other finds are shown grey.

There were three major clusters of MBA pottery sherds. The first was adjacent to the western wall of the house and may have been associated with the ring of post holes identified in this part of the building. The second, and largest, cluster was within the area immediately west of the entrance and denoted the position of an area of largely undisturbed floor. The third cluster was in the central part of hollow [325] and much of this material had been re-deposited in this position during EIA levelling of the floor. There were very few MBA sherds in the northern third of the house and there was also an area with no sherds adjacent to the southern wall. The paucity of finds in these

areas may relate to one or more erosion episodes or be the result of floor levelling or perhaps real differences in deposition reflecting different activities within the building.

The majority of EIA sherds lay within the eastern part of the building and many of these were within the fill of hollow [325]. There were no sherds in the northern part of the house and in the area adjacent to the southern wall. This is a distribution pattern shared with the Bronze Age material and might suggest that the material from these areas was removed after the house was abandoned. The pair of linear spreads of sherds in the western part of the house may be significant and indicate the position of partitions or possibly subsequent differential erosion of the exposed occupation surface. The southern spread coincides with a cluster of stake holes and this one was therefore more likely to be a reflection of partitioning.

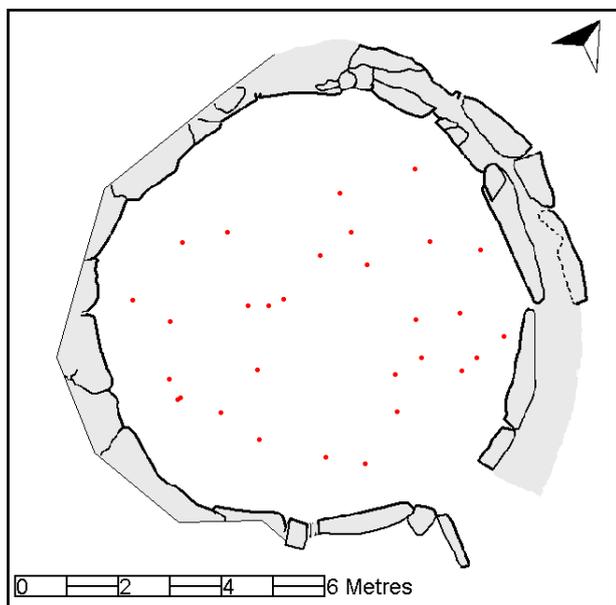


Fig. 47 Distribution of flints.

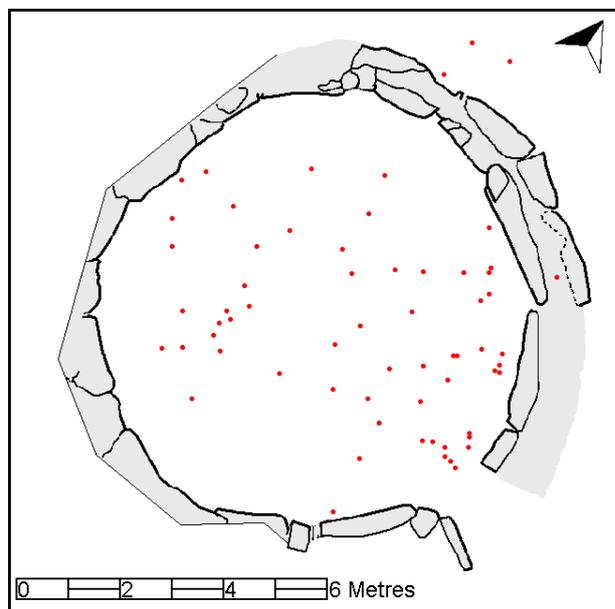


Fig. 48 Distribution of other lithics.

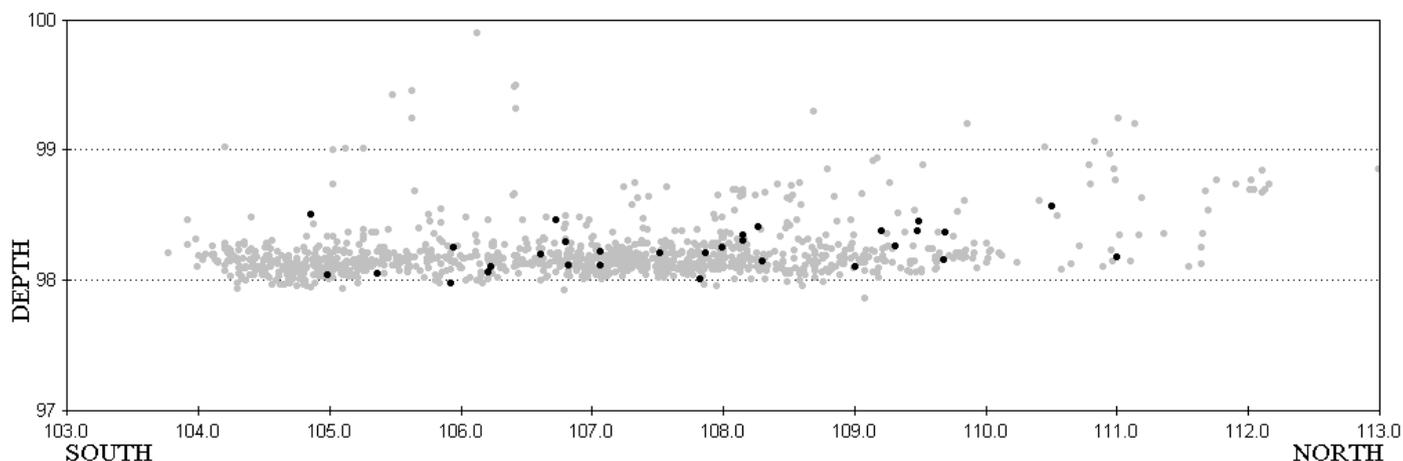


Fig. 49 East facing artefact section of flints (black). Other finds are shown grey.

The distribution of flints was dispersed and there was no obvious sign of clustering. The artefact sections indicate that many of the flints were re-deposited within the house and the dispersed pattern reflects this situation. The apparent linear patterns within the distribution may be a reflection of the position of erosion hollows.

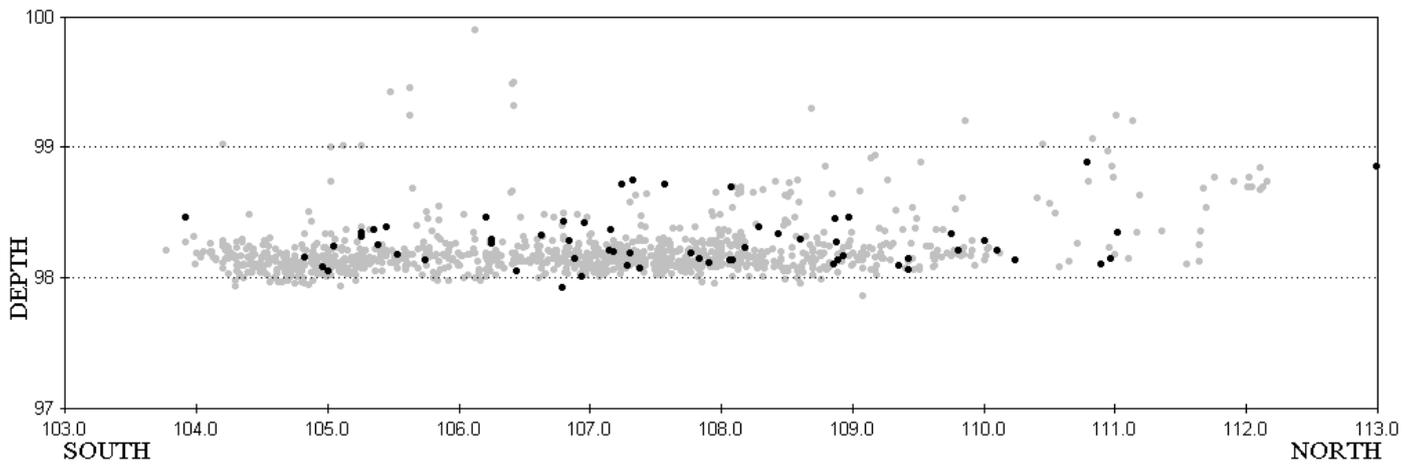


Fig. 50 East facing artefact section of stones (black). Other finds are shown grey.

The distribution of lithics was slightly more clustered than that for the flints and there was an obvious absence in the area adjacent to the southern wall of the house. Much of the lithic material was re-deposited and the slight clustering of artefacts towards the lower (eastern) part of the building reflects this situation.

A significant proportion of the lithics were recovered from layers above the prehistoric floor levels. Some of these items will have been eroded from other parts of the building whilst others were incorporated into the deposits at a much later date and will have almost certainly originated from the slopes above the house. A substantial number however are securely within the prehistoric layers and on occasion their close association with pottery of a single period has permitted dating.

The detailed analysis of the artefact distributions and in particular the pottery has provided an insight into the character of the depositional processes. It is clear that the overall distribution is a result of contemporary depositional processes and that therefore conclusions can be drawn from this information. In particular, the marked differences in distributions of MBA and EIA material highlight dissimilarities in the character of these respective periods of occupation. A detail perhaps confirmed by the differences in the assemblages. Another observation of interest is that the more abraded sherds tended to be higher in the profile suggesting either that at least some of the abrasion may have occurred in the period after the house was abandoned or the upper surfaces were subjected to slightly more wear and tear than those below. The analysis provides a clear insight into the character of the artefact distribution and whilst it does not provide all the answers and indeed raises further questions this level of information at least allows informed debate.

Bulk Sample Report

Joe Gibson

Introduction

Twenty samples from a number of features dating from the MBA to EIA were assessed. Three samples from context [279], (Sample Nos. 38,39 and 40) were taken in stratigraphic steps from Trench 1 to determine if the rhizome infestation was disturbing the soil stratigraphy. Samples [612] and [724] were taken from under two flagstones as an indicator of the environment when the roundhouse was first built in the MBA. Sample [730] was a stake hole, [531] was from a feature fill and [714] (Sample No. 56.1) was a bulk sample. 12 post holes were also assessed as these were expected to be good traps of plant macrofossils.

The samples were processed using flotation to separate the plant macrofossils from the bulk soil samples based on the relative densities of the soil constituents in water. The larger samples were processed at English Heritage's environmental archaeology centre at Fort Cumberland, Portsmouth. The stake hole sample and five of the post holes were processed using laboratory sieves. A 500 µm mesh was used to collect the residues while the flots were collected using a 250 µm mesh. For the preliminary assessment the flots were examined using a ×10 / ×20 magnification binocular microscope. The amount of grain, chaff, weed seeds, charcoal and rhizomes in the sample were estimated to be occasional (1-10), moderate (11-50), frequent (≥50) or not present.

Results

The preliminary results (Table 5) showed no grain or chaff to be present and although considerable amounts of weed seeds were found in some samples and these were all identified as *Cenococcum* sp. This soil fungus is often abundant in acid soils and its presence suggested soil in-wash and/ or disturbance (Hall et al 2003, Jenson 1973). The ability of *Cenococcum geophyllum* to penetrate the epidermis of bracken leaflets (Ponge 1990) might suggest that this fungus does particularly well under bracken stands. Although investigation of the rest of the samples available would have been the usual course of action following such a negative set of preliminary results this was deemed unsuitable as it was likely this would not reveal enough information to repay the time involved.

Further work on the samples established that occasional fragments of charred hazel nutshell were scattered throughout the contexts within the roundhouse. In addition whole hazelnuts were also recovered: three from context 279 and one each from 319 and 322. The sample from post-hole 756 also produced two fragments of sloe fruitstone (*Prunus spinosa* L.)

Table 5: Preliminary Results

Site Name: Kestor													
1-10 = Occasional (O) 11-50 = Moderate (M) ≥50 = Frequent (F)													
Feature	Context No.	Sample No.	Bag No.	Sample Type	Sample Size Unsieved (L)	Flot Size (ml)	Residue Vol. (ml)	Grain	Chaff	Weeds	Charcoal	Rhizomes	Comments
1SEA	279	38.0		E Bulk Sample	48	700	N/A	-	-	F	F	F	
1SEB	279	39.0		E Bulk Sample	24	550	N/A	-	-	M	F	F	
1SEC	279	40.0		E Bulk Sample	9	200	N/A	-	-	M	F	F	
	316	316.0		Post hole	11	100	N/A	-	-	M	F	F	
	402	402.0		Post hole	3	40	N/A	-	-	F	F	F	
	412	412.0		Post hole	1.25	20	N/A	-	-	M	M	F	
	449	449.0		Post hole	4.5	10	N/A	-	-	M	F	F	
	463	463.0		Post hole	4	50	N/A	-	-	F	F	F	
	491	491.0		Post hole	0.6	5	N/A	-	-	-	M	F	
	531	531		Feature Fill	6	30	N/A	-	-	M	F	F	
	599	599.0		Post hole	19	125	N/A	-	-	F	F	F	
	612	68.0		Below Flagstone	14	100	N/A	-	-	F	F	F	
	714	56.1		N bulk Sample	7.5	50	N/A	-	-	M	F	F	
	724	724		Below Flagstone	12	115	N/A	-	-	F	F	F	
	730	730		Stake Hole	1	10	N/A	-	-	M	M	F	
	737	737.0		Post hole	2.2	30	N/A	-	-	O	F	F	
	756	756.0		Post hole	7	100	N/A	-	-	F	F	F	
	758	758.0		Post hole	4	15	N/A	-	-	M	F	F	
	780	780.0		Post hole	10.5	100	N/A	-	-	M	F	F	
	800	800.0		Post hole	2.1	40	N/A	-	-	O	F	F	

Pollen Analysis of Sediments Associated with A Roundhouse at Kestor: A Short Report

A. G. Brown¹, J. Hatton² and C. J. Caseldine³

¹ Palaeoenvironmental Laboratories University of Southampton (PLUS), Shackleton Building, University of Southampton SO17 1BJ.

² Geography, College of Life Sciences, Streatham Campus, University of Exeter, Exeter EX4 4RJ

³ Geography, College of Life Sciences, Cornwall Campus, University of Exeter, Tremough, Falmouth, Cornwall TR10 9FE

In common with analytical work regarding the impact of rhizome activity the full report on this work is available in the archive, but one particular aspect is worth repeating here.

The Single-Context Random Sample Test (1033-1042)

Ten samples were taken using randomly generated co-ordinates from one level of a single context within pit 27 (1m²). Statistical analysis (Chi²) of the raw data suggest the samples are similar at the 0.99 probability level all being dominated by Poaceae (31-43% TLP + spores), then Lactuceae (18%-29%), *Calluna* (9-15%), *Plantago lanceolata* (2%-7%) and *Pinus* (1%-6%) which is also the most variable type. At first glance the variation appears to be significantly less than the variation between contexts (e.g. 1008-1012), suggesting that even unsealed or poorly sealed contexts can have a homogenous and uncontaminated pollen content.

Flourescence microscopy.

Flourescence microscopy has long been used to detect pollen in sediments (Shellhorn et al. 1964) and studies in the 1970s had suggested that it might be possible to distinguish between modern or recent pollen and ancient pollen using the flourescence of the exine (Phillips, 1972) which was thought to decrease over time. Given the desire to distinguish modern from ancient pollen in this study it was decided to test this approach. Sample grains were divided into two categories; fresh with outer exine (A) and fossil with no outer exine (B) and ranked on a scale of flourescence from no flourescence (F0), through low (F1) to moderate flourescence (F2).

	F0	F1	F2
A	0	44	11
C	0	46	8
<i>Pteridium</i>	0	84	5
Exotics	0	21	0

Table 6. Flourescence data from sample 1019. See text for details.

Using the Chi-squared test of significance it is clear that there is no statistical difference between the grains with and without exines and *Pteridium* grains and exotic pollen (*Lycopodium*) added during processing. The flourescence state of *Pteridium* pollen from other context was also assessed but no useful relationships identified (Table 6). The method was therefore rejected as having any value for the discrimination of modern and fossil pollen and not applied to other samples.

General Points

Although it is hard to come to definitive conclusions, from a relatively small number of samples, but the data suggest that within the roundhouse the sedimentary contexts preserved integrity in their pollen and spore content. The lack of significant bracken pollen in the afforestation-related contexts from the 1960-70s despite extreme bracken infestation after deforestation indicates that despite the growth of the dense stipe-mat pollen was not moved down into these contexts from the soil surface. Overall there is little evidence of mixing or percolation between contexts. There are however, large inter-context differences in abundance rather than the types present (assemblage). It is not clear what are the principal causes of this variation are but one cause may be related to the phasing/chronology of the contexts, whilst a second may be the position within the

house, as this seems to affect both the surface soil spectra and the orthostat spectra. However, the random sample test confirms the integrity and homogeneity of a single sedimentary context. Recent changes in land use on the site are reasonably well paralleled by changes in the average pollen concentration from recent contexts. Bracken spores have not migrated down into the sedimentary matrix to any significant extent despite the growth of the stipe-mats and movement of some artefacts. The reason is almost certainly the tight binding between pollen and aggregates of the soil matrix as well as the lack of earthwork activity in this site due to the relatively low pH.

Conclusion

The six seasons of excavation at the Teigncombe roundhouse revealed that this substantial orthostatic roundhouse was constructed in the MBA, abandoned before being re-occupied in the EIA, re-used in the Roman period and subsequently partly buried beneath hillwash deposits. The original land surface was entirely removed from the footprint of the building and a small rock outcrop encountered by the builders quarried away during the terracing work to create the building platform. The orthostats used to form the wall were placed on the newly formed platform with special care being taken to strengthen the wall above the recently backfilled quarry and ensuring that the threshold stone was firmly placed in a construction trench to maintain the structural integrity of the whole building. Individual orthostats were held firmly in place by small trig stones and one substantial slab was split to ensure it fitted. The care with which the building was constructed in part explains why it has survived so well. The house was occupied for a considerable period of time with at least one complete refurbishment in the EIA. Post holes in the entrance confirmed that during both the MBA and EIA occupation a door provided protection against the elements. In the earlier part of the MBA occupation a timber lobby would have provided additional protection, but perhaps because it restricted light entering the building it was removed. This modification would have undoubtedly altered the way in which the internal space was used and the addition of fresh flagstone on the western side of the door was the most obvious clue to an episode of refurbishment. Earlier internal fittings may have been removed and replaced with new ones some of which were held in place with stakes. Much of the floor at all times consisted of hard compacted earth. This was sufficient in most parts of the building, but in areas which were more heavily used the floor level was reinforced with flagstones. Unsurprisingly the entrance area which would have seen the greatest amount of foot traffic was well provided with separate flagstone surfaces in both the MBA and EIA. The large flagstone adjacent to the threshold stone was much larger and finer than the others and had clearly been specially chosen for the task and was probably laid when the building was constructed. Some of the others associated with this surface may have been laid at the same time, but certainly were in position at an early date. The EIA flagstone floor at the entrance was by contrast to the earlier ones much cruder and uneven although it too would have prevented excessive erosion and certainly confirmed that the building was still being intensively used. The second area of flagstone flooring survived in the northern part of the building where it was clearly associated with the hearth. The final area of flagstone flooring was adjacent to the eastern wall and here the purpose must have been different as its close proximity to the wall means that it is unlikely to have been subjected to much foot traffic. Here the stones may have been placed to provide structural support for the house wall. In the parts of the house where there was no flagstone surface the earthen floor was eroded and the resultant hollows levelled with material scraped from adjacent unworn areas. Evidence for this activity was recovered from the detailed artefact stratigraphic analysis which also identified the character and form of a substantial hollow that had developed to the north of the entrance at the end of the MBA occupation.

Evidence for roof supports was not found, but the form of the eastern wall suggests that it would have had a maximum pitch of around 55° with much of the weight being support by the exceptionally well-built walls with additional support perhaps being provided by a single central post sitting on the house floor. This would mean that the maximum height of the roof from the centre of the house would have been in the order of 4.3m. It was not possible to establish whether the roof was ever replaced but if built to the same standard as the walls

it is clearly possible that it remained structurally intact when the building was brought back into use in the EIA and indeed may have been a reason that it was chosen. Evidence for internal fittings was abundant and whilst it was not possible to resolve this into any particular features finds from the stake holes indicate that they were formed during both main periods of occupation and illustrate intensive activity within the house. Most of the stake holes were identified in the western part of the house where they were easily identified cutting into the underlying subsoil. However it is very likely that large numbers of stakes were also driven into the occupation layers in the eastern part of the building where they could not be identified because of the similarities between their fills and the material through which they had been cut. Stratigraphic analysis of the finds suggested the location and presence of some stake holes but clearly those containing no finds will have escaped our attention. A small circular structure within the western part of the house denoted by a ring of post holes was enigmatic although we can be confident that it pre-dated the EIA occupation of the building. It had the appearance of a small wooden shelter and it is possible that a linear hollow within its confines was contemporary. It may represent a shelter hurriedly erected by the EIA returnees but this scenario seems implausible as the new shelter would have restricted their attempts to bring the building back into use and some of their litter would surely have found its way into the postholes when they were being backfilled. A MBA explanation therefore seems more likely. The relatively large number of MBA sherds associated with this structure implied that it was dismantled at a time when there was only abundant MBA occupation material available and this would indicate that it was removed either whilst the house was occupied, or soon after it was abandoned and certainly before the EIA. None of this helps establish a function for this structure, but at least provides a likely context for it. Rather than representing a separate building it is more likely to be some form of particularly well-built internal structure.

Evidence relating to the character of the occupation indicated differences between the MBA and EIA episodes. The distribution of pottery was markedly different suggesting that unsurprisingly the internal layout had been changed. However, the similarities were stronger with internal fittings, flagstone surfaces, maintenance of the earthen floor and the provision of a sound door confirming that the house was fully occupied during both major episodes. Analysis of the bulk samples taken from the occupation surface and a number of post and stake holes indicated a notable absence of charred plant and cereal remains. According to Dr Gill Campbell (Historic England) this suggests that arable agriculture was not taking place close to the site and that it is possible that only grain products were used by the occupiers. Dr Campbell notes that she would have expected some cereal to survive given that hazelnut shells and charcoal were recovered (Gill Campbell Pers. Comm.). The absence of cereal within the environmental samples is consistent with a lack of evidence for stone tools associated with cereal processing. No querns or saddle stones were identified and this together with the environmental evidence would support the hypothesis that cereal processing was not carried out within this building although a flint flake (SF 537) from a possible composite sickle blade may support the idea that it was carried out nearby. On the other hand the recovery of a number of whetstones illustrates an interest in sharpening blades and a small piece of lead, a lump of haematite, two pieces of probable Kimmeridge shale and a single flake of hammerscale bear testimony to other industrial type activity. The absence of substantive evidence for large-scale industrial use does however preclude the idea that this building was used exclusively for industrial activity and it therefore perhaps best to view this as occurring sporadically within a domestic environment. Much of the evidence for industrial activity came from the bulk sampling exercise. The recovery a vitreous material which contained small amounts of lead was unexpected and according to David Dungworth who identified the material 'It is very difficult to say anything more given the very small size of the sample. The least exciting scenario I can imagine is that a tiny fragment of lead fell into a domestic fire and reacted with fuel ash.' (David Dungworth Pers. Comm.) The lead came from the fill of post-hole [608] which formed part of the MBA circular structure and therefore if within an undisturbed context it indeed can only be explained as accidental. Alternatively if it indicates limited lead working within the building perhaps during the EIA it may have been incorporated into the post hole fill as a result of post depositional disruption. Possible further

evidence for industrial activity within the building was provided by two fragments of a lustrous black material from the occupation layer [279]. These have been tentatively identified as Kimmeridge shale and if so would imply their arrival at Teigncombe in the EIA. Finally, evidence for iron smithing was found in a most unexpected location. A single slither of hammerscale was found below the large flagstone adjacent to the threshold. This stone had been laid at the start of the occupation of the house in the MBA and the recovery of this evidence from below it confirmed contamination. Hammerscale, by contrast with pottery sherds and other larger artefacts, would have been capable of being moved around the stratigraphy by rhizomes and the identification of historic rhizome damage below the flagstone provided an obvious explanation for this anomaly and confirmation that cognisance of rhizome activity needs to be recognised as a potential interpretative influence. The flint recovered from the excavation demonstrated use of the area over a prolonged period with possible Mesolithic material associated with Neolithic and Bronze Age. Some of the flint found within the historic hillwash deposits had clearly been re-deposited but this was also case with the two Neolithic arrowheads, one of which (SF 801) was firmly associated with EIA material whilst the second (SF 802) was directly associated with MBA material. The assemblage was typical of those found some distance from a flint source.

Evidence for ritual closure of the house identified elsewhere (Nowakowski, 1991, 2001) was not found, although clearly the re-occupation of the house in the EIA might have resulted in the removal of any tangible evidence for this activity. Once finally abandoned hillwash deposits from the slope above slowly entered the building but it was still an obvious feature in the Roman period when for a short time it was the focus for some sort of activity. It is unlikely that the roof remained at this time and it may have simply been selected because it represented a protected level area on an otherwise steep slope. Throughout the historic period material continued to accumulate within the house with sherds of pottery discarded into middens finding their way into the building along with soil and the occasional prehistoric artefact. At one time some stone cleared from the field above was dumped into the house which nevertheless may have occasionally been used to corral animals.

The excavations at Teigncombe were carried out primarily to examine and quantify the impact of bracken rhizomes on sensitive archaeological deposits. The detailed analysis of artefact distributions provided no evidence that they had been moved significantly by rhizome activity although some evidence of limited tilting and displacement was found this would not have affected the validity of the interpretations. The pollen analysis found no evidence that bracken pollen had migrated through the profile but was not able to prove nor disprove disruption. Perhaps the most telling evidence for disruption was provided by the visual observations relating to both current and historic rhizome activity together with significant quantities of sclerotia in the bulk samples which is indicative of disturbed ground and of course the powerful evidence of hammerscale from under the large MBA flagstone in the entrance. Together this evidence confirmed that bracken rhizomes had a variable impact on the archaeological deposits within the house and most importantly had the potential to influence the interpretation of the results. Full cognisance of this risk should be pre-requisite for research on all sites with both historic and current bracken infestations.

Bibliography

- Andrefsky, W. 1998: *Lithics. Macroscopic approaches to analysis* (Cambridge: Cambridge University Press).
- Annable, F. K. 1964: *Guide/Catalogue of the Neolithic and Bronze Age Collections in Devizes Museum*. (Devizes: Wiltshire Archaeological and Natural History Society).
- Austin, D., Gerrard, G.A.M. and Greeves, T.A.P. 1989: 'Tin and agriculture in the middle ages and beyond: landscape archaeology in St Neot Parish, Cornwall', *Cornish Archaeol.*, 28, 5-251.
- Austin, D. and Walker M.J.C. 1985: 'A new landscape context for Hound Tor, Devon', *Medieval Archaeology*, 29, 147-152.
- Bidwell, P. T. and Silvester, R. J. 1988: 'The Roman Pottery', in Cunliffe, B., *Mount Batten, Plymouth. A Prehistoric and Roman Port*, 42-49. Oxford University Committee for Archaeology Monograph 26.
- Butler, J. 1991: *Dartmoor Atlas of Antiquities, Volume 2 - The North* (Exeter: Devon Books).
- Curwen, E.C. 1927: 'Prehistoric Agriculture in Britain', *Antiquity*, 1, 261-289.
- Dymond, T, Keene, B, Newberry, J and Quinnell, H. forthcoming. Lithic scatters in the Tiverton area, *Proc Devon Archaeol. Soc.*
- Fox, A. 1954: 'Excavations at Kestor: an early Iron Age settlement near Chagford, Devon', *Rep. Trans. Devon Assoc.*, 86, 21-62.
- Fox, A. 1957: 'Excavations at Dean Moor (1954-6)', *Rep. Trans. Devon Assoc.*, 89, 18-79.
- Gent, T. 2007: 'The Re-excavation of a Deserted Medieval Longhouse at Hutholes, Widecombe in the Moor, Dartmoor', *Proc. Devon Archaeol. Soc.*, 65, 47-82.
- Gerrard, S. 1997: *English Heritage Book of Dartmoor* (London: B.T. Batsford).
- Gerrard, S. 2014a: *Bracken rhizome recording and assessment manual* (Copy with archive).
- Gerrard, S. 2014b: *Bracken rhizome damage assessment report* (Copy with archive).
- Hall, A., Kenward, H. and Carrott, J. 2003: *Evaluation of biological remains from a watching brief at the Guardian Glass site, Goole, East Riding of Yorkshire (site code: GGG2002)* PRS 2003/14.
- Henderson, C.G. and Weddell, P.J. 1994: 'Medieval Settlements on Dartmoor and in West Devon: The Evidence from Excavations', *Proc. Devon Archaeol. Soc.*, 52, 119-140.
- Holbrook, N. and Bidwell, P. T. 1991: *Roman Finds from Exeter*. University of Exeter Press.
- Hall, A., Kenward, H. and Carrott, J. 2003: *Evaluation of biological remains from a watching brief at the Guardian Glass site, Goole, East Riding of Yorkshire (site code: GGG2002)* PRS 2003/14.

McCullagh, R. and Tipping, R. eds, 1997: *The Lairg Project 1988-1996: The evolution of an archaeological landscape in Northern Scotland*, STAR Monograph No.3.

Mitchell, J. 1973: 'The bracken problem', in Tivy, J. (ed), *The organic resources of Scotland: their nature and evaluation*, 98-108 (Edinburgh: Oliver & Boyd).

Newberry, J. 2002: 'Inland Flint in Prehistoric Devon: Sources Tool Making and Use', *Proc. Devon Archaeol. Soc.*, 64, 1-55.

Nowakowski, J. A. 1991: 'Trethellan Farm, Newquay: the excavation of a lowland Bronze Age settlement and Iron Age cemetery', *Cornish Archaeol.* 30, 5-242.

Ormerod, G.W. 1876: 'Rude Stone Remains on the Eastern Side of Dartmoor', *British Archaeological Journal*, No. 20, 299.

Pakeman, R.J., Marrs, R.H. and Jacob, P.J. 1994: 'A model of bracken (*Pteridium aquilinum*) growth and the effects of control strategies and changing climate', *Journal of Applied Ecology*, 31, 145-154.

Parker-Pearson, M. 1990: 'The production and distribution of Bronze Age pottery in south-west Britain', *Cornish Archaeol*, 29, 5-32.

Parker-Pearson, M. 1995: 'Southwestern Bronze Age pottery', in Kinnes, I. and Varnell, G. (eds.), *'Unbaked Urns of Rudely Shape' Essays on British and Irish Pottery for Ian Longworth*, 89-100 (Oxford: Oxbow Monographs 55).

Phillips, L. 1972: 'An application of fluorescence microscopy to the problem of derived pollen in British Pleistocene deposits', *New Phytologist* 71, 755-762.

Pong, J. F. 1990: 'Ecological study of a forest humus by observing a small volume I. Penetration of pine litter by mycorrhizal fungi', *European Journal of Forest Pathology*, 20:5, 290-303.

Price, D.G. and Tinsley, H. 1976: 'On the Significance of Soil-profiles at Trowlesworthy Warren and Wigford Down', *Rep. Trans. Devon Assoc.*, 108, 147-57.

Quinnell, H. 1993: 'A sense of identity: distinctive Cornish stone artefacts in the Roman and post-Roman periods', *Cornish Archaeol.* 32, 29-46.

Quinnell, H. 1997: 'Excavations of an Exmoor Barrow and Ring Cairn', *Proc. Devon Archaeol. Soc.*, 55, 1-38.

Quinnell, H. 1999: 'Pottery' in Gent, T. H. and Quinnell, H. 'Excavations of a Causewayed Enclosure and Hillfort on Raddon Hill, Stockleigh Pomeroy', *Proc. Devon Archaeol. Soc.* 57, 38-53.

Quinnell, H. 2011a: 'A summary of Cornish ceramics in the first millennium BC', *Cornish Archaeol.* 50, 231-240.

- Quinnell, H. 2011b: 'The Pottery', in Nowakowski, J. A. and Quinnell, H., *Trevelgue Head, Cornwall; the importance of CK Croft Andrew's 1939 excavations for prehistoric and Roman Cornwall*, Chapter 7. Cornwall Council.
- Quinnell, H. 2012: 'Trevisker Pottery: Some Recent Studies', in Britnell, W. J. and Silvester, R. J. (eds.), *Reflections on the Past; Essays in honour of Frances Lynch*, 146-71. Cambrian Archaeological Association, Welshpool.
- Quinnell, H. in prep. 'The Pottery', in Crabb, A, 'Excavation of a hut circle at Bellever', *Proc. Devon Archaeol. Soc.*
- Radford, C. A. R. 1952: 'Prehistoric Settlements on Dartmoor and the Cornish Moors', *Proc. Prehist. Soc.* 18:1, 55-84.
- Shellhorn, S. J., Hull, H. M., and Martin, P. S. 1964: 'Detection of fresh and fossil pollen with fluorocromes', *Nature* 202, 315-316.
- Silvester, R. J. 1979: 'The Relationship of First Millennium Settlement to the Upland Areas of the South-West', *Proc. Devon Archaeol. Soc.* 37, 176-91.
- Silvester, R. J. 1980: 'The Prehistoric Open Settlement at Dainton, South Devon', *Proc. Devon Archaeol. Soc.* 38, 17-48.
- Smith, G. H and Humble, J. c. 1986: *Excavation at the Late Bronze Age and Early Iron Age Settlement and Field System at Dainton, South Devon, 1986, Central Excavation Unit Site 414. A Preliminary Report*. English Heritage, internal document.
- Sorenson, M.L.S. 1996: 'Sherds and pot groups as keys to site formation process', in *Refuse and Disposal at Area 16 East, Runnymede* (S Needham and T Spence), 1-74 (London: British Museum Press).
- Tingle, M. 2006: Excavations of a possible causewayed enclosure and Romano-British site at Membury, East Devon, 1986-2000, *Proc. Devon Archaeol. Soc.*, 64, 1-55.
- Todd, M. 1987: *The South-West to AD 1000* (London: Longman).
- Turner, S. D. and Brown, A. G. 2004: 'Vitis pollen dispersal in and from organic vineyards I: pollen trap data', *Review of Palaeobotany and Palynology* 129, 117-132.
- Young, R. & Humphrey, J. 1999: 'Flint Use in England after the Bronze Age: Time for a Re-evaluation?', *Proc. Prehist. Soc.*, 65, 231-242.
- Wainwright, G J, and Smith, K, 1980: 'The Shaugh Moor project: second report - the enclosure', *Proc. Prehist. Soc.* 46, 65-122.
- Watt, A.S. 1976: 'The ecological status of bracken', *Botanical Journal of the Linnean Society*, 73, 217-39.
- Willis, L. and Rogers, E. H. 1951: 'Dainton Earthworks', *Proc. Devon Archaeol. Explor. Soc.* 4.4, 79-101.

Woodward, A. and Cane, C. 1991: 'The Bronze Age Pottery' in Nowakowski, J. A., 'Trethellan Farm, Newquary: the excavation of a lowland Bronze Age settlement and Iron Age cemetery', *Cornish Archaeology* 30, 103-131.

Worth, R. H, 1935: 'Dartmoor Exploration Committee, Twelfth Report', *Trans. Devon. Assoc.*, 67, 115-130.

Young, A. and Richardson, K.M. 1954-5: 'Report on the Excavations at Blackbury Castle', *Proc. Devon Archaeol. Explor. Soc.* 5: 2 & 3, 43-67.

Acknowledgements

This project owed much to the hard work and commitment of a substantial number of people. Many gave freely of their time and expertise whilst others provided crucial support and help. Without their involvement there would have been no project and I sincerely hope that everyone appreciates just how crucial their contribution was and that they benefitted from their involvement.

The excavation workforce, who had to put up with floods, droughts, gales and very odd instructions included: Abby Brown, Bob Bruce, Judith Cannell, Graham Carne, Kate Clark, Judi Clarke, Chloe Clifford, Geoff Day, Janet Daynes, Ian Dennis, Judith Farmer, Gordon Fisher, Helen Gerrard, Paul Gibbons, Karleigh Hamblin, John Hodge, Malcolm Howard, Wendy Howard, Lorinda Legge, Alistair Miller, Deric Munro, John Parry, Jane Passmore, Mike Passmore, Andrew Passmore, Bill Radcliffe, Shirley Ryan, Helen Scobling, Sophie Stevens, Fran Stilton, Esmée Sykes, Karen Tonkins, Phil Tonkins, Janet Trezise, Sue Watts, Anne Whitbourn, Tim Whitbourn and Roland Williams who together formed the most enthusiastic, inspirational and hard-working excavation team I have ever had the pleasure to work with. In addition to their digging duties Deric Munro was responsible for much of the photography and Shirley Ryan for the on-site processing of finds. I would like to thank Patrick Stanbury on behalf of us all for transporting our equipment to site.

Funding for the Teigncombe work was kindly provided by the Dartmoor National Park Authority and permission to carry out the work generously granted by Mr and Mrs Edmondson and the Duchy of Cornwall (Colin Sturmer and Chris Gregory). The site forms part of a Scheduled Ancient Monument and I would like to thank Ian Morrison (English Heritage) for the extremely efficient manner in which the process of obtaining the necessary permission was obtained. The specialists so critical to this project include: Henrietta Quinnell (pottery) I Tony Brown (pollen specialist); and Martin Tingle (lithics) whilst Gill Campbell, David Dungworth and Joe Gibson examined the bulk samples and provided useful feedback. Debbie Griffiths (Dartmoor National Park) has shown considerable interest in the project from its earliest beginnings and her support in providing finance and other help was invaluable. The Devon Archaeological Society provided us with some of the essential tools and I would like to acknowledge the help of the late David Fitter for helping to locate and transporting them.

Henrietta Quinnell's contribution to our work has been considerable. Much of the detailed discussions presented in this report would not have been possible without her contribution and in this context I would also like to express my thanks to the late Norman Quinnell for helping with the cleaning of the unexpectedly high number of sherds.

Over the years I have benefited from discussions with many individuals and amongst these are John Allen (formerly Exeter Archaeology), Professor David Austin (Lampeter University); Shirley Blaylock (formerly National Trust), Professor Roy Brown, Dr Jeremy Butler, Matt Canti (English Heritage), Peter Crow (Forestry Commission), Professor Andrew Fleming (Lampeter University); the late Lady Aileen Fox, Frances Griffith (formerly Devon County Council), Jen Heathcote (English Heritage), the late Chris Henderson (Exeter Archaeology), Dave Hooley (English Heritage), Robert Isles (formerly English Heritage), Dennis Lethbridge, Jane Marchand (Dartmoor National Park), Professor Rob Marrs (Liverpool University), Phil Newman, Dr David Price,

Dr John Schofield (formerly English Heritage), Vanessa Straker (English Heritage), the late Joe Turner and Tim Yarnell (Forestry Commission). I am truly grateful for the considerable interest shown in this project and I hope that the results will help inform future management strategies.

Substantial help with this paper has also been provided by Bill Radcliffe for the care and diligence he has put into checking through the results of our endeavours. Finally I would like to acknowledge thank Helen my wife and daughter Iona who have had to live with this curious obsession of mine.