THE DARTMOOR ARCHAEOLOGY AND BRACKEN PROJECT

INTERIM REPORT FOR 2000 SEASON

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Summary

Following on from the first successful excavation season at Teigncombe Round House during 1999, work continued during two weeks in August 2000. The excavation started on Monday 14th August and lasted until Sunday 27th August. A small advance party prepared the base camp and removed much of the backfill during the two days before the excavation commenced. Work concentrated on the two trenches within the house which were started in the previous year (Figure 1). In Trench 1 the pillars remaining after the excavation of the 1m² pits were removed and open area excavation of the area commenced leaving only a narrow "floating" baulk. Careful excavation of the surface revealed, indicated that it was pock-marked and had clearly been disturbed. A small number of slabs were interpreted as the remains of the floor, which elsewhere was very difficult to identify. In one part of the trench bands of darker material may represent an occupation soil. In three places within the trench, hard compacted orange brown gritty material was interpreted as either natural subsoil or re-deposited natural subsoil. A large number of prehistoric artefacts were recovered during the examination of the deposits within the lower part of this trench. Bracken rhizomes continued to be encountered, with some extending into the subsoil.

In Trench 2, all our efforts were directed towards examining the character of the rhizomes. The method of excavation was dictated by the depth and density of the rhizomes which were essentially confined to a single layer of material. As last year, the soil around the rhizomes was carefully removed to reveal a fresh tangle of rhizomes. These were then photogrammetrically planned, removed and measured. The surface revealed was then contour surveyed before another level of soil was removed to reveal the next layer of rhizomes. This process was repeated six times allowing us to build up a detailed impression of the character of the rhizomes within this trench. As expected, the density of rhizome activity decreased with depth, but at over a metre below the surface, significant quantities were still being revealed. The picture was somewhat complicated by the presence of animal burrows which were also recorded. Artefacts found included quartz crystals, medieval and post-medieval pottery and a flint flake.

A particularly interesting discovery occurred when a series of granite slabs were lifted, we found below, a myriad of fossilised bracken rhizomes. Evidence for this obvious previous infestation was difficult to find elsewhere where presumably other soil processes had destroyed the evidence or perhaps because they were so delicate that our excavation techniques were too crude to reveal them. Whatever the reason, it was clear that a major bracken infestation had occurred sometime in the past. On the basis of currently available data sometime in the early post-medieval period seems most likely.

The excavations at Teigncombe during 2000 confirmed much of our findings from the first year, illustrating the serious impact of the plant on archaeological deposits and suggesting that the prehistoric surface had been subjected to this type of damage in the past.

The excavation generated large amounts of data on which this report is based. I have tried to include as much of this data as practicable and this has only been possible by relying heavily on the use of illustrations to highlight and emphasize the statistical analysis which underpins many of the interpretations.

The specialist reports which form part of this Interim generally relate to analysis carried out on material collected during the 1999 season.

Stipes and Rhizomes

Before excavation commenced last year, the position of the bracken plants were plotted with the aim of correlating this information with the rhizomes encountered at depth. It is now possible to present some initial results from this work. Clearly until the excavation of the house is complete these are preliminary findings and some amendments may be required as work proceeds. For the purposes of much of the density calculations the site has been divided into a series of 1m squares (Figure 2). The number of plants in each of these squares have been derived from the detailed plot and the length of rhizome information gleaned from the recording of bracken lengths taken from each square. So far, it is only possible to compare the densities of plants and rhizomes in the northern half of the building and at this stage, only the actual number of plants have used in the calculations. This said as a first stage it is perhaps useful to establish whether there appears to be any correlation between the number of plants and the length of rhizomes. The figures derived from our work are presented here as a series of proportional circles each centred on the square from which the data was collected (Figures 3 & 4). At first glance there appear to be some similarities between the two sets of information. However, some squares containing large amount of plants have relatively short lengths of rhizome and vice-versa. The most obvious correlation between the two plans is the largest readings in both instances are adjacent to the eastern wall of the house. Perhaps, when the height of the plants are also entered into the calculations, the correlation may become stronger. The prime purpose of this exercise is to examine the possibilities of allowing future estimates of rhizome density to be calculated from surface observations alone. Work on establishing whether it is possible to find a correlation between the plants and their underlying rhizomes will continue as the potential benefits for making informed management decisions are enormous.

As an interim observation it is, perhaps, generally worth noting that on average for each plant, 2.5m of rhizome have been found. This means that the volume of plants is likely to be similar to that of the underlying rhizomes. If this calculation can be applied universally, a visit to any infested site at the height of summer will visually indicate the likely scale of rhizome activity below the ground. The implications for much of Dartmoor's archaeology are frightening.

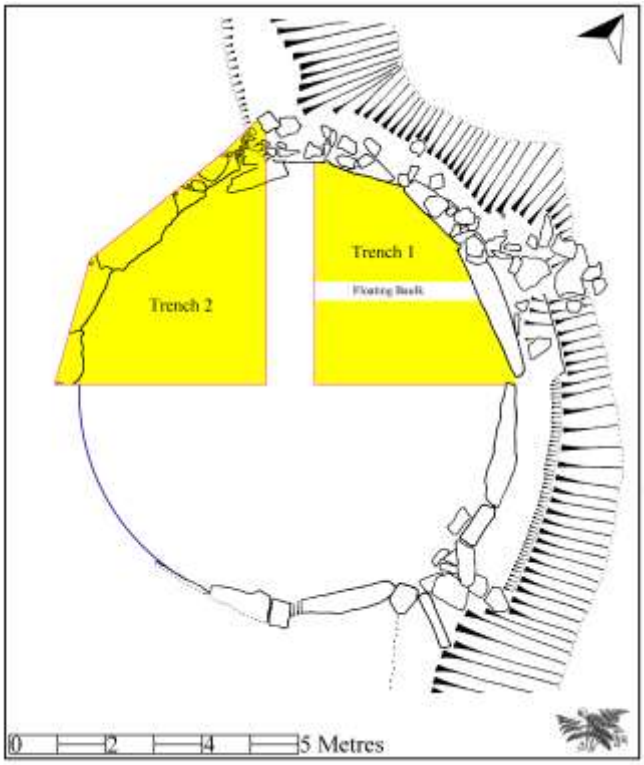


Figure 1 Plan of the round house showing the location of the excavation trenches investigated during 2000. Trench 2 was extended during 2000 to include the house walls.

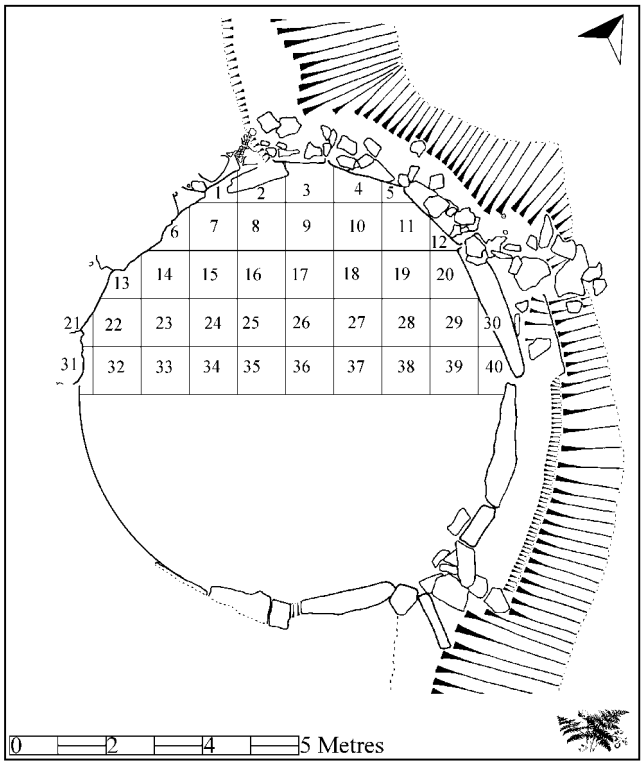


Figure 2 Plan of the round house showing the location and number of the 1m squares used for rhizome recording purposes.

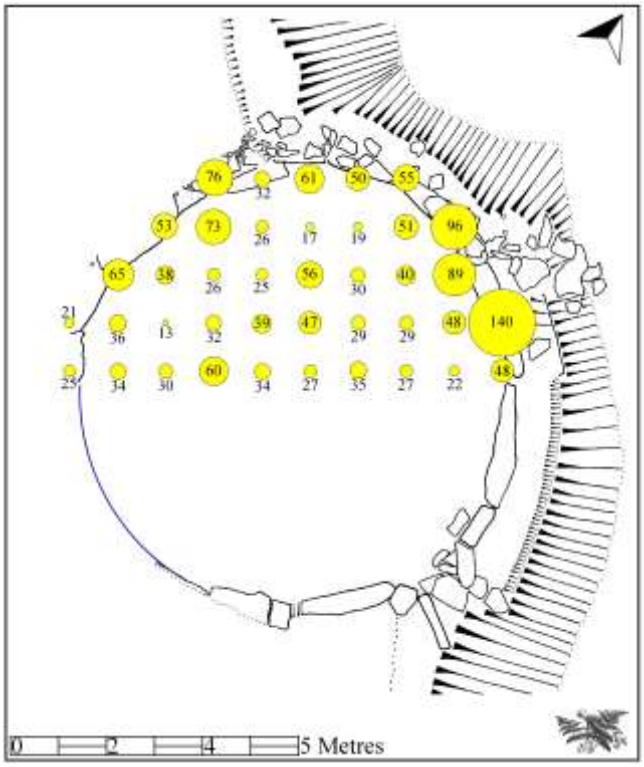


Figure 3 Plan showing the density of stipes in 1m squares. The numbers within the proportional circles refer to the number of stipes recorded per square metre.

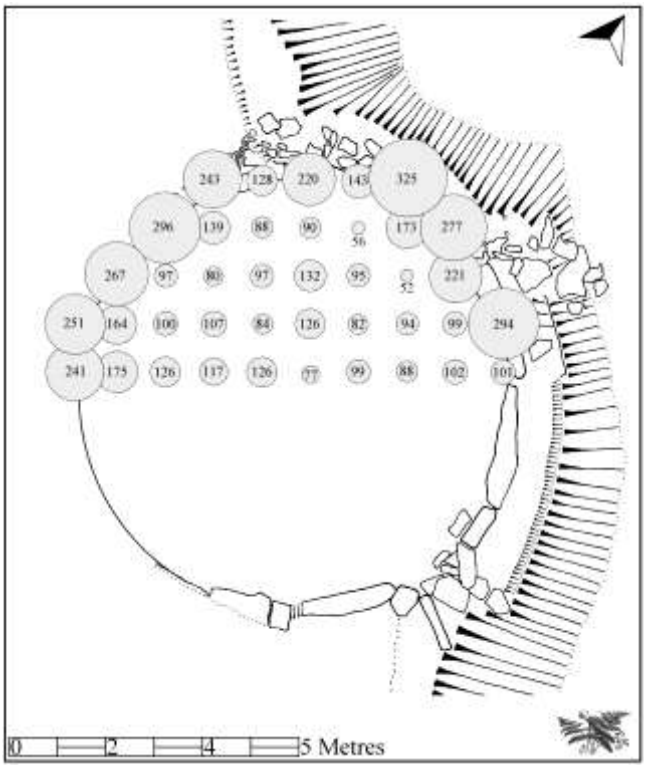


Figure 4 Plan showing the density of rhizomes in 1m squares. The numbers within the proportional circles refer to the length of rhizomes (in metres) recorded per square metre.

Trench 1

During 1999 a series of 10 interlocking 1m^2 pits were excavated within this area with the prime purpose of generating a series of sections through the material which had accumulated in this part of the house. The resultant sections were presented in the 1999 Interim Report along with some discussion of the issues raised. Work during 2000 allowed some of these sections to be extended, but the results are not dealt with here as they confirmed the overall picture. Further analysis of the results obtained from the full collection of sections will of course be presented in the future.

Removal of the pillars

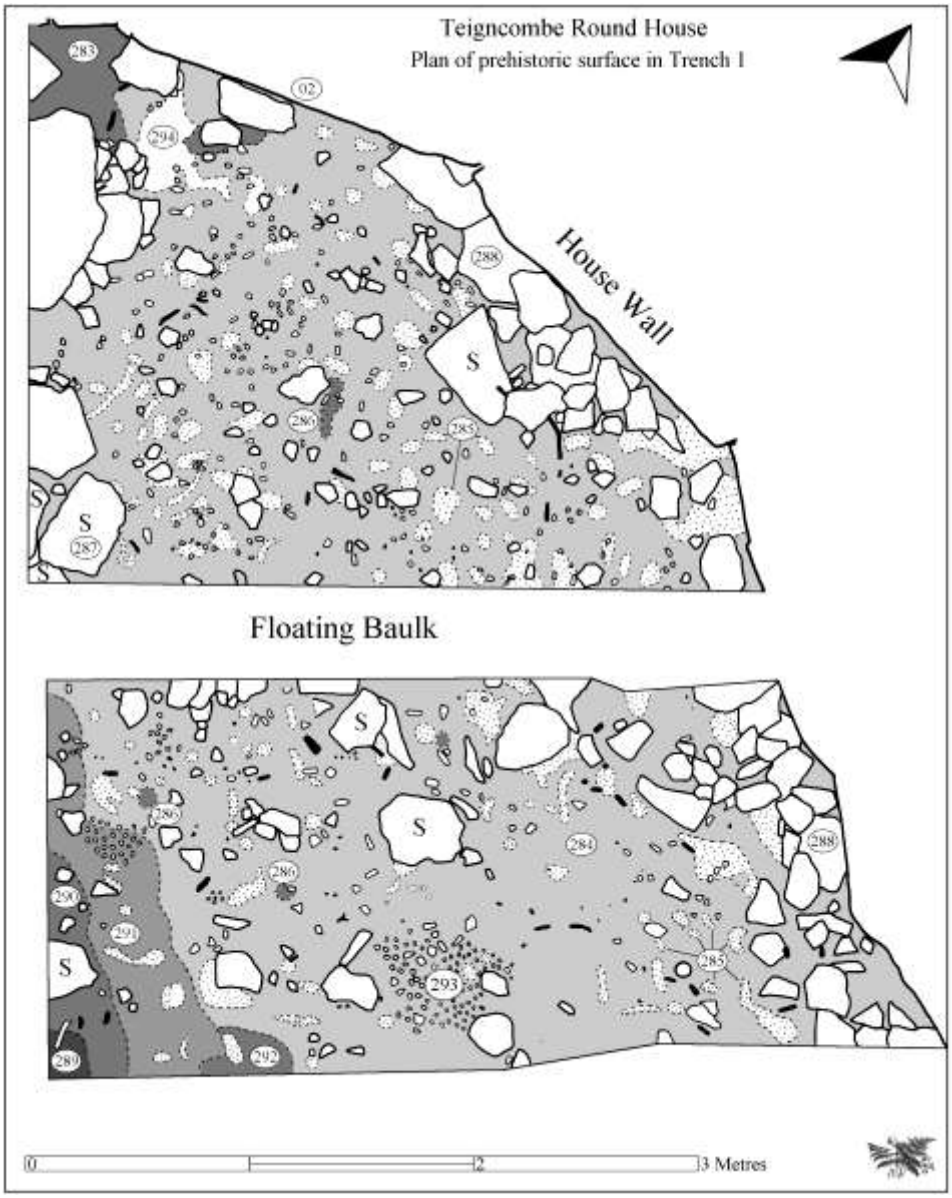
After removing the backfill from the pits and cleaning the trench to reduce the chances of contamination, work commenced on removing the pillars between the pits. Unlike last year, it proved impossible to plan the position of the rhizomes that were revealed because they had been cut during the digging of the adjacent pits and therefore when exposed they were displaced. Instead, recording was limited to removal followed by measuring so that at least a broad idea of density of rhizome within the trench could be achieved (Figure 4). The pillars were excavated down to the same level as the pits, allowing an open area view of the surface which had generated a few sherds of prehistoric pottery during 1999.

Open Area Excavation

With the removal of the pillars, the surface revealed was then cleaned up and a floating baulk established to provide additional stratigraphic information about any occupational surface or surfaces which might be encountered. Both of the resulting areas were then trowelled several times in the search for any obvious traces of occupation. During this process a number of sherds of prehistoric pottery together with stone and flint artefacts were recovered and their positions recorded three dimensionally. Finally, a small number of horizontally laid granite slabs were revealed which were interpreted as floor slabs and at this level work was stopped for planning purposes (Figure 5). As well as the slabs, areas of much darker soil were encountered in the south western corner of the southern area and we currently believe that this may represent the remains of an occupation surface similar in character to that encountered by Lady Fox elsewhere in the Kestor area. However, over most of the trench the material at this "occupational level" consisted of gritty orange-brown sandy material with patches of denser grit and occasional small angular stones. In places large numbers of flecks of charcoal were encountered, but otherwise it was very similar in character to the overlying material. On exposure to the air the colour of the material darkened giving more of an impression of an occupation surface. The result was that planning of the surface proved very difficult with colours changing as the soil oxidised and the situation was not improved with subtle changes in the light changing the appearance of the very information we were trying to record. The result was that the planning process was very time consuming with small areas being trowelled immediately before they were planned. Using this process most of the obvious differences were recorded, but at the micro-level the very small scale differences proved impossible to illustrate. When freshly trowelled careful examination of the surface revealed a myriad of subtle and minute differences and I had hoped that it would be possible to record these. Sadly, it proved impossible within the constraints of trying to plan the entire area at a scale of 1:20. Both Judi Clarke and Bob Bruce, who we have to thank for the excellent detailed plan of this surface gallantly and patiently put up with my interferences and constant nagging borne from the frustrations of not being able to record the very evidence we had been searching for. The problem with hindsight is that traditional archaeological planning techniques are just not sufficient to deal with this type of situation and clearly before we examine this surface again, a fresh strategy perhaps based on specialist photography at a microscale will be needed. Readers of this report who can suggest techniques which might help us with this problem are invited to make suggestions.

Despite its limitations, the plan of the prehistoric surface does highlight in part the disturbed nature of much of this surface. The precise cause of each area of disturbance could not be established with any certainty, but the shape and size of many suggests that they were formed by roots of some kind. It is known that this building was afforested in the recent past and in the years before trees may have grown here. Therefore some of the disturbed areas may be the result of tree roots penetrating the prehistoric levels. An unknown percentage of the disturbance may, however, be the result of rhizome damage. This conclusion is far from satisfactory in establishing and quantifying the impact of rhizomes on this particular archaeological deposit, although analysis of the pollen samples may provide further evidence.

Although using a combination of traditional planning and some form of micro planning we should be able to clearly demonstrate that this surface has been considerably altered in character by root activity, problematically we also need to be able to establish, with certainty, the proportion of this damage which has been caused by rhizomes or by other activity including tree roots and burrowing animals? Work within the upper levels has clearly demonstrated what bracken is capable of, but clearly we do need to be able to differentiate between the different forms of historic damage.



CONTEXTS REPRESENTED	
02	Round house orthostatic wall
283	Patch of dark brown friable soil
284	Gritty orange-brown sandy material with patches of denser grit and occasional small angular stones.
285	Large numbers of patches of light orange-brown soil
286	A lens of dark orange-brown soil
287	Horizontally laid stone slabs. All flagstones are shown with a letter "S"
288	A band of rubble adjacent to the house wall.
289	A patch of black silty soil
290	Dark brown silty loam
291	Dark orange-brown silty loam
292	Dark brown silty loam
293	A patch of hard compacted gravel with pebbles
294	Hard compacted orange-brown grit. This probably represents subsoil.

Figure 5 Plan of the prehistoric surface revealed in Trench 1. The band of stones adjacent to the house wall probably represent the upper layer of backfill associated with the building of the platform on which the house stands. The narrow black strips denote the position of live bracken rhizomes.

Demonstrating current physical damage is much easier and whilst the number of active rhizomes attacking the prehistoric surface at this house is currently very small, evidence to suggest that the impact is currently greater than would at first glance appear was found below one of the floor slabs in the northern half of the trench. Careful lifting of this stone revealed a large number of minute bracken roots which normal trowelling clearly failed to reveal (Figure 6). These roots are finer than the rhizomes themselves from which they lead, and whilst the physical damage they are causing may be slighter, they are almost certainly causing considerable chemical damage. Estimates concerning the total length of these roots within the building are necessarily crude because they are so fine that they are only ever seen under special circumstances, for example below stones. However, assuming that the few instances where we were able to record them are representative, there are possibly about 5,000m of these roots within each square metre representing about 310km in the building as a whole. The overall impact of this level of activity would surely influence the validity of any environmental analysis. In general terms, and perhaps most frighteningly it is perhaps useful to note that it is unlikely that any grain of soil within this building is more than a few millimetres from either a rhizome or its root system. It is clearly essential that we establish the impact of this on archaeological deposits.

Figure 6 Photograph of the surface below one of the flagstones. Sadly only the larger roots are visible in this photograph. The scale is 25cms. long.

Following planning of the "prehistoric surface", two separate 1m square areas were selected for bulk sampling at Vanessa Straker's request. The location of these areas is shown in Figure 7. Within each area the soil was removed in shallow layers and placed in labelled bags. Throughout this process a careful eye was kept open for any features or structures. Lenses of dark brown soil and orange brown gravelly sand were encountered and each of these was investigated to ascertain whether they represented some form of feature. Within the western square this material was planned at one point to demonstrate the varied character of the material (Figure 8). All of these features were however found to be irregular in shape and probably therefore the result of disturbance. In the western square excavation was carried out until hard compacted orange-brown grit containing a large number of angular rocks was encountered. This layer is interpreted as probably being natural subsoil although the possibility of it being re-deposited subsoil will be explored at a future date. In the eastern square the same irregular shaped lenses of material were encountered and investigated, but all of these also appear to be the result of later disturbance. The lower levels in this square were, however, different to those observed further west. Within the western part of the square the subsoil type material was encountered, but the eastern half was found to be filled by large angular stone sitting within a light brown gravelly matrix (Figure 9). This material is currently considered to have been thrown into this part of the house to level up the floor.

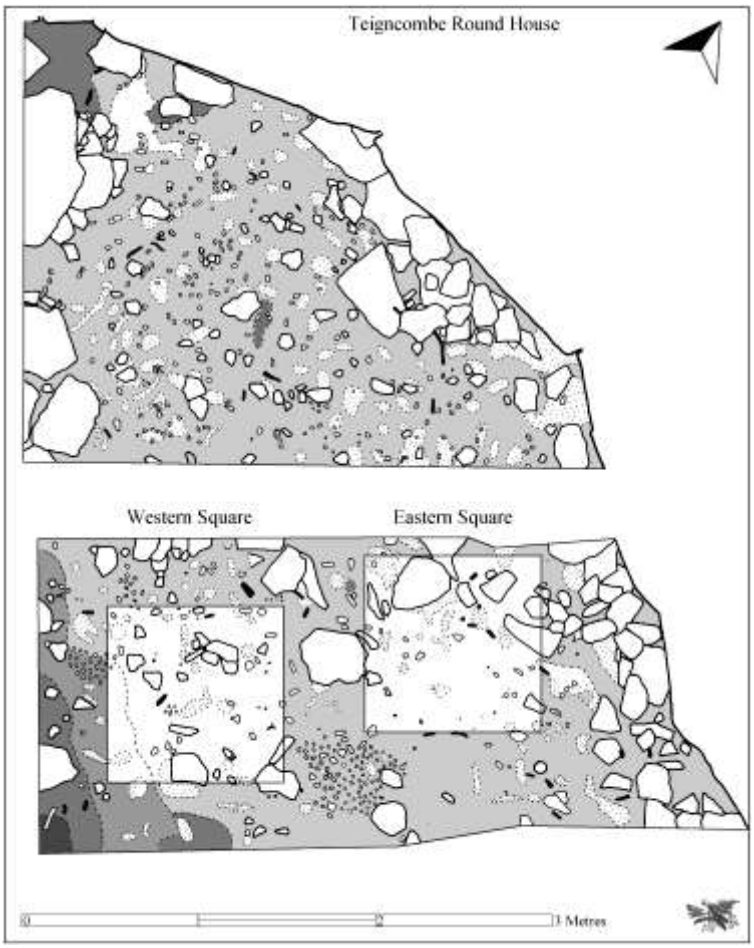


Figure 7 Plan showing the location of the two 1m² areas selected for bulk sampling.

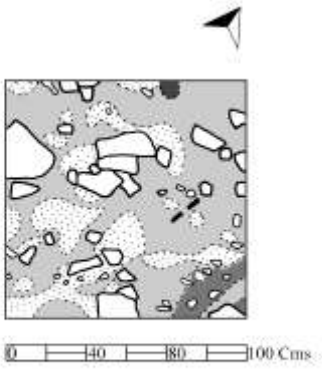


Figure 8 Plan showing the varied character of material within the western 1m² square.

Figure 9 View from the south showing the eastern 1m² square. The material in the right part of the pit is currently considered to have been thrown into this part of the house to level up the floor.

The sections resulting from this work were recorded and help to illustrate the varied character of this material (Figures 10 & 11). In particular the south facing section of the western square highlighted a number of areas of disturbance some of which are almost certainly the result of rhizome activity, whilst the same section in the eastern square highlights the impact of tree roots.

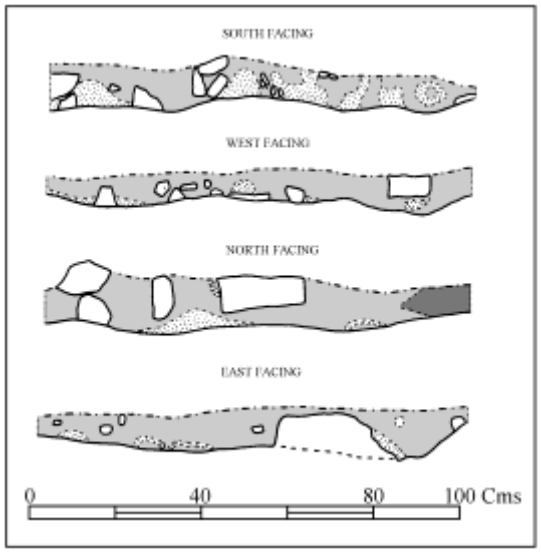


Figure 10 Sections illustrating the edges of the western 1m² square

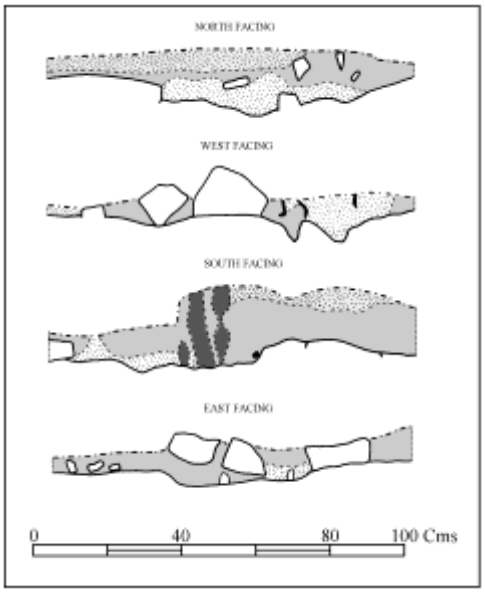
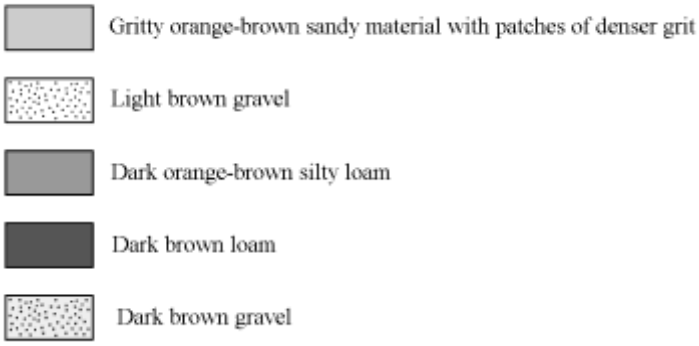


Figure 11 Sections illustrating the edges of the eastern 1m² square

Key for Figures 10 and 11



Artefacts

A number of prehistoric artefacts were recovered from the soils believed to represent the site of the prehistoric surface. The position and level of all of these were recorded three dimensionally and this information plotted onto a series of graphs to established whether their position can tell us anything about disturbance and the character of occupation. Amongst the most numerous prehistoric artefacts were 65 sherds of pottery. The distribution of these in shown in Figure 12 and from this it is clear that most were found in the southern part of the trench, with a number of marked clusters. The levels at which these sherds were found are illustrated using two graphs. Taken together these illustrations provide a cross sectional view through the trench viewed from two different directions. Figure 13 represents a view of the pottery from the south and Figure 14 a view from the east. Using these illustrations it is possible to quickly establish the spatial relationship between any two or more sherds of pottery, whilst at the same time allowing an overview of their distribution.

The view from the south clearly illustrates that much of the pottery was found in a 10cm deep layer which broadly trends from west to east. This band probably represents the position of the prehistoric occupation surface and might suggest that at least the pottery has remained where it was deposited. However, a significant proportion of the pottery is found both below and above this band and this might in turn suggest considerable disturbance. In reality, other interpretations can be offered to explain the observed distribution without having to resort to disturbance as an explanation. The upper finds may have eroded from elsewhere and been re-deposited and the lower ones may have been in material used to level up an uneven surface containing many cracks and crevices. The view from the east (Figure 14) as well as confirming the presence of an obvious layer also highlights the localised nature of the distribution. Further work on this material combined with collection of further data in future years may allow more conclusive interpretations to be offered.

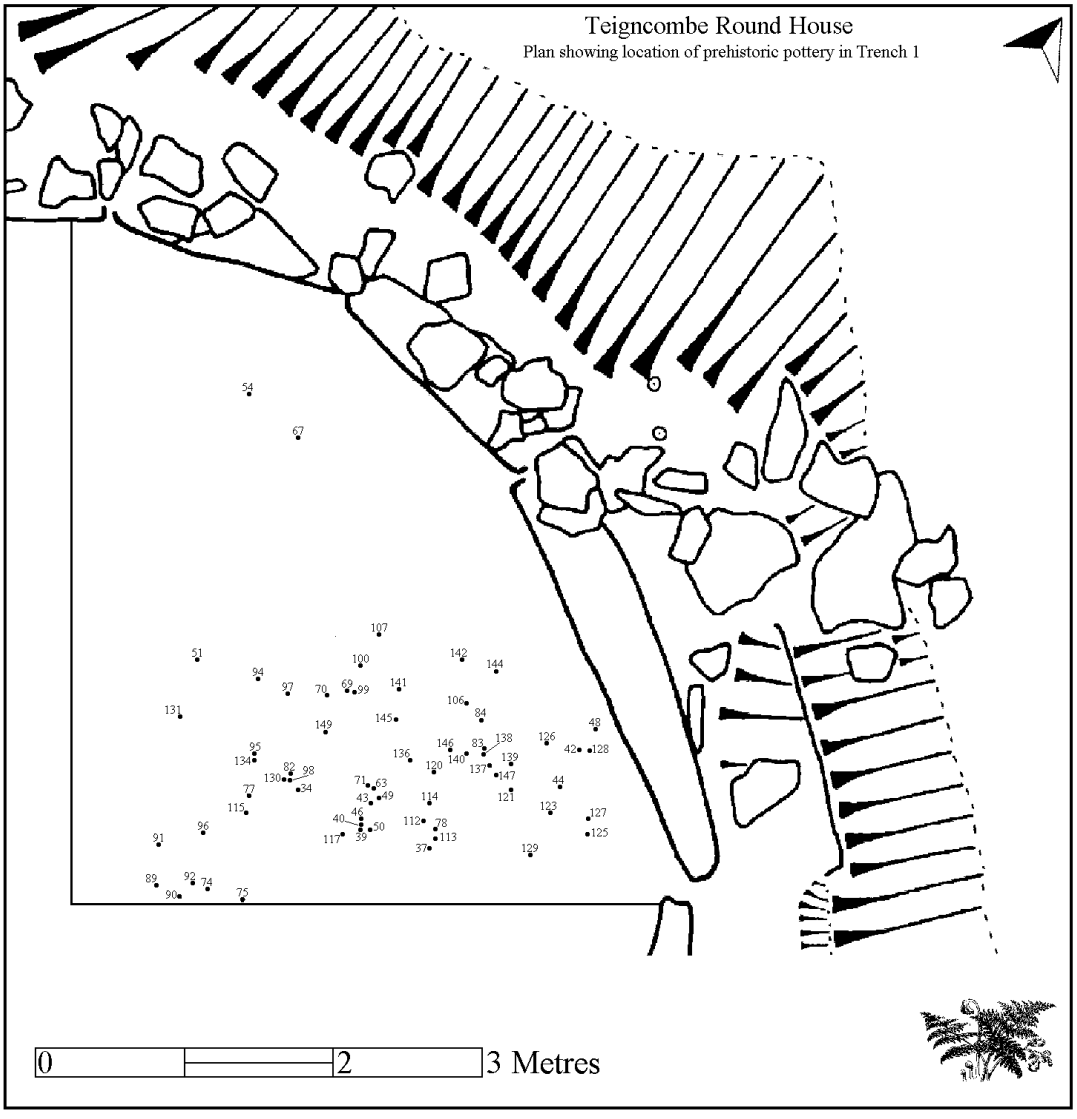


Figure 12 Plan showing the distribution of prehistoric pottery sherds in Trench 1.

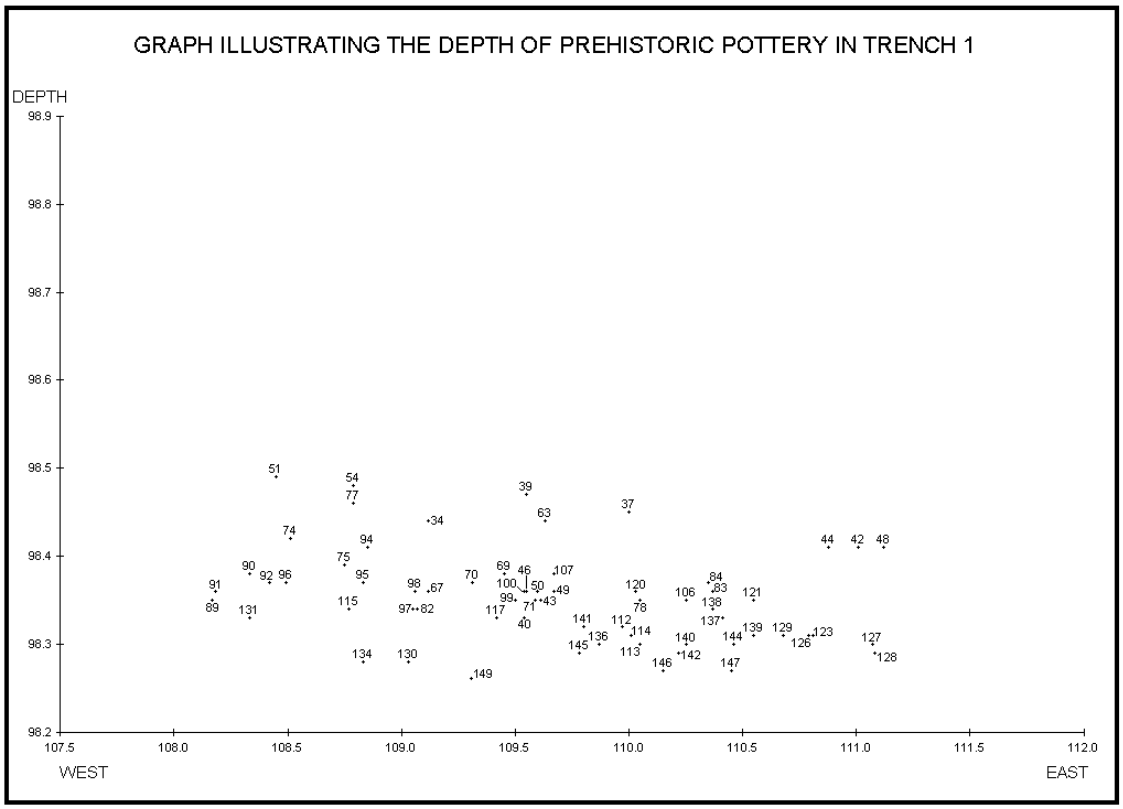


Figure 13 View from the south illustrating the depth of prehistoric pottery in Trench 1

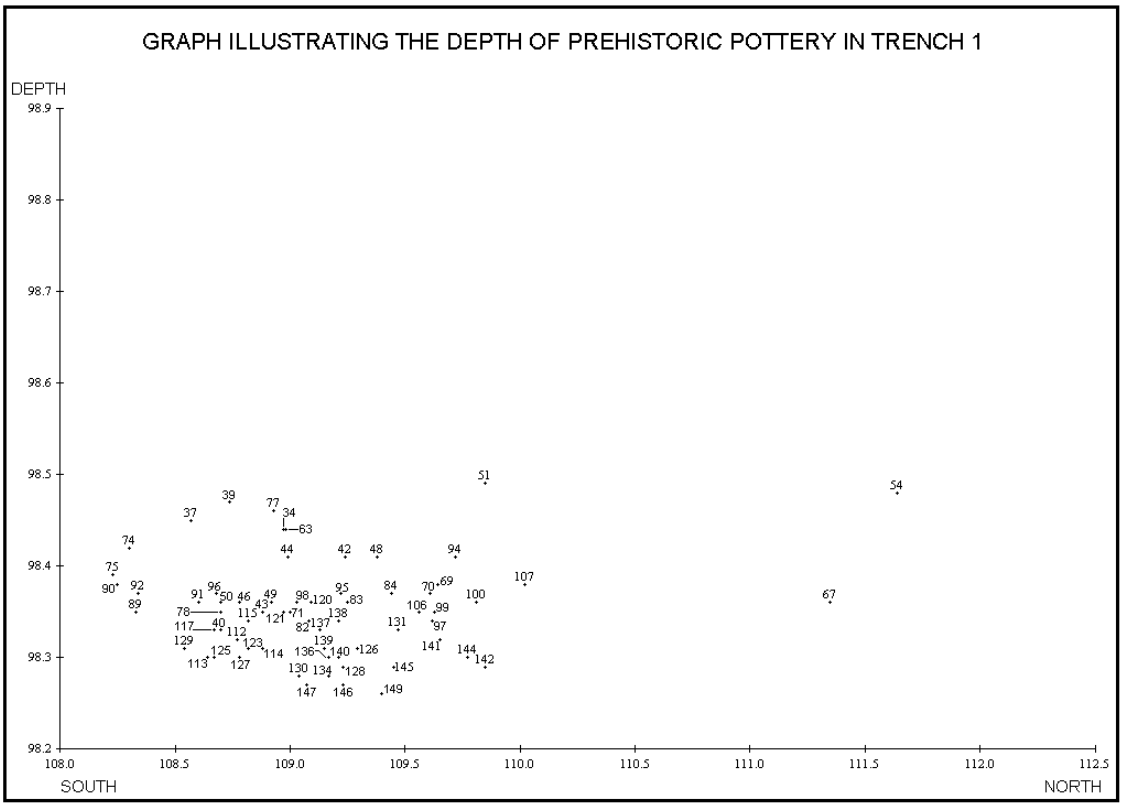


Figure 14 View from the east illustrating the depth of prehistoric pottery in Trench 1

A report on the pottery recovered during the 1999 season accompanies this Interim.

Other artefacts of prehistoric date were recovered during the excavation of this trench and amongst these are a hammer stone, flint blade, flint flake, two whetstones and a water rounded pebble.

Trench 2

Work started in this area in 1999 when a layer of turf and topsoil was removed to reveal a dense mat of rhizomes. This mat was planned and presented in the 1999 Interim Report. During 2000 a further six layers of rhizomes were revealed and mapped. The methodology employed in this trench was very different to that used in Trench 1, where the emphasis was on stratigraphic data. In Trench 2 open area excavation techniques were employed, with the major priority being to establish the precise character and density of the rhizomes relative to depth. With this aim in place we carried out the excavation of each rhizome layer in the following manner:-

1. Remove the associated soil leaving the individual rhizomes in place.
2. Photograph the rhizomes layer as revealed.
3. Lay out a one metre grid over the surface.
4. Photogrammetrically plan the rhizomes and other associated features.
5. Cut and remove the rhizomes, then measure the total length collected from each metre square.
6. Carry out a contour survey at 20cm intervals of the entire trench.

These tasks were carried a total of six times during 2000 and this information together with that from the layer excavated during 1999, provide a useful insight into the character of bracken rhizomes at seven different depths within the trench. The results of this work are best presented layer by layer with illustrations being extensively employed to illustrate the information collected. For each layer a plan of the rhizomes is provided together with simplified cross sections showing the position and depth, of each layer together with an overall photograph, some statistics and commentary are also included. Together this information illustrates the impact of the rhizomes within this trench.

Layer 1

This layer represents the upper part of the major rhizome mat and illustrates clearly its obvious physical impact. A total length of 355.62m of rhizomes were recorded. As a measurement of the displacement impact of the rhizomes within each metre square in this layer the percentage of bracken relative to the volume of soil removed was calculated. The volume of bracken in each 1m square pit varied between 0.34% and 11.8% with the average being 4.56%. This is to say that 4.56% of the total volume of this layer comprised bracken rhizomes.
23.25% of the rhizomes found so far in Trench 2 are found in this level

Figure 15 Plan showing the Layer 1 rhizomes.

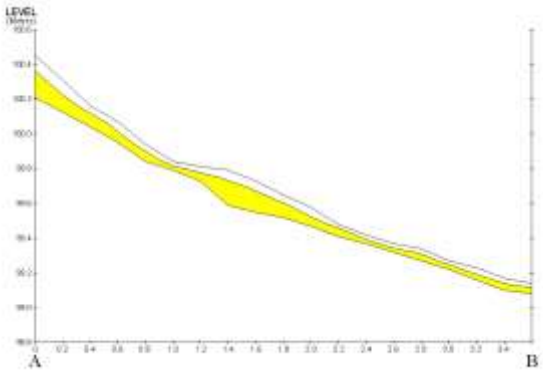


Figure 16 South facing section across Trench 2 showing the position and depth of Layer 1.

Figure 17 View from the east of the Layer 1 rhizomes.

Layer 2

This layer represents the lower part of the rhizome mat. A total length of 573.44m of rhizomes were recorded. The volume of bracken within each 1m² pit varied between 20.05% and 2.98% with the average being 9.80%. The highest density of rhizomes were found adjacent to the house wall. This is to say that 9.80% of the total volume of this layer comprised bracken rhizomes. 37.4 % of the rhizomes found so far in Trench 2 are found in this level.

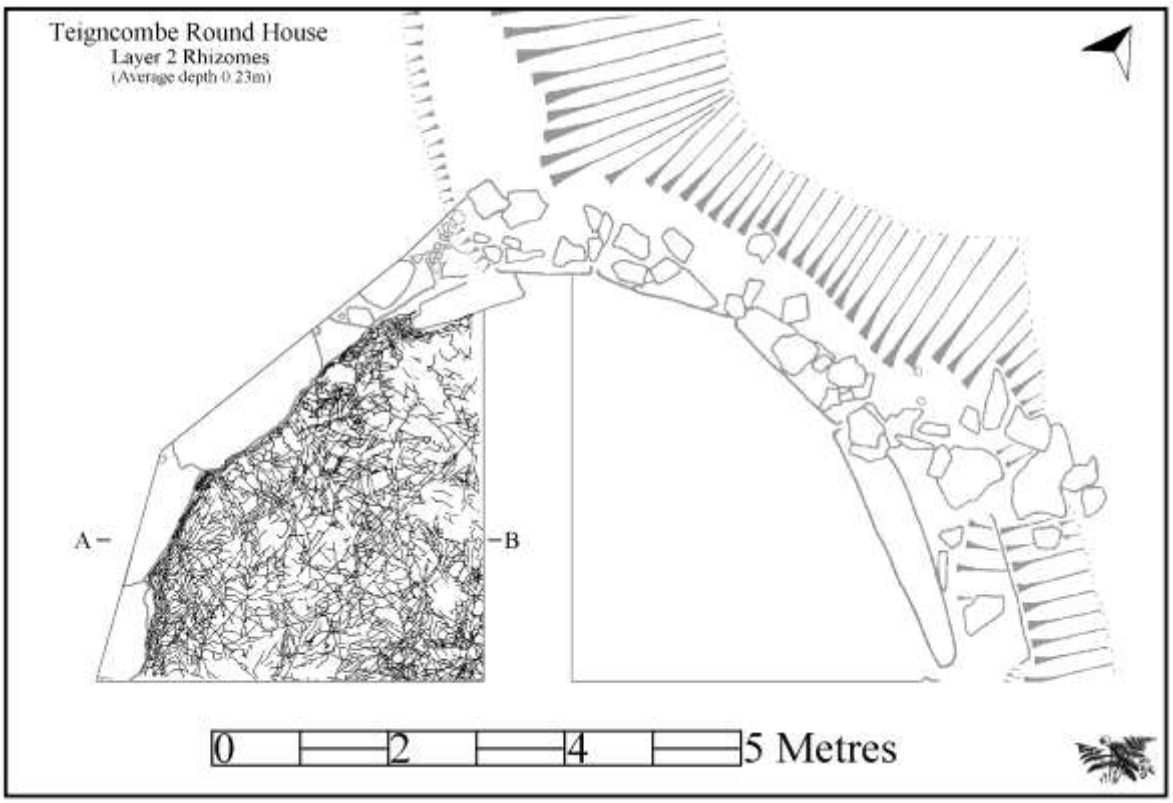


Figure 18 Plan showing the Layer 2 rhizomes.

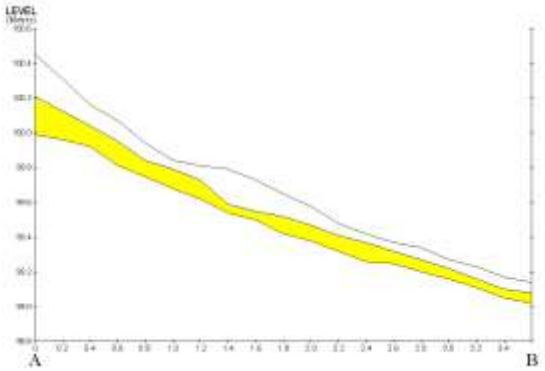


Figure 19 South facing section across Trench 2 showing the position and depth of Layer 2.

Figure 20 View from the east of the Layer 2 rhizomes.

Layers 1 & 2

These layers together represent the rhizome mat. The composite plan of the rhizomes in these layers illustrates the true character and by implication its likely impact on the soils through which it has penetrated. The total volume of this layer was 2.62m³ and within this a total length of 929.06m of rhizomes were uncovered. 60.65% of the rhizomes found so far in Trench 2 were found in this layer.

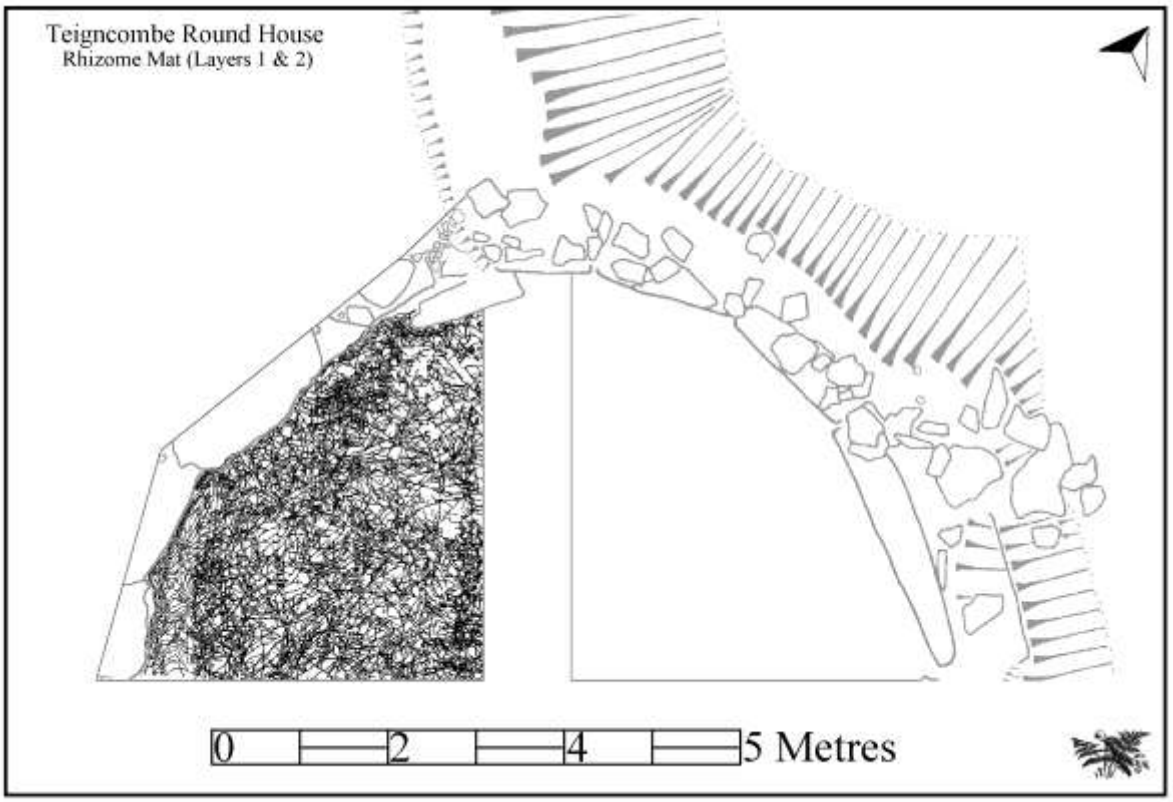


Figure 21 Plan showing the rhizome mat.

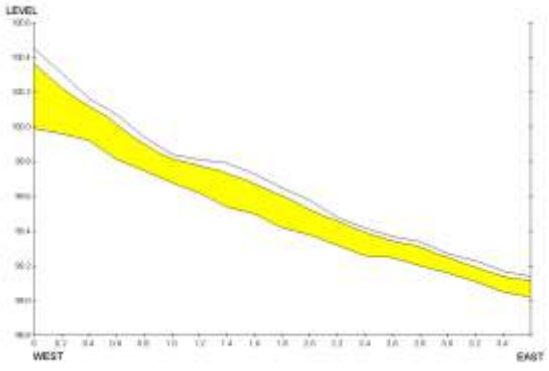


Figure 22 South facing section across Trench 2 showing the position and depth of the rhizome mat.

Figure 23 View from the south of the Layer 1 & 2 rhizomes adjacent to the house wall.

Layer 3

The total volume of this layer was 1.07m³ and within this a total length of 279.23m of rhizomes were uncovered. This layer represents the lower part of the rhizome mat and its average depth below the surface was 0.33m. The volume of bracken within each 1m² varied between 0% and 9.94% with the average being 3.3%. This is to say that 3.3% of the total volume of this layer comprised bracken rhizomes. 18.23 % of the rhizomes found so far in Trench 2 were found in this layer. Artefacts found within this layer included four quartz crystals and a sherd of "medieval" pottery.

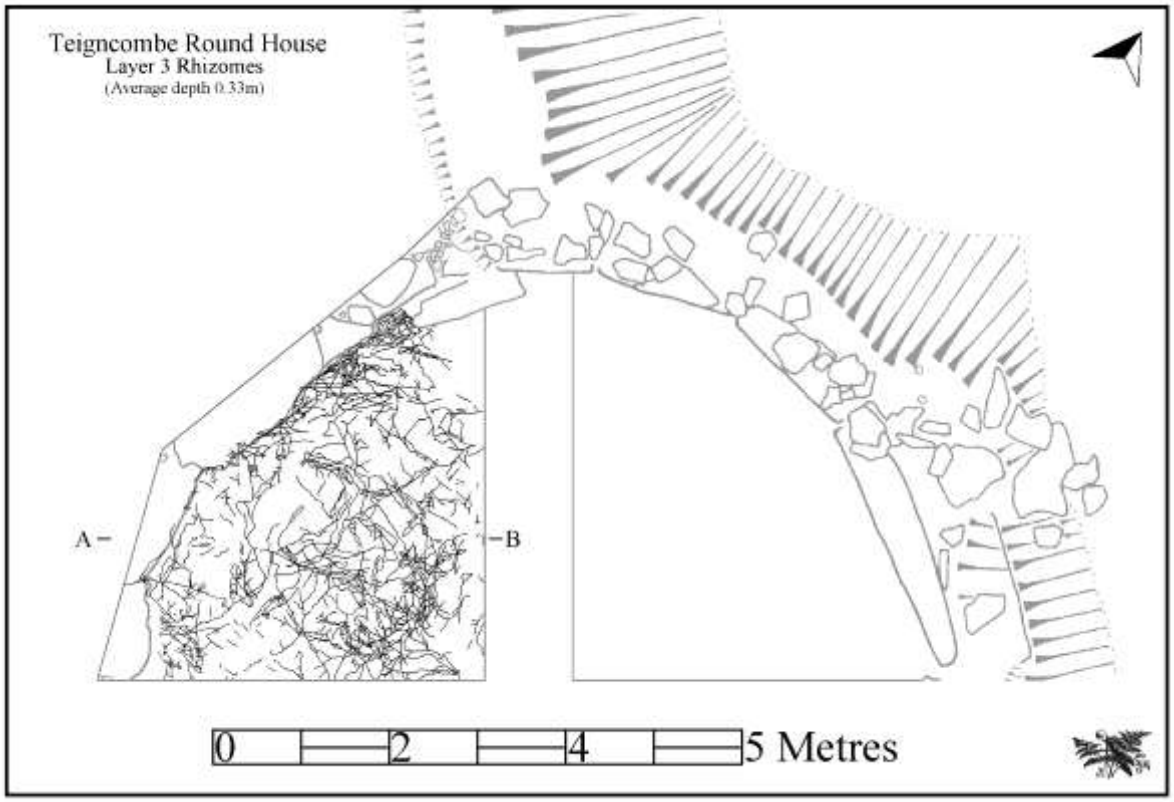


Figure 24 Plan showing the Layer 3 rhizomes. The rhizomes appear to overlap the house wall in places because the wall is corbelled.

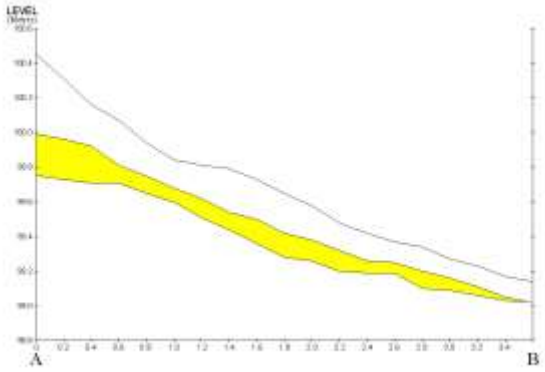


Figure 25 South facing section across Trench 2 showing the position and depth of Layer 3.

Figure 26 View from the east of the Layer 3 rhizomes.

Layer 4

The total volume of this layer was 1.16m³ and within this a total length of 192.91m of rhizomes were uncovered. The average depth of this layer below the surface was 0.44m. The volume of bracken within each 1m² varied between 0.36% and 15.41% with the average being 2.91%. This is to say that 2.91% of the total volume of this layer comprised bracken rhizomes. 12.59% of the rhizomes found so far in Trench 2 were found in this layer. Artefacts found within this layer included three quartz crystals.

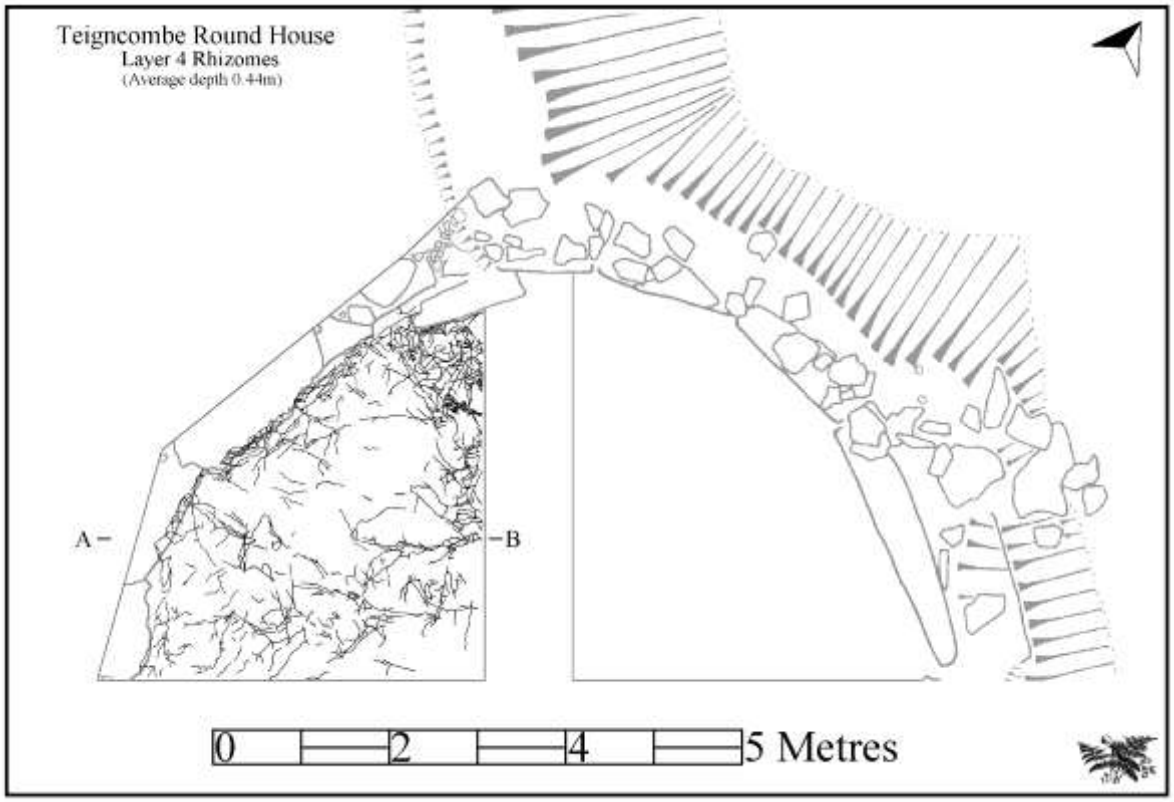


Figure 27 Plan showing the Layer 4 rhizomes.

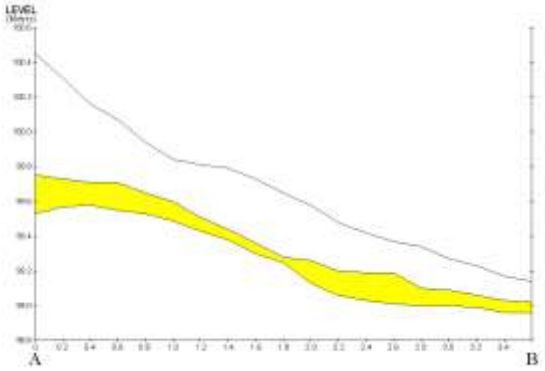


Figure 28 South facing section across Trench 2 showing the position and depth of Layer 4.

Figure 29 View from the east of the Layer 4 rhizomes.

Layer 5

The total volume of this layer was 1.18m³ and within this a total length of 66.71m of rhizomes were uncovered. The average depth of this layer below the surface was 0.56m. The volume of bracken within each 1m² varied between 0.09% and 3.97% with the average being 1.06%. This is to say that 1.06% of the total volume of this layer comprised bracken rhizomes. 4.36% of the rhizomes found so far in Trench 2 were found in this layer. Artefacts found within this layer included a quartz crystal and one sherd of post-medieval pottery.

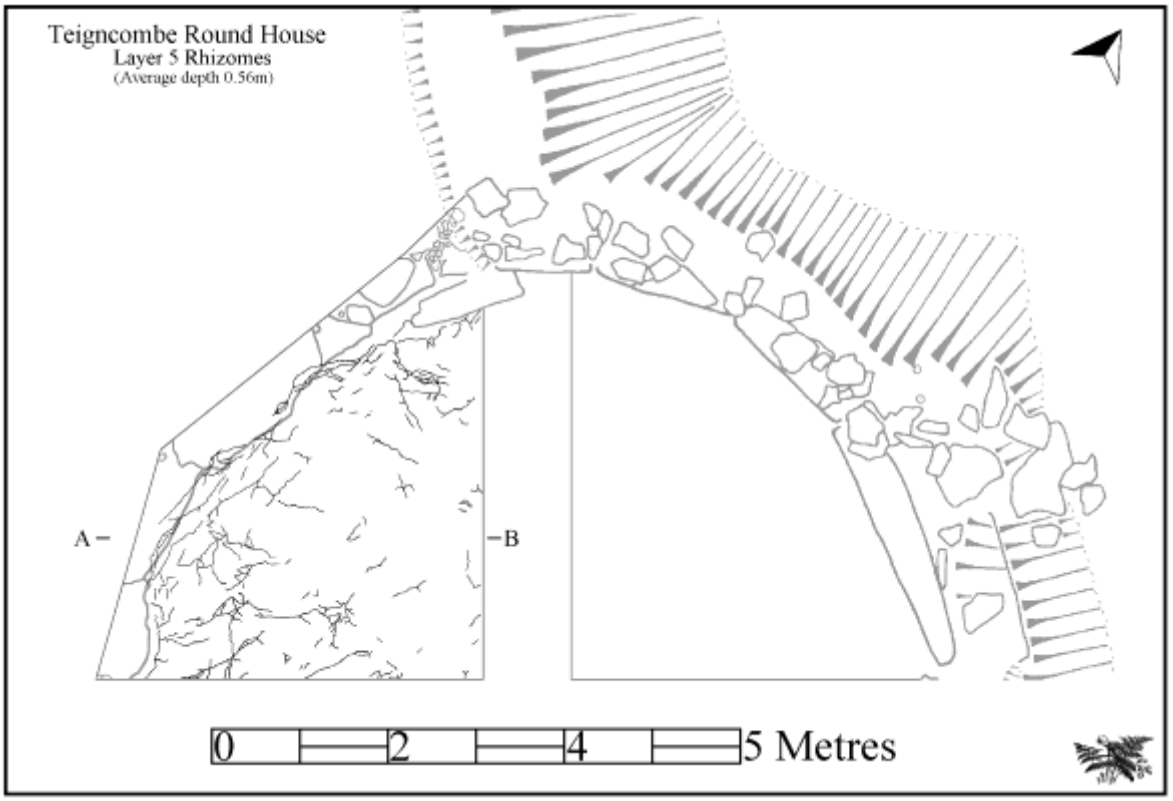


Figure 30 Plan showing the Layer 5 rhizomes.

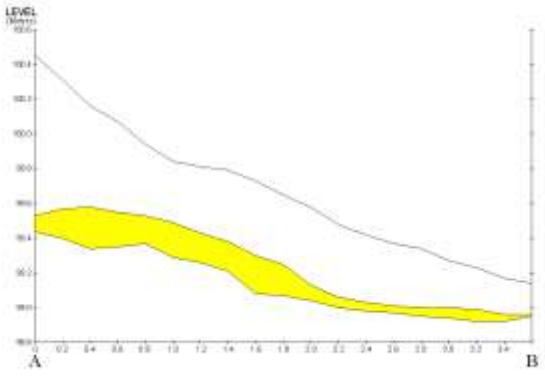


Figure 31 South facing section across Trench 2 showing the position and depth of Layer 5.

Figure 32 View from the north east of the Layer 5 rhizomes.

Layer 6

The total volume of this layer was 0.75m³ and within this a total length of 36.47m of rhizomes were uncovered. The average depth of this layer below the surface was 0.64m. The volume of bracken within each 1m² varied between 0% and 3.5% with the average being 0.84%. This is to say that 0.84% of the total volume of this layer comprised bracken rhizomes. 2.38% of the rhizomes found so far in Trench 2 were found in this layer. Artefacts found within this layer included a quartz crystal. There was considerable evidence of animal burrowing and historic rhizome activity within this layer and this was recorded. Details are presented on page 24.

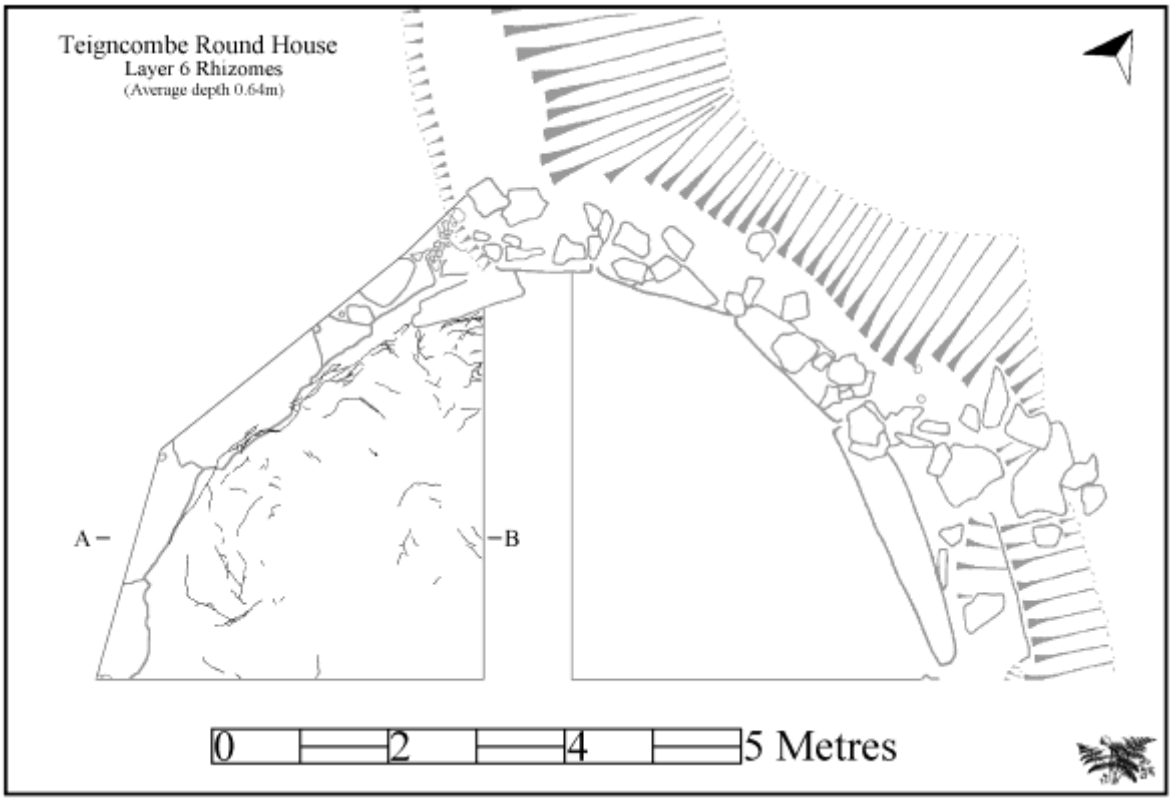


Figure 33 Plan showing the Layer 6 rhizomes .

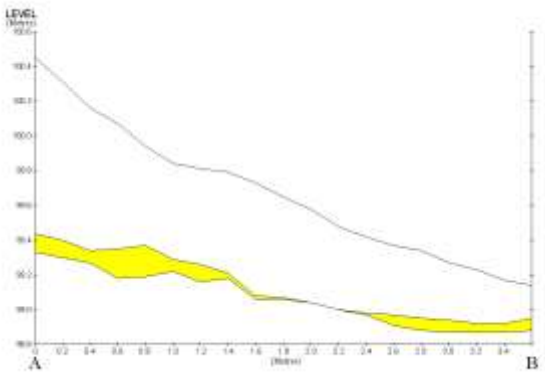


Figure 34 South facing section across Trench 2 showing the position and depth of Layer 6.

Figure 35 View from the south of the Layer 6 rhizomes.

Layer 7

The total volume of this layer was 1.45m³ and within this a total length of 27.4m of rhizomes were uncovered. The average depth of this layer below the surface was 0.78m. The volume of bracken within each 1m² varied between 0% and 2.33% with the average being 0.38%. This is to say that 0.38% of the total volume of this layer comprised bracken rhizomes. 1.79% of the rhizomes found so far in Trench 2 were found in this layer. Artefacts found within this layer included two quartz crystal and a flint flake.

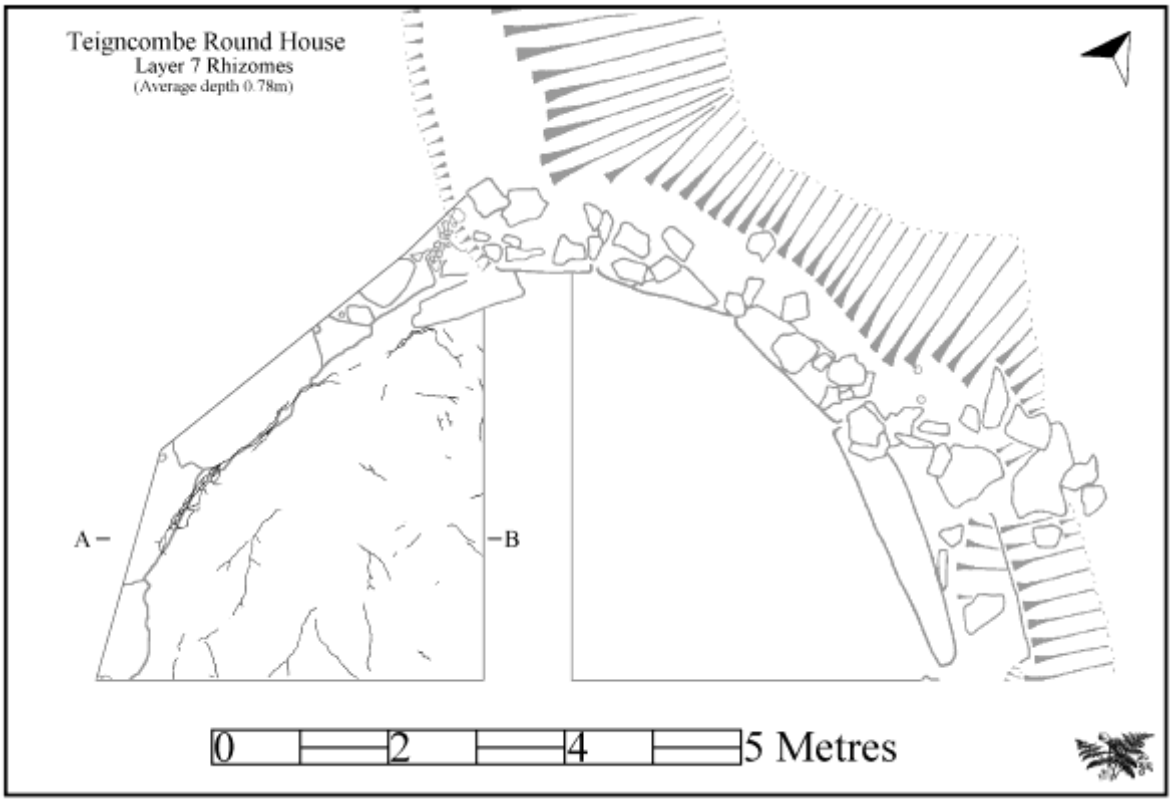


Figure 36 Plan showing the Layer 7 rhizomes.

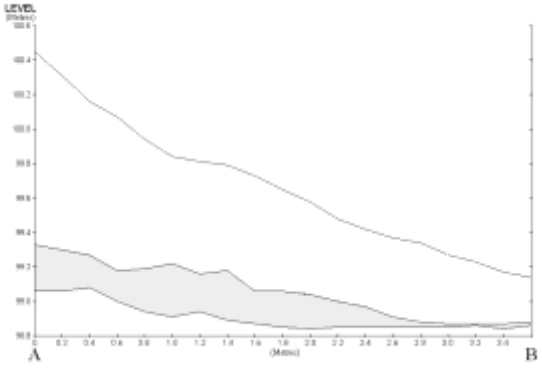


Figure 37 South facing section across Trench 2 showing the position and depth of Layer 7.

Figure 38 View from the east of the Layer 7 rhizomes.

The removal of the 7th layer of rhizomes coincided with a marked change in the character of the soil. The dark brown loam changed to an orange-brown silty gravel reminiscent of the material found below the rhizome mat in Trench 1. Artefacts found associated with the seven bracken layers were largely undateable, although the discovery of a tea-cup handle of probable 19th century date in Layer 5 (0.63m below the surface) may suggest a relatively recent date for all of this material. It is possible that this sherd had been displaced by animal burrowing, but on balance a post-medieval date for this material seems likely given that it overlies a layer of medieval date. This material may therefore have accumulated over a relatively short period of time, perhaps coinciding with arable farming or improving of the grazing in the field above (Figure 39).

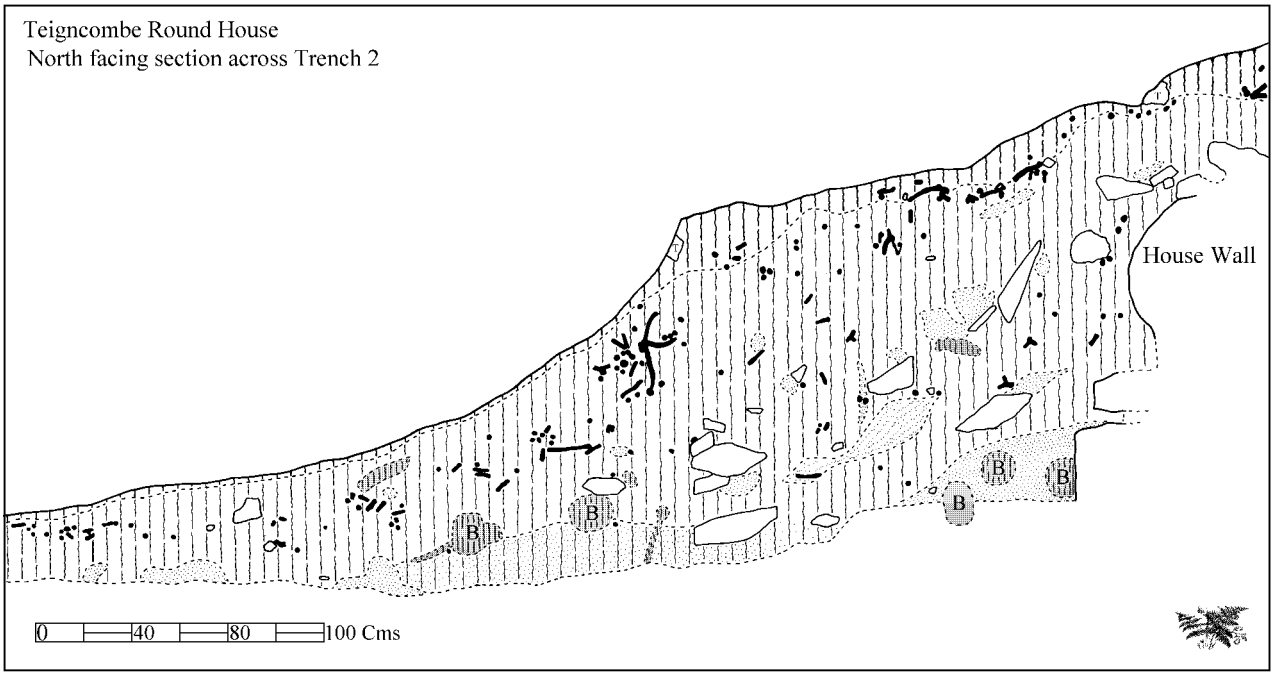


Figure 39 North facing section across Trench 2 showing the character of the deposits removed during excavation. The rhizomes are shown as solid black. The animal burrows are represented by the letter B.

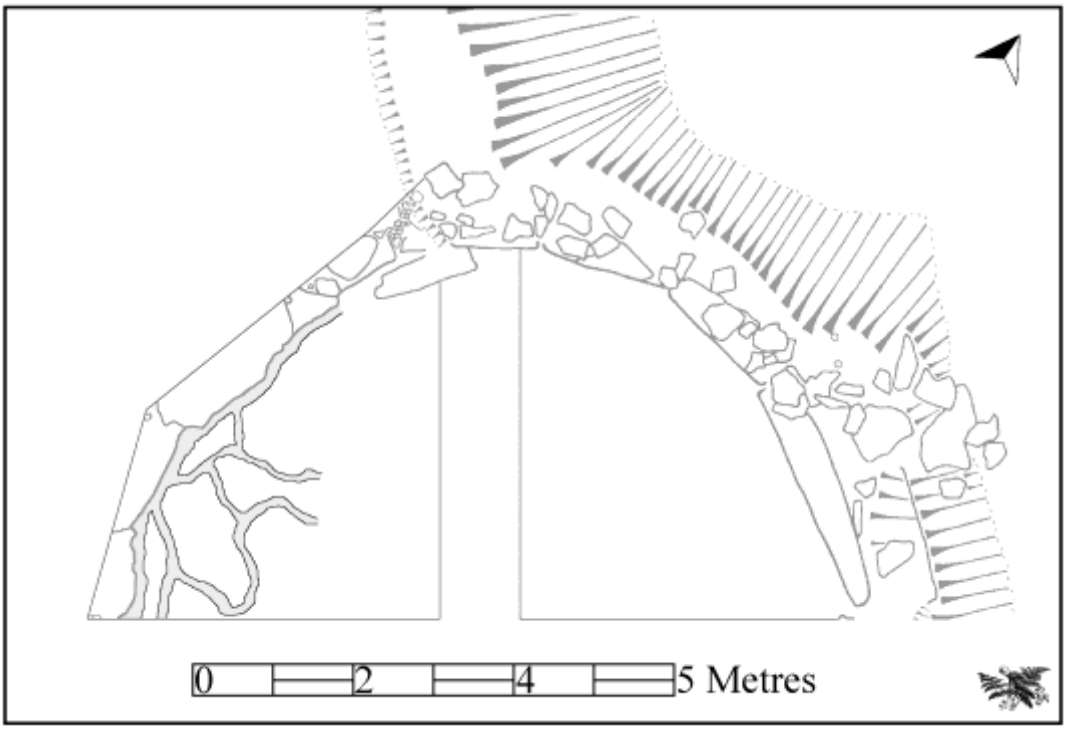


Figure 40 Plan of animal burrows in Layer 6.

Animal Burrowing

The free draining soils in the western part of this trench appear to have been a haven for burrowing animals over the years. In particular, substantial rabbit sized burrows were encountered during the excavation of Layer 6. These were planned at the same time as the rhizomes and the resulting plan (Figure 40) shows the extent of disturbance caused by this activity. The major parts of the burrow system follow the house wall and their impact on the stratigraphy can be judged from Figure 39.

Historic Rhizome Damage

At one point during the excavation of Layer 6, the removal of a large flat stone led to dramatic evidence for historic rhizome activity. Below this stone a pattern of clearly discernible fossilised rhizomes was observed. The density of these was reminiscent of that encountered within the rhizome mat. This observation indicates that a thick rhizome mat once existed over 1m below the present land surface. Evidence for this infestation was limited to the areas below stones and indicates that elsewhere either the evidence has been lost by soil processes or that our excavation techniques were not refined enough to identify it. Whatever the reason there is sufficient evidence to indicate that at some time in the past the house was subjected to an earlier bracken infestation. It is most likely that this episode dated to the period sometime in the early post-medieval period when substantial quantities of soil accumulated within the western half of the house.

Figure 41 View of fossilised rhizome mat under a stone in Layer 6 of Trench 2. The hole at the top left hand side forms part of the animal burrows in this area.

Conclusion

The second season of work at Teigncombe has provided further details concerning the character of the current bracken infestation. The rhizomes are not evenly distributed throughout the building, but instead tend to concentrate in particular areas such as those adjacent to walls. I believe we have conclusively demonstrated that bracken rhizomes cause varying degrees of damage to archaeology. At Teigncombe much of this damage is currently limited to the less sensitive upper layers, but we must not forget that the depth of deposits here are considerably greater than on most sites on Dartmoor. A similar infestation on other sites would be causing considerable damage to the most important deposits now. There is a clear need to examine another site with more "typical" stratigraphy to establish whether the magnitude and depth of damage witnessed at Teigncombe is representative.

Finding conclusive evidence for disruption of the "prehistoric surface" by historic rhizome activity is going to be much more difficult to prove. Whilst we have so far demonstrated that the surface has seen considerable disruption over the years, we have not yet been able to prove how much of this has been caused by rhizomes. Unpalatable although it may be, we clearly need to understand just how much of the more sensitive archaeological information has survived on the moor, as this must be taken into account when developing future management strategies.

Our work to date has indicated that there are two major implications associated with bracken on archaeological sites. The first is that current infestations can cause damage - although the precise scale is likely to vary both between and within individual monuments. The second is that an unknown number of sites may already have been damaged. Further work is needed to develop techniques to identify and quantify the scale of this problem and during coming year the methodology will need to be developed to examine this important issue.

INTERIM REPORT ON THE POTTERY FROM THE 1999 SEASON
(Henrietta Quinnell)

All ceramics from the site were air dried and stored in acid free tissue paper. Previous experience of prehistoric ceramics from South Western sites indicates that sherds when excavated can be extremely soft and damage can be caused by washing before drying out. The preservation of the sherd surfaces in the condition they were excavated was additionally important at Teigncombe as the question of chemical damage was to be addressed and it is important that the possibility that damage to surfaces from cleaning is kept to the minimum. The 1999 material was washed about three months after the completion of the excavation when the sherds appeared dry. Air drying before washing is strongly recommended for prehistoric ceramics from acid soils although it entails some delay in obtaining information from the assemblage.

There were twelve pieces of prehistoric material, all from context number (08):34, 37, 39, 40, 42, 44, 46, 48, 49, 50, 51, 54. All were small, weighing from 1 g to 8 g, and all had considerable surface erosion. The only diagnostic pieces were 34 and 37, both of which were rim sherds, probably from the same vessel: these were less eroded than the smaller, non-formal, pieces. The sherds, c. 5 mm thick, came from an upright rim, the top of which had been widened by the pressure involved in slanting impressions, almost certainly finger nail. 34 also had a row of finger nail decorations on the exterior below the rim.

These rims sherds may be described as 'cable rims'. The closest published parallels from Devon come from the 1949 Dainton excavations in South Devon (Willis & Rogers, 1951, especially Fig 6 No 1) which have been traditionally regarded as 'Early Iron Age'. Barrett (1980) clearly demonstrated that ceramic traditions previously regarded as Early Iron Age commenced in the Late Bronze Age, and in Wessex there is now a reasonably detailed typological and decorative sequence established for this whole period, c 1100- 500 BC. In the South West Late Bronze Age/Early Iron Age ceramics are notoriously sparse and a detailed local sequence has yet to be developed. Outside the South West, the Dainton and Teigncombe material might be provisionally linked to Cunliffe's (1991, 66) Kimmeridge-Caburn group: this Cunliffe dated to c. 750-550 BC, although research during the 1990s is tending to backdate all stages of the LBA/EIA sequence (Mark Corney *per. comm.)*

A date of 750-550 BC or a little earlier allows for possible contemporaneity with the material from Aileen Fox's Kestor excavations (1954, Fig 12). The limited range of material found by Fox falls within the general LBA/EIA sequence. An initial comparative study of the Teigncombe and Kestor material will be undertaken for the next interim report, using the much larger 2000 assemblage of 65 sherds in addition to the twelve from 1999.

The fabric of 34/37 appears similar to that of most of the other sherds (any possible other fabrics are represented by tiny sherds and a fuller fabric study will be included in the next interim). Dr Roger Taylor has carried out a preliminary examination under a x 20 binocular microscope. He has identified feldspar, mica, haematite and composite granite pieces. This material is small-sized and waterworn, but haematite is heavy and composite granite would break up after too long in a river. Dr Taylor suggests a source using stream sand a few miles away from the granite. This comparatively local sourcing, and the size of the inclusions, supports a LBA/EIA date. Local Middle Bronze Age ceramics tend to be thicker and have larger inclusions, usually from sources not immediately local (Parker-Pearson 1990, 22).

The study of the Teigncombe ceramics so far suggests four important strands. The first is the obvious one of chronology, with the exciting possibility of adding to the limited LBA/EIA range of material from Devon. The second is that of sourcing. The third relates to the question of erosion of the sherds and how far this has been caused by chemical or mechanical post-depositional factors. A strategy for the investigation of ceramic erosion will need to be developed, and this, with the factor of the chemical damage from bracken, will break new ground. There is finally the taphonomic problem of why the sherds were found where they were. Is it correct to assume the presence of sherds indicates an 'occupation level' ? Activity within a house might be expected to fragment and erode sherds, which would end up trampled into the floor and this might seem appropriate for the 1999 material. However work elsewhere is demonstrating that ceramic deposits, especially when associated with dark soil, may result from deposition after the abandonment of a structure, either using the ruins to confine a midden or involving 'structured deposition' as part of the strategy for decommission the building (Nowakowski, 1991, 208-9). The 2000 assemblage includes larger pieces than that from 1999 and close study of sherd size and degree of erosion may be expected to have interesting results with regard to the deposition of material.

REPORT ON THE FLINT ASSEMBLAGE FROM TRENCH 1 OF THE TEIGNCOMBE ROUNDHOUSE
(Martin Tingle)

Introduction

The assemblage from this excavation is composed of five pieces of worked flint. None of these can be ascribed to a particular period of prehistory although a blade fragment such as Find No. 65 would not be out of place in an early assemblage and therefore may well be residual.

Raw Materials

The flint varies in colour from a mottled dark grey (65) through to a light grey/brown (33). Of the three pieces, which retain cortex on their dorsal surfaces, that of 33 suggests that it may have been chalk derived flint

Distribution

In plan, the assemblage is evenly distributed across Trench 1 with no obvious clustering. When viewed in section only two flint artefacts appear to have been located within the principal distribution of prehistoric pottery (Finds 65 & 122) both of which are small broken pieces.

Individual pieces

Find No.	Type	Weight (g)
33	Retouched Flake	7
65	?Broken Blade	1
61	Core Fragment	29
45	Secondary Flake	25
122	Broken Flake	1

Find number 33 is a long flake that has been continuously retouched along the entire length of the left edge and partially retouched along the right.

Find number 45 is a squat secondary flake. Some of the dorsal cortex has the battered appearance reminiscent of a flint hammerstone while cortex immediately next to the bulb of percussion is worn smooth. This would suggest that the piece was not detached from a core as part of a sequence of reduction but was rather the accidental product of the use of a flint nodule as a pounding/rubbing stone

Find number 61 is a fragment from an unsystematically worked core. The piece shows some evidence of frost damage that may have contributed to its breakage

Find number 65 is a broken flake, which judging from the flake scars on the dorsal surface may well have been the distal part of a blade. Part of the left edge shows evidence of irregular retouch that may represent damage/wear resulting from utilisation.

Find number 122 is part of a broken flake. The distal surface shows some evidence of damage brought about by burning.

Conclusion

This small assemblage of worked flint can tell us little of the nature of activity at the site, given that some of it may be residual. It is however important that artefacts such as this should be described, given the recent interest in later flint assemblages (Humphrey & Young 1999).

Acknowledgments

This year as the excavation dates loomed in my diary and with few preparations completed, I consoled myself with the fact that digs of this kind appear to develop their own momentum and that it would indeed be more difficult to stop than continue. This is just as well, because with a month to go my computer caught a couple of nasty viruses and had to be rebuilt. The result was that simple little tasks such as telling the diggers when we were digging somehow got overlooked. It was, therefore, something of an achievement that this season happened at all. The core of the digging team was largely unchanged from last year although we lost one (who preferred the allures of French canals) and gained a few others. A small group of particularly enthusiastic volunteers managed to persuade me that it would be a good idea to go up early to put up the tents and remove last years backfill. Interestingly all those who turned up were members of the Archaeology Club of Eggesford (ACE), one of whom (Shirley Ryan) had persuaded some friends to come out and carry equipment up to the site! The other sherpas on the first day were Judi Clarke, Janet Daynes, Gordon Fisher and Helen Gerrard. The second day of setting up was more reminiscent of last year with much of the day being spent sheltering in the tent. On the following day the rest of the team joined us. Every member of the team plays a crucial role in the success of the project and this year Bob Bruce, Judith Cannell, Graham Carne, Judi Clarke, Geoff Day, Janet Daynes, Gordon Fisher, Karleigh Hamblin, Wendy Howard, Lorinda Legge, Jane Passmore, Mike Passmore, Shirley Ryan, Sophie Stevens and Esmée Sykes all regularly contributed their many skills and enthusiasm. Many others joined us for a day or two and amongst these were Sue Watts, Deric Munro, Phil Tonkins, Karen Tonkins and Andrew Passmore.

As last year we are very grateful to the Dartmoor National Park Authority for funding our work and to Mr and Mrs Edmondson and the Duchy of Cornwall (Colin Sturmer) for permission to excavate. Debbie Griffiths (Dartmoor National Park Authority) provided essential and much welcomed support as did Ian Morrison (English Heritage). We are also very grateful for the continued involvement of the specialists, some of whom have contributed articles for this Interim . Tony Brown (pollen analysis), Henrietta Quinnell (pottery) Martin Tingle (lithics), Vanessa Straker and Jen Heathcote (environmental) are all helping to shape the project.

Devon Archaeology Society and the Archaeology Club of Eggesford provided us with many of the tools and equipment and I would like to specially thank David Fitter (DAS) and Janet Daynes and Gordon Fisher (ACE).

Other individuals involved in some way with the project this year include Shirley Blaylock (National Trust), Peter Crow (Forestry Commission), Lady Aileen Fox, Frances Griffith, Chris Henderson, Joe Turner, and Tim Yarnell (Forestry Commission). Finally, I would like to thank Helen my wife who although unable to attend much of the dig this year has been working hard behind the scenes.

Bibliography

Barrett, J., 1980 "The pottery of the later Bronze Age in lowland England" *Proceedings Prehistoric Society* **46**, 297-321

Cunliffe, B., 1991 *Iron Age Communities in Britain* 3rd Edition. Routledge

Fox, A., 1954, "Excavations at Kestor: an early Iron Age settlement near Chagford, Devon", *Rep. Trans. Devon. Assoc*., **86**, 21-62

Humphrey, J. & Young, R., 1999 "Flint use in Later Bronze Age and Early Iron Age England - Still a Fiction?" *Lithics*, **20**, 57-61.

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

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

Willis, L. and Rogers, E. H., 1951 "Dainton Earthworks" *Proceedings Devon Archaeological Exploration Society* **IV Pt4**, 79-101