

## **PROJECT DESIGN – Ham Hill, Somerset (SAM No. 100)**

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In mitigation to a proposed quarry-extension within the interior of Ham Hill hillfort (ST 484 165), a designated heritage asset, Scheduled Ancient Consent is here applied for a three year-long programme of excavation, with the fieldwork to be undertaken by the Cambridge Archaeological Unit, University of Cambridge (Christopher Evans) and the Department of Archaeology, University of Cardiff (Niall Sharples).

### **1. Introduction and Scope**

1.1 What is here presented is a three year-long excavation strategy in mitigation of a proposed extension by the Ham Hill Stone Company to their quarry within the hillfort of Ham Hill, Somerset, a designated heritage asset (Scheduled Ancient Monument No. 100). Some 31.1ha of the hillfort's interior is estimated to have been destroyed by quarrying. The proposed extension to Ham Hill Quarry South would increase the percentage of its interior quarried by 1.61% (1.45% additional to that which has already been consented). The quarrying activity would involve the removal of all superficial deposits and up to 26m of stone; any archaeological deposits in the area of the quarry would, thereby, be completely destroyed.

Due to the location of the extension area on the hillfort, a designated heritage asset, the removal of the archaeology is unavoidable and will obviously have a significant negative impact at a national, regional, local and site scale. In this capacity, the justification of this loss arises through the exceptional circumstances of the quarry and the need to provide its sourced stone for buildings within the conservation area; the case for this being dealt with in greater detail in other sections of the Environmental Statement.

As detailed below, through a programme of high standard archaeological investigations, allied research and wide-ranging public outreach/engagement, the loss of the designated heritage asset will be offset by the accrued public benefits, with the hillfort greatly enhanced as a public asset.

It was envisaged that Ham Hill Quarry South had approximately eight years of reserves left to extract within the area consented by planning; however, a series of faults have been found to run across the consented area and the underlying stone is of very poor quality, with the result that the reserve of stone at the quarry has been reduced to less than one year. It is, therefore, proposed to give up 0.14ha of consented area where the underlying archaeology remains *in situ* in favour of 1.42ha adjacent to the best quality stone in the current quarrying area to continue the supply of Ham Hill Stone for a further 46-91 years. As a result the underlying archaeology will be removed in an extra 1.28ha area than that currently consented.

Low bunds (3m high screen) will be constructed on the northern and southern boundaries of the Extension Area to store soils and overburden and to provide a screen. As previously practised within the quarry, the bunds will be placed on geo-textiles to avoid damaging the underlying archaeology. The bunds will occupy a 0.99ha area.

Following the cessation of stone extraction, storage and processing bunds will be removed. The stored indigenous soils will be spread in their correct sequence on the quarry floor. As with the existing quarry it is not intended to import waste materials to restore the quarry; the void left enclosed by quarry faces will be retained for geological interest.

### **Background**

1.2.1 The hillfort of Ham Hill is located in south Somerset, approximately 6km west of Yeovil, on the northern scarp of the Jurassic limestone hills which define the character of this part of Somerset (Fig. 1). The hilltop is a plateau of Upper shelly limestone (Ham Hill stone), which rises to a maximum height of 139 metres OD and has extensive views, particularly north

across the Somerset Levels. It is located within three parishes; Stoke sub Hamdon, Norton sub Hamdon and Montacute. Almost the entire monument is owned by South Somerset District Council, the Duchy of Cornwall, Major Shuldhham and the Ham Hill Stone Company Limited. Most of the monument is currently managed as a country park by South Somerset District Council who regard it as 'a unique piece of Somerset countryside' (Countryside Service 2007, 3).

Ham Hill is the largest hillfort in Britain (Forde-Johnston 1976, 93, 97). It encloses an area of approximately 88.1ha (RCHME 1997, 28), which compares with an area of 17.2ha at Maiden Castle and the 22.3ha at Hod Hill, both in Dorset. The site is a Scheduled Ancient Monument (no 100) and is recorded in the Somerset Historic Environment Record (HER no. 55103). It is widely recognised as an archaeological monument which has regional, national and indeed international significance.

The hillfort is largely defined by two ramparts and ditches, but a third rampart is visible in limited areas of the defensive circuit (RCHME 1997). The main body of the hillfort is a roughly rectangular area, known as the plateau, but projecting from the northwest corner of the plateau is a prominent area of high ground known as the spur. Two original entrances to the hillfort have been identified (RCHME 1997); one on the east side, at Batemoor Barn, and one at the end of a narrow coombe that separates the spur from the main plateau. It is possible that other, original entrances existed on the west and the south sides of the hillfort.

The hillfort has been subject to a substantial amount of archaeological investigation. The early work, in the late nineteenth century, was initially carried out on a relatively *ad hoc* basis, in tandem with the considerable amount of quarrying being undertaken on the hillfort, but at the beginning of the century a more systematic research oriented approach developed. A late Roman villa was examined on the east side of the hillfort (Walker 1907) and H. St George Gray excavated trenches in the western part of the hillfort (Gray 1924, 1925, 1926). The latter excavations were of reasonable quality, for the period, but unfortunately they were not fully published. These excavations, and collections from other interventions, resulted in the deposition of large quantities of material in the local museums, particularly the County Museum in Taunton (Adkins and Adkins unpublished report) and most of this material remains unpublished (Morris 1988; Somerset County Council Museum Service 1997).

Since the 1970s there have been excavations and observations by a variety of individuals as a result of the renewed quarrying of the hillfort interior. Most of this work has taken place in the southwest corner of the hillfort and substantial interventions have been undertaken by the Central Excavation Unit (Smith 1991) and Wessex Archaeology (McKinley 1999; Leivers *et al.* 2006). A morphological survey of the earthworks was undertaken by the RCHME (1997) and a large proportion of the interior of the hillfort has been surveyed by gradiometer (Geophysical Surveys of Bradford 1992). As part of the assessment of the hillfort threatened by this planning application the geophysical survey was extended (Geophysical Surveys of Bradford 2001) and a total of 26ha has now been surveyed. In 2009 as part of the lead in to the planning application an evaluation excavation was undertaken (Slater 2009; TTNCM14/2009).

The geophysical survey (Geophysical Surveys of Bradford 1992, 2001) provides a detailed, though incomplete, picture of the occupation of the plateau area of the hillfort. The most striking feature is the systematic division of the interior into a coaxial system of enclosures apparently defined by ditches. These boundaries are particularly clear in the northwest part of the survey area where a rigid north-south axis appears to have been laid down. This axis is truncated by a broad northwest-southeast anomaly, which represents a road running between the two known entrances. Enclosures adjacent to this road appear to be realigned towards its axis. The alignment created by the central road is also favoured by large enclosures in the southern and eastern part of the surveyed area, and by a Roman villa (though this is perpendicular to the axis) near the western entrance. Other roads are visible in the hillfort, and there are many smaller features such as ring ditches, either houses or barrows, and discrete anomalies that probably represent both grain storage pits and small quarries. These features are relatively isolated and there are very few areas of the interior that appear to be densely covered by settlement features.

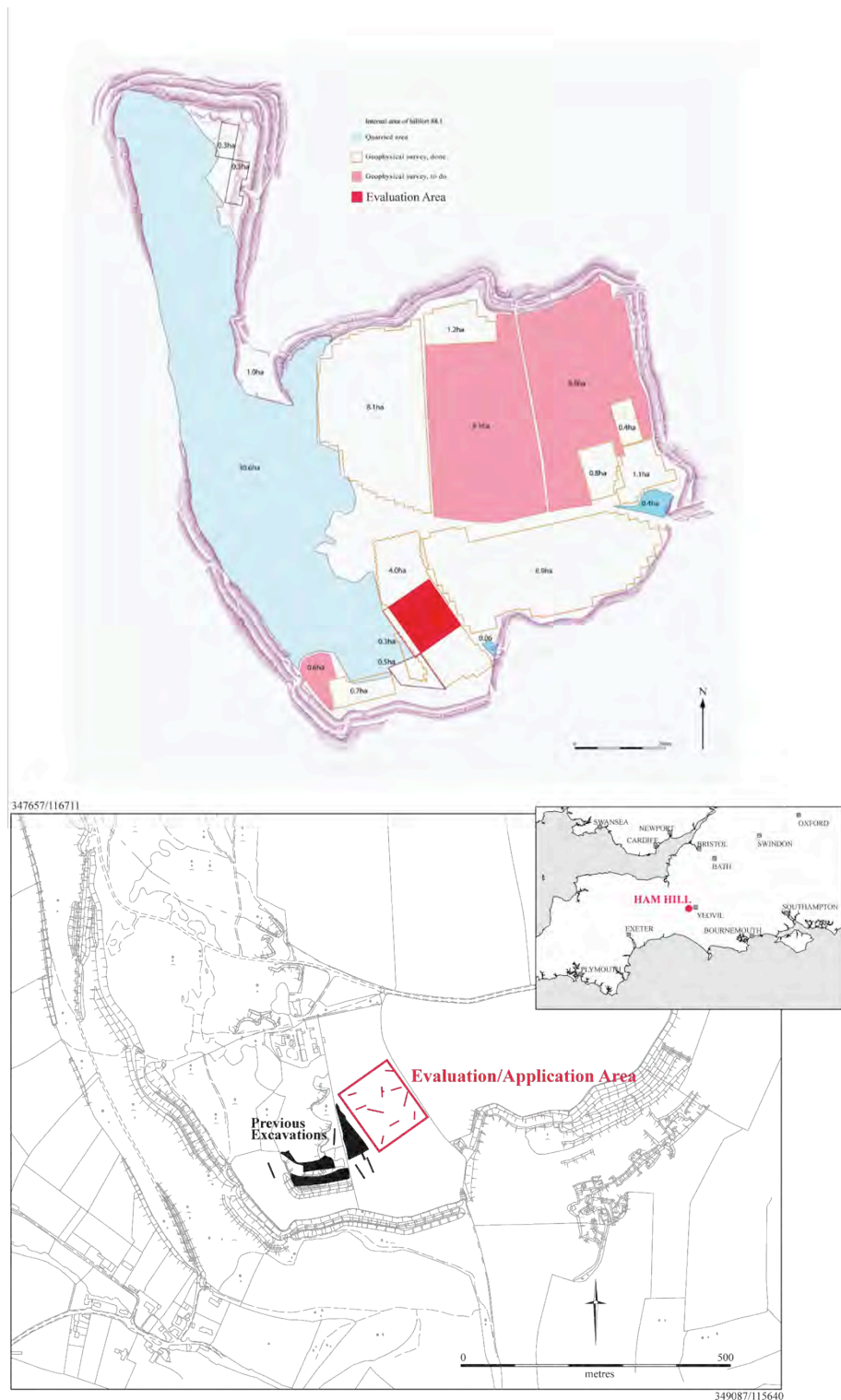


Figure 1. (Top) A simplified plan of the hillfort showing the quarried area (blue), the area with permission for quarrying (purple outline), the evaluation area (red), the area of the geophysical survey already undertaken (outlined orange) and the area still to be surveyed (pink). Based on RCHME 1997, GSB 1992, 2001 and data provided by N Dunn. (Below) Area of evaluation and previous excavations.

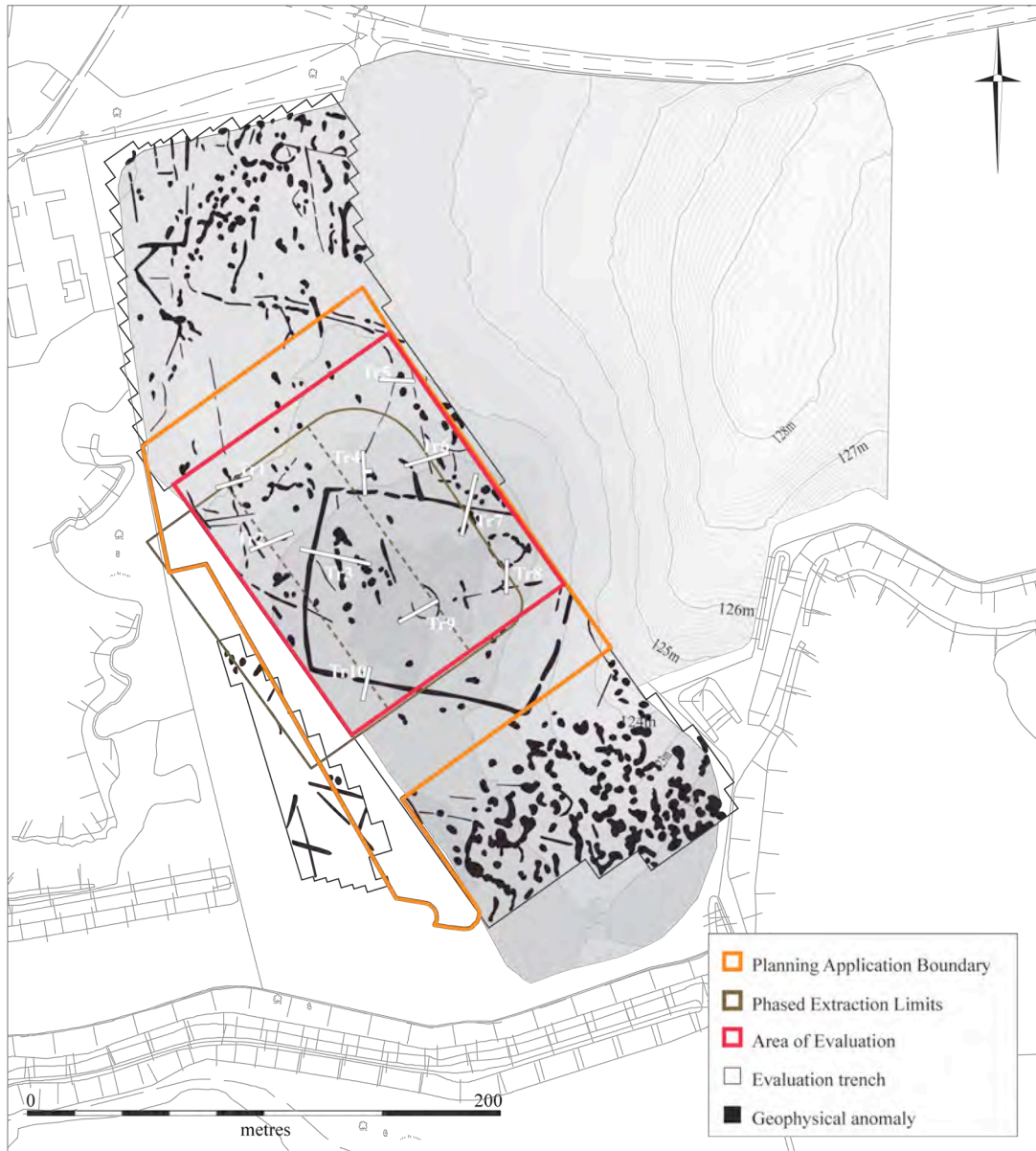


Figure 2. Quarry Extension Area

The principal features discovered by the recent Wessex excavations are pits, but an arc of a gully, which probably indicates a roundhouse, and linear ditches were also identified and excavated (Fig. 2). Pits were discovered in all the areas excavated and occur in discrete clusters. Pits are generally believed to be for grain storage, but they are later infilled with debris, which can include important objects such as currency bars and iron torcs on Ham Hill (Fitzpatrick in McKinley 1999, 111-5). The careful deposition of these objects may indicate a religious or symbolic significance. The excavated areas are traversed by linear ditches. These appear to be boundaries and perhaps related to the agricultural exploitation of the hill. Excavations have recovered Iron Age ceramics from these features, but only in small quantities so their chronology can not be precisely ascertained. Ceramics from the excavated pits indicate occupation spanning the Early and Middle Iron Age, but do not include Late Iron Age material. There is no evidence for significant Roman or Medieval activity in the southwest corner, in contrast to the large quantities of Roman material found on the northwest spur and the presence of a villa at the east entrance.

The area of the proposed extension to the quarry has been evaluated by a recent geophysical survey of the field (GSB 2001) and by an evaluation excavation (Fig. 2; Slater 2009). The survey suggested the presence of a variety of archaeological features in the area threatened. Many of these features are comparable to those excavated in previous work in the southwest corner of the hillfort (Lievers *et al.* 2006; McKinley 1999) and indicate the presence of Iron Age pits and a series of linear boundaries that belong to a field system; however, the area also includes a large rectangular enclosure, defined by a single ditch which enclosed an area roughly 110m by 80m. Approximately 75% of this enclosure lies within the threatened area and will be destroyed by the quarry.

The evaluation was designed to examine and characterise the features visible on the geophysical survey, to date the enclosure and to provide a general representative sample exploration of the total area threatened by the quarry extension. It involved the excavation of ten trenches, roughly 2m wide and of varying length that in total comprised roughly 2% of the threatened area. Four of the trenches were excavated across the ditch that defines the enclosure, two trenches were excavated across features in the interior of the enclosure and four trenches were excavated across features outside the enclosure.

The full details of the excavation of these features are presented in the evaluation report (Slater 2009), but several important points can be emphasised. Several of the features identified by the geophysical survey proved to be of natural origin, but most of the major features had a close correspondence to significant archaeological features; including one pit cluster and several linear boundaries which appear to be the boundaries of a coaxial field system, still unfortunately undated. A thick, but heavily turbated buried soil was present beneath sandy hillwash which is difficult to date but, includes early prehistoric material which, though known from the hilltop, is not well documented. The assemblage of material culture recovered from the excavations was not substantial, comprising 25 flints, 34 pieces of early prehistoric pottery, 76 pieces of later prehistoric pottery and 168 fragments of animal bones. Given the relatively small percentage of the threatened area explored by the evaluation these figures may not give an accurate indication of how much material is present. The previous excavations (Lievers *et al.* 2006; McKinley 1999) have shown that finds rich features are not evenly distributed across the interior of the hillfort and the estimates of finds densities based on these extensive excavations are probably more accurate than those produced by the evaluation.

The enclosure ditch is a well preserved 'V'-shaped ditch varying between 0.76m and 1.05m in depth. There is evidence for significant recutting, and though the assemblage of material culture recovered was not substantial, a Middle to Late Iron Age date is suggested. There was no indication that the enclosure dated to the Roman period. A complete human burial was placed in a grave dug into the early fills on the north side of the enclosure and two collections of disarticulated human remains were also recovered from the ditch fills. Another burial was found in a pit just outside the enclosure ditch. This is a surprisingly large collection of human remains from a relatively limited intervention and might indicate the enclosure had a 'ritual' rather than a domestic function. This might explain its rather odd location in a hollow on the top of the plateau. Excavation of the features in the interior provided conflicting evidence.

A small enclosure in the northeast corner proved to have a substantial ditch that had been recut several times; however, the putative small ditched enclosure at the centre was not located, although there was clearly some human activity in this low lying area.

The examination of the threatened area, by geophysical prospecting and an evaluation excavation, indicates the presence of a range of archaeological features of considerable importance to our understanding of the hillfort. There is a dispersed spread of pits which can tentatively be associated with the occupation of the Iron Age hillfort, and a number of linear boundaries which seem to be associated with the agricultural division of the plateau, either before or after the construction of the hillfort. The most significant and unusual feature is the large enclosure. This important feature is likely to be Middle to Late Iron Age in date and is comparable to other unexplored enclosures to the north and east. Determining an accurate date for the enclosure and an explanation of its function would make a considerable contribution to our understanding of the occupation of the hilltop. There is some early prehistoric activity in the threatened area and further excavation of this material would clarify the nature of the Neolithic and Bronze Age occupation of the hill. There is no evidence for any Roman or later activity in the threatened area.

1.2.2 Ham Hill is classified as a developed hillfort (Cunliffe 1982) because of the size of the ramparts, the presence of multivalation and the large area enclosed. It is therefore comparable with other developed hillforts, particularly the large hillforts at Cadbury Castle (Barrett *et al.* 2000), Hod Hill (Richmond 1968; Stewart 2008) and Maiden Castle (Sharples 1991), which lie in south Somerset and adjacent areas of Dorset. All three of these hillforts have been excavated and geophysical surveys provide an impression of the overall patterns of occupation.

The geophysical surveys of Cadbury Castle and Maiden Castle indicate they were densely occupied. The interior appears to be covered in pits and houses, which blur into each other and are only given pattern by the presence of roads transecting the interior. The survey of Hod Hill is different and reveals an interior packed with houses arranged along roads emanating from the entrance (Stewart 2008). Excavations at Maiden Castle and Cadbury Castle confirm that both hillforts were densely occupied. The interiors are covered with pits, post-hole structures and houses, and at Cadbury Castle occupation spreads survive on the surface in the interior of the hillfort.

Castle Ditches, Tisbury in the Vale of Wardour, south Wiltshire (Payne *et al.* 2006) is a smaller and less well known developed hilltop, but a recent geophysical survey shows an occupation pattern that may be more relevant to Ham Hill. The interior is covered with a complex enclosure system that cuts across numerous clearly identifiable hut circles, and it has been suggested that the enclosures may indicate a later Roman occupation of the hillfort. These enclosures are smaller and more irregular than the enclosures at Ham Hill, but could be comparable to the later activity on this site.

1.2.3 Of its historic setting, Ham Hill has been an active quarry since at least the Roman period and there was extensive quarrying activity in the nineteenth and early twentieth century that continues to this day (Gerrard 1985; Jope 1964). These activities have created a complex landscape on the western part of the hilltop which is characterised by the infilled and heavily vegetated remains of ancient quarries, old tracks and abandoned tram lines. Structures relating to occupation and exploitation of the quarries are likely to survive within the dumps, but have not been considered in detail by the recent survey (RCHME 1997); a village is mentioned in the historical records, buildings are shown on old maps including the current public house and a limekiln, which is a visitor attraction. Natural vegetation has been allowed to colonise the abandoned quarry workings and they include rare habitats and form an attractive and much visited feature that is actively managed by South Somerset District Council. The northern part of the spur is historically used for pasture and is currently being maintained as meadow by the Country Park.

The eastern half of the hillfort interior is a relatively flat plateau, which has been used for arable agriculture since the seventeenth century (RCHME 1997, 11-12). The land is currently divided into fields by stone dykes and these fields were in existence in 1825 (RCHME 1997,

12). Geophysical survey has revealed a landscape of considerable archaeological significance that has been discussed above and in places there is also clear evidence for small-scale quarrying that could be of considerable historic significance; however, there are no surviving remnants of these features visible on the surface of the cultivated fields and only the field boundaries could be considered to give this part of the hillfort any historical character. Most of this area was added to the County Park in 2000 and is currently managed as pasture.

The proposed development of the quarry will extend into a field in the eastern, cultivated, part of the hillfort, which has not been quarried in the recent past. The evaluation (Slater 2009) which follows this report identified a buried soil covered by a deposit of colluvium and suggested that there had been substantial erosion of the archaeological deposits by 'cultivation in the later Medieval and post-Medieval periods' (Allen in Slater 2009, 11). The relative softness of the superficial geology in this area had allowed this cultivation to substantially modify the micro topography of the hilltop and completely buried the archaeological features making them invisible on the surface.

In conclusion, the historic character of the hilltop is focussed on the ancient quarries and associated buildings on the west side of the hill. These will be untouched and unaffected by the proposed development which encroaches on a recently cultivated field to the east. No historic field walls, hedges or trees will be damaged by the quarry.

### **Summary of Products and Tasks**

1.3 There will be six main Product-outcomes of the site's excavation and post-excavation programme:

- 1) The high(-est) standard excavation of the threatened portion of the hillfort
- 2) An accompanying programme of academic research and further research excavation that will greatly increase the understanding of the designated heritage asset (see Appendix 1)
- 3) The training of students in the techniques of hillfort excavation (i.e. knowledge skills-transfer)
- 4) A comprehensive and accessible monograph publication of the hillfort
- 5) Public involvement and long-term realisation of the heritage value to the local and wider community
- 6) Sustained use of Ham Stone in the restoration and maintenance of regionally and nationally important buildings and structures.

Details of Project's Task Sequence and Product Descriptions are provided in Appendix 3.

### **Interfaces and Partnerships**

1.4 Working in close conjunction with both Somerset County Council and, also, English Heritage, the programme will involve a working collaboration between the Departments of Archaeology of the Universities of Cardiff and Cambridge (Cambridge Archaeological Unit).

## **2. Aims and Objectives**

2.1 If the quarry is permitted, the resultant excavations will provide an unparalleled opportunity to transform not just understanding of this hillfort but our general understanding of the Iron Age in Britain. Area excavations of hillfort interiors are very rare as most hillforts are now designated heritage assets/Scheduled Ancient Monuments and, as such, are protected from any significant development or damage. There are, therefore, very limited opportunities to explore these important monuments; only Balksbury, Cadbury Castle, Danebury, Maiden Castle and Winklebury can claim to have been extensively excavated. The only developer-

funded excavation of a hillfort in southern England, apart from Ham Hill, in the last twenty years has been at Barksbury in Hampshire (Ellis and Rawlings 2001), and most of the extensive excavations were undertaken in the 1970s when costs were much reduced.

A recent research project has been undertaken on the hillforts on the Berkshire Downs (Segsbury, Uffington and Alfreds Castle) and though this has been of immense value, the area excavated inside the hillforts was minimal (Gosden and Lock 2007). Excavations have also been undertaken at Credenhill, a large hillfort in Herefordshire as part of a woodland management scheme, but again the area excavated has been relatively limited. Given the limited availability of research funding substantial area excavations inside a hillfort will always be very rare.

The complexity of hillfort settlement patterns has therefore only been fully explored at a very small number of sites and it is very difficult to differentiate general from region or site-specific patterns. This makes a narrative account of the Iron Age difficult. Most of our understanding of developed hillforts is based on the examples to the east on the chalk downlands of Wessex and it is important to build on the work at South Cadbury to create a regionally specific interpretation of the development of these important monuments. This addresses Research Aim 3(k) in the recent agenda for research in the Southwest (Webster 2008, 237).

Ham Hill seems to be very different to the neighbouring, developed hillforts in having a relatively low density of occupation, but a very complex pattern of internal enclosure. The excavation of a large area of the interior will therefore provide an invaluable opportunity to clarify these similarities and differences and provides an unparalleled opportunity to enhance our understanding of these important monuments. Key features that include the linear boundaries, the enclosure and a large group of pits will be characterised and dated. The presence, or absence, of roundhouses and pits will be a good indication of the density of occupation inside the hillfort. Close attention to the details of filling and character of the pits may enable the sequencing of pit groups and thus provide information of the organisation of activities in the hillfort. Many of the pits are likely to have carefully structured infills which have a clearly ritual element to them and the increased size of the area excavated could enable the identification of the spatial pattern to this ritual behaviour (as identified by Hill 1995). Analysis of the density and relationship between pits and the linear boundaries may also indicate whether the former represent an attempt to partition the interior of the hillfort or represent a substantially different occupation of the hilltop.

The accurate dating of all these features will provide a chronology that should aid a more detailed interpretation of the geophysical survey than is currently possible. A number of different methods will be used to obtain this chronology. The material culture will be important strand of evidence as the recent publication of the South Cadbury sequence has provided a chronology for the ceramics of the region (Barrett *et al.* 2000); however, scientific dating methods will also be regularly undertaken. Radiocarbon dates will be obtained from suitable well contexted single entity samples (articulated animal and human bone, discrete and distinctive carbonised plant samples and carbonised residues from diagnostic and stratified ceramics); archaeomagnetic dates will be obtained from *in situ* burnt structures and OSL dating will be explored for the overlying buried soil and sediment sequences (see Appendix 2). With the scientific dating programme co-ordinated by Peter Marshall, together these techniques will enable archaeologists to write a history of the occupation of the hillfort that charts the fluctuating density of settlement and characterises its organisation and structure.

The artefact, agricultural and environmental assemblages recovered will be substantial and will enable a much more sophisticated analysis of the social and economic life of the region, particularly when these are fully integrated with the data from the previous excavations (Research Aim 17; Webster 2008, 242). Recent studies of the distribution of animal bone assemblages have highlighted the low number of assemblages large enough to discuss animal husbandry with any confidence (Hambleton 1999), and only one suitable assemblage was identified from Somerset. Unfortunately, the quality of the preservation in the threatened area is patchy and it is impossible to predict the size of the assemblage that will be recovered. Nevertheless, important deposits have been found in the earlier excavations including an unusually high proportion of horse (Knight in Lievers *et al.* 2006) and discoveries in the



threatened area could make a major contribution. The expansion of our understanding of the use of wild and domestic animals was highlighted as Research Aim 19 in the recent agenda for research in the Southwest (Webster 2008, 243).

Previous work on the carbonised plant remains (in Lievers *et al.* 2006) have also identified deposits which are quite different to those present on other Iron Age settlements. Further work is necessary to explore the significance of these deposits and the expansion of our knowledge of the agricultural economy of the southwest is regarded as an important Research Aim (20; Webster 2008, 244). The unusual nature of the existing assemblages from Ham Hill also open up the possibility of exploring the ritual significance of plant remains a topic which is relatively unexplored in archaeological publications (Hill 1995), though it is well documented in later historic records of religious life (Dickson and Dickson 2000)

The ceramic assemblage should provide not only invaluable chronological information, but, together with the stone tools, give a good indication of the exchange networks of the occupants (Morris 1988) and is Research Aim 1(f) in the research agenda (Webster 2008, 235). The ceramic industries of the southwest are well known and documented (Peacock 1969) and appear to be a complex system of local and distant production which provides a key to understanding social relationships in the region. While the stone sources are well documented, but not fully synthesised, recent work in the West Midlands (Moore 2006) has indicated the importance of specialist quern production and distribution networks. Ham Hill stone was recognised as an important resource by the Romans and though there is currently no indication it was exploited in the Iron Age this needs to be explored in greater detail. Other finds of worked bone and metalwork may be recovered and previous excavations indicate that isolated pits with important deposits of metalwork are likely to be present (Lawson and Fitzpatrick in McKinley 1999, 109-115). The site has consistently produced items of considerable significance and demonstrate this was an important location which had a considerable significance to the local population.

The site will also be placed in the context of the surrounding later prehistoric landscape. A key to the understanding of this landscape will be a consideration of the relationship between the low lying wetlands of the Somerset Levels and the upland landscapes of south Somerset. A considerable body of research exists for the understanding of the wetlands and a critical evaluation of the settlements at Glastonbury and Meare has recently been published (Coles 1987; Coles and Minnit 1995). The excavations at the hillfort at South Cadbury (Barrett *et al.* 2000) provide a detailed comparison from a complex and well preserved hillfort and the recent South Cadbury Environs project (Tabor 2008) provides a contextual analysis of a landscape comparable to that around Ham Hill. Analysis of the existing HER and recent development-related excavations will together with the critical examination of the published reports provide the basis for the detailed consideration of the landscape setting of the hillfort of Ham Hill.

Throughout, emphasis will be given to the site's buried soils and both their geoarchaeological and artefact-density sampling. Not only will this provide crucial insights concerning the preservation of the existing/apparent Iron Age structural evidence, but also the history of the post-Iron Age usage/cultivation of the hillfort's interior and, also, its pre-Iron Age/earlier prehistoric activity (e.g. the Beaker presence found in the evaluation; Slater 2009).

In order to realise these broad aims, amongst the main objectives of the fieldwork programme will be:

- 1) The recovery and detailed examination of all settlement remains (i.e. pit clusters and buildings) in order to understand the nature of the hillfort's occupation – i.e. seasonal or permanent?
- 2) A detailed examination of the spatial relationship of the activities identified and examined that incorporates information from the previous excavation and the geophysical survey to give a considered understanding of the spatial organisation of the hillfort interior.

3) The character and dynamics of the later sub-rectangular enclosure, particularly what seems to be its high density of human remains, is of great importance (i.e. was it 'special'?). Its elucidation will require intense excavation of both its perimeter – especially any entranceway deposits – and any associated internal features. Also, examination of spatial patterning of activities and use within the enclosure, such as areas of domestic activity, agriculture, stock enclosures, crop processing and storage, etc. This will be examined via the archaeological, artefactual, ecofactual and geoarchaeological record.

4) A rigorous programme of scientific, stratigraphic and typological dating will be instigated that will provide a robust framework for examining the sequence of activity on the hill top and phasing the principal features excavated and visible on the geophysical survey.

5) The recovery of substantial arte- and eco-factual assemblages, so that, when incorporated with the previous excavation data, a 'critical mass' can be achieved allowing for meaningful analysis/statements concerning the character of the hillfort's usage.

6) To determine whether stock was kept and crops actually grown within the hillfort's interior; this will be best addressed through the recovery of substantial charred plant remains assemblages and pollen & soil micromorphology columns.

7) A consideration of the relationship of the hillfort to its surrounding local and regional landscape based on existing databases and reports.

### **3. Business Case**

3.1 At its core, this proposal conforms to Shape sub-programme 32144.210 ('Heritage at Risk: Recording unknown and nationally historic sites, buildings and monuments under imminent threat revealed as part of the planning process').

The research themes outlined above accord with several of those identified as key in the most recent research framework document for the Southwest England (Webster 2008). Foremost amongst these is the importance of public involvement in archaeological research (Research Aim 4; *ibid.*, 238), but would also include the expansion of knowledge of the regional agricultural economy (Research Aim 20; *ibid.*, 244) and the publication of unpublished excavations (*ibid.*, 241). Equally, as the artefact, agricultural and environmental assemblages recovered will be substantial, this will enable sophisticated analysis of the social and economic life of the region, particularly when these are integrated with the data from the previous excavations and local museum collections (Research Aim 17; *ibid.* 242; see also 240). The ceramic assemblage should provide not only invaluable chronological information, but give a good indication of the exchange networks and which constitutes Research Aim 1 (f) in the research agenda (*ibid.*, 235). Finally, as the understanding of developed hillforts is largely based on Wessex chalk downland examples, it is important to create a regionally specific interpretation of the development of these important monuments (Research Aim 3k; *ibid.*, 237).

These many public and research benefits will only be enabled by the mitigation-funding provided by the developer and will only be realised in the proposed quarry-extraction context. In this capacity, the fact the quarry expansion will also allow for the further provision of Ham Stone for the restoration/maintenance of regionally and nationally important buildings is, of course, itself a significant factor.

### **4. Dissemination and Archive**

#### **Publication**

4.1 Annually, an interim summary of the results will be presented for publication in the *Proceedings of the Somerset Archaeological and Natural History Society*. Dramatic new discoveries will be disseminated in popular national media such as *British Archaeology*. The

excavations at Ham Hill Quarry and the allied research work will be an integrated project that results in the publication of a substantial monograph on the hillfort of Ham Hill. The volume will involve a detailed reconsideration of the hilltop in total and a minimum of three thematic research topics should lie at its heart:

- 1) The later prehistoric and Roman settlement context of the Somerset and Dorset border
- 2) The development of the site from early prehistory through to the establishment of the quarries
- 3) The role of hillforts in southern Britain.

The excavations will be published in a University of Cardiff/Cambridge Archaeological Unit monograph (Product 11; Appendix 3), with chapters devoted to:

- Chapter 1 – Introduction: Background and historiography with a discussion of Ham Hill stone that considers the decision to give planning consent
- Chapter 2 – A detailed consideration of the RCHME survey and the results of the excavations of the hillfort boundary
- Chapter 3 – A detailed examination of the geophysical survey that will consider our understanding of the occupation of the hilltop and present the information from previous excavations
- Chapter 4 - The results of the current excavations in the interior of the hillfort that presents not only a contextual description of the site, but also an integrated discussion of the artefactual and ecofactual information from those contexts
- Chapter 5 – The artefactual and ecofactual data will be presented in a systematic comparative manner and the chronological data will be explored
- Chapter 6 – The artefactual and ecofactual data will be analysed to present a detailed consideration of the relationships between the hillfort and the surrounding landscape both natural and human
- Chapter 7 – The nature of the occupation of the hillfort will be considered using all sources of information to provide a detailed account of the activities undertaken there and an interpretation of the social and economic significance of the hill
- Chapter 8 – Discussion: A consideration of the wider implications of the project that looks at the nature of hillfort studies in Britain and the Continent and examines the regional and national role of Ham Hill.

### **Archives**

4.2 Upon the completion of each season's fieldwork an assessment report will be issued in order to appropriately inform the subsequent phases of work (this will be accompanied by a completed OASIS form). On the completion of the fieldwork programme, the project's written, drawn and computer archives (recording sheets, indices, plans/sections, photographs, etc.) and finds (and informative environmental flots and residues) will be prepared for submission to Somerset County Council Museums Service; this will be undertaken in full accordance with the UKIC (1990) *Guidelines for the Preparation of Excavation Archives for Long-term Storage*. Any artefactual discard policy will be formally agreed with the curators and duly logged.

A digital archive containing full details of the contextual record and environmental and artefactual remains will be lodged with ADS.

### **Public Outreach**

4.3 The excavations will involve a high public outreach component. The fieldwork will certainly be of considerable interest to the local public and will attract regional and national attention. The excavations' location in the Country Park also makes them ideally positioned to encourage visitors, though the presence of a dangerous quarry will require a careful consideration of health and safety issues. It will be possible to work closely with Somerset County Council on advertising the excavations and providing facilities at the site for parking, and open days for the general public and educational organisations to view the work in progress. Interpretation boards will be designed in consultation with Somerset County Council and the Ham Hill Country Park that provide clear explanations of the visible archaeology and the significance of the quarry and the hillfort. Leaflets containing information on the work

being undertaken and details of new discoveries will be regularly produced and distributed to the local community. In the final year a Ham Hill booklet will be produced and throughout the excavations their progress will be reported on a website/blog (a link to which will be included in the advertising and leaflets). The Company will also encourage the display of some finds locally (possibly at the Country Park Offices or local pub).

The developer will fund an outreach post that will facilitate the following programme:

**Year 1:**

1. Contact with local groups/interested parties (list to be provided by Somerset County Council), local schools, Ham Hill Wardens/South Somerset District Council (SSDC) initiated. Information concerning the project circulated.
2. A series of talks/lectures to local groups/interested parties and local schools to take place prior to, and during the archaeological project. This should be carried out in conjunction with Somerset County Council's Heritage Group (SCCHG).
3. Create 'discovery box' with artefacts (not of research significance), bones, pictures, archaeological tools for school visits (Product 2; Appendix 3).
4. Create web pages, organise blogs, slide galleries and establish Facebook and Twitter presence (Product 3; Appendix 3).
5. Contact with Wardens and SSDC to organise joint projects based around excavation and in particular the open days.
6. At least two open days (Saturdays or Sundays) to take place during excavation season. These should be joint projects with SSCHG and the Wardens.
7. Publicising of excavation open days in advance of dates to ensure maximum attendance, using posters, local radio and newspapers.
8. Public viewing areas should be in place before the commencement of the second season. A stable and surfaced platform with a barrier will be built on the flanking bunds (Product 5; Appendix 3).
9. Display boards should be placed on site and updated weekly to inform on the progress of the project (Product 1; Appendix 3).
10. Information leaflets to be written and made available to people visiting the site.
11. Recruit local volunteers and organise their role in the excavations.

**Year 2:** Repeat from, Year 1, Point 5.

**Year 3:** Repeat from Year 1, Point 5; except 6, which would include a final open day with the launch of the Ham Hill booklet (Product 7; Appendix 3). The booklet to be produced by applicant in conjunction with English Heritage, SCCHG and Wardens.

## **5. Methods Statements**

### **Excavation and Recording Strategy**

5.1 The proposed quarry offers the rare opportunity to investigate the interior of a hillfort; the excavations will be intense and require extensive environmental sampling (and the sieved recovery of small-fraction finds; see Appendix 2). **Throughout, any statutory procedures outlined by Somerset County Council and conditions of Scheduled Monument Consent will be followed.** Fieldwork and post-excavation assessment will be undertaken to the quality standards outlined by the Institute for Archaeologists (IFA).

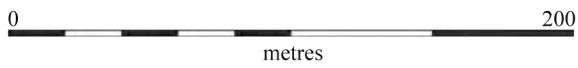
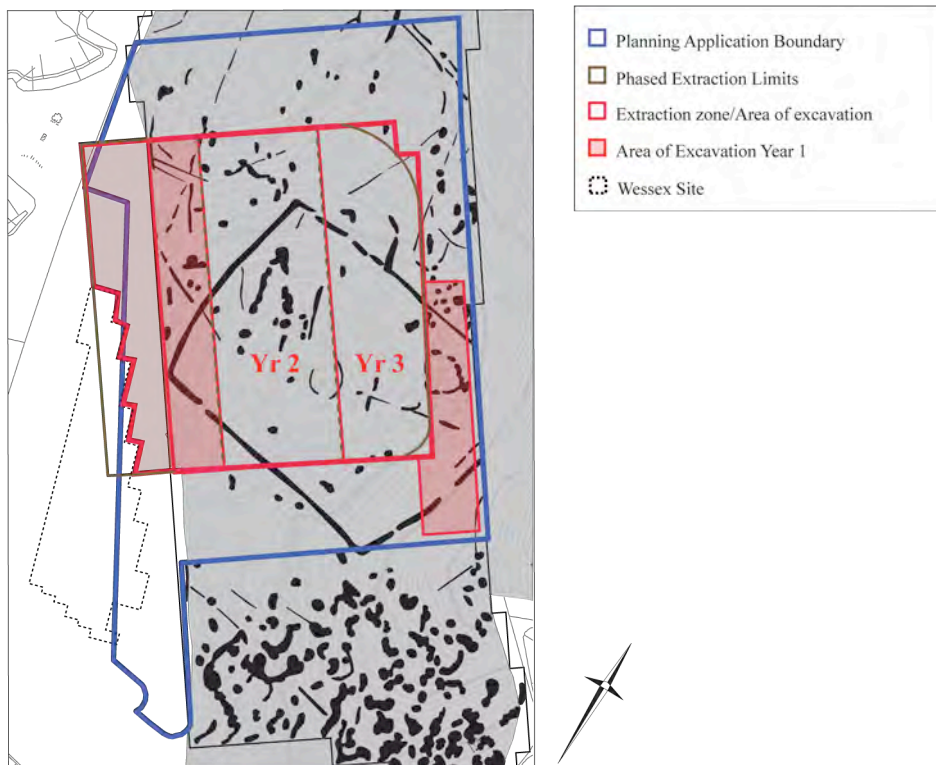
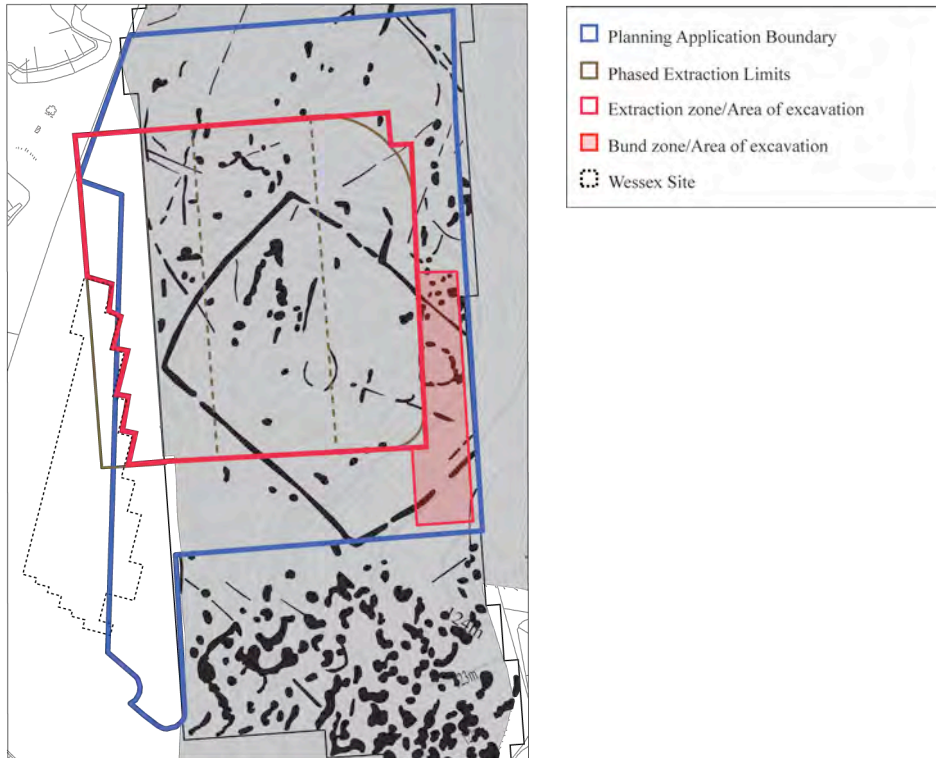


Figure 3. Areas of Excavation (top) and, below, Phases of Excavation

As shown of Figure 3, within the proposed quarry extension-area the excavations will occur over 1.3ha and, in the west, conjoin with the area of Wessex's earlier site. In addition, in order to maximise the investigation and understanding of the sub-rectangular enclosure and, particularly, what seems to be its southeastern entranceway, a c. 1200 sqm-area swathe of the bund zone will also be dug along the western side of the extraction area (this having a 2.00m stand-off from the bordering bridleway there).

The site will be excavated by professional archaeologists augmented by University of Cardiff archaeological trainee students; the total staff will be 15-20 at any one time. Although the full site-area will be totally stripped/exposed during the first year (see below), it will actually be dug over three c. two month-long seasons. The reasons for taking this staged approach have been discussed with the relevant curators. Fully detailed in the site's accompanying Environmental Statement, in brief the rationale behind this relates to the provision of:

- More excavation time
- More time for reflection
- A more focussed and better informed excavation strategy
- Greater opportunities for public engagement
- Greater potential for high profile media exposure
- Greater public benefit through additional training excavations
- Greater flexibility.

During the evaluation, the distinguishing of the site's heavily turbated buried soil proved difficult and the characterisation/sampling of this horizon is considered a priority. In the first instance, therefore, following the machine-stripping of the topsoil across the entire area (using a tracked 360° machine with a wide toothless bucket), metre-square test pits will be hand-excavated (0.20m spit-dug) on a 20m grid. Their profiles will be recorded by an acknowledged geo-archaeologist (with soil micromorphology column samples being taken) and the depth of the buried soil (or the 'equivalent' thereof) will be established across the site as a whole; thereafter, the entire site area will be machine-stripped to this depth (c. 0.30-50m). This reduced-level horizon will then be subject to further survey-sampling procedures:

- 1) Magnetometry (1.00m grid)
- 2) Magnetic susceptibility (1.00m)
- 3) Phosphate sampling (5.00m grid)
- 4) Metal-detecting.

Only once these procedures have been conducted on a site-wide basis will the entire site area be machine-stripped down to the top of the geological natural (or, otherwise, the depth at which cut features can be firmly distinguished) and base-planned. The surface of the subsequent, Years 2 and 3-areas will obviously require protective covering. The exact specification of this will be determined through consultation with the relevant authorities, including English Heritage. It is here proposed that an open-weave geotextile membrane, with soil- or sand-covering, may prove the most appropriate. Whatever solution is finally agreed upon, its implementation will be regularly monitored during the intervals between both the first/second and second/third fieldwork seasons; obviously, if proving unsuccessful, then an alternative cover-method will be sought.

While, as shown on Figure 3, it is expected that the excavations will progress in an eastwardly direction/annual staging across the site, following site-stripping and on-site consultation with the curators, it maybe decided (once the eastern immediate bund-zone area is dug) to also test-excavate a range of key features across the site a whole during the first season in order to achieve a sense of area-wide overview.

Prior to excavation, the stripped site's surface will be metal-detected, and it is anticipated that metal-detecting will be undertaken throughout the programme on a judgemental basis (i.e. features and associated spoil yielding metalwork and/or slag, etc.). In accordance with Section 2's Objectives 1, 3 & 5, it is expected that all discrete features (e.g. pits and

postholes) will be 100% excavated, with linear features/ditches seeing no less than 50% excavation; there will be 100% excavation of directly building-associated contexts.

The site will be base-planned at a scale of 1:50, with more detailed plans (e.g. 1:20) made of significant feature groups (e.g. structures and pit complexes); section drawings will be made of all excavated features (scale 1:10 or 1:5). All features will have a photographic record and a recognised single-context recording system will be employed throughout (augmented with feature-number groupings); all written records will comply with SCC guidelines and a Harris-Winchester matrix diagram will be employed.

To further compliment Section 2's critical assemblage-size objectives (Nos. 1, 3 & 5), not less than 20% of the fills of all major features will be sieved (5mm mesh) for the recovery of small finds. Equally, in accordance with both Section 2's dating and environmental objectives (Nos. 3-6), all such features will be sampled for charred plant and molluscan remains. It is expected that not less than 150 samples will be processed and analysed from the site as a whole; pollen cores will be taken from any appropriately deep and/or 'wet' features.

A list of specialist and key Project Team members follows (see Section 6.1; see also Appendix 2); given the relatively poor preservation of the site's bone, it is expected that a human remains specialist will be available for the *in situ* recording of inhumations. Similarly, provision will also be made for any necessary on-site/*in situ* conservation-lifting of delicate artefacts (e.g. metalwork, broken complete pots). As agreed annually with the curatorial authorities, as part of the immediate post-excavation programme metalwork and other 'at risk' finds will receive all necessary conservation for their stabilisation and, if warranted, their eventual public display.

#### **Site Security and Bund Construction**

5.2 In order to make the site both secure and, also, accessible for public outreach-viewing, the first season's machining sequence will entail:

- 1) The present eastern bund to be moved to the north side of the area of excavation
- 2) Stripping of eastern, bund-zone area and main area; the former, eastern area will have a 14.00m stand-off with the bordering bridleway, apart from the proposed 1200 sqm-area swathe of the bund zone which will have a 2.00m stand-off from the bordering bridleway there and the site will have protective Heras fencing temporarily erected around it; the stripped soils will then be used to progressively build the bunds along the site's southern and eastern sides
- 3) At the end of the first season, the bunds will have been completed around the three sides of the site, with a fence erected one metre in from their base and which has a gate on its northern side to allow public viewing-access within a temporary secure compound on the top of the bund.

#### **Post-Excavation**

5.3 After each season there will be an initial post-excavation phase which will involve finds processing (washing, quantifying and cataloguing), sample processing, and an initial characterisation (including dating) and any necessary conservation of the materials recovered; the records will be collated and a site matrix produced, with a detailed interim report being issued at least three months prior to the next excavation season to inform its work (Products 4, 6 & 8; Appendix 3).

Detailed analysis of the finds and environmental samples recovered would be deferred until the end of the three-year field programme (see Appendix 2 for Assessment Methods Statements). Within 12 months of the end of the final season, in compliance with English Heritage procedures, a full assessment report and updated research design will be generated and agreed (Products 9 & 10; Appendix 3). The site's final publication text will be completed no later than three years thereafter (Product 11; Appendix 3), and its archives will then be transferred to the appropriate Somerset County store/museum following due consultation with SCC.

## **Communications**

5.4 The Project Managers and Principal Investigator will communicate directly with the in-house specialists and the external specialists. The Project Managers will communicate via telephone, email and face-to-face meetings with the sponsor (Ham Stone Company) and the project's curators (English Heritage and Somerset County Council). Highlight reports will be circulated to stakeholders, curators and sponsor at each of the indicated monitoring points.

## **Project Review**

5.5 The project will be under continuous review by the Project Managers, who, in conjunction with the curators, hold the authority to approve changes in Project Design, timetable and other changes; the Issues Log will be used to monitor the need for such changes. As the project is envisaged three year-/season-long programme as a single execution stage (with the aim of producing the assessment report and an Updated Project Design), a major review point is scheduled for the end of the assessment stage. It will, however, be worth having review ('point') meetings prior to the commencement of the second and third fieldwork seasons (see Appendix 3) These will take the form of invited seminar-type meetings and will involve the curators, key project specialists and other relevant stakeholders.

The curators will regularly monitor the progress of the excavations.

## **6. Resources and Programming**

### **Project Team**

6.1 Below is a breakdown of the project team and their responsibilities:

*Project Managers (Executive/Principal Investigators)*

Niall Sharples – University of Cardiff

Christopher Evans – Cambridge Archaeological Unit (CAU), assisted by Robin Standing (CAU)

*Project Officer – Adam Slater (CAU)*

*Pottery Specialists – Mark Knight (Neolithic & EBA; CAU) & Matt Brudenell (LBA & Iron Age)*

*Finds Officer – Jason Hawkes (CAU)*

*Human Osteologist – Natasha Dodwell (CAU)*

*Faunal Remains – Vida Rajkovača (CAU)*

*Flint – Lawrence Billington (CAU)*

*Metalwork – Grahame Appleby (CAU) & Colin Haselgrove (brooches; U. of Leicester)*

*Worked Stone & Ancient Technology – Simon Timberlake (CAU)*

*Environmental-Co-ordinator – Michael Allen (freelance)*

*Plant Remains, Charcoal, Geoarchaeology & Soil Micromorphology – See Appendix 2*

*Conservation – Phil Parkes (ARC, U. of Cardiff)*

*Scientific Dating – Peter Marshall (Chronologies, Sheffield)*

*Graphics Officer – Andrew Hall (CAU)*

*Computing Officer – Jane Matthews (CAU)*

*Editor – Sam Lucy (CAU)*

### **Management Responsibilities**

6.2 The Project Managers/Executives are responsible for the overall direction of the project, and are responsible for all high-level decision-making. The Site Director/Project Officer will be responsible for day-to-day running of the project and for the direction of the site staff. Communication between the excavation team and the Site Director will be continuous and ongoing; both the Project Managers and the Finds Officer will be daily/weekly contact with the Site Director. Once in the post-excavation assessment phase, the Site Director will communicate directly with the in-house specialists, and via email and phone contact with the external specialists (with palaeo-environmental and Geoarchaeology studies co-ordinated by Environmental Co-ordinator, Michael Allen). The Project Managers will communicate via telephone, email and face-to-face meetings with Ham Stone Company (in their role as sponsor, site-owner and stakeholder) and with the curatorial team. Highlight reports will be



circulated to stakeholders, curators and the sponsor at the end of the excavation phase, and at the end of the post-excavation assessment phase.

The project review points will be at the commencement of the second and third year seasons and the end of the post-excavation assessment phase (currently timetabled for the Summer of 2014; Product 9, Appendix 3). At this stage, an Updated Project Design will be prepared by the Project Managers, with the assistance of the Site Director (Product 10; Appendix 3).

The project will be under continuous review by the Project Managers, who, in conjunction with the Curator, holds the authority to approve changes in Project Design, timetable and other changes.

### **Products, Tasks and Timetable**

6.3 Starting in the Summer of 2011, the programme will involve three annual two month-long fieldwork seasons, with the final assessment report expected to be completed in the Summer of 2014 (see Appendix 3). At that time a fully 'tasked' and 'gant-charted' Updated Research Design will be prepared; it being anticipated that the project's final publication will be completed in 2017.

It is anticipated that the curators will regularly monitor the fieldwork and, together with the other stakeholders and sponsor, will receive the interim assessment ('highlight') report of each seasons' work. Before the commencement of the second and third season's fieldwork it is proposed that a project review meeting ('point') is held between with stakeholders and curators.

### **Health & Safety Statement**

6.4 Health and Safety on site will be conducted in accordance with guidelines in the SCAUM *Health and Safety in Field Archaeology* Manual, and the Universities of Cambridge and Cardiff's safety policies. Before work begins each season a detailed risk assessment will be carried out and a detailed Health and Safety Plan will be provided for the project. The CAU employs the services of a MIOSH qualified safety advisor and full details of Professional Indemnity, Public Liability and Employers Liability insurances are available on request.

All due care will be taken to minimise impact of the work on the environment, and an environmental risk assessment will be undertaken.

### **Budget and Resources**

6.5 The developer is committed to provide the full funding to cover the costs of the project's excavation, assessment, publication and archiving costs. In addition, they will also pay for the Outreach programme and are prepared to fund the preparation of the revision of the Museum Collections study's research design.

Anticipating the occurrence of both Positive and Negative Risks, the agreed annual fieldwork budget will also include a 10% contingency.

English Heritage have agreed to undertake the geophysical survey across the remaining c. 18.85ha of the hillfort's interior. Should, for whatever reason, this is not proceeded with then the developer is, if necessary, prepared to fund this.

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## APPENDICES

### 1) Allied Research Programme

The excavation of the extension area will significantly contribute to the understanding of the interior of this Hillfort and it is hoped that this will provide a catalyst for additional research oriented work on the archaeology of the hilltop. Finance could be sought from Research Councils, English Heritage and Somerset County Council and other bodies to undertake a number of specific projects. Should this occur the Ham Hill Stone Limited will offer reasonable contributions towards the costs of such projects, which will be agreed with Somerset County Council following the grant of planning permission. The following projects would considerably enhance the national understanding of the hillfort:

1) **Geophysical Survey** – The existing geophysical survey of the hillfort is incomplete and it is essential for a full understanding of the occupation of the hill that this survey is completed and published. The survey was originally financed by the RCHME in the early 1990s, but was abandoned due to 'financial restrictions' (RCHME 1997, 29). Additional areas around the quarry have since been surveyed for the Ham Hill Stone Company. Through consultation with English Heritage, it has now been agreed that they intend to undertake the geophysical surveys (starting in the Spring/Summer of 2011 over one to two years) across the remaining 18.85ha of the hilltop; failing this, the Company has agreed to fund this work.

2) **Gray Archive** – The publication of unpublished excavations was regarded as an important research aim in the recent agenda for research in the Southwest (Webster 2008, 241). The notebooks for Gray's unpublished Ham Hill excavations survive and provide important evidence for the occupation of the northern spur. The finds material also survives in Taunton Museum and the surviving animal bone was recently examined and written up (Claire Randall, University of Bournemouth).

Gray's excavation was partially published in a series of detailed interim reports in *Somerset Archaeology and Natural History* between 1924 and 1926, but the final year's work was never reported and no final synthetic account of the results of the excavations was presented. The proposal is to undertake a detailed examination of the surviving paper records of the excavations and the finds in Taunton Museum and produce a detailed report which can be incorporated in the Ham Hill excavation monograph. The excavations are important because they were focussed on the northern spur of the Hillfort, an area that has been interpreted as a potential early phase of the hillfort's development. The recent development-led excavations have been located in a very different area of the hillfort. The areas excavated by Gray also appear to have a more dense distribution of archaeological features and artefacts than the southwest. Gray also explored the boundary and, again, this has not otherwise been subject to careful excavation.

The proposal is that a post-graduate student should undertake this project as a dissertation. If, however, this does not happen in the required time period then Sharples will undertake the work during the summer excavation season.

3) **Museum Collections** – The collection of finds from the previous work on the hilltop is an extremely important archive which needs to be analysed and published. Indeed, improving the 'knowledge and study of under-utilised museum assemblages' was regarded as an important research aim in the recent agenda for research in the Southwest (Webster 2008, 240). The collections from the hilltop have been documented in detail by S. Minnitt (Somerset County Museum Service) and Ann Woodward, who provided a detailed plan for a publication project in 1997 (the estimated costs for this were £142,264, but it was rejected by English Heritage). It is proposed that the existing research design be reinvigorated and revised. The Ham Hill Stone Company is unable to finance the analysis of the existing Museum collections, but is prepared to fund work on the revision of the research design that would enable it to be submitted to research bodies such as the AHRC, British Academy and Leverhulme Trust.

4) **Additional Excavation** – There are several issues of outstanding significance that need to be resolved if a full and rounded understanding of the occupation of the hillfort is to be achieved. One of the principal problems is the dating of the earthworks. There is currently no information that would enable a sensible debate about when these were built. A ‘Wessex Model’ would be that the northwest spur was initially enclosed in the Early Iron Age and that during the Middle Iron Age the site was expanded to enclose the adjacent plateau and that the defences around this plateau were subsequently elaborated during the Middle Iron Age. Whilst this is a plausible scenario, there is no evidence that distinguishes the defences around the northwest spur from other areas of the defences. It is also possible that the site is equivalent to larger enclosures in Wessex, such as Balkerne and Harting Beacon, that appear to have been initially constructed in the Late Bronze Age as relatively ephemeral enclosures; an early and smaller rampart could then have been subsumed by a much larger Iron Age rampart. The enormous size of the Ham Hill enclosure is, however, unparalleled and it may be that the chronology of its creation is also unparalleled.

It is, therefore, proposed to examine the surrounding ramparts and ditches to obtain information on how the boundary was constructed and if possible to recover material that would provide dating evidence for this construction. The strategy will be to select two to three locations where the ramparts have been damaged or cut through by modern activity. To use a machine to expose the *in situ* archaeological section through the rampart, from top to bottom (which might mean the excavation of some undisturbed deposits) and to clean, record and sample these deposits. There are numerous locations on the hilltop where the ramparts have been damaged so the choice of areas to examine will need to be selective.

This work may provide an opportunity to assess archaeological survival along the west side of the hill. This area was heavily damaged by quarrying and the construction of access routes (railways and roads); though the area was surveyed by the Royal Commission, it is unclear whether some of the earthworks are surviving elements of the prehistoric enclosure or whether they all represent more recent industrial activity. A limited programme of targeted trenching in this area may resolve some of these problems.

It is anticipated that this trenching will not occur until the second year. Accordingly, application will be made for its separate Scheduled Monument Consent and it will have a specific Written Scheme of Investigation and Project Design.

The opportunity will also be taken to excavate an area within the interior of the hillfort that is directly related to the development-led excavations and which will conjoin with the main site. The principal feature to be explored in the area threatened by the quarry extension is the ditched enclosure. The vast majority of this enclosure lies within the development area, but its southern corner and the southeastern side lie outside it. The only clearly visible entrance to the enclosure lies in the centre of the southeast side of the enclosure. It is proposed that as the entrance is an important feature of the enclosure it should be excavated to give a more complete picture of the significance of the enclosure. In particular, the presence and character of any gateway structures would be informative. The ditch fill terminals at the entrance are also likely to contain a significantly richer collection of artefactual material than the other areas of the ditch and this would undoubtedly aid our understanding of the chronology, economy and symbolic significance of the enclosure.

As this area will be excavated concurrent with the main site its methods specifically form part of the submitted Written Scheme of Investigation and Project Design.

The Ham Hill Stone Company have agreed to provide logistical support, including machine time for this additional work; finds analysis, drawing and publication would be incorporated into the costing for the main excavations.

## 2) Major Project Specialist Methods Statements

### Pottery Matt Brudenell

The ceramic assemblage can provide valuable information on the following topics:

- 1 Establish a detailed chronology for the ceramics that will provide an invaluable aid for dating the sequence of activity on the hill
- 2 Fabric analysis and related detailed petrological study should identify local and non local sources for the ceramics used on the site that will form a detailed basis for consideration of the wider network of relationship of the hillfort's inhabitants
- 3 Consideration of form and associated residue analysis provides important indications of use and will be essential in considering the nature of the activity in the hillfort and how activities were distributed across the interior of the hillfort.

The pottery will be fully recorded following the recommendations laid out by the Prehistoric Ceramic Research Group (1997).

After a full inspection of the assemblage, fabric groups will be devised on the basis of dominant inclusion types, their density and modal size. The density of inclusions will be described as either rare/very rare (<3%), spare (3-9%), moderate (10-19%), common (20-29%), or very common (30-40%). Modal sizes will be described as fine (<0.25mm), medium (0.25-1mm), coarse (1-3mm) or very coarse (>3mm). Sherds from all contexts in the assemblage will be counted, weighed (to the nearest whole gram) and assigned to a fabric group after macroscopic examination. Sherd type will be recorded (rim sherds, shoulder sherds, body sherds or base sherds), along with any evidence for surface treatment (careful smoothing, burnishing or polishing) or decoration (described individually). The presence of soot and/or residue will be recorded, along with position (external or internal surface).

Rim and base forms will be described using a codified system recorded in the catalogue. Each different rim or base identified in the assemblage will be given a vessel number. Where possible, rim and base diameters will be recorded, and surviving percentages noted. In cases where a sherd or groups of refitting sherds retain portions of both the rim and shoulder, the vessel will be categorised by class and form. All pottery will be subject to sherd size analysis. Sherds less than 4cm in diameter will be classified as 'small'; sherds measuring 4-8cm will be classified as 'medium', and sherds over 8cm in diameter will be classified as 'large'. This follows a system widely implemented by the author (Brudenell 2007; 2008a; 2008b). Sherds joins will also be noted both within and between contexts.

The data quantified in the catalogue will be on an Excel data sheet.

### Faunal Remains Vida Rajkovača

The animal bone assemblage can provide valuable information on both economic and social topics:

- 1 Basic quantification provides a detailed (but not unproblematic) understanding of the importance of different species in the environment and their exploitation as a food resource
- 2 Aging information will be used to explore the management of the different species and will provide information on the importance of milking, wool production, the use of animals for traction and roles other than as a food resource.
- 3 Examination of the different elements present together with the evidence for cut marks provides detailed evidence for the nature of butchery practices. This is a key to discussion of the nature of food consumption practices and the role of feasting.

Identification of the assemblage will be undertaken with the aid of Schmid (1972), Hillson (1999) and reference material from the Cambridge Archaeological Unit, Grahame Clark

Zooarchaeology Laboratory at the Department of Archaeology in Cambridge. Most, but not all, caprine bones are difficult to identify to species; however, it is possible to identify a selective set of elements as sheep or goat from the assemblage, using the criteria of Boessneck (1969) and Halstead (Halstead *et al.* 2002).

The zooarchaeological investigation will follow the system implemented by Bournemouth University with all identifiable elements recorded (NISP: Number of Identifiable Specimens) and diagnostic zoning (amended from Dobney & Reilly 1988) used to calculate MNE (Minimum Number of Elements) from which MNI (Minimum Number of Individuals) will be derived.

Preservation will be recorded using a modified version of weathering stages set up by Behrensmeier (1978) and it consisted of assigning each element to one of the five weathering stages. On the scale of 1 to 5, elements graded with the stage 1 demonstrate excellent states of preservation and elements assigned to stage 5 show very poor preservation.

Location of butchery marks (surface, joint or margins), position of the cut and direction of the mark (using standard anatomical terms of orientation) will be recorded. Gnawing marks made by carnivores and rodents will be differentiated and signs of partial digestion will also be recorded (see Payne and Munson 1985). Descriptions about the forms and locations of pathological conditions and non-metrical traits will be recorded where possible.

Ageing of the assemblage will employ both mandibular tooth wear (following Payne 1973 for ovicapra and Grant 1982 for cattle and pigs) and fusion of proximal and distal epiphyses (Silver 1969; O'Connorr 1989). This will be used for studies of kill-off profiles for the most common domesticates. Sexing will be only undertaken for pig canines, based on the bases of their size, shape and root morphology (Schmid 1972: 80).

Measurements will be taken following Von den Driesch (1976). Withers height calculations follow the conversion factors of Kiesewalter for horse, Matolski for cattle, Teichert for ovicaprids and Harcourt for dog (see Von den Driesch and Boessneck 1974). All pig measurements follow Payne and Bull (1988).

## **Palaeo-environmental and Geoarchaeology** Mike Allen

The only palaeo-environmental and geoarchaeological work from developer-led work of southern English hillforts have been those conducted at Balksbury, Hampshire (Allen, Macphail, Ede, Gale in Ellis & Rawlings 2001), Battlesbury, Wiltshire (Ellis and Powell 2008) and Ham Hill itself (Ede, Gale in McKinley 1999; Stevens, Hinton, Gale in Lievers *et al.* 2001), and this provides a rare and major opportunity to examine the lived-in environment, activities and agricultural economic and trade framework within and beyond the hillfort. The overarching research aims follow regional priorities (Webster 2008), and overall practices follow English Heritage guidelines (2002). On-site sieving and sample processing will enable informal review of materials recorded and immediate influence on sampling strategies.

### **Key Research Questions**

Previous excavations at Ham Hill has demonstrated the occurrence of sealed old land surfaces under colluvium within the interior of the sites; the presence of large, diverse and well preserved charred plant and charcoal remains including the recovery of charred heads of cereal and the presence of animal bones particularly in pits where micro-environments facilitate better preservation. The palaeo-environmental assemblages and geoarchaeology can clearly address major regional research themes relating to the past environment (Webster 2008):

- Aim 17: improve the quality and quantity of environmental data and our understanding of what it represents (p. 282-3)
- Aim 18: target specific soil and sediment contexts for environmental information (p. 283)
- Aim 19: improve our understanding of wild and domestic animals in the past (p. 283-4)
- Aim 20: improve our understanding of wild and cultivated plants in the past (p. 284).



In addition, information from previous excavations and evaluation (MacKinley 1999; Lievers *et al.* 2001; Slater 2009) enable us to consider a range of more site-specific research questions, and these might include:

- Examining the processes and causes of colluviation within the interior – this is clearly linked to extensive human activities; what are these?
- Examining spatial variation, use and distribution of grain storage within the interior. Is there evidence of crop processing on-site, and in what form were crops stored; i.e. was this for seed, corn, consumption, or longer term storage?
- Defining the nature and character of the wider landscape in which Ham Hill lies, the range and diversity of the resource base and its exploitation. Can we define differential land-use exploitation (fields). On what soil types, and thus where were crops grown? Are there suitable contexts to provide relevant pollen sequences? Can we define the nature of woodland exploitation and management?
- Defining the pre-'hillfort' land-use and environment; was vegetation cleared for its construction, or was this area used for centuries or millennia before its Late Bronze Age and Iron Age occupation?
- Defining the land-use history within the interior – was there cultivation on site, animal corralling and stabling (soil micromorphology)
- Defining the stocking, corralling and breeding of domestic animals, as well as their trade, exchange, use and disposal.

### **Material-specific Research Questions and Aims**

*Charred Plant remains*, Chris J. Stevens & Michael J. Allen

What is the nature and composition of the stored grain – is it for longer term storage, for consumption, or for seed grain *etc.*?

There are few glume fragments in previous excavations so the presence of emmer vs spelt wheat still needs some clarification. Emmer would appear to predominate on the site, but glume bases are relatively rare so any further information on this aspect of crop-husbandry would be very important.

A number of very rich charred deposits were recovered previously (Ede 1999), and included whole cereal grain – more detailed micro-examination of these would help define the nature of these deposits. There is potential to explore the nature of rich charred deposits, often comprising of cereal remains. This should be explored through the taking of smaller block samples and micro-excavation which will allow us to see if such material is still within the ear, spikelet or free grain. Also the taking of smaller samples within a column through such deposits would enable any variation in the distribution of such material to be seen.

The presence of high numbers of black mustard seeds (*Brassica nigra*) have been recorded in a number of deposits previously – attention should be paid to the role and significance of these within the site-based and regional economy.

*Wood Charcoal*, Alan J. Clapham and Michael J. Allen

Examination of changing nature of local woodlands, and of woodland management and exploitation, in particular coppicing, pollarding and timber selection.

Identifying selection and uses of specific timber for building, artefacts and burning.

Via species identification the type and nature of fires and hearths may be identified using the species and their burning properties.

Commenting on the nature of the environments in which woodland was growing – there may be several woodland being exploited which might grow in different environments and soils.

*Geoarchaeology*, Michael J. Allen & C.A.I. French

Two principal aims to identify if there is a colluvial system operating on the hill-top, and to identify old land surfaces and/or palaeosols associated with the prehistoric use of the hillfort; is hill-top long-cleared and occupied versus cleared/ploughed/pasture; and how has its opening up and later prehistoric use affected soil survival (i.e. erosion record)?

Buried Soils – Well and rapidly sealed pre-enclosure buried soils are unlikely to be encountered as the extraction and excavation proposals do encompass the ramparts and its buried soil. Nevertheless there is the possibility of relict land surfaces surviving under either internal colluvium or internal earthwork modifications

Colluvium – Some areas of the interior may be blanketed by thin veneers of colluvium, and it is possible that some of the later activity may be included within colluvial sequences. Soils and sediment sequences and re-worked buried soils may be associated with these colluvial deposits.

Deposits - Importantly there may be middening deposits (not found on previous excavations) or specific deposits in pits (cf. Macphail and Crowther 2008) which relate to specific on-site activities.

So, here, evidence of pre-enclosure or earlier woodland, soil disruption, clearance and cultivation, animal corralling/stocking (cf. Potterne) and specific deposit characteristics (e.g. Battlesbury) are important key themes.

Research aims include:

Defining the nature of the pre enclosures soils and evidence of pre-enclosure woodland, soil history and disruption

Examining evidence of pre-enclosure activities such as woodland or vegetation clearance, burning, tillage, trampling, stabling

Examining evidence of activity and land-use history within the enclosure - and soil chemistry such as phosphate, soil magnetic susceptibility profiles, and basic elemental records may aid in defining some of these events.

Identifying activities associated with the enclosure such as animal corralling and middening (cf. Macphail 2000) and identifying activities associated with specific deposits (cf. Macphail and Crowther 2008)

Mapping the extent and variation of colluvium within the investigation area

Examination of colluvium and colluvial sequences and attempting to define episodes or pulses of sedimentation and erosion relating to vegetation clearance, cultivation, and changing or intensification of land-use.

## Palaeo-environmental Sampling Strategy

Palaeo-environmental sampling will follow English Heritage guidelines (2002).

Previous work at Ham Hill (e.g. McKinley 1999) has shown areas of very rich archaeology and domestic debris as well as areas of evidence of lower activity. Some areas have produced low numbers of pits with poor remains whilst others have contained rich charred plant assemblages (e.g. Ede 1999; Stevens in Lievers *et al.* 2001).

### *Charred Plants and Charcoal Remains*

Bulk samples should be context-specific and ideally should be 40 litres in size (English Heritage 2002), but context specificity should not be compromised to obtain sample sizes. Sampling should aim to recover samples of charred plant remains from key dated contexts to enable the assemblages to characterise the nature and level of activity in this area, in comparison with those excavated previously. The level of sampling should be commensurate with the perceived level of archaeological activity, but should be high enough to enable characterisation, and comparison with, previous work. These should concentrate upon key dated (or datable) contexts.

Key contexts should include:

- Pits, and potentially sequences within key pits (cf. Lievers *et al.* 2001)
- Hearths
- Concentrations of burning, or of disposed charred material in ditches, or on buried land surfaces *etc.*
- Key dated horizons (e.g. artefact- rich horizons) in ditches and other features
- Contexts associated with buildings.

Where very rich charred deposits which have included (which have included whole ears of grain) are encountered in pits (cf. Ede 1999), attempts should be made to lift part of these deposits as intact, or near-intact blocks, for micro-excavation/examination under laboratory conditions..

### *Geoarchaeology and Soil Micromorphology*

Buried soils should they be encountered will be fully recorded in the field by a geoarchaeologist and undisturbed samples (kubiena tins) taken as appropriate

Specific deposits in pits may warrant geoarchaeological investigation via visual recording, description and interpretation, soil micromorphology or soil chemical analysis.

Key colluvial profiles should be cut and examined and recorded by a geoarchaeologist. Likewise, land surfaces sealed beneath colluvium, banks or dumps or should be similarly recorded and samples as, and if appropriate, as undisturbed samples for soil micromorphology with additional samples taken for consideration for soil chemistry. Other stratified sediment sequences, e.g., deep ditch profiles, middens *etc.*, should be similarly described and sampled.

### *Pollen*

There has been a dearth of pollen-based research on the site, in part because suitable deposits have not been previously recovered. This should not, however, preclude, efforts made to seek and examine suitable sealed and stratified sequences from which to obtain pollen spectra relating to both the on-site land-use and activities, but also more importantly, the wider landscape setting.

Ideally, monoliths of undisturbed sediments should be taken through appropriate sequences for laboratory description and subsampling for consideration of pollen assessment/analysis.

### *Small Bone Recovery*

Large bulk samples should be taken from key contexts such as artefact- or bone-rich pits fills for the recovery of both smaller large mammal bones, but also bones of small mammals. Such samples should be sieved (2mm), and also provide the basis for small-artefact recovery.

## *Mollusca* (marine and terrestrial)

Marine molluscs may have been exploited and transported from coastal locations. Their presence and recovery will, therefore, add to the wider economic framework, but also dumps or middens may create calcium carbonate rich micro-environments facilitating the preservation of land snails so rare in this part of Somerset. If such contexts occur, they should be sampled appropriately for the representative recovery of marine molluscs, but also suitable samples (typically 2-5kg) bulk samples taken for the assessment of the presence and preservation of land snails.

## **Palaeoenvironmental Aims and Method Statements**

### **Charred Plant and Charcoal Remains Alan J. Clapham, Chris J. Stevens & Michael J. Allen**

Samples from well-dated, sealed and clearly identifiable contexts for the recovery of charred plant remains, charcoal and small mammal bones will be processed by wash-over flotation with flots retained on 250/300µm mesh and residues on 0.5mm/1mm mesh in accordance with English Heritage Environmental Guidelines (2002). Although the size of residues is preferably 0.5mm, this will be determined by trial processing on site to determine its practicability and indicate whether mineralised remains are present. Residues will be fractionated for ease of sorting (typically into fractions such as 6/4mm, 2mm and 1mm).

#### *Assessment*

Flots will be examined using stereo-binocular microscope and assessed. Flots will be fractionated where appropriate and scanned under a x10 – x40 stereo-binocular microscope and the preservation and nature of the charred plant and wood charcoal remains tabulated. The approximate numbers of grain, chaff and weed seeds will be recorded for each flot using broad scales of abundance. Preliminary identifications of dominant or important taxa will be noted and record within this table. The presence of charcoal will be recorded using approximate volumes (in millilitres) for the >4mm and >2mm fractions.

Analysis will follow standard practices and nomenclature will follow Stace (1999) for wild plants, Miller (1987) for cereals (with reference to Hillman *et al.* 2006, 206) and Gale and Cutler (2000) for wood charcoal.

#### *Analysis*

For selected samples chosen for analysis of plant macrofossils, all identifiable charred plant macrofossils will be extracted from the 2 and 1mm residues together with the flot. Identification will be undertaken using stereo incident light microscopy at magnifications of up to x40 using a Leica MS5 microscope, following the nomenclature of Stace (1997) and with reference to modern reference collections where appropriate, quantified and the results tabulated

For Charcoal, identifiable charcoal will be extracted from the 2mm residue together and the flot (>2mm). Larger richer samples will be sub-sampled. Fragments will be prepared for identification according to the standard methodology of Leney and Casteel (1975, see also Gale and Cutler 2000). Charcoal pieces will be fractured with a razor blade so that three planes can be seen: transverse section (TS), radial longitudinal section (RL) and tangential longitudinal section (TL). They will then be examined under bi-focal epi-illuminated microscopy at magnifications of x50, x100 and x400. Identification will be undertaken according to the anatomical characteristics described by Schweingruber (1990) and Butterfield and Meylan (1980). Identification will be to the lowest taxonomic level possible, usually that of genus and nomenclature according to Stace (1997), individual taxon (mature and twig) will be separated, quantified, and the results tabulated.

### **Geoarchaeology Michael J. Allen and C.A.I. French**

It is suggested that a series of c. 4-5 test pits placed at regular intervals from top of hill to base of hill slope (or the equivalent are recorded within the archaeological intervention investigation); recording of colluvial-soil sequences; complementary sampling of buried soils and colluvial interface for soil micromorphology and molluscs.

Judgemental sampling of buried structural contexts and/or midden areas as appropriate for soil micromorphology and geochemistry.

Field records of *in situ* soils and sediments will be made following nomenclature outlined by Hodgson (1976), and undisturbed samples of soils and sediment sequences taken in kubiena and monolith tins as appropriate, for more detailed laboratory examination or preparation of soil thin sections.

Sequences and samples will be selected for detailed analysis and thin section manufacture based on their ability to address research questions and in relation to the full geoarchaeology sample suite.

### **Scientific Dating Programme**

Radiocarbon dating may be problematic due to radiocarbon plateau (c. 800-400 cal BC), but special samples, and especially stratified sequences of dateable events should be considered. Samples will be selected which are datable (i.e. charred plant and charcoal remains) and that clearly represent an event that it is desired to date.

The emphasis is placed on the use of charred remains rather than animal bone because of poor preservation and the lack of articulated bone elements in previous excavations and published work. Priority will be given to stratified sequences of samples where Bayesian modelling can be applied to provide tight and close dated sequences, and to residues on diagnostic pottery which may help both refine site and ceramic chronologies.

Samples of charcoal or charred plant remains will typically be taken from hearths, clear areas of *in situ* burning and dumps or patches of discarded burnt waste. This excludes, therefore, individual charcoal or charred items recovered by flotation from contexts *unless* they clearly represent contexts such as those listed above.

Aims include attempting to define the:

- Start of the enclosure activity
- Duration of enclosure activity
- End of enclosure activity
- Date of pre-enclosure activity and the existence of any time gap between its end and the beginning of the enclosure.

In addition, archaeomagnetic dates will be obtained from *in situ* burnt structures and OSL dating will be explored for the overlying buried soil and sediment sequences.

### **Programme**

The site sampling strategy will be implemented by site directors and supervisors, and modified by the Environmental Co-ordinator and site staff in response to the recovered archaeological remains. The Environmental Co-ordinator will visit the site during excavation to provide advice and co-ordinate and direct the environmental sampling programme. The nominated project geoarchaeologist will record and sample appropriate contexts for specialist work.

All sample processing (flotation for recovery of charred plant and charcoal remains) and sieving (for small artefact retrieval) will be completed and documented annually. The combined information will be assessed at the end of the three year fieldwork programme to compile and devise a single post-excavation and publication programme.

Environmental assemblages recovered will be substantial and will enable a much more sophisticated analysis of the social and economic life of the region, particularly when these are fully integrated with the data from the previous excavations.

## Provisional Environmental and Scientific Dating Specialist Team

Environmental Co-ordination:	Dr Mike Allen, AEA, Allen Environmental Archaeology
Charred/mineralised plant remains:	Dr Chris Stevens, Wessex Archaeology Dr Alan Clapham, Worcestershire Environmental & Archaeological Service
Charcoal:	Dr Alan Clapham, Worcestershire Environmental & Archaeological Service Lorna O'Donnell, The Queen's University, Belfast
Geoarchaeology:	Dr Mike Allen, AEA, Allen Environmental Archaeology
Soil micromorphology:	Dr Charly French, Department of Archaeology, University of Cambridge
Scientific dating and modelling	Peter Marshall, Chronologies, Sheffield, and Dr Mike Allen, AEA, Allen Environmental Archaeology
Pollen	Dr Rob Scaife, Department of Geography, University of Southampton

## Feature-type Sampling Summary

In order to make the site specific sampling strategy easily implementable on-site, a pragmatic guide to sampling is defined by feature type and/or specific feature below; this will be modified following site visits during excavation and fieldwork phases.

<b>Feature</b>	<b>Reason and Aim</b>	<b>Sample</b>
Pits	Specifically if well-dated or from artefact bearing contexts	Bulk sample (cpr) blocks of <i>in situ</i> charred deposit (cpr) Kubiena samples of specific deposits
Ditches	Full site and landscape history Bulk samples from key contexts, especially dated artefact-bearing contexts	Pollen monolith Geoarchaeology monoliths Geoarchaeological record Bulk sample (cpr) Bulk samples for waterlogged plant remains at base if waterlogged
Ditches/gullies	These are likely to be artefact- and cpr-poor and poorly dated	limited bulk sampling (cpr)
Postholes/postpits	only if large dumps or a) well-dated by artefacts or association, b) charcoal-rich for post timber	Bulk sample (cpr)
Hearths	charcoal to feature function and examine woodland resources and management also to provide short-lived material to consider for dating	Bulk samples (cpr)
Buried soil	Full site and pre-site history	Kubiena samples Small bulks Pollen monolith Geoarchaeological record Bulk sample (cpr)
Kilns / corn-drying ovens	as above archaeomagnetic dating	Bulk sample (cpr) consider archaeomagnetic dating

### 3) Main Tasks Sequence and Product Descriptions

1.1 Appointment of Outreach Officer and initiation of outreach programme	May 2011
1.2 Pre-excavation meeting with SCCHG and English Heritage	June 2011
1.3 <b>First Excavation Season</b>	July-August 2011
1.4 Erection of public display boards ( <b>Product 1</b> )	01/08/11
1.5 'Discovery Box' and web-site, etc. ( <b>Products 2 &amp; 3</b> )	31/10/11
1.6 Archival checking and collation, site matrix produced, full finds and sample processing; production of detailed interim report (including full tabulation and appraisal of all recovered art- and eco-facts and monolith samples; <b>Product 4</b> )	Sept-Dec. 2011
1.7 Project results review with relevant project specialists, major stakeholders and SCCHG/English Heritage authorities	March 2012
2.1 Establishment of public viewing areas ( <b>Product 5</b> )	30/06/12
2.2 <b>Second Excavation Season</b>	July-August 2012
2.3 Archival checking and collation, site matrix produced, full finds and sample processing; production of detailed interim report (including full tabulation and appraisal of all recovered art- and eco-facts and monolith samples; <b>Product 6</b> )	Sept-Dec. 2012
2.4 Project results review with both relevant project specialists major stakeholders and SCCHG/English Heritage authorities	March 2013
3.1 Release of Ham Hill booklet ( <b>Product 7</b> )	30/07/13
3.2 <b>Third Excavation Season</b>	July-August 2013
3.3 Archival checking and collation, site matrix produced, full finds and sample processing; production of detail interim report (including full tabulation and appraisal of all recovered art- and eco-facts and monolith samples; <b>Product 8</b> )	Sept-Dec. 2013
3.4 Production of full assessment report covering the results and findings from all three field-seasons ( <b>Product 9</b> )	Jan.-June 2014
3.5 Major Project Review	July 2014
3.6 Production of Updated Project Design ( <b>Product 10</b> )	August 2014
4 <b>Analytical Programme and Publication Text</b> ( <b>Product 11</b> )	Sept. 2014-Dec. 2017

#### **Product 1**

Public sign-boards

##### **Purpose**

To inform public visits to the excavations

##### **Composition**

Wood with laminated plastic text and imagery

##### **Derived from**

Background researches updated with on-going excavation results

##### **Format and presentation**

Wood with laminated plastic text and imagery (subject to weekly updating during course of excavation seasons)

##### **Allocation to**

Mike Lawrence (design), Niall Sharples, Christopher Evans and appointed Outreach Officer (text) and Andrew Hall (graphics)

##### **Quality criteria and methods**

SCCHG and English Heritage

##### **Responsibility for quality assurance**

Mike Lawrence, Niall Sharples and Christopher Evans

##### **Responsibility for approval**

Mike Lawrence, SSDC, SCCHG and English Heritage

**Planned completion date**

01/08/11

**Product 2**

'Discovery Boxes'

**Purpose**

To facilitate school visits to the excavations

**Composition**

Wood with selected artefacts (not of research significance), text and images

**Derived from**

Design specifications; background researches and on-going excavations

**Format and presentation**

Wooden box/chest with selected artefacts and educational materials (subject to annual excavation-season updating/renewal)

**Allocation to**

Mike Lawrence (design), Niall Sharples, Christopher Evans and appointed Outreach Officer (text) and Andrew Hall (graphics)

**Quality criteria and methods**

SCCHG and English Heritage

**Responsibility for quality assurance**

Mike Lawrence, Niall Sharples, Christopher Evans and appointed Outreach Officer

**Responsibility for approval**

SSDC, SCCHG and English Heritage

**Planned completion date**

31/10/11

**Product 3**

Project web-site (with blogs and slide galleries; establishment of Facebook and Twitter presence)

**Purpose**

To facilitate public dissemination of excavation results

**Composition**

Electronic media (text and images)

**Derived from**

Background researches and on-going excavation results

**Format and presentation**

Electronic media (subject to weekly updating during course of excavation)

**Allocation to**

Mike Lawrence (design), Niall Sharples, Christopher Evans and appointed Outreach Officer (text) and Andrew Hall (graphics)

**Quality criteria and methods**

SCCHG and English Heritage

**Responsibility for quality assurance**

Mike Lawrence, Niall Sharples, Christopher Evans and appointed Outreach Officer

**Responsibility for approval**

SSDC, SCCHG and English Heritage



**Planned completion date**

31/10/11

**Product 4**

First season interim appraisal

**Purpose**

To inform second-season procedures and provide information dissemination

**Composition**

A range of technical identifications, indices, site matrix analyses and preliminary reports/statements

**Derived from**

Processing, spot-dating and tabulation of raw material

**Format and presentation**

Text documents (Word); Excel tables and charts

**Allocation to**

Adam Slater (site archives), Mark Knight (Neolithic & EBA pottery) Matt Brudenell (LBA & Iron Age Pottery). Jason Hawkes (finds catalogues), Natasha Dodwell (human bone), Vida Rajkovača (animal bone), Lawrence Billington (flint), Grahame Appleby (metalwork), Simon Timberlake (worked stone); *Plant Remains, Charcoal, Geoarchaeology & Soil Micromorphology* (see Michael Allen, Appendix 2, above)

**Quality criteria and methods**

SCCHG and English Heritage

**Responsibility for quality assurance**

Niall Sharples and Christopher Evans

**Responsibility for approval**

SCCHG and English Heritage

**Planned completion date**

30/12/11

**Product 5**

Public viewing areas

**Purpose**

To facilitate public visits to the excavations

**Composition**

Wood barriers with stable surface-platform (with accompanying sign-boards; see Product 1)

**Derived from**

Design specifications

**Format and presentation**

Wood barriers with stable surface-platform (with accompanying sign-boards; see Product 1)

**Allocation to**

Mike Lawrence

**Quality criteria and methods**

SCCHG and English Heritage

**Responsibility for quality assurance**

Mike Lawrence

**Responsibility for approval**

SSDC, SCCHG and English Heritage

**Planned completion date**

30/07/12

**Product 6**

Second season interim appraisal

**Purpose**

To inform third-season procedures and provide information dissemination

**Composition**

A range of technical identifications, indices, site matrix analyses and preliminary reports/statements

**Derived from**

Processing, spot-dating and tabulation of raw material

**Format and presentation**

Text documents (Word); Excel tables and charts

**Allocation to**

Adam Slater (site archives), Mark Knight (Neolithic & EBA pottery) Matt Brudenell (LBA & Iron Age Pottery). Jason Hawkes (finds catalogues), Natasha Dodwell (human bone), Vida Rajkovača (animal bone), Lawrence Billington (flint), Grahame Appleby (metalwork), Simon Timberlake (worked stone); *Plant Remains, Charcoal, Geoarchaeology & Soil Micromorphology* (see Michael Allen, Appendix 2, above)

**Quality criteria and methods**

SCCHG and English Heritage

**Responsibility for quality assurance**

Niall Sharples and Christopher Evans

**Responsibility for approval**

SCCHG and English Heritage

**Planned completion date**

30/12/12

**Product 7**

Ham Hill booklet

**Purpose**

Public dissemination for information of the excavations and the hillfort environs.

**Composition**

10-20 page full-colour bound booklet

**Derived from**

Background researches updated with on-going excavation results

**Format and presentation**

10-20 page full-colour bound booklet (illustrations and text)

**Allocation to**

Mike Lawrence, Niall Sharples, Christopher Evans and appointed Outreach Officer (text) and Andrew Hall (graphics)

**Quality criteria and methods**

SCCHG and English Heritage

**Responsibility for quality assurance**

Mike Lawrence, Niall Sharples and Christopher Evans

**Responsibility for approval**

Mike Lawrence, SSDC, SCCHG and English Heritage

**Planned completion date**

30/06/13

**Product 8**

Third season interim appraisal

**Purpose**

Provide information -dissemination and inform Product 9

**Composition**

A range of technical identifications, indices, site matrix analyses and preliminary reports/statements

**Derived from**

Processing, spot-dating and tabulation of raw material

**Format and presentation**

Text documents (Word); Excel tables and charts

**Allocation to**

Adam Slater (site archives), Mark Knight (Neolithic & EBA pottery) Matt Brudenell (LBA & Iron Age Pottery). Jason Hawkes (finds catalogues), Natasha Dodwell (human bone), Vida Rajkovača (animal bone), Lawrence Billington (flint), Grahame Appleby (metalwork), Simon Timberlake (worked stone); *Plant Remains, Charcoal, Geoarchaeology & Soil Micromorphology* (see Michael Allen, Appendix 2, above)

**Quality criteria and methods**

SCCHG and English Heritage

**Responsibility for quality assurance**

Niall Sharples and Christopher Evans

**Responsibility for approval**

SCCHG and English Heritage

**Planned completion date**

30/12/13

**Product 9**

Assessment Report

**Purpose**

To summarise three-seasons results and inform production of Updated Project Design; provide information dissemination

**Composition**

A range of technical identifications, indices and textual statements

**Derived from**

Products 4, 6 & 8 and art-/eco-fact data-files and specialist appraisal texts.

**Format and presentation**

Text documents (Word); Excel tables and charts

**Allocation to**

Adam Slater, Christopher Evans, Niall Sharples (site summary and narrative), Mark Knight (Neolithic & EBA pottery) Matt Brudenell (LBA & Iron Age Pottery). Jason Hawkes (finds catalogues), Natasha Dodwell (human bone), Vida Rajkovača (animal bone), Lawrence Billington (flint), Grahame Appleby & Colin Haselgrove (metalwork), Simon Timberlake (worked stone), Andrew Hall (graphics); *Plant Remains, Charcoal, Geoarchaeology & Soil Micromorphology* (see Michael Allen, Appendix 2, above)

**Quality criteria and methods**

SCCHG and English Heritage

**Responsibility for quality assurance**

Mike Lawrence, Niall Sharples and Christopher Evans

**Responsibility for approval**

SCCHG and English Heritage

**Planned completion date**

30/06/14

**Product 10**

Updated Project Design

**Purpose**

To inform analytical and publication programme

**Composition**

A range of technical identifications, indices, site matrix analyses, textual summary and methods statements

**Derived from**

Product 9 and specialist appraisal texts.

**Format and presentation**

Text documents (Word); Excel tables and charts

**Allocation to**

Adam Slater, Christopher Evans, Niall Sharples (site summary and narrative), Mark Knight (Neolithic & EBA pottery) Matt Brudenell (LBA & Iron Age Pottery). Jason Hawkes (finds catalogues), Natasha Dodwell (human bone), Vida Rajkovača (animal bone), Lawrence Billington (flint), Grahame Appleby (metalwork), Simon Timberlake (worked stone), Andrew Hall (graphics); *Plant Remains, Charcoal, Geoarchaeology & Soil Micromorphology* (see Michael Allen Appendix 2, above)

**Quality criteria and methods**

SCCHG and English Heritage

**Responsibility for quality assurance**

Mike Lawrence, Niall Sharples and Christopher Evans

**Responsibility for approval**

SCCHG and English Heritage

**Planned completion date**

31/08/14

**Product 11**

Final Publication and digital archive (subject to change based on Product 10)

**Purpose**

Book: academic and public dissemination of excavation results (and allied projects); archive: direct access to site records, data files and specialist reports, *etc.*

**Composition**

Digital

**Derived from**

Products 9 & 10, project records, data files and specialist appraisal texts.

**Format and presentation**

400-500 page volume; electronic files

**Allocation to**

Niall Sharples, Adam Slater and Christopher Evans, (principal authors) with specialist contributions: Mark Knight (Neolithic & EBA pottery) Matt Brudenell (LBA & Iron Age Pottery). Jason Hawkes (finds catalogues), Natasha Dodwell (human bone), Vida Rajkovača (animal bone), Lawrence Billington (flint),

Grahame Appleby (metalwork), Simon Timberlake (worked stone), Andrew Hall (graphics); *Plant Remains, Charcoal, Geoarchaeology & Soil Micromorphology* (see Michael Allen Appendix 2, above)

**Quality criteria and methods**

SCCHG and English Heritage' peer review

**Responsibility for quality assurance**

Mike Lawrence, Niall Sharples and Christopher Evans

**Responsibility for approval**

SCCHG and English Heritage

**Planned completion date**

30/12/17