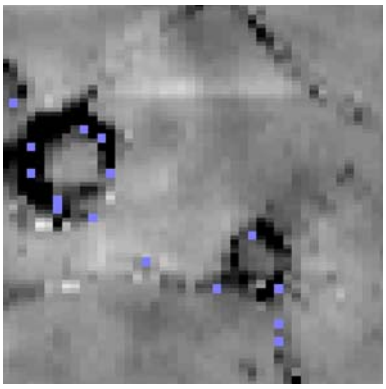
SHOVEL DOWN PROJECT
SUMMARY REPORT 2004



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1 INTRODUCTION

The Shovel Down Project was initiated in 2003. The aim of the project is to implement a multi-disciplinary programme of archaeological and environmental research examining the process and context of later prehistoric land enclosure on Dartmoor, a region which boasts one of the most extensive and best preserved Bronze Age landscapes in Europe. Fieldwork began in 2003 with a small-scale self-contained project. This project was a pilot study in advance of a large-scale longer-term research project, the first phase of which took place in 2004.

Fieldwork focussed within the areas of Stonetor Hill, Shovel Down and Kes Tor (c.4km^2 centred on SX 660 860), located on the north-east of Dartmoor, lying between 360-420m AOD on the watershed between the North and South Teign Rivers (Fig 1).

Visible archaeology within the study area relates largely to later prehistoric occupation. Among the earliest upstanding sites are a complex of stone rows and cairns found on the eastern side of Shovel Down. Settlements and boundary systems, generally thought to be later in date than the ceremonial monuments, are distributed throughout the area. The boundaries are archaeologically identifiable as low earth and stone banks, and they are generally distinguished from medieval and later examples by their lack of an accompanying ditch. Settlement evidence consists almost entirely of ring banks of stone that in most cases are likely to represent the collapsed walls of roundhouses. Boundaries resolve into systems displaying distinct morphological characteristics: different kinds of system present in the area include the parallel reave systems on the east slopes of Kes Tor, a block system on Shovel Down, aggregate fields on the top of Shovel Down, axial strips on the west-facing slope of Shovel Down, and a field network of buildings and short lengths of wall on Stonetor Hill. Between them these sites represent the full spectrum of field system types identified in previous work (Fleming 1983, 1988, Gerrard 1997, Butler 1997).

The chronology of the later prehistoric fields and settlements is imperfectly understood, although parallels with excavated sites elsewhere on Dartmoor would suggest that they date to the earlier and middle second millennium BC. Quinnell has recently redated the ceramics from Fox's excavations in the Round Pound and the Kes Tor coaxial system to the Middle Bronze Age, bringing the site within the generally accepted chronology for coaxial land division on Dartmoor (see Fleming 1988). Sandy Gerrard's excavation of a hut circle at Teigncombe has produced both Iron Age and Romano-British pottery. Both Iron Age and Roman period sites are known from elsewhere on the moor or its fringes (Silvester 1979; Gibson 1992), and they are a common feature in the surrounding lowlands. It is therefore possible that as yet unidentified archaeological deposits dating to this period are present within the study area.

Stonetor Hill, Shovel Down and Kes Tor were used for grazing, peat cutting and tin extraction in the medieval and post-medieval periods. The shelters associated with medieval and post medieval activity often involved the reuse of earlier roundhouses; examples of these within the study area include a small medieval building constructed out of the ruins of the roundhouse in Round Pound (Fox 1952) and possibly a sub-rectangular building among the axial strips on the west of Shovel Down (Devon SMR). Medieval enclosure boundaries can be found among the prehistoric boundaries of the Kes Tor system suggesting the possibility of medieval cultivation within the area. Visible remains of tin working include streamworks, adits, leats and two possible tinners caches. Peat ties are numerous and there are also several examples of peat drying platforms. It is likely that peat cutting activity has implications for the preservation of archaeological datasets.

2 AIMS AND OBJECTIVES

All fieldwork and research to date have been guided by a series of predefined research objectives. These reflect the broader ambitions of the project including 2003, 2004, and beyond:

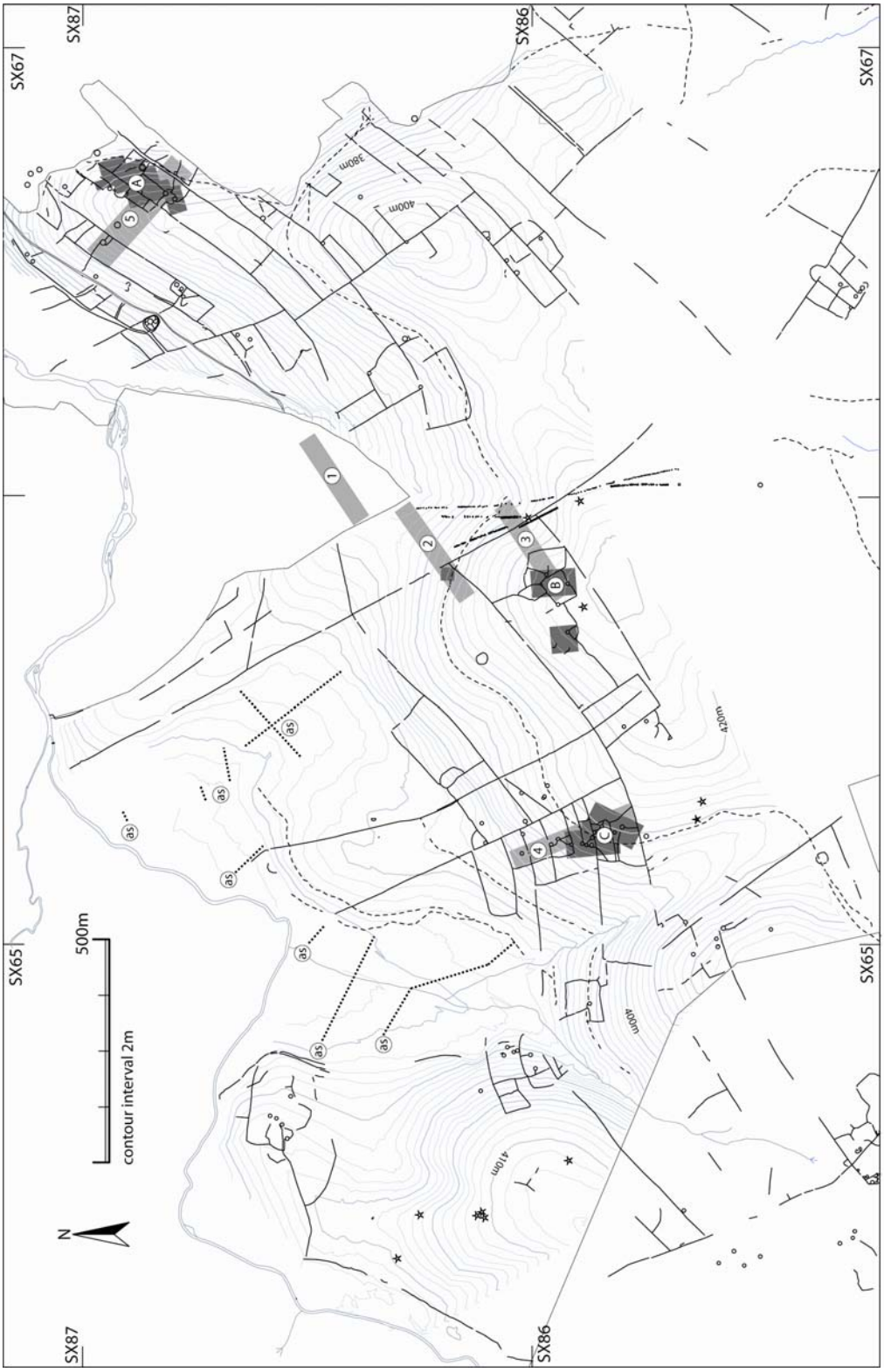

Fig 1 Plan showing the locations of the test pit transects (light shading, 1-5), geophysical survey areas (dark shading, A-C) and auger survey transects (as) (archaeological features based on English Heritage survey data , copyright reserved).

2.1. Overall Aims of the Shovel Down Project

Obtain a detailed understanding of the chronology and historical context of land enclosure on Shovel Down

- Date the construction, use and abandonment of the field systems and associated settlements in the study area.
- Define the extent and character of pre-boundary settlement and land use.
- Identify the relationship between the field systems and pre-existing monuments such as stone rows or cairns.

Investigate the complex interplay between subsistence practices, social relations and environmental conditions

- Characterise land use practices and the (pre)history of changes in land use over time.
- Reconstruct the palaeoenvironmental sequence for the study area at various scales from local to regional; compare to and amend existing regional models.
- Define relationships between the field systems and features of the local topography.
- Address the issue of Bronze Age climate change (onset of bog growth)

Examine the socio-economic basis of land-use practices

- Understand the principles according to which the field systems were laid out and how they developed.
- Investigate the relationship between field system morphology and agricultural practices.
- Define the socio-economic relationships between different types of settlement, and between settlements and field systems.

2.2 Specific Aims and Objectives 2004

Phase 1 of a five year project began in 2004. The aims of this work were to:

- Evaluate, using a variety of survey techniques, at least four field systems/settlement areas of varying types (coaxial and aggregate) prior to intensive investigation in future field seasons.

- Investigate, through test pitting in an area of known lithic scatters, the character and extent of Neolithic/Early Bronze Age human occupation.

- Examine variability in land-use practices across the study area.

- Reconstruct the history of the valley side and basin sediments in the upper reaches of the North Teign west of SX66.

2.3 Project Strategy

Achieving the overall objectives of the project requires a phased strategy, operating at a variety of scales (Table 1). Five field seasons (2004-2008) are planned to follow the scoping phase of 2003. During phase 1 (2004-2005), a range of survey and evaluative techniques will be employed throughout the study area. These will concentrate on developing our understanding of the prehistoric landscape, and improving the focus and success of the more intensive methodologies planned for phase 2 (2006-2008). The subsequent three field seasons will concentrate on the detailed investigation, through open area excavation and targeted trenches, of 2-3 settlement and 'open' field areas chosen on the basis of the fieldwork undertaken in 2004-2005. Analysis and report writing will be ongoing throughout the project. Completion of the analysis and the production of the archive and a final published monograph and articles will take place during 2009-2010.

Table 1 Overview of project strategy.

Phase	Year	Aims/objectives	Methods
1 (extensive/landscape)	2004	Evaluate the archaeological and environmental potential of	Topographic, earthwork, walkover, geophysical and geochemical surveys; test pitting;

		chosen locations within the study areas; locate/define lithic scatters/activity areas	geoarchaeogical fieldwork in valley and on slopes; desktop assessment of documentary and aerial photographic sources
	2005	In addition to above, characterise features/lithic scatters etc. identified through survey work; begin to reconstruct environment and land use from sampling	Completion/continuation of year 1 surveys; targeted trenches, extend test pits; detailed environmental sampling within mires and valley bottom; desktop assessment of comparative environmental and archaeometrical work
2 (intensive/site-based)	2006-8	Investigate history of enclosure, occupation and land use in a variety of areas settlement/field areas	Detailed multi-disciplinary investigation, through open area excavation and targeted trenches
3 (archive/publication)	2009-10	Writing up, meetings, presentations	Completion of analysis, archive and final publication

3 METHODOLOGY

Phase 1 of the project will concentrate on five areas. These were chosen because they represent settlement and/or field areas of varying morphology and topographic setting. The methods used in 2004 comprised topographical, earthwork, walk-over, geophysical and geochemical surveys; test pitting; and geoarchaeological/palaeoenvironmental fieldwork in the valleys and on the slopes of the study area. This emphasis on evaluative survey was designed to improve the focus and success of the more intensive methodologies to be employed later in the project.

Aspects of Phase 1 to be carried out in 2004 were set out in the Project Design (Brück *et al*. 2004: section 4). In this report it was envisaged that major components of the survey work would be completed in July-August 2004, and that some elements would be carried out during 2005. Accordingly geophysical survey (resistivity and gradiometer survey) was completed in priority areas A, B and C in 2004. Extensive walk-over survey and topographical survey using Differential GPS were also completed. Preliminary earthwork survey evaluating the sensitivity of different survey scales was carried out. As stated in the Project Design for 2004, Areas D and E will be examined in 2005.

The Phase 1 fieldwork includes the excavation of test pit transects to facilitate investigation of landscape and settlement history. One transect is located within each of the five study areas. An additional two transects of test pits are located outside these areas to examine the lithic scatter within the enclosed land at Batworthy Corner and assess its relationship to the lithics recovered in Trench A during 2003. Five out of this possible total of seven transects were completed in July-August 2004 (transects 1-5). In the Project Design it was expected that transect 1 would be left until the 2005 season because of difficulties gaining access to the enclosed land at Batworthy. In the event it proved possible to obtain access to these fields, and thus it was possible to complete one extra transect in 2004. The remaining transects (6 and 7) will be investigated during 2005.

The programme of test-pitting exposed a significant number of excavated soil profiles potentially useful for the investigation of past occupation and land use practices. Bulk samples were collected from the test pit transects for chemical and physical analyses (texture, loss-on-ignition, magnetic susceptibility, phosphates, pH). Soil micromorphology samples were taken from potential 'buried' soil horizons. Several features of potential archaeological significance were identified and recorded, and a substantial number of finds, primarily lithics, were recovered. It did not prove possible to carry out the planned auger survey for the geochemical identification of metalworking foci in 2004. It is hoped that this will form part of the 2005 project design incorporating the results of analysis of the 2004 geophysical survey.

An auger survey to record the stratigraphy and contribute to the 3D modelling of the alluvial history of various peat deposits in the Teign Basin was carried out. Cores were recorded on *pro forma* sheets using the modified Troels-Smith sediment description system. Ten coring transects were positioned across various basins on the valley floor. Cores were taken every 10m or 5m depending on the length of the transect. Core locations and heights were surveyed using dGPS.

4 TOPOGRAPHIC SURVEY 2004

In 2003, a topographic survey (contour interval 2m) was completed within a 2km² area encompassing Shovel Down, the valley mire to the east of Stonetor Hill, and the lower ground to the north. In 2004, this was extended to the north and east to include the valley bottom, a section of the enclosed land at Batworthy, and the main concentration of coaxial boundaries on Kes Tor. The survey was carried out using a Trimble dual frequency Global Positioning Satellite (GPS) system. A base receiver was set up on a permanent survey marker and two receivers (Trimble 4800s) were used to record detail, working independently in real-time kinematic mode. The co-ordinates of the base receiver have been calibrated to the National Grid (OSGB36) using Trimble Geomatics software, based on the position of the receiver relative to Ordnance Survey active GPS stations at Carmarthen, Lizard Lighthouse, Nash Point Lighthouse, Plymouth and Taunton.

The GPS data has been processed, and the completed topographic survey will shortly be available. Its potential lies in bringing landform into discussions of field system organisation and land use decisions. Topography is also important in understanding soil profile development and sedimentary history, particularly in relation to land use practices.

5 EARTHWORK SURVEY

The walkover survey was designed to identify areas of particular interest within each settlement zone (A-E) with a view to identifying potential locations for open area excavation in 2006-8. In 2004, survey of Areas A, B and C was completed, involving detailed annotation of the existing English Heritage 1:2500 survey. Information regarding the structure and relationships of the known features was recorded and previously unidentified features were noted. The locations of new features were recorded using differential GPS and this data will be entered into the Devon SMR when analysis of the surveys has been completed.

The walkover survey completed to date has the potential to address important aspects of the project's research questions. A number of previously unidentified features including lengths of boundary, roundhouses, cairns and areas of possible terracing were recognised during this work. Further detail was added to features already identified on the English Heritage survey, for example information on the structure of boundaries and buildings, potential indicators of chronological sequence at junctions, and the presence of features such as possible access ways. Analysis of the annotated plans produced during the walkover survey will facilitate investigation of:

- histories of particular field systems and settlement zones (e.g. evidence for chronological sequence of archaeological features)
- differences in land use and activities across the study area (e.g. presence/absence of cairns, terracing, etc.; character, size, orientation of structures, etc.)
- other practical and social aspects related to land tenure (e.g. entranceways between blocks of land)

In addition to the walkover survey, preliminary earthwork survey evaluating the sensitivity of different survey scales was also carried out. One structure and lengths of associated boundary in Area B were surveyed using tape/offset and plane table techniques at scales of

1:200 and 1:500. This will facilitate decisions regarding scales of analysis in any future measured surveys to be undertaken by the project.

6 GEOPHYSICAL SURVEY

The objectives of the geophysical survey were to locate possible buried sub-surface features, investigate the character of upstanding remains, compare the results from resistance and gradiometer surveys, and identify sites suitable for further survey and/or excavation. The surveys were undertaken during late August 2003, and mid July to mid August 2004 over three main areas: coaxial fields and settlement, Kes Tor (A); aggregate fields and settlement, Shovel Down (B); coaxial fields and settlement, Shovel Down (C). In addition, a putative stone circle was investigated on Shovel Down. The instruments used for the surveys were a Geoscan RM15 resistance meter with a twin array set at 0.5m and a Geoscan FM256 Fluxgate Gradiometer. Sampling was undertaken at 1m and 0.5m intervals along traverses walked in a zigzag pattern. Results were downloaded and processed using Geoscan's Geoplot version 3.0 for Windows. A full report is available (Johnston and Wickstead 2005).

7.2. Assessment of potential

The gradiometer survey identified a range of features that are possibly of archaeological significance. These were most frequent in areas A and B, where the background was at its most homogenous. The majority of the features were located in and around buildings or as dispersed clusters within fields. They range from a possible metalworking or kiln site, bipolar anomalies of a range of magnitudes – in some cases these may result from small hearths or other areas of burning – and other features some of which may be pits. Several sub-surface features of possible archaeological significance were also located during the resistance survey. These included stony areas that may be low cairns or platforms, and low resistance features indicative of ditches and ground that is cleared of stone.

Where ground conditions allowed, the resistance survey depicted the lines of the stone banks that form the field systems and houses. There are differences between the ground survey and the geophysical plots: additional lengths of stone bank are visible on the resistance survey; there are gradations in the strength with which the stone banks are visible, which might tentatively be equated with degrees of stoniness; and there are a number of instances where the resistance is relatively low along the line of the boundary.

There is considerable potential for further geophysical survey, both extending from the grids that have already been completed and investigating new sites within the study area. This should be complemented by trial excavation of a sample of the features identified thus far.

7 TEST PIT TRANSECTS

7.1 Aims and objectives

Five transects of test pits were excavated in 2004 (see Fig 1). The main aims of the programme of test-pitting were as follows:

- to assess ancient land use history from soil and sedimentary data across the landscape
- to investigate the extent and character of Neolithic/Early Bronze Age occupation in the study area.
- to identify variability in Later Bronze Age land-use practices across the study area by:
    - assessing the wider environmental and landscape context of upstanding remains.

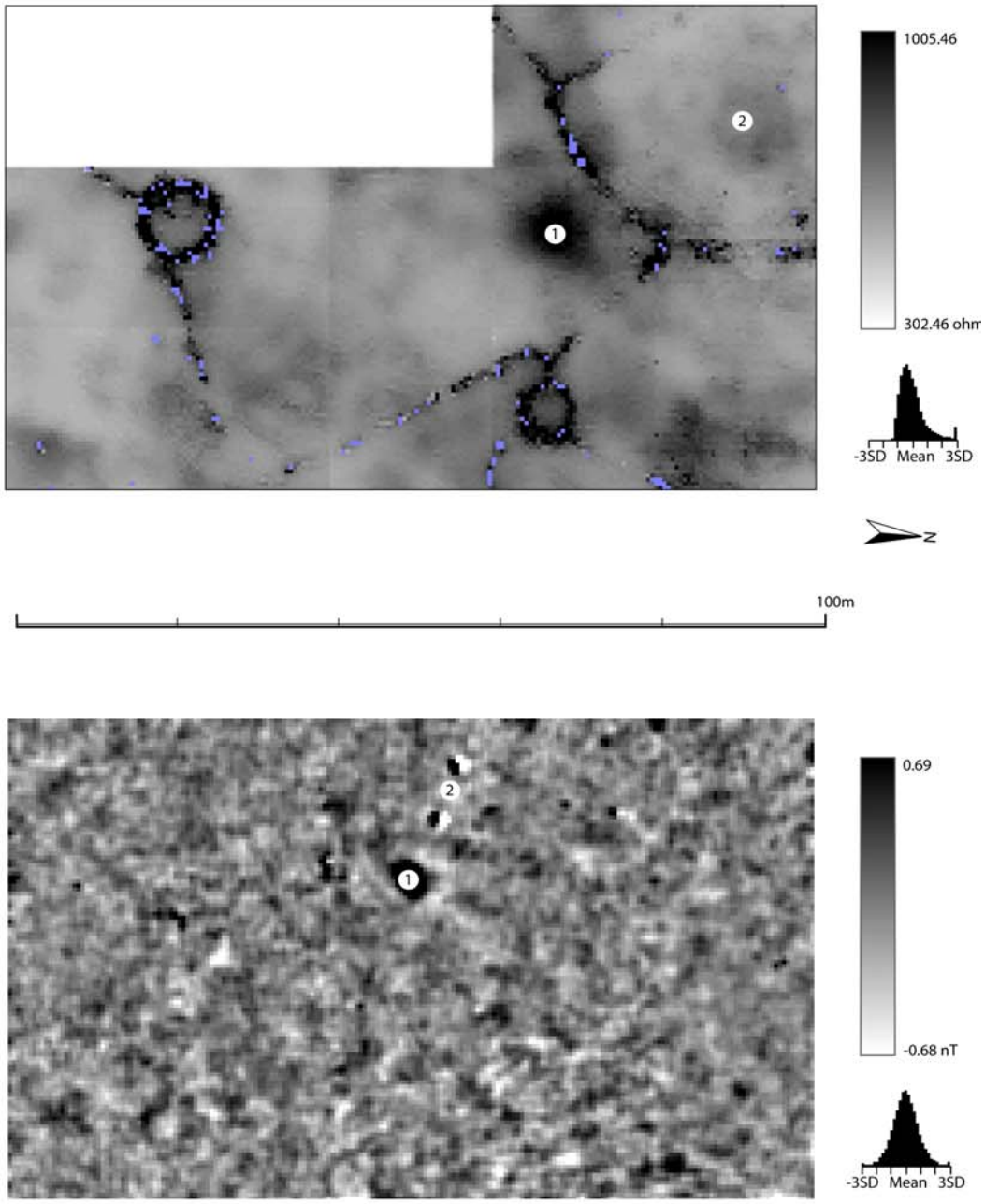

Fig 2 Processed resistance (top) and gradiometer (bottom) survey data from area B, Shovel Down. The resistance survey depicts both surface archaeology (the stone banks and houses of the settlement) and sub-surface features (marked 1 & 2), which may represent low cairns or platforms. The gradiometer survey includes both positive (1) and bipolar anomalies (2), which may be caused by sub-surface pits or hearths.

- testing if sufficient finds could be collected in order to aid understanding of the function and history of upstanding settlements

- enabling the identification of activity areas within the field systems and settlements.

7.2 Methodology

Test pits of 0.5x1m were excavated at 20m intervals. Pits were not excavated into known archaeological features such as field banks or buildings, and the precise locations of a number of test pits were adjusted to ensure this. In total, 175 test pits were excavated. The location of each pit was accurately mapped using a Geodimeter 600 total station.

All deposits were excavated stratigraphically. The peat overburden was removed by mattock/shovel. The layers beneath this were trowelled clean and examined for evidence of archaeological deposits. The soil profile was recorded in each test pit using *pro forma* sheets. Where archaeological deposits were encountered, they were photographed, recorded in plan and section, and written context sheets were completed. Because this season of fieldwork was primarily evaluative, the archaeological deposits identified were not fully excavated in every case; sample excavation/total excavation of individual features was carried out only where this was deemed necessary to allow adequate characterisation of the nature of the archaeology. Follow up fieldwork during 2005 will involve the extension of selected pits in order to categorise the archaeological deposits more fully.

7.3 Geoarchaeological survey and sampling

The test pit transects facilitated the detailed recording of exposed soil profiles across the landscape, systematic collection of soil samples for chemical and physical analyses, and targeted sampling for soil micromorphology. Geoarchaeological approaches are vital to the Shovel Down Project, as part of methodology aimed at exploring, characterising and interpreting ancient land use practices. In addition, geoarchaeological methods are useful as comparative approaches in understanding the environmental and erosional history of the area, depositional and post-depositional histories of features, and preservation of archaeologically important deposits.

In order to look at land use, the strategy employed in 2004 involved systematic survey of soils and sediments exposed in all test-pit transects. This will facilitate an understanding of representative profiles and pedogenetic processes over time and across the varying spatial divisions of the field systems. This survey entailed detailed and pedogenetically-oriented description of deposits and layers across the landscape as well as the generation of spatially-significant data pertaining to characteristics of soils that typically relate to various (pre)historic land use practices (texture, phosphates, magnetic susceptibility), and of standard descriptive data (loss-on-ignition, pH). This type of survey has been successful in many places in Britain and beyond in generating information relevant to ancient land use practices, and to variations in land use history across a defined spatial area.

Each test pit was therefore described and recorded as to its soil profile and sedimentary, as well as archaeological, contexts. Each major layer or context exposed was sampled for bulk analysis (texture, loss-on-ignition, magnetic susceptibility, phosphates, pH). Even in the field it was possible to note some systematic variation across space. For example, the area studied 'outside' of the main Shovel Down field system (transect *) contains substantially less disturbed soil profiles than that seen inside the system (fewer obvious indicators of horizon disturbance such as irregular horizon boundaries). In addition, most of these 'outside' profiles had what we consider to be the 'complete' profile (peaty topsoil horizons, over a leached loamy horizon, over oxidised and more clay-rich loams, over gravels/pea grit/granite), while many of the profiles within the system had variations in horizon types, presence, and preservation. It is not yet clear whether this spatial variation relates primarily to land use history– there is a slope (catenary) aspect which will need to be explored through an auger survey planned for 2005. In addition, there are substantial dating issues which should become

partially resolved once the date of onset of peat growth is determined. However, there will remain a great need to relate soil profile development to field system architecture.

As well as the bulk samples, two soil micromorphology spot samples were taken of a possible buried topsoil horizon. Soil micromorphology is an approach focused on context, where detailed site-specific and relatively stratified histories of soils and sediments can be interpreted. In addition to building a history of soil processes (including cultural activities such as farming or clearance), micro-indicators can show specific activities (such as tillage, burning, amendment) related to cultural use of space in particular locations.

Parts of the study that remain to be completed are the analysis of all bulk samples, the production and analysis of micromorphology samples and the analysis of data regarding land use, soil and sedimentary history. To date, £1090 has been obtained from the British Academy (grant for 2005) to fund processing and analysis of a proportion of samples collected in 2004. This will enable evaluation of the utility of geochemistry for addressing questions of land use in the study area. The macro-scale differences seen in the field are very positive, and suggest that there is great potential in characterising land use (or at least variations in this) across the field systems. Funding to undertake the processing and analysis of soil micromorphological samples is still to be acquired.

7.4 Features

Although visible archaeological features such as field boundaries and buildings were deliberately avoided, an important aim of the test pit transects was to identify sub-surface archaeology which might provide evidence for variation in the types of activities carried out in different areas of the Shovel Down/Kes Tor field systems (for example pits, postholes, cobbled areas, etc.). A number of features of possible prehistoric date were identified:

- 3 small cut features which can be tentatively identified as possible pits, postholes or stoneholes.

- 1 very large feature. The full extent and character of this was not defined as it extended well beyond the limits of the excavated test-pit.

- 4 stone structures which appear to comprise the edges of/tumble from previously unidentified field boundaries. One of these runs parallel to a possible ditch.

In view of the substantial number of test-pits excavated, the number of possible features identified was small. This was especially surprising in the case of transects 4 and 5, which were located in areas of dense upstanding settlement remains. Nonetheless, the structural evidence of possible prehistoric date listed above has the potential to cast light on aspects of land-use and occupation. Features such as pits and postholes may provide evidence for pre-reave land use or for the nature of activities carried out within different parts of the Bronze Age field system. Previously unidentified boundaries may facilitate a more complete understanding of land-division within the study area. However, the character and extent of the features identified cannot be fully understood without more extensive excavation in future field seasons. Any such further excavation will need to be carefully targetted to answer the project's research questions.

7.5 FINDS

The soils from the test-pits were dry-sieved and a substantial assemblage of finds, primarily lithics, were recovered. Over 100 pieces of worked stone were collected. The majority of these were from test pit transects 1 and 2 which are located in the vicinity of the lithic scatter recorded in Batworthy Corner during the 19th century. They include a range of raw materials: flint, rock-crystal and some quartz and possible chert. At least two industrial traditions are present: a structured approach to the manufacture of blades, some of which have been retouched into characteristic Later Mesolithic microliths, and a larger flake industry, sometimes reliant on large pebbles. This second industry, at least partly employing direct hard hammer percussion, is likely to be later prehistoric in date. Retouched pieces include a

range of scrapers, knives and borers; many of these suggest Late Neolithic, or more likely, Bronze Age dates. This suggests that the assemblage includes at least two main phases of activity: Late Mesolithic and later prehistoric.

The industries offer clear evidence for spatial structuring of the chaîne opératoire – primary pieces and cores are rare, especially in the finer blade industries, and this parsimonious use of flint appears transformed in the larger flake industries also present. This implies significant diachronic changes in the nature of raw material procurement and use. It is possible that this may indicate changes in the relationship between the study area and the off-moor source areas of some of the raw materials. There are also hints of spatial variations in the assemblages: areas of concentrations of burnt flint, possible differentiations in the size of material, as well as differing technological characteristics. As such, the material may provide information on the nature of occupation and activities in the study area through the earlier and later prehistoric periods. Detailed analysis will be required to assess these relationships, not least because some material is abraded, and may have been redeposited. This assemblage also needs to be compared to that discovered previously from Batsworthy (initial assessment of the 19th century assemblage was carried out in 2003).

In addition to the worked stone, a selection of Medieval and post-Medieval finds were recovered from test pit transect 1 including: 4 pieces of possible Medieval pottery; 33 pieces of post-Medieval/modern pottery; 14 pieces of ceramic building material; 18 fragments of glass; 4 metal items (button, buckle, nail + 1 unidentified); one fragment of clay pipe; a number of pieces of coke/coal. This material has been assessed by Dr John Allan whose opinion is that it is primarily of nineteenth and early twentieth century date; he has advised the project as to which of these finds should be retained.

8 AUGER SURVEY

8.1 Aims and objectives

The valley of the North Teign river includes a number of significant peat bodies, which are distinctive as blank areas on the archaeological maps of the Shovel Down field system. The relationship of these mires to the field system has not been established, and the extent to which areas of mire were in existence during the functioning of the agricultural landscape is unclear. An evaluation of the age and stratigraphy of the mires will allow a more complete understanding of the landscape context of enclosure.

Specific palaeoenvironmental aims of 2004 season were:

- To investigate the extent of peat in the valley of the North Teign river between the confluence with the Walla Brook and the Stonetor Brook.
- To investigate the stratigraphy of mires identified.
- To develop stratigraphic models for each peat body, and begin to examine the temporal and spatial extent of peat in the valley.
- To assess the potential of mires in the North Teign valley to provide palaeo-environmental evidence of relevance to the project.

8.2 Fieldwork

The following auger surveys (using a 50cm Russian-type corer) were carried out across the areas:

- Mire A centred at NGR265480 86580.
- Mire B centred at NGR265170 86640 (showing field evidence of peat cutting).

- Valley floor of Stonetor Brook (south of main North Teign river) between NGR264990 86050 and NGR264800 86330.

- Valley floor on north side of North Teign river, between NGR264910 86840 and NGR264690 86950.

8.3 Preliminary results

A total of 9 stratigraphic transects were made, comprising 89 individual cores. These allow a preliminary assessment of the extent of peat across the wetlands, and the depth of peat which is preserved within each area. Complete stratigraphic transects will be available for each transect once topographic data has been processed, and until these stratigraphic transects are complete, only brief descriptions of the coring results can be given:

- Mire A has a maximum proven depth of 1.43 m, and was shown to extend from a broad base at the northern extent to a narrow neck at the south.

- Mire B has a maximum proven depth of 1.00 m.

- The valley of the Stonetor Brook showed a body of peat preserved on the southeast side of the main stream with a depth in excess of 1.3 m. The peat body shallows towards the stream, and deepens on the northwest side of the stream.

- The valley floor transect on the north side of the North Teign river contains variable depths of material, with most cores shallower than 0.5 m, although a single core proved organic sediments to a depth of 1.3 m.

The fieldwork has provided a body of data which can be used to address the main palaeoenvironmental aims of the 2004 season. Stratigraphic transects will be constructed through the valley floor wetlands using these data, which will allow an understanding of landform development. Aim 4 above (assessing the palaeoenvironmental potential of mires) will require a limited amount of field sampling of basal sediments from each mire for preliminary palynological assessment; this will be achieved using the stratigraphic models made possible by the 2004 fieldwork.

9 COMMUNITY OUTREACH

Public outreach and education is an important element of the project. In 2004, a number of local volunteers took part in the project. These included members of the Devon Archaeological Society and Dartmoor Preservation Association, as well as students taking A-Level and Adult Education archaeology courses at local schools and colleges. An Open Day was held on Sunday 1 August and, despite adverse weather, attracted some 40 people. A guided tour was given to the Devon Archaeological Society, and two visits were arranged for the charity *Providence House* who work with disadvantaged children from inner-city London. As the project included work within the enclosed land at Batworthy, each household in Batworthy Corner was visited in person, and a number of children from Batworthy took part in the excavations.

In addition, research and development for a Community Arts Project '*ShovelDown*Arts' took place on site in 2004. Artist Varvara Shavrova produced a series of drawings and photographs during a week long residency. Shavrova coordinated a drawing event on site involving the entire archaeological team. This on-site drawing project formed part of the National Campaign for Drawing's 'Big Draw' event. A week long exhibition of artworks produced during the residency was staged at the Institute of Archaeology, UCL from 11-17 October 2004. A series of talks were given at UCL discussing Art in Archaeology, including lectures given by Varvara Shavrova (Artist), Helen Wickstead (Co Director, Shovel Down Project) and Gary Robinson (Excavation Supervisor, Shovel Down Project). This work will act as a springboard for further workshops involving local schoolchildren planned for 2005.

10 DISSEMINATION OF RESULTS

Presentations on the 2004 work have been made to the Prehistoric Society, the Devon Archaeological Association, the Association of Environmental Archaeologists, and the Department of Archaeology, University College Dublin. Further talks will also be given at this year's conference of the European Association of Archaeologists (September 2005) and to the Faculty of Archaeology, University of Leiden, Netherlands (May 2005).

A website is currently maintained by the project team:
http://www.bangor.ac.uk/history/site_english/research/res_projects/archaeology/shovel_down/

11 SUMMARY AND FUTURE WORK

The programme of work undertaken in 2004 has allowed the project to begin to characterise the nature of occupation across the study area including comparison of different types of settlement and field system. The geophysical surveys and test pit transects have identified a variety of features of potential archaeological significance. Investigation of these in 2005 may provide information on variation in the activities carried out across the study area in prehistory. The walkover survey noted structural details in the standing remains which may cast light on the histories and functions of different types of settlement and field system. Field observation of variability in soil profiles across the study area indicates macro-scale differences that may relate to past land use practices, and these will be investigated using soil chemical, physical and micromorphological analysis. This will faciliate the investigation of potential relationships between field system morphology and agricultural practices. The topographic survey will provide contextual data to enhance understanding of variability in soil profiles across the study area. The history of peat development in the valley of the North Teign was addressed by means of auger survey of relevant deposits in the valley bottom and sides and will facilitate understanding of the environmental context and impact of field system construction. The lithics recovered will provide further information on the historical context of the reaves, including any potential relationship between the boundaries and the stone rows, and will allow the relationship between Bronze Age land use and earlier phases of occupation of the study area to be defined and explored.

Analysis of the results from the 2004 field season is ongoing and in some cases (soil chemical, physical and micromorphological analysis) is dependant on the acquisition of further funding. In November 2004, an application was made to the Arts and Humanities Research Board for £389,401 to cover costs of fieldwork (including all future seasons) and post-excavation analysis for the project (including employing research assistants); the results of this application are still awaited. In the meantime, however, a grant of £7500 has been secured from the British Academy to fund the 2005 field season as well as post-excavation analysis of a proportion of the soil samples recovered in 2004. The latter will act as a pilot project to evaluate the utility of this data to provide information on past land use practices. The fieldwork planned for 2005 will complete phase 1 of the project with further test-pit transects and geophysical survey. Targetted excavation will explore some of the features identified in the geophysical survey and test pits in 2004. Detailed earthwork survey based on analysis of the 2004 walkover survey will allow the identification of potential zones for open-area excavation in 2006-8.

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