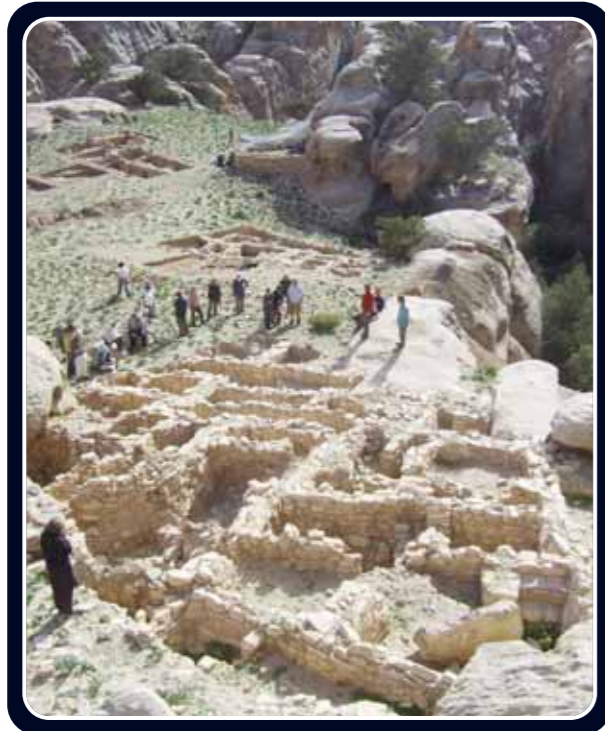


of change, regarding what did change at the transition and how this occurred comprised another main point highlighted by many participants. Another key problem researchers in both areas share, concerns how to deal with the many artificial dichotomies that we necessarily introduce to discuss the material but which at the same time polarise the record in unhelpful ways. Such dichotomies, like Mesolithic/Epi-Palaeolithic versus Neolithic, or forager versus farmer, are of course at the centre of transition studies both in the Levant and in northwest Europe. It also became clear during the workshop that we were actually discussing several different transitions - from hunting and gathering to farming, from Mesolithic/Epi-Palaeolithic to Neolithic material culture, or from one set of environmental conditions to another, to name but a few - and we must be careful not to conflate these.



Tour of the PPNB site at Baja

In the end, all delegates agreed on a number of main points. These were to work towards better data recovery strategies and integration of the various strands of evidence encountered during field work, to aim to present dates and chronologies in compatible ways but also being more candid about the reliability of many of the dates available to us (including the use of error bars) and to leave behind the 'polarised and sterile' debates that have dogged recent research in both regions.

Field trips and site visits

While bringing together researchers from the two research traditions made the *Landscape in Transition* workshop unique, the daily field trips and site visits made it a truly extraordinary event. In many cases, the excavators themselves provided the

guided tours, freely sharing their expertise and first hand insights. It was stunning, writing as someone who has hitherto been teaching the origins of agriculture in the Levant largely based on published literature, to personally experience the places that had filled my lectures. Inspecting the plaster flooring at Ain Ghazal, walking on the staircases at Beidha or admiring the two story architecture at Baja having mastered a half hour's climb up a *siq* (a narrow gorge in the sand stone) provides someone with a background in northwest European prehistory with a completely different grasp of these places and people's lives there some 10,000 years ago. Many of these locations will perhaps soon be more accessible to western European archaeologists through the 'Neolithic Trail' that Bill Finlayson and the CBRL are currently establishing



The siq leading to Baja

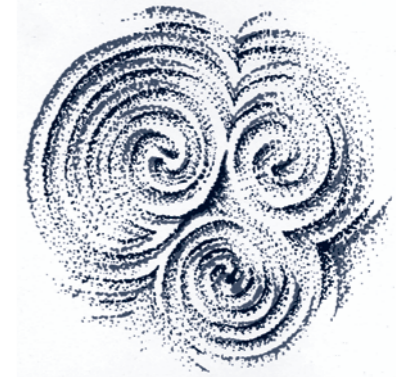
Publication and thoughts for the future

To equally make the insights we gained at the workshop more widely accessible, the contributions to the workshop will be published in an edited volume. Hopefully, this volume will be as successful for its readers as the meeting has been for the participants, in bringing specialists in one field much closer to the forefront of the debates of the other and ultimately driving forward our joint understandings of the transitions.

For more information on the workshop, a list of participants and abstracts of the papers see: <http://www.cbri.org.uk/Landscapes.shtm>.

Thomas Kador, UCD School of Archaeology, Dublin

PAST



NUMBER 57 November 2007

THE NEWSLETTER OF THE PREHISTORIC SOCIETY

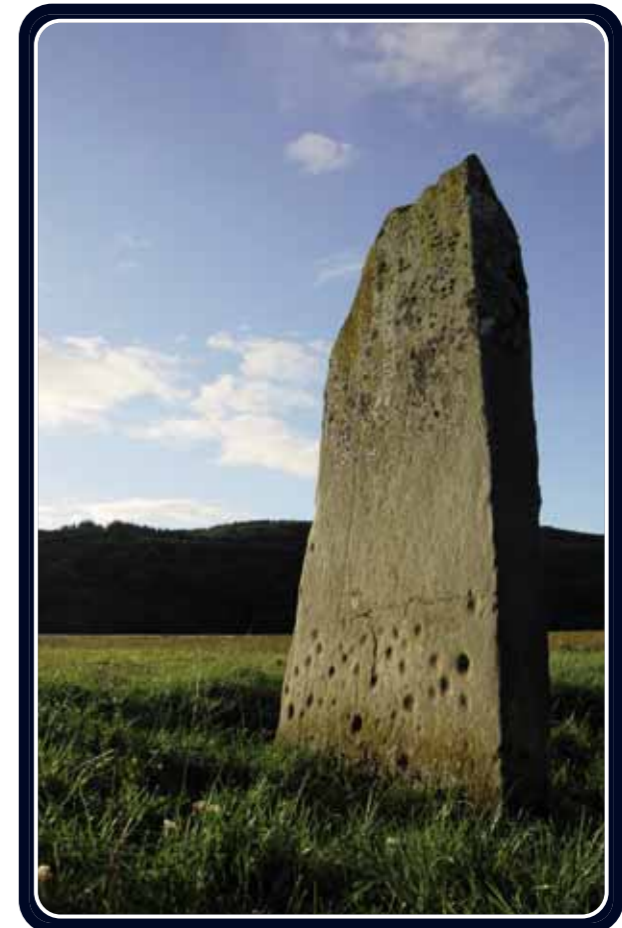
Registered Office University College London, Institute of Archaeology, 31-34 Gordon Square, London WC1H 0PY
<http://www.ucl.ac.uk/prehistoric/>

EXCAVATING ART: RECENT EXCAVATIONS AT THE ROCK ART SITES AT TORBHLAREN, NEAR KILMARTIN, MID-ARGYLL, SCOTLAND

The Kilmartin region of Mid-Argyll is described as Scotland's richest prehistoric landscape. It is home to a dense concentration of Neolithic and Early Bronze Age monuments including a henge, stone circle, standing stones, stone alignments, chambered cairns and an impressive linear cemetery of round cairns. It also has over 250 individual rock art panels. In fact, it has the greatest concentration of prehistoric rock art in Britain. Kilmartin is therefore the perfect location to study the chronology and significance of the rock art tradition. Prehistoric rock art is poorly understood when we compare it with other sites and monuments of the Neolithic and Bronze Age; we are not even sure of its date. Should it be regarded as Neolithic, Bronze Age, or perhaps both? If it originated in the Neolithic, was it the Early Neolithic or Late Neolithic? Despite typological comparison with other decorated media, and analysis of carved panels re-used in monuments, the precise date range for the rock art tradition remains elusive.

One of the objectives of the Kilmartin rock art research project (2001-2007) is to assess whether a clearer chronological resolution can be established for prehistoric activity at rock art sites, and to understand how they relate to landscape change in this important prehistoric landscape. To that end, survey and excavation began at the rock art complex at Torbhlaren, Kilmichael Glen, in 2004. Excavations were completed this summer. When the

project began in 2001, the received wisdom was that there was little point in excavating around rock art sites since little had been found previously in the small trenches opened around *in situ* panels. However, around the time excavations began, there was a renaissance in excavations around rock art



The extant standing stone with cup marks at Torbhlaren (photograph by Aaron Watson)

The copy date for PAST 58 is 1 March 2008. Contributions to Joanna Brück, School of Archaeology, Newman Building, University College Dublin, Belfield, Dublin 4, Ireland. Email: joanna.bruck@ucd.ie Contributions on disc or as e-mail attachments are preferred (either word 6 or rtf files) but hardcopy is also accepted. Illustrations can be sent as drawings, slides, prints, tif or jpeg files. The book reviews editor is Dr Mike Allen, Wessex Archaeology, Portway House, Old Sarum Park, Salisbury, Wilts, SP4 6EB. Email: aea@themolluscs.com Queries over subscriptions and membership should go to the Society administrator Tessa Machling at the London address above.

sites, the exemplars being Blaze O'Connor's excavations at Drumirril, Ireland, in 2003, and Clive Waddington and Aron Mazel's work at Hunterheugh Crag, Northumberland, in 2004. Both projects demonstrated the value of excavating in close proximity to rock art sites, a fact that has also been borne out by the work at Torbhlaren.

Torbhlaren

The river valley complex at Torbhlaren consists of two decorated standing stones, one extant and one now fallen. In addition there are three known outcrop rock art panels situated in a linear formation (Torbhlaren 1, 2 and 2a). The outcrops consist of glacially smoothed epidiorite, with the largest, Torbhlaren 2, an impressive 'whale-backed' rock. Excavations were undertaken around the eastern edge of Torbhlaren 1 and southern face of Torbhlaren 2.

Excavations in 2004 at Torbharen 1 revealed a built platform consisting of laid clay with a cobbled stone pavement. The platform was around 0.4m high, and extended 1.5m out from the rock edge around the shallow end of the outcrop. A later excavation season confirmed that this platform enclosed the eastern face of the rock. The platform surface was covered in quartz, including unworked natural pebbles, hammerstones, and an extensive range of worked and unworked quartz was recovered from the initial 2004 excavation trench. Specialist post-excavation analysis is expected to confirm the presence of a range of quartz tool types from the site. Situated on the platform surface was a small scoop feature filled with a charcoal-rich deposit which also produced worked quartz and a hammerstone. The presence of stone built platforms, although unusual for Britain, has frequently been documented at rock art sites in Scandinavia. Indeed, in the excavated Swedish examples, such platforms are often covered in quartz.

Excavation at Torbhlaren 1 in 2006 demonstrated that activity at the southern end of the platform included the construction of a small post-built structure, around 1.5m in diameter, against the rock edge. This was distinguished by a spread of orange clay - possibly the remains of a floor surface or collapsed daub. Flakes of knapped quartz were excavated from this surface, as well as from the surrounding platform. The structure was ultimately destroyed by fire, leaving a number of small charcoal-rich postholes which we hope will provide radiocarbon dates. At some interval after this event, a low stone-walled revetment was constructed over the site of the former structure, forming a later component of the platform. The resemblance of the structure to a number of timber structures excavated elsewhere in Scotland raises the possibility that it may be Neolithic in date, and the

burning of timber constructions is increasingly being recognised as typical of this period of Scottish prehistory.



View of the structure floor at Torbhlaren 1
(photograph by Aaron Watson)

Cracks and fissures as places of deposition

The 2001 season was concerned with characterising the actual outcrop surfaces that feature rock art throughout the Kilmartin region. Analysis by Jones indicated a systematic relationship between rocks with cracked and fissured surfaces and the presence of rock art; smooth uncracked surfaces were ignored in favour of cracked and fissured surfaces. Moreover, cracks and fissures of certain shape and formation seem to be repeatedly associated with particular motif types. As in rock art traditions in other parts of the world, this demonstrates the importance of these natural features, which frequently 'frame' groups of motifs, to those who produced the carvings.

Drawing on evidence for the deposition of cultural material in fissures at Danish sites excavated by Flemming Kaul, 13 major cracks and fissures on Torbhlaren 1 and a single major fissure running laterally down Torbhlaren 2 were excavated during the 2006 season. This revealed that the majority of the fissures contained worked lithics, predominantly quartz, as well as possible hammerstones. In one fissure at Torbhlaren 1, there was evidence for two phases of deposition separated by a clay deposit. The major fissure running down Torbhlaren 2 also produced a flint pebble and quartz flake, both deposited beside an area of cup and ring motifs newly discovered during the excavation.

Rock art sites as stone quarries

Rock art outcrops are known to act as quarries both in Britain, for example at Hunterheugh Crag and Fowberry Plantation, Northumberland, and Greenland, Dumbarton, as well as in other regions, such as at the Sami rock art site at Badjelánnda, Lapponia, Sweden. The possibility that the rock outcrops at Torbhlaren were being quarried was

mooted in the 2006 season when the large tabular sections of outcrop at the southern end of Torbhlaren 2 were noted to be of remarkably similar geological form to the extant standing stone. Both standing stones at Torbhlaren had originally been erected so that each was adjacent to, and roughly equidistant from, one of the two largest outcrops. However, Torbhlaren 2 had also been subject to modern quarry activity, and so it was important to establish whether any potentially prehistoric quarrying could be distinguished from this later evidence.

The substantial southern face of the outcrop features a stepped surface where upright tabular segments of the stone had once been attached, and where some extant segments are partially separated from the outcrop. During the 2007 fieldwork, the series of crevices and ledges above and below these extant segments was excavated. In the lower ledge, we uncovered a deposit containing worked quartz. This overlay an outcrop surface in the form of the base of a snapped tabular upright, exhibiting a freshly exposed and unweathered surface. Immediately above this surface, in the layer containing worked quartz, was a deposit consisting of a broken quartz pebble with its two halves neatly arranged either side of a rounded piece of quartz, and capped by a possible hammerstone. Just behind the snapped base was a fissure in which flakes of the outcrop were lodged. The presence of the deliberately placed deposit directly on top of the fresh, unweathered outcrop surface raises the possibility that the tabular section of stone was deliberately extracted.

The idea that people were quarrying the outcrop during prehistory was further supported by finds on the upper ledge, high up on the 'nose' of the outcrop, some 2.5m from the base. Again, flakes of the outcrop with fresh breakage surfaces were recovered from within a deposit associated with worked lithics and sealed by rock tumble. The deposit consisted of a layer of fine clean laid clay that also yielded a flint scraper. Worked flint and a flake of pitchstone were also recovered from the surface of the clay deposit and the surrounding outcrop crevices. Pitchstone is known to outcrop on the Isle of Arran and current understanding suggests it was predominantly exploited by prehistoric communities from the Mesolithic to the Neolithic.

A small scoop feature containing a charcoal-rich deposit had been dug into the clay layer, and this yielded lithic material that had been deliberately deposited at its base. In addition, we also have possible evidence for the quarrying of quartz veins from this face, with veins exhibiting signs of extraction, and fragments of quartz which retain pieces of native outcrop rock present in the cultural deposits. Overall, the finds

from the southern end of Torbhlaren 2 provide compelling support for quarrying activity at the site, associated with the working and/or use of quartz, flint and pitchstone.

Conclusion

We await the radiocarbon dates for the activity uncovered by the excavations at Torbhlaren with considerable anticipation. It is likely that we will witness a spread of dates for the various phases of activity at the site. If evidence for Neolithic activity can be confirmed, we will be able to compare the results with the evidence from Drumirril, Ireland, where earlier Neolithic pottery sherds were recovered adjacent to rock art panels. We can also then begin to assess how the phases of activity may have related to the actual carving events. The excavations have demonstrated that rock art sites are much more than isolated decorated rocks, and our research approaches need to breathe new life into these sites by considering how they relate to the other sites and monuments of the Neolithic and Bronze Age.

Acknowledgements

We would especially like to thank the farmer, Mr. Black who, year on year, has allowed access to the sites on his land at Torbhlaren. We would also like to thank the field team which included Dr. Joakim Goldhahn, Dr. Lara Bacelar Alves, Dr. Aaron Watson, Davina and Paul Freedman, Dr Hannah Sackett, Dr. Andrew Cochrane, Dr Tertia Barnett, Peter Klemen, Kate Sharpe, Marie-Anne Bunton, Lucinda Naylor, Sue Bradshaw and Gill Robertson. The excavations were funded by the British Academy, the Society of Antiquaries of London, Society of Antiquaries of Scotland and the University of Southampton, with additional support from the UCD Humanities Institute of Ireland and UCD School of Archaeology.

Andrew Jones (University of Southampton) and Blaze O'Connor (University College Dublin)

INQUA CONFERENCE, CAIRNS 2007

The Conference of the International Quaternary Association was held this year in Cairns, Australia, and through several grants, including one from the Prehistoric Society, I was able to raise sufficient funds to attend and to present several papers. As a Palaeolithic archaeologist with a strong interest in geoarchaeology and landscape evolution, I also signed up for one of the pre-conference fieldtrips to some of the more remote areas of Australia. This was led by Dr Gerald Nanson of Wollongong University and focussed on the Quaternary environments of eastern central Australia. There were twenty-six participants from a wide range of academic

disciplines and seven different countries, which certainly made the long journeys through the outback as entertaining as the surprisingly varied scenery. The fieldtrip covered a vast area between 19th and 27th July - altogether about 2,800 km (1740 miles).

We visited numerous sites of both geological and archaeological significance staying initially at motels but as we travelled to more remote areas, at sheep-shearers' quarters and in tents. We saw all the wildlife one would expect - kangaroos, emus, dingoes, an amazing variety of birds - and often at rather closer quarters than anticipated! The primary focus was on Quaternary landscape change, with particular emphasis on fluvial and aeolian processes. Of particular interest was the visit to "The Great Walls of China" at Lake Mungo, a location where some of the earliest remains of *Homo sapiens* known in Australia have been found, as well as numerous well-preserved footprints dated to around 20,000 BP. The exact locations of these sites are strictly protected for political reasons, but simply seeing the landscape put a completely different perspective on the interpretation and appreciation of these sites for several members of the group including myself.



Having travelled from the riverine plain to Lake Mungo in New South Wales, we continued through the famous mining town of Broken Hill and spent a very cold night at shearers' quarters at Erudina. Here we were hosted by the remarkable John McEntee, a farmer with an incredible knowledge of the surrounding landscape, geology, history, ethnography and a superb linguist who is now the last speaker of several Aboriginal languages. We drove on through the spectacular Flinders Ranges to Lake Eyre. Again we stayed in shearers' quarters on a farm where it has not rained for seven years; the main water supply came from hot (and rather sulphurous) springs. Finally we travelled through the Strezleicki Desert of South Australia, and the Channel Country of South West Queensland. Close to Innaminka and Cooper Creek we came across an unnamed Aboriginal site that may have been a burial site, and had certainly been used repeatedly as a knapping location. It was in this area that the famous Burke and Wills perished in their attempt to cross the Australian continent from south to north,



partly because they refused to accept the help of Aboriginal peoples.

Despite the loss of a vehicle and a few technical hitches with the remaining vehicle, Gerald Nanson completed both a remarkable feat of driving and a superb fieldtrip by managing to get us to the airport in time to catch our flights up to Cairns for INQUA 2007. The conference was well attended, with some particularly stimulating sessions on human evolution, advances in dating techniques, and refugia. I presented some results of my PhD thesis in a paper entitled "*Middle Stone Age site distributions in East Africa and their relationship to Quaternary environmental change, refugia and the evolution of Homo sapiens*" in the Ice Age Refugia/Great Arc of Human Dispersal session. This paper discussed where and how hominin populations in East Africa could have become isolated and presented a new "push and pull" hypothesis for a subsequent expansion and movements of *Homo sapiens*. In the session, I also presented a co-authored paper (Laura Basell, Tony Brown, Phillip Toms, Rob Hosfield) on "*Developing the First Chronostratigraphic Framework for Fluvial Deposits and Associated Palaeolithic Archaeology in South-West England*". I am extremely grateful to the Prehistoric Society for its support in helping me fund part of the airfare to attend a fieldtrip and conference which were both extremely rewarding and instructive.

Dr Laura Basell, Research Laboratory for Archaeology & The History of Art, University of Oxford

THE IRISH EARLY NEOLITHIC HOUSE – NEW INSIGHTS?

Introduction

Since the late 1990s, large numbers of archaeological surveys and excavation projects have been carried out in Ireland as the result of development pressures. This development-led excavation has uncovered an increasingly diverse range of prehistoric settlement remains, such as spreads of pits and postholes, ditches and enclosures, lithic scatters and circular structures. One of the most exciting series of discoveries has been that of Early Neolithic timber

houses. Just 14 examples were recorded by Grogan in 1996; in ten years, this number has jumped to over 70. Rectangular timber houses are now recognised as a key feature of the early fourth millennium BC in Ireland and have recently formed part of PhD research undertaken by this author to re-assess the nature of Neolithic settlement across the island. The following article will summarise some of the more interesting aspects of this very early timber architecture.

Ritual or domestic?

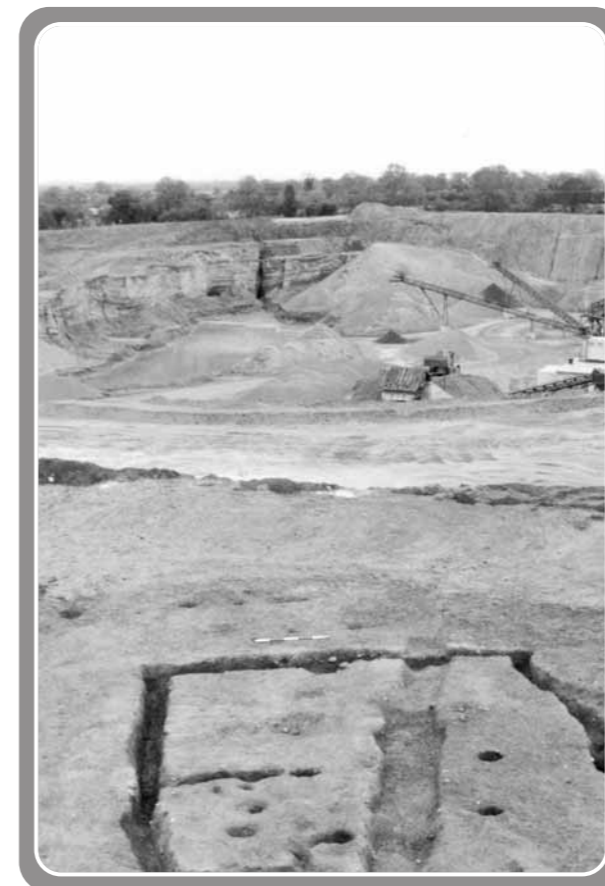
Several different views have been expressed on the function of Irish Early Neolithic rectangular buildings. They have been variously interpreted as ritual or ceremonial nodes, as domestic houses and as halls for feasting. Generally speaking, such views can be seen as emerging from wider interpretative frameworks for the Neolithic settlement of Britain and Ireland. Authors working within areas lacking substantial settlement evidence, such as southern Britain, have viewed the Irish 'houses' as periodic communal meeting places, tethers for an otherwise largely mobile population, while in Ireland, where there is very visible evidence for permanent and organised settlement from early in the fourth millennium BC (for example the Céide fields), archaeologists have been more comfortable with

the idea of a sedentary Neolithic and more willing to assign a domestic role to Neolithic buildings. Certainly, the nature of the artefacts and ecofacts associated with these Early Neolithic buildings suggests an important link to domestic and agricultural spheres. However, the varying quality and quantity of site assemblages and the varied site morphologies would suggest that at least some were used in different ways and for different lengths of time. A close look at the contextual detail of these buildings indicates that as well as providing shelter and a focus for activities such as tool-production and the preparation of food, the Irish Early Neolithic house had an important symbolic role in society.

Digging and filling

The potential symbolism of breaking into the earth has been noted by several authors, and acts of digging and filling are considered an important part of how Neolithic people related to their material world. Incidences of deliberate deposition have been noted in the excavation reports of Irish Early Neolithic houses. However, little or no attempt has been made to draw these observations into a wider discussion about the meaning of such practices in society. One indication that houses may have provided a setting for formal acts of digging and filling is the special attention paid to the digging of foundation trenches. A significant number of houses have had their foundation trenches dug as one continuous unit and at several sites this even involved hacking through underlying bedrock. Some house foundation trenches also seem to have been deliberately infilled post-abandonment. At Ballygalley, Co. Antrim, several of the buildings appear to have had their posts and timbers removed and the cavity either filled in or covered over by pebbles or stone slabs.

Discrete deposits of material were also deliberately placed in the trenches, postholes and pits of these houses. Arrowheads, axes and sherds of pottery are



House 5, Corbally, Co. Kildare. Photo: John Sunderland.



Axe in foundation trench, House 4, Corbally, Co. Kildare

the most common types of objects found but beads, blades, scrapers and knives have also been recovered. In the foundation trench of a house at Corbally, Co. Kildare, an axe was found positioned blade up partially surrounded by a ring of pottery sherds. At Ballyharry, Co. Antrim, one of the houses contained an axe and an arrowhead placed blade edge and point downwards respectively behind packing stones in the eastern and western walls. Objects or finished artefacts are not the only items to be deposited: at Cruicerath, Co Meath, deposits of burnt bone as well as pottery sherds were found at the bases of several postholes in the wall of the house, while at Tankardstown, Co. Limerick, burnt bone was found in the basal layers of the foundation trench fill of House 1.

It is tempting to view this kind of material as the remains of formal acts of deposition carried out at certain points in the 'life' of a house. The axe recovered from the Corbally house was identified as a foundation deposit by the excavator, while at Ballyharry, the axe and the arrowhead were deposited when the western and eastern side walls of the house were rebuilt. The deposits of bone from the trench of House 1 at Tankardstown South and the bone and pottery from the bottom of postholes in the Cruicerath house have also been interpreted as foundation deposits. At this latter site, a possible axe was found *in situ* immediately over a posthole in the northwest side wall and according to the excavator was probably placed there following the destruction of the house.

Death and burning?

At over half of the Irish house sites, the substantial burning of structures has been recorded, another indication that houses were a focus of ceremony and ritualised practice in the Early Neolithic. Evidence for burning varies from site to site and from house to house. There is little doubt in some cases that timbers have been burnt *in situ*, where the substantial remains of charred post or plank ends can be seen along the trench base. In others, the evidence is less clear-cut. Quite frequently intense burning can be concentrated in one or several parts of a building or, at sites where there are multiple houses, one structure may be intensively burnt, with only slight or partial burning of the other buildings.

A common interpretation is that these timber houses burnt down in accidental fires, or that they were subject to violent attack. Experimental studies and observations in the field have suggested that it would have taken a considerable amount of effort and, above all, *time* to achieve the extensive levels of burning seen on some sites and it seems likely that neither accidental nor violent conflagrations burned long enough, and perhaps intensely enough, to char

substantial timbers completely. Another common explanation is that timbers were charred before being erected in order to preserve the wood in the ground and to stop or inhibit decay. However, wooden elements placed in the ground will start to decay at ground level, where there is both air and moisture, while charring the bases of timbers all the way through - essentially turning them into brittle charcoal - makes them structurally useless and defeats the purpose of fire-hardening. The evidence we have from several sites for just such complete burning makes arguments for the control of rot or other infestations seem more than a little unlikely. What may instead be happening is that houses were being deliberately burnt down at the end of their 'lives' or the lives of certain occupants, the element of fire symbolising death, transformation or purification. At sites where timbers seem to have been charred before they were placed in the ground, we may be witnessing the remains of past rites of transformation, where wood was 'treated' by fire before it became part of a house. In some parts of southeast Asia, trees and the spirits that dwell in them have to be tamed before they can become house timbers. Where we have evidence for only partial burning of structures, we might perhaps be seeing a token use of fire, a *pars pro toto* burning connected with specific rites of passage or of daily life.

Whatever the reasons for, or sequences of, events at these sites, we cannot ignore the strong evidence for deliberate deposition and burning. It suggests that the function of these buildings extended far beyond the mere provision of shelter, and that they most likely had an important symbolic role, acting as a material expression of, and medium for, certain social beliefs and practices.

Dr Jessica Smyth, University College Dublin

Acknowledgements

The research summarised in this article was undertaken while in receipt of a Government of Ireland Scholarship, administered by the Irish Research Council for Humanities and Social Sciences.

BITTING DAMAGE: INVESTIGATING PREHISTORIC HORSE USE

The domestication of the wild horse brought into human control an animal that revolutionised transport, warfare and trade. However, relatively little is known about the uses that horses were put to from archaeological remains. One avenue of research is to look for 'damage' to the skeletal tissues of the mouth that might show that a horse was ridden or driven with a bit.



Anterior view of left P₂ from Bury Hill, Hampshire, exhibiting a parallel-sided band of enamel exposure suggestive of biting damage

Over the past forty years, various studies have identified 'bit wear' on lower second premolars (P₂s). In all these studies, attention has been focussed on changes causing bevelling on the 'front' part of the occlusal (chewing) surface of these teeth. In contrast to these earlier studies, new research (published in *Journal of Archaeological Science* 34:7, July 2007) concludes that identifiable biting damage occurs more frequently on the 'front', or anterior, edge of the tooth.

When a horse is bitted, the bit is placed in the mouth on the mandibular diastema, the bridge of bone between the front teeth and the cheek teeth. Bands

of enamel exposure on the anterior edge of horse P₂s are argued as deriving from a bit coming into contact with the front edge of the tooth and wearing away a strip of cementum to expose the enamel beneath. More severe biting damage can also expose areas of dentine below the enamel. However, a note of caution is required - not all enamel exposure on the anterior border of P₂s is due to biting. This is a relatively exposed site and other forms of damage can occur, such as dietary wear. Interpretations must therefore be based on the size and shape of the area exposed.

Application of this new method to samples of horse teeth from the Iron Age hillforts of Danebury and Bury Hill - both sites in Hampshire, England - identified that the majority of horses examined exhibited evidence suggestive of biting damage. That this is the case for Iron Age horses is perhaps not surprising, but has not previously been proven or provable.

In addition, preliminary microscopic analyses of the anterior surface of P₂s, using scanning electron microscopy (SEM) and X-ray microanalysis, suggested microtrauma damage to the front of the teeth and also identified traces of iron, probably from contact with iron bits. These initial results show significant potential and are currently the subject of ongoing funded research to establish reliable microscopic criteria for the identification of biting damage.

Robin Bendrey, University of Winchester
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SEM imaging of anterior enamel exposure on P₂ from Danebury, Hampshire: a) - anterior view of P₂ showing band of enamel exposure (black rectangle denotes area of analysis under SEM); b) - SEM image of anterior enamel band. The lighter patches are areas of iron-rich residue. Scale = 100 μm.

SOCIETY NEWS

The Seventh Sara Champion Memorial Lecture was held at the Society of Antiquaries of London on the 24th October 2007, when Dr. Jodie Lewis (Archaeology and Landscape Studies, University of Worcester) presented a paper on 'A crystal world from weeping stone: considering the relations between Neolithic cave use and monument construction on the Mendip Hills, Somerset.' Jodie sought to relate three entities - caves with their Early Neolithic and Late Neolithic human remains and artefacts, megalithic monuments with possibly coeval burials, and swallets - liminal places replete with wind and water noises, attracting frost and mist, with upward air flows and abrupt downward-sinking movements into the ground. Swallets received structured deposits of human bones and fancy artifacts only in the Late Neolithic. In an interesting interplay between culture and nature, Jodie proposed that the use of caves and swallets in the Late Neolithic marked a status-related exposure to danger, thereby identifying a different kind of Neolithic person - the 'climber/caver'.

John Chapman (Vice President & Durham University)

IMPORTANT: ARE YOU A STAR?

Please look closely at the top right hand corner of your copy of *PAST*. Do you have a coloured star? If so, then you are NOT up-to-date with your subscription for the current year. If you have not paid the FULL amount at one of the following rates, then your subscription will be invalid and you will not be sent *PPS* when it is published. Rates for 2007 are as follows: £35 Ordinary Members, £25 Retired with *PPS*, £17.50 Student, £12.50 Retired without *PPS* and £50 for Institutional Members. Joint membership for any of the above (not including Institutional membership) is £5. Should you wish to, 2008 subs can be paid at the same time (a yellow subscription form has been included with this mailing).

If you are in any doubt about the status of your subscription, please contact our administrator Tessa Machling at the address below, or by email at prehistoric@ucl.ac.uk. Cheques should be made payable to 'The Prehistoric Society' and sent to: The Prehistoric Society, Institute of Archaeology, 31-34 Gordon Square, London, WC1H 0PY. Many thanks for your support!



Many thanks to Dr James Dyer for sending in this photograph, which may interest older members of the Society. Dr Dyer writes, "It shows Miss Mollie Bull, Assistant Secretary of the Society from 1952-1975 (and a Life Member) emerging from the iron mine inside the hillfort at Lydney, Gloucestershire, assisted by myself. It was taken on a Society visit about 1954. Miss Bull now lives in retirement at Rawtenstall in Lancashire and enjoys good health."

CONFERENCES, MEETINGS AND OTHER NEWS

Childe fifty years after

One-day conference to be held in the Department of Archaeology, Durham University, 1 December 2007, 10am-6pm.

Papers by Prof. Jacek Lech, 'V. Gordon Childe: an archaeologist looks at History'; Prof. Timothy Champion, 'Childe and Oxford'; Dr Ian Ralston, 'Gordon Childe - the Edinburgh years'; Prof David Harris, 'Childe at the London Institute of Archaeology'; Dr Margarita Diaz-Andreu, 'The international context of Childe's reception'; Dr John Chapman, 'The Danube in [settlement] prehistory - 80 years on'; Prof. Elzbieta Jastrzebowska, 'Gordon Childe and Late Classical Antiquity'; Prof. Robin Coningham and Mr Mark Manuel, 'Willing subordination'; Prof. Rowley-Conwy, 'Culture, System, Context: What goes around, comes around'; Mr Peter Gathercole, 'Childe and the Sociology of Knowledge'. No registration needed; no fee to pay. Funded by the Prehistoric Society in conjunction with Durham University and the AREA project. For further information, contact M.Diaz-Andreu@durham.ac.uk

Round barrows, cemeteries and exceptional grave goods: the early 2nd millennium BC

Joint Prehistoric Society/Norfolk & Norwich Archaeological Society lecture; speaker Andrew Lawson Town Close Auditorium, Norwich Castle Museum, Norwich, Sat 12 January 2008, 2.30pm

Sark - a sacred island? Some prehistoric maritime interactions

Joint Prehistoric Society/Devon Archaeological Society lecture; speaker Prof. Barry Cunliffe Exeter Guildhall, Exeter, Weds 16 January 2008, reception 7.30pm, lecture 8pm. Please note that this is a smaller venue than usual, so tickets must be booked in advance (no charge); contact jillcoble@tiscali.co.uk.

Britons in the Celtic world: contrasting perspectives

Europa day-conference 2008, Sat 17 May 2008, Martin Wood Lecture Theatre, Department of Physics, University of Oxford

The Europa Prize, endowed by the late Professor Sir Grahame Clark, is awarded annually to someone who has made an outstanding contribution to European prehistory. There have been former prizewinners from the Czech Republic, France, Germany, Ireland, Italy, the Netherlands, Poland, Portugal, Spain, Sweden and Switzerland. The 2008 Europa prizewinner is Professor Sir Barry Cunliffe, who retires in November 2007 after 35 years as Professor of European Archaeology at the University of Oxford. Starting in 2008, the annual Europa Lecture, given by the prizewinner, will form the centrepiece of a day-conference on a related theme. This, the first of our new annual Europa day-conferences, will draw together archaeologists, linguists, and geneticists, featuring two speakers from each discipline with rather different views, before culminating in Professor Cunliffe's own lecture, entitled 'A race apart? Insularity and connectivity'. The other speakers are: Archaeologists - Professor John Waddell, Department of Archaeology, National University of Ireland Galway, and Dr Brendan O'Connor, Edinburgh. Linguists - Peter Schrijver, Professor of Celtic Studies, University of Utrecht, The Netherlands, and Professor John Koch, Senior Research Fellow at the University of Wales Centre for Advanced Welsh & Celtic Studies, National Library of Wales, Aberystwyth. Geneticists - Professor Sir Walter Bodmer, University of Oxford, and Professor Stephen Oppenheimer, University of Oxford. The Society's AGM will be held immediately before the presentation of the Europa prize at the start of Professor Cunliffe's lecture.

Palaeolithic Research Framework

In 1999, the Prehistoric Society published 'Research Frameworks for the Palaeolithic and Mesolithic of Britain and Ireland'. The Palaeolithic part of the document is now being revised and updated to reflect the significant advances of the last eight years. A draft text is now available on-line for a period of consultation, and the new research framework will be launched next year. See the Prehistoric Society website for links and further details. Please also look at the website for more information about the launch of the English Heritage Research Strategy for Prehistory, as referred to in *PAST* 55 (April 2007)

ERRATUM

Please note that the date published in the last issue of *PAST* for the joint Prehistoric Society/Society of Antiquaries of Scotland lecture by Prof. John Coles ('Forgotten sites and elusive images: prehistoric rock carvings of southern Scandinavia') was listed incorrectly as 10 October. The correct date is 10 December, and the lecture will take place at 6pm in the lecture theatre, National Museum, Edinburgh.

RUN OF PPS FOR SALE

Available for purchase in the Colchester area: *Proceedings of the Prehistoric Society* 1944-1953. For information, please contact Helen Capon at capon@sumr45.freeserve.co.uk or telephone 01206 796440.

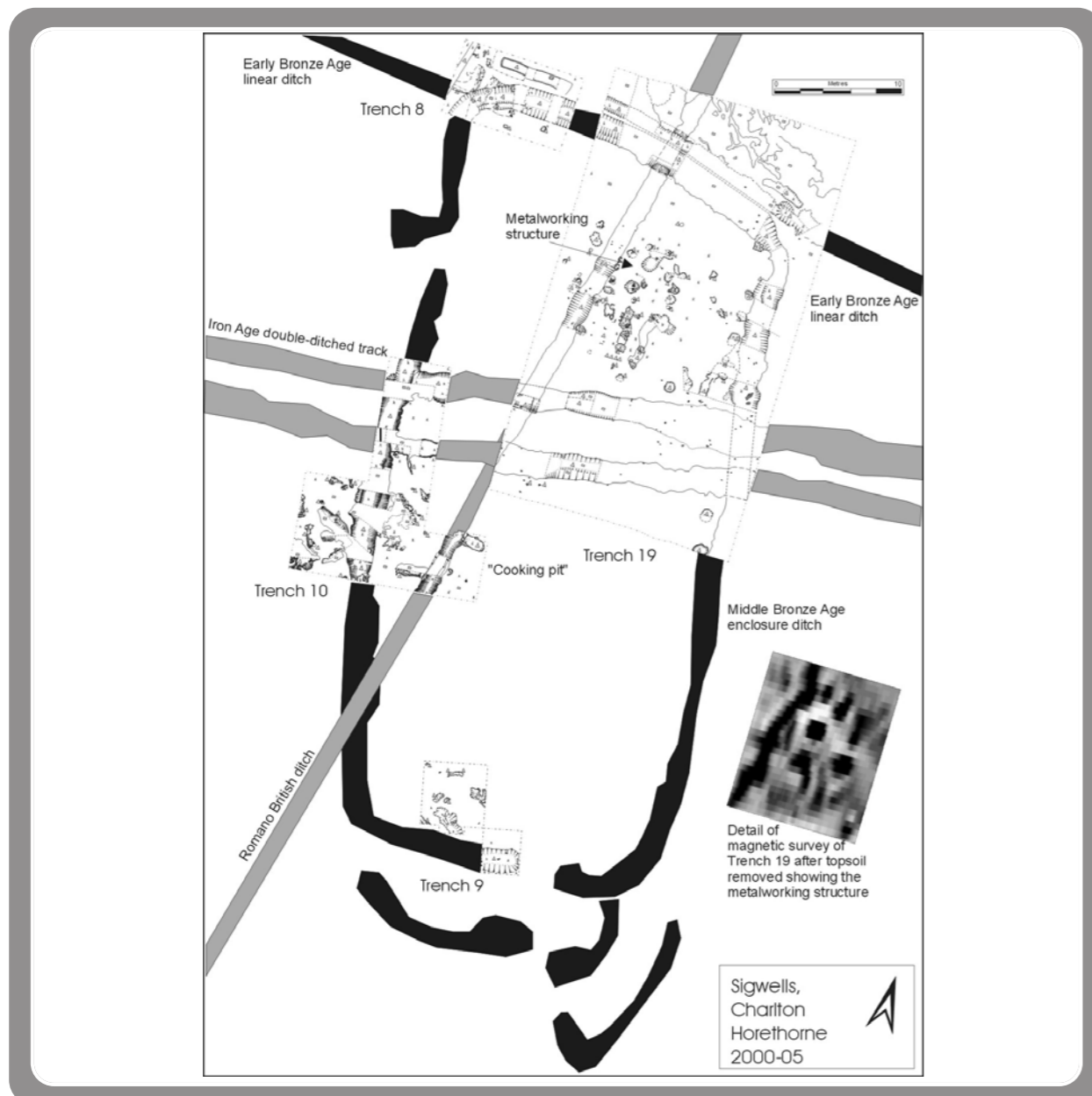
A MIDDLE BRONZE AGE METALWORKING BUILDING AND ENCLOSURE AT SIGWELLS, SOMERSET, ENGLAND

South Cadbury Environs Project

The South Cadbury Environs Project is a long-term landscape survey project centred on the Iron Age hillfort of Cadbury Castle at the neck of Britain's south-west peninsula. The project combines geophysical survey, regular and targeted test-pitting and excavation to discover and date patterns of landscape division and use from the Neolithic onwards. It is funded by the Arts and Humanities Research Council.

The study area comprises an eight by eight kilometre square centred on the hillfort. Six localities varying in area from one to four square kilometres and totalling eleven square kilometres were selected for stratified sampling to investigate the area's geology, topography and drainage. The principal techniques used were geophysical survey, excavation of one 1m square test pit to the natural per hectare and trial trenching.

Material of all periods was collected and plotted but the particular methodology was designed in response to the failure of two very different landscape surveys around the southern British hillforts of Danebury, Hampshire, and Maiden Castle, Dorset, to find evidence of nearby settlement contemporary with their Middle Iron Age zeniths. The former relied on site-based excavation linked to the existing archive and air photographic interpretation while the latter depended largely on surface survey. Our contention is that there needs to be an effective means for widespread data collection, but because the characteristic datable artefact from the Middle Bronze Age to the Late Iron Age is friable pottery, its absence is not reliable negative evidence. Surface



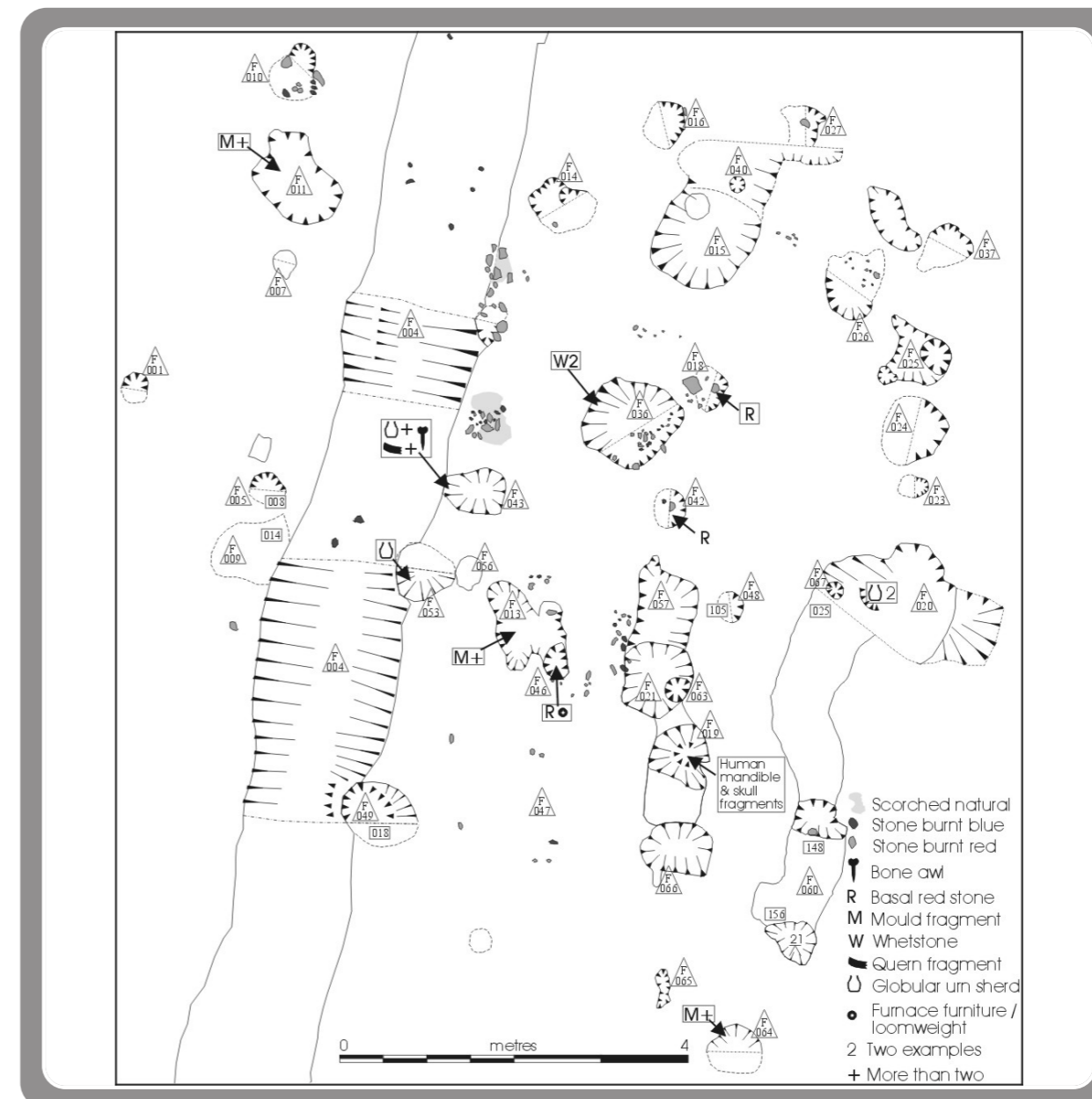
collection also fails to take into account distortions due to soil movement, a problem very effectively demonstrated by our test pits.

The inherent disadvantages of test pits are the labour required and the wide intervals between them compared with surface survey. These have been entirely offset by the frequency of diagnostic later prehistoric pottery, much of it associated with geophysical anomalies. It has been possible to create a phased sequence of land division and use extending from the Early Bronze Age to the Medieval period over parts of the study area. In addition to this general picture, there have been important specific discoveries including part of an Early Neolithic pit alignment and occupation area, a linear boundary system predating an Early Bronze Age barrow, an extensive group of Middle Bronze Age burnt mounds, a Late Bronze ringwork, Middle to Late Iron Age settlement, events specifically associated with the early Roman occupation, and two

important Middle Bronze Age enclosures. A shield probably made in the twelfth century BC was found in the Late Bronze Age upper fills of one of the latter enclosures, while the earliest known British metalworking building was found in the other, as summarised below.

Sigwells metalworking enclosure

A gradiometer survey using a Geoscan FM36 completed in 1996 over an 18ha field at Sigwells, Charlton Horethorne, revealed complex patterns of enclosure systems including a 30m x 60m rectilinear. Its north boundary respected one of four west-north-west to east-south-east linear ditches proven by excavations and targeted test-pits to be Early Bronze Age. It was cut by the ditches of an Iron Age track and a Romano-British linear. The data suggests that it had a south entrance with complex external features and a less elaborate entrance towards the north end of the west boundary. Between 2000 and 2005, four trenches explored the enclosure's south



entrance, north, east and west ditches and north interior, the latter targeting a roughly circular area of enhanced magnetism.

Sequence

Sections across the east ditch showed three phases. In the first, it had silted up slowly before being recut. In its second phase, the ditch had not been open long enough for any silt to accumulate on its bottom before a rubble fill was thrown in from the inside. Had the ditch been open for a winter, or even during a single heavy rain storm, some basal silt would have been present. After backfilling, shallow cylindrical pits were dug at approximately 2m intervals in a line along at least 20m of the inside edge of the ditch. This side of the enclosure displays the sequence most clearly, although some sections on the west side show traces of a slow-filling phase before the rapid rubble fill cut. The rubble fill was recut on the west

side over a 12m length, revealing weathered natural rock where it had filled slowly. The terminus at the south entrance showed only one phase, a rapid rubble fill. The siting of the enclosure's north ditch was determined by and incorporated the passage between the north and south sides of the Early Bronze Age linear. In its first form, the enclosure appears to have used the existing linear but later a ditch specific to it was dug and part rapidly backfilled with rubble, with its upper portion left open, effectively assuming the function of the old boundary, and possibly associated with the cylindrical pits.

Three trenches dug in 2000 and 2002 were designed to investigate the enclosure's relationship with features of the wider landscape. The discovery of casting mould fragments suggested that the magnetic anomaly-rich north end had been the site of

metalworking so the final large trench was targeted there. A 2.5m long area of natural rock intermittently scorched red was found next to the Romano-British linear and within the west arc of a circle of postholes and shallow, rubble-filled scoops.

The area of scorching is all that remains of a hearth or furnace where copper alloy was heated for casting on the west side of a circular building associated with the middle phase. Although the Romano-British ditch has removed a nearly 2m wide swathe from the west of the building, we can determine something of its layout. Centred on a 40cm diameter packed post, access was gained to the east side of the slightly oval structure via a 4m long, 1m wide corridor from the south, the entrance to which was partly obscured by an outlying post to its south. The interior was divided by a screen or partition wall supported by much less substantial posts extending from south to north in a continuation of the line of the corridor's west side. Shallow scoops in the lee of the building were filled with burnt stone (mainly of a bluish grey colour implying that the fire had been enclosed) mixed with 92 casting mould fragments in an assemblage of 529 from the four trenches.

Deliberate deposits including large quern fragments, mould fragments, whetstones (two in the central post hole), a perforated furnace spacer, bone tools, globular urn-type decorated sherds, a human mandible with burnt cranium pieces and individual red burnt stones show that most if not all of the posts associated with the structure were removed from their sockets.

Analysis of the excavated animal bone identified a conservative minimum of four cattle, four sheep/goats, two pigs and a single red deer with remains from at least three sheep and one cow in a cooking trough. Its rapid rubble fill, many of the stones burnt, included large sherds from a minimum of eight globular urn-type vessels and a serving bowl or dish. Other significant bone included discrete deposits of mandibles in the north and south ditches.

Five different saddle querns testify to the production of cereal-based foods. They are from at least four different sources. A red igneous and a greensand quern placed side by side in the west enclosure ditch were from approximately 40km west and 15km east of Sigwells, while another in a posthole is of Mendip Old Red Sandstone from at least 22km north. The most remote example is likely to be from Wales. If this enclosure phase had been used over decades or more it would be acceptable to argue that the querns had been imported from time to time by a local population. This is an unlikely explanation when the period in question appears to have been no longer than a few weeks.

This very temporary enclosure was sited away from the more intensely settled areas of the period. We suggest that peripatetic metalworkers, perhaps from north Wales, were the focus for a gathering of members from several different communities from the region in an enclosure chosen for its highly visible but neutral location.

Future work

The project is intending to carry out intensive work over the areas of Neolithic and Bronze Age activity mentioned above and all areas threatened by agriculture. The new dataset would appear with the important evidence from the same timespan discovered at Cadbury Castle which remains unpublished.

Richard Tabor

READERS' COMMENTS

When theory tail wags data dog

Having published a number of radiocarbon dates from samples in direct association with Bronze Age metalwork a few years since, I was naturally drawn to David Barrowclough's piece in *PAST* 56 about a new date for a pegged socketed spearhead from Lancashire. It is a perfectly normal and common Late Bronze Age type, as all the literature attests, and it is good therefore to see an accordant radiocarbon determination (1080-890 cal BC). More puzzling is Barrowclough's suggestion that this type was specific to the Penard stage of metalworking (c. 1300 – 1150 BC), a time at which it was only beginning to be accepted by insular cultures. There is thus no need to seek elaborate interpretations in terms of artefact 'curation', however attractive and at times cogent such interpretations may be.

Stuart Needham

THE PAIRING OF ENCLOSURES: EXCAVATIONS AT WINNALL DOWN II, HAMPSHIRE

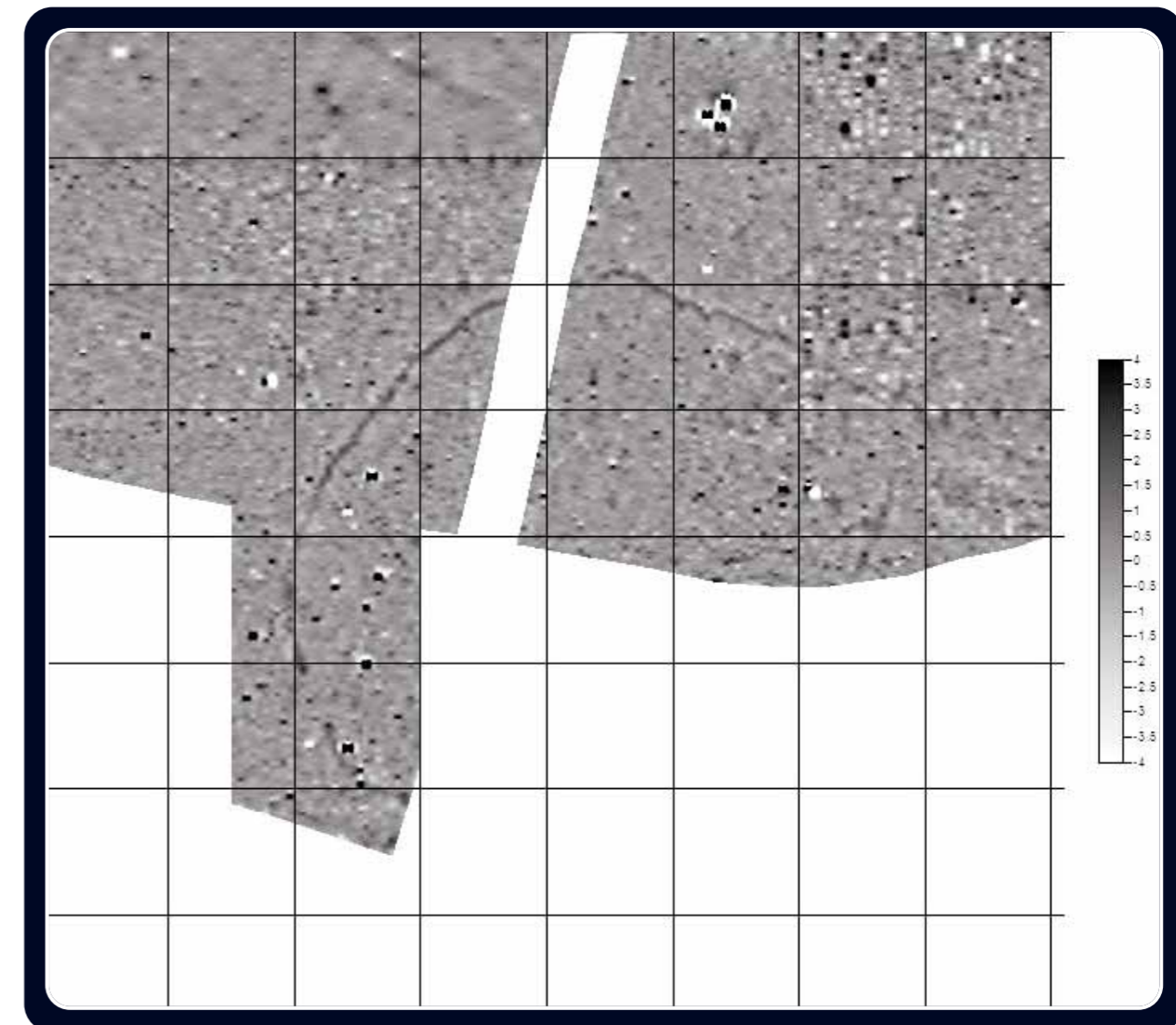
Less than two kilometres northeast of Winchester, a pair of enclosure complexes 300m apart, Winnall Down I and II, were discovered and photographed from the air by Colin Bowen in 1974. The subsequent excavation of Winnall Down I by Peter Fasham was a rare exercise, insofar as only a few Iron Age sites in Britain have been excavated to such an extent that their entire plans could be recorded. However, there was no attempt to examine the immediate adjacent enclosure, Winnall Down II. Its date and relationship to Winnall Down I was not known, although the plan and its proximity to Winnall Down I suggested that the two sites were similar, small enclosed settlements of the Early to Middle Iron Age (c. 600-200 BC).

Paired enclosure sites such as these, although not entirely uncommon in the Iron Age of southern Britain (e.g. Little Woodbury and Great Woodbury), have never been studied in any great detail. Consequently, several important questions have gone unanswered, most notably: were paired enclosure sites occupied contemporaneously? Further issues to be addressed include establishing the nature and density of any occupation within both enclosures, and whether this reflects a difference in function or the social status of individuals or family groups. Winnall Down II provided a perfect opportunity to conduct such an inter-site comparison.

The enclosure complex of Winnall Down II lies entirely within an area of fallow arable land owned by Mr Richard Cowen, who generously agreed for the project to go ahead in late August 2006. All of the fields in this area have undergone previous deep ploughing. This had disturbed the upper parts of the most recent archaeology at Winnall Down I. Preliminary small-scale fieldwalking over the site of Winnall Down II revealed small assemblages of

Middle Iron Age pottery, as well as several chance finds of Roman, medieval and more recent historical artefacts, which suggests that ploughing has been consistently threatening the archaeological deposits. The recent planting of trees on set-aside land covering the southern part of the enclosure complex provided a further threat to the archaeology.

As a preliminary to the work, a magnetic gradiometer survey was undertaken by Dr Tim Young of GeoArch and Oliver Davis of Cardiff University, which showed that Winnall Down II is characterised by a large oval enclosure ditch measuring around 100m across at its widest axis (southwest to northeast). This gives it an interior area of approximately 0.78ha, which is significantly larger than the 0.4ha enclosed by the 'D' shaped ditch at Winnall Down I. The enclosure is broadly similar in size and shape to the main enclosure identified by Collis at Owslebury, which lies around 7km to the south of Winnall. The gradiometer survey suggests an entrance 7-8m wide in the southwest curving side, although this was not



Gradiometer image of Winnall Down II

confirmed by excavation. A second entrance possibly exists in the northeast angle of the enclosure, although the data quality of the survey is poor in this area and the ditch may well be continuous here. Other features outside of the enclosure may also be ditches. These positive linear anomalies, however, are much less distinct than the enclosure ditch, and little separates them from lesser features, which include anomalies almost certainly due to ploughing.

The research aims for the excavation were modest, but primarily sought to date the layout of the enclosure so that its temporal relationship to Winnall Down I could be established. The preservation of structural remains within the enclosure was also to be assessed, as well as the threat presented to them by modern agricultural practices. To achieve this, it was decided to lay out two small trenches across the main enclosure ditch, one of which was sited within the area of recently planted trees to examine their threat to the archaeology. A further two trenches were laid out within the interior of the enclosure where the geophysical survey tentatively suggested internal features.



Section through the enclosure ditch

The enclosure ditch was 'U' shaped with a flat bottom, 1.3m wide and 0.9m deep below the surface of the chalk natural. Early Iron Age pottery was recovered from the ditch, which appears to have been rapidly, and deliberately, back-filled. Burnt flint, with its distinctive blue, cracked appearance, recovered from the upper fills of the ditch, may have been deliberately selected for the purpose of in-filling.

The enclosure ditch is relatively slight compared to other enclosure sites in Hampshire of similar internal size such as Little Somborne and Owslebury, but it would still have formed an effective physical barrier, especially if an internal bank existed. Although the pottery assemblage still needs to be characterised in detail, the absence of obvious 'saucepan' pottery

forms from within the enclosure ditch fills, suggests that it was probably initially set out in the Early Iron Age, and that by the early Middle Iron Age it had ceased to be a significant physical barrier (circa 600-350BC). It is therefore likely to be broadly contemporary with the enclosed phase of occupation at Winnall Down I.



Pits within the enclosure under excavation

The burnt flint within the upper fills of the enclosure ditch is unusual, but not extraordinary (large quantities of burnt flint were recognised in the upper fills of the enclosure ditch at Little Somborne). Burnt flint is conventionally interpreted as evidence for cooking/feasting activity or for roasting grain and its selection for the deliberate in-filling of the enclosure ditch is probably meaningful. Its distinctive blue colour and rough texture is significantly different to the natural chalk and flint nodules, and its association with specific activities may have been important. By in-filling the ditch with this material, the symbolic significance of the enclosure may have been enhanced as the physical significance decreased.

The function and status of the enclosure is difficult to assign from the limited excavation of the interior. No direct evidence for settlement in the form of structures was recovered, but the identification of two post-holes in Trench 3 suggests that such evidence is obtainable if a large enough area of the interior of the enclosure is excavated. Indeed, a pit complex identified in Trench 4 may be a quarry area similar to that found on many other enclosure sites throughout Hampshire such as Winnall Down I, Owslebury, Meon Hill, Flint Farm, and Rowbury Farm, but this is by no means certain. However, the pottery recovered from the pit fills indicates that some activity within the enclosure was contemporary with the use of the ditch.

Oliver Davis, School of History and Archaeology, Cardiff University

Acknowledgements

I am grateful to the Prehistoric Society and Cardiff University for providing the funds for me to carry out this excavation. My thanks are extended to the landowner, Mr Richard Cowen, for allowing these

excavations to take place, and to Mr Andy Elworthy and Miss Vanessa Fox of Vitacress for all of their logistical support and valuable time. In particular, I am grateful to Mr Niall Sharples for encouraging me, and for his support throughout. None of this work could have taken place without the help of Merryn Evans, Nick Wells, Kate Waddington, Tim Young, Jess Mills, Katherine Adams, Penny Bickle, and all of the students of Cardiff University whose time and effort was invaluable.

EAST MEETS WEST, THE AGRICULTURAL TRANSITION WAY

A review of 'Landscapes in Transition: Understanding Hunter-Gatherer and Farming Landscapes in the Early Holocene of Europe and the Levant'

The transition of European and southwest Asian communities towards agriculture has long occupied a central place in archaeological research and has frequently provided an arena for heated exchanges and debates. While recent renewed interest in these significant developments has emerged - for instance with the nature and timing of the Mesolithic-Neolithic transition seeing intensive research and debate - it has apparently never occurred to researchers from these two research traditions to come together to share and critically evaluate their approaches and to learn from each other's mistakes.

That is, until Bill Finlayson of the Council for British Research in the Levant (CBRL) and Graeme Warren of UCD School of Archaeology had the idea to facilitate such a meeting. Consequently, the CBRL's Jordan office hosted the *Landscapes in Transition* workshop from 25 to 30 March, 2007, representing an international gathering with the aim of improving our understanding of 'hunter-gatherer and farming landscapes in the early Holocene of Europe and the Levant'. The meeting placed particular emphasis on comparing and contrasting current research approaches and the datasets for the Mesolithic-Neolithic transition in Britain and Ireland with those from the Epi-Palaeolithic-Pre-pottery Neolithic interface in the Near East, centring on conceptions of and approaches to landscape within these wider chronological and geographic research foci. Participants were encouraged to address a number of questions including what it is that makes landscapes of hunting-gathering communities different from those of farming ones or whether such a perception is part of our archaeological understanding of 'change in terms of opposition and dichotomy'. They were also asked to outline how they study landscapes of these periods, addressing issues of scales of

analysis, similarities and differences between methodological approaches and whether landscape represents a useful medium to discuss past people's worldviews.



The conference participants

Sessions, topics and outcomes

The event was well structured with the roughly 25 participants from seven different countries briefly introducing their work within six topical sessions. The latter focussed on issues of Time; Worldview, Contact and Colonisation; Ritual and Routine; Scale; Climate; and Landscape Change respectively. The organisers were keen to engender genuine debate and structured the workshop so that strong emphasis was placed on discussion rather than following a more typical academic conference format. As all the papers were pre-circulated, only brief summaries were required during the sessions which not only provided more time for discussion but also allowed participants to engage much more openly with each other's viewpoints and provided for animated debate. This framework was extremely inclusive enabling delegates to gain insights into the most pressing issues in this field of research.

Thanks to the daily field trips (see below), there was ample time for the material presented to be processed before moving on to fresh topics. Moreover, the spectacular setting of the venue for most of the workshop, in the Feynan Eco Lodge situated within the arid mountains of Wadi Feynan at the edge of the Dana Nature Reserve, and the local Bedouins' hospitality also helped to provide an extremely relaxed and comfortable atmosphere for the event.

Very soon, a number of themes emerged that transcended the different research traditions and turned into some of the most hotly debated issues at the meeting. These included matters of scale, as we appear to experience similar difficulties in reconciling the minutiae explored in excavations and artefact studies with the bigger picture of landscape, as well as more broad scale and long term social and economic developments. Questions