NEW LOWER PALAEOLITHIC FINDS FROM THE AXE VALLEY, DORSET

The Axe Valley has long been known for its Palaeolithic finds, particularly from the site at Broom. While research has continued at Broom, other sites have also been investigated in the valley as part of the English Heritage-managed and ALSF-funded project “Palaeolithic Rivers of South West Britain” (PRoSWeB). This project was completed in March 2007. Since then, research focussing on the Quaternary geology and Palaeolithic archaeology of the southwest region has been continued at selected locations by Prof. Tony Brown (University of Southampton), Dr Laura Basell (University of Oxford) and Dr Phil Toms (University of Gloucestershire), with assistance from Dr Ramues Gallois and Dr Richard Scrivener (formerly British Geological Survey).

With the help of funding from the University of Southampton, and with the kind permission of Bardon Aggregates, an Aggregate Industries Ltd. business, Chard Junction quarry is one of the key sites at which work has been continued. This research includes monitoring the changing sedimentology as aggregate extraction progresses, using a variety of different techniques. On 10th July 2008, Tony Brown found two bifaces whilst working in the pit with Laura Basell and Phil Toms. The importance of these finds lies in their stratigraphic location, comparison with previous finds, potential for dating and confirmation of a Lower Palaeolithic hominin presence in the Axe Valley, southwest England. A full report is in preparation for PPS, including the morphometric data and drawings of the new finds, but some preliminary data and photographs are offered here as an interim measure.

Site location and context
For the last few years the primary extraction location at Chard Junction Quarry has been the Hodge Ditch area, centred on 2°55’21” W 50°50’17” N. This lies just to the south of the River Axe, and to the east of an unnamed tributary of the River Axe draining Hewood Bottom. More than 20 metres of sands and...
gravels, which are predominantly fluvial in origin, are known to exist in this area. Once thought to be related to the overflow of Lake Maw, which was supposed to have occupied the Somerset Levels, the gravels have in recent years been interpreted as mixed fluvial terrace and fan gravels, with some solifluction deposits. As part of the PReSWeB project, we demonstrated that this is a stacked terrace sequence, as opposed to the more typical staircase terrace sequences of the rivers Exe and Otter. This means that, broadly speaking, the ages of Axe valley terrace deposits increase with depth. On the date of discovery some 17-18 metres of gravel had been extracted from the pit. The bifaces were found on the surface of the pit floor in an area which had recently been worked by mechanical excavator, one on top of a small (~2 metres in height) section, and the other at its base. Following discussion on the day of discovery with Bardon Aggregates staff who had been excavating the area, it is clear that the bifaces could only have come from the section (level) that was being worked at the time. The exact find location of the bifaces was recorded.

The lithics and their age
The lithics are both bifacially worked. Biface 1 retains an area of cortex near the butt on the proximal right side. Both bifaces are patinated on one side more than the other, and this could indicate that they were lying on a surface for some time prior to their incorporation within the river gravels, although this is not certain and cannot easily be proven. How rapidly patina forms on an artefact depends on many factors including the raw material and conditions, so it is not possible to estimate how long this might have taken. The aretes on both bifaces are moderately-heavily abraded and there is some edge damage. This is unsurprising given their probable age and context. Nonetheless it is possible to see clear and regular flake scars, particularly on Biface 1, and this suggests either that they have not been displaced too far, or that they suffered only limited abrasion rubbing against other clasts when they were transported. Biface 1 is particularly symmetrical. Both bifaces are elongate with straight (Biface 1) and slightly convex (Biface 2) sides. In profile, their butts are quite thick, and they become thinner towards the tip. Typologically, their form is lanceolate and both are made from Greensand chert.

Assigning an age to a biface on the basis of its typology should only be done with extreme caution, and needs to be supported by dating evidence wherever possible. However, given the context of the finds and what we know about very general trends in biface form in Britain, it is possible these could be as early as Marine Isotope Stage 13-11; they are certainly Lower Palaeolithic. Samples were taken for Optically Stimulated Luminescence (OSL) dating from the biface-yielding deposit by Phil Toms, and the section was logged. During the Palaeolithic Rivers of South West Britain Project, the deepest unit

Biface 1. Photograph: L. S. Basell, July 2008

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exposed at Chard resulted in an OSL date of 367±35 ka BP. This date is one of a good set of stratigraphically contiguous dates taken through the Hodge Ditch sequence, and confidence in its accuracy is high. As the new finds come from a deposit some 6 metres below the dated unit, it is clear that their age must be considerably in excess of 367±35 ka BP. The results of the attempt to date the biface-yielding deposit are awaited with interest.

Wider context
About 11 bifaces and an unknown number of flakes have been recovered from within a 1 kilometre radius of Chard Junction Pit according to the Historic Environment Records (HERs) and several of these were discovered during excavation into gravels. While several museums have bifaces labelled or recorded as having come from “Chard Junction”, how these relate to the bifaces listed in the HERs, and in Wymer’s Southern Rivers Palaeolithic Project survey is presently difficult to determine. It is clear that many of these bifaces did not come from commercial gravel extraction at Chard Junction, and the information available about the find locations is limited. Two exceptions to this are biface discoveries by John Wymer. The first was a 10 centimetre twisted ovate, found in 1959, and the other was found in 1974 while on the Quaternary Research Association trip to examine the Quaternary deposits of southwest England, which included a trip to Chard Junction. Wymer did not publish the precise co-ordinates or depth of the 1959 biface find location, and found the 1974 biface on a heap of stones beneath the screening plant at Chard Junction Pit, so it is pleasing that the new finds come from a known context.

Of particular interest is the variety of biface forms from this restricted area, which includes twisted ovate, ficron, cordiform and lanceolate forms on the same raw material. With further work, we hope that this site could help to clarify the ongoing debate regarding variation in biface form. While some have argued variability can be used as chrono-cultural markers, the bulk of variation in biface form is thought to relate to resharpening and/or differences in raw materials.

Future work
Work is continuing on the sedimentology of the pit and geomorphology of the area using novel methodologies, and further OSL dates are awaited from the find level of the finds reported here. This work will include 4D modelling of the accumulation of sediments along the Axe valley. In addition, a review is being undertaken of the artefacts from the immediate vicinity now in museum collections. Further funding is being sought for a more intensive phase of research to correspond with the next extraction phase at the pit to include a dating programme that will refine and extend the existing Middle-Late Pleistocene sequence.

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PREHISTORY OF MENDIP, WEEKEND STUDY TOUR 15-17 AUGUST 2008

Set high up overlooking the town of Bath, our weekend began around the bar of our lodgings - an Italianate mansion in the guise of Bath Hostel, a no frills but quite adequate base for what was to be an archaeologically action-packed weekend in the beautiful yet dramatic Mendip Hills of north Somerset. Stretching from east to west for almost 60km, the Mendips rise abruptly from low-lying plains and wetlands, and boast Areas of Outstanding Natural Beauty, caves, gorges, henges, swallets, long barrows, as many as 400 round barrows, and settlement stretching back 500,000 years. Our tour incorporated examples of each, organised almost chronologically, and was brilliantly led by Dr. Jodie Lewis (who has been researching the area for fifteen years and whose forthcoming publication, The archaeology of Mendip: 500,000 years of continuity and change, will provide an invaluable introduction to the region), Dr. Julie Gardiner and Dr. Mike Allen, with extra guides along the way.

After acquainting ourselves with our room mates (yes, we were in dormitories) we ate at the hostel - which was easier than trying to find a table for 25 in Bath on a Friday night! The following day, an early start and scenic drive through lush green countryside brought us to the steep rocky limestone outcrops of Cheddar. Our first stop was Gough's Cave, an amazing series of stalactite-ridden caverns in use in the Late Upper Palaeolithic and also home to Cheddar Man, the most complete human skeleton of Mesolithic date known from Britain. We were very privileged to have had the cave visit all to ourselves as we got there early.

The history of the cave was described by our guide Graham Mullan as being used extensively for hunting: caves were an asset for trapping animals such as red deer and wild horse. We also had some guidance from Roger Jacobi who has done extensive research in this area. Evidence has been found suggesting cannibalism - the local museum had a fine display of cut-marked bones and skulls! Much debate was given to a supposed 13,000 year old mammoth carving inside the cave. At a show of hands, about 85% of us thought it was not authentic (but then what do we know!?). After a complimentary tea and cake we drove to the oldest cemetery in Europe, Aveline's Hole at Burrington Coombe. Contemporary with Gough's Cave, it was used for the butchery of animals and later in the Early Mesolithic for the burial of about 50 humans. As it was a deep sloping cavern, it was not safe to enter.

Although the weather looked threatening, we nevertheless climbed the heathland summit of Black Down. At 325m, it is the highest point on the Mendips - an Old Red Sandstone plateau where, weather permitting, one can see as far as Dorset to the south and the Bristol Channel to the west. Sadly, we were not granted this but were rewarded with the Bronze Age barrow cemetery of Beacon Batch, consisting of nine round barrows, strategically positioned to be visible from various areas on the plateau (a supposed Neolithic long barrow lies off the brow of the hill but is not visible from the ground). As we began our descent, the clouds followed suit. Wild ponies stared at us motionless as the misty rain gradually drenched us. We did not feel particularly welcome up here.

Save, but replenished after a good picnic provided by the hostel, we set off for Priddy Circles, a vast linear setting of four perfectly circular henge-like enclosures each some 200m across. Jodie fed us much information on their possible usages; with internal banks and external ditches, they resemble possible stock enclosures. Assumed to be Neolithic, they could be Bronze Age or even Medieval (yikes!). However, hopefully this debate will soon be concluded: recent excavations conducted by Jodie and Mike at Priddy revealed postholes, and results from carbon dating are imminent. We wait with baited breath! Our attention was also drawn to just how prolific swallet holes (natural shafts) are in this area; their proximity to the later Circles suggests that
they may have been of spiritual significance to these ancient (?) people. Our visit coincided with the last day of Jodie and Mike’s excavations and we were lucky to be able to meet the students involved and inspect their work (and see Mike in action). Despite all the rain they had suffered, the trench they had excavated through the bank and ditch was very impressive.

We headed next for North Hill, the third highest point on the Mendips, to Ashen Hill linear cemetery where we got a spectacular view across a shallow valley of the Priddy Nine Barrows, proudly standing out along the skyline. The weather by now had got the better of us so we returned to Bath for a welcome curry and a pint.

An enjoyable walk up to Dolebury Warren Iron Age hillfort at Burrington limbered us up for our second full day. Here, we were guided by Abigail Bryant who described its usage in the Iron Age and from Roman to Medieval times, when it was used for the breeding of rabbits. Set in a line of five other hillforts, it guarded the western extremities of the Mendips, and has recently been the focus of a detailed survey by Elaine Jameson of English Heritage. We walked around the huge limestone ramparts and took in the incredible views of the Bristol Channel and South Wales (which made up for the previous day!). After lunch, we went to the Late Neolithic henge of Gorsey Bigbury, set in a remote overgrown field. Its internal ditch had been cut into the natural limestone. The presence of three hawthorn trees inside the henge amused a few of us - “The druids woz ‘ere”.

Another scenic walk through hills and fields of sheep brought us to the mighty Stoney Littleton Early Neolithic long barrow. Aided by torches (some borrowed from those imaginative enough to remember to bring one), we took it in turns to enter this 30m long chambered tomb. Shrieks of joy could not be contained as they lit up slabs of stone festooned with fossils and ammonites. On the outside, a huge ammonite adorns the left face of the trilithon entrance, a real statement from whoever positioned it there some 5000 years ago. To top it all it is aligned on the mid-winter sunrise, a spectacular finale to an incredible journey through so many ages. We returned to our minibuses elated to say the least!

Our thanks to our guides for sharing their expertise and knowledge; to Sue Nelson (Wessex Archaeology) and Mike Allen for driving us all those miles and to our navigators too; to Heather Sebire (English Heritage) for considering our thoughts and suggestions on the upkeep of Stoney Littleton; and to Julie Gardiner for her guidance and the painstaking organisation of this exceptional (and definitely not budget archaeology!) tour.

**Julia Mabon**

**A RADIOCARBON-DATED EBBSFLEET WARE BOWL FROM NORTH KENT**

Recent work (STDR4 - Oxford Archaeology on behalf of Kent County Council) near the original site of Ebbsfleet has produced a small assemblage of pottery including a fragmentary bowl. The vessel was found on the surface of a layer of peat deep below the present ground surface. The bowl is typical of the Ebbsfleet style in that it is flint-tempered, relatively thin-walled, shouldered with an inturned rim and minimal decoration. The vessel cannot be precisely matched with any of the pots from the larger assemblage recovered from the bed of the Ebbsfleet as described by Burchell and Piggott in the *Antiquaries Journal* for 1939. A radiocarbon date of 3640-3370 cal BC (NZA-29079 4723±35 BP) was obtained on charred residue that adhered to the inner surface of refitting sherds, while a second slightly later date (NZA-29155 4547±35 BP 3370-3100 cal BC) was obtained on charred residue on a plain body sherd. Wood and a hazel nut shell from the peat have produced two further dates (WK-8799 and 8800 4730± 70 BP 3640-3370 cal BC and 4696±75 BP 3650-3340 cal BC).

The date on vessel 1 is as expected and approximates well to the suggested range of 3550 to 3350 cal BC for this style of pottery. This date is also broadly similar to the one obtained on wood from the base of the peat at the nearby type site (BM-113...
4660±150 BP). The wood sample that provided this date was believed to be stratified above the spread of pottery. The second vessel date is later than expected for this style of pottery. There is no reason to doubt the result, although it does perhaps suggest that the two vessels were not contemporaneous.

The date of Ebbsfleet Ware is still poorly understood, partly because so little of this pottery has been recovered from closed secure contexts with many of the larger groups and assemblages being recovered from secondary contexts within monuments or from open sites such as middens and occupation spreads.

Alistair Barclay (Wessex Archaeology) & Elizabeth Stafford (Oxford Archaeology)

IS THERE A BRITISH CHALCOLITHIC? PEOPLE, PLACE AND POLITY IN THE LATER THIRD MILLENNIUM BC

This conference, jointly organised by the Prehistoric Society and Bournemouth University, took place in April 2008 and came about as the result of a conversation between Mike Allen and Dave McOmish outside the Society of Antiquaries. It took as its theme the lack of British archaeologists’ engagement - unlike their European counterparts - with the concept of a Chalcolithic (Eneolithic or Copper Age) in the British Isles. The main theme of the conference was thus: is there a British Chalcolithic and if so, what is it?

An introductory lecture by Ben Roberts set the scene for what was to come, with a discussion of the concept of the Chalcolithic, its academic history and the ways in which it has been viewed in Britain. The lecture raised a number of questions, especially about the degree of coherence of late third millennium communities in Britain, and the ways in which these communities may have interacted with ‘Beaker-using’ communities in Europe.

Two sessions ran on Saturday, looking at the British Chalcolithic (and if it existed) and its European context. Alison Sheridan’s ‘scoot round’ of the British evidence stressed the need for synthesis of recent discoveries, the bringing together of fragmented specialist analyses and for more discussion of international contact, especially along the Atlantic facade of Europe. Ian Shepherd’s paper looked at early Beakers from Scotland, and Jo Brück and Neil Carlin explored the evidence from Ireland. In the afternoon, papers discussed the use of the term ‘Chalcolithic’ in Europe and were split between those who believe there was indeed a Chalcolithic and those who do not. Martin Bartelheim argued that there was no causal relationship between the appearance of metal and social change and Marc Vander Linden argued that Beakers, not metal, were the drivers of social change. On the other hand, in their respective papers, Volker Heyd and William O’Brien pointed out that, although there are regional differences in the ways in which ‘receiver’ communities took on board the Beaker phenomenon, the presence of metal was a crucial factor in social change.

The three sessions on Sunday explored the social and landscape context of the Chalcolithic/Beaker period. Harry Fokkens argued that Beaker burials do not represent emerging elites, but rather reflect the increasing importance of exchange: he suggested that grave goods represent exchanged objects which were valuable because of the nature of the exchanges in which they were involved. Ann Woodward also concentrated on grave goods and reported more exciting results from the Leverhulme-funded Early Bronze Age grave goods project, in particular the use of ‘exotic’ materials such as arctic ivory alongside other European imports. Ros Cleal and Josh Pollard used the evidence from three areas of Wessex to argue that early Beakers were peripheral to existing societies and that their introduction had little impact on an already vigorous and well connected regional social scene.

On the contrary, Paul Garwood’s paper pointed out that reliable dates for early Beaker graves are very few and went on to argue the opposite to Cleal and Pollard: that Beaker graves were new and different and had an impact. He also argued that, with the refinement of radiocarbon chronologies, we should be talking more and more about specific time periods (i.e. centuries) rather than broad chronological phases which may display regional chronological variation. Mandy Jay reported some initial findings from the Beaker Isotope Project, which included many new dates for Beaker burials across the UK. Initial dietary analysis is suggesting that there was a high level of consumption of animal protein during this period, even by populations living on the coast. Francis Healy dealt in detail with the Bayesian analysis of radiocarbon dates and how this illustrates...
a disjuncture in burial traditions around 3000 to 2500 cal BC, a period which marks a change both in the kinds of people being buried and the ways in which they were treated. New dates from Grimes Graves, which throw interesting light on the use of Grooved Ware and Beaker in the surrounding area, were also discussed.

Mike Parker Pearson presented some results of the 2007 season at Durrington Walls and brought news of both Neolithic bus shelters and cake. It is becoming apparent that it is possible to assign material culture to specific houses at Durrington and that this material is very peculiar. In particular, there is not a single flint axe from the site: the ditch appears to have been excavated with metal-bladed tools and there is extensive evidence for the midwinter slaughter of pigs and feasting in the 26th century BC. More work is planned for this year.

The final paper of the conference was Stuart Needham’s keynote lecture which argued strongly for a British Chalcolithic dating to between c. 2450 to 2150 cal BC, associated with the introduction of Beaker pottery and metalwork. For Needham, the appearance of metal had a huge impact on societies in the British Isles and resulted in massive cultural change. Some of the mechanisms for these changes were explored and it was suggested that, as there is no tradition of Beaker monumentality in Europe, the presence of a vigorous, monument-building, Grooved Ware-using society in Britain may have acted to draw in people from the Continent who were curious about this unusual and unconventional land across the sea. There is certainly increasing evidence for the presence of people who had travelled a long way to Britain during this period and Needham argued that there is a need to reassess how Beaker and Grooved Ware-using populations interacted and to re-examine the mechanisms of social change. In particular, if these two communities represent different world views, how did they communicate, negotiate and eventually accommodate each other?

Interesting points were raised in all of the discussion sessions, the underlying themes identified at the start of the conference recurring in most. The central question - is there a British Chalcolithic - was finally put to the conference which was split 50:50, although with a lot of abstentions. Admittedly the question was intentionally vague and perhaps delegates were thinking more about the definitions of the term Chalcolithic as it was used throughout the conference: in some cases it referred to the Beaker phenomenon, in others the Late Neolithic/Early Bronze Age, for some the introduction of metal was important, others preferring to identify the Chalcolithic with social change. Some suggested the abandonment of all broad chronological labels and the use of specific, radiocarbon centuries. Most agreed, however, that if ever the period needed a poster boy, then (the Wessex Archaeology reconstruction of) the Amesbury Archer was definitely the man for the job. Despite the lack of resolution, the conference provided much food for thought, the papers being varied and the organisation excellent.

David Mullin, University of Reading

IMPORTANT: ARE YOU A STAR?

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THE 2008 PREHISTORIC SOCIETY EUROPA DAY CONFERENCE

The 2008 Europa prizewinner Professor Sir Barry Cunliffe retired in November 2007 from the University of Oxford. In addition to his own Europa Lecture, he invited six speakers from archaeology, linguistics and genetics to discuss ‘Britons in the Celtic World: Contrasting Perspectives’. The day began with Professor John Waddell’s discussion of Irish early medieval texts that he believes provide insights into Iron Age life, while Dr Brendan O’Connor examined a range of archaeological evidence dating to the late Hallstatt period, including twelve Hallstatt D brooches found recently in England by metal detectorists, highlighting the need for continued funding for the Portable Antiquities Scheme and local authority and museum curatorial posts.

After tea and coffee, Professor Peter Schrijver outlined the problems of tracing and dating linguistic shifts not necessarily linked to movements of people or identifiable cultural changes. He proposed that Gaelic Irish may actually have originated in Britain and only became widespread in Ireland in the 1st-2nd centuries AD, although it appears to have borrowed some words from an earlier, non-‘Celtic’ language. Iron Age Ireland may thus have adopted and developed La Tène-style artefacts, motifs and social traits from Britain and Europe whilst speaking a non-‘Celtic’ language. Professor John Koch also cautioned against identifying ‘Celtic’ languages with late Hallstatt or La Tène developments, and outlined Iberian evidence for inscribed stones and funerary stelae written in the Tartessian language but using
Phoenician script. Koch suggested that ‘Celtic’ languages developed in south-western Europe and spread northwards. These may be controversial arguments, but they suggest far more prehistoric social complexity than simplistic notions of pan-European ‘Celtic’ culture.

Following a buffet lunch, two leading geneticists presented their papers and clearly fundamentally disagreed with one another, coming to two very different conclusions using contrasting methodologies. Professor Sir Walter Bodmer is the leader of the ‘The People of the British Isles’ project, some results of which have already been publicised. His team used the genes of modern people from south-west England and East Anglia as stand-ins for ‘Celts’ and ‘Anglo-Scandinavians’, and found that north-east England and East Anglia had the lowest percentage of ‘Celtic’ genes, but these were highest in Cumbria, Oxfordshire, Devon, Cornwall and Wales. This use of modern people as genetic ‘stand ins’ seems questionable, however. Through the tracing of specific alleles, Professor Stephen Oppenheimer proposed that the vast majority of genes in the modern British population were derived from people who had settled before the Neolithic, and from the Bronze Age onwards any genetic contribution was minimal, though the dating of these changes is highly problematic. He concluded that it is impossible to define ‘Celtic’ identity through genes – it was a cultural rather than a genetic phenomenon. Though disagreeing with one another, Oppenheimer and Bodmer both concurred that extracting DNA from archaeologically-recovered human remains is still highly problematic. There is clearly much work to do to establish a secure chronological framework for mutation rates and likely social contexts for genetic and linguistic changes. The papers reinforced the notion that archaeology, language and genes are very different forms of evidence, and may never produce complimentary results.

Barry Cunliffe’s own Europa lecture took a typically ‘big picture’ approach. He first questioned aspects of the genetic evidence, and then presented a brief history of the development of ‘Celtic’ studies though such key figures as Hersart de la Villermáque, Pezron, Edward Llwyd and John Rhys. He touched briefly on place-name evidence, and then turned his attention to the importance of seas and rivers during prehistory. He suggested that the Atlantic coast and central Europe alternated in importance during different periods, with the former prominent during the Beaker period, for example, while the latter was significant during the Corded Ware phase. Between 800 and 600 BC, Cunliffe sees a divergence between an Atlantic-focused northwest Europe, and a Phoenician and Greek-influenced Mediterranean. A series of major cultural shifts might have occurred during 600-350 BC - between Ireland and Scotland; between England and Wales, and mainland Europe; and also perhaps between ‘middle Atlantic Europe’ and the Mediterranean. There might have been disruption of previous long-distance systems of exchange. From 150 BC onwards Rome’s influence on Britain was more apparent, but there were also contacts between northern England and Ireland, and southern England and continental Europe. This might have been when the greatest linguistic divergences took place, and when regional trade systems developed. Although he regards the debate over ‘Celtic’ identity as over (perhaps somewhat prematurely!), he proposed that it spread from the west to the east, and was an essentially Atlantic phenomenon deeply rooted in the past.

The Europa conference was a great success and gave archaeologists much to think about, even if it raised more questions than it provided answers. Professor Cunliffe’s ‘retirement’ would also seem to be an altogether inappropriate word for someone who appears to be busier than ever.

Adrian Chadwick

THE BRÚ NA BÓINNE WORLD HERITAGE SITE, CO. MEATH, IRELAND: AN EMERGING RESEARCH FRAMEWORK

The Bend of the Boyne, or Brú na Bónne, is internationally renowned for its elaborate Neolithic passage tombs, containing the largest assemblage of megalithic art in Europe. The area has been an important ritual, social and economic centre for thousands of years and its universal value was recognized in 1993 when it was designated a UNESCO World Heritage Site, only one of three on the island of Ireland. In 2006, the Heritage Council made a successful proposal to the Department of the Environment, Heritage and Local Government about the need for a research framework for the Brú na Bónne World Heritage Site and in December 2007 a research officer was appointed to undertake this
work. The framework, which will be completed in early 2009, aims to re-assess key priorities and examine where future research should be directed.

Why a research framework?
The reasons for the Brú na Bóinne research framework are two-fold: on an international level, UNESCO has recognised that knowledge and understanding are key to the proper management and monitoring of World Heritage properties and the publication of a research framework for sites is widely seen as best practice in this regard. On a national level, the development of research frameworks will hopefully raise the research content of aspects of current Irish archaeological practice, something of a hot topic at the moment. A key recommendation of the 2007 Heritage Council report on research needs in Irish archaeology was for the greater use of research frameworks for all aspects of archaeological practice. The development of a “relevant research agenda” for archaeology is also an aim of Ireland's National Development Plan 2007-13 (Built Heritage Sub-Programme).

A significant amount of research has already been carried out in Brú na Bóinne and includes large-scale excavations at the megalithic complexes of Newgrange and Knowth, field walking programmes, and a survey of the later, historic landscapes of the WHS. This rich tradition continues today, incorporating ever more sophisticated geophysical techniques and airborne laser scanning technology that can open up much larger areas for investigation. In 2007, a LiDAR survey of the Brú na Bóinne WHS was commissioned by the Heritage Council and Meath County Council resulting in a very accurate, high resolution topographic model of the Brú na Bóinne landscape and the cultural features within it. The data is currently being processed but has already revealed the presence of several previously unrecorded monuments. Given the huge potential of projects like these, the time has come to assess what the priorities should be for the next major phase of archaeological research within the World Heritage Site and how such information can be communicated to the public.

The project
The Brú na Bóinne Research Framework is being drafted by Dr. Jessica Smyth, in collaboration with a research co-ordination committee comprised of representatives from the state heritage agencies, the universities, Meath County Council and from the research community (see www.heritagecouncil.ie/archaeology/bru_na_boine/index.html). Phase 1 of the project has produced a document summarising the history of research in the area, an inventory of radiocarbon dates and a bibliography of projects carried out in the WHS.
Phase 2 brought together a series of critical position papers from a range of specialists on the gaps in research carried out to date and identified key questions for investigation. Phase 3 of the research framework, currently underway, will focus on formulating a research strategy, i.e. a list of research objectives that will tackle the issues identified in Phase 2.

A key element of the process is public consultation and the circulation of a draft document to a range of local, national and international interested parties is planned for early next year. In addition, each phase of the project is being marked by a public information seminar. The first two seminars were held in Slane, Co. Meath, in March and June 2008 and introduced the public to the framework process and the range of research currently being carried out in the WHS as well as highlighting the current gaps in our knowledge. The next seminar will take place on 28th October 2008 and will present the draft research strategy as well as taking a broader look at the contribution of research to World Heritage Sites. Any queries or comments about the Brú na Bóinne Research Framework can be emailed to (jsmyth@heritagecouncil.ie).

Jessica Smyth, Archaeological Research Officer, The Heritage Council

THE DISTRIBUTION OF ARRAN PITCHSTONE: TERRITORIES, EXCHANGE AND THE ‘ENGLISH PROBLEM’

The Scottish Archaeological Pitchstone Project

The Scottish Archaeological Pitchstone Project (SAPP) was initiated in 2004, and it is now reaching its conclusion. The project was defined primarily to look into the dispersal of pitchstone, a volcanic glass, from the Isle of Arran across northern Britain. Over the years, all archaeological pitchstone in the main Scottish museums has been characterised and catalogued, as has some pitchstone which is still with the excavating units. This has brought the sum of known archaeological pitchstone from approximately 1400 pieces in 1984, when Williams Thorpe and Thorpe completed their pitchstone catalogue, to the present c. 7000 pieces, with a further 13,300 pieces from Arran presently being processed at Glasgow University’s Archaeological Research Division.

As a result of this work, much has been learnt about the material itself, its sources, and its flaking properties, but the main focus was, and is, the distribution of archaeological pitchstone, and what this tells us about prehistoric territories and exchange networks. The first impression of the distribution of Arran pitchstone is presented in the figure here, which shows individual find spots as dots, whereas the coloured squares are 10x10 km grid units with higher than average frequencies of worked pitchstone.

The map shows how pitchstone, probably mostly in the Early Neolithic period, was dispersed across Scotland. However, large numbers of artefacts made out of this material have also been recovered from sites in Northern Ireland and four pieces have been found just south of the Scottish/English border. A solitary piece has also been reported from a site on the Isle of Man, immediately outside the frames of the map. The most northerly assemblage is that from Barnhouse, 400 km from the outcrops on Arran, and two further pieces have been found during fieldwork on the Western Isles.

The distribution in northern Britain – what does it tell us?

It is possible to manipulate the data in a number of different ways to highlight different trends. If we simply look at the numbers of pitchstone artefacts per find location, it is clear that the frequency of pitchstone declines with growing distance from the sources on Arran. This allows us to produce a zonation of the distribution, resulting in four different concentric zones. Arran itself represents one zone, characterised by very high proportions of pitchstone and use of this material throughout the Mesolithic, Neolithic and Early Bronze Age periods (outside Arran, pitchstone use is largely an Early Neolithic phenomenon); a zone around Arran - including Argyll & Bute, the Southern Hebrides, the western half of southern and central Scotland and Northern Ireland - is characterised by the presence of centres of pitchstone use, each producing more than 500 pieces within one 10x10 km square; in a third zone, along the Scottish east coast and by the Firth of Forth, pitchstone is still relatively common, but it does not occur in such exceptional numbers; and in the peripheral zone (up to 400 km from Arran), pitchstone-bearing sites are characterised by the presence of, at most, one or two pieces (apart from at Barnhouse on Orkney, which is an exceptional site).

As the map suggests that two different distribution patterns existed, one involving the area north of Arran, and the other probably the remainder of northern Britain, it was decided to produce two fall-off curves to examine the relationship between the amount of pitchstone present in the archaeological record and distance from the source. In both cases, the highest peak has been artificially lowered to allow minor peaks to be seen. The first graph shows how the distribution north of Arran may have been affected (or even determined) by the area’s archipelago/fiord character. The two main peaks represent finds from sites on Kintyre and Bute, and in southern Argyll, and the many miniscule peaks represent finds from smaller islands and fiords along the west coast. The second graph shows the fall-off
curve for the distribution of pitchstone across the remainder of northern Britain, with three noticeable peaks at roughly equal distances to each other. The first relatively small peak represents finds from locations along the Scottish mainland’s west coast, where the exchanged pitchstone ‘made landfall’; the second and largest peak represents the accumulated finds from the three massive pitchstone collections of Ballygalley, Co. Antrim (c. 500 pieces), Luce Bay, Dumfries and Galloway (c. 1700 pieces), and Biggar, South Lanarkshire (c. 700 pieces); and the third peak represents the finds from the Tweed Valley and Fife. The character of this fall-off curve suggests the existence of some form of redistributive system, probably involving local big men.

Although, undoubtedly, there is still much archaeological pitchstone to be found in Scotland, with some areas being poorly represented due to a lower than average level of local development, the...
distribution of finds throughout southern and central Scotland does allow the production of Thiessen polygons and the construction of a first sketchy territorial structure for this region. This structure will be discussed in more detail in the detailed report that will be published on this project.  

**Pitchstone in England**

However, whether the above suggestions regarding territories and exchange networks are accurate or not, they are still only part of the picture. The distribution map above clearly shows a number of distinct pitchstone concentrations near the

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**Fall-off curve for the area north of Arran**

**Fall-off curve for the remainder of northern Britain**
Scottish/English border, and a small number of finds south of the border indicates that the exchange network responsible for the dispersal of Arran pitchstone included at least parts of England. If we consider the fact that, in Scotland, archaeological pitchstone has been found 40 km north of the outcrops, it should be possible to recover the occasional piece of pitchstone at least as far south as Manchester. If we also consider the fact that the northwards dispersal of pitchstone probably largely stops where it does, due to the barrier created by the Atlantic Ocean, worked pitchstone could hypothetically have travelled as far south as the English Channel.

At present, two colleagues have kindly accepted to help me look into this matter in Northumberland and Cumbria, but I would be grateful if colleagues, enthusiastic amateurs and fieldwalkers further south would keep an eye on their respective regions. Most likely, pitchstone (which is usually black or very dark green) has been misidentified as dark flint or black chert, although smaller fragments may have been characterised as glassy slag or jet. The photo here shows examples of typical pitchstone from Auchategan in Argyll.

A number of attributes are characteristic of pitchstone:
- Pitchstone blades tend to curve in an exaggerated fashion along their long axes, frequently removing the cores' apexes.
- Pitchstone artefacts are mostly black and vitreous with a pitch/tar-like sheen, although weathered pieces may be grey and dull.
- Although many are homogeneous, a substantial number of pieces may be characterised by minuscule, globular inclusions ('spherulites').
- Many pieces are characterised by natural fault lines, or planes of weakness, which result in many pitchstone artefacts acquiring typically angular forms.

I would be most grateful if readers of *PAST* who encounter potential pitchstone artefacts would get in touch with me at the address or phone number below, allowing the production of a more complete picture of the exchange networks responsible for the dispersal of pitchstone in Early Neolithic Britain.

**Torben Bjarke Ballin, Lithic Research, Banknock Cottage, Denny, Stirlingshire FK6 5NA, Tel: 01324 840 968**

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**DEATH AND BURIAL IN A BASALT LANDSCAPE: THE HOMS CAIRN PROJECT, SYRIA**

**Introduction**

The cairn monuments of the Levant and Arabia have intrigued archaeologists working in the Near East since the early nineteenth century. However, despite the growing literature being produced on this subject relatively little is known concerning their chronology, use, and landscape location. How were these monuments used, and what was their role in establishing ideas of ownership, group membership as well as links with the landscape? In order to answer a few of these questions, fieldwork within the Homs region of Syria was designed to examine the location, distribution and potential socio-economic context of these monuments within a landscape which is very different to that of the well known seminal states of southern Mesopotamia and northern Syria.

**The study area**

Located northwest of the modern city of Homs, the Homs Cairn Project has focused on the recording and analysis of a sample of cairns (tumuli) from the basalt region located to the west of the River Orontes. Research began within this area in 1999 via a jointly run Syrian-British project, ‘Settlement and Landscape Development within the Homs Region, Syria’, directed by Professor Graham Philip (Durham University), Dr Michelle Maqdissi and
Mr Farid Jabbour (Directorate General of Antiquities and Museums, Syria), and focused on two areas, the marl and basalt. The basalt zone is an area with seasonally restricted resources, with vegetation being relatively abundant during the winter months (November-May), yet sparse in the summer (June-October) with limited access to water during this period. This area has no evidence for elites or complex settlements during the Chalcolithic-Early Bronze Age (fourth-third millennia BC) making it an interesting area to consider in relation to the development of early state societies during this period in areas such as northern Syria and Mesopotamia. Work began on the study of the cairns within this region during 2007 for my Masters thesis and has continued through my current PhD thesis. These monuments are constructed using earth and blocks of basalt which range in size from small pebbles to boulders over a metre in length. The monuments themselves range in size, shape, layout, associated features and also potentially chronology. At least 80% of the cairns which have been studied in the area are potentially associated with burials, with a small percentage possibly representing piles of stone generated by the clearance of fields. The 2008 season was designed to expand the current sample of surveyed cairns, creating a database of landscape location, shape, layout and associated features. The potential association between cairns and prehistoric enclosures was planned using a differential GPS with sub-metre accuracy. Additionally, it was hoped that surface collection of artefacts and a number of small soundings (1m x 1m) would reveal potential dating evidence.

**Prehistoric burials?**

Surface material was limited although pottery and other finds were collected around and on top of the cairns. Nevertheless, a number of interesting patterns emerged from this season’s work, including the discovery of several burial cairns with surrounding prehistoric material. Interestingly these monuments were fairly elaborate with conspicuous uprights constructed using large basalt blocks. In addition they were often located in prominent locations within the landscape, such as small mounds, which are visible from some distance around. In several cases, multi-phase activity was seen, with a number of cairns being associated with tower constructions and enclosures. A variety of Chalcolithic and Early Bronze Age pottery was collected during the survey, alongside a range of lithics, including one example of an obsidian flake (a material rarely seen within the study area). In addition, a number of potentially worked basalt flakes were retrieved, highlighting the potential use of local material for knapping and ad hoc lithic production. Unfortunately, in many cases the main concentrations of prehistoric material were collected from sites which had been recently bulldozed or disturbed by modern looting. While the soundings excavated during this season revealed a limited amount of material, they indicated the use of natural basalt boulders as construction platforms for a number of cairns within the study area.

**Settlements, enclosures and cairns**

A number of potential prehistoric enclosures were also surveyed this season using the differential GPS, combined with surface pick-up. This revealed potentially interesting correlations between these structures and cairns and indicates in some cases a contemporary use for these features. Site 362, a large circular stone enclosure measuring around 350 metres in diameter, is particularly important in these terms. Survey of the site revealed that in the northeastern section of the wall, the cairns appeared to pre-date the enclosure wall. Nevertheless, the wall construction maintains the line of these cairns and respects their layout, suggesting an association between the two.

**The future of the basalt**

Further work on the Homs cairns is planned for 2009. However, these monuments are rapidly being destroyed through modern bulldozing, with around 50% having disappeared since the 1960s. It is hoped that through continuing collaboration with the Syrian Directorate General of Antiquities and
Museums (DGAM) more of these monuments and their associated landscapes can be recorded and interpreted. This area is not only pivotal for our understanding of burial practices within the Ancient Near East, but also for our interpretation of prehistoric activity within the lesser known region of western Syria.

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THE PREHISTORIC SOCIETY STUDENT STUDY TOUR, NORTHUMBERLAND NATIONAL PARK, APRIL 2008

On a cold, wet and windy weekend in April, the Prehistoric Society student study tour descended on Northumberland National Park (they are still recovering). The tour included a dozen students from the University of Liverpool (of which I am one) and staff members Rachel Pope, Alan Greaves and Ben Edwards, as well as students from the University of Reading and University College London. Our tour guides were Rob Young (previously of NNIP, now English Heritage) and Bob Bewley (Heritage Lottery Fund). Rob Young was the main speaker, but we did manage to get a few words in ourselves.

Day 1
After a long day travelling (and I mean long), we arrived at the site of Lordenshaws, in the Coquet Valley. We were told that it is an area of astounding beauty, and also a multi-period complex of prehistoric sites. We started by looking at some rock art (no, not the Blackpool type), which for many of us was our first actual experience of rock art, and it wasn’t always immediately obvious. However, thanks to a plethora of available material, and also the patience of all involved, we soon got the hang of it. We were also told of several possible interpretations of the cup-and-ring marks and the grooves in the stones. Sacrifice and channels for blood always goes down well.

We were then shown some burial cairns, both tri-radial (a new Northumbrian type), as well as more typical Early Bronze Age forms. Due to the wealth of cairns in this particular area, it can be defined as a ‘cairn cemetery’. The weather at this point was wet, windy and cold, and our thoughts were starting to drift towards a hot meal and the pub - typical students.

Next on the agenda was the Lordenshaws hillfort, and while the embankments were obvious at a distance, it was not so visible when you were standing in the middle of it. This particular hillfort is Iron Age in date, and is enclosed by three sets of banks and ditches. Inside are the remains of four round houses, visible as a series of depressions in the ground, and the remains of seven other houses, three of which still have remains of walls visible. We then went to our accommodation at Wooler Youth Hostel, and after a gorgeous three-course meal, we adjourned to the nearest pub to discuss the day’s events. Well, that’s what we told everyone else.

Day 2
The weather on the second day was at least drier if not warmer than day 1, and we proceeded after breakfast to the College Valley for a guided walk to see some hillforts. Thinking it would be a gentle amble like the day before, we were completely unprepared for the sheer size of some of the hills we were expected to walk up (or in my case stagger up). However, we started off by looking at Hethpool cottages. This was particularly interesting as not only were we seeing the archaeology of the area, but also some of the history as well, as they were built in 1936 by Sir Arthur Munro Sutherland, a famous Tyneside industrialist. We climbed our first hill (tiny by comparison to the rest), in order to see the White Hill cultivation terraces. These show where people grew crops in the past; although very visible from a distance, close up you can compare the way the grass has grown over the years, and see the size of the terraces. Terraces are believed to have been used as long ago as the Bronze Age, and as recently as Medieval times and ours were particularly well preserved.
We then battled through severe wind to East Laddies Knowe, our first hillfort of the day. At this point I started to relax and enjoy the tour, and the information was starting to sink in and make sense. The hillfort had earthen rather than stone ramparts making it harder to define, and is best seen from the air or at a distance. An enclosure from the Roman Iron Age could be seen on the west side, and was built over the ramparts. After a well-earned lunch break, and the chance to rest my aching legs, back and just about everything else, we were off again to see Ring Chesters hillfort. The wind had not ceased, and at some points it was hard just to stay vertical.

However by now, as well as learning about features and what they represented in the landscape, we were also getting used to what to actually look for ourselves. We were able to pick out depressions where houses might have been, and the entranceways into houses and hillforts. It was nice to be able to see things first hand, and it also made you appreciate what life might have been like in such landscapes, and also why these hillforts, houses and burial cairns were there. All the information I had read and also was being told now seemed to make so much more sense.

On the way back to the car park (all downhill I am glad to say), we walked past Little Hetha and Great Hetha, two hillforts on the top of two very steep hills, with an almost vertical track up the side of them. It was optional to climb them, and of course some of the younger men, eager to live up to their macho image, volunteered (the older men had no choice!). I readily admitted defeat and had a relaxing gentle walk back to the minibus via Hethpool stone circle. We were all completely worn out but had thoroughly enjoyed the day.

Day 3
On our final day we looked at sites in the Breamish Valley, and after parking in Bulby’s Wood, proceeded to Brough Law hillfort. Luckily all the hills today were much smaller than yesterday. This hillfort was probably the best example that we had seen, as it still had the remains of the original ramparts, although in a decayed state. We could also see depressions where buildings of some sort used to be, and this gave us a better understanding of the possible uses of hillforts, and also the scale and structure of them. There was some exhilaration created by what looked like stone pits in the ramparts. We had theories ranging from sacrificial pits, to a place to hold prisoners. However Dr Pope soon quelled our excitement by telling us that they were probably cattle stalls, or areas that held fodder and hay. I much prefer the sacrificial theory myself. It is surprising how barren and hostile these places always seem to us modern city dwellers, and yet there is so much evidence for prehistoric people living and farming in these areas.

As well as Brough Law, we also visited the sites of Turf Knowe and Ingram Hill. At Turf Knowe, there were two reconstructed Early Bronze Age burial monuments, excavated by the University of Durham in the mid 1990s. This included another tri-radial cairn like those at Lordenshaws and it was exciting to see something new and so unusual. We also saw a cairn with a central cist, in which had been found a burial with several jet beads and a food vessel. Excavations had found a cremation of an infant, who died just over 4000 years ago from what we now call meningitis. When we were told this, it just brought the past so vividly to life, knowing that they suffered the same cruelties of fate that we still do today. To end the day we visited the National Park Visitor Centre at Ingram, where we saw all the excavated artefacts on show as well as a whole host of excellently presented audio and visual displays, before heading for home. We all really enjoyed the study tour and it really helped bring our prehistory teaching to life.

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