The Early Neolithic megalithic monuments of the Medway valley in Kent have a long history of speculative antiquarian and archaeological enquiry. Their widely-assumed importance for understanding the earliest agricultural societies in Britain, despite how little is really known about them, probably stems from the fact that they represent the south-easternmost group of megalithic sites in the British Isles and have figured - usually in passing - in most accounts of Neolithic monumentality since Stukeley drew Kit’s Coty House in 1722.

Remarkably, this distinctive group of monuments and other major sites (such as Burham causewayed enclosure) have not previously been subject to a landscape-scale programme of investigation, while the only significant excavation of a megalithic site in the region took place over 50 years ago (by Alexander at the Chestnuts in 1957). The relative neglect of the area, and its research potential, have been thrown into sharper relief recently by the discovery of two Early Neolithic long halls nearby at White Horse Stone/Pilgrim’s Way on the High Speed 1 route, and by the radiocarbon dating of human bone found in the Coldrum tomb (by Michael Wysocki). The early dates for Coldrum and the White Horse Stone building, both probably built in the 40th century BC, clearly provide a new context for the investigation of the Medway landscape. The White Horse Stone evidence is discussed by the present author in *Making Tracks: the archaeology of High Speed 1 Section 1 in Kent* (Booth et al. 2011).

The Medway Valley Project aims to establish a new interpretative framework for the Neolithic archaeology of the Medway valley, focusing on the architectural forms, chronologies and use-histories of monuments, and changes in environment and inhabitation during the period c. 4000-2500 BC. The six-year fieldwork programme comprises geophysical surveys (carried out by Eamonn Baldwin and Helen Moulden, University of Birmingham) and small-scale excavations run partly as University of Birmingham student field training courses, including:

2. Ground-penetrating radar (GPR) and laser-scan surveys of the Addington long mound, and
Excavations of the Coffin Stone site have shown that this single massive sarsen slab was moved into its present position in the post-medieval period (c. AD 1450-1600), and is not a fallen chamber orthostat as previously believed. There was plentiful evidence for early prehistoric activity in the vicinity but no well-dated features. However, the presence of a large hollow in the chalk adjacent to the stone is reminiscent of the features interpreted as extraction hollows for the Cuckoo Stone and Torstone standing stones investigated during the Stonehenge Riverside Project. It is possible that the Coffin Stone too once stood upright as a monolith close to its present position.

Addington long barrow, to the west of the Medway, consists of a 70m-long rectangular mound fringed by a ‘peristalith’ of upright sarsen stones, of which several survive in situ, together with a scattered sarsen structure at the north-east end. Small salvage excavations, prompted by road subsidence caused by rabbit burrowing, demonstrated the presence of buried sarsen stones on the north side of the monument, and a sandy, perhaps originally turf-built mound. No dating evidence was recovered. Geophysical and architectural survey datasets collected in 2012 are currently being analysed.

**Kit’s Coty House**
Kit’s Coty House, located in an elevated position just below the chalk escarpment, is a tall sarsen-built chamber consisting of three orthostats in an H-shaped arrangement with a pitched capstone. This is situated at the east end of a plough-truncated long mound some 85m in length. Although this monument is widely assumed to be the much-disturbed remnant of a Severn-Cotswold-style chambered tomb, the closest parallels for the chamber are portal dolmens and related monuments in western Britain.

The full scale and overall character of the monument have been revealed through geophysical surveys and excavations carried out since 2009. It is now clear that the chamber is not positioned on the central axis of the mound but is offset to the south, possibly representing part of a pre-long mound structure. The long barrow itself was built in at least two stages from east to west, but there are also indications of a more complex series of construction episodes including possible internal stone settings positioned symmetrically in relation to the ditches. The eastern primary phase of the south ditch, dug in two phases in quick succession, forms a wide terrace in the hill slope, while its counterpart to the north is a wide shallow feature with gently-sloping sides. Together, these delineate a ‘short’ long barrow which may have subsumed or elaborated the original megalithic monument. Whether contemporary with the chamber or not, the shallowness of the flanking ditches, the lack of evidence for a revetment and the narrowness of the internal area suggest the presence of a low mound that is unlikely to have covered the chamber. A buried soil (sampled by Mike Allen) and fragments of chalk mound survive on the north side whereas the south side is completely truncated by ploughing.

**Burham causewayed enclosure**
Geophysical surveys of the Burham causewayed enclosure have shown that it consists of two closely-spaced concentric ditches, with a wide gap on the east side, surrounding an ovate area some 5ha in extent, making it the largest causewayed enclosure in Kent and among the largest in Britain. The presence of an oval barrow immediately beside the enclosure on its south-west side is particularly important given the uncertainties that still persist concerning the relationship between these two monument classes.

A small open-area excavation across both the inner and outer ditches on the south side of the enclosure produced significant information concerning construction process and scale, fill sequences, and re-cutting and depositional events, together with dating evidence for activity spanning the period c. 3700-3400 BC. The outer ditch was created by first terracing into the hillside before digging the ditch segments, whereas the inner ditch segments were dug straight down into the chalk. A line of heavily-truncated post holes following the line of the inner ditch may suggest some kind of internal ‘rampart’. The fill sequences of the inner
and outer ditch segments also differ in terms of the character of recutting and deposition, with clear signs of redeposited ‘midden’ materials washed into the inner ditch segments that were not present in the outer ditch. Artefact assemblages comprised small quantities of lithics, mainly debitage and a few scrapers, and pottery consisting almost entirely of shell-tempered ‘baggy’ vessels reminiscent of Whitehawk-style assemblages, together with occasional sand-tempered sherds with Mildenhall-style decoration.

Radiocarbon dates suggest that the ditches are broadly contemporary, with an initial phase of construction probably in the early-37th century BC. This early date is in line with the overall chronology for British causewayed enclosures proposed by Whittle, Healy and Bayliss in *Gathering Time* (2011) which suggests an initial focus of enclosure construction in south-east England.

**Research implications and future work**

With one more season of fieldwork to come it is too early to draw general conclusions, but the project is already achieving its primary aim of creating a new interpretative framework for the Neolithic monuments in the Medway valley. Future surveys and excavations are planned on both sides of the river, including work at Coldrum, Burham and Kit’s Coty House. The real significance of the Medway area for investigating the Neolithisation of southern Britain can now be appreciated for the first time, based at last on substantive evidence from several sites. This provides a platform for asking a host of new questions about the development of Neolithic ways of life in this particular and dramatic landscape setting - against a backdrop of towering downland ridges, a river forging its way to the sea through a wide gorge, and outcrops of sarsen stones scattered across the uplands and in secluded combes below the chalk escarpment.

*Paul Garwood, University of Birmingham*
A recent discovery from the southern Levant is the topographically lowest manmade structure ever found in the Sea of Galilee (-218.5/-219.5 m). The structure is a conic stone-built feature, measuring c. 70 m in diameter with a 6-7m high peak measured from the lake bottom. We found this structure during a geophysical sub-bottom chirp and side scan sonar survey in the southwestern part of the lake at a water depth of 7-10m. Based on its shape and location we suggest that the monumental structure was built several thousands of years ago, possibly during the Early Bronze Age, when the lake was at low stand.

The shallow sub-bottom structure of the lake (up to 13m deep) was mapped with acoustic single-channel data acquired by a Datasonics dual-frequency (2-7 kHz and 10-20 kHz) sub-bottom CAP 6600 Chirp II profiler. The seismic data totalled approximately 60 kilometres with a source interval of about 2.5m.

In the seismic reflection profiles in the southwestern part of the Sea of Galilee we noted a submerged, slightly asymmetric cone-shaped pile of stones, rising above the gently sloping (<2°) sandy bottom of the lake. Sonar images show that the pile is circular in plan, and the chirp reflection profiles show that the western face is somewhat steeper than the eastern part. Sub-bottom reflectors that dip away from the exposed part show that a small portion of the base of the cone is buried by the sand for a pulse length of about 3-4 milliseconds, which corresponds to about 2-3m of sand. There is no natural process that could have resulted in such a round conical structure; we therefore interpret it as a manmade structure that resembles a megalithic cairn.

Close inspection by scuba diving reveals that the structure is made of basalt boulders up to 1m long with no apparent construction pattern. All the boulders have natural faces with no signs of cutting or chiselling. Similarly, we did not find any signs of arrangement or walls that delineate this monument. The structure is located around 500m from the Ohalo I prehistoric site and about 1.2km north of the archaeological mound of Bet Yerah and the Ohalo II prehistoric site.

We assume that the 2-3m of sand that covers the base of the pile accumulated naturally after its construction. The sediment accumulation rates in lakes vary in space and time. The location of the structure is not associated with any stream which could supply sediment. Therefore, long-shore currents and suspended particulate matter are the plausible sources. An interesting observation from the Ohalo II site is the deposition of c. 20cm of sand within a single winter on top of plastic sheets that were placed to cover the excavations. We believe that this event does not represent the long-term deposition rate. Assuming an accumulation rate of 1-4mm per year, the time of construction may be between 2000 and 12,000 years ago.

A possible interpretation for the structure is related to the fact that it attracts fish and thus may be interpreted as a part of a marine-based economy. In this case, the structure must have been built as an underwater device. Stone built installations that are supposed to be ancient fish nurseries are well known in the Sea of Galilee. They are found near the shores at regular intervals. However, they are significantly smaller than the structure we discuss here: their diameters range between 1.5m and 4m and their heights are no more than 0.6m. They were made of small stones or pebbles. None of them was as deep or as big as the structure that we found, c. 70m in diameter and between 6-7m high.

An alternative scenario is that the structure was built on-shore, when the water level was lower than today. The submergence could have occurred either because of tectonic movement or because of rising water levels. Given the proximity to the marginal faults of the basin we consider tectonic submergence of the structure plausible, but as this monumental structure is very robust it could also withstand slow gradual climatically-induced submergence.
The bathymetric map of the Sea of Galilee shows that the southern section of the lake is significantly shallower than its central and northern parts. Scholars reconstruct the ancient outlet of the Jordan River to the Sea of Galilee (through the channel of the present Yavniel creek) north of Bet Yerah. This reconstruction is based on a chirp survey and sediment analyses that show that the old alluvial fan of Yavniel Creek occupies the southwestern part of the lake. It extends northeastward from the fossil Yavniel Creek entrance to the lake. We consider these observations as evidence for relatively low water levels in antiquity, at least below -219.5 m, which could have enabled the construction of the large structure on shore. We estimate the volume of the structure at c. 25,000 m$^3$ and its weight about 60,000 tons. Thus, the effort invested in such an enterprise is indicative of a complex, well-organized society, with planning skills and economic ability.

The possible relationship between the submerged monumental structure and the ancient settlements along the shores of the Sea of Galilee is of significance. Flourishing settlement systems existed along the shores of the lake in the Bronze and Iron Ages between the fourth and first millennia BCE. Urban centers like Bet Yerah, Tel Hadar and Bethsaida were prominent settlements in Biblical periods.

The only period in this region in which megalithic structures were connected with settlement sites is the Early Bronze Age, between the mid fourth and late third millennia BCE. Many megalithic structures, including stone circles, menhirs and dolmens, are found along the Jordan Valley rift. Among these is the unique megalithic site of Rogem Hiri, located c. 35km northeast of our submerged monument; it has four stone rings with an inner passage grave and reaches a diameter of 156m. Its age is assumed to be Early Bronze Age.

All in all, in this short note we want to report the discovery of a submerged monumental structure, located deep on the bottom of the Sea of Galilee. Also, we cautiously suggest that this man-made monument may have been built some 5000 years ago, during the Early Bronze Age. This said, our suggestion must be tested through future research that will include an underwater excavation of this unique monument.

Yitzhak Paz$^1$, Moshe Reshef$^2$, Gideon Tibor$^3$, Zvi Ben-Avraham$^2$, Dani Nadel$^4$ and Shmu el Marco$^2$
1. Israel Antiquity Authority, Ben-Gurion University, Beer Sheva, Israel
2. Department of Geophysics, Tel Aviv University, Israel
3. Israel Oceanographic and Limnological Research, Haifa, Israel
4. Zinman Institute of Archaeology, the University of Haifa, Israel

**CHISELLING MARKS AT MAES HOWE**

Audrey Henshall's first edition of *The Chambered Tombs of Scotland* carries the following comment: 'Dressing of the stones may be seen in various parts of the chamber... the block on the south of the entrance to the east cell has particularly clear working, the lower part pecked, the upper part chiselled in definite ridges apparently with a metal tool' (1963, 221) - not a description expected today of the great chamber at Maes Howe in Orkney. The reference to a metal tool was omitted from the now more familiar second edition produced with James Davidson in 1989, but the description of chiselling marks remained. Strangely, in view of the extreme rarity - perhaps even uniqueness - of such stone dressing within a chambered tomb, it has received only scarce, passing reference in the literature.

Chancing upon Audrey Henshall's comment during a visit to Orkney, one of the writers (RL), armed with no more than a small pocket torch and the goodwill of the guides, decided to look for the marks during a public tour. To his considerable surprise, shadowing revealed the scars almost immediately. The working occurs in relatively small patches, as Phillips and Bradley's survey of stone dressing within the tomb records (*Scottish Archaeological Journal* 22), with the facets (on average some 8mm wide) running in a consistent direction. Apparent fluting at right angles to the straight stop edges suggests the use of a damaged tool; lack of exact common alignment between the scars seems to preclude this representing the lamination of the stone.

The authors know of no other example of chisel working, as against pecking or hammering, of the stones of Neolithic monuments in Britain and Ireland,
though Antonia Thomas has identified examples among the stones of the Ness of Brodgar complex currently under investigation nearby. Unfortunately the examples recognized so far from Structure 10 at the Ness of Brodgar have been from the demolition layers but possible examples from structure 12 are still in situ. Analysis is ongoing.

A number of intriguing questions are generated by the evidence from Maes Howe, the principal of which are: What tool was used to carry out the work? Could it have been a post-construction addition? Why is chiselling apparently restricted to Maes Howe and the Ness of Brodgar? Hugo Anderson-Whymark has replicated the chisel marking recorded on the Ness of Brodgar stones using a simple flint flake. It was held obliquely c. 10-15cm from the surface and driven down with some force. Where it stopped, a short stepped edge was formed. This closely resembles the marks within Maes Howe, although there the rather narrower facets may point to working with a tool possessing a chisel-like end rather than a broad chopping edge. Such artefacts are not easily identified within the flint and stone repertoire. Stone chisels are a possibility and have been found in Orkney but are often fabricated from relatively soft stone (e.g. the siltstone example found in House 2 at nearby Barnhouse). A small flint axe with a blade just 20mm wide has, however, been found at the Ness of Brodgar during this season’s work. Could the chisel dressing of structural stones have been a localised response to the discovery that Stromness flagstone could be worked by chopping as well as pecking or do they record the use of a metal tool as Audrey Henshall first thought?

Of course, even if the scars at Maes Howe could be shown to have been the products of a metal tool it does not follow that they were contemporary with construction. The Norse runes clearly weren’t. We might, however, question whether patches of chiselling, often in rather inaccessible locations such as the entries to recesses, are likely to have been later additions. The patch located at the top of the large stone at the base of the north buttress is particularly important. It demonstrates that working there was carried out from left to right, commencing within some 15cm of the chamber wall and rising at an angle of some 20° from the horizontal. This is the opposite of the pattern expected and very difficult to carry out in situ: unlike pecking, chiselling requires considerable lateral space and, at a low level (c. 0.5m), lends itself to a falling rather than a rising course.

Hopefully experimental work and careful recording of the facets will furnish information akin to that which can be recovered from worked wood: whether they represent the full width of the tool used or just part of it; whether the straight stop lines reflect the blade shape or simply the fracture pattern of the stone; whether signature features can be matched across any of the areas of working; and whether the facets correspond more closely to those made by stone or metal tools. Meanwhile, the authors would be very grateful for thoughts from readers, particularly those
with experience of tooling marks, about those illustrated here from Maes Howe (please email hugo@flintwork.co.uk). They would also be very interested to hear of any other sites where chisel working of stones has been noted.

Roy Loveday, Hugo Anderson-W hymark, Nick Card and Antonia Thomas

**THE MOUNDBUILDERS STUDY TOUR 2012**

“The time has come”, Pete Topping said, “To learn of many mounds, Those conical, in effigy, And visit mid-west towns; And to ask why just 21 of us Are Americani bound?” (with apologies to Lewis Carol)

Leaving the UK and the wettest June in memory, 18 members and 3 prospective members of the Prehistoric Society landed into a heatwave at Chicago airport for the Moundbuilders study tour of the American Midwest, led by Pete Topping. So how could “Indians in wigwams” have left anything of interest for archaeologists? Misconception. Native Americans had a very rich history of living in communities in houses: farming, building monumental structures, creating massive trade networks, with an understanding of astronomy and a complicated belief system, none of which is yet truly understood although many American archaeologists are trying hard. Mounds, small, large, in shapes of animals, conical, flat-topped, linear, compound and platform - we saw them all. These included sites across a wide date range from 300 BC to 1500 AD.

Our first two sites in Wisconsin gave us immediate insights into a number of things. First, the Atkinson mound group, although small, includes mounds in the shape of birds and turtles; at other sites we saw mounds in the shape of bears, snakes and water spirits. There is even an intaglio (inverted) panther mound. Second, it soon became clear how difficult it is to photograph large ‘lumps and bumps’ covered in foliage against a green background! Our second site, Aztalan, and more importantly Bob Birmingham, set the scene for the coming two weeks. Bob has worked at and written about Aztalan for many years. This is a Mississippian palisaded town at its height in 1000-1200 AD. The river system allowed peoples from Cahokia - trading over a wide area - to settle in the region, already populated by the thriving Woodland
Culture peoples. Aztalan’s interesting features include the main mound, home of the ‘chief’, and the plaza in front of it - a gathering place and the venue for the ancient game of chunky. The actual rules of chunky are lost, but we saw evidence of the game in museums throughout our tour.

Archaeological investigation has also found groups of houses, both round and rectangular, with wattle and daub walls, bark or thatched roofs, and evidence of internal structures and central hearths. Agriculture was supplemented with hunting and gathering. One mound contained 10 individuals laid side-by-side on matting within a building that was subsequently burnt and the mound built over it. Two rows of some 60 mounds (many lost through ploughing) each seem to cover a post hole from which the post was either removed or burnt. Bob believes this could be part of the green corn ceremony and annual cycle of renewal.

Cahokia, 300 miles south and located on the Mississippi, is the centre of the Mississippian Culture and a World Heritage Site. Bill Iseminger, our guide, has been involved with the site for some 40 years and he’s still digging there. It has an excellent website at http://cahokiamounds.org. The central mound, Monks Mound (the largest in North America and bigger than Silbury Hill), again has its plaza in front. Not far away is Woodhenge, a complex that had 5 phases of wooden posts set in circles that are said to show the positions of the solstices and equinoxes, so next morning - 21 June - we all gathered there. The current tree cover meant that we finally saw the sun as it was framed in a small gap where the trees had been cut down, so we can neither prove nor disprove the alignment theory. It did mean that we were all up and ready for an excellent, all-American breakfast!

Another interesting site was Sunwatch Village dating from around 1200 AD and occupied for only 20-25 years; set within a stockade, it had a central plaza with a post at the centre, lining up to various solar points. The site was protected due to floods that, over the years, buried the site deeper than the plough could reach. At Hopewell Culture National Historical Park, the visitor centre had a good video presentation of the various Hopewell monument complexes. Dating to 450 BC to 500 AD, all are of a similar design, comprising geometric earthworks, usually a small circle, a larger circle and a square (although some have octagonal-shaped enclosures), and they all seem to be built to a similar pattern and encompass similar sized areas. Mark Lynott has excavated here - and indeed continues to do so - along with colleagues including Bret Ruby. The Park was originally named Mound City and its main feature is a banked enclosure with internal mounds. Many of these mounds were excavated in the late 1960s and in the 1970s and then reconstructed, although current excavations by Mark have demonstrated that they didn’t put them back exactly in the same place. We also had a personalised tour of the new storage unit, which several members of the party said they ‘would kill for’. At another site, Fort Ancient, which was occupied from 50-200 AD, Robert Riordan talked about the current excavations which have raised more questions than they have answered; a number of the group were itching to get in a ground clearance digger for a much larger excavation to show better what is going on.

Oh, so much to tell you and so little space. Of ‘Trev-the-bus’, our coach driver from Essex, who was mildly bemused to drive around this bunch of eccentric people who wanted to ‘go to the middle of nowhere to wander around in 95˚ of heat’. Of the Hopewell hillfort at Fort Hill where no-one had been for some years and we battled through undergrowth and could see nothing. Of the flint mines and the wonderful large, coloured axes and projectile points. Of how the group played with spear throwers and visited museums. Of the rock art at Piney Creek and the work of Mark Wagner and his wife Mary, where we were accompanied by the local media for their and our story. No time to discuss why these settlements were abandoned around 1300 AD. Finally, our grateful thanks to Mike and Julie in their unobtrusive support role, to all who took time to talk to us, and particularly to the Burger ‘King’ (Pete Topping), he being satiated with burgers - we came home.

Val Moore
ONLINE ACCESS TO PPS

As part of our new relationship with Cambridge University Press, all members will gain free online access to all current and past issues of PPS, including the complete run of PPS East Anglia from 1910 onwards. The back copies will be available to you as soon as they are digitised, but it is hoped to have all accessible within a year. In January, CUP will be contacting you with full instructions on how to activate your online account, so please look out for their letter. We would like to thank CUP for their help with this and we are sure you will agree that this is a fantastic new benefit of membership.

APOLOGY

Apologies to all who were affected by the surname errors on the mailing labels of the last issue of PAST. This was caused by a mail merge error at our printers but please be assured that all name and address details are correct on our Society records.

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 2010 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.

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PREHISTORIC SOCIETY ADVOCACY

Through the work of the President and the Conservation Co-ordinator, the Prehistoric Society plays a significant advocacy role through responding to consultations, providing public statements, and campaigning on issues relating to prehistory. In recent years, for example, the Society has commented on draft and new legislation such as Planning Policy Statement 5 and the National Planning Policy Framework, and on changes to Ministry of Justice regulations concerning the treatment of human remains. It has also responded officially to incidents where damage has been caused to prehistoric sites, as at the Priddy Circles in Somerset, England, and at a cave on the Gower/Gŵr Peninsula, Wales.

Much of the current advocacy work involves lobbying against cuts to museums and curatorial services across Britain. Along with other heritage bodies and concerned individuals, the Society has written to the Chair of the Trustees of Salisbury and South Wiltshire Museum, urging him to reconsider plans to delete the post of archaeological curator; it has also issued a statement expressing concern over the future of the Institute of Archaeology and Antiquity at the University of Birmingham.

While some of our lobbying appears to fall on deaf ears, sometimes the Society’s efforts pay dividends, as in the case of the Cherrymount crannog, County Fermanagh. Here, wholly inadequate provision had been made to excavate this important waterlogged settlement (whose finds include prehistoric remains) in advance of road construction this summer. The Prehistoric Society was among the first organisations to lobby the local politicians and, following a meeting between Professor Gabriel Cooney (Chair of the Historic Monuments Council) and Alex Atwood MLA, Minister of the Environment, the excavation was extended and re-organised. The contribution of the Society to this positive outcome has been acknowledged.

Currently, the Society is preparing to comment on the proposed merger of the Royal Commission on the Ancient and Historic Monuments of Scotland with Historic Scotland. Further information about specific advocacy issues can be found on the Prehistoric Society website (http://www.prehistoricsociety.org/about/advocacy/).
Frances Lynch, formerly of the University of Bangor, was presented with a festschrift on 9th July during the Cambrian Archaeological Society’s meeting in Anglesey. At a wine reception hosted by the University of Bangor, Bill Britnell presented Frances with *Reflections on the Past*, a collection of some 25 essays on Welsh and Irish archaeology by some of Frances’s colleagues and friends. Almost half of the contributors were able to be present on the evening and many gave short anecdotes and tributes to Frances as did members of the CAA of which Frances is membership secretary and organiser of the Anglesey trip. It was an evening of warmth and friendship, and Bill Britnell and co-editor Bob Silvester are to be congratulated not only for an excellently-produced volume but also for helping to ensure its secrecy - especially from its worthy recipient.

*Alex Gibson*

**IAN KINNES 1944-2012**

Our former member and Council officer Ian Alexander Kinnes passed away peacefully after a short illness on Aug 24th. He was 68. A proud Yorkshireman, Ian studied Archaeology and Anthropology at Cambridge and in 1973 presented his doctoral thesis, *Neolithic Burial Practices in England and Wales*. Ian took up an appointment with New England College in Arundel before being appointed Assistant Keeper in the then Department of Prehistoric and Romano-British Antiquities at the British Museum in 1974. There he not only encouraged younger research students as they sifted through the basement boxes, but also published major works such as his tome on earthen (non-megalithic) long barrows and his equally magisterial review of Neolithic round barrows. He was thrilled to find the former in a second hand bookseller’s catalogue priced at £350 and such was Ian’s sense of humour that he suggested to me that those of us who had a copy could sell ours, flood the marker, and buy them back at a pittance! He was also keen to point out that the bookseller’s review of the book praised not its academic integrity but the illustrations! Written before the widespread and routine use of radiocarbon dating, his seriation of burial traditions and artefacts, based on relative chronologies, still bears the test of time.

Ian inaugurated the British Museum’s Beaker Dating Programme, the results of which showed that none of the existing typologies had much chronological coherence, and his review of Peterborough Ware dates not only turned the existing chronologies on their heads but was the first paper to define a Middle Neolithic as a separate entity. An ‘outsider’s’ view of the Scottish Neolithic in 1985 (*Proceedings of the Society of Antiquaries of Scotland*) remains a hugely influential paper and the excellently produced catalogue of the Greenwell collection (jointly with Ian Longworth) provided an important reference work of great and lasting value.

Ian was a member of the Bronze Age Studies Group and an inaugural member of the Neolithic Studies Group and was a regular and lively contributor to both. He served as Secretary of the Prehistoric Society from 1976-1980. He took early retirement from the British Museum in 1999 after which he spent much of his time between the family home in Guildford and his house in Courseulles, Normandy, where he was welcomed by the French archaeological community and spent time working on the excavation report of his site at Les Fouillages on Guernsey.
As well as a brilliant mind, Ian had immense wit and a wicked sense of humour. He did not tolerate fools gladly and could be scathing in conference discussions - even daunting to those who did not know him, such was his constant willingness to question and debate in his desire to advance the discipline. He took exception to some archaeological theory not because he did not see its value but because he objected to the impenetrable jargon used by some of its practitioners to dress up ideas of little academic merit. Those of us who knew him well, however, also knew a real bon viveur, a man of great charm and, most of all, a family man happiest amongst close friends, family and, of course, his grandchildren. Ian was a character whose passing is a great loss to British Neolithic studies. He will be sorely missed by all who knew him and our sincere condolences are sent to Barbara, their children and grandchildren.

Alex Gibson

NEW LAUND ENCLOSURE: A NEWLY DISCOVERED PREHISTORIC SITE AT WHITETWELL, FOREST OF BOWLAND, LANCASHIRE

Introduction

Fieldwork was carried out on a prehistoric enclosure on the eastern flank of New Laund Hill (NGR SD 652 471) during July 2012. The site was first identified by John Alpe, who farms the land. Initial results show that the enclosure is probably either Late Neolithic or Early Bronze Age. Parts of the circuit are defined by an external bank and rock-cut ditch. A natural ridge of limestone forms the northern limit and the southwestern part of the enclosure is as yet undefined. The work was part of an ongoing project at the University of Central Lancashire investigating prehistoric use of the limestone landscapes in the Forest of Bowland AONB. Work in the summer of 2011 included gradiometer survey of the enclosure site and excavation at two nearby small caves (http://shelteringmemory.wordpress.com/2011-interim-report-2/). Neolithic or Bronze Age chert debitage was found around the buried entrance to one cave. The survey of the enclosure site showed both traces of the main bank and ditch and some evidence for internal features. Two areas were excavated this summer, site C across the main ditch and site D over one of the internal features.

Site C (external bank and ditch)

Site C (NGR SD 6525 4708) was a 3 x 15m cutting across an area where the bank and ditch were visible as a standing earthwork. The partially rock-cut main ditch was nearly 4m wide at the top, sloping to a very irregular base around 2.5m wide. It is likely that the limestone bedrock was wedged out using antler or wooden tools but no surviving tool-marks were discovered to definitively support this statement.

The lowest fill of the ditch was a clean silty clay which had filled many of the irregular hollows in the base of the ditch. A fragmentary deposit of animal bones and teeth came from the base of this layer. The only other find was a single piece of chert debitage. Above this deposit was a thick layer of limestone rubble and silty loam. This layer contained numerous small flecks of charcoal, together with some roundwood charcoal fragments. The other finds were 12 pieces of lithic debitage, mostly chert but including two flint flakes, and a single very fragmentary piece of pottery or burnt clay. Beyond the ditch on the eastern, outer, side there was a thin spread of silty clay. This layer, which only survived to a depth of around 0.1 m thick, is the remains of the former external bank to the monument.

Overlying both the ditch and bank was a layer of colluvium which is present over the whole of the plateau on which the enclosure sits. In trench C finds from the base of this layer included charcoal flecks and a single larger piece, 21 bits of lithic debitage and three pieces of metalworking slag or furnace lining fragments. The worked stone was once again predominantly chert but with a significant proportion of flint and a single piece of quartz. From the topsoil above this layer there were five pieces of worked stone and a single fragment of cremated human bone.

Site D (internal features)

Site D (NGR 6521 4707) was a 4 x 8m cutting over an area of internal features identified from the geophysical survey. As at site C, colluvium had to be removed before prehistoric cut features were visible. Within the colluvium there was worked stone debitage, a few pieces of cremated human bone, some charcoal and metalworking debris in the form of slag...
and pieces of what is probably furnace lining. Once this layer was removed, a complex of intercutting ditch and posthole features was visible.

The largest of these was a curvilinear feature running in an arc from the northwest corner of the trench. This was around 1.2m wide and 0.5m deep. On both sides of the cut there were numerous small conical indentations which have been interpreted as tool-marks from objects such as antler picks. The fill of this feature was a sandy silt loam with two clusters of large limestone fragments. These appear to have been the remains of packing stones for posts which had been removed. Finds included charcoal flecks and fragments, a few fragments of cremated human bone, lithic debitage and two scrapers.

There were two other features close to the northern part of the curvilinear ditch. These have been interpreted as postholes for posts which had been removed before they had decayed. The fill of one of these postholes had been cut by the main curvilinear feature after its post had been removed. There was another large posthole with a clear ramp around 4 m to the south of the curvilinear feature. The post had also been removed from this feature.

Conclusions
Excavations in both areas on the New Laund Enclosure have helped us to understand this newly discovered monument. The surviving archaeology is more deeply buried and better preserved than was anticipated. This is due to the blanketing effect of the colluvium. The presence of metalworking evidence within this layer probably indicates that there was some later prehistoric or medieval use of the plateau but at the moment we have no evidence of any associated structures.

The enclosure seems likely to date to sometime between the Late Neolithic and the Early Bronze Age. The lithic assemblage is still not studied in detail but the general range of forms would not be out of place in either period. The internal timber settings associated with cremation burial could be paralleled at the Bleasdale circle 7 km to the west. Here the internal settings at least are dated to the Early Bronze Age. Late Neolithic enclosure monuments are found in the wider region, such as the Cumbrian sites of Mayburgh and King Arthur’s Round Table. The regional research framework for northwest England also lists sites known from aerial photographs in western Cumbria, southern Lancashire and Greater Manchester.

The date of the enclosure is also relevant to the relationship between built monuments such as the New Laund Enclosure and nearby natural landscape features. The chert assemblage from Mouse Hole cave discovered last year was very similar to the lithic evidence from the enclosure. The larger cave at Fairy Holes, excavated by R.C. Musson in 1946, produced animal bones, charcoal, a small ‘dark chert’ lithic assemblage, a single piece of slag and eight sherds from an Early Bronze Age urn. There is a good possibility that all three sites were in use at the same period. It is hoped that the study of environmental samples from Mouse Hole and New Laund Enclosure will help to flesh out this relationship, alongside further fieldwork both on the enclosure and in the natural landscape features.

Rick Peterson, Archaeology, Forensic and Investigative Sciences, University of Central Lancashire

LANGWELL FARM, STRATH OYKEL

Unusual evidence of Early Bronze Age burial rites has come from Langwell Farm in Strath Oykel, in the northern Highlands of Scotland. In February 2009, a large stone cist was uncovered during peat-stripping over a low knoll near the River Oykel. The landowner, Mr Jonathan Hampton, looked inside and saw a skeleton covered with white powdery material, with what he later described as woven material resembling a basket around the head and in the lower leg region. He recognised it as a prehistoric burial and notified Historic Scotland and also the Northern Constabulary.

In the course of their initial site examination, the police disturbed the upper contents of the cist and removed some of the bones and organic materials before an archaeological intervention could take place; fortunately, part of the skeleton and some of the organic materials were left in situ. Historic Scotland commissioned the former Glasgow
University Archaeological Research Division, under the Human Remains Call-off Contract, to excavate the remaining contents of the cist over the course of six snowy days.

After recording and removing the loose, disturbed deposits, the team forensically excavated the lower contents of the cist and were able to extract the dark, stained deposits around and beneath the in-situ bones without cross-contamination. Organic materials such as wood and fibres were separately bagged and their locations recorded precisely. Everything removed from the cist was retained as samples, and the bones that had been removed by police were recovered from them. The programme of post-excavation analysis that followed, funded by Historic Scotland, was designed to maximise information from the material in order to understand the burial rite and what had influenced the preservation of the contents. In spite of the less-than-ideal circumstances surrounding the initial foray into the cist, a fascinating story has emerged.

The cist held the flexed body of a woman who had died in her late 20s, between 2200-1880 cal BC (SUERC-24680 & -33918). She had experienced a period of physiological stress during childhood (such as malnutrition or anaemia) that left tiny lines in her teeth. Stable isotopes in her bones and teeth indicate that she probably grew up in this area and ate abundant animal protein, but little or no ocean fish or shellfish. She had been placed on her left side with her head to the northwest and wrapped in the hide of a brown cow or bull, with the head end of the hide enclosing her feet and the long edges set together at her back and held down with small stones. A hazel stick, which appears in pre-disturbance photographs to be covered with bark, lay by her knees. Although nothing identifiable remained of the woven material, analysis of the photographs suggests it consisted of at least two sections of material covering the skull and lower legs. Both were created using a fabric structure called open twining, a technique known widely throughout prehistoric Europe.

Thin-section analysis of the bone found evidence for arrested microbial attack. While this could be due to waterlogged conditions in the cist, which facilitated the survival of cattle hide fibres and basketry, it could also indicate that the body was curated for a period after death, before burial (radiocarbon determinations from the fibres and wood were statistically identical to those from the bone). In the fibres were carnivorous mites (*Eulaelaps stabularis* (Koch)), a species that feeds on small mammals but also infests open wounds on cattle. While it is possible they were introduced by a burrowing rodent, there was no evidence of burrowing or disturbance by rodents in the cist, and it is more likely that the mites were parasites on the live cow or bull when it was killed. Their presence may also mean that the beast was killed and skinned on site and the hide was still warm when it was wrapped around the woman’s corpse.

Distinctive white powdery substances are visible in pre-disturbance photos as covering much of the body, and these were retained and analysed to determine their origins. The analysed samples came from sediments in the cist and around the human remains, from material lying directly on the in-situ pelvis and from a white crystalline deposit on the cist wall. The crystalline material was calcium carbonate, derived from decaying human bone and left like a tidemark by undulating water levels. Analysis of the samples from the other locations returned varying results of both organic and inorganic origin, but it has not proven possible to determine their nature with any more precision.
The burial may have been marked with a barrow which had been spread by ploughing and truncated by the JCB, evident in a layer of sand that sealed it and a concentration of cobbles around it. The knoll chosen for it had seen both earlier and later activity. A large piece of Scots pine charcoal found inside the cist had been felled between 2470-2200 cal BC (SUERC-32857); debris from the fire in which the tree had been burnt had been disturbed and incorporated when the cist was built. A few metres to the south, investigation of an area where the machine had disturbed some slabs found an old ground surface scattered with birch charcoal dating to 1680-1510 cal BC (SUERC-32859). A curving stone feature had been built on it, apparently demarcating the better-drained upper part of the knoll from a boggy area to the east. A core taken from this spot showed peat began to form on the floor of the river valley between 800-540 cal BC (SUERC-32861).

The burial’s location in the landscape of Strath Oykel may help explain its contemporary significance. It sits in the middle of the northern Scottish land mass, on the floor of a major river valley that forms a natural corridor linking east and west coasts. The clusters of Neolithic chambered cairns at either end mark the valley’s entrances as significant junctions in the landscape, and they may have been ceremonial centres born from interaction between regional communities. This and adjacent river valleys continued to be vital arteries through the northern Highlands, and up to 1500 years later, when the burial was created at Langwell, farming communities were established along them and around some of these groups of chambered cairns, as later generations reworked their meanings. The slight knoll at Langwell, surrounded by flat ground prone to flooding, would have been a spot well known to people for one reason or another as they moved along Strath Oykel – as a hunting stance, perhaps, or as a dry, firm stopover when driving cattle along the valley, or as a place where fires had been lit to make connections to ancestral spirits. It may have held several layers of meaning that accumulated over generations of events, relationships and shared beliefs.

The woman was not accompanied by any of the grave goods or ornaments we expect from Early Bronze Age burials in Scotland, but the hide, basketry and hazel staff may have been considered just as powerful and meaningful to the people composing the burial. As far as we know, the materials they used were entirely local, like the woman, and the rites were a way of expressing a particular identity for her in relation to themselves and the past. Wrapping her body in cattle hide may have seemed a way of linking her spirit to the animal’s and its inherent powers of regeneration, with which the life of the community would have been thoroughly entwined.

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Olivia Lelong (Northlight Heritage; email olelong@yorkat.co.uk)
EXCAVATIONS OF A BRONZE AGE ROUND BARROW AT TALSARN, CEREDIGION

Fan Barrow was a well-preserved round barrow occupying a small knoll on a prominent ridge called Fan, near Talsarn, Ceredigion. Unfortunately, despite its Scheduled status, the monument was removed and ploughed flat in the late 1990s. When the site was visited in 2004 during the pan-Wales Cadw-funded prehistoric funerary and ritual sites condition assessment survey, no visible evidence of the monument survived. Dyfed Archaeological Trust subsequently investigated the remains of the mound, undertaking a geophysical survey in 2009 followed by excavations in 2010-11. The final report on the excavation will be produced soon, but initial findings are presented here.

Although the geophysical survey undoubtedly indicated the presence of a large circular ‘anomaly’, on excavation, no archaeological evidence of a ditch, bank, mound material or buried soil was present. While the source of the anomaly remains unclear, the location of the barrow (as shown on Ordnance Survey mapping prior to its destruction) and the results of the excavation suggest that it does not in fact represent the remains of the barrow. This probably accounts for an observation made by a local farmer that we were ‘digging in the wrong place’! The geophysical feature may instead represent an earlier monument upon which the ploughed-out barrow was located. In possible support of this, Field Monument Warden notes from earlier years noted and sketched a low curving earthwork on the west side of the mound, looking ‘almost like an additional bank’.

Despite all above-ground evidence of the barrow having been destroyed, numerous sub-surface features were found to survive just below the current plough zone. At the centre of the mapped barrow was a stone-lined pit containing a cremation burial accompanied by numerous droplets of melted copper and bronze and a finely decorated bipartite pygmy cup. Four satellite cremation burials were located within 3m of the central burial, all to the west of its north-south axis. One contained approximately a third of a miniature food vessel-type cup with twisted cord decoration, another contained a large inverted collared urn, and two contained cord-decorated collared urns placed on their sides and accompanied by decorated pygmy cups. Further analysis and consideration of the ceramic assemblage is currently under way.

The cremations themselves contained few diagnostic bone fragments, but sufficient to estimate that the central burial contained a mature adult female aged at least 46 years. Two of the satellite burials contained adults aged eighteen years old or older (one of whom was possibly female); a third burial contained an adult female. The fourth burial contained a possible adult female aged at least 36...
years buried together with an adolescent. Four of the cremations have been radiocarbon dated to between 2050 and 1875 BC, while the westernmost cremation gave a slightly later date range of 1920 to 1740 BC.

To the south, within 6m of the central burial, and again in the western half of the barrow, were two 'ritual pits': one contained two parallel short lengths of charred wooden planking, and the other some fragments of a possible Bronze Age ceramic jar, some burnt quartz, a flake of struck rock crystal and a quartz nodule. To the north, three small round pits contained charcoal-rich fills. Immediately northwest of the barrow was a group of apparently cut irregular features containing stones and charcoal fragments, but also other similar features that appeared more likely to be of natural origin. Charred plant remains from the pits consist mostly of hazel charcoal, with few other significant species represented. Additional radiocarbon dates from these non-cremation features are in preparation and may provide clearer evidence that the barrow had more than one phase of construction.

Fan Barrow is also associated with the discovery of a Bronze Age pygmy cup known as the Abermeurig or Nantcwnlle cup, discovered ‘in a group of stones on Ty’n rhos bank on the Abermeurig estate’ near Talsarn, probably at some time before 1847. The cup was later exhibited at a meeting of the Cardiganshire Antiquarian Society in Lampeter in 1879 along with a socket-looped spearhead, reputedly from the same site. Since that time, the finds have often been thought to come from Fan Barrow and they are recorded as such in the museum accession notes. However, since the spearhead is of a style a good 200 years younger than the likely date of the cup, there is some doubt as to the provenance of both items.

This uncertainty was compounded during our excavation when a local resident pointed out that Fan Barrow itself is not located on Ty’n rhos bank, nor has the land on which the barrow sits ever been part of the Abermeurig estate. He was able to identify the location which he had always understood to be the site from which the Abermeurig cup was excavated, which is indeed a suspicious looking ‘pimple’ on the nearby rise known as Ty’n rhos bank. This location has not previously been identified as a round barrow and is not recorded in the Historic Environment Record. Another piece of the jigsaw lies at the nearby farmstead of Pen-y-glogau, just over 1km from Fan Barrow. Here, another round barrow was partially excavated in 1929 when cremations were discovered during the removal of the barrow to provide hardcore for the repair of local roads. A collared urn and a pygmy cup were recovered from this site.

There are various forms of pygmy cups with distinct distributions in Britain. Wales and southwest Scotland have the main concentration of bipartite cups, and Ceredigion and Pembrokeshire have a notable concentration of highly-decorated specimens. Of the 49 or so recorded pygmy cups from Wales, few, if any, have been excavated since the 1930s. The provenance, associations and archaeological details of many of these finds are uncertain, and none have been radiocarbon-dated.

The excavations at Fan Barrow have revealed evidence of a complex burial monument with a diverse assemblage of finds hinting at intriguing funerary practices. There are few well-documented recently-excavated round barrows from the region for comparison, and it is unfortunate that the evidence of the mound itself has been lost, but the ceramics and other evidence from Fan Barrow, together with the finds from Pen-y-glogau and the Abermeurig cup, form an interesting local group that warrants further study.

Duncan Schlee; email d.schlee@dyfedarchaeology.org.uk