# CURRENT ARCHAEOLOGY

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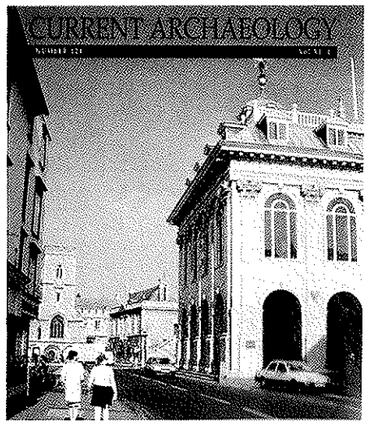
# CURRENT ARCHAEOLOGY 121

## Contents



## Cover photo

The County Hall at Abingdon was built by Christopher Kempster, in 1677–80. In the background is the Abbey Gatehouse, with the church of St Nicholas.




# The new look

Welcome to this new re-designed issue of Current Archaeology! It is larger in size, it is 50 per cent longer and has three times as much colour as before. We have not gone up to the A4 size, which is too tall and thin, but we have adopted a more convenient format which is also far more aesthetically pleasing.

Following the success of our recent Hadrian's Wall issue this issue concentrates on a single subject, the archaeology of Oxford and the Thames Valley. With the rise of rescue archaeology we may see more of such special issues where we can take an in-depth look at the archaeology of an area. In the next issue we shall be returning to our more normal wide range of interests, with a special 'What's on in Archaeology' supplement.

This issue features the work of the Oxford Archaeological Unit which is one of the largest and most successful units in the country. It is also one of the more controversial as they have been one of the protagonists of contract archaeology, undertaking work throughout the country, notably in Dover, London and Northamptonshire. Here they demonstrate the work they have carried out in their core territory in the Thames Valley. In a future issue we shall look at the work of the Greater London Archaeological Unit, who hold the opposite point of view on contract archaeology.

We are also looking overseas, and we hope in most issues to have an account of archaeology abroad, concentrating on the work carried out by British archaeologists abroad. In this issue we start with the work by Andrew Poulter at Nicopolis in Bulgaria.

But despite the new look, what really matters is the content and the writing, and here we shall be continuing in the style which we hope we have made our own. We shall continue to aim for "real" archaeology, avoiding the extremes both of theoretical archaeology on the one side, and "pop" archaeology on the other. Archaeology enables us to take a longer view of the past, and we have always believed that it is possible to explain that longer view without jargon, but with zest, enthusiasm, and at least a modicum of wit.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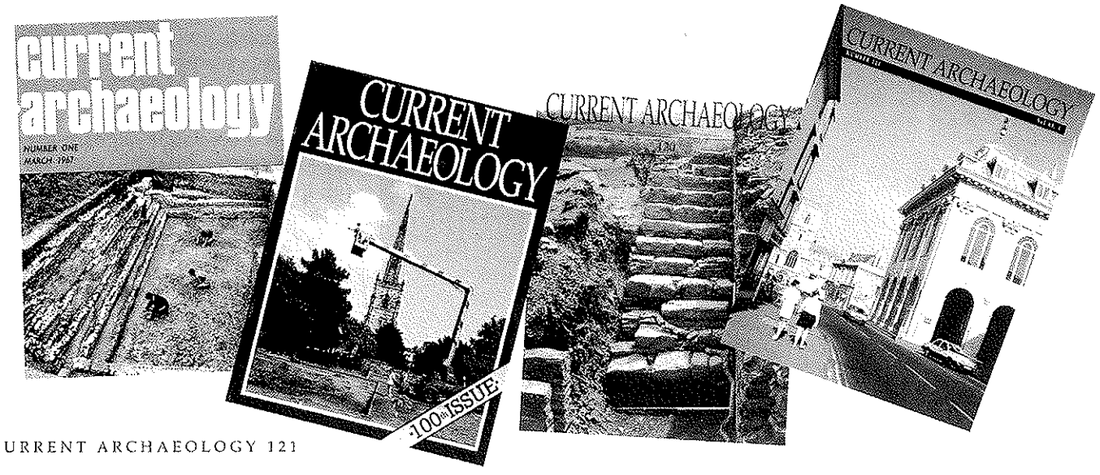


# The Oxford Archaeological Unit

**David Miles, the Director of the Oxford Archaeological Unit, explains the background to the Unit**

THE Unit was founded in 1973, when it was the first of the new generation of Units. By the early 1970s, there was a proliferation of excavation committees in Oxfordshire. The first was the Oxford Excavation Committee in 1966, but soon similar organisations had appeared for the M40, the Upper Thames Valley, Abingdon and various other places. As local authority reorganisation got underway in 1973, it was felt that local archaeologists should rationalise and co-ordinate their activities. The OAU was the result.

The Unit was established as an independent educational charity with the support of the Department of the Environment, Oxfordshire County Council, the District Councils and the University of Oxford (particularly the Department of External Studies and the Ashmolean Museum). The word `rescue' which was fashionable at the time, was not incorporated into the title because we felt that our aims should be broader and more research and conservation based.

The Unit was a very much a grass-roots organisation. The enthusiasm and energy to promote it came from within the region, rather than being imposed by central government. Our prime aim was to promote archaeology in Oxfordshire but we did not see ourselves as limited by the new county boundaries. Abingdon, the focus of much of our work in the mid 70s and again in the late 80s, was once the county town of Berkshire; the Upper Thames Committee, which was absorbed within the Unit, had worked in the Thames Valley from Berkshire to Gloucestershire. In its early years the Unit also carried out projects in Towcester (Northants) and Buckinghamshire.

As an independent organisation the Unit lacked security but gained in flexibility. Our position as a charity also allowed us to badger, persuade and establish good relations with many different organisations.

A major break-through was winning the support of ARC, the largest gravel company in the Upper Thames Valley (and Britain). A covenant from ARC enabled the Unit to fund three environmental officers (Dr Martin Jones. now Professor of Environmental Archaeology, Cambridge, Dr Mark Robinson and Bob Wilson) at a time when such posts were rare in British archaeology. A strong emphasis on biological and environmental studies has been an important feature of the OAU's work since 1974. The success of landscape projects depends upon the close co-operation and integration of many scientific skills and techniques.

Tom Hassall, born and bred in Oxford, was the Unit's first director.

David Miles, previously directing the Abingdon Excavation Committee, was appointed as senior Field Officer, with particular responsibility for the Thames Valley projects. A number of field officers were also appointed, including Kirsty Rodwell, John Hinchcliffe (now the head of the Central Unit) and Brian Durham who is still with the Unit. A little later a new generation of field archaeologists appeared, some from the Oxford University Archaeological Society such as George Lambrick (now the Unit's Deputy Director) and Tim Allen. The Unit has also maintained particularly close contacts with Reading University, the alma mater of the Unit Manager, Simon Palmer, and Gill Hey, also a field officer. For the first decade the Unit had a core staff of about 14 and approximately three-quarters of its funding came from the Department of Environment.

In 1986 Tom Hassall left the Unit to take up the post of Secretary of the Royal Commission for Historic Monuments in London. Dr Ian Burrow, the former County Council archaeologist for Somerset, was appointed as the new Director.




After a long period of stability the next two years were traumatic as the Unit struggled to evolve its organisation and adapt to the rapidly changing politics of archaeology. In particular the emergence of contract archaeology, initially in Berkshire, was a major watershed.

In 1988, Dr Burrow left the Unit for the USA, and David Miles succeeded him as Director. Reforms of the Committee structure were already underway in an attempt to streamline procedures. Those were overseen by the Chairman, Professor Shepherd Frere, who then handed over to Professor Peter Salway, the current chairman. The Honorary Secretary, Louise Armstrong, has played a particularly important role in providing continuity and this has been helped by the stability of the staff, many of whom have been with the Unit for over a decade.

Most of the OAU's work is still in Oxfordshire and it is within the County and Thames Valley that the research programme is most developed. This is illustrated in the following pages which review some of these research themes. These never stand still: like the organisation itself it is vital for research to be flexible, open minded and aware of opportunities.

The OAU's archaeological work has been much influenced in the past four years by changing local authority and English Heritage policies.

In this region the new generation of local authority policies was pioneered in Berkshire. This required developers to carry out archaeological asessments and to mitigate the impact of their project, if necessary by funding excavations. In Berkshire the policy has been an undoubted success, leading to the discovery and preservation of sites and the excavation of previously unknown buried landscapes (see Reading Business Park). Excavations have been better planned and funding has increased and become more diverse. There have been teething troubles; Units have found themselves in competition and this has not always been pleasant. The disadvantages of uncontrolled contract archaeology are all too obvious in North America. Its success depends upon the kind of clear definition of the ground rules which Paul Chadwick's County Council Archaeological Section has implemented in Berkshire.

Unfortunately, this does not always happen and messy controversy, potentially damaging to the reputation of British archaeology, can arise.

Probably the OAU's most controversial work has been in Dover and Greater London, both areas lacking a County Archaeological Officer (Kent County Council has since appointed John Williams to such a post).

Dover is an interesting example of a local authority's approach to archaeology. There is a considerable unemployment problem in the area as jobs are lost in the coalfield and the docks. Dover District Council urgently needs to help revitalise the area. Impressed by the success of the Jorvik Centre in York the council decided to create an archaeological park, museum and heritage centre, to be known as the White Cliffs Experience, in the centre of Dover.

Archaeological work in Dover had long been carried out by Brian Philp and the Kent Archaeological Rescue Unit, who had discovered a fort of the Roman fleet and a later Saxon Shore fort. They had also excavated the superbly preserved Roman painted house and displayed it within a covered building open to the public.

In its discussions about their new project, Dover District Council could not reach agreement with KARU and the OAU was asked to act as archaeological consultant. The council also established the Dover Archaeological Advisory Board, chaired by Professor Barry Cunliffe, to advise them on archaeological policy. Archaeological contractors working in Dover now report to this Board which has also commissioned the OAU to carry out a Survey of the historic town (now completed by David Wilkinson).

The OAU has found the Dover District Council to be one of the most conscientious bodies it has worked with. The aim throughout has been to conserve as much of the archaeology in the ground as possible. The main task has been to assess the site, to advise the architects and engineers so that the new building could be designed and constructed to cause the minimum of damage to the buried deposits. The only substantial excavations have been under the new Time & Tide Theatre, where Roman barrack blocks, mostly previously excavated by KARU, have been uncovered for public display.

Because the Unit is an independent organisation with a wide range of expertise and experience in working with planning consultants, architects and engineers, it is often approached to act as archaeological consultant or to carry out site assessments on behalf of developers. It is for this reason that we have accepted requests to carry out work in Greater London.

This continues to cause resentment among some locally based archaeological organisations. Archaeologists must, however, face up to the implications of their political success. Polluters should pay, but they must not then be faced with an apparent monopoly. The problem for archaeologists is to ensure that standards are maintained and improved.

There can be advantages. The implementation in Summer 1988 of the EC Directive requiring Environmental Assessments is creating new opportunities to promote interest in the conservation of archaeology and the historic landscape. At the present time the Unit is carrying out a major Environmental Assessment of the proposed Channel Tunnel Rail Link on behalf of British Rail; it is also working for Eton College and for various mineral and development companies. We are also studying the impact of roads on the historic environment for the Department of Transport. In this way the archaeological potential of an area can be considered at an early stage, not salvaged in heroic fashion when planning decisions have been made. As the Chinese proverb threatens, we live in interesting times. Interesting times are not easy: archaeology is coming of age; it is now a mainstream aspect of planning and development and no longer a purely academic fringe affair.

# Ritual and burial in the Thames Valley

George Lambrick

**"Abingdon is a typical country town of the smaller order – quiet, eminently respectable, clean and desperately dull. It prides itself on being old, but whether it can compare in this respect with Wallingford or Dorchester seems doubtful" – *Three Men in a Boat*, by Jerome K Jerome.**

JEROME K Jerome was no archaeologist. Later in this issue we have an entire article on Abingdon itself and its Medieval abbey, but it is in prehistory that Abingdon really comes into its own. The Abingdon causewayed camp is one of the classic causeway camps and it was one of the first to be discovered in the 1930s, when it gave its name to a distinctive type of Neolithic pot. Adjacent to it lies the barrow cemetery with which we conclude this introductory article, while we start with a look at a cursus at Drayton, which lies just the other side of the river well within the map of Abingdon.

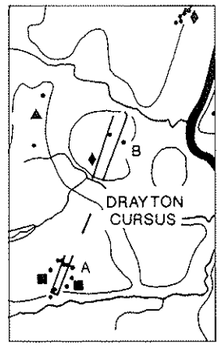
The Drayton cursus was first discovered, and indeed partly excavated by E.T. Leeds in the 1930s. However the cursus that the unit has been excavating is the Drayton cursus B, which lies on the other side of a small stream. Whether the two are in fact one and the same is hard to decide; they consist as usual of two parallel ditches which may or may not form some sort of Neolithic processional way or enclosed area. The A cursus and the B cursus are certainly on the same alignment, but as they approach the river alluvium, they disappear, only to re-appear on the other side of the stream.

Its main interest is that it appears to be the earliest cursus so far. A whole series of calibrated C14 dates both on waterlogged bark and bones from the cursus ditch and charcoal beneath the bank give a date of 2,800 bc which calibrates at 3635 – 3385 cal BC. This is by some way the earliest dating for a cursus. Cursuses are usually considered to belong to the Middle to Late Neolithic but these dates are contemporary with early Neolithic monuments such as the causewayed enclosure at nearby Abingdon.

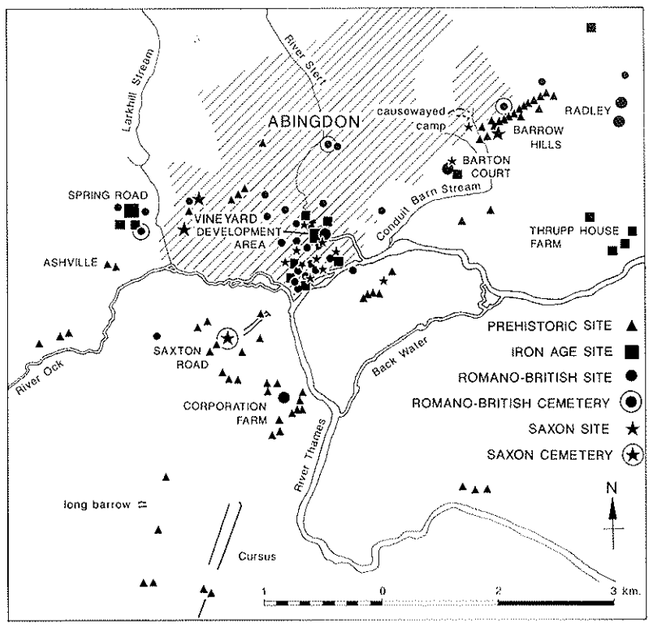
Drayton is a fairly typical cursus, 620 metres long and varying from 80 to 100 metres wide. It runs across a gravel island within a loop of the Thames flood plain. It was excavated in advance of gravel extraction, the Unit excavating the western side and the Abingdon Archaeological Society excavating the eastern side; the work was funded by English Heritage and J. Curtis and Sons. It represents one of the fullest excavations of a cursus ever carried out.

As usual the cursus itself produced very little. At the southern end where it dipped down under the alluvium, and in the old ground surface there was evidence of domestic activity in the form of small pits and a scatter of flint and pottery dating from the Mesolithic to the Bronze Age. It is not clear what relation this had to the cursus. The cursus was still visible in the Roman period when a ditch was dug alongside it from which valuable environmental evidence was found. The ditch was part of a field system where for the first time in the Thames Valley a Roman ploughsoil containing pottery from manure scattering and overlying ardmarks was excavated.

The western ditch revealed wiggles at regular intervals suggesting that it was constructed in three stages: first the topsoil was removed, then the ditch was roughed out and finally it was shaped. The western ditch was smaller than that on the eastern side suggesting that it may be unfinished. There was no terminal at the southern end – which could suggest that it may have linked up with the cursus to the south. Adjacent is a long enclosure and a small long barrow. After its construction the cursus was the focus for further ritual activity. One of the ditches was cut by a small ring ditch which had a central grave which was empty, while beside the cursus was a pit which produced Beaker grave goods but no burial.




**Many of the sites in this issue of *Current Archaeology* can be seen on the plan of the Abingdon region. The Drayton cursus lies near the bottom.**



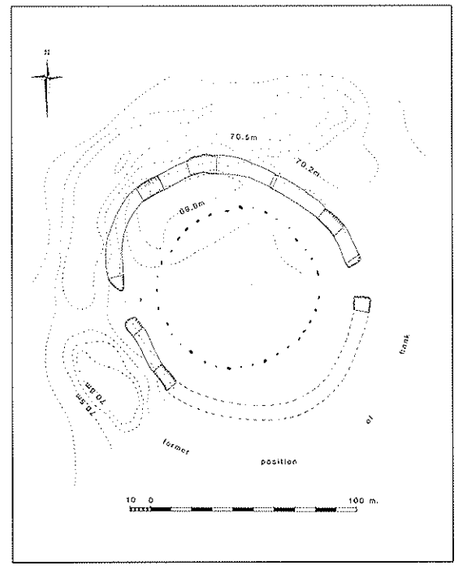

## Dorchester

THE 1980s were undoubtedly the decade of the cursus in the Upper Thames Valley. There was a minor excavation at Lechlade; two new sites were discovered by air photography at Drayton St. Leonard and Stadhampton; while air photography has greatly clarified sites such as Buscot.

There was also another major excavation at Dorchester where in the early 1980s English Heritage funded the excavation of part of the 1.6 mile long cursus in advance of a new bypass. The cursus is part of the famous Dorchester Neolithic ritual centre excavated shortly after the War by R J C Atkinson when he propounded the difference between Class I and Class II henges.

The earliest feature was two long mortuary enclosures aligned on each other. The cursus was laid out running right through the middle of them. However to the west the cursus had a distinct kink, aligning the western part on Midsummer sunrise over the Chilterns. Successive phases of ritual monuments followed. There were Late Neolithic hengiform ring ditches with cremations at the bottom which were possibly the remains of small barrows. There was also a substantial egg shaped timber ring, the burnt-out oak posts of which gave a C14 date of 2150 bc.

Eventually the cursus was superseded as the focal monument by the massive Class II Henge monument with double ditches which Atkinson excavated and called the Big Rings. This was laid out on a separate alignment, finally abandoning the astronomical alignment of the cursus. Both the cursus and the henge monuments were surrounded by barrows and other burials. The unit is working with Professor Richard Bradley at Reading and Alasdair Whittle at Cardiff studying the development of this major ceremonial landscape and writing up the remainder of Richard Atkinson's work in the 1940s and 50s.




**Plan of the Devils Quoits at Stanton Harcourt. This is both a henge monument, with a bank and ditch, and a stone circle in the interior. Compare this with the watercolour painting on page 12.**

## Stone Circles and Henges

THERE are only two stone circles in the upper Thames Basin and both have been investigated by the unit in recent years. The Rollright Stones are one of our foremost ancient monuments where we were conducting a major research and survey project to establish a firm basis for the future protection and management of the monument for English Heritage. At the Devils Quoits at Stanton Harcourt we are in the middle of a project to preserve and restore the remains of one of the key ceremonial centres of the Thames Valley .

Both these sites lie very much on the eastern periphery of the distribution of stone circles and in both cases they appear to be outliers of types of monuments found further west.

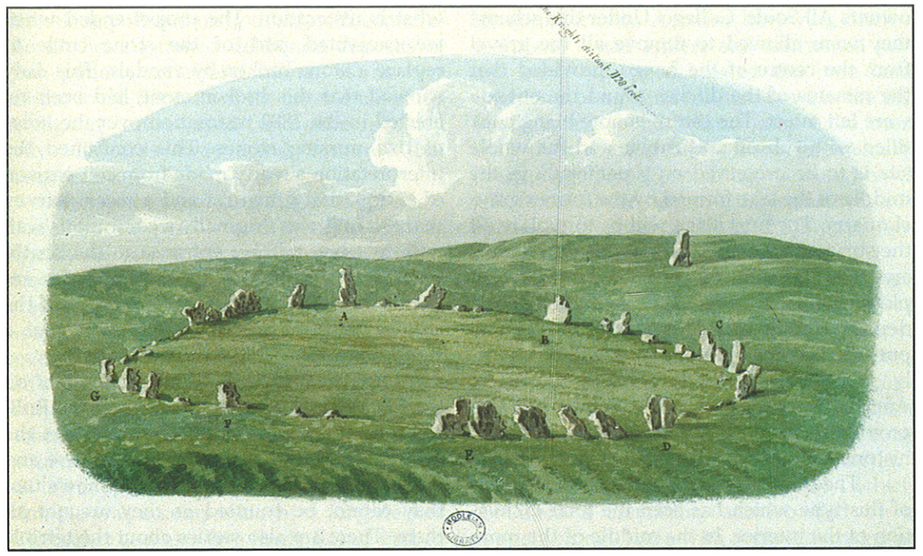
The Devils Quoits is one of a comparatively rare class of monument where a stone circle is set within the bank and ditch of a henge. The best known monument of this type is Stonehenge, but there are only about a dozen known major monuments of this type scattered from Wiltshire to the Orkneys. The Devils Quoits, however, suffered hard from the hand of progress and by 1940, when it was decided to build an aerodrome at Stanton Harcourt, all but one stone had been removed.

In the 1970s, gravel extraction crept up to the site and it was expected that the site would be destroyed and major sections through the ditch were excavated by Margaret Gray (CA 35). Then a new scheme was agreed with the gravel company ARC and the


Above. Replacing the repaired stone at the Rollright circle. Underneath it (top left) there were two original stone holes showing that the circle had been 'improved' in 1882.

Left. The Whispering Knights are thought to be the remains of a portal dolmen tomb.





Compare the photo (below) with the drawing by T Fisher in 1804, before the restoration of 1882. In both pictures, the portalled entrance, with two stones on each side, can be seen at the bottom, with the tallest stones opposite it on the far side of the circle.
*Drawing by courtesy of the Bodleian Library.*

*The excavations at the Devil's Quoits and Barrow Hills were funded by English Heritage.*

owners All Souls' College. Under this scheme they were allowed to remove all the gravel from the centre of the henge, provided that the remains of the ditches round the outside were left intact. The centre is now being back filled with subsoil and rubble and the whole site is to be preserved on a peninsula in the middle of the lake formed by the former gravel quarry. The next stage will be to replace all the surviving stones (and replicas where they are missing) dig out some of the recent ploughsoil in the ditch, leaving all prehistoric deposits remaining. This idea is literally to put the site back on the map. It will be a partly new but nevertheless totally authentic Ancient Monument. The restoration will also provide the opportunity to try out some prehistoric engineering on an experimental basis.

The Devils Quoits is the only monument of this type which has seen the total excavation of the interior. In the middle of the monument there was a roughly oval setting of post holes which were central to the ditch rather than the stone circle. Apart from this however, the interior was largely devoid of contemporary archaeological features.

The stone circle probably consisted of 36 stones of which 29 stone holes were located. These form a moderately accurate circle though there were some distinct breaks. The stones were mostly diametrically opposite each other and the largest of the few known stones was that standing in 1940 which was 3 metres high. A hole for a much larger stone was excavated at the eastern entrance. Half a dozen of the original stones were found.

The surrounding ditch was roughly elliptical and its lower fill contained patches of burning and animal bone. These deposits have been dated to 2,000 b.c. but small samples from the packing of the stone holes should give a date for the stone circle as well. The site was cultivated from the Roman period onwards and its massive bank was all but flattened by 1940. Any slight structures had thus been long destroyed though it seems clear that there were no burials or pits deep enough to penetrate the subsoil.

## Rollright

THE multi-disciplinary study of the Rollright stones reported in CA 89 has now been completed and published. The Rollright stones were one of the very first Scheduled Ancient Monuments for they appeared on the Schedule of the Ancient Monuments Act of 1882. In 1882 the site was restored and one task of the objectives was to establish what of the present monument is original and what is restoration. The project ended when we excavated part of the stone circle to replace a stone broken by vandals. This duly showed that this broken stone had been re-erected in the 1882 restoration over the holes of two missing stones. This confirmed the interpretation already made from comparison of antiquarian drawings and a recent survey that the ring was originally a continuous wall with just one narrow entrance to the south-east. Such continuous wall stone circles are found almost exclusively in Cumbria and the eastern seaboard of Ireland. What was such a stone circle doing in the Cotswolds?

The excavation also sheds new light on the folklore traditions that surround the Rollright stones. If you count them and get the same number three times, you can have any wish you like! The new evidence shows that they cannot be counted as they are not all there. There are also stories about the terrible things which will happen to anyone who tries to move the stones. These stories probably reflect the fact that a large number of stones have indeed been disturbed and removed: it is only through the Devil's intervention in this folklore that any have survived at all!

## Barrow Hills, Radley

WHAT was a Bronze Age Barrow cemetery really like? A characteristic form of some Wessex barrow cemeteries is the avenue of round barrows; but was there anything in between? Were there small, perhaps earlier burials which established the site as sacred ground? It is only recent work on a large scale that has uncovered not only the major barrows but also the minor barrows as well.

The most extensive such barrow excavation has been at Barrow Hills on the outskirts of Radley. Barrow Hills is a well-known barrow cemetery adjacent to the Abingdon causewayed camp, but the barrows survived only as crop marks and Scheduled Monument Consent was given for a housing estate to be built over the southern end provided that full excavation was carried out, directed by Claire Halpin and Richard Bradley.

The sequence began in the Middle Neolithic when an oval barrow (marked rectangular on the plan) was constructed of a type that is becoming recognised as typical of Middle Neolithic. It was surrounded by two concentric ditches built one after another. At the centre was a grave with two crouched burials, one a mature male with a typical middle Neolithic "beltslider" of Jet or shale, while the other contained a mature woman with a flint blade polished on both sides. The later of the ditches contained deliberate deposits of flint, pottery, antler and human skulls very similar to the deposits of the inner ditch of the Abingdon causewayed enclosure situated only 100 yards away across a narrow but steep valley.

Between the construction of this middle Neolithic oval barrow and the Early Bronze Age round barrows, a variety of burial practices – perhaps we should just call them ritual practices – came to light. For instance, there was a variety of beaker activity. There were several burials, fragmentary and unmarked. Only one was marked by a small ring ditch with causeways in it though this was the richest. The skeleton was of a man with a barbed and tanged arrow head jutting from his lower spine which had presumably killed him. He was accompanied by a long necked (S4) beaker and also five finely flaked barbed and tanged arrowheads which had probably been in a quiver: they can just be seen on his ankle in the photo, p. 13.

Some of the flat graves were quite rich. For instance there was the crouched burial of a 4–5 year old child, with three copper/bronze rings, a bone disk, and two beakers, one a crude barbed-wire beaker, the other a Wessex/Middle Rhine type containing the bones of a newborn baby. Perhaps the richest of all was a crouched burial of a mature male with an exceptionally fine early (European) beaker. He also had a bone pin with a winged head – unique in Britain – a tanged knife, and two barbed and tanged arrowheads.

There was also a pit burial in a large pit 5 metres wide. At the centre was a disarticulated burial possibly in a bag – the remaining limbs were associated with a charcoal spread. The whole site was clearly a important beaker cemetery – there were others not described; but we should note that only one of the graves was marked by a ring ditch.

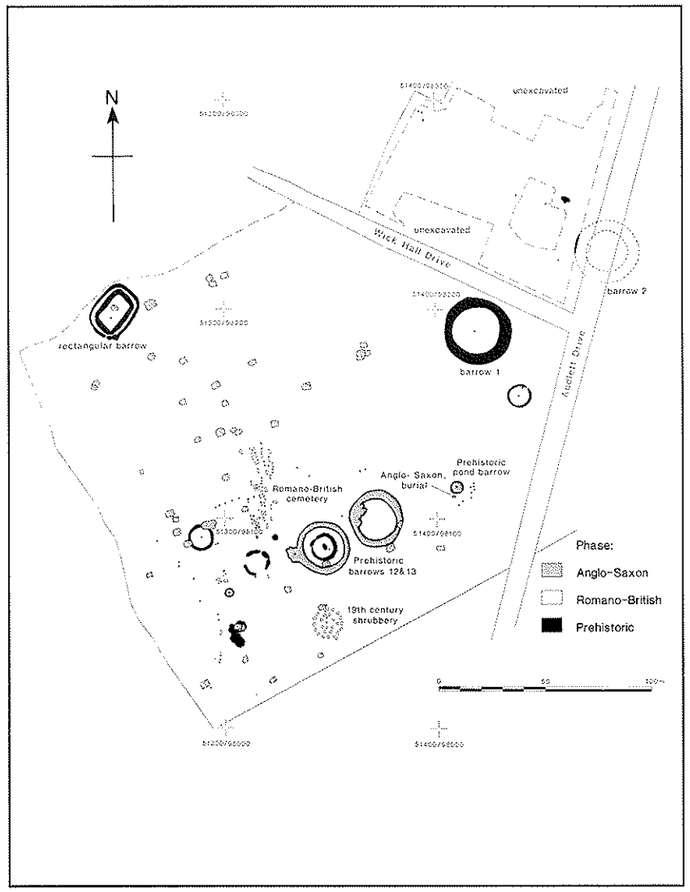
But it was not just beakers – there was also grooved ware (indicating activity by separate 'grooved ware' people?). This was in the form of seven pits, set in an arc around a ring ditch. Was this ring ditch a barrow or henge? It is possible that there had been a central burial which had been ploughed away, but it was constructed in segments, so it may have been a henge. Around it were seven pits, most of which contained grooved ware, indeed one pit had up to five vessels. But as usual with grooved ware pits, there was no sign of any human bone. It looks therefore as if there was grooved ware ritual activity here, as well as beaker activity.

There was also slight evidence for early Neolithic activity. A rather deep ring ditch – see photo – had antlers and articulated animal bones arranged around the base, and fragments of a plain Neolithic bowl in the fill. Much later a pond barrow may have been built over the top of it, for a fragmentary Bronze Age vessel containing cremated bowl was found at the centre. Later still it was cut by the outer ditch of one of the Bronze Age barrows.

Finally, three of the major Bronze Age barrows were also excavated. The earliest was probably Barrow 12, the westernmost barrow of the avenue, where a central grave contained a man in the prime of life with a copper/bronze awl by his left foot. In the ditch was a biconical urn containing cremated bone with a miniature vessel inverted over its rim.

The finest burial was in Barrow 1 which contained a cremation, accompanied by a copper/bronze knife with organic remains of the hilt and sheath. There were also a pair of tweezers and a ring-headed pin suggesting a "Wessex 2" date. The third barrow, barrow 13, had no central burial.

**Below. Plan of Barrow Hills, Abingdon. In addition to the barrows, there was also a Roman cemetery and a Saxon village**



Watercolour by George Lambrick to show how the Devil's Quoits should appear when refurbished, on a peninsula surrounded by the lakes of the former gravel quarries.

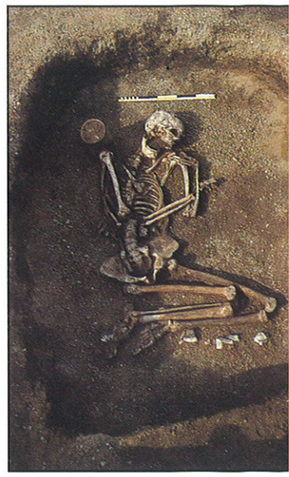
Two of the barrows at Barrow Hills can clearly be seen, with the ring ditch to their left.

In the foreground, a neolithic ring ditch. Beyond it, barrow 12, with the central mound reconstructed for temporary display.

In among the upstanding barrows was one of the mysterious so-called pond barrows, a shallow depression in the ground, forming a barrow the wrong way up. These are always difficult to recognise and have rarely been excavated but here there are two unaccompanied cremations, deposited in rough hollows in the interior of the barrow. Round the outside was an arc of inhumations, three of them accompanied by food vessels.

Barrow Hills is a classic Wessex cemetery in exile: the layout of the barrows in two parallel rows, the types of barrow including the pond barrow and even the grave goods suggest Wessex influence. Its nearest well known counterpart, geographically, is the Lambourn Seven Barrows, though another known from parchmarks underlies the University Parks in Oxford. What is most remarkable however is the early burial tradition which preceded the formal planning of the cemetery. Most of these unusual burials were unmarked and were only discovered because of the large area excavated between the barrows. Were they really so unusual after all?

Below. Crouched burial with beaker at shoulder, and quiverful of arrowheads over the foot.



The neolithic oval barrow under excavation. The Abingdon causewayed camp is in the trees to the left.

# Farmers and Shepherds in Bronze Age and Iron Age

George Lambrick

**Farming becomes prominent in later prehistory. The new life-style is found in the Reading area in the Bronze Age, but in the Oxford area in the Iron Age.**

How do we see the transition from early prehistory to later prehistory? In earlier prehistory, society was underpinned by the building of ceremonial and funerary monuments, and the leaders displayed their position with prestige goods and livestock. In later prehistory we begin to see societies which supported petty kingdoms and the beginnings of urbanism; but this political strength was based on a burgeoning mixed farm economy. One of the principal themes of research by the Unit has been the study of this intensification of agriculture.

Much of the early work of the Unit was based in the upper Thames around Oxford where the agricultural sites begin only in the Iron Age. Recently, however, we have moved downstream to the middle Thames around Reading, and here we find a very different picture, with agriculture beginning in the Bronze Age and then often dying away and reappearing only at the very end of the Iron Age and in the Roman period.

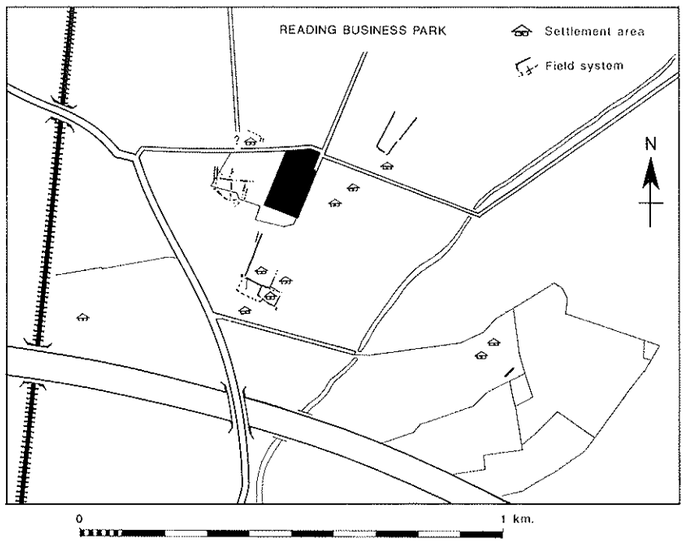
In the Reading area there was a remarkable density of late Bronze Age settlements around the confluence of the rivers Thames and Kennet. The Reading Business Park is currently being constructed in the valley of the Thames adjacent to the M4 motorway and in our investigations in advance of the construction of the Business Park, eight settlement foci only 0.5 to 1.5 km apart have been discovered within an area of 6 square km.

The most extensively excavated of these is at Small Mead Farm funded by Reading Business Park and Sheraton Securities International Plc and directed by John Moore. At least four settlement nuclei were found here on low lying ground close to the river Kennet. They reveal a typical range of structures: round houses built of posts, some of which have been replaced up to seven times, 4- and 6-post structures probably used for storage, pits, ponds, wells, fences and ditches forming field boundaries. These field boundaries are probably paddocks, some of which show more than one phase.

This can be seen most clearly on one of two main settlement nuclei at the Business Park. It began as a series of paddocks which were used for some time, for the ditches had been cleaned out several times and the entrances had been repositioned. After the field system went out of use, a settlement was established. The entrance is on the west and a path led between a series of large pits to two round houses on the other side. While only part of the settlement has been excavated so far, it seems apparent that the round houses are well spaced as single and double units. There is a large open area to the north and a group of 4- and 6-posters to the south.

The wells, water holes and paddocks suggest pastoralism, and so too does the environmental evidence. Flax was grown, but carbonised grain is largely absent, though querns show that cereals were consumed. Land use may be related to topography. At nearby Aldermaston (CA 54), on slightly higher ground with better soils, there is much more evidence of carbonised cereals.

Richard Bradley has suggested that there was a major high status site at this period at Marshalls Hill under the modern suburbs close to Reading University, where Christopher Hawkes did some rescue work many years ago and found a remarkable range of finds. These farms were perhaps occupied by the subjects of an elite based at Marshalls Hill whom they supplied with food, possibly in exchange for metalwork. There is a major concentration of late Bronze Age metalwork in this reach of the Thames.




**A number of settlements were located at the Reading Business Park. The main excavations were at Small Mead Farm, the group of 4 settlements at the centre. Note the M4 motorway running across the bottom of the plan.**

## *Wallingford*

We have also been investigating a high status Bronze Age site at Wallingford. Wallingford lies in the upper Thames valley just upstream of the Goring Gap. The river here has produced large quantities of Bronze Age weaponry, and for years the site has been known to the cognoscenti who fieldwalk the river bank to find objects washed into the river by passing motor boats.

This particular site was first investigated by John Wymer in 1959, and more recently the Unit excavated assessment trenches in advance of the proposed Wallingford bypass. These showed that the site was originally a long thin cigar-shaped island or eyot in the river. The present river almost exactly follows its original course but there was formerly another shallow, very wide channel creating this 18 m wide and 150 m long eyot.

Our test pits suggested that the upstream end may have had structures on it while the downstream end was clearly a midden which produced most of the finds. The most interesting discovery was the remains of a bridge or jetty consisting of oak piles driven into the river bed in the edge of the buried river channel opposite the middle of the island.

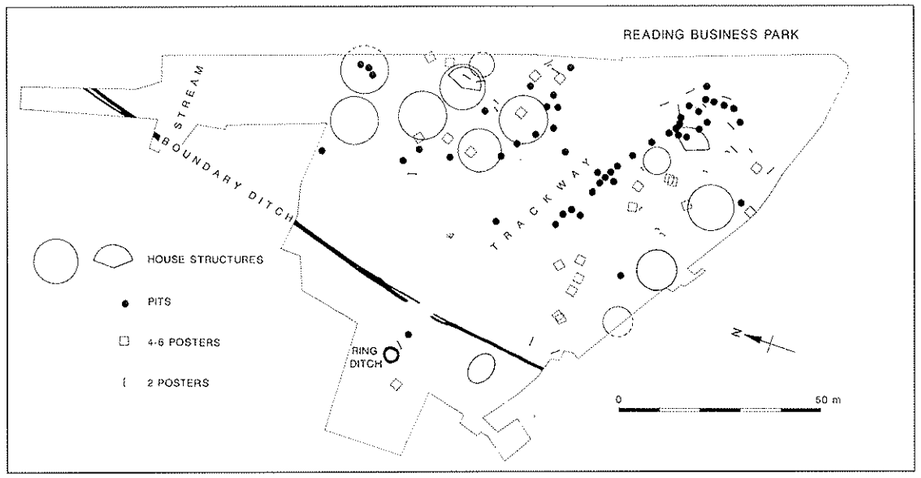
Finds from the site include high-class objects such as a small fragment of gold and a glass bead, as well as the evidence for metalworking – a droplet of bronze, and the fact that the bronze tools were all scrap, ready for the melting pot. The pottery and flint work are both unimpressive, but of interest in relation to finds from the region as a whole. There was also a rich variety of worked timber.

Wallingford is one of a series of high status island settlements in the Thames, the richest and best known of which is Runneymede (CA 67). It seems likely that these sites may have functioned as inland ports controlling river traffic and growing rich on the exchange of valuable commodities.

One of the most striking aspects of these late Bronze Age settlements is their sudden demise; the whole area around Reading was abandoned by the Iron Age and was not reoccupied until the Late Iron Age or early Roman period. It has been suggested that the system suffered a major blow when bronze was replaced by iron and the cult market for prestige metalwork collapsed. With it may have gone a traditional reliance on livestock, perhaps a less archaeologically visible form of wealth. The upper Thames valley would more readily obtain access to iron, the new cult technology, and at the same time diversification into arable agriculture would have allowed rapid economic growth on soils more suited to cereals.

## *Gravelly Guy*

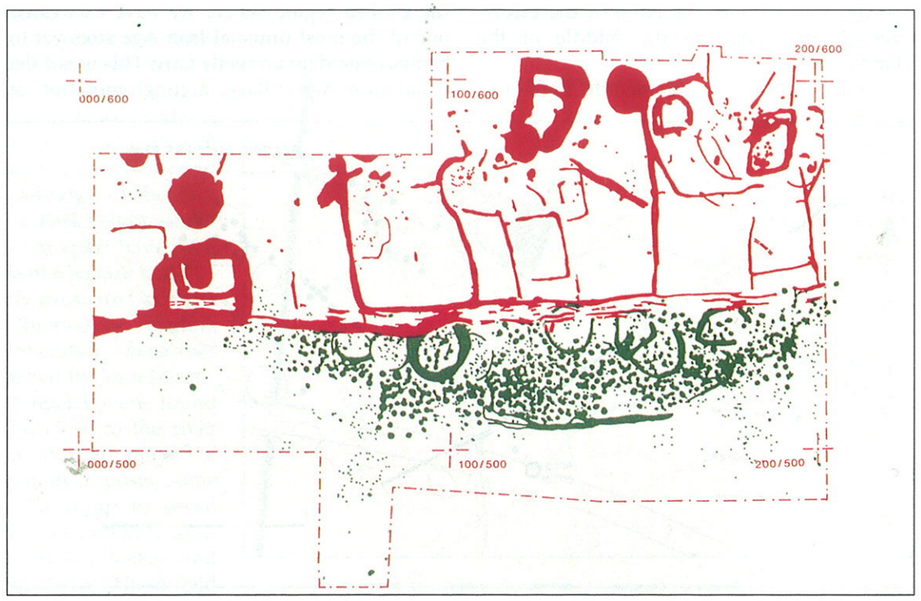
Moving into the upper Thames valley we have also been continuing work in the Oxford region where we have excavated one of the most unusual Iron Age sites yet to be discovered, at Gravelly Guy. This is not the usual Iron Age village, a conglomeration of




**Plan of the Bronze Age settlement at Reading Business Park. The entrance was through the boundary ditch at the centre with a ring ditch just outside it. This led in to a trackway with pits and round houses to either side of it. Are the round houses in pairs?**

round houses, but instead was a long narrow strip of occupation with a clearly marked boundary to one side. We now believe we have found the reason for this.

Gravelly Guy lies at Stanton Harcourt, part of the huge Stanton Harcourt cropmark complex now almost entirely quarried away for gravel. All that now survives is the shortly to be restored site of the Devils Quoits. The




Above. Wallingford. These test pits indicate the position of the Bronze Age settlement at Wallingford. Note the River Thames, top right.

Above right. Bronze Age pottery from the Reading Business Park

Right. Gravelly Guy: Iron Age, black, Roman, red. The Iron Age settlement was strung out along a ritual boundary of the former Bronze Age barrows, round the Devil's Quoits. In the Roman period, settlement shifted across the boundary.



The landscape at Gravelly Guy/Stanton Harcourt. First note the River Windrush, winding from centre bottom to middle right (very difficult to see at first). The Devil's Quoits are at the top right corner. Gravelly Guy is the smaller of the two excavated areas in the centre. The advancing gravel pit covers the area of the flood plain.

Left. Excavations at Gravelly Guy showing round houses and pits. The ditches to the left are Roman in the former area of ritual/pasture. The pits are mostly behind the houses, on the side of the arable.

*Gravelly Guy was excavated with funding from English Heritage and the co-operation of Smith and Sons of Bletchingdon.*

Devils Quoits in fact lie only 300 yards from Gravelly Guy and provide a clue to the whole area, for by the Iron Age the monument is thought to have survived in the middle of a large area, perhaps of common grazing land, bereft of Iron Age occupation. This common land was strictly delimited, and Gravelly Guy was on the boundary. On one side of the settlement there was a strip of arable along the edge of the gravel terrace, but on the other side there is the sharp boundary of common grazing ground.

The site consisted of a very dense cluster of pits and ditched enclosures, squashed into a band 170 m long but only 30 m wide. The main settlement was fully excavated and produced 800 pits, 30 houses, 16 4-post structures (hardly any of which were previously known in the upper Thames valley) and 40 animal burials; more querns, loom weights and bone implements were found than in the first ten years at the Danebury hillfort. Within the seeming confusion of pits, postholes and ditches, there is more order than first meets the eye. The site is divided into six blocks, perhaps representing households. The divisions were established early in the life of the settlement. The pits tend to cluster on the side towards the edge of the gravel terrace i.e. towards the arable fields, while the enclosures, some of which are probably animal pens, open out towards the suggested common grazing area at the centre.

Gravelly Guy was just one of six similar sites laid out along the boundary between the central common around the Devils Quoits and an arable strip following the edge of the gravel terrace. A trench across the junction of the terrace and the Windrush flood plain at Gravelly Guy revealed Iron Age ploughwash deposits overlying the thin soil of the flood plain. The ploughwash was later covered by alluvium which started to accumulate in the late Iron Age or Roman period.

Throughout the Iron Age the settlement was growing, for the number of the pits increased, there were more finds and the range of items exchanged with other areas grew. Surprisingly, there is no indication that the fertility of the soil declined. Possibly there had been more than enough land for arable from the beginning.

In the late Iron Age the settlement at Gravelly Guy was abandoned and shifted from within the edge of the arable area across the boundary into the grazing ground. The new settlement consisted of a series of paddocks, domestic enclosures, wells and strange arena-like features.

Gravelly Guy has been investigated as part of a much wider study of the Stanton Harcourt area, which shows a remarkable degree of co-operation in the farming system. It appears that pastoralism intensified in the middle Iron Age, when specialised pastoral farms of a quite different form were established on lower lying ground. Some are enclosed, some unenclosed. Some of the enclosed settlements are fairly typical "banjo" enclosures. The best example is the Mingies Ditch enclosure at Hardwick described in CA 63 which had diverging antennae ditches so that animals could be herded into the enclosure. There were two widely spaced concentric ditches, and the excavators argued that the space between the two was used for corralling animals. In the inner area there was a succession of turf and post built houses with open areas for penning animals for calving.

The Oxford Unit also excavated a similar site at Northmoor, although this did not have the second ditch and was dominated by a single central round house surrounded by deep gullies to protect it from the animals. Both sites had waterlogged deposits in the ditches which gave evidence of an environment dominated by grassland with thick hedges nearby.

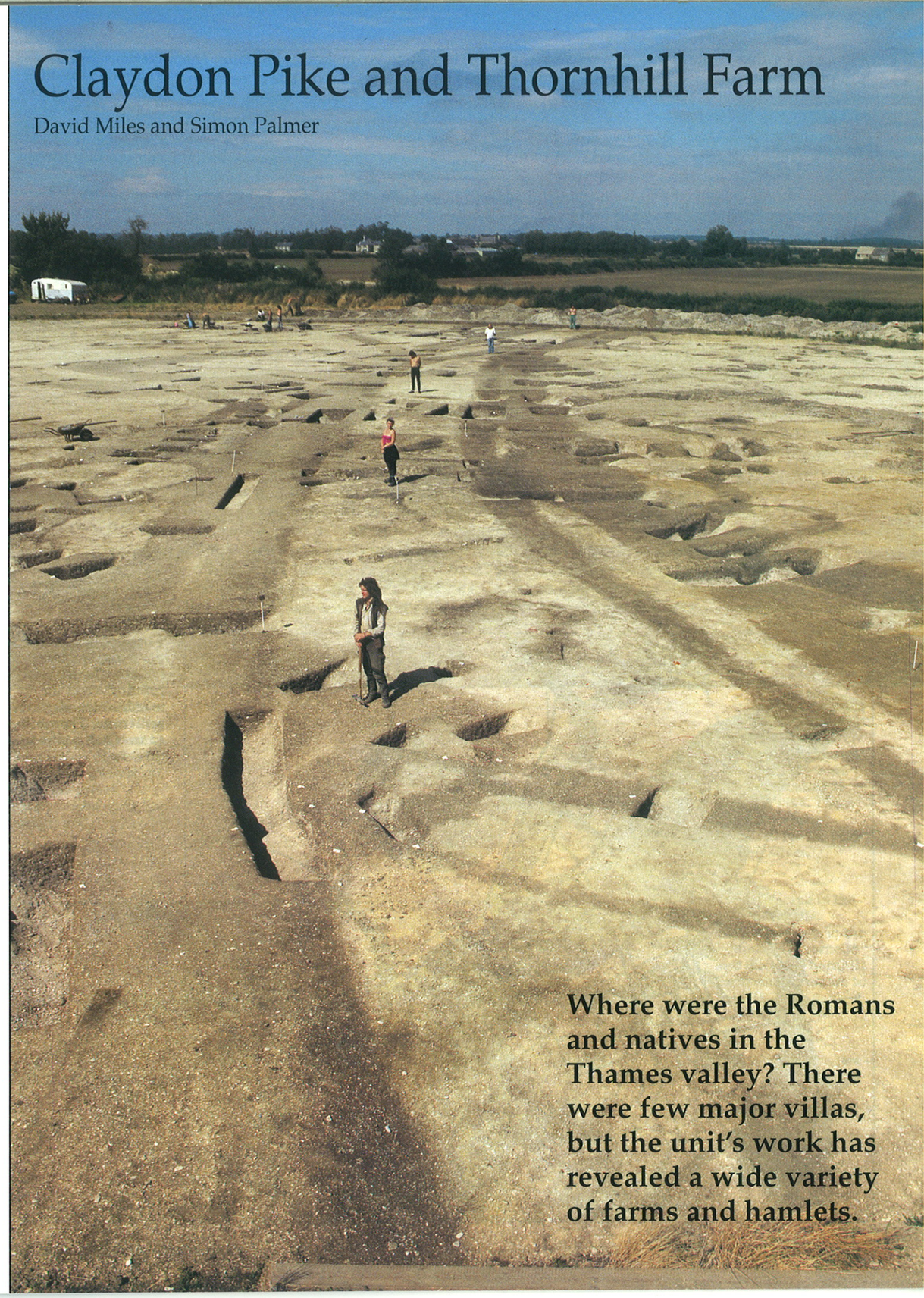
There were also the unenclosed pastoral settlements consisting of houses surrounded by drainage gullies with pens and paddocks attached. The group of three farmsteads at Farmoor described in CA 63 was a good example. This site represents the ultimate in specialised pastoralism; a summer camp exploiting the rich grazing of the Thames flood plain, but probably only used for half a dozen years. Other excavated examples include a series of three farmsteads still surviving as earthworks on Port Meadow and a newly discovered site at Gill Mill just south of Witney. Port Meadow is an expanse of riverside common land in north Oxford that has been used for grazing by the Freemen of Oxford for the last 900 years: the Iron Age plant species list matches almost exactly that of the present day.

This landscape approach to the excavations has shown how agricultural production intensified during the Iron Age. The land was still organised for communal use and no investment was made in the technological or more labour-intensive improvements which were to come in the final Iron Age and in the Roman period. The basis of the economy was agricultural and the area was probably producing a surplus which could be traded for goods from outside such as querns, salt and metalwork.



# Claydon Pike and Thornhill Farm

David Miles and Simon Palmer



**Where were the Romans and natives in the Thames valley? There were few major villas, but the unit's work has revealed a wide variety of farms and hamlets.**

CLAYDEN Pike is the climax of a research programme that was originally laid down in the mid 70s. We tried to ask two questions. Firstly, were there any regions within the valley? And secondly, how far can different types of site be recognised? This has not been easy, because the countryside has been heavily ploughed and well-drained, but we have tried to find well preserved deposits.

This approach was first demonstrated around Abingdon, where the two contrasting sites of Ashville and Barton Court Farm were excavated (CA 63). Ashville represents the conservative streak of peasant farmers. By contrast, Barton Court Farm, just close by, was a much more dynamic and go-ahead farmstead.

Within the Thames valley we have been able to recognise several subregions. In the late Iron Age this Abingdon/Dorchester area was relatively advanced, being on a tribal boundary, and open to the intertribal trade and continental contacts. Immediately to the west of Oxford, we move into the backwaters, where Gravelly Guy represents an area of relatively backward peasant farming. Further westwards we come within the more prosperous orbit of Corinium, the second largest town in Roman Britain. The Unit has now completed a decade of research, funded by English Heritage, within the so-called Cotswold Water Park in Gloucestershire.

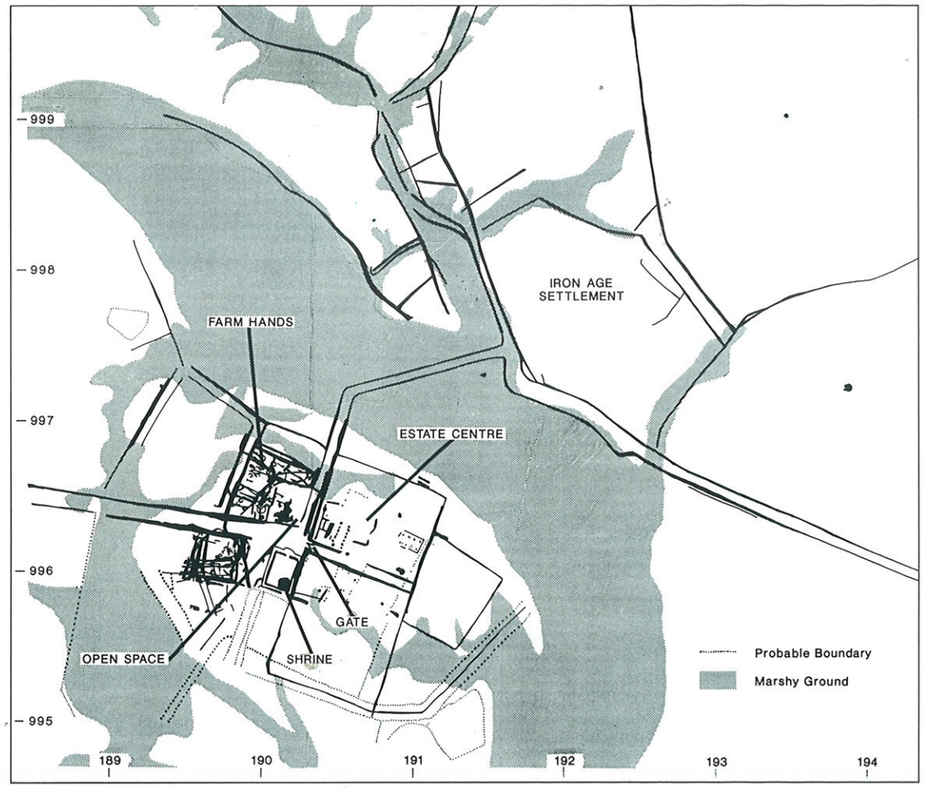
This was a narrow strip of low-lying gravel terraces running from Lechlade in the east to Cirencester in the west, a distance of about 18km. In 1959 the area was designated for gravel extraction in the grandiose style of 1950s planning, to form the Cotswold Water Park, an inland area of lakes to rival the Norfolk Broads.

In the 1970s aerial survey showed that late prehistoric and Roman settlements ran continuously along the gravel terraces and occupied almost all of the gravel 'islands' within the Thames flood plain. Unfortunately as rapidly as they were discovered, the sites disappeared into the gravel quarries.

The OAU decided to focus its attention on a block of land between Fairford and Lechlade, bounded by the river Coln in the west, the Thames to the south and the river Leach to the east, an area of about 15 square kilometres. A large tract of early settlement, roads and fields survived in the late 1970s – the Claydon Pike and Thornhill Farm sites.

Although the OAU approach to the Thames Valley is a regional one, there is much

**Previous page. At Thornhill farm, the Roman road that runs through the centre of the photo cuts across the earlier Iron Age landscape, which had been abandoned when the road was built.**

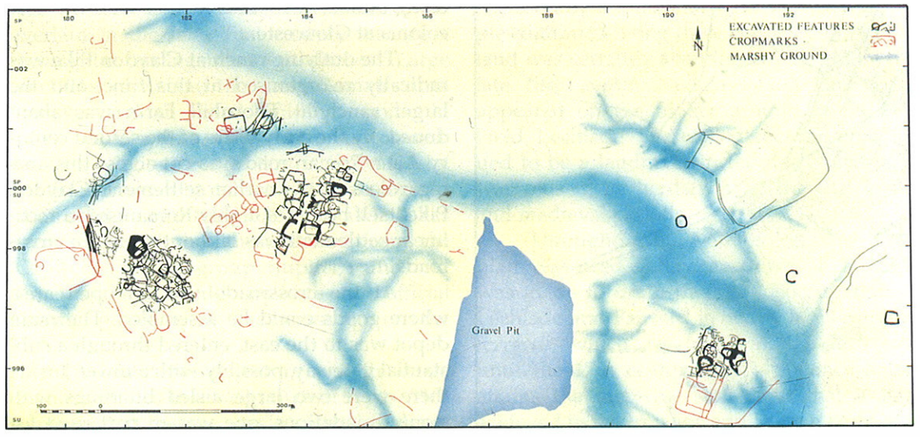



**Left. Claydon Pike in the Roman period, with the Roman road running across the marsh and through the settlement. Thornhill Farm is half a mile to the left.**



**Above. In the fourth century a circular temple was built out in the marshes. Here we see it under excavation, while the gravel quarry creeps up in the background.**

**Left. These two Roman republican coins were already two centuries old when they were lost or deposited at Claydon Pike. These coins were long treasured for the purity of their silver.**




**The landscape in the 1st century AD: Claydon Pike is in the bottom right corner, and the two Thornhill Farm complexes are to the left.**

truth in Mies van der Rohe's statement 'God dwells in the details'. The Claydon Pike/ Thornhill investigations have allowed us to analyse in great detail the changing pattern of exploitation of low-lying Thames grassland in the first millennia BC and AD. Three main sites have been investigated, Claydon Pike Lechlade parish, Claydon Pike Fairford parish, and Thornhill Farm, under the direction of David Miles and Simon Palmer.

The area was not permanently settled until about 300 BC when a series of small middle Iron age farmsteads appeared in Claydon Pike Lechlade parish (CA 86) on the slight islands of drier gravel, surrounded by marshland. Drainage ditches were constructed around and between the islands, and permanent settlement seems to have depended on the availability of labour resources to control this rich but difficult landscape. Carbonised seeds suggest that a small amount of arable farming was practised but pastoralism dominated the middle Iron Age economy at Claydon Pike. Loom weights indicate that weaving was carried out and fragments of crude clay vessels of briquetage from the Droitwich area show that salt was brought across the Cotswolds and used, perhaps, for the preservation of meat.

In the early years of the first century AD the distant Roman empire acted as a catalyst for change in southern Britain. This area was no exception. The scattered Middle Iron Age settlements were abandoned and the focus of activity shifted westwards across the modern parish boundary into Fairford parish. The area was still intensively exploited for pastoralism, but the reorganised landscape suggests a different social and economic structure. Scattered farmsteads were replaced by nucleated settlements where a small number of people controlled extensive, specialised ranches.

At Thornhill Farm the nucleus of one of these ranches has been excavated since 1985. This contained small round houses, gated pens and groups of so called 'stack rings' (circular gullies, possibly indicating areas for fodder stacks). Beyond the ranch nucleus area was about 12 ha of rectilinear enclosures and further to the south-west a zone of smaller, seasonally used pens cover about 3 ha. A similar, smaller and possibly satellite ranch has also been found at Claydon Pike beneath the later Roman settlement.

The biological evidence from the late Iron Age reveals an open landscape virtually devoid of woodland (much as it is today and when Daniel Defoe travelled across it in 1742). The grassland suffered from over-grazing and the pens and enclosures both at Thornhill Farm and Claydon Pike showed signs of heavy wear and tear, with large quantities of dung and dung beetles. The life span of individual pens was relatively short and scrub was allowed to regenerate in some of the abandoned areas. When new pens were dug, they deliberately avoided these used and polluted patches.

Horse rearing seems to have been the main activity on these late Iron Age ranches, probably to supply the higher status sites which are known to exist on the Cotswold slopes, for example at the Ditches north of Cirencester, or the new trading centres, the oppida which were appearing in the region.

The impact of the Roman invasion of Britain in AD 43 does not become evident in the archaeological record until a generation later, about the time that the army was pulling out of the fort at Cirencester and the new city of Corinium Dobunnorum was being established – and further west the new colonia at Gloucester.

The outlying ranch at Claydon Pike was radically re-organised at this time, and the larger ranch at Thornhill Farm was abandoned. By the early years of the second century AD a Roman road was cut across this area regardless of the earlier settlement. Claydon Pike itself becomes highly Romanised: a rectilinear settlement was laid out around a crossroads.

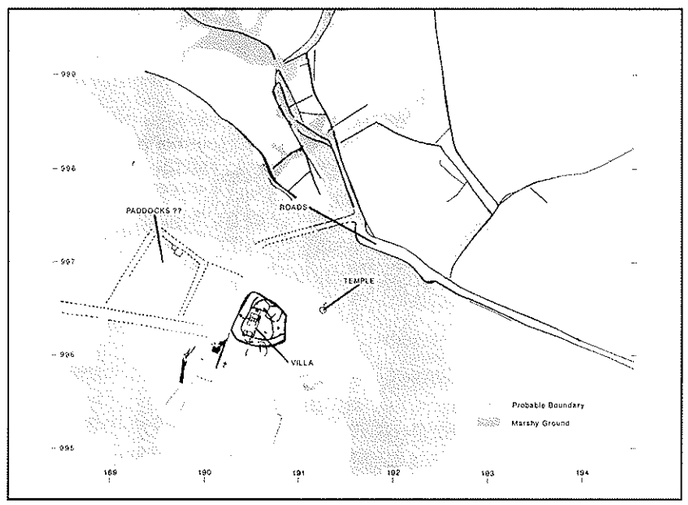
At the crossroads was an open area, where goods could be assembled. The main depot was to the east, entered through a substantial gateway, possibly with a tower. Inside there were two large aisled buildings with stone foundations; one was in part used for domestic purposes and had painted wall plaster; the other probably functioned primarily as a storage building.

On the other side of the road, to the west of the central area were the living quarters of the farm labourers, with simple rectangular cottages inside a hedged enclosure.

To the south a rectangular structure has been interpreted as a shrine. There was carved limestone in the area, and we also found a complete cone of an umbrella pine. This pine tree is only found in the west Mediterranean, but the cones were exported widely to temples, and burnt as incense.

There is evidence of military involvement at Claydon Pike in the early second century, albeit on a small scale. Several pieces of military metalwork were found, as well as an intaglio ring, showing an eagle, orb and thunderbolt, which may have belonged to an officer. There were also large quantities of amphorae and glass vessels.

At the same time, the farming structure changed too. The land was no longer heavily stocked with horses and instead hay meadow predominates for the first time. We are now seeing the appearance of a specialist hay producing centre, supporting the newly emerging city of Corinium to the west, and possibly under official control in the late first and early second century.




**In the late Roman period, the estate was privatised and a villa was built at the centre. At the end of the fourth century the villa was defended by ditches.**

## *Somerford Keynes*

THE Unit's research in the Water Park has revealed another site with similar development. At Somerford Keynes, just a few miles south of Cirencester, excavations and salvage work have revealed a builders depot, specialising in tile. This is a small site situated on the banks of the Thames midway between the Roman tile producing area of Minetey and the new town of Cirencester. Here a late Iron Age settlement of ditched enclosures was overlain in the later first century AD by a rectangular arrangement of ditches. Large quantities of Roman tile, early Roman coins, brooches and an aisled building, similar to those at Claydon Pike, were uncovered. Again a religious connection is indicated by the three items of stone sculpture: an eagle, a small shield and a fragment of an altar. It has been suggested that these derive from the 'Capitoline Triad' group (Jupiter, Juno and Minerva) and could indicate an official Roman presence at the crossing of the Thames.

The outstanding feature was the huge quantity of tiles in a vast range of types. This suggests that the site was a collection depot for the tile industry before transportation to Cirencester, where a building boom was under way during these later years of the first century. Could this urban demand also have the catalyst for the changes further downstream? Can Claydon Pike be seen as an estate centre, initially policed by a small detachment of soldiers, providing hay and possibly some livestock for the demanding new town?

Later in the century however, Claydon Pike changes again. The official complex is privatised, and converted into a small villa. The shrine and the domestic yard are demolished, and the buildings within the compound are replaced by a comfortable domestic farmstead which might even be described as a small villa – one room had underfloor heating. The farming now becomes more mixed. Pasture still predominates but flax and corn is grown. On Thornhill the Roman fields become arable and we find buried Roman plough soils over the earlier pasture fields. We now see a mixed farming regime based on a Roman villa.

In the 4th Century a round temple was erected out in the fields. It was set in the marsh and surrounded by a circular stone wall with a clay floor in the interior covered with coins. We found about 400 late Roman coins on the floor, together with some miniature tools. There is a pathway leading to it from the north, i.e. not from the Roman villa but from the Roman road through the fields. It is a field shrine where travellers or those working in the fields toss their coins or dedicate miniature models of their tools.

We also discovered the cemetery of the villa, centred around the deeply buried grave of an adult man. Around it was a cluster of other burials including decapitated ones, 15 or 16 in all.

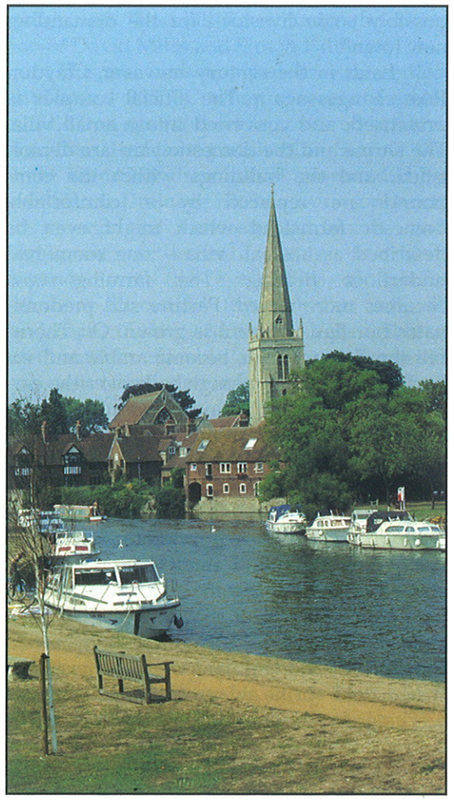
Around AD 400 the farmstead was enclosed by a ditch and wall. How long people continued living there is uncertain but the land was certainly abandoned well before the late fifth century, when Saxon cemeteries appeared on the higher ground at Butler's Field, Lechlade. The walled enclosure continued to be a landmark in the flood plain and was reused, by herdsmen, in the late Saxon and medieval periods.

Throughout the Middle Ages the flood plain was used as hay meadows. No attempt was made to drain them, and occupation at Lechlade and Fairford is on the higher gravel terraces, which are free-draining. It is not until the 17th century that area once again attains the intensive settlement that it had achieved in the Iron age and Roman period.

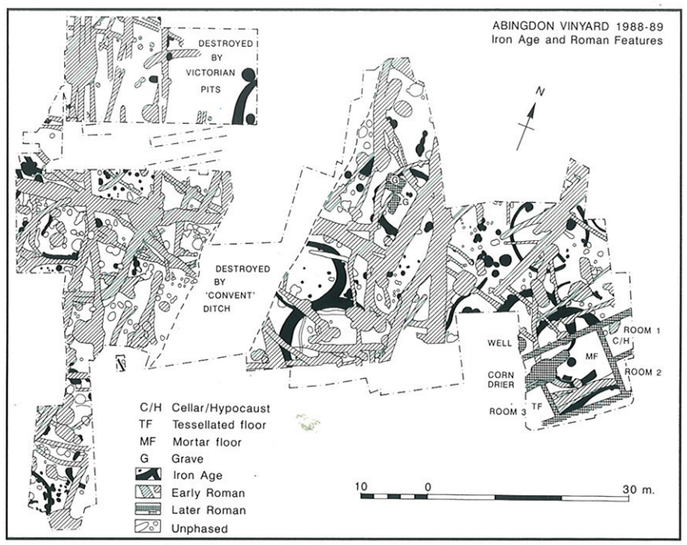
**This fragment of sculpture from Somerford Keynes may possibly be part of an eagle. If so, it may possibly be part of a 'Capitoline Triad' group.**

# Abingdon

Tim Allen



Right. Abingdon and the River Thames, with the spire of St Helens church in the background.




Iron Age and Roman features. Note Iron Age round houses (solid black) and Roman building, bottom right.

**At the Dissolution, the Abbey at Abingdon was one of the six wealthiest in England.**

FOLLOWING the Dissolution, demolition was thorough and today little remains above ground. The site however is still preserved beneath the flower beds of the Municipal Park. Following excavations in 1922 (reported in Medieval Archaeology 1968), the main part of the structure was scheduled. When the Vale of White Horse District Council, alias the Abingdon Borough Council, wished to build itself new council offices, it decided to use an area adjacent to the Municipal Park known as The Vineyard, which covered the outer area of the Abbey grounds. Extensive excavations, funded by the Council, have now taken place in advance of this development, revealing an extensive lay cemetery, a surprising and very unusual Civil War cemetery and underneath it all the most extensive evidence of Iron Age and Roman Abingdon yet discovered.

We must begin by going back into prehistory. Abingdon is situated, like Oxford, at a key point on the river Thames where it is joined by one of its major tributaries, in this case the river Ock: see the general plan on page 6. Before the Vineyard excavations, Iron Age and Roman objects had been discovered all over the town, but no structures had been excavated. No major Roman roads cross the area, so what sort of a settlement was there?

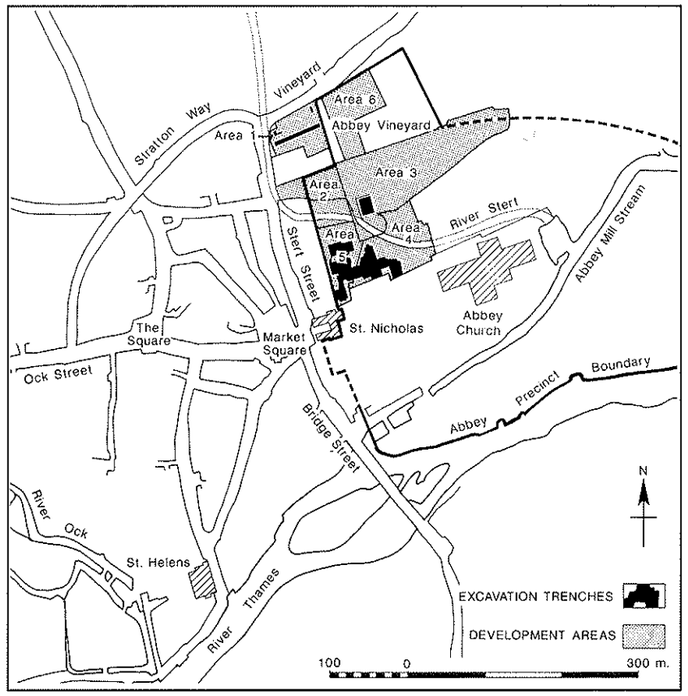
On the Vineyard site the main occupation began in the Iron Age. No Neolithic or Bronze Age features were found, only a collection of flints. In the early Iron Age, settlement features appear, and by the middle Iron Age there was an extensive village of at least nine circular houses, while in the south-west corner there were hints of a more elaborate structure.

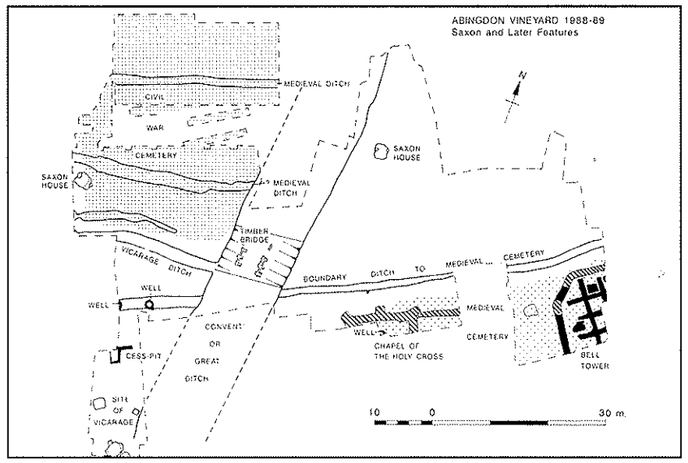
The most recent evidence suggests that this may have been an 'oppidum', for the late Iron Age and early Roman period settlement was surrounded by a defensive ditch 10 m wide and cut 3.0 m deep into gravel, off the plan to the north. From an occupation layer halfway up the ditch fills came a group of fine ware pottery dated to c 50 AD, so it is likely



Above. View of the excavations. The Convent ditch runs across the centre, with the footings of the bridge just peeping above the water. Note in the distance St Nicholas' church, and the Market Hall seen on the front cover.

Left. Footings of the bridge across the Convent or Great Ditch.




**Top. Plan of Abingdon. The abbey church itself has vanished, but the excavations were in the north-west corner of the abbey precinct.**

**Below. Plan of excavated area. Note civil war cemetery, top left.**

that the ditch was first dug during the late Iron Age. Together with the extensive area of the late Iron Age settlement and the evidence for trade, this suggests that Abingdon was an 'oppidum'.

In the early Roman period, the circular houses were replaced by a network of square or rectangular enclosures – the jumble of cross-hatched features on the plan. No houses survive but wall daub in the pits shows that they existed. Prolific finds of the mid to late 1st century AD including a high proportion of fine wares suggest that trading continued.

This intense occupation ended in the mid-second century. The dense occupation was swept away to make way for a masonry building in the south-east corner of the site. The excavated part consisted of three rooms and a cellar. There was a corn drier in the yard, but the rubble contained painted wall plaster and roof tile, while one room contained thousands of tesserae, probably the remains of a mosaic floor. The building clearly had mixed uses.

Four Roman burials were found to the north-west. Three of them were in lead coffins: in the finest, with elaborate cable decoration, the skeleton had been beheaded and the head placed between the feet. Seven coins were found, two barbarous radiates of the later 3rd century AD and five minimi.

Traditionally, interest in Abingdon tends to focus on the early Saxon period. It is often thought that there was a very early Saxon presence in this area, perhaps even a Saxon kingdom centred on Dorchester, and an early cemetery was excavated at Abingdon in 1934. The Abbey too has early origins. The medieval chronicles tell of its foundation by Hean in 688, while his sister Cilla founded a nunnery at Helenstow nearby which preserved a black cross made from a nail from the true cross. The Abbey was sacked by the Danes and was refounded in 959 by Aethelwold, a monk from Glastonbury who subsequently launched the monastic revival. Thereafter the Abbey grew and by the time of Domesday a market of "12 traders outside the Abbey gates" had been established. By the Dissolution, Abingdon was one of the six wealthiest monasteries in England.

Little evidence of the Saxon period appears in the excavations. There were two sunken huts of pagan Saxon type containing weaving equipment, but the absence of any others suggests that they were on the periphery of early Saxon Abingdon. After this the site was deserted until the 11th century, when it began to be covered by the lay cemetery. Two areas were excavated from which some 750 articulated bodies were recovered plus at least 250 disturbed graves. The bodies include men, women and children of all ages; most were in single graves, but group burials of up to six individuals were also recorded.

Burials appear to have begun in the 11th Century in the more easterly area, for some of the early graves lay within stone cists or had stone "earmuffs", a characteristic of 12th century burials in this region.

Early in the life of the cemetery a timber bell tower was built; at least, that is the interpretation of a grid of rough stone foundations: see the reconstruction drawing, right. This grid did not enclose any floors and probably acted as sleeper walls for the timber framework. However the bell tower was destroyed by the early 14th century, perhaps in the riots of 1327, for two unworn silver pennies of the early 14th century were found in the backfill. Burials then took place over the demolished tower.

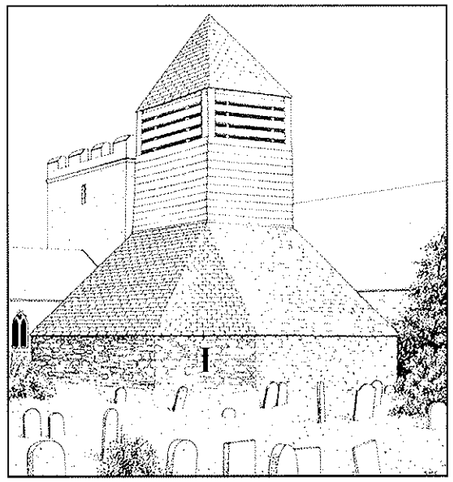
There was a further area of burials to the west which probably represents a late extension of the cemetery. Here again there is an earlier building, probably the Chapel of the Holy Cross. According to the Abbey documents, this was dedicated to St. Edmund and St. Guthlac and was situated near the entrance to the lay cemetery. A new chapel to St. Edmund was built in the town in 1288 so the old chapel may have been abandoned at this time.

The most prominent feature was the convent ditch which ran across the site, forming the western boundary of the lay cemetery. This was 10 metres wide and ran from the river Stert south to the Abbey gateway, and perhaps continued to join up with the Thames. The watercourse appears on the 15th-century Monks Map of Abingdon, and is known from documents to have existed from at least AD 1380. The Abbey's accounts show that the Convent ditch was used as a fish pond and cleaned out frequently, so the earliest finds do not date its origins. It may have been built at the time of the refoundation of the Abbey by 959 by Aethelwold as a fortification, or alternatively it might be after the great riots of 1327 when the townspeople stormed the Abbey through St. Nicholas's church and set fire to the Abbey buildings.

In the bottom of the ditch two trestles of a timber bridge were discovered, which have been dated by tree-ring analysis to 1510. Each trestle consisted of an oak horizontal sill beam resting on three roughly squared lengths of elm tree trunk, with uprights and bracing timbers rising from the sills.

After the Dissolution the Abbey lands were granted to the Blacknall family and when John Blacknall died of the plague in 1525 the estate passed to the Verney family. Sir Ralph Verney was a Royalist who was forced to flee into exile in 1643 and his property was sequestered by Parliament. Abingdon was only 6 miles from the King's headquarters at Oxford and remained in Royalist hands until May 1644 when a parliamentary party took the town.

The most unexpected discovery dates to this time, a Civil War cemetery found in the orchard north-west of the ditch. Nearly 250 burials were excavated from an original total of perhaps 500. The graves were oriented



**The medieval bell-tower discovered in the Vineyard excavation, as drawn by Simon Chew.**

north-south and at first we thought that the cemetery must be Roman, particularly as some of the graves contained residual Roman material. This dating was rapidly revised when one burial was found to have a musket ball between its ribs.

More evidence soon followed. One grave contained a silver penny of Charles I, another an ornamental coffin plate dating between 1650 and 1675 while a third had two Scottish silver shillings of James VI or Charles I. The cemetery clearly belongs to the period of the English Civil War and Cromwell's rule when much of the Anglican rite was considered "Papist". Burials no longer had to be east-west and cemeteries did not need a Bishop's Licence – hence the cemetery's absence from the parish records. There were no east-west burials, showing that the cemetery did not continue beyond 1663 when the Test Act was passed and the Anglican burial rite again became compulsory.

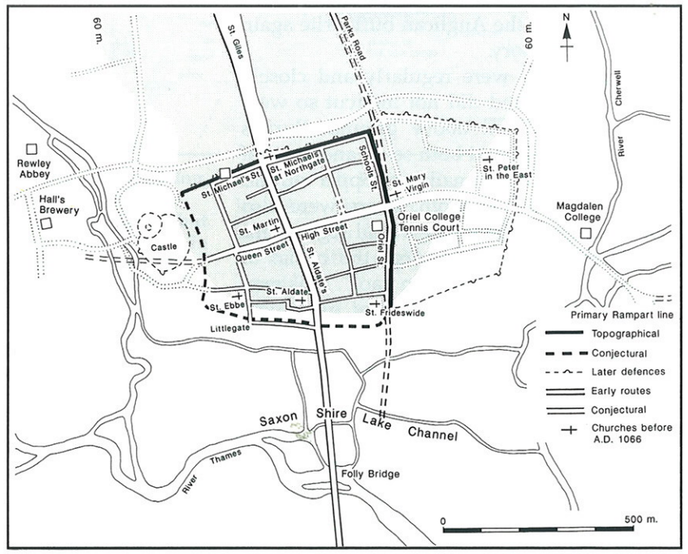
The graves were regularly and closely spaced in rows and did not intercut so were presumably marked above ground. Burials were of every age and both sexes and most of the bodies had coffin nails or copper shroud pins, and a few had both. There were also some multiple burials. The burial register for 1644-5 contains an entry "for the burial of nine prisoners from the town gaol". This may correspond to the mass grave of nine men, one of whom had the tell-tale musket ball in his chest. The gaol at that time was a room over the Abbey gateway only 50 metres away.

This is the first Civil War cemetery of this type to be excavated. The north-south alignment demonstrates the break in tradition more emphatically than any document. We often forget quite how revolutionary were the events of the Civil War.

# The city of Oxford

Brian Durham

Right. Oxford in winter. The Devil's Backbone snakes its way across the flooded meadows from Oxford to South Hinksey.



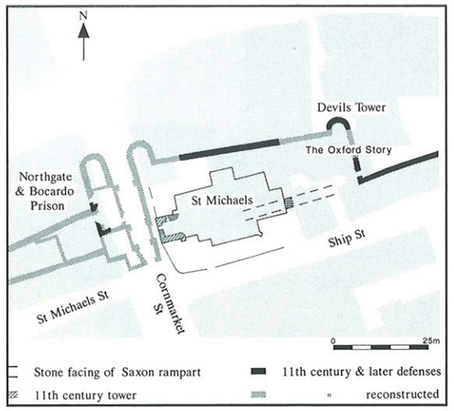

Plan of Oxford to show the hypothetical position of the original defences. Note the position of St Frideswide's (now the cathedral) in the corner of the primary defences.

**There are two particularly interesting problems in the archaeology of Oxford. Firstly, how did it grow from being a provincial monastic centre in the 8th century to being the foremost non-Roman town in England in the 10th? And why and how did it become the dominant academic centre this side of the English Channel in the 12th century?**

If one looks back far enough, the site of Oxford can be seen as yet another Thames confluence site. In Oxford the major linear barrow field is under the University Parks (cricket ground), but every so often a glimpse of a barrow appears under the city centre, showing that much of this wide peninsula was used as a Bronze Age ceremonial focus.



The tower of St Michaels may have doubled as a look-out, enclosed in an outshot of the Town Wall.




Oxford is of particular geographical interest because it lies at the point where the Corallian ridge is breached by the Thames, which makes it an obvious river crossing for the ridgeway. It is all the more puzzling that it should have been bypassed by the Roman road system: most of the Romano-British activity including the pottery industry is up to 2 miles from the medieval town. Why should Oxford have developed here, rather than at Abingdon or Dorchester, which were well established Roman centres?

The story of Oxford begins with St Frideswide, the patron saint of the town. Although the surviving versions of her Life were not written until the twelfth century, if we take the wording literally we can assume that Oxford already existed in some form when she founded her monastic house in the early eighth century. She sited her monastery where Christ Church cathedral now stands on the highest promontory, overlooking the main crossing place of the Thames. The church would have looked out over the greatest river of Southern England, and beyond it a mile and a half of flat valley bottom to the higher ground of the Wessex side. This main channel of the Thames was known as the Shire Lake because it was the medieval county boundary, but it is now only a drain, the river having been forced to take a new path.

Until recently, there was no conclusive archaeological evidence for a pre-Norman activity at Christ Church. However, in 1985 Chris Scull carried out an excavation in the cloisters, and amongst burials belonging to the earliest period he found three for which the bones gave radiocarbon dates in the 8th and 9th centuries. These must have formed part of a Christian cemetery, and John Blair has argued that they belong to St Frideswides, with the Saxon church being to the north under the north transept and the Lady and Latin Chapels of the cathedral. He believes that the whole Saxon priory would have been enclosed by a wall which was then incorporated into the defences of the later town, although he acknowledges David Sturdy's alternative suggestion that the Saxon town was rather smaller and more regular, and that St Frideswides priory was only moved here after the Norman Conquest.

The next historical evidence for Oxford comes in the early 10th century when Oxford appears in the Anglo-Saxon Chronicle for 911-12 and in the list of defended towns known as the Burghal Hidage. The archaeological evidence for the burghal hidage town is still very slender – a putative rectangular enclosure argued from the street plan by what some might regard as special pleading, and a single coin of Edward the Elder from a street surface which seems to have been covered at an early date.

More recently, however, the first full exploration has been cut across the ramparts. Oxford's north rampart is one of those certainties that are rare in late Saxon archaeology; it has to lie between a very convincing intramural street and the line of the city wall, a space less than 10 m wide. The problem up to now has been that so much of this strip is cellared, but 24A St Michael Street was cellar-free, and Peter McKeague found 1.5 m depth of gravel rampart with the charcoal stain of its lacing timbers, and postholes of a single phase of timber front.

When the timbers rotted, they were replaced with a ragstone wall. This must have happened very soon, before the line of the bank had been lost to erosion. This means that the lower courses of Oxford's free-standing medieval walls elsewhere are likely to be Saxon, and they will be recognised by the fact that they will be exclusively of Coral Ragstone, the incredibly hard but very irregular field-stone which was all that was available locally before organised quarrying. Coral Rag appears in all Oxford's 11th century buildings – St George's Tower in the castle, Robert D'Oilly's great Thames bridge and the tower of St Michael's at the Northgate.

St Michael's Tower is now open to the public, with a fine view of Oxford from the top. It dates to the middle of the 11th century, and is one of the most complete Saxon church towers in the country. It has always been thought of as originally a gate tower adjacent to the north gate of Oxford, which till 1771 almost blocked the road at this point, but excavations in 1975 revealed that by the twelfth century the town wall had been pushed forward to meet the gatehouse in

front of the tower. The Unit did a stone by stone survey during the recent renovation work and found that a ground floor window on the north side of the tower is part of the original building. This means that it could only have been built after the defences had been pushed forward, which must therefore be around the middle of the 11th century. It ties in nicely with the Domesday evidence, when the `priests' had two comparatively valuable houses, from which historians have suggested that St Michaels was a small minster church. At the very least it was a church well placed to benefit from the alms of travellers entering the Saxon town.

Like other Saxon towers St Michael's has upper doorways. It is often argued that these were for displaying relics to the populace below, but in Oxford one upper doorway could have led onto the gatehouse wall walk, the other onto a gallery inside the Saxon church. This would have left the ground floor street doorway for the use of the keeper of the north gate.

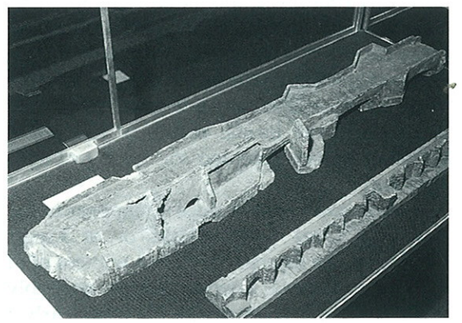
The structure which is prehaps the most impressive and important inheritance from Norman Oxford still survives in part, little known though still in use. This was the great bridge over the river Thames erected by the first Norman sheriff of Oxford, Robert D'Oilly. Three arches of the Grand Pont can in fact still be seen under the causeway of Folly Bridge carrying the main road south from Christ Church, where they can be inspected by those who punt along the back stream (punting under the pont!) They are built of the same knobbly Corallian stone as the 11th-century towers, and are amongst 30 or so arches known from archaeological evidence and a 16th-century drawing of D'Oilly's bridge.

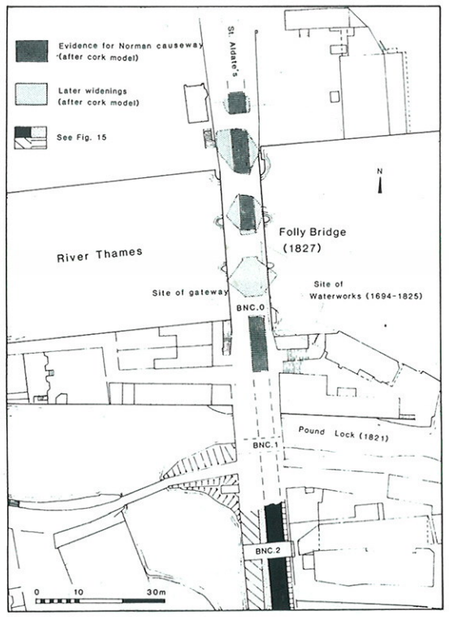
Recently a number of holes have been dug in the road to provide modern services. The unit has peered down all these and just below the tarmac is the coral ragstone of the Norman construction, stretching at least from the modern police station through Folly Bridge to Eastwyke Farm, a distance of half a mile. Indeed the combination of bridges and islands must have stretched at least a mile and a half across the flood plain to the higher ground of north Berkshire. Although many arches became blocked, and the main navigation arches were modified, there was no replacement bridge until 1825. The Norman grand pont gave its name to the Victorian suburb of Grandpont, and those arches which survive are still carrying main road traffic.

The Norman bridge was almost entirely within (pre-1973) Berkshire. This is because the first arches were carrying it across the main Saxon river channel, known as the Shire Lake because it was the county boundary. Five excavations in this area show that before the building of the stone bridge there was a paved ford (perhaps the Oxen Ford?) and a timber bridge, and the abutments on both banks were on small promontaries. We are just about to start work on the results here, and one of the main research themes will relate to whether this was a defended bridgehead of Edward the Elder, designed to control the movement of Danish ships like his double fortresses at Hertford and Buckingham.

A major recent excavation has been that of Roger of Cumnor's house. This lay outside the town in Hollybush Row, in the western suburb of St Thomas, on the site of the former Hall's brewery, opposite the old railway station. This is a lowlying area of the town,

**Opposite page. Oxford's cathedral overlies the site of St Frideswide's monastery. Excavations in the corner of the cloisters revealed early burials.**






**The modern Folly Bridge overlies and partially incorporates the Norman Grand Pont.**

**The cork model (far left) was made when the bridge was rebuilt in 1825. It is still in the Ashmolean Museum.**

Right. Punting under the pont: under the Folly bridge the rough corralian ragstone of the original Norman bridge can still be seen on the Back stream (BNC2 on plan on previous page).

Excavations of Roger of Cumnor's house, at the corner of Hollybush Row. The old disused LMS railway station can be seen in the background.

and a stone-built water channel ran between two properties. However the medieval foundations were intact, apart from their front walls. They lay within the manor of North Oseney, which was held by the Earls of Cornwall, but these properties were given to the nearby Oseney Abbey in 1265.

Thereby hangs a tale: the donor is recorded in the Oseney Cartulary as Roger Comenore, and during the excavation of the channel between the two properties a lead seal matrix was recovered with the inscription S ROGERUM COMENORE CLICI ('the seal of Roger of Cumnor, clerk'). The seal was found with early 15th-century pottery associated with a rebuilding of one of the houses, which suggests that it had been lost in the fabric of the building for 150 years. The declension of ROGERUM is wrong, which is surprising for a trained clerk, but in 1265, at the time he was disposing of these properties, he seals another document with a different seal, this time his name contracted to ROG. The obvious explanation is that the new and more correct seal was cut as a replacement for the one lost at some point during his five years of residence at Hollybush Row: one can picture the frantic search of the house before the clerk accepted the need to buy a new seal.

Roger of Cumnor does not appear in the lists of Oxford Town Clerks or of King's Clerks, but he figures as the last witness of at least one Oxford charter, which probably means it is in his own script. He was clearly a



wealthy man, for he gave enough property to the Austin Friars to establish them in Oxford, in addition to his gifts to Oseney.

We have also been working on one of the largest institutions of medieval Oxford, the hospital of St John the Baptist. It was refounded by Henry III in 1231, and it came to own a fifth of Oxford's housing stock until it was suppresed in 1457 and became Magdalen College. Underneath the college many of the hospital buildings are still concealed, one being the college kitchens. They have been happily serving food to undergraduates for centuries but were recently condemned as being unfit, so it was possible to excavate underneath them.

St John's seems to have been built round a huge quadrangle, big enough to swallow up most of a normal medieval hospital, such as that recently excavated by the Central Unit at Ospringe in Kent (published in Arch.Cant). The new excavations were in the south-east corner, and appear to reveal the end of the main infirmary, a very wide building with two halls running side by side. At the very end it opened into another contemporary building running at right angles which may have been a chapel. All the excavated structures had been built on land newly reclaimed from the river Cherwell, and a culvert underneath the chapel may have carried river water or spring water into the building.

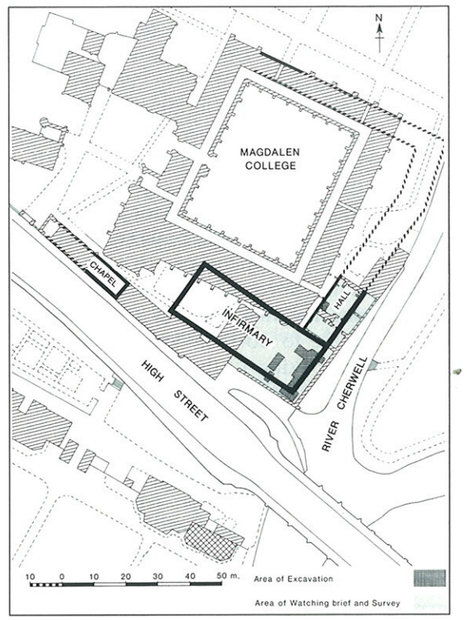
A watching brief on the College's old kitchen showed it to have been a 13th-century open hall with high windows and a doorway with at least four orders of moulding. This is the sort of accommodation which would have been needed for the Warden of the hospital or the King's Almoner, and much of it still survives, buried to a depth of more than 1 metre in the demolition rubble of the hospital.

Finally the Unit has come down to modern times, and has begun excavating a tennis court – Real Tennis that is, not the present pat-ball variety. Colleges cover a large proportion of medieval Oxford and tend to be closed to anything but the smallest research excavation, but the last five years have seen some important progress towards prising open the oyster. At Oriel College a real tennis court still survives which was certainly in place by the mid seventeenth century, when Charles I whiled away his time playing there while he was cooped up in Oxford during the Civil War siege. In recent years the tennis court has descended to being an outhouse used for storage and it was proposed to make it into a suite of undergraduate rooms with a lecture theatre underneath – which means digging out the floor. So far we have only investigated the upper levels.

Prior to the tennis court there were 16th century back yards with a lightly metalled track leading the length of the property with pits to one side. When it was converted to a real tennis court a mortar floor was laid down. This was later patched with areas of tiles, first a 6 inch size and later a heavy 9 inch clay quarry tile which may be the surface on which Charles I played. By 1700 the tiles were replaced with hard-wearing York slabs which in places show the black painted lines of the complex scoring system. The date of the ashlar shell of the existing court is yet to be confirmed but it was certainly roofed by 1675, and probably at this time the third in a series of drains and soakaways were provided under the playing surface, presumably to take roof water which would otherwise be shed onto the next property.

The Civil War was the last time Oxford mobilised its military resources, and it became briefly the 'great water fortress' once again. The city's place in English history over nearly eleven centuries must ultimately be explained by its secure position in a loop of the Thames, and the river will always remain central to research on the its heritage. An important future project will therefore be the riverside site of Rewley Abbey, the small Cistercian house on the floodplain which may offer an architectural link between monastery and college.

The seal of Roger of Cumnor, clerk.




Magdalen college overlies the medieval hospital of St John, one of the richest in Oxford.

# David Miles

A self-portrait. The Director of the Oxford Archaeology Unit describes his background and his interests

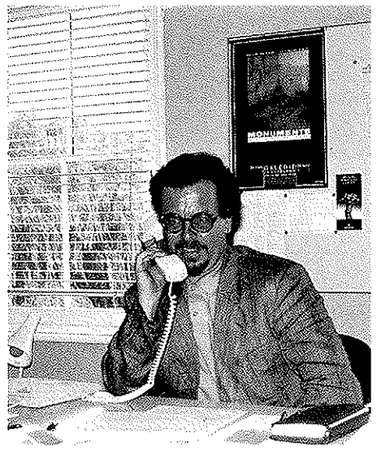
I was born in Halifax in 1947 where my father worked in a textile mill. While I was at the local primary school I wrote an essay saying I intended to be an archaeologist. I think I must have been watching Sir Mortimer Wheeler on our homemade 10 inch television. I certainly inherited no archaeological genes. My family came from Yorkshire, and were an argumentative lot. My father was a Liberal councillor in the non-conformist Calder Valley, my mother's family were from an Irish background, Catholic and solidly Labour.

When I was 14 we moved near to Coventry for a short period. It was there that I first had an opportunity to start digging, with Brian Hobley at St. Mary's Priory. I went to Birmingham University to study Ancient History and Archaeology. Birmingham has a wide ranging course, which suited me as, at the time my main interests were in the Mediterranean and Near East.

I particularly enjoyed archaeological fieldwork and while I was at Birmingham I spent a lot of time digging in this country, in Orkney and also in Israel and Canada.

While I was at Birmingham my interests shifted more to British archaeology, partly because of the influence of Philip Rahtz who taught medieval archaeology, and partly for practical reasons: I always hoped to earn a living in archaeology.

After Birmingham I moved to Bristol to do a Ph.D. on Romano-British rural settlement. This was mainly because I had just got married, and my wife Gwyn worked as a researcher at the medical school at Bristol University. I had also met Keith Branigan, then a lecturer at Bristol, and dug with him at the Latimer Roman villa. In Bristol I met and began to work with Peter Fowler, who first introduced me to what Americans call 'public archaeology'.



It was through Peter that I became involved in the new rescue boom – directing excavations on the M5 motorway and carrying out a survey of Tewkesbury for Rescue – the first of what turned out to be a spate of historic towns implication studies.

Having been successfully distracted from my Ph.D, and as my wife had finished her research work in the Medical School, I decided to look for a job. Uniquely, in 1972 there was a sudden rush of them. I came to Abingdon as Director of the Excavations Committee and have been in Oxfordshire ever since.

My wife switched careers also. Because of her scientific qualifications she applied to the Ashmolean Museum as a conservation trainee. Eventually she ended up in charge of the archaeological conservation laboratory. Shortly afterwards, in 1985, she moved to the Victoria and Albert Museum as Deputy Keeper of Conservation. Following the recent restructuring at the V & A she became Surveyor of the Collections, a new post in which she is responsible for all the curatorial aspects of the museum.

With two children aged 9 and 12 organising our family is probably more difficult than running the Oxford Archaeological Unit. I have a lot of interests outside of archaeology; I am the chair of the local Residents' Committee in east Oxford where we live and for several years I wrote a gardening column for local newspapers. Gardening and botany have been an interest ever since I was a child in Yorkshire, where I knew several professional gardeners. I also enjoy walking – especially in the Yorkshire Dales and the French Alps – and I am addicted to reading. At the moment I am half way through Julian Barnes' *The History of World in 10 ½ Chapters*. Chapter 2 must strike an uncomfortable chord with any archaeologist who has lectured on foreign tours.

The main satisfaction of working in the OAU is that the archaeology itself is so interesting and it has become more so as it has become more complex. I also enjoy putting archaeology across to the public – whether it is schoolchildren or developers. The Unit is a very flexible organisation, able to change and adapt, relatively lacking in the inertia of a large bureaucratic organisation. We have a very well qualified staff – now numbering 60 – quite a few of whom have been here for a long time.

We are not, I hope, very hierarchical but try to operate as a team. I see my job as Director as keeping the team together, making it possible for people to do their jobs effectively – and looking to the future as well as the past. We did not choose our logo by accident.



# DIARY

## Farewell to Wharram

THIS has been a nostalgic summer and one of the notable events was the conclusion of the excavations at Wharram Percy after 41 years. This was first celebrated in fine style over the weekend of the 21st July when all the excavators were invited back, and then on 28th July we had our Current Archaeology picnic. So many came that we lost count though the guides estimated that at least 250 extra visitors must have been due to Current Archaeology with at least three coach parties one of which had come from from the north of Wales. The newly published book on Wharram Percy had just arrived and numerous copies of this were sold and autographed so that takings for the day rose from an average of £250 to £750. Three generations of Hurst family were present, John Hurst and his daughter, Francesca Croft and her husband Bob (Somerset County Archaeologist) and grandson John, who was actively selling his grandfather's book and seeing that no-one got away without paying the right amount of money.

In a final tour of the site Maurice Beresford pointed out the places where he carried out his original excavation way back in 1950 where subsequently John Hurst found him trenching along the walls and they then launched the now historic excavations. Meanwhile frantic efforts were under way to complete the final display on the site of both the 16th and 18th century vicarages and of the 18th century farmhouse so that future visitors to the area will be able to follow the development of the village and also continue to enjoy something of its magical stillness and quiet.

## New Professors

*A bug got into the computer last time, and produced garbage under this heading. Our apologies to all concerned, – this is what we in fact wrote:*

SUDDENLY, new professors are being appointed everywhere – and they all come from Durham. At Cambridge a new George Pitt-Rivers chair in Archaeological Science has been endowed, and the new Professor is Martin Jones. Professor Jones originally read Natural Sciences at Cambridge and then went to the Oxford Archaeological Unit to establish jointly the Environmental Department. After further research at Oxford University he has for the last nine years developed archaeological science teaching at Durham.

At Glasgow, Professor Leslie Alcock is due shortly to retire and will be succeeded by Christopher Morris. Professor Morris is a Durham graduate who has specialised in Viking studies in the British isles and the North Atlantic region. He has undertaken considerable fieldwork in north Britain, especially in the Orkneys, and has recently been invited to dig at Tintagel, Cornwall.

Finally at Durham itself, Professor Rosemary Cramp is retiring and has not only bred two professors for other universities but also her own successor who is Anthony Harding. Professor Harding (who must not be confused with Professor Dennis Harding at Edinburgh) is a Cambridge graduate who has specialised in the Bronze Age of Central Europe and in the Mycenean links with Central Europe and even Wessex. His co-operative venture with Polish archaeologists, and his standard work (with John Coles) on the Bronze Age in Europe show that he is well placed to continue the European links which Durham has been forging.

Rosemary Cramp has been a huge success at Durham, building up the staff from 4 in 1971, achieving new premises and adding archaeological science as a core element. She has recently resigned as a Commissioner of English Heritage in order to become president of the CBA, and she leaves behind a department at Durham suffering the ultimate fate of a good reputation that it has become the quarry for other universities.

## Winchester Studies

ANOTHER fine nostalgia event took place at Winchester, when the biggest, and certainly the most expensive excavation report was launched, somewhat in advance of publication. Entitled *Object and Economy in Medieval Winchester*, it is formally volume 7, part 2 of Winchester Studies, though in fact it is itself in two volumes (parts? bits?) the first being 584 pages long, the second 840 pages long. Each retails for a cool £100, though as a special bargain offer, if you order before 31st December 1990, it is available for a mere £160 the pair from the Oxford University Press. Take out your second mortgage now.

The volumes report on 6,600 Saxon and medieval small finds from the Winchester excavation, which from 1960 to 1971 was the biggest excavation ever to take place in this country. It is written by Martin Biddle, with Ian Goodall, David Hinton and 81 other contributors. The writing up has been financed by many bodies, but in recent years most notably by David Astor, the former editor (and owner) of The Observer. David Astor has recently endowed the Astor Senior Research Fellow in Medieval Archaeology at Hertford College Oxford and Martin Biddle has become the first research fellow. In order to commemorate this fruitful occasion, David Astor was presented at the luncheon with a silver bowl, a reduced scale copy of the Winchester bushel given to the city by Henry VII in 1496.

## More money for RCHM

IF you want to get money out of the government, go to a Chartered accountant. The Royal Commission on Historical Monuments for England, being

threatened with amalgamation with English Heritage, commissioned a management survey from Peat Marwick McLintock (noted in CA 112) and the government were so taken by this that they decided to double their allocation (who says that the present government is tight-fisted when it comes to spending the taxpayers money?) In the first year the increase will be only an extra £1.3 on top of their original budget of £3.4m. However in the next two years this will increase to £1.5 and £3.1m

Since the RCHM knows it is on to a good thing, they have now hired another set of Chartered Accountants (Pannell Kerr Forster) to report on how to computerise their lists of listed buildings, so that in future a planning officer can ring up and full details of precisely why any house is listed can be faxed back to him. (The buildings are of course listed by English Heritage.)

All this took place in the two years when Charles Thomas was their acting chairman; as a reward he has now been replaced by a member of the great and good, Miss Daphne Park who was appointed to the RCHM following her retirement as Principal of Somerville College Oxford and rapidly became Baroness Park.

The RCHM has also decided to move out of London to the delightful west country town of Swindon, where their new address will be Alexander House, 19 Fleming Way, Swindon SN1 2NG. The Air Photographic unit is already there, and the Threatened Buildings team is about to move in.

## Notes

The Bulletin of Experimental Archaeology which has been published each spring by David Johnson, at the Department of Adult Education at the University of Southampton, is now 10 years old. In future it is to be replaced by a Journal of Experimental Archaeology, to be published by Oxbow.

Citisights, the former members of the Museum of London who have set up archaeology's most successful walking tours through London have now published their *Guide to London*. Published by Virgin Books for £4.99, it describes 10 walks through the various ages of the city.

*Thought for the day*, seen on the Institute of Archaeology notice-board:

"Competent Field Archaeologist wanted with survey, drawing and excavation skills, for four to six weeks' field work in Kuwait". Underneath a wag had written: "Combat experience preferred".

## Scientific archaeology

Is the Council for British Archaeology losing interest in amateur archaeology? All the CBA committees are in turn producing policy documents, and the latest is from their Archaeological Science Committee. This deals with the relationship between excavators and archaeological scientists, but it is purely concerned with professional archaeology. Indeed the only reference to amateur involvement is a somewhat scathing remark that 'animal bones should not be "given" to the local vet'.

Yet scientific archaeology is an aspect where considerable co-ordination is needed for amateur archaeologists. On the one hand, many local societies often need help, and do not always know where to find it.

The recent Lloyds Bank Fund was invaluable in this respect, for they established a dating fund that was of great use. Lloyds have now brought their enlightened sponsorship to an end as it had been one of the longest running of all their sponsorships – and certainly one of the most valuable. But it needs to be continued.

And then there is the other side of the coin, the many scientists who are also amateur archaeologists like the local vet, and would like to put their expertise to good use. They need help and support and co-ordination. Judging by this report, the CBA is not interested in this.

## What's on in archaeology

There is no special supplement for this issue of Current Archaeology as we are hoarding it up for a special bumper supplement in our next issue. This will be done in conjunction with Channel 4 television who are putting on a new series of six programmes on archaeology called Down to Earth, starting on November 1st. This will be produced for them by Thames Television, and will be a new type of archaeological programme in that it will be a magazine programme with 4 or 5 topical items in a single half hour programme.

The producer will be David Wilson – no relation to *the* David Wilson but a Cambridge history graduate who got lured into the media and has recently produced a series of religious programmes called Visions. He is now turning to archaeology and he envisages people ringing him up throughout November with news of their latest discoveries, which he will then rush down hot foot to film. If you find anything between now and November, please cover it up quickly and discover it again in November.

The programme is also going to be rather more interactive than previous programmes, and there will be a telephone hot line for those who wish to know more – rather like cookery programmes where you can phone in for the recipes. This forms part of Channel 4's educational mission and they have asked Current Archaeology to provide a special supplement listing all the current events in archaeology.

This will be a special bumper supplement in three sections. Firstly there will be a complete list of local and national societies – including all the northern ones omitted last time, and all the special interest groups. Then there will be the listing of units, which should have appeared in this issue – if you run a unit and have not filled in our form, please do so at once!

There will then be a new listing of all the extra-mural and other classes taking place between December 1990 and June 1991, together with all conferences and similar meetings.



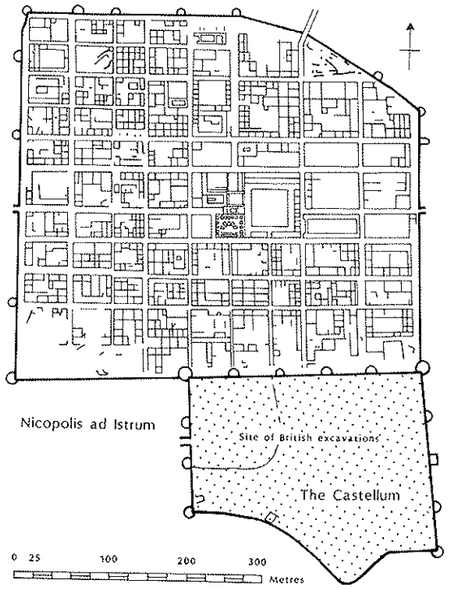
# Nicopolis

Andrew Poulter


A new city was founded at Nicopolis after the fall of Rome

A 6th century buckle from the fill of the drain beneath the Byzantine gate.

WHAT happened to Roman cities after the fall of Rome? At Nicopolis ad Istrum, in modern Bulgaria, we are finding a rather different story to that in Britain. Here a new city was founded, outside the old ruins of the Early Roman site. This was occupied from the fifth to the seventh century. Here there were churches, – two of which we have excavated: There were workshops, and administrative buildings and probably barracks – but no people. At least there were no domestic houses that we have found so far. Civilians, we suspect, were living outside the defences, some in the ruins of the old Roman town, and were only allowed inside the defences at times of danger. This late Roman city was finally destroyed during the invasions of Slavs and Avars in the early 7th century.

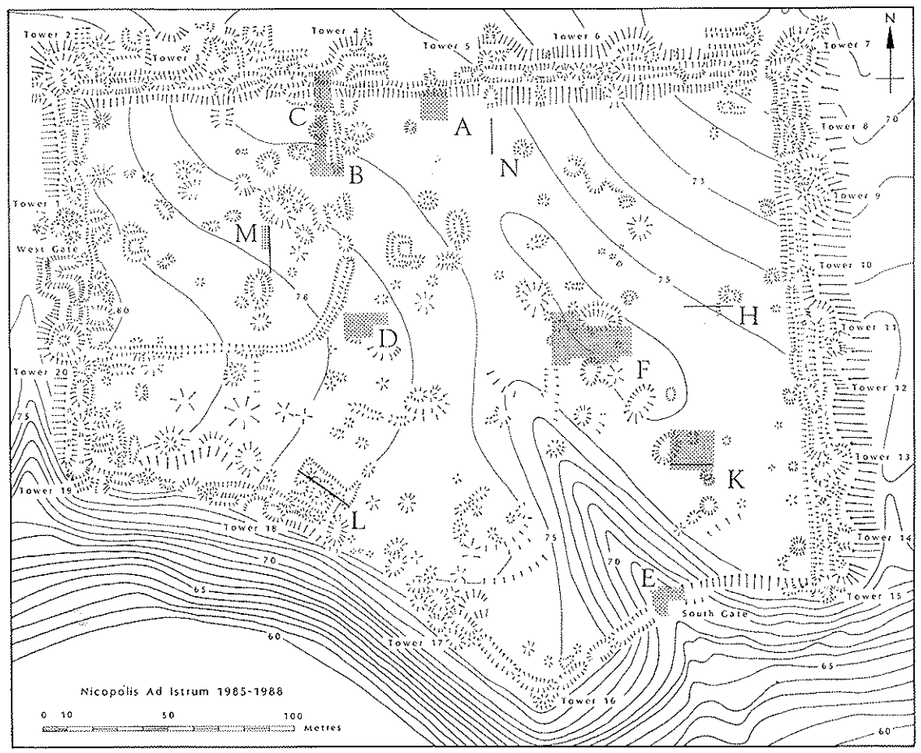



Right. The classical city of Nicopolis, with the late Roman 'castellum' added to the south.

But to begin at the beginning. The "city of Victory on the Danube" (for that is what Nicopolis ad Istrum means) was founded by the emperor Trajan in the early 2nd century to commemorate his conquest of Dacia (modern Romania). The city prospered during the 2nd century: its roads, paved with monolithic limestone slabs, and substantial remains of its public buildings still survive today. Although the walls of the less substantial buildings were systematically robbed during the 19th century, the robber trenches, when seen from the air, provide an almost complete plan of the city as it must have been in the 4th century AD.

Nicopolis' prosperity came to an abrupt end during the Gothic invasions of the 3rd century. It may have been sacked in 251 and it was certainly besieged in 270, but it survived into the 4th: Christian Goths, under their leader Ulfilla, were settled in the city's territory in 347-8 and the historian, Ammianus Marcellinus, tells us that Nicopolis was encircled by hostile Goths just before the Eastern Roman emperor Valens, was defeated at the battle of Adrianople in 378. Even so, the British excavations have demonstrated that the Roman town was not finally destroyed and abandoned until after 430 and probably not until the invasion of Attila in 447 when the neighbouring city of Marcianopolis was sacked by the Huns.

However the city continues to appear in documents. The names of its bishops are attested in 458 and 518 and Nicopolis was still regarded as being amongst the most important cities on the Lower Danube during the 6th century. It is last mentioned in 598 during the final, desperate attempts to maintain Byzantine control over northern Bulgaria before the Slav invasions of the 7th century.



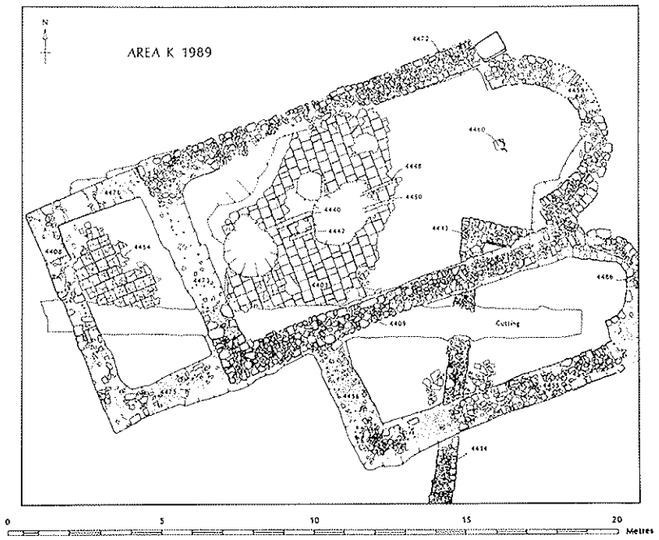

The excavations in the castellum. F is the cathedral, K is the smaller church. D and M are workshops, while C revealed the early Roman gate, and later barracks.

Previous page. Looking west from the apse in the cathedral. Note the beamslots for the pulpit set in the tiled floor.

*The British excavations inside the "castellum" have provided a remarkable picture of Nicopolis in the 5th and 6th centuries AD*

But was this the same city? Attached to the southern side of the Roman defences was a second fortification, 5.7ha (14 acres) in size, forming a "castellum". Unlike the Roman city, the interior of this fortification had never been excavated nor subject to extensive robbing. Robber trenches indicated the line of the defences and a main west gate. There were also twenty massive towers, typical of Late Roman fortifications on the Lower Danube, some of them projecting inside the former town. Might this not be the site of the Late Roman and Byzantine city? This conjecture has been proved correct and the British excavations inside the "castellum" have provided a remarkable picture of Nicopolis in the 5th and 6th centuries AD.

We began with a geophysical survey (resistivity) of the interior to locate the buildings. We soon found the floor of the major Christian basilica, the site of the smaller basilica and a line of buildings which extended across the city from the main, western gate as far as the eastern defences.




Building K, the smaller of the two Christian churches so far excavated.

The principal Christian church, probably the cathedral, was in area F, commanding a central position on the eastern side of the plateau. This had met its end by fire. The floor was covered by the burnt remains of the timber roof, while the wooden altar rail and ambo (pulpit) had not been removed before the conflagration and were burnt in situ. The nave was paved with tiles, and on one of these an inscription had been written before the tile was fired.

We have also excavated a second, smaller church in area K. Most of the floor survived and we found a tiled setting for a reliquary at the entrance to the apse. The walls had been largely destroyed but one of the stone-robbers lost his life during the demolition: the skeleton of a man, probably of 14th century date, was found lying in the bottom of the robber trench.

At the centre of the site we discovered a workshop (area D). This was a two-roomed structure, open to the south, and may well have been used for glass-working. The walls were built, not of mortar and tile, but from reused Roman architectural fragments, rough limestone blocks and earth-bonding with a superstructure of mud-brick: in this it was typical of most buildings of the 6th century apart from those which had an administrative or religious function. The inhabitants seem to have spent their time digging pits; fills included finds of gold-jewellery and stones, one with a relief carving of a gladiator.

In the classical city of Nicopolis, the Odeion has been revealed by the Bulgarian excavators.

The main drain of the castellum, here seen emerging beneath the south gate in Area E.

Elsewhere, excavation has identified a large building of similar construction, (area M) possibly used as a stores building and another (area C), up against the northern curtain wall which may have been a barrack.

Surprisingly, substantial remains of the fortifications had survived the robbing. At the South Gate (site E) was a massive gate-tower, with a well-preserved drain running out beneath it. The wall faces had been covered in mortar and rendered in imitation of ashlar masonry. A fine bronze buckle, of distinctive 6th century type, came from the bottom fill of the drain. The defences were reconstructed and the drain backfilled with rubbish which included a late 6th century fibula and industrial slag from a hearth immediately east of the gate. The second phase of use of the defences did not last long: only two brief occupation levels separated the rebuilding from the final destruction of the site by fire, probably in the early 7th century.

The western gate tower was also investigated. This proved to be rectangular and bonded into the surviving foundations of the curtain wall. Beneath the earthern floor of the tower, make-up deposits, 2m thick, produced a variety of small-finds, probably brought in from the abandoned site of the Early Roman city and datable to the first half of the



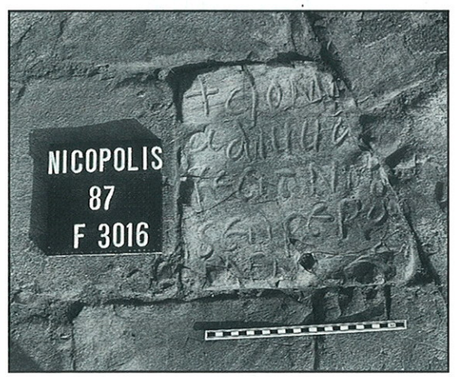
5th century; notable was the discovery of a fragment of a rare glass vessel (diatretum or cage cup), imported from the Rhineland, and bronze scales of Late Roman armour.

We also found the 2nd century gate of the Roman town, blocked when the Late Roman fortification was constructed (area C). It still stood 2m high and was built from massive limestone blocks bonded with iron clamps. There were sockets for a double-winged door on the outer, southern side whereas vertical grooves for a portcullis were clearly cut on the inside of the gate-passage, close to its north end. The limestone paving of the gate also had worn wheel-ruts, originally cut to prevent vehicles damaging the sides of the gate. Nicopolis issued its own coins and one shows a view of the city gate with a public building or temple in the background.

The buildings inside the city appear almost haphazardly spread across the site: there is no indication of regular planning and large areas appear to have been left vacant. Buildings with insubstantial foundations could possibly have escaped detection in the resistivity survey; however a magnetometer survey in the northern and western areas equally failed to find buildings and, since the occupation ended in destruction by fire, the magnetometer should have easily picked up any signs of burnt mud-brick.

The Late Roman city had no paved roads – the only one that shows up clearly is the Roman road leading south of the Roman defences and it was no longer in use when the

The fine masonry of the second century Roman gate, later blocked and included in the north wall of the castellum.




Prayer tile, excavated in the floor of the cathedral in area F.

Many of the buildings found were workshops – no houses have so far been excavated. Here East European students are working with the British team in area D.

"castellum" was built. Far from being densely occupied, there is scant evidence for any civilian population living within the fortifications; instead the defences seem to have been used primarily to protect the churches, workshops and probably a military garrison. However, outside the city walls, and particularly over the ruins of the earlier Roman city, there were numerous small, mud-brick houses, occupied in the 5th-6th centuries AD and which suggest that the Byzantine castellum was the focus for a large civilian settlement extending over at least some 30ha.

> *The walls protected the administration, but the populace was forced to live outside*

It seems probable that the walls protected the headquarters of imperial and ecclesiastical administration but that the civilian population was actually denied domicile within the fortifications except, perhaps, in times of emergency, when people and livestock could have sought refuge inside and may have occupied the open spaces north and west of the churches. No literary source suggests that Nicopolis in the Late Roman period was in anyway exceptional. Could Nicopolis then have been similar to other Late Roman cities? If it was, then the Late Roman city would seem, superficially at least, to resemble more closely the layout of the medieval towns of Europe than the cities of the Early Roman Empire.

The excavations have also added to our understanding of the Roman city. In area C, that is outside the Roman gate (though inside the castellum) the carefully cut road surface was partly robbed out in the 3rd century and then resurfaced with cobbles. Worked bone and metal waste suggest industrial activity in the vicinity. Then from the mid 4th to the early 5th century a large number of coins were lost – was the area used as an extra-mural market place? Before the Roman defences were built, a Roman house stood on the fringes of the built up area: this was destroyed by fire then buried beneath the berm of the late 2nd century defences. The building was possibly destroyed when the Costobocci, a barbarian tribe from beyond the Danube, sacked the city in 170. Finds included locally produced table-ware of high quality. Then in area M we found a Roman house constructed of mud-brick but still standing 1.30m high. Its walls were decorated with frescoes, depicting vegetal decoration and architectural scenes, including columns. Amongst the fragments of plaster found inside one room were parts of a delicately moulded stucco architrave.

The substantial collection of pottery, small-finds and faunal material (bones, seeds, molluscs) is being analysed and will soon provide an insight into the city's economic development; already we are beginning to see how the native economy was revolutionised by the advent of Rome declined in the 4th and 5th centuries AD. and revived again in the 6th century.

Evidence has also come to light about the fate of Nicopolis after the city was destroyed. A Slav grubenhaus of the 9th/10th centuries AD produced 11 complete pots in situ, each full of millet, a staple food at the time. There were also the remains of a settlement of the late 18th century which appears to have been abandoned in haste, possibly when attacked during the Russian invasion of Bulgaria in 1811: cannon-balls and fragments of primitive hand-grenades came from one of the houses built over the remains of the episcopal basilica. The name of the site, Nikiup, – uniquely for northern Bulgaria – proves that the name of Nicopolis was never forgotten even though, as a classical city on the Roman model, it does not seem to have survived even into the Late Roman period.

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Nottingham University

*The excavations would not have been possible without the support and financial help from the following institutions: The British Academy, the British Council, the British Museum, the Foreign and Commonwealth Office, the Royal Society, the Society of Antiquaries, the Universities of Nottingham and Oxford, the Institute of Archaeology, Sofia and the Veliko Turnovo museum, APV, Courtaulds, ICI, ICL, Keith Johnson Photographic, Rank Xerox, Shell International, Schweppes International, J. Wright & Co and Wimpy International*



# JOHN MUSTY'S SCIENCE DIARY

MUCH of this issue of Science Diary is devoted to reviewing three recently published books on archaeological science and conservation. First, however, we look at the detection of some very ancient blood and at new conclusions reached about artifact movement in ploughsoil. Then we spread the news about 'Slag Days', now being held in the provinces, and also report on work on cereals in daub.

## Blood residues

BLOOD residues dating back to ca 7000 years BC have been detected in a structure (the 'skull building') at Canyonu Tepesi in SE Turkey.

This work has been undertaken by Thomas Loy (University of Canberra) and Andree Wood (University of Chicago) and published in the *Journal of Field Archaeology*, 1989, 451-60. It depends on the detection, in the field, of haemoglobin by using 'Labstix': with confirmation later in the laboratory by the application of immunological techniques. The determination of species is achieved by using haemoglobin crystallisation.

The blood of *Bos primigenius*, sheep and goat was identified as well as human blood. The main room of the 'skull building' housed a large, polished fine-grained sedimentary stone slab and it is suggested that the building had a mortuary function which may have involved some form of dismembering of bodies.

## Artifact movement

IT has become accepted dogma that pottery sherds in ploughsoils are not moved about much by repeated ploughing. Now Yorston *et al* have fired a warning shot on the matter (*Journal of Archaeological Science*, 1990, 67-84). Their conclusion is that artifacts will continue to spread out indefinitely as long as the disturbing influence remains.

This conclusion follows the construction of a mathematical model based on data obtained at the Butser Ancient Farm Project. Although this data showed that most sherds had moved less than 0.5 m. in one year, a few had travelled 5 m. With the model it is possible to predict tha degree of spread after several hundred years.

## Slag days

THE first regional 'slag day' was held at Salisbury Museum, Wilts, in February. It was organised by the Historical Metallurgy Society's Archaeology Committee in conjunction with the Institute of Field Archaeologists (Wessex Region). The event was aimed at finds supervisors, excavators, site directors and post-excavation analysts who needed to know how to identify and interpret evidence of metalworking from excavations. Approximately 50 attended.

The chairman, Professor Tylecote, pointed out in his opening remarks that the sort of material under discussion would frequently have been thrown away by excavators in the past. Nowadays it was hoped that nothing of this sort would be discarded.

During the morning session, attention was devoted to non-ferrous metals – their residues and the crucibles and moulds used in metal utilisation (dealt with by Justine Bayley) and metal analysis (Peter Northover). In the afternoon, it was the turn of iron to come under scrutiny with Chris Salter speaking about slags, ironworking processes and the analysis of iron artifacts, and Vanessa Fells dealing with conservation, notably the X-ray examination, of iron objects.

A useful feature of the programme was the opportunity provided to those participating to bring along metalworking residues and the like found in their excavations for identification – good advantage was taken of this opportunity. As with the 'Antiques Road Show', the intention is to mount 'Slag Days' at a variety of other venues across the country – and hopefully in Scotland and Northern Ireland as well.

## Cereals in daub

THE value of daub as a source of palaeobotanical evidence is demonstrated by J.R.B.Arthur's work on samples from Rock Place, a house in Goldaming, Surrey, which has been dismantled for re-erection at the Weald and Downland Museum. The following paragraphs are based on a report he has kindly sent.

Mr Arthur writes: The daub was of two dates – late 16th century and mid-18th century. The cereal in the 16th century daub consists entirely of complete ears of rye (*Secale cereale.*) On the other hand, the late 16th century daub contained a botanical mix. There was Rivet wheat (*Triticum turgidum*) possibly of Mediterranean origin, rye, two-rowed barley (*Hordeum distichum*) and hazel nuts (*Corylus avellana*).

Rivet wheat was well established in the 11th century, although first recorded by Tusser in 1580. However, it was supplanted by Bread wheat (*Triticum aestivum*). More recently shorter strawed strains, most suitable to the combine harvester, have come into general use. Rye was also grown extensively in medieval times and many daub samples contain it. In comparison, Bread wheat would have been a luxury and consequently poorer folk ate maslin which was a mixture of wheat and rye, although two-rowed barley and rye were the main principal cereals from the 13th to the 18th centuries after Rivet wheat and six-rowed barley.

Two-rowed barley was a better quality barley used in malting and brewing. Also, in the 16th century hops became an important crop in its own right, although hops were cultivated to a limited extent in the 15th century. It has been thought by some commentators that red clover seed was also introduced in the 16th century but evidence from daub shows it was grown as a ley in much earlier times.

## C14 dating 40 years on

IT is some 40 years since Professor Willard Libby published the first radiocarbon dating results. In the same year (1949), the British Museum Research Laboratory started investigating the possibility of setting up radiocarbon dating equipment. It did so in consultation with Harwell and the Royal Institution and

succeeded in establishing a radiocarbon dating service by the early 1950s. Initially gas counting was the method of choice but this gave way to liquid scintillation counting in the 1970s.

Thus, it is possibly appropriate that the Laboratory's present Keeper, Dr Sheridan Bowman, has taken the opportunity to publish an introductory account of the use of radiocarbon dating in archaeology at the present time. (*Radiocarbon Dating*, British Museum Publications, 1990, £4.95). Some may think that after forty years there is little new left to say on the subject. They would of course be wrong because several matters such as sample size, sources of error and calibration have continued to attract attention over much of the period. Indeed, Sheridan Bowman suggests that there is still 'no consensus of opinion as exactly how to calibrate a radiocarbon date'.

Calibration is dealt with in one of the five chapters which make up the 64 page booklet. The others deal with Background and Basic Principals, Radiocarbon Concentration Effects, Radiocarbon Measurement and, finally, Radiocarbon and Archaeology. In her preface the author suggests that the book is aimed at both the general reader and the archaeologist.

However, I suspect that it will be found to be of more value to the practising archaeologist than to the ordinary visitor browsing along the publications counter at the British Museum.

Sheridan Bowman's book will most certainly be found to be of value in the digging hut and Unit workrooms. One can look to it to be reminded as to how to collect radiocarbon samples or to interpret the results obtained from dating institutions. It will also prove to be the source of a whole range of other information. For example, how the various radiocarbon dating techniques work, including the accelerator mass spectrometer method. Also, how many readers will know that, although the upper age limit for C14 dating is circa 40,000 years, it has been possible to put this up to around 75,000 years by using isotopic enrichment techniques.

Equally, one may not know that in certain circumstances it is possible to date accurately some materials to within ten *calendar* years. On the other hand, the point is made that for much of the Early Iron Age, calibration will be meaningless because the curve is approximately flat for the period 800 – 400 BC.

Dr Bowman's book is one of a series called 'Interpreting The Past' and one looks forward to the appearance of other titles in the series (including, for example, 'Bones' and 'Environmental Archaeology'). She has set a good standard for those who follow.

## Elements of conservation

IN the second book under review, *The Elements of Archaeological Conservation* (Routledge, 1990. Price £50, hardback; £16.95, paperback), the author Janey Cronyn, like Sheridan Bowman, sets out her stall for a variety of readers. She says she is mainly aiming at those other than professional conservators involved in the understanding and care of excavated materials, although she includes those setting out to train as conservators. The general reader, too, she feels may benefit although some acquaintance with chemistry would be helpful.

Whoever the readers may be, they will find the book packed with information divided into six main sections viz: conservation processes, agents of deterioration and preservation, conservation techniques, siliceous and related materials, metals and organic materials. In her preface Janey Cronyn suggests that the book is not intended 'as an on-site or museum manual for the non-specialist' or 'as a recipe book of specialist conservation treatments'. However, she also says that the book is for reference – in the sense one supposes that it is not intended to be read from cover to cover but dipped into for information.

In these circumstances one is still left wondering as to whom the book is really addressed. For those studying conservation, certainly; but surely it must also find a home, like Sheridan Bowman's, both in the working laboratory and in the archaeological unit. One suspects that the caveats entered in the Preface are defensive ones in that the author perhaps fears that her book might be used to mount DIY conservation by the untrained.

What everyone will learn from this book are the details of the theoretical basis of conservation. Also archaeologists will turn to it for practical advice as to what to do with material awaiting conservation and the sort of after care needed for conserved material. This is an academically sound book as befits the product of the labours of someone who has lectured on her subject for a good many years. Archaeologists obtaining a copy will wonder how they previously managed without it.

## Analysis and archaeology

PROFESSOR Martyn Jope has recently pointed out that the bulk of analytical data derived from archaeological material has expanded dramatically over the last two decades. He attributes the cause of this to the funding activities of the Science-Based Archaeology Committee and to a greater awaredness among some leading scientists of the value of their procedures to archaeological investigtions.

These sentiments are expressed in the preface he has contributed to a new publication, *Scientific Analysis in Archaeology* (ed. Julian Henderson, Oxford University Committee for Archaeology, Monograph No. 19. £16). It deals with the analytical investigation of glass, pottery, ferrous and non-ferrous metals, lead and phosphates in soil. The editor is at pains to point out that the book deals with the interpretation of results rather than providing details of the analytical techniques employed. The book can also be judged as providing an account of the industrial activities involving the various metals analysed. Thus Paul Craddock's chapter is titled, 'The scientific investigation of early mining and metallurgy' and is a major contribution on this topic.

Similarly, Julian Henderson's 'The Scientific analysis of ancient glass and its archaeological interpretation' is another important contribution, dealing as it does with both Bronze Age and Iron Age glass products. Five chapters deal with pottery studies – including that by Alan Vince on the petrology of Saxon and Early Medieval pottery – and two of these have American authors (from UCLA and MASCA respectively). Consequently, as well as being an Oxford Monograph it is also No.5 in UCLA's Institute of Archaeology Series, `Archaeological Research Tools' which should ensure a wide circulation.

This book makes fascinating reading and deserves such a circulation. I hope to dip into it again in a more specific way in a future issue.



# BOOKS

While preparing for our recent cruise in the Aegean and the Black Sea, I had been reading some books on classical archaeology. **The World of the Scythians** by Renate Rolle (Batsford, £19.95) was useful but odd. Renate Rolle is an East German scholar specializing in the Scythians and she has some fascinating new information, notably on the recent excavations of the Tolstaya Mogila, a large barrow near Ordzonikidze where a warrior was buried together with his wife and her servants in a side chamber. There are some superb colour plates of a pectoral, a gold ornament worn round the chest with scenes of Scythians milking their flocks which is said to come from the central grave in the barrow. However it is not mentioned in the text and one can only assume that it was discovered or the publisher got hold of the plates after the book was written. There is also an interesting chapter on the huge hill forts or rather oppida of the Scythians, particularly interesting since the Scythians being nomads were not supposed to have hill forts.

The book is a bit of a mish-mash – somewhere along the line it has been "popularised"; but despite my original impressions I found it to be an invaluable account of some of the more recent discoveries of the Scythians.

In Greek archaeology the great seminal work is **Archaic Greece** by Anthony Snodgrass of which we gave an enthusiastic account in CA 76. In it he argued that the great revolution in Greece occurred early in the 8th and 7th Centuries when Greece went from being a tribal society to a chieftain society, a process known to Greeks as synoecism when they abandoned their villages and went to live in towns. However there was also a second, and more important revolution in the 6th and 5th centuries when the Greeks invented money and pioneered the market economy. Such has been the influence of Snodgrass that all the subsequent work has concentrated on the first revolution and the second market revolution has been ignored completely.

**Athletes and Oracles** by Catherine Morgan (CUP, £27.50) looks at the transformation of Olympia and Delphi in the 8th century BC. Both sites are in a way similar. To use the author's phraseology "marginality guarantees political neutrality". In details however they were rather different. Olympia was from the beginning a cult centre, starting in the 10th century as a rustic cult centre for the petty chiefs of Messinia and Arcadia. However when Elis was resettled in 725 it emerged in a national role encouraged by Sparta.

Delphi began as an ordinary village. There was a Mycenean village on the site and settlement re-emerged around 800. However at first the area was dominated by Medeon on the coast. As Corinth emerged as the dominant power in the region, Medeon declined and it was Delphi, more hidden away and more marginal, that found a new role as a national cult centre.

**Burial and Ancient Society** by Ian Morris (Cup paperback, £13.95) sets out to be a subversive undermining of the Snodgrass theory. The Snodgrass theory is based on counting the number of burials from each century which reveals a sudden spurt soon after 800 BC which it is argued reflects an increase in population. But what if it represents a change in burial practices? Ian Morris argues that in the Dark Ages only the aristocrats received formal burial and that when the more democratic ideals of the polis emerged, the whole of the citizen body received formal burial.

His key argument is Athens, where the pattern is different. At Athens the number of burials rises briefly around 750, but then around 700 it falls right back, and does not rise again till 500, when it rises very sharply indeed. He argues that this is because Athens, having at first accepted the new ideals of the 'polis', then rejected them and remained an aristocratic society through the 7th and 6th centuries. It was only with the reforms of Cleisthenes in 510 that it decisively accepted the polis ideals, and thus suddenly the rite of formal burial was extended to the whole citizen body, and the number of burials rise very sharply.

**The Seven Wonders of the Ancient World** were first compiled as a list in the 2nd century BC, but the list only became finalised in the renaissance.

Their survival is various. The Great Pyramid still survives more or less intact. The Mausoleum at Halicarnassos and the Artemision at Ephesus have both been extensively excavated and bits and pieces can be seen at the British Museum. The two statues, that of Zeus at Olympia, and the Colossos at Rhodes have not survived; that of Zeus is relatively well known from coins and copies, but little is known of the Colossos, which fell only 70 years after it was erected, and even its precise location is unknown.

However the Pharos at Alexandria can be reconstructed with a fair degree of certainty. The big mystery remains the hanging gardens of Babylon not least because Herodotus, who describes Babylon, fails to mention them, and there is no reference to them in the surviving cuneiform inscriptions.

Peter Clayton and Martin Price have invited six scholars to contribute chapters on each of the Wonders and this has now been published in paperback at a price that all can afford (Routledge, £6.99). The contributions are uneven – the accounts of the Colossos, the Mausoleum and the Pharos are excellent, while that of the Artemision is almost incomprehensible. Nevertheless it is a nice book to request for your Christmas stocking to dip into over Christmas.

The Emperor Justinian relied on two great generals to do his fighting for him. One of them, Belisarius is well-known, but it was the other general, Narses the Eunuch who reconquered Italy and who destroyed temporarily the Ostrogothic kingdom. In **Narses: Hammer of the Goths** (Alan Sutton, £15.95) L H Fauber sets out to repair this undeserved neglect.

There is an old saying that booksellers should not be publishers and publishers should not be booksellers. If a bookseller becomes a publisher then he pushes his own books in front of those of other publishers, and his judgement becomes suspect; or, as English Heritage would itself express it, curators should not be contractors. The biggest seller of archaeological books is English Heritage through its numerous bookshops in its guardianship sites around the country. They are therefore very naughty to turn themselves into general commercial publishers and launch a new series of archaeological books in conjunction with Batsfords.

The first two books in the series are **Hadrian's Wall** by Stephen Johnson (£9.95) and **Avebury** by Caroline Malony (£9.95). Stephen Johnson is in fact the academic editor of English Heritage and general editor of this new series and has produced a very useful book on Hadrian's Wall which does not obviously overlap with any other book. I am less happy about Avebury. For one thing it *does*

overlap with Aubrey Burl's excellent book on **Prehistoric Avebury** which is far better written. This new book is written in a curiously officialese style, though it is nicely illustrated particularly with some old photos. But I will be sorry to see it pushed at English Heritage outlets in preference to Aubrey Burl's book.

The latest book in the same series is **Church Archaeology** by Warwick Rodwell (paperback £12.95) which is in fact a revised edition of **The Archaeology of the English Church** originally published in 1980.

James Dyer is a former school teacher who is well known as the editor of the Shire Publications series and author of the Penguin Guide to Prehistoric Britain. He has now turned to a fuller canvas and has written a full scale account of **Ancient Britain** (Batsfords, £19.95).

This is a book that must be compared and contrasted with Tim Darvill's book, also for Batsford, entitled *Prehistoric Britain*. Tim Darvill's book is the one with the "new" approach and will no doubt be the more fashionable in universities. James Dyer gives a more traditional approach, which could perhaps be described as being more suitable for schools and amateurs. In a way he has the more difficult task, for it is difficult to go against fashion and to try and put forward a straight-forward account of Prehistoric Britain without the trappings of sub-Marxism that are prevalent in our universities, or indeed without bands-tribes- chiefdoms approach of 10 years ago. James Dyer succeeds admirably, and is well served by his illustrators, Tracey Croft and Joshua Pollard.

I found **Who Owns Stonehenge?** rather a bore. The book arose from the World Archaeological Congress when they had the idea of bringing together Tim Sebastian, who is the Arch Druid, Paul Devereaux, a Director for the Centre for Earth Mystery Studies and a researcher, if that is the right word, into the so-called leylines, together with Rhys Jones, who writes as a Welsh academic living in Australia, and Peter Fowler, Professor of Archaeology at Newcastle, all under the aegis of Christopher Chippindale, the Editor of **Antiquity**. (Batsford, £12.99.)

The result, to me, is rather like bringing together a Catholic, a Christian Scientist and a Jehovah's Witness and asking them to debate how many angels can dance on the point of a needle. A surprising number of academics find discussions of this sort stimulating, and the publishers clearly have high hopes that this book will have a wide sale. It will be interesting to see whether they are right.

The Romans had special names, not only for their tiles (tegula and imbrex), but also for their bricks, such as Bessalis, Pedalis, and Lydion.

These are all explained by Gerald Brodribb in his book **Roman Brick and Tile** (Alan Sutton £14.95). Gerald Brodribb was a prep-school headmaster who excavated the Roman bathhouse at Beauport Park, in Sussex. This led him on to the study of Roman bricks, and this has now resulted in this well-written handbook.

New books in paperback include **The English Settlements** by J.N.L Myres (Oxford paperback £6.95), the 1986 rewrite of his original 1936 text.

**Anglo-Saxon England** by Sir Frank Stenton (Oxford £8.95) is a reprint of the third edition of the text originally published in 1943 but still a classic. **Celtic Heritage** by Alwin and Brinley Rees, (Thames & Hudson £7.95), is a reprint of their 1961 text analysing Celtic stories. **The Idea of Prehistory** (Edinburgh University Press) is Colin Renfrew's 1986 updating of Glyn Daniel's book of 1962.

**The Cambridge Guide to the Museums of Britain and Ireland** by Kenneth Hudson and Ann Nichols is now in paperback price £7.95 and is joined by their **Guide to Historic Places**, hardback price £14.95. Both have a lively wry text with a bias towards industrial archaeology. **Ireland in Prehistory** by Michael Herity and George Eogan was first published in 1977 and is now in paperback, Routledge, £10.95. **The Mycenaeans** by Lord William Taylour, second edition 1983 is now in paperback, Thames & Hudson £6.95. **Caves of God** by Spiro Kostof is an account of the rock cut churches of Cappadocia, originally published in 1972 and now an Oxford paperback, price £9.95. Finally Penguins have just issued a revised translation of Eusebius' **History of the Church** price £5.95.

The winter of 1853 was exceptionally cold in the Alps: the rivers froze and the water level in the lakes shrank to the lowest recorded levels. As a result numerous wooden piles were revealed and the local antiquaries soon identified them as being the remains of prehistoric lake dwellings.

The knowledge soon spread. On the other side of the Alps in Italy the terremare were discovered. In Scotland and Ireland crannogs were recognised and by the 1890s we even had our very own lake village in England at Glastonbury. In recent years wetland archaeology has once again become fashionable as new techniques have revealed the excellent preservation of objects on wet sites. John and Bryony Coles have carried out extensive work on the prehistoric trackways in the Somerset Levels and their recent book **Sweet Track to Glastonbury** won the Book Award in 1986. Recently they have founded WARP – the Wetlands Archaeological Research Project to coordinate Wetlants research around the world. Now in **People of the Wetlands: Bogs, Bodies and Lake-dwellers**, they provide a world survey of their subject (Ancient People and Places No 106, Thames & Hudson £17.95).

Apart from a brief look at America they concentrate mainly on Europe. After a fascinating excursus on the history of their subject, they start with the coastal sites, then they look at the lake villages, then onto the various prehistoric tractways found all over Europe, notably in North Germany. Finally they discuss the various bodies and wooden figures that have been found in the bogs.

Our knowledge of Medieval fortifications has been revolutionised by two outstanding excavations. At Goltho we learnt that fortified residences may go back even into the middle Saxon period, while at Hen Domen, the cluttered activities in the bailey of an early Norman castle have been revealed. Both sites figure largely in a new book, **Medieval Fortifications** (Leicester University Press £35), where John Kenyon, the Librarian of the National Museum of Wales, surveys Medieval fortifications based predominantly on archaeological evidence.

The book essentially is in two parts, looking firstly at the defences of castles, and then at their domestic arrangements with a brief addendum at the end on town defences. The book at times smacks rather of the database, and I must confess that I did not succeed in reading it right through to the end. But it will adorn my shelves, and next time I wish to look up a detail of a recent excavation of some castle, I shall know where to look.



# LETTERS

## Education . . .

I HAVE recently finished a GCSE course in Archaeology and would now like to continue to "A" level, but it has to be through a local college or by correspondence.

I am having incredible difficulty finding someone who does A level correspondence Archaeology and the only one I found was through your magazine (CA115) based at Manchester College of Technology. Unfortunately Ron Weston who teaches this course is retiring and therefore the course is no longer available.

If you have any information or details of any other college or centre that runs correspondence courses in archaeology, please could you let me know, as so far all my own enquiries have come up with nothing!

WENDY DREW, 36 Quest Hills Road, Malvern WR14 1RN

*The same correspondent subsequently wrote:* I have since had contact with Herefordshire Technical College who are hoping to take over the provision of the A level course from Mr. Weston at Manchester. The Newark Technical College in Nottinghamshire are also investigating the same possibility. However neither college can yet confirm this.

## . . . and yet more education

I WOULD be most grateful if you could assist me. For the past six months I have attempted to find a correspondence course dealing with archaeology only to have failed in a most miserable manner. I have come to a point where any such course would be tempting let alone the period I am interested in (1000 BC – 1000 AD). I have of course contacted the Open University as well as several other universities, all to no avail.

I would be most grateful for any information, even if it is confirmation that no such course exists, for I would then be able to concentrate my efforts elsewhere, such as watching television, or sitting in a deckchair or some other richly rewarding pastime.

A D GUNN, 11 Meakins Close, Eastwood, Leigh-on-Sea, Essex SS9 5SX

## Climate in the Far East

MAY I as an historian/archaeologist with a long-standing interest in climate and its effects offer some comments on the articles by Mike Baillie and Colin Burgess in your Disaster issue 117.

A number of weather disasters can be pin-pointed to the volcanoes in the Far East, and particularly in Indonesia and New Guinea.

The great eruption of AD 535 can be pinpointed to Rabaul, New Guinea.

The great dry fogs of 536 and 537 and the plague of the reign of Justinian follow. There is a similar, but as yet unlocated eruption, in the middle of the 620s. The ice core from Greenland is placed at 622/623; the Irish writer, Tighernac, records a "very dark year" in 625; plague and famine followed in the eastern Empire in October 626.

A similar deterioration can be noted in central Java following the eruption of Merapi in 1006. This is dated by a stone inscription known as the Calcutta stone, as the stone was removed to Calcutta by Stamford Raffles in the Napoleonic War. No occupation of central Java took place for nearly six centuries. The Merapi eruption has consequences in Europe.

The following year, 1007 is one with poor weather and low harvests and was followed by stormy years in 1008 and 1009.

The tropical Far East is not the only area of the world with volcanoes.

The stormy weather of 1066 and subsequent years may well have among its causes the eruption of Sunset Crater, Arizona, in either 1064 (the currently preferred dendrochronological date, I believe) or 1065 (the traditional Indian date).

European, and particularly Icelandic, volcanoes were not inactive in the twelfth and thirteenth centuries. In October 1104, Hekla erupted, but the effects were unlike the eruption of 1159 BC because on this occasion the wind was blowing from the south.

The thirteenth-century inflation is well-known. The final price jump occurs occurs in the 1250s. Somewhere, place unknown, in 1255 or 1256 a massive eruption took place: that it was equatorial is shown by the impurity correlations of Antarctic and Greenland ice. This was the great famine described by Matthew Paris with nothing but rain for almost three years. It is also one of the very few times when the poor actually died in the fields and the streets of starvation.

The climate and particularly the interrelationships between volcanic eruptions and the climate is something which both economic historians and archaeologists have to be more aware of than perhaps has hitherto been the case.

DAVID H KENNETT, 27 Lords Lane, Bradwell, Great Yarmouth, Norfolk NR31 8NY

## Are Bricks Scheduled?

A 23M stretch of churchyard perimeter wall collapsed into an adjacent field on 25th January, causing a hazard to grazing horses. The owner received an offer from a neighbour to buy the bricks. However the wall was a scheduled Ancient Monument, so the sale was delayed in order to establish the status of bricks. Eventually the following decision was passed on to the owner. "While the Wall is included in the Scheduled area, the bricks which have fallen into the neighbouring field are technically no longer protected"!

One can only breathe a sigh of relief that the Tower of London was spared by the storm of 25th January.

HELEN PATERSON 69 West Street, Harrow on the Hill, HA1 3EL

## And finally ...

MANY thanks for CA over the years. I was 81 in June but I look forward to the new format and the next 120 issues.

HENRY THOMPSON, 38 Crawford Drive, Glasgow G15 6TN

THE arrival of CA 120 a few weeks back prompted me to think that a note of thanks and congratulations would be appropriate. I think that this is a great achievement and I, for one, have found much of interest in every issue. I await the larger format with mixed feelings, but rely on the contents to compensate for any loss of symmetry on my shelves!

JOHN BOSANKO, 1 Hensleigh House, 58 Magdalen Road, Exeter EX2 4TL

# *In this issue . . .*