



Generations of archaeologists knew about Gwithian, the excavation where Cornish sand dunes preserved remains of bronze age houses and fields – rare and important discoveries even now some 50 years on. At last the work will soon be published. Jacky Nowakowski previews for British Archaeology

# LIFE AND DEATH IN A CORNISH VALLEY



## LANDMARK DIG

Work at Gwithian (above) ran from 1949 to 1961. Responding to rare evidence for early ploughing, Charles Thomas tried out a reconstructed ard at the site (far left, both photos 1960). The 1958 crew returned in 2005 (left, from L. back): Pru Fox, Viv Southon, Jessica Thomas, Charles Thomas, Sarah Wailes, Elizabeth Fowler; David Landridge, John Stengethofen, Bernard Wailes, Jean Southon

Bronze age Gwithian lies within a deep build-up of sand (right), revealing unusual details of farming and settlement over five major phases: 1 (c1800BC) round house and fields 2 windblown sand 3 (c1500-1200BC) stone- and post-built structure over phase 1-house with extensive field systems 4 cultivated windblown sand 5 (c1100-1000BC) farmstead with six buildings and fields maintaining earlier boundaries

The work is now being analysed for publication, with support from the Aggregates Levy Sustainability Fund



All morning a team of young archaeologists has been sweeping up the last grains of soil in preparation for a special visit. A unique pebble-lined circular hearth sits proud on the ancient floor of what was once a wooden house, and nearby a remarkable pattern of criss-cross lines emerges from the sand. It is Sunday April 13 1958, on west Cornwall's north coast, deep within the towering sand at Gwithian. It has been a busy week. Fresh from the Prehistoric Society conference at Penzance, visitors, who include well-known archaeologists Richard Atkinson, Grahame Clark, Leslie Grinsell, Stuart Piggott and

Raleigh Radford, arrive to see the extraordinary discoveries that Charles Thomas and his team have revealed. As the group approaches, a dull light falls on the excavation trench and a sudden moisture in the air sharpens the dark colours of deeply cut lines. These grooves were created by the tip of a stone ard – a simple plough – over 3,000 years ago. They are the first prehistoric ploughmarks seen in Britain. Such intimate encounters with the distant past are rare. Everyone recognises that this is a special day. Fast forward to a warm but slightly overcast midsummer day in 2005. Some of the 1950s excavation team have



gathered at Gwithian to meet a team from the Cornwall county council Historic Environment Service (HES), and specialists have arrived from distant parts. Part of the 1958 trench is reopened, and the remarkable deep sequence of successive occupation layers, each sandwiched between cleaner wide bands of sand, is once again exposed. The team are to collect further environmental data, and attempt dating the sand layers by optically stimulated luminescence (OSL). Layers of ancient ard marks (cultivation episodes) are again revealed; this time a greater time-depth than previously realised is apparent.

Gwithian, a site students now read about in textbooks, occupies a special place in the history of archaeology in Britain: such exceptionally preserved ancient land surfaces dating back to the second millennium BC had not been seen before. This major innovative project ran for over a decade, throughout the 1950s and early 60s. It set out to document the history of land-use within a coastal setting. The fieldwork at Gwithian became an exciting open-air laboratory where a generation of young archaeology students learnt how to dig, survey and record, and even practice experimental archaeology. Slotted in between bouts of digging, daily classes were held where, during regular seminars, practical skills like illustrating and conserving artefacts were also taught. A small site museum was established and artists produced watercolour sketches. Many of these students, alongside its energetic director, a young Charles Thomas, went on to become well-known personalities in academic and field archaeology: David Clarke, Peter Fowler, Vincent Megaw, Ruth Tringham and Bernard Wailes all cut their teeth at Gwithian.

Yet the story of bronze age Gwithian has never been fully told. Over the past three years, funds from the Aggregates Levy Sustainability Fund, administered by English Heritage, have allowed a full reappraisal of this ground-breaking archaeological project. The HES team has been working closely with Charles Thomas since 2003. One of the major aims is to present in detail the bronze age story, still important for understanding early prehistoric settlement and farming practices.

The setting is stunning. Today it is one of the few undeveloped sandscapes

**ANCIENT HOUSE**  
The phase 1 early bronze age house (site GMXV, right and opposite) was excavated in 1961. This was one of the first such houses seen in Britain, and is still an important record. It was built on a terrace dug into what had before been a field, within a staked enclosure. There was a hearth in the centre, and an entrance porch facing east of south (seen top left in bottom photo, passing between two gullies). Modern wooden stakes were placed in the original post holes to help imagine the ancient building



on the wild north Cornish coast, dominated by massive dunes. Frequent sandblows up the mouth of the Red river effectively fossilised millennia of early settlement. Archaeological deposits, intact successive ancient land surfaces, lie deep beneath the sand, whose special alkaline qualities have ensured outstanding preservation. The Gwithian project sought to investigate and record these unique surfaces where they had survived. The bronze age chapter was just one of many in this landscape settled since the early mesolithic some 8,000 years ago.

To date the entire archive has been listed and deposited in the Royal Cornwall Museum in Truro. The HES team has updated the site documentation, creating a digital version of the data to make it accessible to a broader audience. Assessment and archive reports are currently being produced, the first step towards full publication. The first AMS (accelerator mass spectrometry) radiocarbon dates

together with OSL dates are now available, and we hope that further dates will follow. Whilst work on the archive is still in progress, it is possible to outline the major events at Gwithian over 3,000 years ago.

### Origins

There are three major phases of bronze age activity, separated by layers of windblown sand – it is this build-up of sand that gives the site its uniquely deep stratigraphy, enabling an unusually detailed story to be told.

The farming sequence starts during the early bronze age (c1800BC) with ard cultivation within terraced fields. Linear ard marks scratched into the lowest land surface were exposed for the first time in 2005, but these were also found on the hill slope terrace where a round wooden building (whose remains were first discovered in 1960) was later built. Barley and other unidentified cereal seeds survived in the lowest ploughsoil layers and land

snail evidence indicates open countryside. Fragments of marine shell also found low down in the sequence may indicate that seaweed, together with other organic material, had been added to the thin soils to enhance fertility.

Charcoal of oak, hazel, hawthorn, gorse and broom shows that these farmers had access to nearby woodland and rougher ground, cutting wood for their buildings and harvesting gorse and bracken for fuel, roofing materials and animal bedding. Some regular management of rough ground appears to be a feature throughout the bronze age story. The rural Cornish tradition of furze gathering has a long ancestry.

A wooden circular building (site GMXV), a homestead, was built on a made-up terrace dug into the gentle slope previously under cultivation. The building, a likely dwelling house, lay within a stake-built enclosure. The excavation team set out to recreate the shape and spaces of these ancient





structures; this vivid reconstruction was much appreciated by the increasing daily flow of visitors.

The building had an elaborate extended doorway which faced downslope and overlooked lower-lying fields. Caches of “exotic” or perhaps even “specially chosen” objects were found packed into one of the deep gullies along the front. These included a perforated whelk, a copper awl, the bases of pots and broken quern fragments. Our emerging picture for this early phase is therefore one of a farmed settled landscape, formally organised into fields and small homesteads. It remains the earliest evidence for settlement of this period found in south-west Britain.

## Renewed

Although the location is relatively sheltered, sandblows up the river valley from the coast were a feature of daily life in the bronze age and, during one major episode (phase 2), all traces of the farmed landscape became buried. Despite this the area continued to be farmed, as a patchwork of regular-sized fields bordered by earth banks and lynchets was laid out on the lower slopes (phase 3); after further sandblow, in phase 5 two of the major boundaries (aligned downslope) were later remade and topped by stone hedges. Great expanses of the unique criss-cross lattice pattern, first seen that spring day in 1958 by the members of the Prehistoric Society, were found throughout the ploughsoil horizon

**FARMERS**  
As well as houses, Gwithian was distinguished by extraordinary evidence for ancient cultivation. Large areas of bronze age criss-cross ploughmarks (above, start of phase 3) were the first such remains seen in Britain. Another set of marks (opposite top, end of phase 3) is seen being cleaned

contained within these parallel walls. That these fields had been cultivated over many years is clear.

Upslope, on the same spot where the circular wooden building of phase 1 had once stood, in phase 3 another structure appeared, this time made of stone and wood. It too would have looked out over fields, which now grew emmer wheat. Fragments of sheep or goat and cattle bones were found, showing that stock farming was also assuming an importance during this period. Recent radiocarbon dates place these events at c1500–1200BC.

One of the most striking aspects of bronze age Gwithian is the strong attachment to a piece of land over a very long period. This special attachment was made particularly apparent at this time, when a line of four pits, each containing the burnt remains of individual adult people (together with animal bone), was found on the edge of one of the fields. This will not be the only time that the human dead appear. Why they were buried here remains a mystery, but it is possible they were different generations of the same family, and their place of burial reinforced deep blood ties to the land they had once farmed. Whatever the explanation, it is very clear that the two main field walls

**They were attached to the land: the burnt remains of four people were buried beside a field**

(which had been laid out at some early event during this period) were important boundaries. Given the overall demise of barrow building by the mid second millennium BC, it is perhaps no surprise that the spheres of the living and the dead are in close physical proximity. We have to regard the dead, although they may have been laid to rest, as continuing to play an active role in forging deep personal and emotional attachments to particular places at this time.

Recent reassessment of the “clean” phase 4 sand layer, which later concealed this second major phase of settlement, suggests that this, previously interpreted as wholly sterile blown sand, was actually a ploughsoil. Ard marks were seen at the base of this horizon when it was reexposed in 2005. It may have been built up fairly speedily and perhaps bulked up with manure and compost. The upper part of this horizon contained the greatest diversity of land snails which showed a marked change from formerly open to more shaded surroundings. It is possible that the general area, previously cultivated, had now become scrubby and overgrown, but not perhaps so much as a result of wholesale abandonment as from piecemeal neglect and even perhaps resting the soil. Whether this can be interpreted as a clean break in this sequence of settlement and farming remains to be fully resolved.

## Enlarged

The character of settlement at Gwithian towards the end of the second millennium (phase 5, 1100–1000BC) has a new look. Areas of previously cultivated land are cleared – presumably by the spade (the remarkable survival of spademarks is a particular feature of this period). So in one piece of land (where there had earlier been fields), six wooden buildings, the likely remains of a farmstead, were found clustered around a townplace. Three, with distinctive pebble-lined hearths, were probably dwelling houses and the others, including one “granary” with a raised floor, were used for a range of activities like storage, and perhaps even cottage industries focused on bone and leather-working, metalworking and making pots.

Yet here within the heart of the settlement we see again a clear fusion



between the dead and the living. Sealed by clay under the floor inside one of the buildings, in the north-east quadrant, lay two pairs of tiny human leg bones, as if specially selected, next to two wooden bowls and groups of stone tools. In the north-west quadrant, the complete skeleton of another child was found, in a depression at the back of the building.

This farmstead was surrounded by fields, some cultivated and some, perhaps, stock enclosures. A large range of animals is present: cattle, sheep or goat, pig, roe and red deer. Oysters, a whale-bone and many marine molluscs show that fishing and harvesting the rocky shorelines were also daily parts of life. The variety of resources is striking. This was a thriving and resourceful small community.

The richest and most diverse range of finds came from within and around these buildings, including local and “exotic” materials from distant places. Amongst the latter are shale from Kimmeridge, Dorset (worked into bracelets), fragments of a mould for bronze axes in Devon chlorite schist and, closer to home, small quantities of unfired gabbro clays which would have been transported here from quarries 20km away on the Lizard.

Towards the end of the farmstead’s

## SPADEWORK

Presumed wooden spades were used in prehistoric ground clearance works, their marks seen in differently coloured sands (above, phase 5)

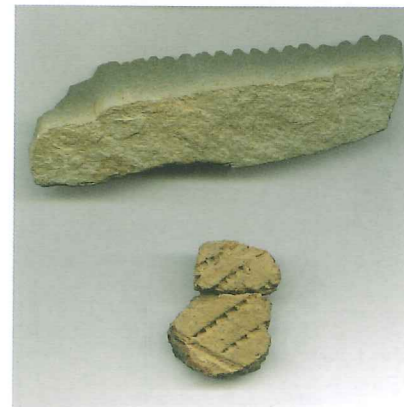
## NEW SAMPLING

Returning to the site in 2005 (right) Helen Roberts, University of Aberystwyth (on left) takes samples for OSL dating and Erika Guttman, University of Cambridge, for geoarchaeological analysis

life some of the buildings were destroyed and then sealed by deep spreads of settlement rubbish rich in bones, sea shells and artefacts. Where this midden material came from is still unclear, although it does raise the possibility that this particular farmstead was just one of several similar settlements scattered within extensive terraced field systems along other equally appealing stretches of the river valley. The poorly-preserved remains of likely contemporary sites have been identified at Sandy Lane, today lying on the outskirts of Gwithian village.

At Gwithian we see an unfolding story of the lives of small farming communities which spans the best part of 1,000 years. The exceptional preservation makes this special. There is more analytical work on the material to be done, but as we move towards a fuller picture it is clear that Gwithian has a major contribution to make to our knowledge of the bronze age period in Cornwall and beyond. For their day, field projects such as this were quite revolutionary in their ambitions and visions. What was revealed beneath the sands at Gwithian that spring day nearly 50 years ago continues to excite and surprise.

Work on archive consolidation and assessment of the Gwithian project is funded by the ALSF scheme through English Heritage. Jacky Nowakowski is senior archaeologist (HES, Cornwall county council) with Joanna Sturgess, Anna Lawson Jones (HES), Carl Thorpe, Charles Thomas, Henrietta Quinnell and a large team of specialists working on the Gwithian material. For more information contact jnowakowski@cornwall.gov.uk



## ARTEFACTS

Top: An unusual perforated whelk, one of several exotic objects found in a gully at the bronze age house  
Centre: Over 3,000 sherds of highly

decorated bronze age pottery make the Gwithian collection unique for the south-west  
Bottom: A finely notched slate perhaps used for decorating pots