

STONEHENGE RIVERSIDE PROJECT 2005

This year's team was the largest so far with over 70 staff and students from Sheffield, Manchester, Bristol, Bournemouth and Cardiff as well as local volunteers and staff of English Heritage and Wessex Archaeology. There were four excavations at Larkhill, Bulford and Durrington Walls' east entrance and Southern Circle.

Finds from the third millennium BC included an avenue leading from the river to the henge's east entrance, deep middens of feasting debris and three house floors. This midsummer sunset-aligned avenue consists of a central roadway flanked by a gully and external bank. At more than 20m wide, it is Europe's earliest road surface. The outer two rows of the Southern Circle were not present on its northwest side, indicating that this part of the timber circle was never completed. Across the River Avon at Bulford, we found the hole for a fallen standing stone with a well-furnished Early Bronze Age burial near its base.

Geophysics teams carried out surveys inside Durrington Walls, as well as at Larkhill and Bulford. The landscape survey team visited most of the 750 round barrows in the region and measured the profiles of nearly 200 barrows. On the River Avon's floodplain, the geomorphological team found numerous palaeochannels including some likely to date to the third millennium BC. Time Team roasted a pig Neolithic-style, experimented with antler picks for digging chalk, and built a stunning full-size replica of the Southern Circle. Finally, our team of outreach and education officers and re-enactors laid on two hugely successful Open Days attended by over 1500 local residents.

DURRINGTON WALLS

The avenue

The main aim of excavations outside the henge's east entrance was to find a link between the henge and the river, to support the theory that Stonehenge and Durrington Walls were built as a single complex of complementary wooden and stone circles linked by the river. After three years of searching, we have finally found this link – a Late Neolithic metalled road with a gully and external bank. Half of the avenue's width was excavated (about 12m), allowing us to estimate that the road was originally about 10m wide (wider than most A-roads today) and, with a gully and bank on each side, would have been over 20m across. Halfway along its 100m length there was a large pit which probably held a timber post, at about the same distance to the Southern Circle as the Heel Stone is to Stonehenge. Despite its grand size, most Neolithic 'traffic' (pedestrian rather than wheeled carts) was concentrated along the middle of the road. This was clear from the smooth surface of the small flint cobbles down its centre and from the better survival of animal bones and Neolithic pottery sherds along its edges where trampling had been less severe. The gully and bank are packed with bones and sherds and the road's surface had been re-metalled at least twice.

Closer to the river, the avenue had been largely destroyed by agriculture and erosion over the last 2000 years. However, from the results of coring in 2003 and 2004, we can infer

that its metalled surface still survives along the avenue's southern edge as far as the river bank.

Although wooden trackways are known from the fourth and third millennia BC, this is the first metalled road surface to be found in Neolithic Britain and Europe. The avenue's closest comparison is with the Stonehenge avenue which links Stonehenge to the Avon, except that its bank is inside its ditch and it is about 30m in width. However, no one knows whether the Stonehenge avenue had a metalled surface or whether it held posts or standing stones – two aspects that the project hopes to investigate. The two avenues have complementary solstitial alignments, suggesting that they were constructed as elements of a single scheme. Whilst Stonehenge looks towards the midsummer sunrise and its avenue approaches Stonehenge in the direction of the midwinter sunset, Durrington Walls's Southern Circle looks precisely towards midwinter sunrise and its avenue leads to the henge in the direction of the midsummer sunset (within $1\frac{1}{2}^\circ$).

Wood to stone downstream – to the realm of the ancestors

Southern Circle to Road	Facing midwinter sunrise
Avenue to Stonehenge	Facing midwinter sunset

Stone to wood upstream – fertility from the ancestors

Stonehenge to Avenue	Facing midsummer sunrise
Road to Southern Circle	Facing midsummer sunset

This juxtaposition now suggests that midwinter and midsummer were both important solstitial moments in the annual calendar. There is also a switch in directionality, from the timber monuments of Durrington Walls downstream to Stonehenge at the midwinter solstice and upstream from Stonehenge to Durrington Walls on midsummer's day. Whilst the midwinter route has been recognised and discussed within the project, the reversed midsummer route has only been recognised by Mike Pitts (2000). Whilst the former route can be interpreted as leading from the living into the realm of the ancestors, the opposite direction leads from the ancestors to the living. The ultimate gift that ancestors provide is fertility and this may be the significance of the midsummer directionality. It would suggest a preference for human birth in the spring, with sex and death symbolised at the two solstices of the annual round. The presence of flint nodules in shapes of male and female genitalia in the 'sex pit' found in 2004 (on the line of the Durrington Walls avenue's gully) and new finds of phallus-like nodules within the gully and Southern Circle in 2005 may be significant in this respect.

Houses outside the henge

Remains of houses from the British Neolithic are exceedingly rare and, until now, the actual floors of such houses have only been found in the Northern and Western Isles of Scotland but this year's excavation has found three of them outside Durrington Walls' east entrance. The largest is 4m x 4m internally, oriented on the cardinal points, and has a central hearth covered in broken sherds of Grooved Ware. Its doorway is not yet identified and the house will remain unexcavated until 2006. Its floor of puddled chalk is covered in orange and black ash. It was built with walls of vertical wooden stakes

holding wattle panels which were plastered with a crushed chalk daub, obtained nearby from extraction pits down slope towards the bank of the avenue. The house is earlier than a pit whose lower fill is radiocarbon dated to c.2500-2400 BC.

The house is built within the southern edge of a large midden in which part of a second house floor has been found. Although only half of it is visible beyond the section, this was a smaller building just 2m across and on a SE-NW axis. Its beaten floor also has a concave or dished surface similar to that of the larger house.

The third house was built on the avenue bank. Part of it lies outside the excavated area and its floor was also heavily scoured after abandonment in the Late Neolithic, leaving no deposits intact above its chalk plaster floor except for the hearth. The house may have been oriented on the cardinal points but its hearth was on a different orientation, approximately on the solstice axes (in common with Late Neolithic houses in Orkney). The stake holes of a probable fourth house were excavated in 2004 but were not recognised as such until this year.

The preservation of these houses is remarkably fortuitous, thanks to a later layer of chalk wash which has sealed the Neolithic layers and protected them from plough damage. This layer extends well beyond the northern edge of the entrance and is likely to have preserved a large area of Neolithic ground surface, houses and middens. It may be that the henge was surrounded by a town-sized community of houses. Were they occupied all year round or, more likely, just for the festive seasons of midwinter and midsummer?

The midden outside the east entrance

North of the largest house, a midden extended over 20m to the north. Its centre was about 10m in diameter, with most of it undoubtedly lying outside the excavation trench. It was full of pig and cattle bones as well as flint flakes, scrapers and arrowheads. Most of the 100 flint arrowheads found in 2005 came from this midden. An unusual find was a broken chalk plaque together with fragments of this or another plaque. Only about six of these are known, the most famous being two from a pit just east of Stonehenge. Northeast of the midden there was a huge post hole with a ramp on its north side. Curiously it was filled with midden rubbish rather than the solid chalk packing and earth post pipe that are characteristic of the Southern Circle and Woodhenge posts, indicating that it had either never held a post or that the huge timber had been removed and the void filled with rubbish.

The henge bank

Two small trenches were dug into the top of the henge bank either side of the east entrance. The one to the south (Trench 5 on the north terminal of the bank south of the entrance; 5m x 5m) revealed a cache of four antler picks placed on the ground surface and covered with chalk dug out from the ditch. They lay not on the buried soil but on the uppermost of a sequence of layers of wood ash and midden debris which had accumulated before the henge (or at least this section of it) was constructed. A circular pit was also dug into the uppermost ash layer. Large quantities of animal bone and large

Grooved Ware sherds were found in the pit and in the ash deposits, including a Peterborough Ware-style sherd decorated with maggot cord impressions.

The second trench into the bank (Trench 6 on the east side of the henge bank; 10m x 5m) was on the junction between two distinct sections of bank and ditch construction, suspected to have been dug by two different work gangs. The layers of chalk blocks dipping from north to south indicate that the northern gang section was dug before the southern though the length of time between the two builds was insufficient for a clear boundary or soil horizon to develop. About a tenth of the large chalk blocks had marks of antler picks and other tools, potentially throwing light on digging techniques. There were also two broken antler picks in the bank. A narrow and shallow ditch, running east-west and curving northwards, was cut into the buried ground surface and remained open apart from a thin layer of loamy fill. This is interpreted as a demarcation ditch to mark the northern work gang's section immediately prior to construction. South of it, a layer of carbonised branches lay on top of the northern edge of a midden composed of several layers of loam and wood ash, containing animal bones and pottery.

The existence of midden layers in the two sections beneath the bank raises the possibility that large-scale activities at Durrington Walls may have pre-dated the construction of the henge by decades or even centuries. An excellent stratigraphic sequence of contexts containing articulated animal bones, antler picks and roundwood charcoal will enable high precision in radiocarbon dating of the henge's construction as well as of earlier activity.

The Southern Circle

This remarkable monument of concentric rings of huge post holes was partially excavated in 1967 by Geoff Wainwright in advance of the modified road line of the A345. About a third of the timber circle lay outside the road line, to be conserved for research by future generations. This year we opened a trench, 5m SW-NE x 15m SE-NW at its base, to excavate 12% of the remaining unexcavated area of the circle. The aim was to answer specific questions that remained unresolved since the earlier excavations. Were the weathering cones in the tops of the post holes actually re-cut pits? Was there an opposed entrance to that in the southeast? Were there remains of one or more surfaces on the northeast side of the circle? Were the different rings of posts contemporary or built sequentially? Were the narrow post holes in the sides of the large post holes remnant from an earlier phase or were they actually constructed at the same time?

The trench was machine-excavated at 7m wide and 14m long to a depth of one metre into sterile colluvium. At this depth, ground penetrating radar (GPR), resistivity and magnetometry proved capable of detecting anomalies from Neolithic levels buried beneath the remaining 0.3m-0.4m of colluvium. The remaining colluvium was removed by machine to the level at which the tops of the larger post holes became visible.

BULFORD

An unexpected discovery came with the investigation of a prone sarsen stone at Bulford (SU 175 431), just 2 miles to the east on the other bank of the Avon. The 2.8m-long Bulford stone lies within a ring ditch just north of a large cemetery of round barrows. Resistivity survey identified the course of the ring ditch and located further anomalies within it. The ring ditch's eastern half was excavated to reveal the base of a hole in which the sarsen had once stood. On its west side, the stone hole was flanked by a line of small post holes which are interpreted as having held anti-friction posts to enable the stone to be erected from the east side with minimal difficulty. Such posts are well known from excavations of stone holes at Avebury. To the immediate east of this stone hole there was a shallow pit filled with a cairn of broken flint nodules and sarsen flakes. The shape of the pit mirrors that of the stone and is most likely the base of the hole from which the sarsen was extracted in prehistory and raised vertically in the adjacent stone hole just 2m away. This would indicate that sarsens were distributed over Salisbury Plain as well as the Marlborough Downs 20 miles to the north.

The standing stone was probably erect when a 30m-diameter ring ditch with internal bank was constructed around it. There was no burial at its precise centre but a small cut near its centre contained an unusual burial of a small Food Vessel with cremated remains of a small adult (possibly female) and selected unburnt bones from a large adult (probably male). In one case, cremated bones were packed within an unburnt vertebra. Grave goods were placed either side of the pot and, on the east side, were protected within a box-shaped structure of tabular flint. These included a wild boar's tusk, flint tools, bone spatulae and a miniature 'megalith' carved from limestone. On the west side there was a transparent rock crystal. This item is highly unusual and is likely to have come some distance, perhaps from South Wales or from as far away as the Alps. Later on, a second larger Food Vessel cremation was inserted into the north side of the burial. Food Vessels date to c. 2300-1900 BC and it is likely, but unproven that the stone was erected before the burial.

The implications of the Bulford discovery are considerable. Stonehenge was not the only standing stone monument on Salisbury Plain and there may have been many smaller installations of single stones. In William Stukeley's time, a pair of standing stones were recorded at Luxenborough Plantation, perhaps erected within Coneybury henge. Early Ordnance Survey maps show the Bulford stone to have been just one of many in the area between Beacon Hill and Durrington Walls. Further investigation should reveal whether it was one of a line of standing stones.

LARKHILL

Excavations on Larkhill (SU 145 439) established that geophysical anomalies thought to be prehistoric monuments were in fact of recent date. Despite excavating a large area of over 800 sq m, the only prehistoric finds were worked flints from a tree-throw hole and a stray flint knife. Further geophysical survey failed to locate any other prehistoric features on this hilltop within the Stonehenge solstice axis. Although this absence of prehistoric monuments at the heart of Britain's densest and largest barrow cemetery (i.e. the 5 mile radius around Durrington Walls) can be partly accounted for by subsequent destruction

from agriculture and development, there remains the possibility that this patch of high ground was deliberately avoided as a place of burial or commemoration.