

## CALDICOT CASTLE LAKE

by Nigel Nayling

Excavation has now ceased with completion of the three year programme jointly funded by Cadw, Gwent County Council and Monmouth Borough Council, and the site has been flooded to create a lake in the Caldicot Castle Country Park, as was the intention back in 1988 when the Bronze Age site was discovered. The team is now in the middle of two years of post-excavation, ordering and checking the considerable archaeological record, phasing and correlating the many palaeochannels encountered in the excavations and analysing their artefactual and structural contents.

Both radiocarbon and dendro-chronological dates are now available, providing absolute dating for the stratigraphic sequence. The comprehensive sampling strategy on site has provided material for analysis of pollen, plant macrofossils, diatoms, Mollusca, beetles, ostracods and sediments over more than a thousand years of prehistory. The aim will be to place the artefactual material in its immediate and river valley environment. Many specialists attended a meeting held at Saint David's University College, Lampeter in March 1993 to review progress and compare and contrast interim results. This led to a useful exchange of information and discussion on interpretations. Although specialist and artefact studies are not due for completion until March 1994, interim results can tentatively be incorporated into the present phasing of the stratigraphic sequence.

The earliest sediment group (or 'alluvial parcel', Needham 1992, 259-260) comprised a sequence of blue grey clays reminiscent of the Wentlooge Formation. It had clearly defined organic horizons, one of which has given radiocarbon determinations of  $4360 \pm 80$ BP (CAR-1322) and

$4670 \pm 80$ BP (CAR-1323) indicating a Neolithic date. This had been cut by the succession of Bronze Age palaeochannels. Provisional pollen data indicates a high percentage of Chenopodiaceae, suggestive of a salt marsh environment or strong marine influence (A. Caseldine, pers. comm.).

The earliest of the observed channels contained relatively inorganic silty clays into which a double line of pointed hazel piles had been driven, along with a number of outlying piles and horizontal timbers. Determinations of  $3430 \pm 70$ BP (CAR-1415),  $3620 \pm 70$ BP (CAR-1317) and  $3550 \pm 70$ BP (CAR-1314) imply an early Bronze Age date. Interim results of ostracod studies (E. Robinson, pers. comm.) possibly imply sedimentation in a supra-tidal environment with a lessening of marine influence over time.

This channel was partially truncated by a group of channels with organic basal fills containing dense spreads of wood, stone and bone. The major artefactual item recovered was a boat strake from a plank sewn boat (Parry and McGrail 1991). Radiocarbon dates generally fall in the range 3150-3450BP. Pollen counts show a decrease in Chenopodiaceae compared with the pre-channel deposits and increases in *Alnus* and grass pollen particularly.

Environmental indicators suggest slow-moving or still freshwater, with beetle (P. Osborne, pers. comm.) and ostracod data favouring the latter apparently somewhat at odds with the Mollusca (M. Bell, pers. comm.). This apparent discrepancy may relate to the timing of preservation. Taylor (1993, 23) has posited the idea that Coleoptera and Ostracods species accumulated following channel cut-off whilst the Mollusca were deposited when the channels were still open. Alternatively,

these biota might be explained in terms of differing micro-environments across the palaeochannel profile. This issue is relevant to this and subsequent channel groups.

The two subsequent 'alluvial parcels' consist of a group of organic silty clays with low densities of artefactual material largely truncated by a succession of partially surviving channels with less organic basal fills. At present, comparatively little specialist study has been completed on these deposits, although the organic sediments with well-developed mottling may reflect reduction in the amount of time these sediments were waterlogged, encouraging oxidation (Taylor 1993).

The most completely preserved parcel comprises a wide (c. 6.5m), flat-bottomed channel running approximately north-west to south-east across the base of the modern lake. Radiocarbon determinations from immature roundwood cluster in the region 3000-2900BP. Its basal fills contained dense spreads of stone, wood and faunal remains. Although this group contains some of the coarsest sediments encountered, including medium silts and occasional fine sand, given the relatively fine particle size of contemporary basal sediments, the stone appears to have been dumped deliberately. Signs of heat damage (J. Horek, pers. comm.) suggest that much of this is waste from cooking activities, but more extensive study is required. The wood assemblage was dominated by hazel roundwood, a proportion of it showing signs of working, with lesser amounts of *Pomoideae*, blackthorn and alder roundwood also present. A wide variety of structural timbers of oak, ash and hazel, including double and single mortised planks, were recovered. One of these (332) has provided a winter felling date through dendrochronology of 998/997BC (J. Hillam, pers. comm.). Some timbers had been pegged down into the river-bed, although these did not form any clear linear distribution

which might suggest the remnants of a trackway. Driven piles, predominantly of oak, formed no clear pattern, although some of these may relate to somewhat later activity.

The faunal material was dominated by domesticates with a surprisingly high proportion of sheep. Metrical data will be limited because of the large quantity that had been broken to enable marrow extraction. Other domesticate species present included cattle, pig, horse and dog (F. McCormick, pers. comm.). Wild species, some clearly natural presence rather than the result of human deposition, included water vole, toad, mallard/widgeon, barn owl, little grebe, heron and crane. A single bone of beaver has been identified (S. Hamilton-Dyer, pers. comm.). Two metalwork items, a diminutive stub chape and a small coil of decorated tin (P. Northover, pers. comm.), are associated with this phase. The domination of the contemporary molluscan assemblage by *Valvata piscinalis* suggests moving freshwater (M. Bell, pers. comm.). Diatoms (N. Cameron, pers. comm.) are predominantly freshwater with a limited presence of marine taxa, perhaps indicative of periodic incursions of seawater. *Plantago* in the plant macrofossil and pollen records indicates an increase in disturbed ground or agricultural activity.

Following some silting of this channel with relatively inorganic clays, two structures were placed in the river. A possible bridge or jetty, consisting of two parallel lines of posts approximately 2m apart, was constructed across the channel. It comprised substantial driven posts at intervals of approximately 2m along each line, with smaller roundwood hazel poles with sharpened ends infilling between. Although the posts are predominantly unconverted oak with finely tooled points, some split oak had been used along with non-oak timbers, including a massive radially split ash plank with a mortise. The latter has given a winter felling date of

990/989BC (J. Hillam, pers. comm.). This double line continues to the north-east beyond the rescue area so its full extent is unclear. A linear spread of wood debris, discarded timber, fragmentary hurdle-work and stone slabs ran obliquely from the channel edge towards this structure. Given dendrochronological dates in the late 990's BC from ash wood chips within this spread, it could be interpreted as a trackway facilitating access to the centre of the channel during construction of the possible bridge.

In the east half of the modern lake, upper fills of this large channel produced little artefactual material with the exception of a near complete and partially articulated male dog skeleton. It was an aged specimen with arthritic joints, heavily worn teeth, a healed femoral fracture, a healed skull fracture and a further head wound which was the probable cause of death (F. McCormick, pers. comm.).

The latest channel encountered was located in the east half of the lake only and contained a finely laminated sequence of alternately organic and inorganic silts and clays. Cultural material was concentrated in the basal organic sediments comprising numerous roundwood pieces many with cut ends, oak chips, bone and a collapsed split oak post with a faceted point and a tenon at its upper end. Artefacts included a poorly preserved alder trough, a ladle or scoop and several sherds of pottery with incised chevrons and horizontal lines. It proved possible to open a cutting into the slope of the modern lake at its southern edge. Although still partially truncated by machining, the eastern edge of this late palaeochannel survived up to 4.5m OD, a metre higher than in the base of the lake. The uppermost channel fills, sealed below oxidised estuarine (?) clays, comprised silty clays with increasing organic content with depth. Wood was scarce and poorly preserved but spreads of charcoal, occasional animal bone and a single amber bead

were recovered. Two sloping features, partially collapsed tunnels within the river bank, may be the partial remains of animal burrows, although they do not closely parallel modern examples of either otter or beaver activity. Plant macrofossil and pollen data show a strong and increasing presence of *Plantago*.

Specialist studies continue but should be completed by the end of financial year 1993-94, when they can be integrated with the developing archive report. Interim results point to a complex interaction between natural sedimentary processes (e.g. estuarine alluviation, river channel movement and cut-off, river valley alluviation) and human activity (e.g. riverside settlement, agriculture, woodland management/exploitation, trade and exchange). There is direct evidence over the whole of the Bronze Age, implying continuity rather than the cultural upheavals advocated by some authors in recent years.

Author's address:  
Glamorgan-Gwent Archaeological Trust  
Ferryside Warehouse  
Bath Lane  
Swansea  
West Glamorgan  
SA1 1RD

