# LLANCADLE SOUTH: AN EARLY MEDIEVAL CEMETERY COMPLEX IN THE EASTERN VALE OF GLAMORGAN. PRELIMINARY RESULTS FROM THE 2022-25 EXCAVATIONS

*Andy Seaman[1] and Tudur Davies[1], with contributions by Jessica Morgan and Elise Tideswell*

## *Introduction*

In this article we present the preliminary results from the 2022-25 excavations at Llancadle South (Vale of the Glamorgan). The fieldwork was undertaken as part of the *Fonmon Castle Landscape Archaeology Project*, a collaborative research initiative between Cardiff University and the Fonmon Castle Ltd. The excavation has revealed a well-preserved Early Medieval inhumation cemetery on land to the west of Fonmon Castle (ST 037 681) within the parish of Penmark. To date, around 70% of the cemetery has been examined and it is estimated that the total number of burials here is between 80 and 100. The cemetery is demarcated by two concentric enclosures, the larger of which may also have enclosed a contemporary settlement. The excavations have produced a range of material culture, including high-status imported pottery and glass dating to the 6th and 7th centuries AD, as well as a substantial animal bone assemblage. The cemetery displays a surprising diversity of mortuary ritual that includes individuals laid out in supine, flexed, and crouched positions. Two individuals interred close to the entrance of the enclosure ditch surrounding the cemetery appear to have received atypical burial treatment. Features interpreted as potential structures have also been identified within the cemetery space. The programme of fieldwork and post-excavation analysis is on-going, but the initial results are of sufficient significance to warrant this extended interim statement and some preliminary consideration of the site's status and context within the region.

## *Site Location and Morphology*

The site was initially identified as two partial crop-mark enclosures known as Llancadle South II (PRN 02943s) and Llancadle South A (PRN02406s). These names were coined in reference to the historic

[1] School of History, Archaeology and Religion, Cardiff University

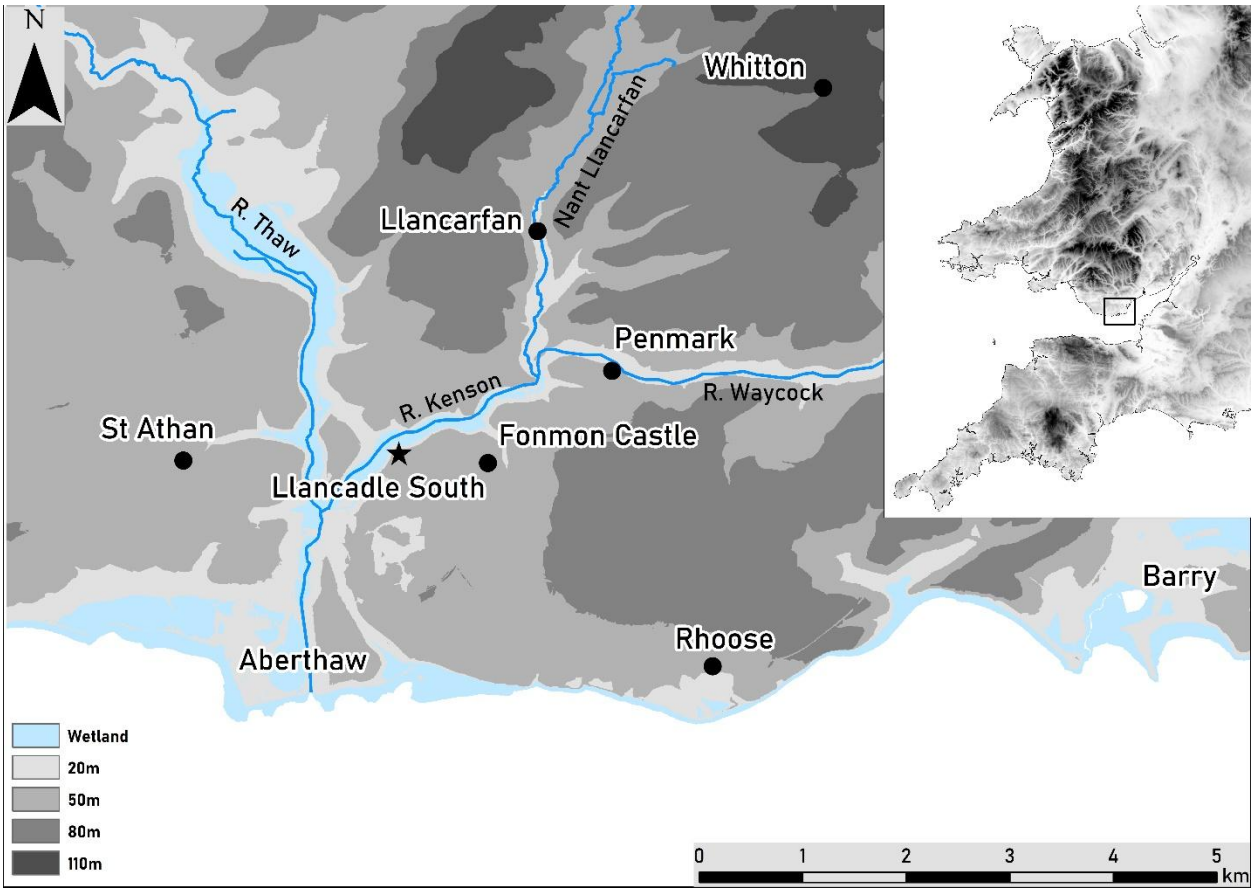


*Figure 1: Llancadle South location map*

village that lies *c*350m northwest of here on the opposite side of the Kenson valley, thus they have no bearing on the site's interpretation. The enclosures are located on a south-facing ridge above the River Kenson on the demesne lands west of Fonmon Castle (Figures 1 and 2). The underlying geology is the Porthkerry Formation of the Blue Lias (Lower Jurassic) and is overlain by soils of the Ston Easton Association. Llancadle South A springs from the break-of-slope of the Kenson valley and runs eastwards just above the crest of the ridgetop for *c*110m before terminating. This ditch partially cuts off a shoulder of land of around *c*0.9ha that projects into a bend of the Kenson valley. No continuation of the ditch has been traced on the eastern side from the study of aerial photographs and geophysics and it does not appear to form a complete enclosure. There is an entrance gap towards the southwest, which aligns with that of the smaller Llancadle South II enclosure some *c*30m to the north.

The smaller enclosure of Llancadle South II (*c*0.07ha) is reverse D-shaped and sits neatly within the area defined by Llancadle South A. The views from the ridgetop are partially obscured by a tree line to the north and west of it and Aberthaw Cement Works and Aberthaw Power Station to the south. Nevertheless, the enclosure occupies a prominent position that would have been visible from lower ground to the south, west, and north of here. The enclosures lie immediately south and to the east of the parish boundary between Llancarfan and Penmark; the latter believed to perpetuate the boundary of a pre-Norman estate focused on the important Early Medieval monastery of Llancarfan

(Knight 2013, Fig 37). Further crop marks and features revealed through geophysics lie *c*60m to the southwest (Llancadle South B, PRN2417s) and *c*100m to the east (Llancadle South III) (Figure 2). These and other features within the Fonmon Castle Estate are also being examined as part of the *Fonmon Castle Landscape Archaeology Project,* and will be reported on separately.

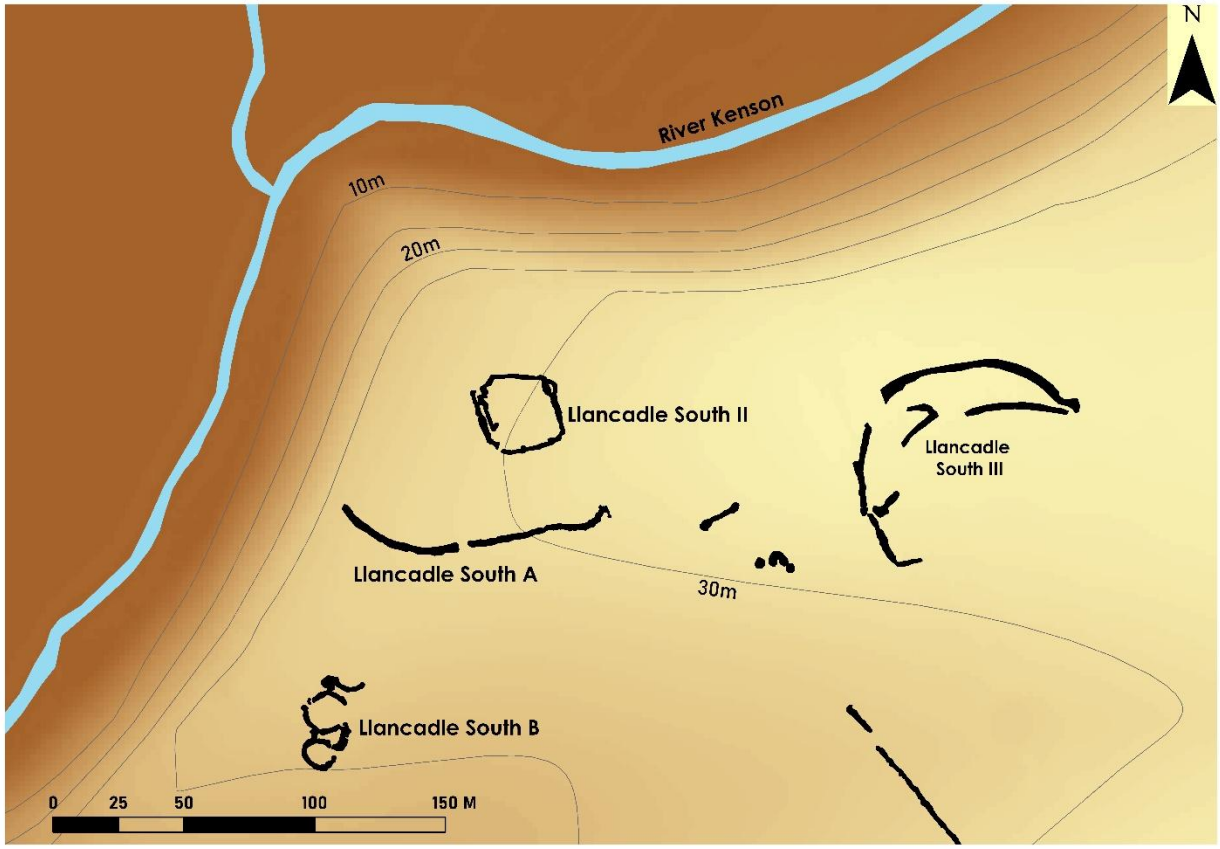


*Figure 2: Plan of the Llancadle South complex and adjacent sites derived from geophysical survey (Seaman 2021). Contours from OS Terrain 5 [SHAPE geospatial data] using EDINA Digimap Ordnance Survey Service*

## *Research context*

The two enclosures were initially identified through aerial photography and were tentatively interpreted as being late prehistoric or Romano-British in date (Driver 1995; Evans 2001). In 2021 they were subjected to geophysical survey as part of the *Fonmon Castle Landscape Archaeology Project* (Seaman 2021). Subsequent evaluation excavation and radiocarbon dating undertaken in 2022/3 demonstrated that both enclosures were Early Medieval and appeared to form part of a unitary complex. The evaluation excavation also revealed the potential for a substantial animal bone and artefact assemblage and demonstrated that Llancadle South II was associated with an inhumation cemetery with comparatively good preservation of skeletal material (Seaman and Davies 2023; Davies and Seaman 2024).

Early Medieval cemeteries with preservation of skeletal remains are comparatively rare in Wales, and the artifact assemblage from Llancadle South also includes some rare imported pottery and glass. However, whilst the site displays significant research potential (*cf* Comeau and Seaman 2023), it also lies on agricultural land which at the time of discovery was regularly ploughed. In light of these dual research/rescue imperatives, the authors developed a project design for a long-term programme of research excavation in collaboration with the landowner and estate manager. The objectives of this project are to excavate 100% of the Early Medieval burials and to fully characterize all associated archaeological features, in addition to recovering well-dated artefact, ecofact and geoarchaeological assemblages. We are also working with colleagues in a range of institutions to undertake a comprehensive programme of post-excavation analysis that includes a suite of bioarcheological approaches. A further objective is to develop methodological innovation in digital recording of *in situ* skeletal material. The ultimate aim of the project is to generate a substantial, high-resolution dataset that could be transformative for our understanding of Early Medieval Wales. The project is currently in its third year, and fieldwork is likely to continue for last least another three seasons. The following provides a summary of some preliminary results and interpretive discussion, but full reports are in preparation, so what is presented here should been seen as an interim statement.

## *Excavation Methodology*

Spatial control was provided by survey grade GNSS. Plough soil was machine-stripped under archaeological supervision following a metal detector survey. Trenches were then re-metal detected and cleaned with trowel and mattock in order to define archaeological features. All archaeological deposits were excavated using standard single context recording protocols with proforma record sheets. Since 2024 we have implemented 100% sieving of spoil. Spoil heaps are also routinely metal detected. Graves are recorded using photogrammetery and, since 2024, 3D Laser Scanning using an *Artec Leo* handheld instrument. Environmental samples are taken as appropriate from all deposits.

## *Excavation Results*

### Llancadle South A

The eastern of end of this substantial ditch was sectioned in three places in 2022 and 2023. The aims of these interventions were to characterize the ditch, recover dating evidence, and examine whether it terminates before forming a complete enclosure, as indicated by the aerial photography and geophysics. In future seasons we plan to undertake further excavation of the entrance-gap area. After topsoil stripping it became evident that the ditch does indeed come to an abrupt termination (see Figure 3). The substantial V-shaped ditch was cut into the bedrock to a width of *c*2.5m and depth of *c*2m. The deposits encountered within all three slots were consistent, with a shallow and comparatively sterile primary fill, succeeded by a substantial dump of voided rock and clay that had entered the ditch from the north with some velocity. This is likely to derive from an adjacent bank formed from material quarried from the ditch. Above the bank collapse was a charcoal-rich layer which produced a small quantity of animal bone and a fragment of copper alloy sheet. This layer may be interpreted as debris (potentially that associated with activity to the north of here) which had accumulated against the rear

of the bank. A $C^{14}$ sample taken from a cow jaw from this layer produced a radiocarbon date of 1449 BP ± 28 yrs or 574-650 cal AD (UBA-52134) (NB all dates quoted in this paper are calibrated at 2 sigma (*ie* 95%) using OxCal 4.4 and the IntCal.20 curve). The upper fills of this ditch were most likely sterile and had accumulated at a much slower rate than the bank collapse, most likely as colluvium. There was no clear evidence here for any re-cutting of the ditch.

*Figure 3: Eastern terminal of Llancadle South A in Trench 6*

The area between Llancadle South A and the smaller inner enclosure has not yet been examined in detail, but an irregular cut feature was identified just 4m north of the above ditch. Further exploration of this area is needed before this feature can be interpreted.

**Llancadle South II**

The entirety of the eastern half of this small reverse D-shaped enclosure was excavated in 2022-24 (Trenches 1 and 1a) whilst the western half is currently undergoing excavation which is expected to last for another two seasons (Trench 1b) (Figure 4). The enclosure is defined by an insubstantial flat bottomed, rock-cut ditch that varies from 0.9m to 1.5m wide and 0.6m to 1m deep. It has a 2.8m wide entrance gap in the south-western corner. The ditch is generally more substantial on its southern, south-eastern, and western sides where the fills are noticeably richer than on the north and north-eastern sides in terms of their material culture finds and quantities of animal bone. The sequence of

deposits is broadly consistent along the entire length of the ditch; consisting of a shallow primary fill derived from the natural clay that lies between the bedding planes of the Lias bedrock which is observable in some places, and above this an orangey-brown silty clay that has accumulated here from both inside and outside of the enclosure. In places this layer is overlain by a rocky deposit accumulated from within the enclosure, and most likely derived from an adjacent bank. The uppermost fill is a darker clayey silt containing frequent charcoal and occupation debris. The latter deposit appears to have formed relatively slowly and is noticeably finds-rich, particularly on the southern and western sides of the enclosure. The only evidence for the re-cutting of this ditch has been encountered to the east of the entrance, where two burials of unusual form were cut into this after it had entirely silted up (see below).

A fragment of hazel charcoal from the primary fill of the ditch produced a radiocarbon date of 1585 BP ± 20yrs or 425-545 cal AD (SUERC-133337). Above this a sample of cow pelvis from the fill below the stoney layer produced a radiocarbon date of 1496 BP ± 24yrs or 544-639 cal AD (UB-49714), whilst a sample of a sheep/goat tibia from the silty upper fill produced a date of 1486 BP ± 26yrs or 550-640 cal AD (UB-49713). The latter two dates are indistinguishable from the date provided by a rib from one of the two human burials cut into the ditch after it had fully silted up *ie* 1491 BP ± 24yrs (546-640 cal AD) (UBA-54554). Thus, the enclosure ditch appears to have been dug during the late-5$^{th}$ or 6$^{th}$ century AD and then silted-up comparatively quickly. The D-shaped enclosure is the site of an inhumation cemetery.

The area outside of the enclosure has not yet been explored extensively, but a hearth and a shallow gully located *c*5m beyond the western side of the ditch may be associated with domestic activity in this area.

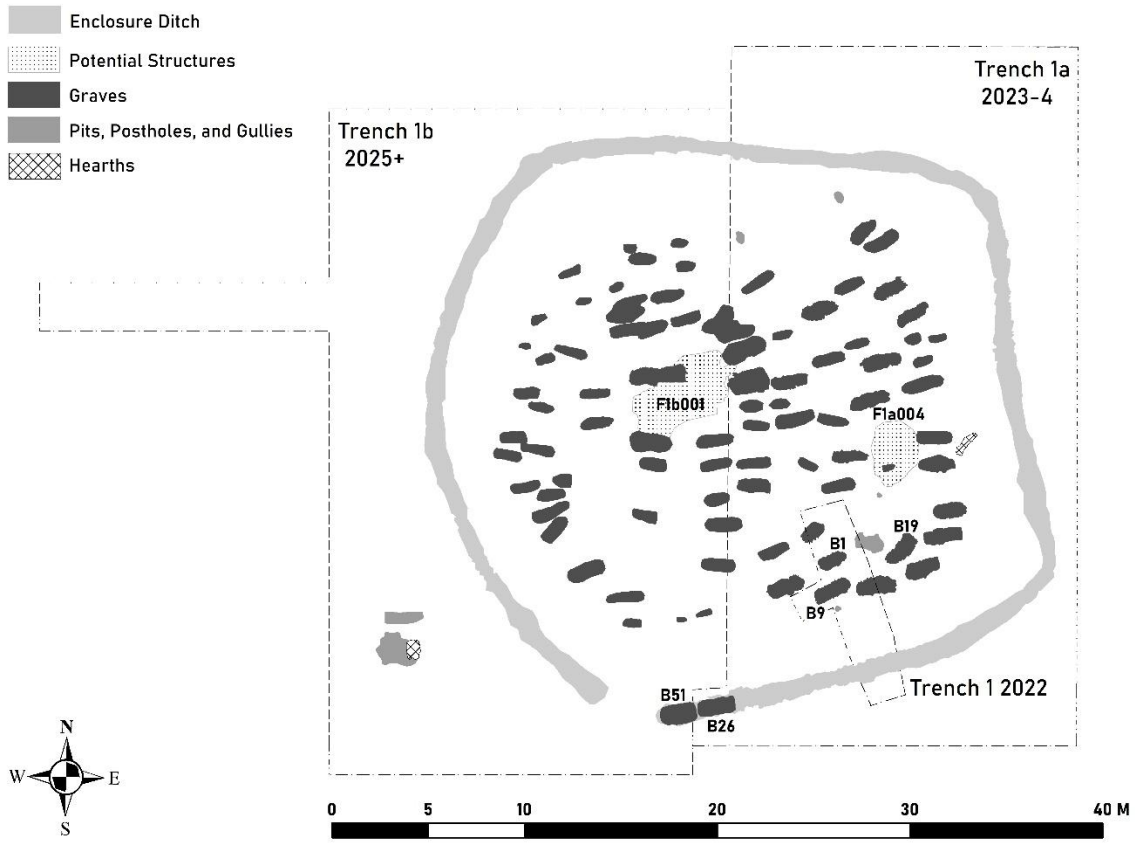


*Figure 4: Plan of Llancadle South II in Trenches 1, 1a and 1b, with selected features labelled*

## *Inhumation Cemetery*

There is a 2-3m-wide strip immediately inside of the ditch which appears to be devoid of features with the possible exception of a hearth on the eastern side of the enclosure. Fragments of hazel charcoal from this hearth produced dates of 1545 BP ± 21yrs (435-587 cal AD) (SUERC-133338) and 1532 BP ± 20yrs (439-598 cal AD) (SUERC-133339). The otherwise blank strip inside of the ditch is likely to demarcate a bank; one which has now been entirely removed through ploughing and stone clearance. All of the graves within the enclosure respect this putative bank. So far *c*91 graves have been identified, 57 of which have been excavated. The graves are cut into the bedrock to a maximum depth of 0.8m, but there is insufficient stone in the grave fills to account for the material that must have been quarried, so it may be surmised that much of this dug stone was deposited on the bank surrounding the cemetery, or used to form mounds over the burials. The grave alignments vary from SW-NE to WNW-ESE (*c*52° to 105° E) and these display a spatial patterning across the site (see Figure 4). Within the centre of the cemetery are at least two rows of broadly equally-spaced graves that are on a cardinal W-E alignment. Beyond this to the east and west some of the graves splay out, as if aligned upon a focus – potentially the large feature (F1b001) described below. There is also a noticeable cluster of graves within the southern part of the cemetery which share an alignment with the adjacent ditch and

presumably its bank. The exception to this is Burial 19 which appears to respect a shallow pit to its west of this.

*Figure 5: Semi-articulated human remains pushed to the sides of a grave in Trench 1b*

In the eastern half of the cemetery (Trench 1a) there is little intercutting of graves – the only exceptions to this being several on the western side close to the putative central feature (F1b001). Some graves nearly abut, but the level of respect does suggest that their locations were marked above ground. Since there is no evidence for post-holes and sockets, they may have been covered by mounds. There are also some areas devoid of burials, and this may be of significance in terms of the use of space within the cemetery. The western half of this (Trench 1b) has not yet been fully examined and only 16 graves have been excavated to date. Nevertheless, it is evident that there is a much greater degree of intercutting here, particularly in the area within and around feature F1b001, where disarticulated and semi-articulated skeletal remains were noted in the grave fills and/or stacked up on the sides of the cuts (see Figure 5). Where stratigraphic relationships between burials can be observed they appear to suggest that the central rows of E-W graves are later in the overall sequence, but this will need to be tested by further excavation. The current dating evidence (radiocarbon and artefactual – see below) suggests that the cemetery was in use for no more than two centuries, and potentially a shorter period still. This, alongside evidence for some of the disturbed skeletons being semi-articulated, suggests that the intercutting arose from a preference for burial close to feature F1b001, rather than from the longevity of the burial activity.

Our long-term aim is to date as many of the burials as possible in order to develop a high-resolution chronology from which we can model the use of the cemetery over time. However, for the present our preliminary range-finding dating (see Table 1) focuses on the 6th and 7th centuries AD, but with a tale starting in the 5th century AD. This aligns well with the dates from the enclosure ditches and the dating of the artefacts, which also focus on the 6th and 7th centuries AD.

| **Samples** | **Code** | **Radiocarbon Age (BP)** | **Range** | **From (95%) cal AD** | **To (95%) cal AD** |
|---|---|---|---|---|---|
| Burial 9, ulna | SUERC-108068 | 1412 | 24 | 601 | 659 |
| Burial 1, femur | UBA-54556 | 1419 | 26 | 598 | 658 |
| Burial 26, rib | UBA-54554 | 1491 | 24 | 546 | 640 |
| Burial 8, molar | UBA-54553 | 1543 | 25 | 434 | 593 |

*Table 1: Radiocarbon dates from inhumation burials*

The majority of the burials excavated were in the extended supine position with the head to the west, although a significant minority (*c*18%) were placed in other positions - including on their right side with the skull facing south (often with the hands tucked under the chin, and the legs slightly flexed); with the legs brought up into an almost kneeling position, leaving a void at the foot-end of the grave; and with another two in crouched positions (Figure 6). Two adjacent burials, Burial 9 (extended supine) and Burial 1 (crouched), both of them female and both sharing the same alignment, have produced contemporary radiocarbon dates, suggesting that chronology is not a key factor influencing body position within the grave.

Some graves have a stone-lining derived from the local Lias rocks, but there is no evidence for cists, and the lining was often placed around only part of the grave. Some of the burials display evidence for skeletal constriction and the verticalization of clavicles indicative of the use of burial shrouds, but there is also evidence here for coffins, including iron fittings in at least two instances, as well as plank-lining of graves.

Two burials (26 and 51) stand out as atypical. They are the only graves placed outside of the putative bank and had been cut into the enclosure ditch after it had silted up. They were buried adjacent to each other, in the southern side of the enclosure ditch, close to the eastern terminal of the entrance (Figure 4). The radiocarbon date from Burial 26 is not significantly different from those

*Figure 6: Examples of the burial positions at Llancadle South*

obtained from animal bone recovered from the ditch it was cut into (see above), suggesting that the ditch filled up comparatively quickly. Both bodies were placed in atypical positions with their legs resting against the side of the ditch (see Figure 7). The fill of Burial 26 was also noticeably stonier than any other grave so far excavated.

*Figure 7: Burial 51 close to the eastern terminal of the cemetery enclosure entrance*

**Other Features within the Cemetery**

Several non-burial features were also examined in Trench 1a, whilst further unexcavated examples await detailed examination within Trench 1b (See Figure 4). Features in Trench 1a include the hearth located on the eastern edge (mentioned above), at least three postholes (two in the north and one in the south), an irregular shallow pit to the south that appears to be respected by Burial 19 and a large cut feature (F1a004). The latter is sub-rectangular in form and is broadly aligned north-south. It is *c* 2.9m x 3.3m, and is cut into the bedrock to a maximum depth of 0.35m. The base of this is flat, but slopes with the dip of the bedrock, whilst the irregular sides appear to have been lined with a stone and clay packing, potentially as two different phases. Meanwhile the central fill of the feature was less stoney than the packing around the edges, but contained little in the way of anthropogenic material. It's possible that the packing around the sides of the pit provided some support for the walls for a small structure. A single child burial was cut into the fill of F1a004 and another grave may have cut into its northeastern corner, but for the most part the surrounding burials appear to respect this, suggesting that the feature may have been integral to the cemetery space. It should also be noted that a 'path' that was clear of burials could be traced through the cemetery leading to the south of side of this feature.

The non-burial features in Trench 1b have not yet been fully explored or defined, although as noted above, a gully and hearth were identified in the western side of the trench, in the area between the inner and outer enclosures. There is a notable concentration of finds, including E ware pottery and a penannular brooch found in the enclosure ditch adjacent to these features, and thus potentially deriving from a settlement focus in this area. F1b001 is a substantial and complex cut feature (*c*4.8m x 3.2m) which has not yet been fully examined. It was cut by several graves and thus its true extent and form has not yet been ascertained. Nevertheless, it seems evident that it lies just NW of the centre of the enclosure, and thus it can be posited as a focus. Many of the burials appear to be aligned upon this feature, and those within and closest to it display a high degree of intercutting. Finds from the cleaning of F1b001 and from within the fills of graves cut into it include three sherds of DSPA pottery, two sherds of imported glass, including a fragment of phial or *unguentaria*, half of the lower stone of a rotary quern, a fragment of a shale bracelet or armlet, a tooth plate from a bone or antler comb, and a number of iron objects. The feature has also produced several fragments of oolitic limestone and a fragment of Pennant Sandstone, possibly a roof tile. These may derive from a former structure, but further consideration must await full excavation.

***Skeletal Remains***

*Elise Tideswell*

To date, a total of 58 skeletons have been excavated and are currently undergoing assessment at Cardiff University. Preliminary analysis suggests a cemetery of 'two halves', with the preservation of the remains on the west exceeding that of the east. Once fully recovered and analysed, these individuals will be crucial in determining far more about the burial population and their lifeways.

Despite the relatively poor preservation of a large proportion of these individuals, osteological and isotopic analysis has allowed for key interpretations of demography, health, and diet. For example, all age groups are represented, with 27.5% of those buried within the eastern half falling into the category of 'non-adult' (the majority of these being infant or juvenile) at death. Excavations thus far are suggesting a much higher proportion of 'non-adult' burials to the west. However, this could be influenced by the fact that the western half is more densely populated. Currently, the cemetery displays a higher ratio of female to male burials, but some males are present, and the balance may average out with further analysis and excavation.

*Figure 8: SK1a034 (probable female, aged 33-60 years). Visible abscess on maxillary premolar and significant wear to premolars and incisors. Scale=1cm*

The health of these individuals is varied. As expected, those with a lower age at death have fewer visible ailments. Importantly, the osteological paradox must be considered, only a proportion of the population is represented, and osteological remains can only provide a certain level of information. Nevertheless, it can be accurately said that the burial population had poor dental health. All adult individuals currently analysed express some form of abscess, carie, and/or resorption. Many of these abscesses are severe, even to the extent at which sepsis is likely to have occurred (Figure 8).

In relation to health, there are some key individuals to note. Burial 15 displays evidence of a fractured atlas (C1) (Figure 9). This could be interpreted as an ossification issue, caused by a congenital defect, yet on microscopic observation, there appears to be minimal healing present at the location of the 'break'. Despite the uncommon fracture type, these types of injuries are typically caused by significant force. Burial 5 displayed a healed tibial break, likely a greenstick fracture, caused by blunt

force trauma to the medial border of the right tibia. Further, Burial 44 showed severe infection to the right lower leg, from the calcaneus through to the distal femur. The usual 'triangular' shape of the tibial shaft is indistinguishable, becoming almost circular with severe porosity and osteophytes throughout.

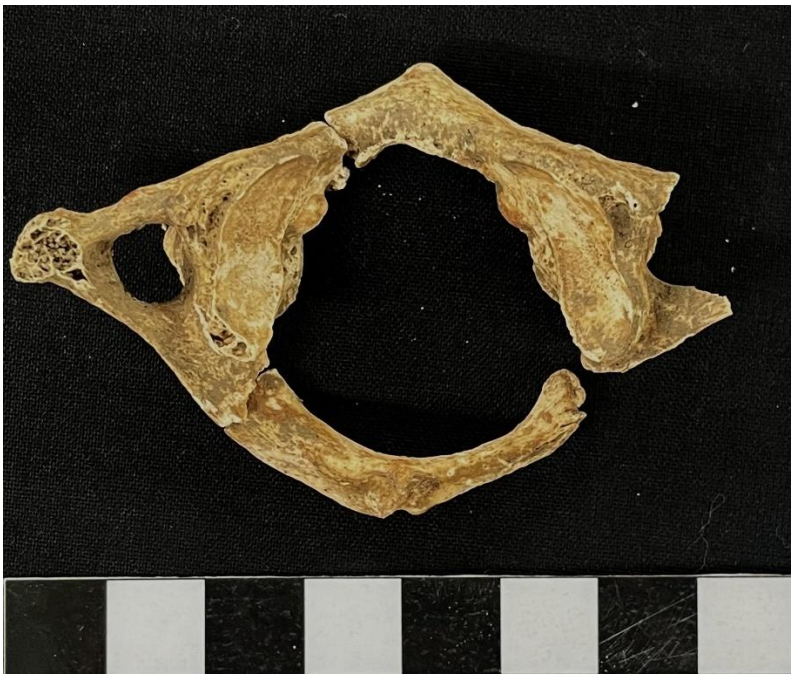

*Figure 9: C1 vertebra of SK1a146 demonstrating likely fracture. Scale = 1cm*

Pilot isotopic analyses have been conducted on a sample of six individuals, which include sulphur ($\delta S^{34}$), carbon ($\delta C^{13}$), nitrogen ($\delta N^{15}$), strontium ($Sr^{87}/Sr^{86}$) and oxygen ($\delta O^{18}$), with the aim to explore locality, migration and dietary habits. This pilot study focused on individuals from the distinct 'southern cluster' noted above. The $Sr^{87}/Sr^{86}$ and $\delta O^{18}$ results are presented in Figure 10. To briefly summarise, the strontium signatures for these individuals span a broad geographic range across Britian, making precise locational attribution challenging. Whilst the south Wales region is a plausible area of origin for these individuals, areas further away, such as the south-west of England, should not be excluded due to their relative accessibility.

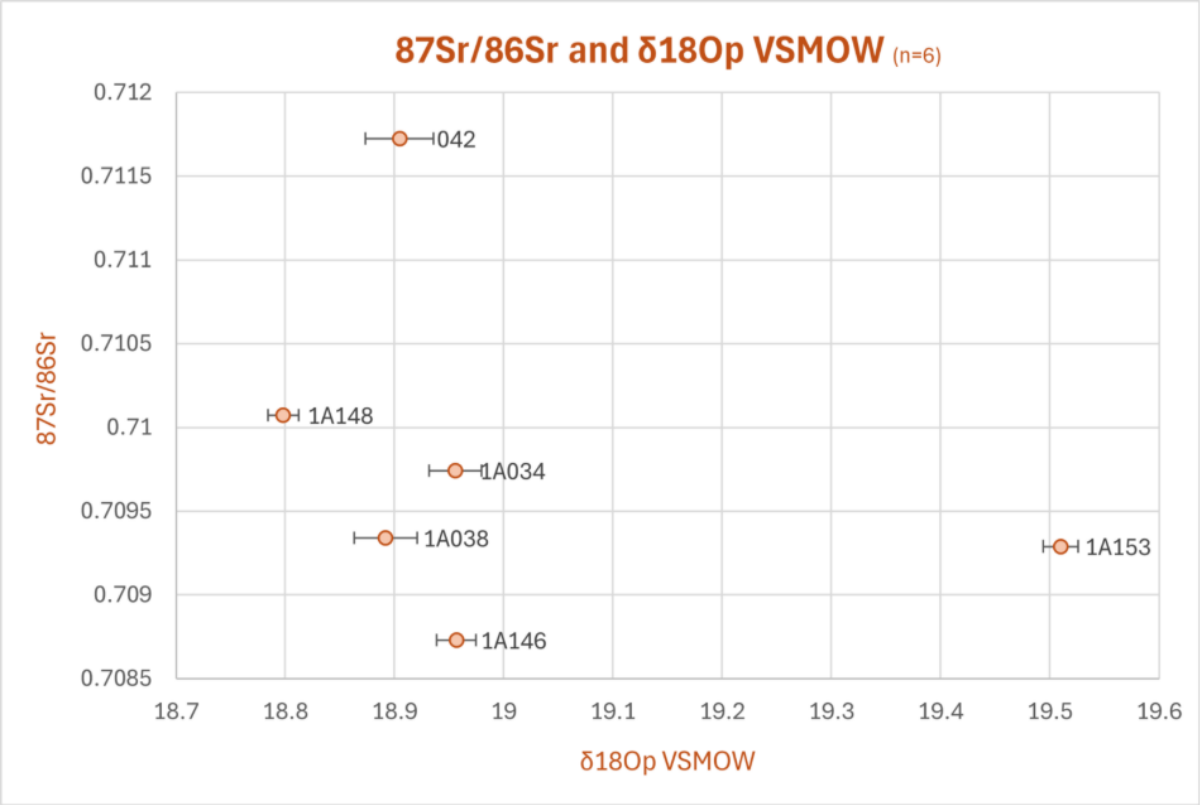


*Figure 10: $Sr^{87}/Sr^{86}$ and $\delta O^{18}$ VSMOW graph for six individuals from the southern cluster of burials.*

Initial interpretations of the oxygen values would suggest that all the individuals originated outside of Britain. However, recent studies state that the 'Revised Expected Range of oxygen is conservative in its estimate' and should be raised to 19.5‰ from 18.7%, since these higher results are also evident at various Welsh sites, including those local to Llancadle South (Faillace and Madgwick 2024, 448). Subsequently, when both isotopic datasets are considered together, it is likely that these individuals originated comparatively locally. Nevertheless, the range in values does suggest different origins within this one region.

Preliminary carbon ($\delta C^{13}$) and nitrogen ($\delta N^{15}$) results suggest a diet low in animal proteins and consisting predominantly of $C_3$ plants, such as cereal crops. Notably, there is minimal fish consumption, despite the site's location near the coast and the recovery of a small number of sea mollusc shells during the course of the excavation. Future dental calculus analysis would be beneficial here, since it could provide further insights into individual diet through identifiable food proteins, oral health, and the potential use of medicinal/herbal remedies (Forshaw 2022, 961) - thereby aiding our understanding of health and disease within the burial population.

The recovery of ossicles from burials has been particularly successful, and samples have been submitted to the Max Planck Institute for pilot analysis of ancient DNA. A programme of palaeoparasitological analysis is also being developed in collaboration with Prof Adrian Smith of the

Department of Biology, University of Oxford. Further pilot studies are being undertaken as part of MSc programmes at Cardiff University which are focusing on high-resolution incremental isotopic analyses of teeth to explore childhood nutritional biographies (Sarveswar Ganesh) and archaeothanatological and histotaphonomical analysis to reconstruct the original characteristics of burials and to explore diagenetic alteration of the bone microstructure as a proxy for past mortuary practices (Georgia Goold-Jones). It is hoped that these and further studies will help establish capacity for a large-scale analysis of the entire burial population in the near future.

## *Artefacts*

Early medieval sites in Wales are notorious for their sparsity of material culture, but the fills of the graves and inner enclosure ditch at Llancadle South have been surprisingly productive. Recovery rates have also been aided by the extensive use of metal detecting and through 100% sieving of spoil. Some Roman pottery has been recovered from the grave fills and cemetery enclosure ditch. These sherds are generally small and abraded, but they include Central Gaulish samian, Oxford red colour coated ware, and Black Burnished ware. Thus far, all the sherds appear to be re-deposited within Early Medieval contexts, the material probably deriving from the spreading of middens as part of agricultural activity . Nevertheless, together with two Roman coins recovered through metal detecting close to the site the pottery implies occupation within the general vicinity of Llancadle South during the Romano-British period (Dr Peter Webster *pers com* (2024); *cf* Evans 2001). An assemblage of flint has also been recovered and must attest to both Neolithic and Bronze Age activity in the near vicinity, but currently all these fragments appear to be redeposited within later deposits. However, most of the diagnostic artefacts recovered from sealed contexts can be closely dated to the later 6$^{th}$ and 7$^{th}$ centuries AD. Only in one instance does it appear that an object other than coffin fittings was deliberately placed with a burial (this was a quartz pebble deposited in the grave of an infant). With the exception of these coffin fittings, most finds have been recovered from higher up in the grave fills, and so are likely to have been redeposited within the backfill. Since the diagnostic material is broadly contemporary with radiocarbon dates from the burials and from animal bone within these same deposits our inference is that the graves were cut through an artefact-rich deposit which was forming contemporaneously within the enclosure whilst the cemetery was in use.

### *Imported Pottery and Vessel Glass*

A preliminary assessment of the pottery assemblage by Dr Ewan Campbell has identified 20 sherds of Early Medieval ceramic. This consists of 16 sherds of E ware, a storage/cooking ware imported from southwestern France during the late 6$^{th}$ - 7$^{th}$ century, and four sherds of *Derivées sigillées paléochrétienne Atlantique* (DSPA) a rare 6$^{th}$ century tableware, also produced in southwestern France. The majority of the E ware sherds came from the enclosure ditch, whilst all the DSPA has come from within the enclosure itself. Nine sherds of glass representing at least six vessels have been recovered from grave fills and from the enclosure ditch. The majority of these vessels are Campbell's (2007) Type C and Type D and they include cone beakers and a potential plate or shallow glass bowl. There is also a rim sherd from a small glass phial with parallels to two complete vessels known from Moynagh

Lough (Co. Meath). This vessel is likely to have been made in Vigo in Portugal and may have been an *unguentaria* used for perfume or oil (Campbell 2007, 63; Govantes-Edwards *et al* 2025, 25). This imported pottery and glass is comparatively rare and is likely to have arrived in western Britain as part of a wider package of imported material that included luxury goods. Campbell argues that there are indications of royal investment in this trade, and that the material is generally associated with high-status sites, particularly hillforts, such as Dinas Powys (Campbell 2007).

### *Copper Alloy*

Copper alloy objects include two lace tags, several small fragments of sheet and plate, part of a ring (potentially from a ringed pin) and a complete Type G penannular brooch. The brooch is currently undergoing conservation but is rare in being one of only two known examples with enamelled terminals (*cf* Campbell 2013). The decoration on the terminals is similar to that of a Type G2, but the terminals are closer in form to those of the Type G1 (Dickinson 1982). The pin also displays an unusual double-dot decoration that is reminiscent of that seen on a Type G brooch from Newton Moor near Cowbridge (Redknap 2022). The Llancadle South brooch was recovered from the upper fill of the inner ditch on the western side of the enclosure and was stratified with sherds of E ware. It was found close to the glass beads and the bone pin discussed below.

### *Iron Objects*

Iron objects include nails and studs, an awl with Roman and Early Medieval parallels, a fragmentary belt buckle, and coffin or box fittings.

### *Worked Bone*

Worked bone objects include a short peg that may have been a gaming piece or a fastening for a box as part of a composite object, a tooth plate from a double-sided bone or antler comb and three fragments of a pin with a carved decoration on it which were found close to the penannular brooch.

### *Stone*

Worked stone objects included three whetstones and one half of a lower stone of a rotary quern with a distinctive rounded base and evidence for secondary re-use as a rubbing stone. Numerous fragments of imported stone have also been recovered, including oolitic limestone, Pennant Sandstone, quartz pebbles, and a large fragment of Quarella Sandstone with a worked surface (probably from a Bridgend source).

### *Other Material*

Other artefacts recovered include part of a ceramic spindle whorl with Roman and Early Medieval parallels; two pieces of shale, including a fragment of a bracelet/armlet (Kimmeridge?); a lead spindle whorl; a lead weight and a second weight or washer; five small glass beads (found in a dispersed cluster just outside of the western side of the cemetery enclosure ditch) and numerous small fragments of burnt clay/daub. A small quantity of slag derived from smithing, and occasional fragments of shell (limpet and mussel shell) have also been recovered.

### *Animal Bones*

Jessica Morgan

Analysis of the animal bone from Trench 1a is ongoing, yet it is possible to draw some initial observations from this sub-sample. Overall, the animal bone assemblage is highly fragmented, thus identification is often difficult. However, some fragments have been refitted in order to increase the number of identifiable pieces. So far, a total of 4286 fragments have been recorded, of which 400 fragments were identifiable to species and 196 assigned to a size category (*ie* 111 large mammal, 81 medium mammal, 1 large bird and 3 medium bird). The species identified were all of domesticated animals, with cattle being the most abundant with 197 identified fragments. This is followed by sheep (143), pig (49), horse (5), chicken (5) and dog (1).

As well as being highly fragmented, the majority of the assemblage was eroded and powdery, therefore the metrics were often unrecordable, although some metric data was obtained. Taphonomy such as butchery and gnawing marks are very rare in the assemblage, as they have likely been obscured by erosion. Other taphonomic processes include burning, which is evident as charred or calcined bone, yet these tend to survive only as small fragments, thus they are unidentifiable either to species or element.

For ageing purposes tooth wear was being recorded in loose and *in situ* mandibular deciduous fourth premolars, permanent fourth premolars and permanent molars within cattle, sheep and pig to try and maximize data recovery, alongside measurement of epiphyseal fusion. Thus far, sexing has been recorded on only four specimens: three pig mandibular canines (2 female, 1 male) and one chicken tarsometatarsus (probable female).

Once recording is complete and quantification methods have been carried out, the data will be examined by context to identify any geospatial differences in species abundance, body part representation, and taphonomy as part of an investigation of site activities and the origins of the animal bone inclusions in the burial environment and its implications for the social and economic uses of animals in early medieval Wales.

## *A Preliminary Summary of the Site*

There is evidence for prehistoric and Romano-British activity in the vicinity of the Llancadle South

complex, yet none of the excavated features examined can be assigned to these periods. Currently there doesn't appear to have been any prehistoric focus to the cemetery (*cf* Edwards 2023, 304). Indeed, all the archaeological features examined so far appear to be Early Medieval in date. Both the artefactual and radiocarbon dating evidence currently available points to its use in the late-5th to the 6th - 7th centuries AD, and whilst there is some intercutting of graves occurring in the centre of the cemetery, for the most part these graves respect one another, suggesting a comparatively short period of use. Preliminary modelling of the radiocarbon dates in OxCal suggests a period of use of between 55 and 200 years. This may be modified by further dating, yet there is currently no evidence to suggest any use of the site extending beyond the late 7th century AD, and it should be noted that whilst some radiocarbon date ranges do start in the 5th century, sherds of amphora and red slipped wares dating to the late 5th and early 6th centuries have not so far been identified within the artefact assemblage. Large cemeteries of the 6th and 7th centuries AD are comparatively rare in southeast Wales. Apart from Llandough and Whitton Cross - both of which were in use for long periods extending well into eleventh century and beyond (Gilbert *et al* 2024; Holbrook & Thomas 2005), very few cemeteries in this region have been excavated using modern techniques and/or are fully published.

A focal or 'special grave' has not yet been identified, although feature F1b001 could be a candidate for this, and will be investigated further. There is also no evidence here for the square enclosures/structures seen within some other Early Medieval cemeteries in western Britain (*cf* Webster and Brunning 2004). Some of the Llancadle burials are furnished with a stone-lining placed around only part of the grave. This can be paralleled at sites such as Whithorn in Galloway, and may be interpreted as providing walling for graves not cut directly into bedrock and/or as supports for plank-built chambers or linings (Hill 1997, 70-3: Fig 3.3). It is also possible, but not proven, that mounds were constructed above the graves, as was the case with some 6th and 7th century graves at Tywyn y Capel in Anglesey (Davidson 2009, 195-6). The diversity of mortuary ritual is greater than that seen at most cemeteries of this period, where extended supine inhumation predominates. For example, whilst 82% of the burials excavated to date at Llancadle South are in the extended supine position, the figures from cemeteries at Caerwent Vicarage Garden, Monmouthshire (98%), Cannington (98%), Hickley Point C and Henley Wood (both 100% of adults) are much higher (Campbell and MacDonald 1993,Table 1; Mudd *et al* 2024; Rahtz *et al* 2000, 76; Watts & Leach 1996, 46). However, it should be noted that the poor preservation of skeletal remains across much of north and west Wales, Devon and Cornwall may well mask a greater degree of diversity than is readily apparent. The preponderance of females within the burial community at Llancadle South is likewise noteworthy. This trend may be balanced-out by subsequent excavation and analysis, yet it can be compared with other broadly contemporary sites in the region which also display a sex bias, such as the small cemetery overlying the late Roman temple at Lamyatt Beacon (Somerset) which largely contains female burials (Leech 1986) and the cemetery at Beckery Chapel near Glastonbury (Somerset) where a preponderance of males was reported (Rahtz and Hirst 1971). The two burials present in the ditch close to the east side of the entrance to the inner enclosure at Llancadle South are atypical in their location and burial position, and in terms of Burial 26 the quantity of stone packed into the fill of the grave. These burials

are being examined further, but we can see some parallels with so-called 'deviant burials' (Reynolds 2009).

The reverse D-shaped cemetery enclosure at Llancadle South and the larger and partial outer enclosure, both of which appear to be contemporary with the burial activity, are notable distinctive features. Whilst cemeteries defined by curvilinear enclosures were once considered to be a 'primary field monument' of Christianity in western and northern Britain (Thomas 1971, 75-6), they are in fact comparatively rare in Wales prior to the 8th century AD (Petts 2002). A potential parallel to Llancadle South in this regard is West Angle Bay (Pembrokeshire), where small-scale excavation points to a broadly comparable configuration of enclosure ditches, although the chronology here appears to be longer than at Llancadle South (Groom *et al* 2011, Fig 14). The layout of burials at the recently excavated and broadly contemporary cemeteries found at Hickley Point C and Yatton (both in Somerset) suggests that these sites were likewise enclosed by some form of boundary, although ditches were not reported (Mudd *et al* 2024).

Other distinctive features of the Llancadle South complex include evidence for non-funerary activity (such as hearths, gullies, domestic artefacts, and animal bone) within and around the cemetery enclosure, the potential presence of structures within the cemetery space itself and the richness of the artifact assemblage, in terms of the range, quality, and status of material found. The quantity of imported pottery and glass is impressive given the size of the excavated area and is comparable with assemblages recovered from other high-status sites in the region, including hillforts interpreted as elite centres such as at Dinas Powys (Vale of Glamorgan), Hen Gastell (Neath Port Talbot) and Cadbury Congresbury (Somerset). Other cemeteries in the region have also produced imports, including Cannington, Hinckley Point C and Carhampton (both in Somerset), Llandough (Vale of Glamorgan) and Llanelen (Swansea) (Campbell 2007; Mudd *et al* 2024). In the case of Llandough and Carhampton, a monastic context can be assumed for these cemeteries (Holbrook & Thomas 2005). The presence of a structure interpreted as a church, evidence for domestic/craft activities and the discovery of a *stylus* may likewise suggest a monastic context for Hinckley Point C (Mudd *et al* 2024). Although the potential structures identified within the cemetery space at Llancadle South are difficult to interpret at this stage, feature F1a004 is perhaps reminiscent of an Early Medieval structure at Longbury Bank (Pembrokeshire) (Structure A) that was associated with imported amphora (Campbell & Lane 1993, 25-6). At the same time we should note the 'sunken-featured' buildings of similar dimension(s) which are associated with the late- and post-Roman cemetery at Poundbury in Dorset (Sparey Green 1987, Figs 57 and 58). Likewise there are poorly defined and dated structural features present within the cemeteries at Llanelen (Schlesinger *et al* 1996, Fig 1) and Cannington (Rahtz *et al* 2000, Fig 20).

## *Avenues for Interpretation*

Marion Shiner (2021) has recently drawn attention to the evidence for non-funerary activity, principally metalworking and crop processing, at some Early Medieval cemeteries in Wales, and she also notes comparable evidence for craft and industrial activity at Cannington. Acknowledging the general lack of structural evidence for habitation she argues that these sites should be described as 'multifunctional cemeteries' (Shiner 2021). Shiner draws comparisons with the diverse range of Irish

sites often described as 'cemetery settlements', where similar associations of funerary and non-funerary activity are attested (O'Sullivan *et al* 2013, 306-312). There is an on-going debate as to how such complexes of activity may be interpreted. In Ireland 'cemetery settlements' are not generally interpreted as such within ecclesiastical contexts, although there are exceptions to this, such as Killeany (Co. Laois) and Dunmisk (Co. Tyrone) (Ó Carragáin 2009, 334-5). However, neither of these show evidence for sustained habitation, such as house structures. In some instances, distinct phases of funerary and non-funerary activity can be discerned, but in others (including Llancadle South) they are contemporary. Some of this 'domestic' activity may relate to funerary ritual. We might suggest, for example, that the sherds of DSPA tableware, glass drinking vessels and frequent fragments of animal bone from within the grave fills at Llancadle South derived from grave-side feasting. Such activity is attested in historical sources (Effros 2002, 143-4, 184-6), and indeed residues of domestic activity lying close to graves in Tintagel churchyard have also been interpreted this way (Nowakowski & Thomas 1992, 7-8).

It is also possible that the evidence for domestic activity may derive from a settlement focus adjacent to the cemetery. For example, the cemetery at Henley Wood (Somerset) was immediately adjacent to Cadbury Congresbury hillfort, which was re-occupied it the 5th and 6th centuries (Watts & Leach 1996). It has also been suggested that Cannington cemetery served a population living in the adjacent hillfort (Campbell 2007, 118). At Llancadle South the quantity of E ware and other artefacts from the western side of the cemetery enclosure ditch, as well as the presence of a hearth and gully in this area, suggests a both possible residential focus to the west of Trench 1b. We might note also that there are further enclosure sites to the east and west of the cemetery (see Figure 2).

However, the settlement evidence need not derive from residential occupation. For example, we should consider the association between cemeteries and assembly practices (Comeau 2020; Gleeson & Ó Carragáin 2016, 93; Shiner 2021, 278-9). In this scenario the pottery, glass, animal bone and domestic items could all derive from periodic gathering and feasting, and not from residential occupation. Indeed, it has recently been proposed that the cemetery at Whitton Cross (5.4km NE of Llancadle South) formed part of a seasonal meeting place associated with the important early monastery at Llancarfan (Comeau *et al* 2024).

Should we also consider a religious context for the cemetery? The relationships between Early Medieval mortuary ritual and religion are notoriously complex and whilst 5th to 7th century cemeteries containing west-east aligned and largely unaccompanied inhumations have been interpreted as representing an explicitly Christian burial tradition (for example Thomas 1971), this association has been problematised in recent decades (for example Maldonado 2013, Petts 2011). It is now thought that both Christians and non-Christians could be buried in what are often described as 'undeveloped cemeteries' (so named because of the lack of evidence for associated churches) (Edwards 2023, 307). The early Church appears to have exercised a fairly *laissez faire* approach to the regulation of burial rites, and churchyard burial seems not to have been widespread before the 8th century (Petts 2002). Nevertheless, a case has also been made for interpreting the use of shrouds as a Christian trait, which may be significant given the evidence for shrouding at Llancadle South (O'Brien 2017, 272). Indeed,

a Christian *milieu* would be appropriate for the Vale of the Glamorgan during the period of use of the Llancadle South cemetery, at a time when several important monasteries, including Llandough and Llantwit Major, are known to have been in existence (Edwards 2023, 316, 319-20; Knight 2013). It would be remiss, therefore, for us not to consider the possibility of an ecclesiastical context for the Llancadle South complex, given that it displays features, such as the enclosures, which would be appropriate in monastic context (*cf* Dark 2006).

Our aim for this article has been to provide an overview of the results from the first three seasons of fieldwork at the Llancadle South complex. It is too early to draw any firm conclusions as to the overall interpretation of this site, and more fieldwork (particularly in the area between the inner and outer enclosures) and post-excavation analysis must first be completed before a synthesis can be attempted. Nevertheless, we hope we have been able to identify at this stage what appear to be the most significant features and drawn some initial avenues for interpretation worthy of further consideration.

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