

AN ARCHAEOLOGICAL EVALUATION OF LAND BEHIND FRONDEG TERRACE LLANELLI, CARMARTHENSHIRE



Prepared
by
Cambria Archaeology
for
Chelmor Property Limited



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LAND BEHIND FRONDEG TERRACE
LLANELLI, CARMARTHENSHIRE**

By
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Map 1: Howells Plan of 1814

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SUMMARY

Cambria Archaeology were commissioned to undertake an archaeological evaluation on land behind Frondeg Terrace, Llanelli, Carmarthenshire, to evaluate the potential impact of a proposed housing development upon any archaeological features or deposits identified at the site. The area has been recorded as the possible site of the Medieval chapel of St Gunlet/Gwynllyw (PRN 692; NGR SN 5201 0059).

An archaeological appraisal has already been undertaken on the proposed development site (Murphy 2007), involving an examination of relevant documentary and cartographic sources, combined with an on-site examination of the area. This appraisal highlighted the need for further archaeological evaluation.

The evaluation consisted of two phases of work. In the first phase five trenches measuring 10m by 1.6m were opened up together with a further 9m by 1.6m trench. These trenches were opened by machine and cleaned by hand in order to characterise the nature and distribution of the exposed features and deposits across the area of proposed development. A variety of archaeological features and deposits were identified within three of the trenches towards the northern end of the site, around the area of the supposed chapel. This led to the second phase of work, comprising the opening up of two more trenches measuring 20m by 1.6m, and two measuring 10m by 1.6m in an attempt to establish the limits of the archaeological features and deposits.

Multiple human burials were discovered within five of the trenches, located within the upper field around the area of the supposed chapel. The burials, which were all aligned roughly east-west, clearly represent a Christian cemetery, possibly of relatively long standing, and were well-preserved. Samples from four skeletons were taken to obtain definitive dating, producing radiocarbon dates between 1010 and 1430, calibrated at 2 sigma, indicating a medieval date with possible Early Medieval elements. Sections of a large stone wall were also uncovered which would appear to represent the remains of the aforementioned chapel. A probable boundary to the cemetery was picked up in three trenches, enabling the area of the cemetery to be defined within the upper field.

A later building was identified within the remnants of the possible chapel, containing an area of industrial activity overlying the cemetery deposits. The industrial activity suggested small-scale copper working during the Post Medieval period.

No archaeological features or deposits were identified in trenches within the lower field, or within the two trenches opened up closer to the main road.

INTRODUCTION

Cambria Archaeology - Heritage Management (acting as advisors to Carmarthenshire County Council), prepared a detailed brief for an archaeological evaluation to assess the impact of the proposed development on the archaeological resource. Cambria Archaeology (Field Services) were commissioned by Chelmor Properties Ltd to undertake the archaeological fieldwork.

THE EVALUATION AREA

The site is located on land to the south of Frondeg Terrace, Llanelli, Carmarthenshire (NGR SN 5201 0059). The northern part of the proposed development area fronts the main road, including old garden areas and a trackway access to Capel Isaf farmhouse. This farmhouse, now unassociated with any surrounding farmland, lies on the northern edge of the former farmyard, with a converted farm building to the west, and a ruined mid 19th century barn to the southwest. Farm buildings are shown on 19th and 20th century map sources lining the southern end of the farmyard are now gone, but remains of their walls form the boundary to the proposed development area. To the south of this lie fields, fading into wetland at its southern extent.

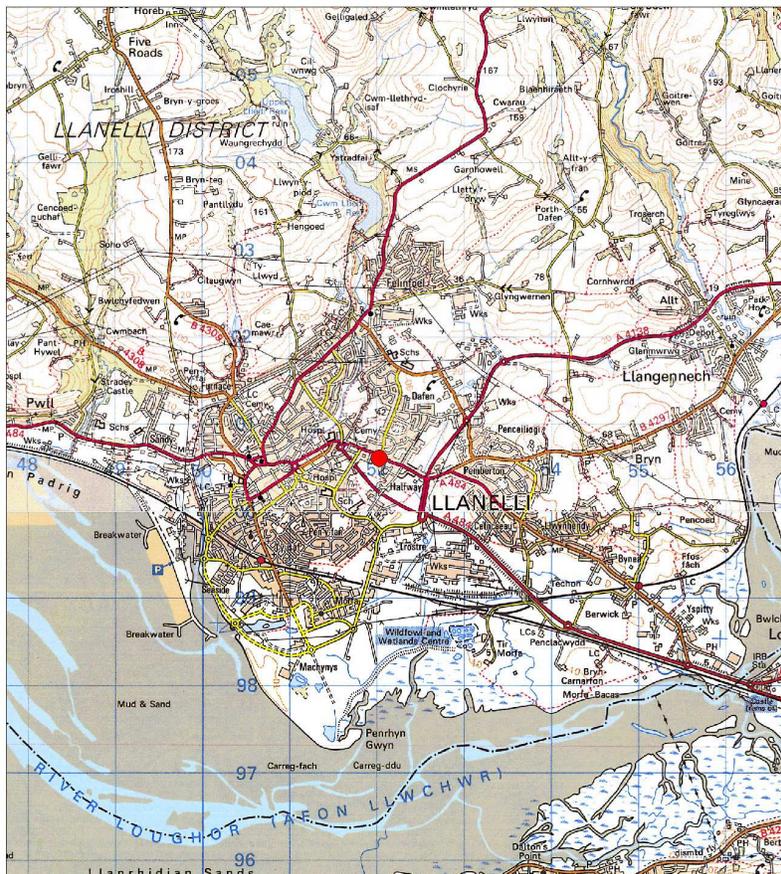


Figure 1. Location map, based on the Ordnance Survey.

Reproduced from the 1995 Ordnance Survey 1:50,000 scale Landranger Map with the permission of The Controller of Her Majesty's Stationery Office, © Crown Copyright Cambria Archaeology, The Shire Hall, Carmarthen Street, Llandeilo, Carmarthenshire SA19 6AF. Licence No AL51842A

AIMS AND OBJECTIVES

The evaluation process aimed to evaluate the proposed development area, in order to ascertain the presence, absence, character, distribution and relative importance of archaeological features or deposits. This information will be used to inform any decisions regarding future planning application for the site.

SITE HISTORY

A search of documentary, cartographic and pictorial sources was undertaken as part of the archaeological appraisal. The earliest recorded archaeological site within this area is a medieval chapel (PRN 692), believed to lie somewhere within the northern end of the proposed development area. The description from the archaeological appraisal is reproduced here (Murphy 2007, p5-6);

"The first known reference to Capel Gunlet or Capel Gwynllyw (PRN 692) dates to 1552 (Royal Commission, 1917, 119) when a 'chapel of saynt gwnlet' is mentioned. It was probably a chapel of ease within Llanelli parish located in the hamlet of Westfa. It is also recorded in a survey of Duchy of Lancaster lands in 1609-1613 (Rees 1953). This source was used by Rees to compile his map *Wales and the Borders in the 14th century*. Therefore Rees' map cannot be used to demonstrate the medieval origins of the chapel. Saxton marks 'Capel Gunllo' on his small-scale map of 1578 and Bowen's map of 1729 names 'Capel' and 'ruins of Gunenllo'. However, it is not until 1814 that any source definitely associates the chapel with a building at Capel Isaf farm. This map (Howell's Plan - Map 2) clearly names a farm building as 'old Chapel'. Later Ordnance Survey maps name this building as the chapel.

The Royal Commission in 1917 (p119) recorded 'a white-washed wall, 6 feet in length, now part of the cow-house, traditionally said to be part of the vanished chapel.'. By 1967 no remains of the chapel were visible within the cow-house (Ordnance Survey record card), and by 1987 the building was very ramshackle but contained what seemed to be several phases of masonry, although nothing definitely ecclesiastical. By 2007, the building had been levelled and the area incorporated into the yard of Capel Isaf farm."

As indicated by Howells Plan (1814) the Chapel had fallen out of use by the early 19th century and the area had become an agricultural landscape, with little industrial activity.

"Chapel Isaf farm is shown sitting in fields. Interestingly the map [Howells Plan of 1814] shows some strip-field cultivation, with the strips apparently not separated by hedges or other boundaries. This strip or open field system of cultivation originated in the medieval period, probably introduced by the Anglo-Normans in the 12th century, and the 1814 map captures the very end of it. By 1814 most of the strips had been amalgamated into larger fields and surrounded by hedges. When the 1st Edition Ordnance Survey 1:2500 map of 1880 was published this process of amalgamation had been completed. The 1880 (Map 3) map still shows an agricultural landscape, albeit one that was increasingly encroached upon by industrialisation and urbanisation. By 1907 these two processes had accelerated, and by 1916 many new houses had been constructed along Frondeg Terrace and neighbouring roads (Maps 4 and 5). The latter part of the 20th century was essentially one of shrinking industrialisation and expanding housing." (Murphy 2007, p5).

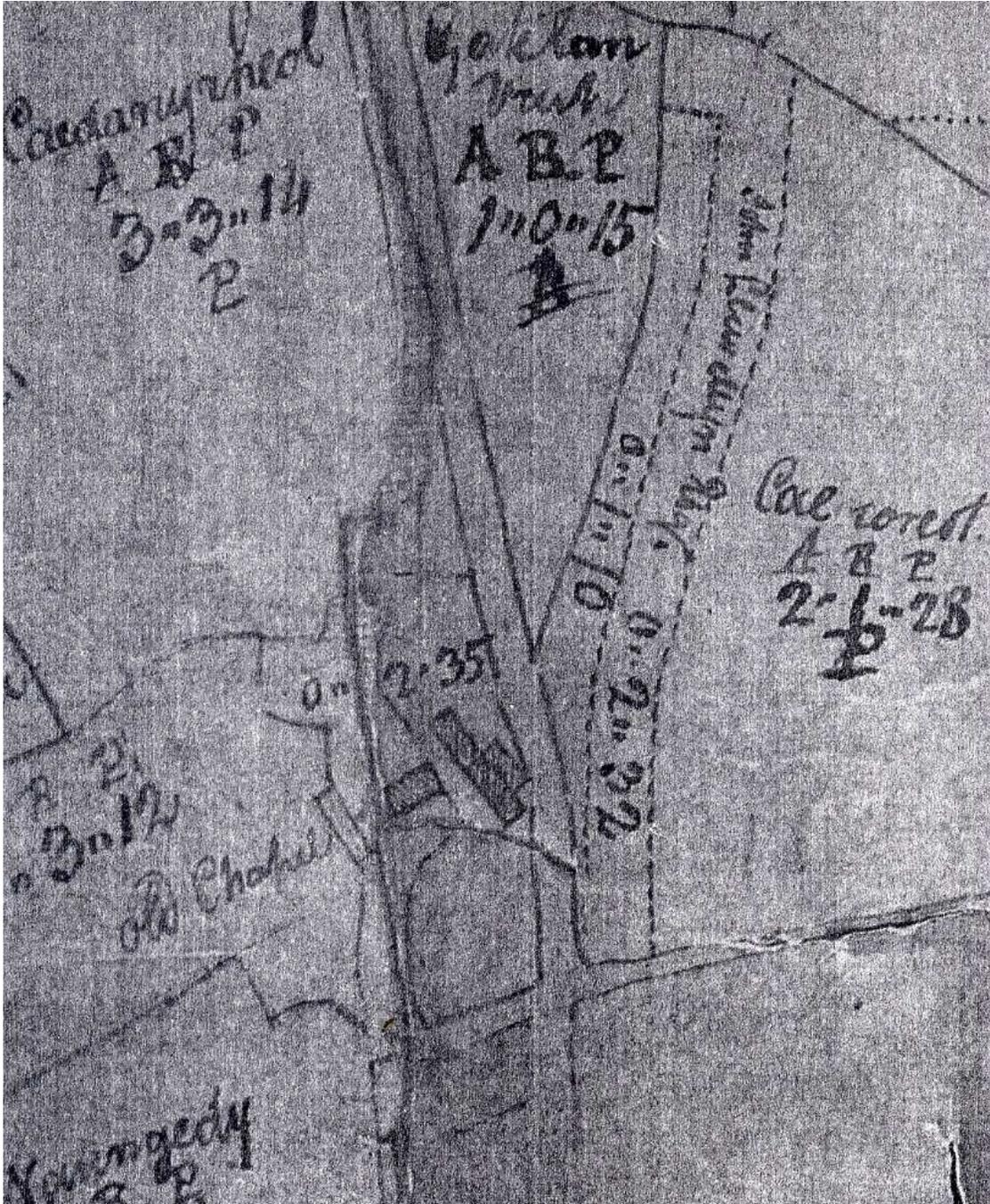


Figure 2: Extract from the 1814 'Howell's Plan'.

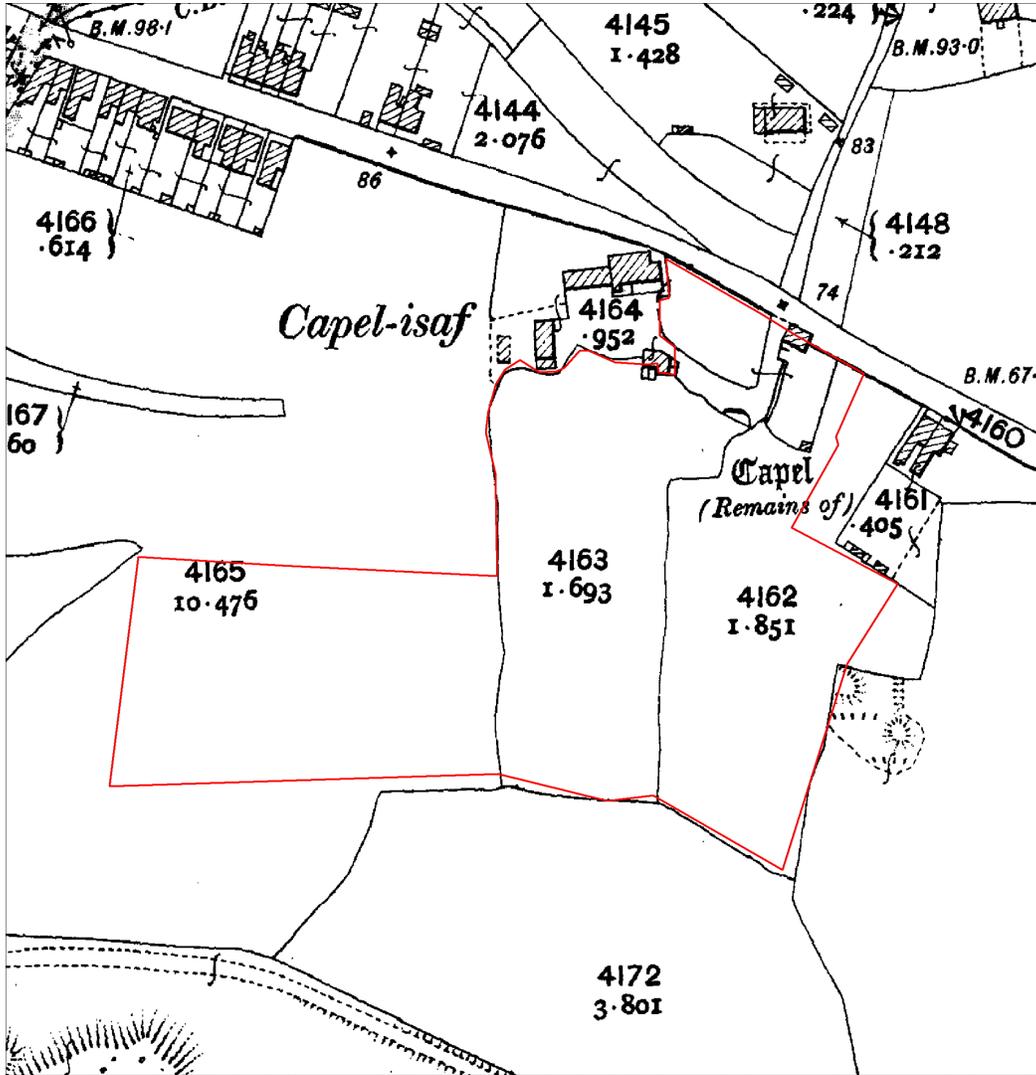


Figure 4: Extract from the 1907 Ordnance Survey 2nd edition 1:2500 map.

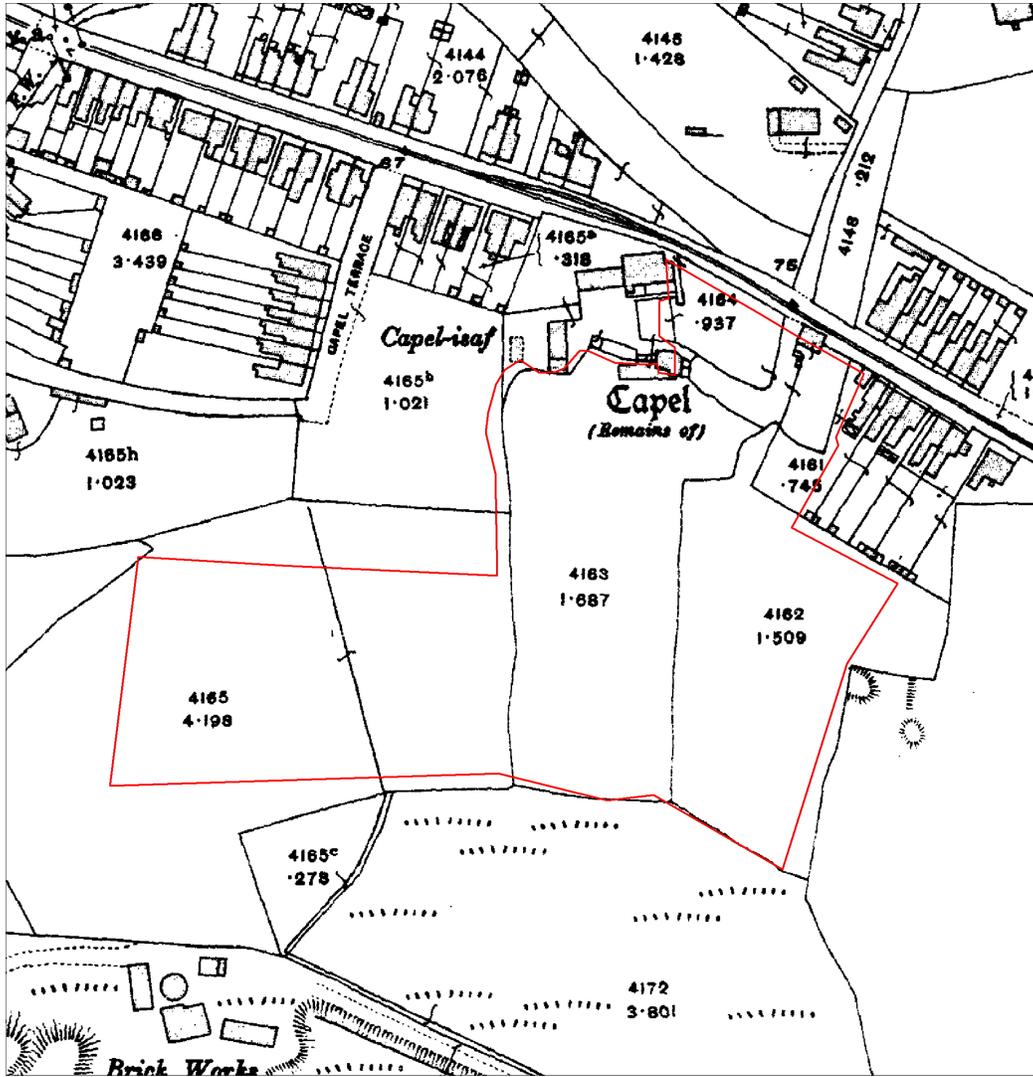


Figure 5: Extract from the 1916 Ordnance Survey 3rd Edition 1:2500 map

METHODOLOGY

In the first phase of the archaeological evaluation six trenches were opened up throughout the proposed development area. Three 10m by 1.6m trenches (T1, T2 and T3) were put in the top field, around the supposed area of the chapel, with a fourth smaller trench 9m by 1.6m (T6) put in later to join Trenches 1 & 3. Two 10m by 1.6m trenches (T4 and T5) were put in the lower field. The trenches were opened by machine with a toothless grading bucket, under archaeological supervision, and then hand cleaned to ascertain the presence or absence of any archaeological features. A selection of archaeological features were then partially excavated to establish their character.

Due to the presence of archaeological deposits in the upper field four more trenches were opened as part of a 2nd phase of works in order to determine the extent of revealed archaeological features and deposits, particularly the extent of the cemetery. Two 20m by 1.6m trenches (T7 and T8) were opened in the upper field, with two further 10m by 1.6m trenches (T9 and T10) opened to the north and east of the trackway access to Capel Isaf farmhouse.

The trenches were recorded in plan and sections were recorded where warranted. Photographs were taken of all identified archaeological features and deposits. Significant deposits were sampled and permission was granted to remove bone from six skeletons in order to obtain radiocarbon dates. Only four dates were eventually obtained, as two of the samples were unsuitable. Apart from these six small samples no other skeletal material was removed from the site.

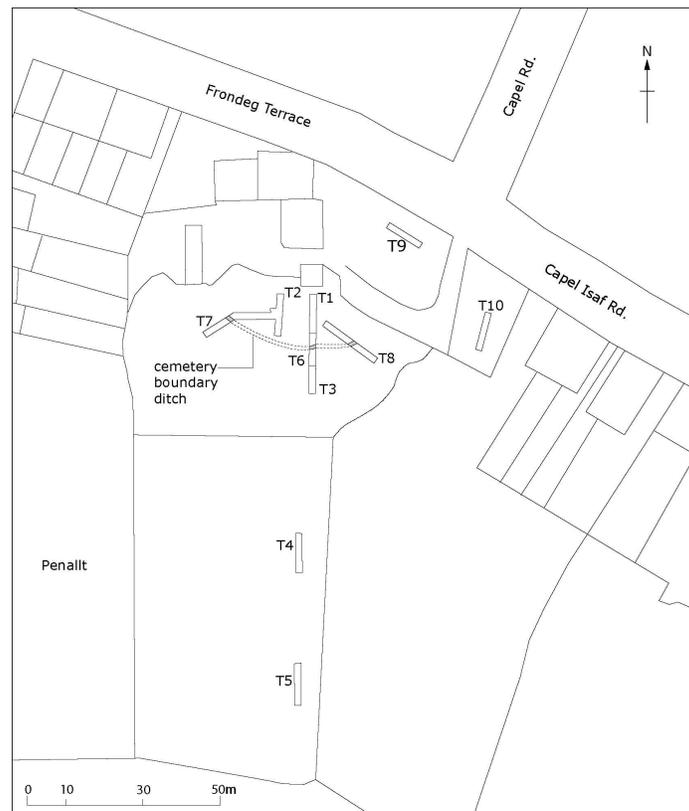


Figure 6: Trench location plan.

RESULTS

Trench 1 (Figs 2 and 7: Photos 1 - 3)

This trench was cut to a length of 10m by 1.6m. Its northern end was located close to the northern boundary of the upper field where remnants of farm building walls stand, running south across the flatter upper part of the field. The trench was opened by machine using a grading bucket and then cleaned back by hand down to a level where archaeological deposits were identifiable. This level varied from 0.1m at the northern end, to 0.6m at the southern end.

Modern contexts

The depth of topsoil (001) varied from just 0.05m thick at the northern end, averaging out to 0.2m thick towards the south. The topsoil contained a mix of plough soil with building rubble at the northern end, and a mix of modern and later Post Medieval finds.

Towards the northern end of the trench several post-holes (017, 019, 021 & 023) were identified. One circular posthole (017) and a square pit (019) were identified against the eastern section, both containing similar dark loose fills. The posthole still contained a wooden post that could be seen in section up to the current ground level. Against the western section was a series of inter-cutting postholes and pits (021 & 023). These were half-sectioned to establish their function and date. As well as containing very similar fills, remnants of wooden posts were also revealed and a selection of modern pottery recovered.

Post Medieval contexts

Close to the modern posthole disturbance a sub-rectangular pit (025) was recorded, cutting into earlier grave deposits. The feature was only partially excavated down to a level to identify its shape, relationship and date. Although the fill was very similar to the adjacent modern features the finds recovered appeared to be earlier in range, dating to the later Post Medieval period.

Cemetery contexts

The dominant feature of this trench was the numerous graves revealed, occurring at different depths and in differing states of preservation. A general deposit (055, 187 & 188) within which graves and skeletons were identified appeared to extend the full length of the trench, in many cases it was often difficult to establish the precise dimensions of individual grave cuts. It is likely that further excavation will reveal more graves.

Graves

In total 16 individual graves were recorded within this trench, and 10 partial skeletons were exposed. Individual grave cuts were often difficult to identify, and most were identified through either the skeleton being revealed or the grave fills containing a higher proportion of stones. The graves occurred at differing depths throughout the trench. At the northern end human remains (003, 099 & 102) were revealed c0.1m below the current ground surface, with their respective grave cuts (004, 100 & 103) clearly visible cutting into natural clays. A radiocarbon determination of AD 1300 to 1430, calibrated at 2 sigma, was obtained from skeleton 003 in grave 004. However, as the trench was opened up from north to south the graves were uncovered at progressively deeper depths. Three more graves (006, 028, 031) were revealed at a relatively high level in the northern 3.5m of the trench, with another grave deposit 187 also suggesting further graves in this area at a lower level. To the south of this point graves tended to occur at a greater depth.

Where the grave cuts or skeletons could be distinguished 12 (004, 006, 028, 031, 034, 037, 040, 042, 046, 049, 053 & 103) appeared to be aligned E-W, with one grave (105) aligned ENE-WSW. Six of the graves appeared to have their western ends aligned along a similar north-south line, with another six having the eastern ends on a comparable alignment, suggesting some of the graves may have been in rows.

Where the skeletons were revealed all appeared to be in an extended supine position, with the head at the western end. Two skeletons (039 & 054) showed evidence of having their arms crossed over the stomach/pelvis area, and one skeleton (033) had the arms lying straight to the sides. A radiocarbon determination of AD 1010 to 1170, calibrated at 2 sigma, was obtained from skeleton 033 in grave 034. The age of the bodies at death could not be determined without further investigation but the general size of the bones indicates at least one juvenile. The bones appeared to generally be in very good condition throughout the trench, with the exception of those close to the ground surface at the northern end and those at the southern end of the trench.

Nine of the graves (006, 028, 037, 040, 042, 044, 046, 049 & 053) exhibited a significant amount of stone within the grave fills, suggesting the graves may have been covered in piled stone. At least one grave (044), possibly two (with 034) exhibited remnants of stone-lining, suggested by the presence of large flat stones set on edge close to the edges of the grave. Two graves (037 & 040) had the stone concentrated at the western ends of the grave, and one (049) had a large stone placed over the central area of the grave.

Finds were very rare from the cemetery deposits, but two graves did contain finds. Grave 004 against the northern edge of the trench contained one iron nail within the grave fill (002), located close to the left knee of the skeleton, and several small marine shells within the fill against the southern edge of the grave cut. Grave 105 also contained a single iron nail within the grave fill (104), located close to the right shoulder of the skeleton. These finds have not been dated.

No datable evidence was recovered from these bodies so it was agreed to remove bone samples from two of the graves for C14 dating. Bone was taken from skeleton 003 in grave 004 at the northern end of the trench as it was lying so close to the surface it was likely to be disturbed during backfilling activity, this returned a radiocarbon determination of AD 1300 to 1430, calibrated at 2 sigma. Bone was also taken from skeleton 033 within grave 034 as this showed a visible relationship to grave 028, this returned a radiocarbon determination of AD 1010 to 1170, calibrated at 2 sigma.

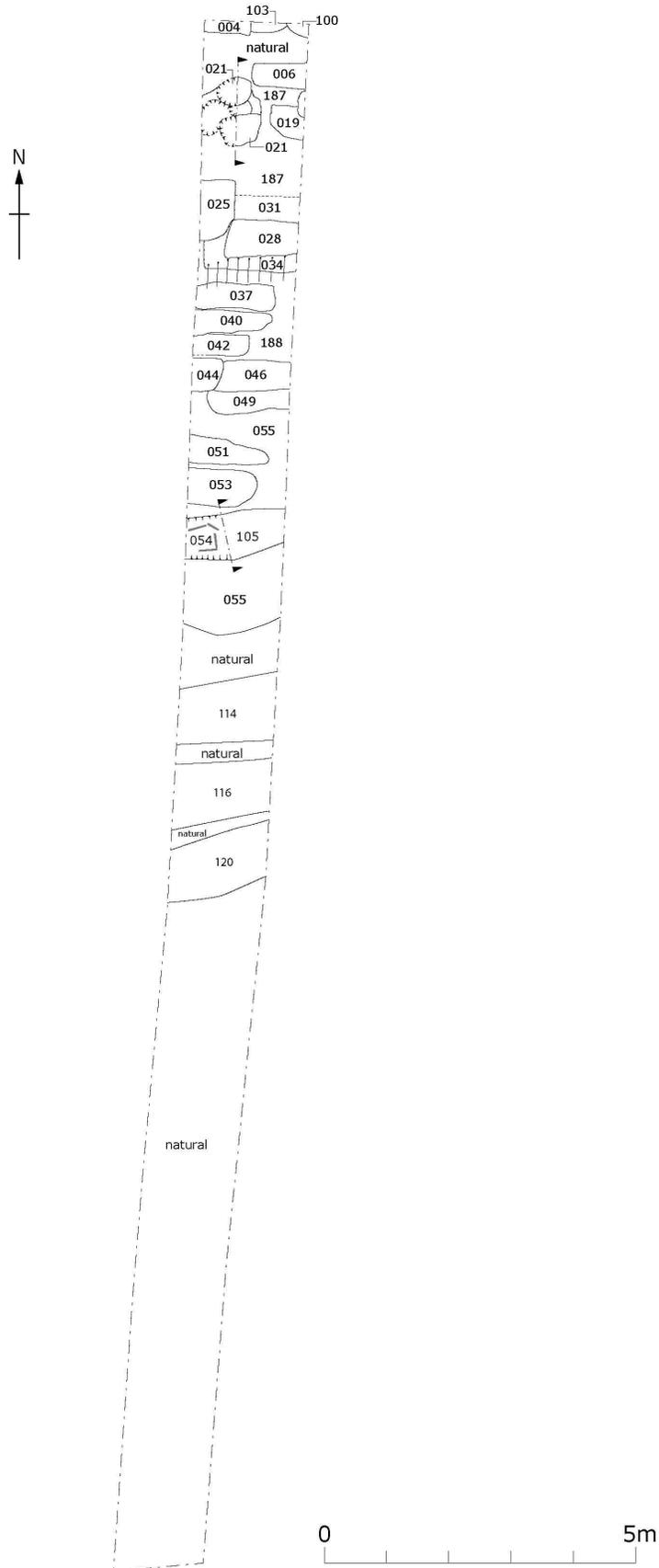


Figure 7: trenches 1, 3 and 6.

Trench 2 (Figs 2 and 8: Photos 4 - 7)

This trench was cut to a length of 10m by c1.6m. Located parallel to and to the west of Trench 1, also at the upper end of the top field in the area of the possible chapel site. The trench was opened by machine using a grading bucket and then cleaned back by hand down to a level where archaeological deposits were identifiable. The trench was excavated to a depth of c0.3m for much of the northern half, and down to 0.6m at the southern end due to varying depths of archaeological deposits.

Modern contexts

The depth of topsoil (057) was fairly consistent throughout the northern half of the trench at c0.15m, increasing in depth to 0.25m at the southern end although it also became difficult to distinguish topsoil from underlying archaeological levels in this area. The topsoil was identical in makeup to topsoil recorded in Trench 1, containing a variety of modern finds.

Five modern postholes were recorded at the northern end of this trench. Two circular postholes (068 & 070) still contained remnants of wooden posts within them, and appear to line up with similar postholes (017 & 021) visible in Trench 1. Two further postholes (060 & 064) to the north were excavated, containing very loose dark fills, in common with most modern features recorded on this site. Both also cut into Post Medieval industrial activity. Another posthole (095) also cut through Post Medieval deposits, but this was not excavated.

Industrial activity

Close to the northern end of the trench was a deposit of mixed burnt material (061), covering an area approximately 1.22m by 0.89m. The burnt material appears to have been laid down in multiple thin layers of charcoal, ash, clay and other burnt material, with verdigris occurring throughout, possibly indicative of copper working activity. This burning in turn appeared to lie within a slight clay bowl (062), with the clay showing clear signs of being heat-affected. Where visible in later posthole cuts the clay was heat reddened to a depth of 0.15m, which suggests on site activity at high temperatures for long periods of time. The eastern edge of this area of reddened clay and burnt material was formed by a stone structure (065). This structure consists of a large flat stone (0.57m by c0.30m), extending beyond the limits of the trench, with several smaller stones in two lines along its western edge. The outer row of these small stones was also clearly heat-affected. Taken together these deposits and features would appear to represent the base of a kiln. Several finds were recovered from these deposits suggesting a Post Medieval date, although a more accurate date has not yet been established.

South of this possible kiln area a small gully (072) was recorded running for a short distance (0.85m) southwards. The relationship between the gully and the possible kiln was not established. A small deposit of crushed lime or mortar (066) was also apparent on the southern edge of the possible kiln area, and a large stone also lies against the southern edge which may have been part of the kiln structure.

Extending for 1.8m southwards is a general deposit (074) of silty-clay which appears unique from the general cemetery deposit visible further to the south. A patch of fire-reddened material (073) overlies this deposit in areas, and upright stones within the deposit indicate further features may be revealed by further excavation.

The area of possible kiln activity and deposit 074 appears to be contained within an area defined by deposits 075 and 058. Deposit 075 was half-sectioned and

was revealed to be the stony-clay fill of 076. This cut ran for 1.46m in an ENE-WSW direction before turning a right angle to run NNW beyond the limits of the trench, and would appear to represent the construction cut for a wall. 076 contains no evidence of stone walling or wooden posts. Deposit 058 was a similar deposit to that of 076 and may represent a continuation and return of the same wall, although no clear edge was defined and this deposit was not excavated. If this did represent a return to the same wall then the building would measure roughly 3.3m wide internally.

Possible Chapel Wall

Midway down the trench the remains of a large stone-built wall (081) were uncovered. The wall was constructed of large rounded boulders of local stone, mainly used to form the edges. Smaller flat stones were used to infill the gaps between the boulders along the outer face, with rounded stones used as infill amongst the boulders within the wall core. There was no evidence of mortar within the wall, suggesting it may have been clay or earth bonded. The wall measured c1m wide, with 0.82m revealed within this trench running in a WSW-ENE direction. The wall ended within the trench with a large rounded boulder forming a corner, indicating either a terminus or a doorway. The wall sat within a construction cut (083), packed with stone (082).

Cemetery deposits

Fragments of bone were recovered from deposits within the area of industrial activity suggesting earlier grave deposits may have been disturbed. South of the area of industrial activity two fairly mixed deposits (077 and 192) suggest the cemetery ran the full extent of this trench, each containing tipped stones and bone fragments suggesting grave deposits, within which a total of 10 individual graves were recorded.

Graves

Of the 10 individual graves recorded within this trench, parts of seven skeletons were revealed. As with elsewhere throughout the site individual graves were difficult to identify, picked out mainly by the presence of bones or in some cases a stony fill. The upper level of graves appeared at a fairly consistent depth of c0.55m below the current ground level, although much of the cemetery deposit appears to be overlain and disturbed by later industrial activity at the northern end. The relationship between the stone wall 081 and the graves were not definitively apparent within this trench. Upright stones within deposit 077 may be indicative of a grave cut that butts against the end/entranceway of the wall, but this area was unexcavated. One grave (080) lay very close to the wall and was originally thought to cut into the construction cut for the wall, however, further excavation revealed the construction cut narrows at this point where the wall ends and the relationship was not clear.

Where the alignment of the graves could be established five graves (010, 013, 085, 090 & 091) were aligned E-W and two (007 & 080) were aligned ENE-WSW. A radiocarbon determination of AD 1170 to 1280, calibrated at 2 sigma, was obtained from skeleton 009 within grave 007. As with Trench 1 both the western ends and eastern ends of some graves suggest they may have been laid out in rows. No clear relationship between graves was identified, but most of the graves cut into deposit 077 & 192, suggesting that further inter-cutting graves may survive at deeper levels.

Where skeletons were revealed they all appeared to be extended supine burials, with the heads at the western end. The position of arms was not identified. The age of the bodies at death could not be determined without further investigation but based on the size of the bones uncovered this area contained at least two

adults and one juvenile. In general the bones in this area appeared in relatively good condition. No finds were recovered from any of these graves.

Within the graves at least one (085) showed indications that the grave may originally have been stone-lined, due to the presence of large flat stones set on edge around the edges. This was not immediately obvious in any of the other graves within this trench but grave 080 showed a high proportion of stone within its fill concentrated around both the western end and central part of the grave. There were indications that another three graves (088, 090 & 093) may contain an appreciable amount of stone within their fills.

Bones were sampled for C14 dating from skeleton 009, within grave 007 that appeared both in good condition and at a more SW-NE alignment, this returned a radiocarbon determination of AD 1170 - 1280, calibrated at 2 sigma.

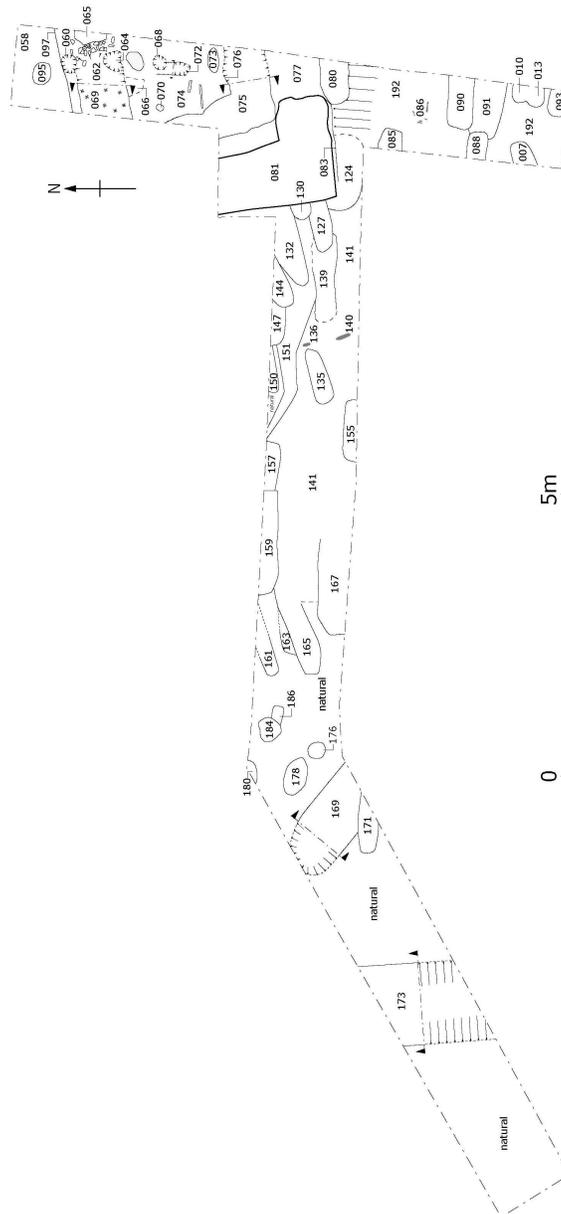


Figure 8: Trenches 2 and 7

Trench 3 (Fig 2: Photo 8)

This trench was cut to a length of 10m by 1.6m. Located in line with Trench 1 but further down the slope within the upper field, in an attempt to establish the southern extent of any archaeological activity on this higher ground. Topsoil and subsoil were carefully removed by machine with a grading bucket under archaeological supervision. The trench was excavated to a depth of c0.6m throughout its length but no archaeological features were identified.

Trench 4 (Fig 2: Photo 9)

This trench was cut to a length of 10m by 1.6m. Located towards the upper end of the lower field and in line with Trenches 1 and 3. The ground level in this area was beginning to level out at a lower level to the upper field. The topsoil was removed revealing a depth of c0.2m before revealing natural clay deposits, very similar to the deposits revealed in greater depth in Trench 5 further south. The natural clay was cut by a modern field drainage trench, running N-S the full length of the trench, c0.3m wide and filled with a loose cinder-type deposit. Nothing of archaeological interest was identified.

Trench 5 (Fig 2: Photo 10)

This trench was cut to a length of 10m by 1.6m. Located towards the southern end of the proposed development area on low-lying and often waterlogged ground. As well as attempting to establish the presence or absence of archaeological deposits this trench could also reveal the potential for important palaeo-environmental remains preserved in waterlogged deposits. This trench was gradually machine excavated under archaeological supervision to a depth of 1.2m. No peat deposits were visible, c0.4m of topsoil and subsoil overlay a series of undisturbed natural silt and clay deposits, characteristic of estuarine clays.

Trench 6 (Figs 2 and 7: Photos 11 - 12)

This trench was cut to a length of 9m and 1.6m wide, connecting Trenches 1 and 3. Originally this trench was designed to be put within the garden area of Capel Isaf but this area was subsequently removed from the proposed development area. After consultation with the Planning Archaeologist it was agreed to locate the trench between Trenches 1 and 3 in an attempt to establish the southern limits of cemetery deposits revealed in Trench 1. The trench was opened by machine using a grading bucket and then cleaned back by hand down to a level where archaeological deposits were identifiable. The trench was excavated to a depth of 0.6m.

Modern contexts

The depth of topsoil (001) was fairly consistent throughout the trench, averaging 0.25m thick but it was difficult to distinguish the horizon between the topsoil and underlying archaeological layers. The topsoil contained modern and later Post Medieval finds.

Cemetery deposits

The general cemetery deposit 055 visible at the southern end of Trench 1, within which grave 105 was identified, was shown to extend for only a short distance south. To the south of this was a strip of 0.66m of undisturbed natural subsoil, and then a series of three almost parallel linear features running in a WSW-ENE direction across the trench.

The northernmost linear feature (114) measured 0.83m wide, running WSW-ENE and contained a fill very similar to the typical cemetery deposits visible within Trench 1. This feature was recorded in plan but unexcavated.

A gap of 0.10m separated 114 from the next linear feature (116). This measured 0.95m wide, running in a slightly more SW-NE direction. The fill of 116 was very similar in colour and texture to the fill of 114, but contained a slightly higher proportion of stones. This feature was also recorded in plan but unexcavated.

A gap of 0.10m then separated 116 from the final linear feature (120). This measured 1.07m wide, and ran in a WSW-ENE direction. The fill of this feature was very similar to the fill of 116. At the western end of this linear feature a 0.5m length was partially excavated in an attempt to establish its function. Lying within the fill were two burials (118 & 119). Both skeletons were lying at the same level, side by side. The arms and upper legs of the skeletons were revealed, both in rather poor condition, with many of the bones apparently eroded away. The skeletons were both in an extended supine position, with one (119) showing evidence of the arms being crossed over the stomach/pelvis area. No finds were identified with the skeletons, the size of the bones may suggest they are adult burials but the state of bone preservation makes this a tentative suggestion. The position of the skeletons indicates feature 120 was not dug as a specific grave, as it extended well beyond the limits required to contain the skeletons. The bottom of 120 was not reached due to the presence of the skeletons, but its linear form, visible in plan, suggested a possible ditch.

A stony clay deposit (121) that overlay the natural clay lay against the southern edge of linear feature 120. This deposit was also linear, on the same alignment as 120 and appears as a slight mound 0.23m high in the trench section. This suggests the possible remnants of a clay bank, associated with ditch 120.

No further archaeological deposits were identified to the south of this for at least 10m (Trench 3).

Trenches 1-6 were excavated during the first phase of evaluation work. After the discovery of archaeological deposits including the possible discovery of the chapel remains and an associated cemetery, a further four trenches were recommended as part of a second phase of evaluation to attempt to establish the limits of the cemetery and its associated archaeological deposits.

Trench 7 (Figs 2 and 8: Photos 13 - 18)

This trench was cut to a length of 20m and 1.6m wide. The trench was located to attempt to establish the western extent of archaeological activity. The eastern end was located c1.5m from Trench 2 roughly in line with wall 081 and running in a WSW direction to attempt to trace the length of this wall. The trench ran for 10m before kinking to the SW for another 9m due to the presence of heavy scrub and rubbish. The trench was excavated by machine with grading bucket down to a level where archaeological features became apparent. This level varied throughout the trench from 0.5m at the eastern end, 0.4m in the middle, and 0.6m at the western end. The trench was then cleaned back by hand. As no continuation of wall 081 was revealed the c1.5m wide baulk separating Trenches 7 and 2 was removed by hand.

Modern contexts

Topsoil (255) appeared to remain fairly consistent throughout this trench, averaging 0.15-0.2m thick but it was difficult to distinguish the horizon between the topsoil and underlying archaeological layers. As a result some grave deposits were removed during the machining process. The topsoil consisted of mixed plough soil and contained a mix of modern and later Post Medieval finds.

Post Medieval contexts

At the western end of the trench a large linear feature (173) 1.38m wide was revealed cutting into the natural clays, located beyond the western limits of the cemetery deposits. The feature was half-sectioned, revealing a deep (0.55m) U-shaped ditch, with steep straight sides, running in a north-south direction with a flat base sloping down to the south. The ditch contained several fills (172, 189, 190 & 191), but very little in terms of finds although lumps of metal slag were recorded within the lower levels of fill 172. The presence of this slag would suggest a later Post Medieval date for this ditch. Despite the depth and dimensions of the ditch it is not visible as a cropmark or earthwork to the south of this trench, although trees grow in a short line amongst the scrub to the north of the trench, roughly in line with the ditch, which may suggest the ditch extends north at least up to the field boundary.

Wall 081

Trench 7 was originally located in an attempt to trace the continuation of the large stone wall 081 visible in Trench 2 which may represent the remnants of the Chapel. The wall was shown to continue to the WSW for only 1.93m before forming a corner, clearly visible from the exposed stonework face, and turning to the NNW. Subsequently the junction of Trenches 2 & 7 was extended by hand for c1m by c1.5m and wall 081 was shown to return to the NNW for at least 2.20m. The wall showed signs of robbing from the upper levels, revealed in section. The fill of the robber cut contained fragments of mortar and a selection of late Post Medieval and modern pottery, which had presumably been deposited as the stone was removed for use in nearby farm buildings. The short stretch of WSW-ENE walling implies the visible terminus within Trench 2 might be part of an entrance.

Several grave deposits (124, 127, 130 & 132) were revealed along the western and southern sides of the wall that had been truncated by the wall. The robbed out foundation trench (076) associated with the industrial activity within Trench 2 was shown to run alongside the inner face of wall 081, and appeared to be partially cut into areas of fallen stone from 081 suggesting 076 was later, but built against what must still have been the partially standing walls of 081.

Graves

A large concentration of inter-cutting grave deposits (141 & 151) were revealed extending for c.8m along this trench. Several individual grave cuts could be distinguished cutting into the natural clay deposits along the northern edge of the trench and towards the west, but a deeper or more concentrated area of graves was apparent along the southern edge, making it harder to distinguish individual graves. In total 19 individual graves were recorded, in which 10 partial skeletons were revealed. Further graves are likely to lie within deposits 141 and 151 within this trench.

Of the identified graves eight (130, 147, 157, 159, 163, 167 & 171) were aligned in an E-W direction, and seven (132, 135, 144, 150, 155, 161 & 165) aligned in an ENE-WSW direction, with no obvious relationship between the two groups. Trenches 1 & 2 suggested some graves may have been aligned in rows, but evidence of this was not discernible within this trench due to the concentration of burials.

Where enough of the skeletons were revealed they all appeared to be in an extended supine position, with the head at the west end of the graves. Two skeletons (127, 135) showed evidence of their arms being crossed over the stomach/pelvis area, and one skeleton (147) showed evidence of the arms being crossed over the chest. A radiocarbon determination of AD 1260 to 1320 (with a possible alternative of 1350 to 1390), calibrated at 2 sigma, was obtained from

skeleton 126 within grave 127. Due to only partial skeletons being revealed it was difficult to assess the age and sex of the skeletons, but based on the size of the bones at least three skeletons appeared to be adult, with at least one juvenile. In general the bone preservation throughout the trench was relatively good, with two of the skeletons appearing in poor degraded condition, but this may be an indication of the age of the bodies at the time of internment.

At least one of the graves (144) showed evidence of stone-lining, visible in the large flat stones forming the base of the grave cut. A further three graves (127, 157 & 159) also showed partial evidence of stone-lining. Four of the graves (124, 147, 155 & 159) had a significantly high proportion of stones within the grave fill, suggesting a mound of stones may have covered the burial at some stage. The fill of a further seven graves (127, 132, 135, 139, 163, 165 & 171) also hinted that they may have very stony fills, but further excavation would be required to confirm this. Three of the graves (127, 135 & 147) had the stone concentrated at one end of the grave, two at the western end around the head, and one (135) at the eastern end of the grave.

Only two graves produced any finds. In grave 147 a cut and shaped quartz crystal was recovered from the grave fill (145), discovered overlying the right side of the stomach/pelvis area of skeleton 146. In the adjoining grave to the west (150) burnt material, possibly some form a slag-type waste material, was recovered from the grave fill (148) lying close to the right hand side of the skull of skeleton 149. There was little definitive datable material recovered or revealed from the cemetery deposit. Permission was granted to obtain bone samples for C14 dating from skeleton 126 which showed a clear relationship to wall 081, this returned a radiocarbon determination of AD 1260 to 1320 (with a possible alternative of 1350 to 1390), calibrated at 2 sigma.

The graves appear to end c.8m along Trench 7 from its eastern extent, beyond which only one possible grave (171) is recorded, cut into the top of feature 169.

Possible cemetery boundary ditch

1.9m to the west of the concentration of grave deposits (excluding possible grave 171) lies a linear feature (169) 1m wide running in a SE-NW direction from the southern extent of the trench, but terminating after 1.62m with a rounded end just before the northern extent of the trench. The terminus of this feature was partially excavated, revealing a wide shallow ditch with gently sloping concave edges and a concave base.

Cut into the top of this ditch and extending beyond it to the west is possible grave 171. This feature was not excavated but was of similar dimensions, fill and alignment to other graves recorded within Trench 7. The only other archaeological feature recorded to the west of this possible ditch was the large Post Medieval ditch (see above) at the western end of the trench.

Other features

Several features were visible cutting into the natural subsoil deposits in the area between the western extent of concentrated cemetery deposits and possible ditch 169. All of these features lay under the topsoil but there was no direct provable relationship between these features and either the cemetery deposits or the possible ditch.

Two circular postholes (176 & 184) were visible, both containing similar fills also similar in nature to the general grave deposits nearby. These fills were markedly different from the fills of modern postholes visible in Trenches 1 and 2,

suggesting these may be postholes of some antiquity. Posthole 176 measured 0.30m in diameter, 184 measured 0.50m in diameter, neither were excavated.

Postholes 184 cut into a possible small pit (186) with a rounded end. A short distance to the SW lay a small sub-oval feature (178), measuring 0.59m by 0.27m, that contained a similar fill to the adjacent postholes. These features were also unexcavated.

Against the northern side of the trench lay another possible circular posthole (180), at least 0.53m wide, again with a similar fill to the other postholes but with less evidence of stones within the fill. On the south side of this feature a small stake-hole (182) was recorded.

Trench 8 (Figs 2 and 9, Photos 19 - 22)

This trench was cut to a length of 20m by 1.6m. Located a short distance to the east of Trench 1, and aligned NW-SE, in an attempt to establish the easternmost limit of archaeological activity, in particular the cemetery boundary ditch. The trench was excavated by machine using a grading bucket under archaeological supervision down to a level where archaeological deposits were visible. This level varied throughout the Trench, c0.55m at the NW end, but with possible archaeology at 0.15m a short distance SE of this, then down to c0.6m at the SE end. The trench was then hand cleaned with some of the features partially excavated by hand.

Modern contexts

The topsoil (195) appeared at a fairly consistent thickness of 0.25-30m across the trench, containing a mixed plough soil with later Post Medieval and modern finds. Very similar to the topsoil visible in all trenches within this upper field.

Post Medieval contexts

At the southeast end of this trench a large linear feature (248) was uncovered below the topsoil, 1.37m wide, and running in a north-south direction. This ditch was sectioned, revealing a V-shaped ditch with steep straight sides, and a flat base. The ditch contained a single homogenous fill (247), which contained fragments of metal slag towards the lower parts of the fill. The slag suggests this is a Post Medieval feature, no corresponding features are shown on 19th century maps. Although the profile is slightly different the size and direction of this ditch, along with the presence of the slag, suggests this ditch may be contemporary with the large ditch (173) recorded at the western end of Trench 7. Despite the size and depth of this ditch the continuation is not visible as either an earthwork or cropmark within the field.

General layer

The topsoil was removed revealing a general layer (204) covering much of the NW end of the trench. Some very large stones were present in this deposit but no other evidence of individual features, as a result some of this deposit was machined off to reveal features cut into the natural subsoil below. The deposit that was left, around the area where the large stones were visible, was box-sectioned and excavated by hand down to a level where natural deposits were revealed. Even below these stones no individual features or human bones were recorded.

Features at the Northwest end

At the northwest end of the trench a series of concentric deposits (196, 197, 198) would appear to represent the fills of a large pit 199. Deposits 196 and 198 are both similar silty deposits, separated by a band of mottled orange clay, possibly

re-deposited natural. This feature extended for 1.05m into the trench but the full extent, depth, function and date of this pit was not established.

To the south of this possible pit lay two linear features (201 & 205) running in an E-W direction and disappearing under deposit 204. Again the function and date of these features were not established, only a small section of 205 was revealed in plan but a 1.45m length of 201 was visible in plan, its narrow width and straight edges suggesting a linear ditch rather than a grave, although grave deposits were expected in this area close to Trench 1. The linear was also not visible in Trench 1.

Graves

Partly underlying layer 204 and extending to the south was a series of inter-cutting and adjacent features (206, 208, 210, 220, 213, 216 & 218) appearing linear in plan and partially excavated to investigate the character of the features. A section was put through 216, 213 & 218, revealing them to be a series of inter-cutting graves. There was very little evidence of the stony fill or stone lining visible elsewhere and bone preservation was very poor, with only fragments of long bone visible as brown staining within the fills. The lack of bone preservation and stony fills makes the positive identification of graves within this trench difficult. Feature 206 lies adjacent to these graves and was partially excavated, but no bone or stony fill was revealed. The dimensions are comparable to the other graves, but it may also be a ditch. To the southeast of this cluster of inter-cutting graves, and separated from them by a ditch (see below), lay an apparently isolated grave (230), unexcavated. To the south east of this lay two further probable graves (107 & 244) lying within a ditch, both excavated but revealing no extant skeletons.

In total 10 individual graves were recorded within Trench 8, with varying degrees of certainty. Within these no skeletons were revealed, although bone fragments and staining were found in at least three (107, 216 & 244) of the graves. The majority of the graves were aligned E-W, with one grave (107) aligned ENE-WSW. The eastern ends of several graves suggested at least some of the graves may have been aligned in rows.

Unlike graves visible in Trenches 1,2, 6 & 7 bone preservation within this trench was very poor, as a result little can be said about the skeletons. Also the fills of the graves within this trench contain very little stone, unlike graves recorded elsewhere. No finds were recovered from these contexts.

The sections through the series of inter-cutting graves suggest these graves (213, 216 & 218) had straight vertical sides, rounded corners and flat bases. However, the excavated graves (107 & 244) within the ditch were more irregular and narrow in plan, with pointed ends, moderate to steep sides and flat bases.

Ditches

As mentioned above lying between the area of inter-cutting grave deposits and the isolated grave 230 is a narrow linear feature (228) 0.38m wide, running in an E-W direction across the trench. This was partially excavated revealing steep vertical sides with a flat base, 0.45m deep. The ditch contained a single homogenous fill (227), but no finds were recovered.

No apparent relationship between this ditch and the grave deposits could be established, but the fill was cut by a stake-hole 266 (see below) and underlay the topsoil. The profile of the ditch may suggest a modern feature but the fill was very similar to the general grave deposits within this trench, and its alignment

may also suggest it is contemporary with the cemetery activity. It did not appear to align with a similar feature within nearby Trench 1.

Further south lay another linear feature (250) running NE-SW across the trench, and cut by the two graves 107 and 244. The eastern end of the ditch was partially excavated. It is unclear whether the grave deposits were cut against the northern edge of the ditch or had slightly truncated this edge, but the ditch appeared to be 0.9m wide, with moderately sloping, slightly concave sides and a flat base. The fill (249) of the ditch was sandier than most deposits recorded within this trench, possibly indicating a weathered deposit. No finds were recovered. No grave deposits were identified lying to the east of this ditch.

Post- and stake-holes

Numerous small stake-holes and postholes were visible clustered to the north of ditch 250 and also around ditch 228.

One posthole (222) lay between the area of inter-cutting graves and ditch 228, was sub-circular in plan, measured 0.17m in diameter, and was filled with a dark grey-brown clayey-silt. Adjacent to the east of this posthole were two circular stake-holes (224 & 226) 0.07/8m in diameter, which contained a similar but slightly lighter coloured fill. The southernmost of these two stake-holes (226) was cut into the fill of ditch 228.

Further to the SE lay a cluster of circular stake-holes (232, 234, 236, 238 & 240), all between 0.04 and 0.06m in diameter and containing similar mid brown fills. These stake-holes were all visible cut into natural clay to the north of ditch 250. Adjacent to the north and NW of these stake-holes were two small circular post-holes (111 & 242). One of these postholes (111) was fully excavated revealing steep sides and a concave base, but no finds were recovered. No obvious structure was discernible amongst these post- and stake-holes.

Natural features

Several irregular features were visible towards the SE end of this trench that have been interpreted as natural features.

To the south of ditch 250 lies an irregular feature (246) measuring 0.93m by 0.62m containing a single mid grey clayey-silt fill. This feature was partially excavated revealing an irregular base with pockets of fill disappearing into the natural, interpreted as root action. Further to the south-east the large ditch 248 cuts through another irregular feature (252) with a similar fill, with a similar feature (254) lying on the east side of the ditch. Both these features have also been interpreted as the result of natural plant action cutting into the natural clays.

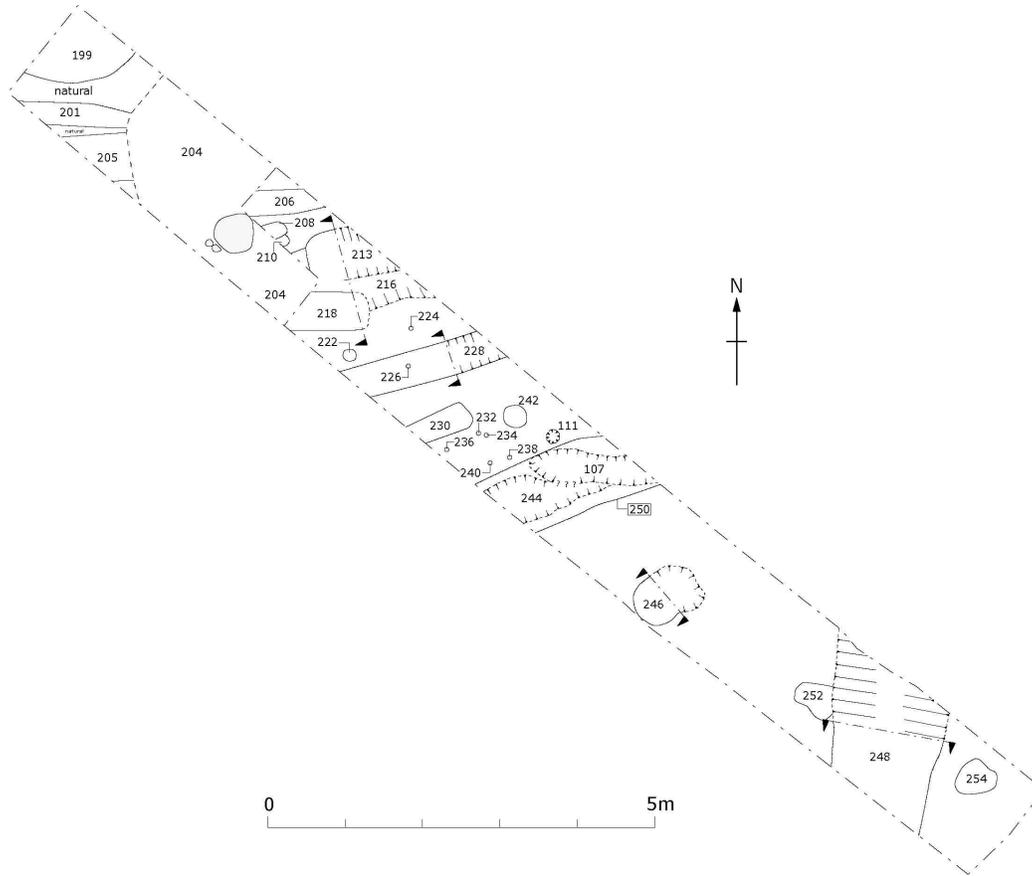


Figure 9: Trench 8.

Trench 9 (Fig 2: Photo 23)

This trench was cut to a length of 10m by 1.6m. This trench was located in an area close to the main road and to the east of Capel Isaf house, in an attempt to establish the northern extent of archaeological deposits and features. The trench was machine excavated using a grading bucket under archaeological supervision. The trench was excavated to a depth of 0.4m at the NW end, down to 0.8m at the SE end. This revealed modern topsoil to a maximum depth of 0.25m overlying mixed natural subsoils. Nothing of archaeological interest was noted within the trench, local information suggests this area had previously been cleared prior to development, although the development had not taken place.

Trench 10 (Fig 2: Photo 24)

This trench was cut to a length of 10m by c1.6m. It was located to the east of the trackway access to Capel Isaf house to establish the extent of archaeological remains closer to the main road and along the proposed access route of the development area. The trench was machine excavated using a grading bucket under archaeological supervision. The trench was excavated to a depth of 0.6m at the northern end, down to 0.8m at the southern end. The topsoil increased in thickness from north to south through the trench, a maximum of 0.3m thick at the northern end and 0.43m thick at the southern end. The topsoil overlay mixed natural subsoils, nothing of archaeological interest was revealed.

DISCUSSION

Geology

The natural geology in the area of the proposed development appeared to consist on the higher ground mainly of orange clays, with areas of mixed stonier clay. This gives way to more mixed estuarine clays on the lower wetter ground. The current ground surface exhibits a slope from north to south, with the high ground concentrated around Capel Isaf farmhouse and grounds and the upper field. The trench sections revealed the original slope had probably been ploughed down, with burials occurring only 0.1m below the current ground surface at the northern end but increasing to at least 0.5m at the southern end of the cemetery. Deposits within the lower field suggest that this area has been, and still is, very wet ground. This area may have been tidal at some point, and is also likely to have formed saltmarsh up to the base of the slope roughly where the current E-W hedgeline is. As saltmarsh it may have been grazed during its history but is unlikely to have been ploughed until drainage channels were put in. If the drainage channel within Trench 4 is indicative, this may not have been until the later Post Medieval/Modern period.

Cemetery

The earliest archaeological deposits uncovered during the evaluation appear to be the numerous burials throughout the northern end of the upper field. Burials were recorded within five of the trenches located within the upper field, revealing a wide area of cemetery deposits but also identifying 57 individual graves. Where the alignments of the grave could be established it showed a general E-W or ENE-WSW alignment across the entire site, clearly indicating this is a Christian cemetery.

Date of Cemetery

Radiocarbon dates demonstrate that the cemetery was in use between AD 1010 and AD 1430. According to the dates it is possible that the cemetery was in use in the early medieval period, before the Anglo-Norman Conquest of south Wales. However, the earliest date obtained is AD 1010 to 1170, the upper limits of which run firmly into the Anglo-Norman period.

It is apparent from the evaluation trenches that this cemetery is likely to have been in use for a relatively long period of time. This is suggested by both the large number of graves visible in the relatively small area evaluated, and also by the relationship between the graves. Numerous graves were inter-cutting suggesting the cemetery was in use long enough for the positions of graves to be forgotten, resulting in the disturbance of previous burials. The presence of stone-lined graves on the grave may also prove significant as similar stone-lined graves have been recorded within Early Christian cemeteries elsewhere in Wales.

The dedication of the chapel may also suggest an early start date for religious activity on this site. St Gwynllyw is a late 5th to early 6th century king of Gwynllwg (a kingdom based around the Newport area) and father of St Cadog. This dedication to an early Welsh saint may suggest a pre-Norman religious dedication.

Documentary research suggests the chapel was still in use in the early 16th century, which may suggest the cemetery was also still in use at this time. Bowens map of 1729 labels the 'ruins of Gunenllo', possibly indicating that both the chapel and the cemetery were out of use by the early 18th century. The archaeological evidence suggests that the cemetery and chapel had fallen out of use prior to the Post Medieval industrial activity that overlies cemetery deposits in Trench 2.

Burial groupings

In general there were no clear unique groupings of burials visible throughout the site, although a number of graves demonstrated common characteristics, including their alignments. Of the 57 individual graves 35 were aligned roughly E-W, 11 aligned roughly ENE-WSW, one seemingly aligned ESE-WNW, and the alignment of the remaining 10 could not be determined. However, the differently aligned graves were spread fairly evenly across the site, both cutting and being cut by other graves, and no clear groupings could be discerned.

Similarly the grave fills demonstrated common characteristics that on further investigation may suggest groupings. Several graves fills across the site demonstrated evidence of stone-lining. At least three graves showed strong indications that they were stone-lined, whilst in a further four there was some evidence that they were stone-lined. A common feature was also the high proportion of stone within the grave fills, often concentrated around the western (head) end of the grave. In total 21 graves have either a very stony fill or a significant presence of large stones within the fill. Within seven of these stony fills the stone was concentrated in discrete patches. The stone was concentrated at the western (head) end in four graves, stone was placed over the pelvis in one grave, one grave fill displayed stone concentrated at both the west end and over the pelvis, and stone was concentrated at the east end of just one grave. Without full excavation the significance of this remains unclear. However, as was demonstrated with the alignments there are no obvious groupings of graves displaying these characteristics; the distribution of stone-lined and stone-filled graves appeared to be spread fairly evenly throughout the cemetery.

Bone condition varied across the site, but, unusually for a medieval cemetery site in southwest Wales, there was relatively good bone preservation. A minority of the skeletons, chiefly what appeared to be juvenile skeletons, were poorly preserved but also away from the main concentrations of burials the condition of the skeletons deteriorated, as exemplified at the southern end of Trenches 1 & 6, and also significantly to the east throughout Trench 8.

Where skeletons were uncovered their positioning suggested a uniform distribution throughout the site of extended supine burials with the head at the west end. The position of the arms could be identified from seven of the exposed skeletons, one had arms straight down the side of the body, five had the arms crossed over the stomach/pelvis area, and one had the arms crossed over the chest.

Very few finds were discovered within the exposed grave fills. Two graves, both within Trench 1, each had a single iron nail within the grave fill. One was located close to the lower leg, and one close to the head, both could be indicative of the former presence of coffins. One grave also had some small marine shells within the grave fill close to the body, but it was not clear whether they were deliberately placed within the grave. Unusually one of the graves contained a small, possibly worked, quartz crystal that was discovered within the grave fill close to the right-hand side pelvis/stomach area. An adjacent grave also contained some unidentified heat-affect material, possibly some form of slag waste.

Cemetery extent

Trenches 6, 7 and 8 all contained evidence of what could be a boundary to the cemetery, and all clearly demonstrate concentrations of burials. In Trenches 1 & 6

the concentration of burial deposits appear to end at the meeting of the two trenches, as characterised by deposit 055. Beyond this point three linear features (114, 116 & 120) appear to run across the trench in quick succession. The outermost (120) was partially excavated which revealed two skeletons placed within the fill. However, the position of the skeletons suggests they have been placed within a ditch, and not within distinct graves. The stony clay deposit (121) that runs along the southern edge of this linear is characteristic of the remains of a clay bank. No further cemetery activity is visible south of this point; strongly suggesting this is the southernmost extent of the cemetery, defined by a ditch with an outer bank. The two adjacent linear features to the north may be earlier boundary ditches but without further excavation this cannot be proved.

In Trench 2 burial deposits were recorded right up to the southern edge of the trench suggesting the cemetery extends beyond the southern boundary of this trench.

In Trench 7 the concentrated burial deposits appear to thin out rapidly after c.8m. After a gap of c.1.9m, within which lie several postholes and small pits, a shallow linear feature (169) crosses the trench, terminating just within the northern limits of the trench. One possible grave (171) is cut into the top of this ditch but no further graves are visible to the west. Linear feature 169 is located a short distance beyond the western extent of obvious cemetery activity, suggesting this is a boundary ditch to the cemetery. The shallow nature of the ditch may be due in part to the amount of ploughing activity in this northern end of the upper field, where the topsoil is very shallow. A possible burial had been dug into the ditch at a later stage, but a similar series of events is also suggested by the presence of burials within 120 in Trench 6 (see above). There was no indication of an outer bank to this ditch, but the terminus may suggest a possible entranceway into the cemetery at this point.

In Trench 8 the poor bone preservation and the occurrence of non-burial features complicates the picture somewhat. However, it is possible to identify a series of inter-cutting burials, before burial activity then begins to thin out to the southeast. Immediately to the east of this group of burials lies a narrow straight sided ditch (228), but this does not appear to line up with any feature within the adjacent Trench 1, and also appears different in character to the wider possible boundary ditches visible in Trenches 6 and 7. Also three graves have been identified lying to the east of this narrow ditch. Two of these graves appear to be cut into a shallow linear feature (250), beyond which there is no evidence of burial activity for at least 5m, again suggesting that this linear feature may represent the boundary ditch around the eastern side of the cemetery. The fill of this ditch appears different, suggesting it may have been in place longer before being disturbed by later burials being dug into it. There is no evidence of a corresponding outer bank at this point.

Chapel remains.

As described earlier the site of the former chapel is suggested on Howell's plan of 1814 and on both the 1st (1880) and 3rd (1916) edition Ordnance Survey maps, all indicating farm buildings located along the southern boundary of Capel Isaf garden. The RCAHMW description of 1917 suggests that only a fragment of the former Chapel wall was incorporated into these farm buildings. These buildings have since been demolished although fragments of walling remain above ground, and these indicate that they were 19th or 20th century buildings that had probably re-used stone from earlier buildings.

Within the evaluation trenches (Trenches 2 and 7) two walls were recorded, both of which appear to pre-date the wall remains still visible above ground, and

neither of which appear to be marked on 19th and 20th century map sources. One wall (076) appears to contain and relate to the Post Medieval industrial activity contained within, but it also butts against an earlier larger stone wall 081.

Wall 081 formed the southwest corner of a building. The absence of obvious wall remains within the northern part of Trench 2 suggests a minimum width of c.5m for the building, and equally the absence of wall remains within Trench 1 suggests a maximum length of c.10m. Given the limits of the cemetery suggested by the possible boundary ditches discussed above, this building would appear to stand just west of centre. Although not proven in this evaluation the northern wall of this building may correspond to part of the southern wall of the building marked as 'Old Chapel' in Howells Plan, which may also explain the description by the RCAHMW of parts of the Chapel wall being re-used in a farm building. There is no dating evidence within the wall structure. The stones are not mortar bonded, and no late Post Medieval or modern finds, prevalent elsewhere throughout the site, were present within the wall structure. The width of the wall also appears to be of a significantly larger size than other farm building walls evident throughout the farmstead. It would seem likely that the location, construction and alignment of this building points to it being part of the former chapel. It is clear however that this wall was not part of an original chapel around which a cemetery was created, as the wall clearly cuts through grave deposits visible on its western side, one of which has been radiocarbon dated to AD 1260 to 1320 (with a possible alternative of 1350 to 1390) indicating the stone wall 081 post-dates these periods. This may indicate that the burial ground was established prior to the chapel, or that an earlier stone or wood chapel was later replaced with the remnants of the structure represented by wall 081.

Possible cemetery features (buildings-postholes, linear features and pits.)

Trenches 7 & 8 both appear to indicate a gap between the concentration of burial deposits and the possible boundary ditches, which appears unusual in light of the obvious density of burial activity throughout the cemetery. Within Trench 7 several small pits and postholes are located in this area in front of the boundary ditch. Unfortunately within the area excavated it is not possible to identify a structure or activity that corresponds to the features, or indeed to prove a relationship with the cemetery deposits.

Within Trench 8 several small postholes and stake-holes have been recorded lying between the area of inter-cutting graves and the possible boundary ditch 250. Again, although numerous stake-holes are visible, their distribution does not appear to correspond to a recognisable structure or activity. There is also no provable relationship between these features and the cemetery deposits, although a stake-hole does cut into the fill of narrow ditch 228.

Industrial activity.

Trench 2 revealed an area of industrial activity that appears to be contained within a possible building demarcated by construction cut 076. The main feature of this industrial activity appears to be a possible kiln structure indicated by a clay bowl of heat-reddened clay (062) butting against a stone-built structure (065), and in-filled with layers of charcoal, ash, clay and burnt material (061). The presence of Verdigris throughout 061 suggests the presence of copper-working. Other features within 076 may be connected to this industrial activity, but the relationship is not yet understood.

Construction cut 076 runs along the inner face of wall 081, cutting into the construction cut and tumbled masonry from 081 indicating it is of a later date. However, by following the inner face of 081 it does suggest 081 may still have been partially standing at the time 076 was dug, possibly helping to form shelter

for the industrial activity within. The alignment of 076 is not recorded on known 19th or 20th century map sources, suggesting it may predate the establishment of the farm buildings shown in this area on those maps. The finds recovered from deposit 061 appeared to be mid to late Post Medieval in date. There is also a similarity with finds recovered from pit 025 within Trench 1, which may suggest that the industrial activity was more widespread.

CONCLUSIONS and RECOMMENDATIONS

The evidence suggests a densely packed and well-preserved cemetery site, complete with possible chapel remains situated within the upper field, dating to the Medieval period, possibly as far back as the Early Medieval period. The preservation of bone makes this a hugely significant archaeological site. Small-scale Post Medieval industrial activity, possibly copper-working, is also shown to overlie the cemetery deposits in places.

The limits of the cemetery activity have been defined during this evaluation, but later Post Medieval activity does extend beyond these limits within the upper field.

To reduce the impact of development upon potentially significant archaeological deposits consideration could be given to locating house footprints and any ground-breaking activity away from this defined cemetery area, including a buffer zone around the established cemetery boundary. Archaeological deposits occur at very shallow depths within this area and any work is likely to disturb and damage these deposits.

An archaeological watching brief should be maintained on any ground breaking works within the higher ground to the north of the lower field due to the potential for Post Medieval archaeology in this area, particularly the continuation of the large ditches recorded in trenches 7 and 8.

REFERENCES

Databases

The Regional Sites and Monuments Record, housed with Cambria Archaeology

CARN - Core Archaeological Record Index hosted by the Royal Commission of Ancient and Historic Monuments in Wales

Maps

Bowen E 1729, *Map of South Wales*

Howell's Plan 1814 Plan 9 Llanelli Public Library

Ordnance Survey 1880 1st Edition 1:2500

Ordnance Survey 1907 2nd Edition 1:2500

Ordnance Survey 1916 3rd Edition 1:2500

Rees W 1932 *Wales and the Borders in the 14th Century*

Saxton C 1578 *Radnorshire, Brecknockshire, Cardiganshire and Carmarthenshire*

Aerial photographs

106G/UK/1629 2156-57 8 July 1946

Unpublished sources

Murphy, K 2007 *Frondeg Terrace, Llanelli; Archaeological Appraisal*. Cambria Archaeology Report No 2007/24

Ordnance Survey Record Card SN 50 SW 3

Published sources

Rees W 1953 *A Survey of the Duchy of Lancaster Lordships in Wales 1609-1613*

Royal Commission on the Ancient and Historical Monuments and Constructions in Wales and Monmouthshire 1917 *V. County of Carmarthen*

PHOTOGRAPHS
Trench 1



Photo 1; South facing shot of Trench 1. 2x1m scale.



Photo 2; Above, Skeleton 054, partially excavated within Trench 1. 1x0.5m scale.



Photo 3; Left, Grave 028 within Trench 1. 1x1m & 1x0.5m scale.

Trench2



Photo 4; South facing shot of Trench 2. Shows area of industrial activity. 2x1m scale.



Photo 5; North facing shot of Trench 2. Shows cemetery deposits. 2x1m scale.



Photo 6; Top, Deposit 075 filling the wall construction cut 076 within Trench 2. Remains of wall 081 visible at the top left. 1x1m & 1x0.5m scale.

Photo 7; Bottom, Close-up of possible kiln within Trench 2. 2x1m scale

Trench 3



Photo 8; North facing shot of Trench 3. 2x1m scale.

Trench 4



Photo 9; South facing shot of Trench 4. 2x1m scale.

Trench 5



Photo 10; East facing section of Trench 5. Natural clay deposits just visible above the water line. 2x1m scale.

Trench 6



Photo 11; Top, The end of the cemetery deposits represented by deposit 055 within cut 056. Visible at the point where Trenches 1 & 6 meet. Skeleton 054 exposed. 2x1m scale.

Photo 12; Bottom, Ditch 120, pre-excitation, bordered by possible clay bank remains 121 to the left. 2x1m scale.

Trench7



Photo 13; ENE facing shot of the ENE-WSW segment of Trench 7. The westernmost extent of concentrated burial deposits is visible in the foreground. 2x1m scale.



Photo 14; NE facing shot of the NE-SW segment of Trench 7. Unexcavated ditch 173 visible beneath the scales. 2x1m scale.



Photo 15; Top, North facing shot of juvenile skeleton remains 134 (within grave 135). 1x1m & 1x0.5m scale.

Photo 16; Bottom, SSE facing shot of skeleton remains 146 (within grave 147). Shows large stones concentrated around the western end of the grave. This was also the grave that contained the quartz crystal find. 1x1m & 1x0.5m scale.



Photo 17; Top, SSE facing shot of the exposed remains of possible chapel wall 081. 2x1m scale.

Photo 18; Bottom, Close up of exposed skeleton 126, showing the truncation by wall 081, just visible on the left. 1x0.5m scale.

Trench8



Photo 19; NW facing shot of Trench 8. 2x1m scale.



Photo 20; SE facing shot of Trench 8. 2x1m scale.



Photo 21; Above, South facing shot of section of Post Medieval ditch 248. 2x1m & 1x0.5m scale.



Photo 22; Left, Close-up of area of inter-cutting graves above the scales and narrow ditch 228 under the scales. 2x1m scale.

Trench9



Photo 23; West facing shot of Trench 9. 1x1m & 1x2m scale.

Trench 10



Photo 24; South facing shot of Trench 10. 1x1m & 1x2m scale.

FROM: Darden Hood, Director (mailto:<mailto:dhood@radiocarbon.com>)
(This is a copy of the letter being mailed. Invoices/receipts follow only by mail.)
December 11, 2007

Dr. Philip Poucher
Cambria Archaeology
The Shire Hall
Carmarthen Street
Llandeilo
Carmarthenshire, Wales SA19 6AF
UK

RE: Radiocarbon Dating Results For Samples FT07-003, FT07-009, FT07-033, FT07-126

Dear Dr. Poucher:

Enclosed are the radiocarbon dating results for four samples recently sent to us. They each provided plenty of carbon for accurate measurements and all the analyses proceeded normally. As usual, the method of analysis is listed on the report with the results and calibration data is provided where applicable.

As always, no students or intern researchers who would necessarily be distracted with other obligations and priorities were used in the analyses. We analyzed them with the combined attention of our entire professional staff.

If you have specific questions about the analyses, please contact us. We are always available to answer your questions.

The cost of analysis was previously invoiced. As always, if you have any questions or would like to discuss the results, don't hesitate to contact me.

Sincerely,

A handwritten signature in black ink that reads "Darden Hood". The signature is written in a cursive style with a large, looped initial 'D'.

Dr. Philip Poucher

Report Date: 12/11/2007

Cambria Archaeology

Material Received: 11/5/2007

Sample Data	Measured Radiocarbon Age	¹³ C/ ¹² C Ratio	Conventional Radiocarbon Age(*)
Beta - 236967 SAMPLE : FT07-003 ANALYSIS : AMS-Standard delivery MATERIAL/PRETREATMENT : (bone collagen); collagen extraction: with alkali 2 SIGMA CALIBRATION : Cal AD 1300 to 1430 (Cal BP 650 to 520)	490 +/- 40 BP	-20.2 o/oo	570 +/- 40 BP
Beta - 236968 SAMPLE : FT07-009 ANALYSIS : AMS-Standard delivery MATERIAL/PRETREATMENT : (bone collagen); collagen extraction: with alkali 2 SIGMA CALIBRATION : Cal AD 1170 to 1280 (Cal BP 780 to 670)	720 +/- 40 BP	-20.5 o/oo	790 +/- 40 BP
Beta - 236969 SAMPLE : FT07-033 ANALYSIS : AMS-Standard delivery MATERIAL/PRETREATMENT : (bone collagen); collagen extraction: with alkali 2 SIGMA CALIBRATION : Cal AD 1010 to 1170 (Cal BP 940 to 780)	870 +/- 40 BP	-20.4 o/oo	950 +/- 40 BP
Beta - 236970 SAMPLE : FT07-126 ANALYSIS : AMS-Standard delivery MATERIAL/PRETREATMENT : (bone collagen); collagen extraction: with alkali 2 SIGMA CALIBRATION : Cal AD 1260 to 1320 (Cal BP 690 to 630) AND Cal AD 1350 to 1390 (Cal BP 600 to 560)	610 +/- 40 BP	-20.3 o/oo	690 +/- 40 BP

CALIBRATION OF RADIOCARBON AGE TO CALENDAR YEARS

(Variables: C13/C12=-20.2:lab. mult=1)

Laboratory number: Beta-236967

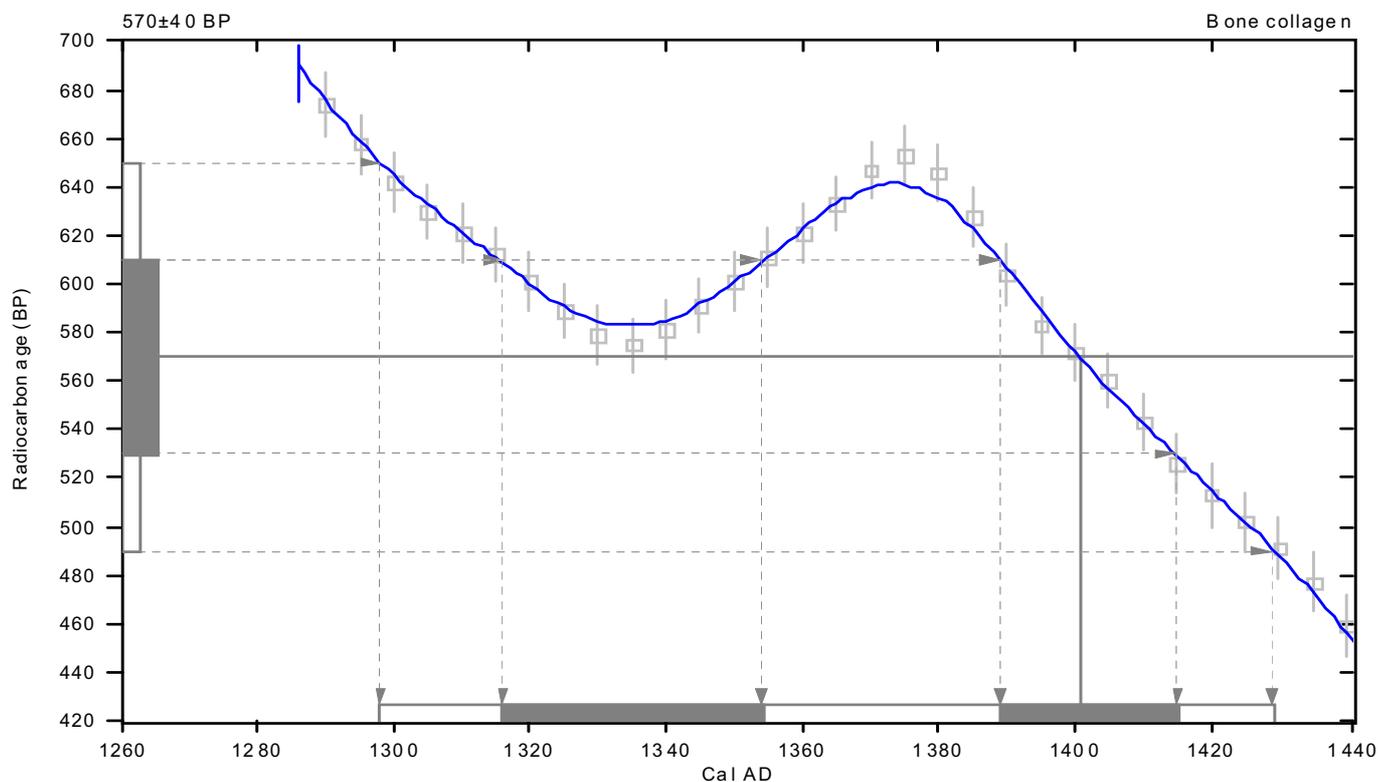
Conventional radiocarbon age: 570±40 BP

**2 Sigma calibrated result: Cal AD 1300 to 1430 (Cal BP 650 to 520)
(95% probability)**

Intercept data

Intercept of radiocarbon age
with calibration curve: Cal AD 1400 (Cal BP 550)

1 Sigma calibrated results: Cal AD 1320 to 1350 (Cal BP 630 to 600) and
Cal AD 1390 to 1420 (Cal BP 560 to 540)



References:

Database used

INTCAL04

Calibration Database

INTCAL04 Radiocarbon Age Calibration

IntCal04: Calibration Issue of Radiocarbon (Volume 46, nr 3, 2004).

Mathematics

A Simplified Approach to Calibrating C14 Dates

Talma, A. S., Vogel, J. C., 1993, Radiocarbon 35(2), p317-322

Beta Analytic Radiocarbon Dating Laboratory

4985 S.W. 74th Court, Miami, Florida 33155 • Tel: (305)667-5167 • Fax: (305)663-0964 • E-Mail: beta@radiocarbon.com

CALIBRATION OF RADIOCARBON AGE TO CALENDAR YEARS

(Variables: C13/C12=-20.5:lab. mult=1)

Laboratory number: Beta-236968

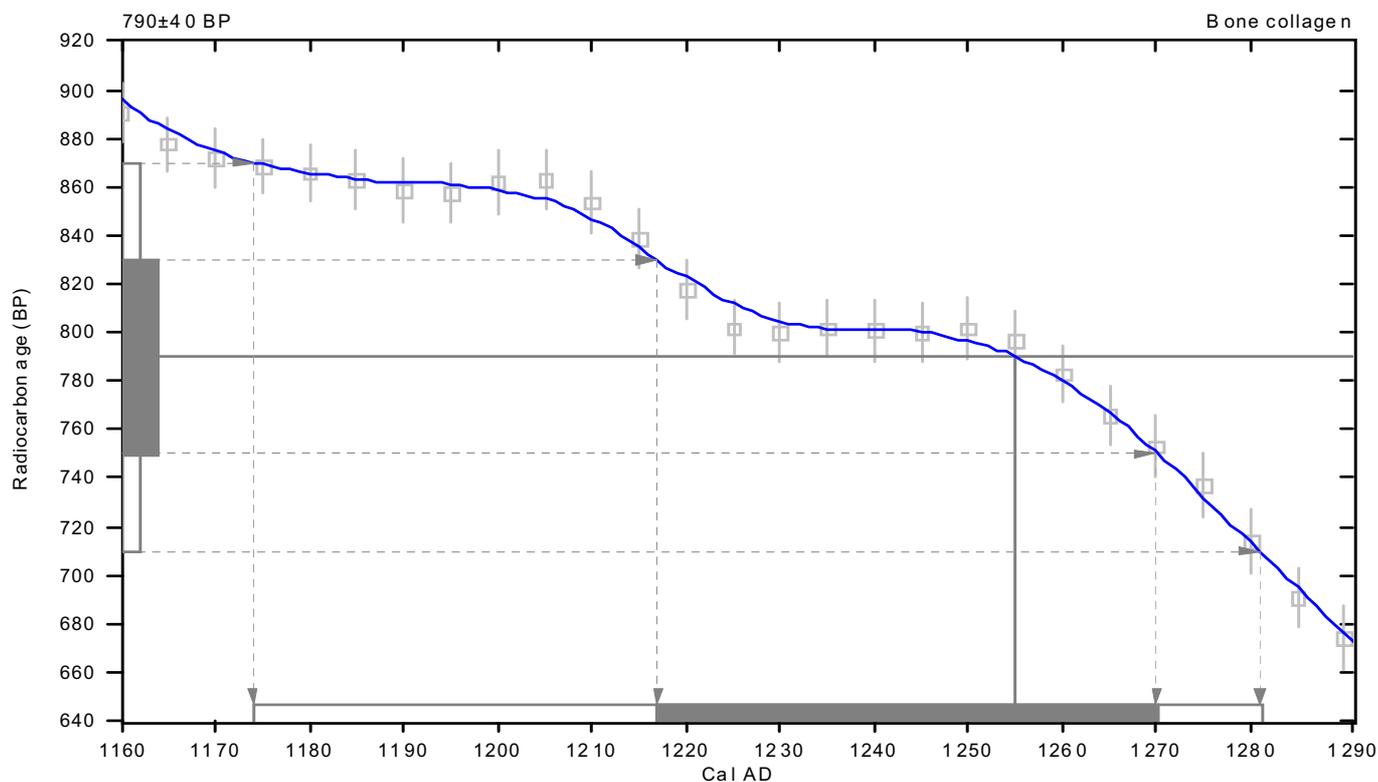
Conventional radiocarbon age: 790±40 BP

2 Sigma calibrated result: Cal AD 1170 to 1280 (Cal BP 780 to 670)
(95% probability)

Intercept data

Intercept of radiocarbon age
with calibration curve: Cal AD 1260 (Cal BP 700)

1 Sigma calibrated result: Cal AD 1220 to 1270 (Cal BP 730 to 680)
(68% probability)



References:

Database used

INTCAL04

Calibration Database

INTCAL04 Radiocarbon Age Calibration

IntCal04: Calibration Issue of Radiocarbon (Volume 46, nr 3, 2004).

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CALIBRATION OF RADIOCARBON AGE TO CALENDAR YEARS

(Variables: C13/C12=-20.4:lab. mult=1)

Laboratory number: Beta-236969

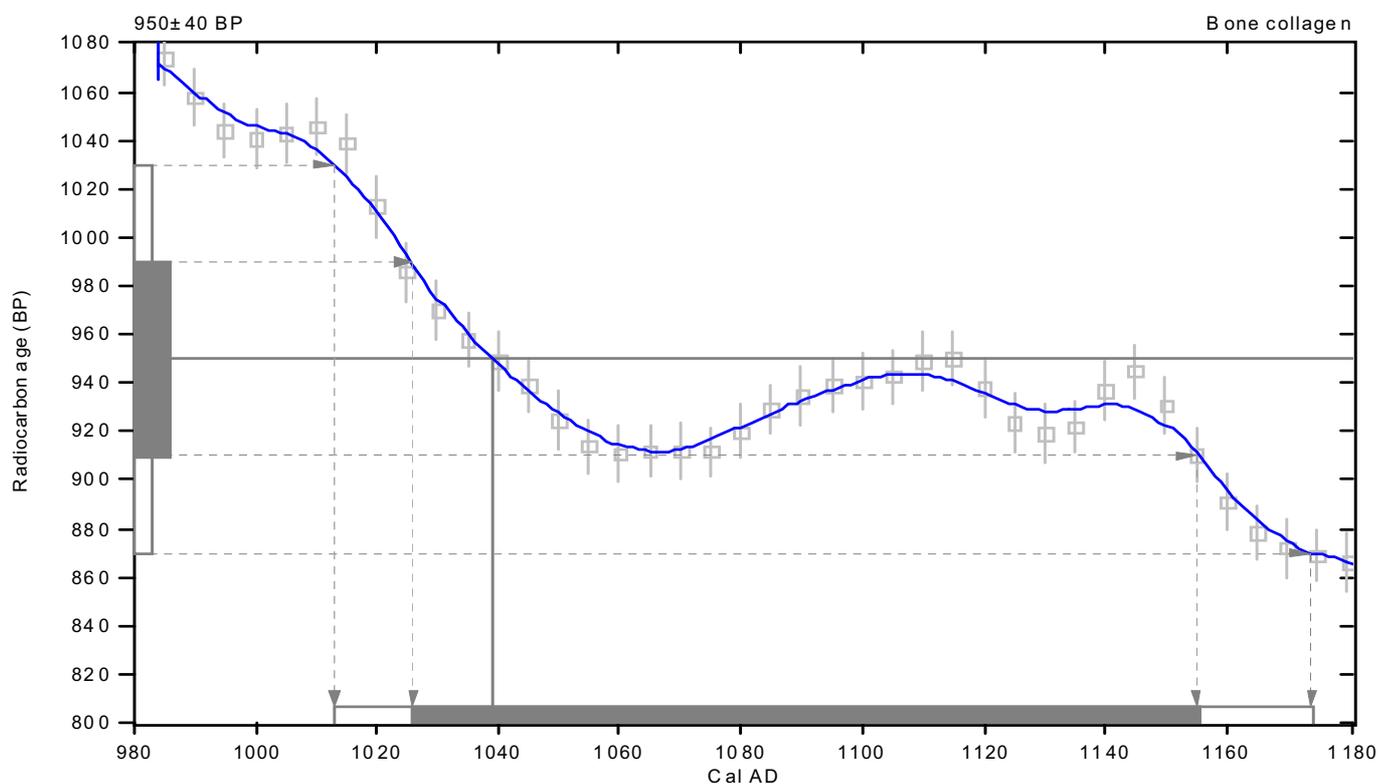
Conventional radiocarbon age: 950±40 BP

2 Sigma calibrated result: Cal AD 1010 to 1170 (Cal BP 940 to 780)
(95% probability)

Intercept data

Intercept of radiocarbon age
with calibration curve: Cal AD 1040 (Cal BP 910)

1 Sigma calibrated result: Cal AD 1030 to 1160 (Cal BP 920 to 800)
(68% probability)



References:

Database used

INTCAL04

Calibration Database

INTCAL04 Radiocarbon Age Calibration

IntCal04: Calibration Issue of Radiocarbon (Volume 46, nr 3, 2004).

Mathematics

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CALIBRATION OF RADIOCARBON AGE TO CALENDAR YEARS

(Variables: C13/C12=-20.3:lab. mult=1)

Laboratory number: Beta-236970

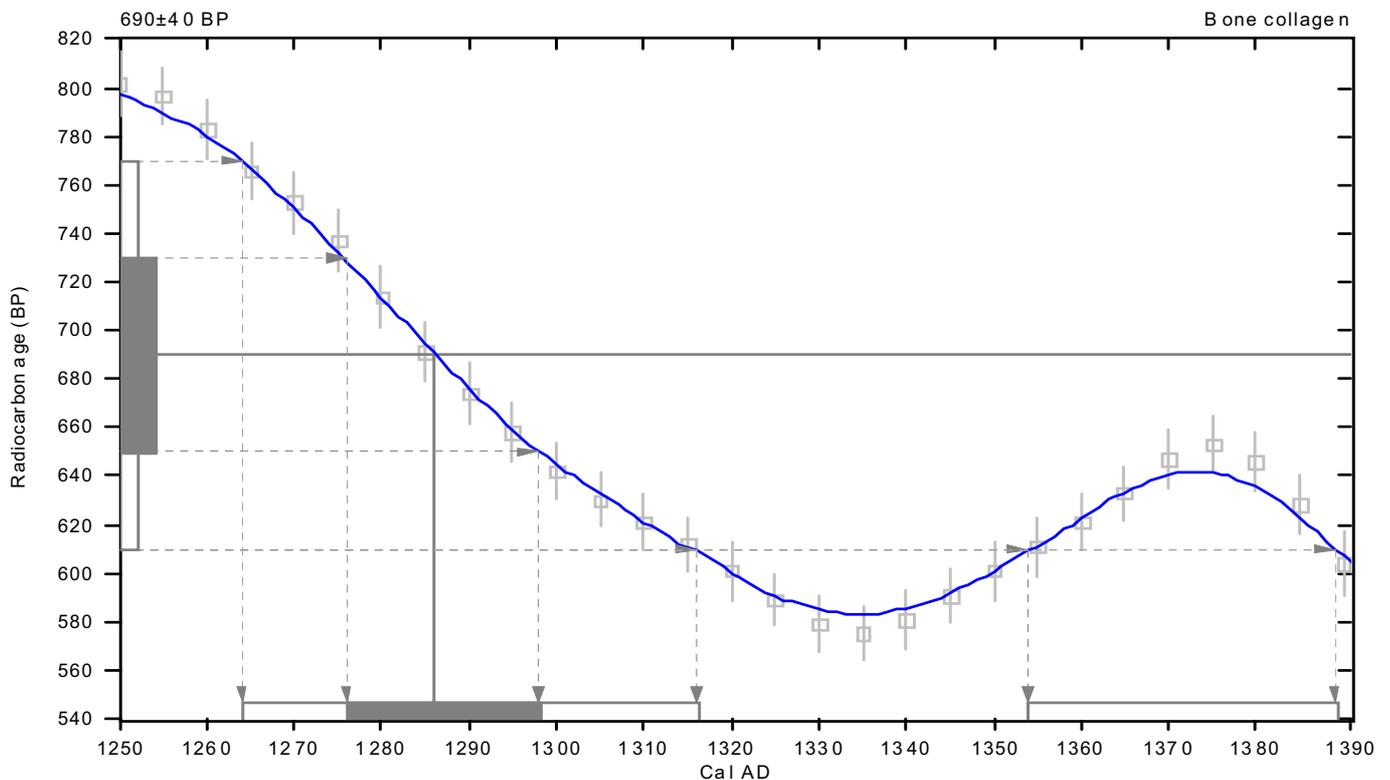
Conventional radiocarbon age: 690±40 BP

**2 Sigma calibrated results: Cal AD 1260 to 1320 (Cal BP 690 to 630) and
(95% probability) Cal AD 1350 to 1390 (Cal BP 600 to 560)**

Intercept data

Intercept of radiocarbon age
with calibration curve: Cal AD 1290 (Cal BP 660)

1 Sigma calibrated result: Cal AD 1280 to 1300 (Cal BP 670 to 650)
(68% probability)



References:

Database used

INTCAL04

Calibration Database

INTCAL04 Radiocarbon Age Calibration

IntCal04: Calibration Issue of Radiocarbon (Volume 46, nr 3, 2004).

Mathematics

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