

# The Romano-British villa at Abermagwr, Ceredigion: excavations 2010–15

By JEFFREY L. DAVIES and TOBY DRIVER

with contributions by P. J. Casey, R. Coard, C. H. Fletcher, F. Grant, K. Haylock, W. T. Jones,  
W. H. Manning, D. N. Parsons, J. Price, J. Webster, P. V. Webster

*Aerial photography during the prolonged drought of July 2006, followed by geophysical survey in 2009, revealed a stone-built, winged corridor villa-style building set within a double-ditched rectangular enclosure at Abermagwr, 1.5 kilometres north-east of Trawscoed Roman fort in Ceredigion in west Wales. Excavation of the site in 2010–11 and 2015 confirmed the site as Ceredigion's first recorded Romano-British villa comprising at least six rooms, an unfinished heated room being added to the eastern wing, occupied between circa AD 230–330/40 and enclosed by a broadly contemporary double-ditched enclosure. The central and south-western parts of the house were destroyed by fire sometime before the mid fourth century and a series of postholes and later features suggest reuse of the villa ruin at a subsequent date. A special study was undertaken of the roofing material, composed of pentagonal and hexagonal slates made of local shale, notable for retaining an array of original slaters' marks. The project has also included a community-based element, along with survey and assessment of a number of other sites in the hinterland of the villa.*

## INTRODUCTION

### **Background to excavation and circumstances of the discovery**

The Abermagwr villa lies towards the northern edge of the Trawscoed lowland basin in north Ceredigion, where the Ystwyth valley widens to form a broad, level gravel basin measuring some 1.7 kilometres by 3.5 kilometres across. Trawscoed Roman fort (Burnham and Davies 2010, 286–89) lies at the centre of this lowland basin, on the eastern bank of the Ystwyth. A kilometre and a half to the north of the fort, the north-west corner of a sharp-angled, double-ditched enclosure at Abermagwr had long remained unclassified since its discovery as a cropmark through aerial photography by Cambridge University on the 8 August 1979.<sup>1</sup> In July 2006 aerial photography by the Royal Commission revealed the greater portion of a 0.97-hectare rectangular enclosure, with a rectangular annexe at its south-west corner, together with the footings of a 20m-long stone building in one corner (Driver and Davies 2012, fig. 2), showing as cropmarks following a cut of silage. Despite lying 1.5 kilometres from the fort, the sharp-angled corners of the enclosure, and its less than regular appearance, did not suggest a Roman military origin. Instead it seemed more likely to be a *temenos* or an unusual prehistoric enclosure or perhaps even a medieval farm. However, the off-centre position of the building within the enclosure seemed uncharacteristic of a *temenos*, and hinted at the possibility that the site was that of a Romano-British villa despite its remoteness from the nearest examples of such in Carmarthenshire and Pembrokeshire. Although this possibility caused some excitement it was another three years before the opportunity to investigate the discovery arose.

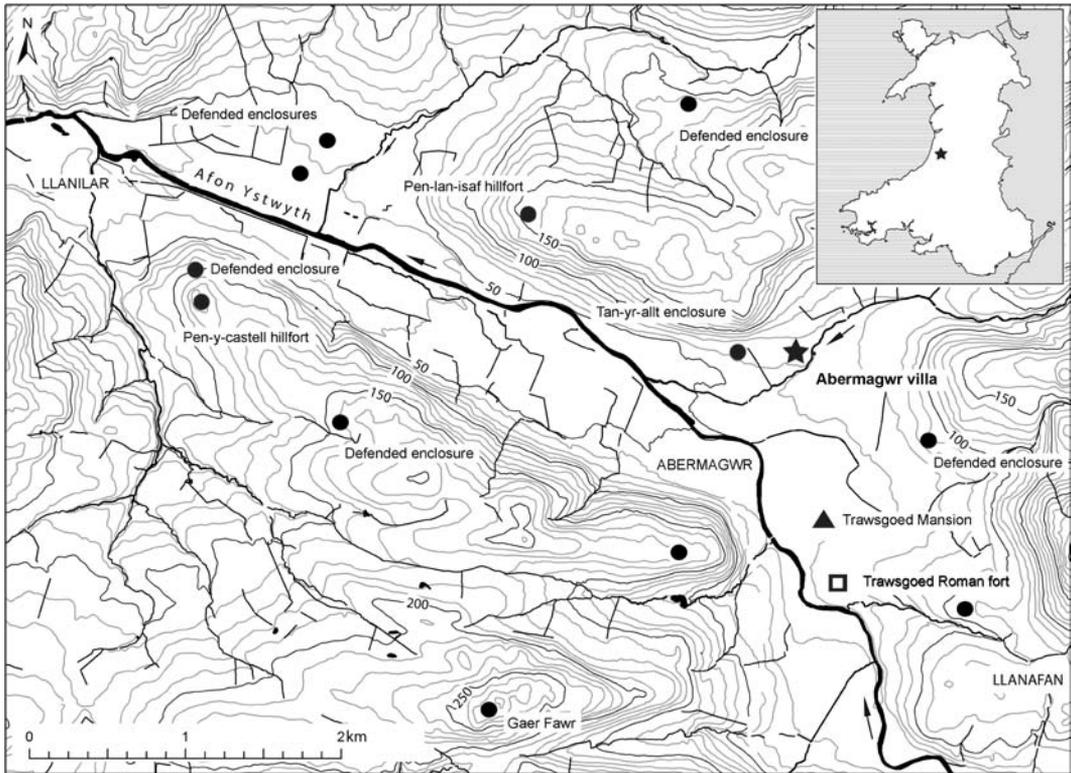


Fig. 1. Location map showing the position of the Abermagwr Romano-British villa midway along the lowland corridor of the river Ystwyth, on the northern edge of the lowland basin occupied by Trawsgoed Roman fort. The landscape was well-settled during later prehistory with a number of hillforts and plough-levelled defended enclosures (black circles). © Crown Copyright, RCAHMW.

### Landscape setting

The hamlet of Abermagwr lies towards the northern margin of the Trawsgoed basin in north Ceredigion, an area of very good to moderate (Grade 2–3) agricultural land (Figs 1–2). One of the three principal rivers of the county, the Ystwyth, flows west from its source in the Cambrian Mountains towards its mouth at Aberystwyth. It cuts a winding, rocky gorge west of the Cambrian Mountains until Pont Llanafan (SN 68 71) is reached.

From here the valley opens to form the broad Trawsgoed basin mentioned above, which is a significant landscape feature with the villa situated on its northern margin. There are a number of later prehistoric hillforts and defended enclosures within and around the lowland basin attesting to a well-settled landscape, including major hillforts like Gaer Fawr, Lledrod (Driver 2016),<sup>2</sup> a group of smaller hillforts at Cnwc y Bugail (ibid.)<sup>3</sup> and lowland cropmark enclosures including those at Trawsgoed Park<sup>4</sup> and Cwm Rhydyfelin, Llanafan.<sup>5</sup> Trawsgoed Roman fort, occupying the eastern bank of the Ystwyth, lies at the centre of the basin. Excavation has established that the fort was occupied from the AD 70s until abandonment c. AD 125–30 (Davies 1984). The *vicus* which developed to the north-west and north-east of the fort was one of the most significant features of the site (Davies 1994, 301), having a rudimentary street

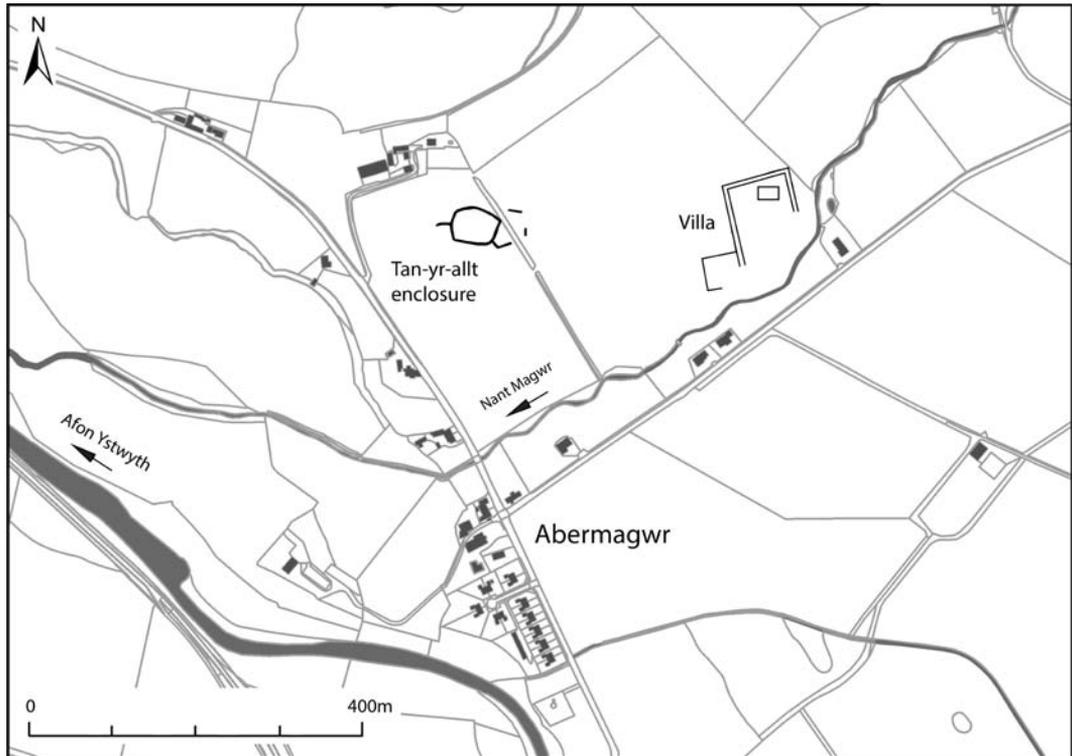


Fig. 2. Detailed location map showing position of the villa, nearby cropmarks of the Tan-yr-allt enclosure and the modern hamlet of Abermagwr. © Crown copyright, RCAHMW.

grid and a complex building sequence. Davies (*ibid.* 302) noted that ‘the symbiosis between fort and *vicus* is particularly striking at Trawscoed’ with the *vicus* established in the early Flavian period and thereafter mirroring the history of the fort. Davies noted (*ibid.*) that no Romano-British activity is indicated in the locality following the removal of the garrison early in the second century AD. This is of some significance when considering the much later Roman date for the establishment of the villa.

Limited palaeoenvironmental analysis by Fiona Grant (see report below) suggests the presence of some grassland within the vicinity of the villa together with evidence of mixed hazel and oak woodland, scrub or hedging, and some wet areas, possibly represented by ditches or a nearby watercourse, suggested by the presence of alder.

#### **Geology and building materials.** By C. H. Fletcher

The geology of the Abermagwr area is well documented (Fletcher 2013).<sup>6</sup> Superficial geology chiefly comprises alluvium (clay, silt, sand and gravel) along the low-lying river valleys of the Ystwyth and the corridor of the river Magwr, bordered by raised terraces of till (Devensian-Diamicton) overlooked by foothills characterised by glaciofluvial ice contact deposits (Devensian sand and gravel). The bedrock is of rocks of Silurian age and rock sequences exposed in the area comprise various types of mudstone and sandstone in different proportions, compositions and bed thicknesses. The rocks were mapped as a series

of named geological formations that are composed of characteristic rock types in distinct percentages and were deposited over a similar time intervals. The main bedrocks occur in north-south bands in the Abermagwr area. To the west, beneath Llanilar, are found mudstone and thick, high matrix sandstone beds (Cwmere formation). Between Llanilar and Abermagwr is found grey mudstone (Borth mudstones formation) and directly beneath and to the east of Abermagwr are found mudstone and thin, quartz-rich sandstone beds (Devil's Bridge formation). The Cwmere and Devil's Bridge formations contain significant percentages of sandstone, some of which are suitable for walling stone but restrict the formation of roofing slates, whereas the Borth mudstones, and the pale grey and dark grey mudstones found south of the Ystwyth gorge all have the potential for slate formation, as exploited in the roofing for the villa.

The high-matrix sandstones that make up almost all the building stone of the villa are only present within the Cwmere formation. The sandstones in the other sandstone-bearing rock assemblages are thinner, internally structured and quartz-rich. High-matrix sandstones constitute about 15 per cent of the Cwmere formation in the incised valley of the Nant Adail just to the south of Llanilar. The sandstones in this outcrop would be easily excavated as intact building blocks requiring little, if any, further shaping by hand. The thicker sandstone beds in this area commonly display bedding-parallel discontinuities that allow ease of building block extraction. A significant recent building stone quarry is located along the western escarpment of the stream above Cwrt-y-Cadno and it is probable that it is here, or close by, that the building stone of the villa was sourced. This quarry is only 5 kilometres west of the villa and stone could have been easily transported along the alluvial plain of the river Ystwyth.

Although the slates were not of the quality of Cambrian slate from north Wales, they were functional and importantly could be sourced locally. The roofing slates at the Abermagwr villa are of two types: firstly, pale, grey mudstone with the ease of splitting defined by the slaty cleavage; and secondly, dark grey mudstone interlayered with grey, thin, fine-grained sandstones with the ease of splitting slates defined by the bedding (see Figs 21–22).

Mudstone outcrops that fulfil the above criteria for both types of slate within the environs of the villa only occur south of the Ystwyth gorge between 4–5 kilometres south-east of the villa. Preliminary fieldwork in 2012 identified the closest geological sources as the Coed Craigrogof ridge (SN 701 714) bordering the Ystwyth gorge, and also the Geufron quarry (SN 717 715) depicted as a 'Slate Quarry' on an estate map of Nantbir Common dating to 1781.<sup>7</sup>

In conclusion, the building material was certainly sourced within 5 kilometres of the Roman villa; the slates just to west of Ysbyty Ystwyth and the building stone very close to Llanilar. In both cases extraction of the material would have been relatively easy requiring only minimal quarrying works. Similar material can be found at much greater distances from the villa site but this would have required significantly more transportation and is considered unlikely.

#### **Place-name evidence.** By David N. Parsons

In hindsight, local place-names offered two clues to the existence of the villa. First, an estate map of 1781 names the field on the site as *Dol y Cappel* 'chapel meadow'. It seems likely that this preserves a memory of a lost stone building, which may well have been the villa. There is a notable parallel at Caer Gai Roman fort, Bala, where the field containing the fort annex with its bath-house and *mansio* is named Cae'r Capel (Hopewell, in Burnham and Davies 2010, 214). There seems to have been a tendency for visible ruins to be identified as chapels in later periods. Second, the names Abermagwr and Nant Magwr, the stream which flows past the site, contain a form of the word *magwyr* 'wall, ruin', which has an ancient pedigree, and which has been associated with Roman remains elsewhere. In particular, the Cornish villa at Illogan, explored in the early 1930s (O'Neil 1934), lies on land at Magor Farm and, once more, in a field known as Chapel Field. The parallels with Abermagwr are striking and raise questions about the

precise significance of the element *magwyr* and its value in detecting Roman remains. Those questions are addressed in the following paragraphs.

Welsh *magwyr* ‘wall, ruin’ is a borrowing from Latin *maceria* ‘enclosure, wall’. The form *magwr* is dialectal, with a reduction of *wy* to *w* that is common in south Wales; *fagw(y)r* is the mutated (lenited) form found, for example, after the definite article. The word is first attested in the twelfth-century Book of Llandaf, one of the oldest records of the Welsh language, but must have been borrowed much earlier, in the Roman period. It is common to the three main Brittonic languages, surviving as Breton *moger*, and found in the place-name record of Brittany and Cornwall (Padel 1985, 156) as well as Wales. It has been posited for the English place-names Makerfield (Ekwall 1922, 93–4) and Moggerhanger (Coates 2005). The Latin word also gave rise to many place-names across the continent: tens of examples in France, generally surviving as Mézière(s), Mazière(s), are listed by Dauzat and Rostaing (1963, 455–6).

Brittonic may initially have borrowed the word to denote stone-walled structures of any kind; alternatively the word may have been specifically associated with a particular type of Roman building technique. (It is worth noting that Latin *maceria* is derived from the verb *macerare* ‘to make wet’ and originally implied the use of soft clay, though it should not be assumed that this sense necessarily remained primary by the time the word was introduced to northern Europe.) The direct association of known Roman villas with Magor in Cornwall and Abermagwr in Ceredigion naturally suggests the possibility that the Latin-derived term was applied to such buildings when they were recognisably Roman and standing. In Wales the parish of Magor, Monmouthshire, is the most notable example of the term in place-names, and it, of course, lies in a highly Romanised part of the country. However, the word is also found in minor names across south Wales. It is particularly common in two western counties: Charles (1992, 795) lists some 35 instances in Pembrokeshire (e.g. Fagwyr Goch, Fagwyr Meredith, Magwr Boeth) and Wmffre (2004) and some 40 in Ceredigion (e.g. Magwyr-y-rhos, Fagwyr-hen, Fagwyrfain). It is clear that in this region, if not more widely, the word entered local Welsh language and remained productive, gradually shifting sense as the earlier buildings crumbled, from ‘stone building’ to ‘stone wall, stone ruin’. It would be implausible to attribute Roman-period origins to every instance of *magwyr* amongst these minor names: the word was available through the medieval and modern periods to denote stone walls and ruins — the nature and date of those ruins is unlikely to have been known to most name-givers.

The question remains: was *magwyr* applied to the villa site at Abermagwr at an early date to a standing building of Roman type, or was it applied centuries later to ruined remnants, coincidentally using a word of ultimately Latin origin? It cannot be known for certain; indeed, it is not absolutely certain that the word was applied to the villa site: in surviving records Magwr is first and foremost the name of a stream, Nant Magwr (Wmffre 2004, 1259), which in turn gave name to features and settlements along its banks: Blaen Magwr, Cwm Magwr, Abermagwr, first recorded in the sixteenth century (ibid. 930–3). The presumption is that a stream-name meaning ‘building’ or ‘ruin’ has taken that name from a nearby feature. In 2004 Wmffre suggested the feature might be the Roman fort 1.2 kilometres from Nant Magwr — he was not to know that a villa would soon be discovered in a field by the bank of the stream. There are a series of coincidences here that are hard to resist.

### Geophysical survey

In 2009 David Hopewell of the Gwynedd Archaeological Trust (GAT) was commissioned by the Royal Commission (RCAHMW) to undertake a geophysical survey (at 0.25 × 1m resolution) of the site (Driver and Davies 2009). This revealed the plan of a stone building measuring 22.2m east-west by 11.18m north-south of three main rooms (numbered 1–3) with two projecting *alae* (wings) to the south (Rooms 4 and 5), and a further room (Room 6) attached to the rear in an extension positioned between Rooms 1 and 2 (Fig. 3).

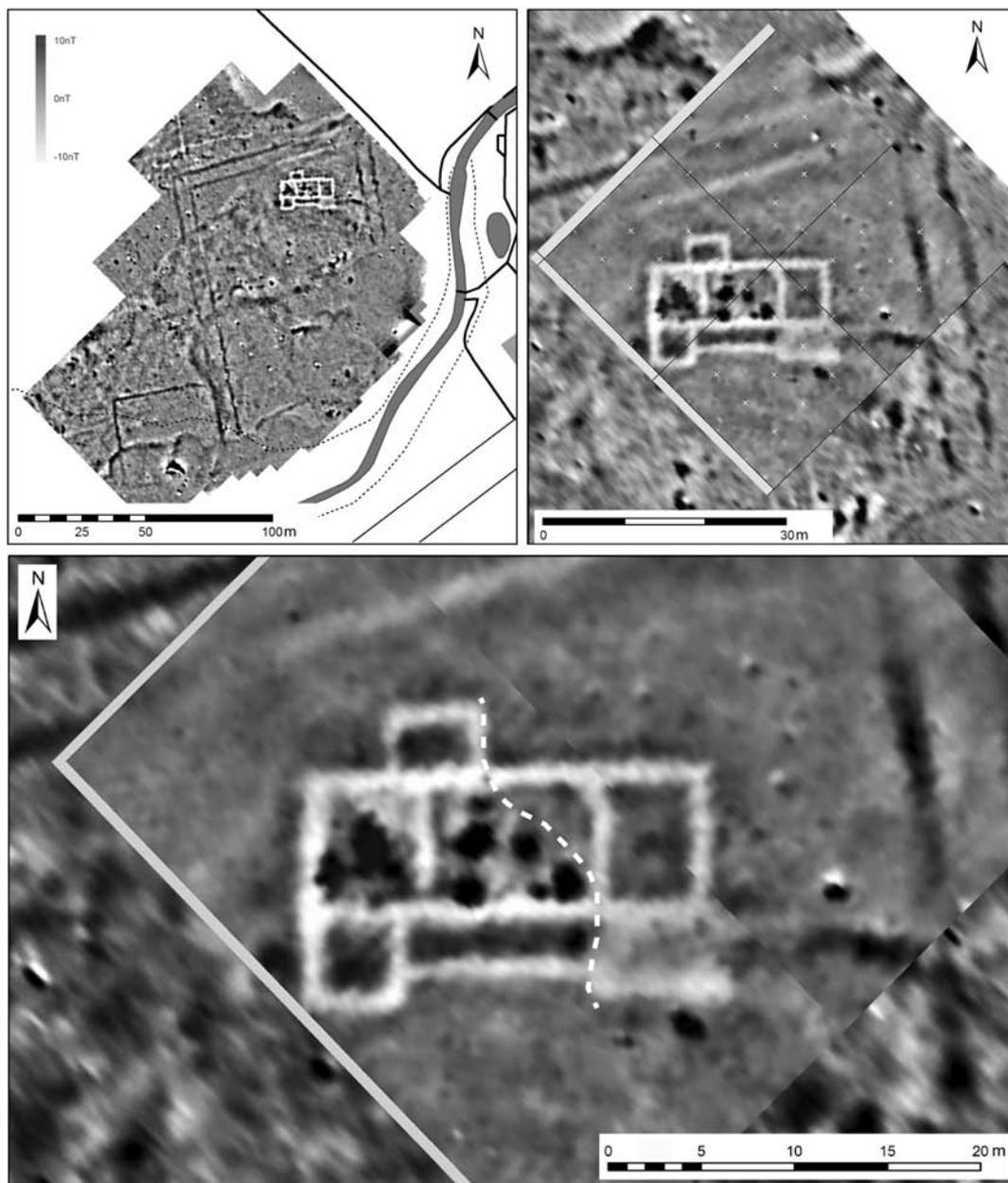


Fig. 3. Geophysical survey of the villa building and outer enclosure. **Top left** Initial survey in 2009 of the entire site; data clipped to  $\pm 10\text{nT}$ . **Top right** High-resolution  $20 \times 20\text{m}$  survey of the villa undertaken in 2010 immediately prior to the start of excavations. **Bottom** Enlargement highlighting areas of intense burning as depicted on the 2010 geophysical survey by darker anomalies, suggesting a catastrophic fire affected the central and western rooms of the house, but not perhaps the easternmost Room 3 and the south-eastern *ala*, Room 5 (division depicted by dotted line). Survey by David Hopewell, GAT, © Crown copyright, RCAHMW

Although the plan was characteristically that of a Romano-British villa, and would have been readily identified as such in south-east Wales or southern England, it was both unusual and unexpected in western mid Wales. For this reason a two-week trial excavation was undertaken in July 2010 directed by the authors and funded by the Cambrian Archaeological Association and the University of Wales Centre for Advanced Welsh and Celtic Studies with logistical support from the Dyfed Archaeological Trust and the RCAHMW. This work was immediately preceded by a high-resolution geophysical survey (at  $0.25 \times 0.5\text{m}$  resolution) on a  $20 \times 20\text{m}$  grid over the villa. This new survey revealed further details of the structure of the building and its immediate environs. Darker anomalies within the rooms were revealed, upon excavation, to represent burnt areas. Both formal and informal hearths were discovered within the rooms, particularly 1, 2, 4 and 6, together with wider spreads of burnt debris resulting from a catastrophic fire which eventually destroyed the villa. The ‘ghost’ of Room 8, to the east of the eastern *ala*, was not identified on the geophysical survey until its excavation in the 2011 season.

### **The villa hinterland: summary of exploratory fieldwork 2012–13**

It is unlikely that the Romano-British villa existed in isolation and the authors were keen to investigate a sample of neighbouring sites in the locality as time and budgets for fieldwork allowed. Despite this new work, at the time of publication Abermagwr remains the only known villa in the county.

Aerial reconnaissance by the Royal Commission in July 2006 revealed the Tan-yr-allt univallate D-shaped defended enclosure,<sup>8</sup> 280m west of the cropmarks of the Abermagwr villa (Figs 1–2). The enclosure measures *c.*  $49 \times 38\text{m}$ , enclosing 0.19 hectares. The site is significant in that it may represent a settlement precursor to the Roman site, or a contemporary farming enclosure. Geophysical (magnetometry) survey was undertaken by David Hopewell (GAT) and John Burman over two days in March 2012 (Hopewell 2012). Despite good survey conditions no trace of the enclosure ditch was evident on the geophysics although the cropmark evidence remained convincing. Hopewell notes that the lack of differentiation between the infilled ditch material and the surrounding subsoil may suggest the enclosure was not used for settlement activities (*ibid.*). The question of the site’s character can now only be established through excavation.

A late Roman coin, a SOLI INVICTO COMITI mint of Rome, issued in AD 313, was found at Llanafan (Fig. 1), south-east of Trawscoed<sup>9</sup> in *c.* 1980 by a local resident after the field was ploughed (Davies and Driver 2014). The good preservation of the coin suggested it may have originated from a buried archaeological deposit or hoard. It is similar in date and issue to those coins recovered during excavations of the Abermagwr Roman villa, 2.5 kilometres to the NNE. Three days of fieldwork by the authors in November and December 2012 examined the entire field with a metal detector in a broad survey grid. Despite an array of nineteenth and twentieth-century finds no further Roman coins were located. The authors concluded that the Roman coin may have been a stray loss. However, the early dedication to St Afan in the local Llanafan Church, and the presence of a circular churchyard, suggests that a fourth-century Roman site may yet lie within or close to the village of which the stray coin loss is the only present indicator.

The multi-period earthworks at Pen-y-Castell<sup>10</sup> on Castle Hill, Llanilar occupy a prominent position on the south side of the Afon Ystwyth (Fig. 1). On the northern slopes of the hill below the Iron Age hillfort is a trapezoidal earthwork enclosure,<sup>11</sup> suggestive of a Romanised farmstead with angular ramparts signalling Roman influence. To investigate potential links with the Abermagwr Roman villa 4 kilometres to the east, a geophysical (magnetometry) survey was undertaken by ArchaeoPhysica for the Royal Commission in March 2013 (Roseveare 2013; Driver and Davies 2013; Davies and Driver 2014). The survey revealed a clear plan of the enclosure and clarified the position of the main gate for the first time. It also showed post-built structures of the gateway within the entrance passage, and heightened magnetic anomalies — potentially dumps of material — in the ditch terminals flanking the gate. Disappointingly,

no clear structural features or buildings were identified inside the enclosure. Identification of rectangular domestic buildings would have signalled Roman influence and could have suggested a chronological link with Abermagwr. Without this evidence there is no certainty that occupation at Castle Hill was contemporary with the villa.

With the confirmation of the sharp-angled outer enclosure indicating a villa at Abermagwr, two other rectangular cropmark enclosures in the north Ceredigion region have been noted as possible indicators of further villa sites, although neither has been investigated further. The Pyllau-isaf enclosure<sup>12</sup> lies 3.4 kilometres north-west of the Abermagwr villa among a complex of later prehistoric ring-ditches, sited centrally on a wide alluvial fan on the north side of the major lowland valley corridor of the Afon Ystwyth. Antiquarian discoveries of a burial urn within a cairn were placed in context by a series of cropmark discoveries made at Pyllau-isaf between 1995 and 2006. The complex currently comprises two enclosures, one square, the other circular, and at least seven round barrows, all plough-levelled. The 41m-square enclosure lies just north of Pyllau-isaf farm. It has two right-angled corners on the south side and a curving north-east angle. It remains undated, and unusual, in a regional context but its shape may indicate Romano-British influence. The Pen-y-bontbren cropmark enclosure at Cyncoed, Capel Bangor,<sup>13</sup> may represent two sides of a sharply-angled ditched enclosure lying 2.2 kilometres east of Penllwyn Roman fort. The south-eastern corner of this putative enclosure measures approximately 51 × 40m, and shares similarities with the Abermagwr villa; it too lies alongside a minor river along a side valley set apart from the valley corridor of the river Rheidol, in close proximity to a Roman fort. On the hillside above and to the north-west of the putative enclosure is a further cropmarked linear ditch, potentially related to those on the valley floor. Without a geophysical survey it is impossible to conjecture further about the age or significance of these cropmarks.

### **Education and outreach**

The villa at lies on private farmland but its position is highly visible from a public road. The authors hoped that with an active programme of engagement linked to the excavations, raised knowledge and awareness of this special site would foster feelings of pride and ‘ownership’ locally, in part affording its better protection into the future.

In 2010, visits were made to the three nearest primary schools at Llanilar, Llanafan and Llanfihangel y Creuddyn shortly before the excavation to discuss the upcoming project with pupils. The schools then arranged visits to the excavation in the last week of summer term. Together with the school pupils some 300 people, including the Young Archaeologists Club, visited the excavations over the two weeks even though no formal open day had been planned. There was extensive press coverage over the 26–27 July 2010 including in the *Guardian* newspaper, Radio 5 Live and BBC Wales television news. By December 2010 an initial display of the main finds had been mounted in the Ceredigion Museum. The 2011 project was run as a larger community excavation with between 5 and 10 volunteers on site on any given day. A public open day during the excavations was organised and publicised by the Royal Commission during the Festival of Archaeology, with over 300 visitors. A shallow ‘Education Trench’ to the west of the villa allowed children to experience supervised trowelling on a genuine site and proved very popular.

The excavations in 2015 again enjoyed the support of the community with local volunteers and students helping out on site every day, and a dedicated Facebook page which generated over 240 new ‘likes’ in just two weeks during the project. This proved an excellent way to provide daily updates to many local people, allowing questions and remarks to be posted and answered daily without the need for a formal open day. The principal finds from the Roman villa remain on permanent display at the Ceredigion Museum, with the kind permission of the landowners, Hugh and Ann Tudor.

### Site archive

A full digital and paper archive for the site has been deposited at the National Monuments Record of Wales, Aberystwyth and images and catalogue records can be consulted online.<sup>14</sup> The finds, including a selection of 27 of the best-preserved or inscribed roof slates, have been donated to the Ceredigion Museum, Aberystwyth, with the kind permission of the landowner. The remaining undiagnostic or broken roof slates could not be accepted into a museum archive due to limitations of space and were deposited at the field edge close to the villa.<sup>15</sup>

### THE *DOMUS* OR HOUSE

#### Excavation strategy

The villa and the double-ditched enclosure were investigated during three seasons of excavation (Fig. 4), the results being summarised in interim reports (Driver and Davies 2010; 2011; 2012; 2015; Davies and Driver 2012; 2014). Overall, some 30 per cent of the house or *domus* was excavated down to the tops of the wall footings and the Roman floor levels (Fig. 5). Apart from a single cutting the wall footings were not explored further, nor were the lower floor levels (if such existed) nor the construction levels. Where

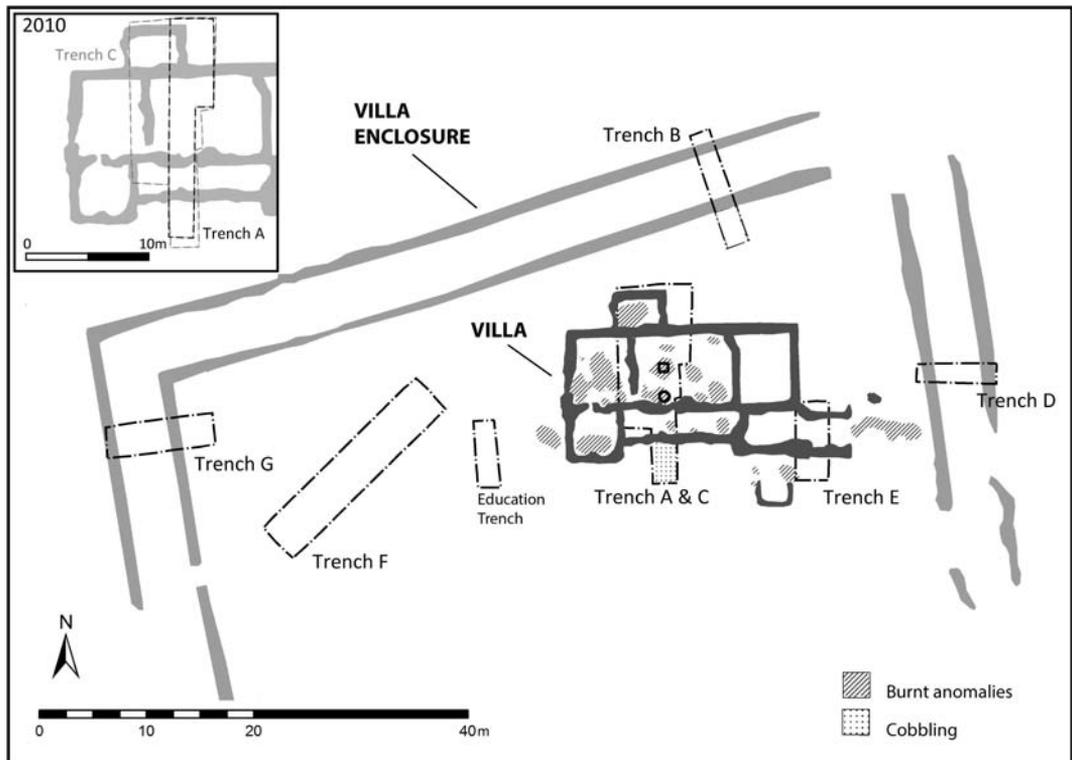


Fig. 4. Plan showing excavation trenches overlaid on the interpretative plan of the geophysical survey.

© Crown copyright: RCAHMW.

feasible elsewhere, excavation was undertaken to the natural gravel and clay subsoil. Two-thirds of the *domus*, and the greater portion of the double-ditched villa enclosure, remains unexcavated.

Machine-dug trenches removed the turf and upper topsoil over the villa and its associated structures. The uppermost archaeological layers of the *domus*, comprising rubble spreads from the collapse of the standing ruin, and dense deposits of slates from the collapse of the roof, were encountered only 0.2m below the surface of the field demonstrating the excellent preservation on a site which seems never to have been deep ploughed. Away from the structural remains of the *domus*, machine-dug trenches were taken slightly deeper (to 0.3–0.4m over the double-ditched enclosure) to enable colour differences between the subsoil and plough-truncated archaeological features to be readily identified.

The initial 2010 excavation<sup>16</sup> was strictly limited in its objectives, being simply to characterise and date the buried remains, and to establish the relationship between the building and the enclosure ditches. The L-shaped Trench A (17.9 × 3.7m max.), was dug across the central part of the building, and Trench B (11.1 × 1.9m) across the double ditches of the enclosure to its north, the latter being designed to recover datable material from the ditch immediately to the rear of the building. In the event this ditch section was obscured by a heavy overburden of hill-wash (up to 0.81m deep over a natural cobbled layer bordering the enclosure ditch in Trench B) and proved extremely difficult to identify in plan; the fill was also devoid of artefacts and virtually indistinguishable from the hill-wash.

The 2010 excavation confirmed the Romano-British date of the building though not of the enclosure ditches. A second season of excavation was undertaken in 2011<sup>17</sup> with a larger team of volunteers, in order to obtain further dating evidence and to clarify a relationship between the building and the enclosure ditches. Trench A was extended into the new Trench C (18.7 × 6.9m) allowing a larger part of the building (Rooms 2, 6 and part of Room 1) to be explored, whilst a further cutting (Trench E, 7.4 × 3.1m) examined a linear anomaly adjacent to Room 5, the eastern *ala*. Here, the geophysical survey had apparently shown a ditch or drain exiting the room to the east and draining into the inner enclosure ditch. Room 5 was then considered to be a heated room, plausibly part of a bath-suite, with the linear anomaly draining a plunge-bath. Trench E was thus designed to recover environmental samples from this feature. Trench D (7.4 × 1.8m) was dug through the double ditches of the enclosure to the east of the house.

Excavations resumed in 2015<sup>18</sup> in order to test the hypothesis of whether pre-villa structures of timber or stone stood in the apparently empty area between the *domus* and the enclosure ditches to the west. From excavations on Roman villas elsewhere a pre-villa phase of occupation in the form of an early timber *domus*, or timber barns and byres contemporary with the stone *domus*, might be expected. To this end a diagonal Trench F (20.1 × 4m) was excavated across the area to the west of the *domus*, with a view to revealing both post- or trench-built structures if such existed. This revealed an empty, uneven courtyard devoid of significant finds which had been occasionally resurfaced with dumps of gravel and clay. Trench G (10 × 3m) was dug to investigate the double-ditches of the villa enclosure in a location well removed from the settlement focus of the *domus*, and to allow for the recovery of further samples for radiocarbon dating uncontaminated by contemporary villa occupation.

The villa remains a well preserved archaeological repository containing a wealth of information on late Roman and potentially post-Roman occupation of a regionally novel building. That it preserves intact stratigraphy barely 0.2m below the modern ground surface makes its future preservation all the more imperative.

### Structural summary

In terms of national classification Abermagwr conforms to Allen and Smiths' (2016, 23–28) group of 'rectilinear enclosed farmsteads' recorded throughout the countryside of England and Wales but more unusual in mid and west Wales (ibid. fig. 2.8). Such villas have been more commonly termed 'winged

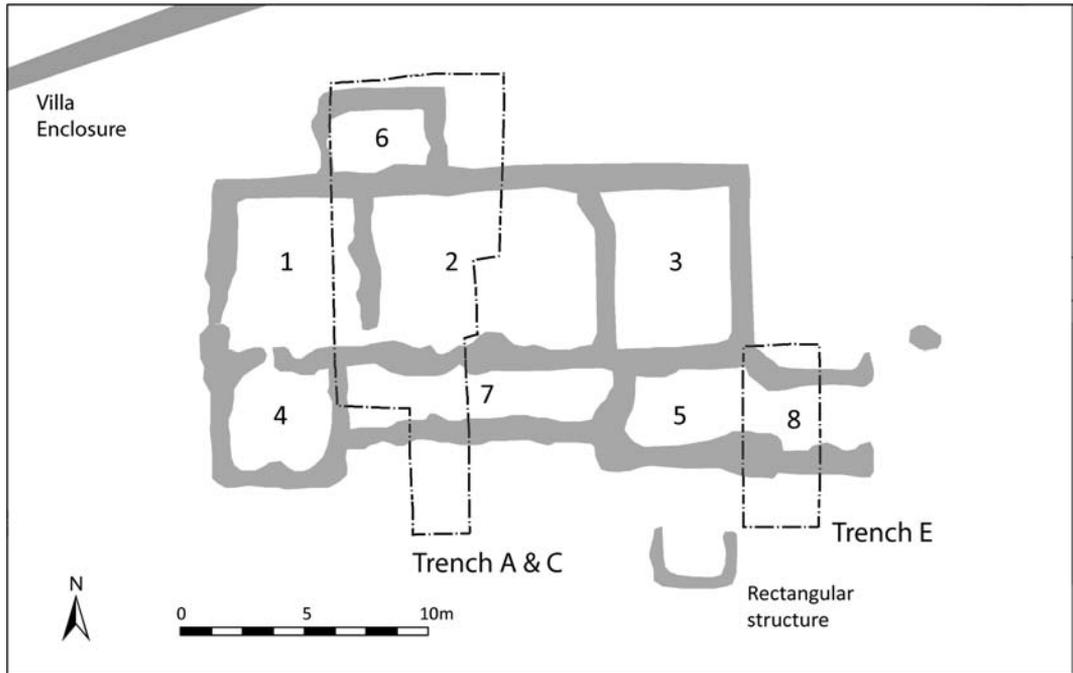


Fig. 5. Plan showing room numbers of the house or *domus* overlaid on the interpretative plan of the geophysical survey. © Crown copyright, RCAHMW.

corridor houses'. The form and plan of the stone house, together with the finds (see below), demonstrate that Abermagwr had all the trappings of established villas elsewhere, including a decorative roof of locally-sourced stone slates or tiles, probably with a ridge of *imbrices*, which may have been obtained from the abandoned fort and bath-house at Trawscoed. This was a distinctly Romanised building, architect-designed, and probably commissioned by a person of some status, probably of local origin.

It comprised a block of three main rooms (1–3) with a veranda (Room 7) and two projecting *alae* (Rooms 4 and 5) facing south (Fig. 5), the whole encompassing an area of 22.2m by 11.18m. A small room (Room 6) measuring 5m by 4m was probably an addition to the rear of the building, although there was no chronological difference in the finds between Room 6 and the wider house. Room 8 to the east of Room 5, the eastern *ala*, appears to have been left unfinished. Geophysical survey also shows a potential rectangular structure south of the eastern *ala*, Room 5, with potential burnt anomalies between it and the *ala*. It is difficult to characterise this rectangular feature, but it may represent footings of an earlier timber building or a temporary construction fronting the villa.

No evidence was found of any tessellation or mosaic flooring or painted wall plaster in any of the rooms explored, though the conditions for the survival of the last named in the acid soil were small. The excavations established that all the rooms examined were floored with clay or gravel, as was the veranda. The widening of Trench A into Trench C in 2011 allowed a far better opportunity to examine Rooms 2 and 6 (Fig. 6). The main features of Room 2 were the large off-centre hearth and a small circular clay-domed oven set against the south wall of the room (Figs 7–9). The rear Room 6 may have been better appointed judging by the finds noted below. Future investigations could usefully sample some of the



Fig. 6. High view of Trenches A and C under excavation in July 2011, viewed from the north with Room 6 is in the right foreground, the external angle between Rooms 6 and 2 is in the left foreground, and Room 2 is in the centre. Charring can be seen across the clay floor, particularly against the partition with Room 1 to the right. Beyond Room 2 the veranda (Room 7) crosses from left to right. At the top of the trench can be seen the cobbled courtyard or path. © Crown copyright, RCAHMW.

remaining rooms of the house for structure and function, whilst the greater portion of the villa enclosure, as well as the annexe to the south-west remains to be explored in respect of the ancillary buildings which might be expected at such a settlement.

### Earliest layers: wall footings and construction

The walls were built of local angular sandstone blocks on deep cobble foundations. It seems likely that both the well-cut sandstone walling blocks, and the brick and tile on site, may have been robbed from the ruins of the military bath-house at Trawscoed Roman fort to the south-west, whose original position has yet to be discovered (see below). The footings of the north villa wall (106) between Room 1 and Room 6, on the west side of Trench C, were sectioned in 2011 revealing a foundation trench some 0.6m deep and 0.84m wide, filled tightly with cobbles (up to 0.14m across) and boulders (up to 0.2–0.3m across) from the nearby river Magwr or the Ystwyth, bonded with clay. A body sherd of a Black-burnished cooking pot was excavated low down in the foundation fill. The footings for Room 6, up to 0.8m wide, abutted the rear of the *domus*, and comprised far larger, more angular, blocks (up to 0.3–0.4m across) than the mix of smaller, tightly-packed cobbles of the remaining walls, including that of the veranda.

The building had been comprehensively robbed of useable stone down to the level of the footings (see below), although the precise date of the robbing is unknown. Unfortunately these robber trenches irrevocably destroyed the relationships between the floor levels and the walls, and all room deposits closely bordering the wall lines must be considered potentially disturbed.

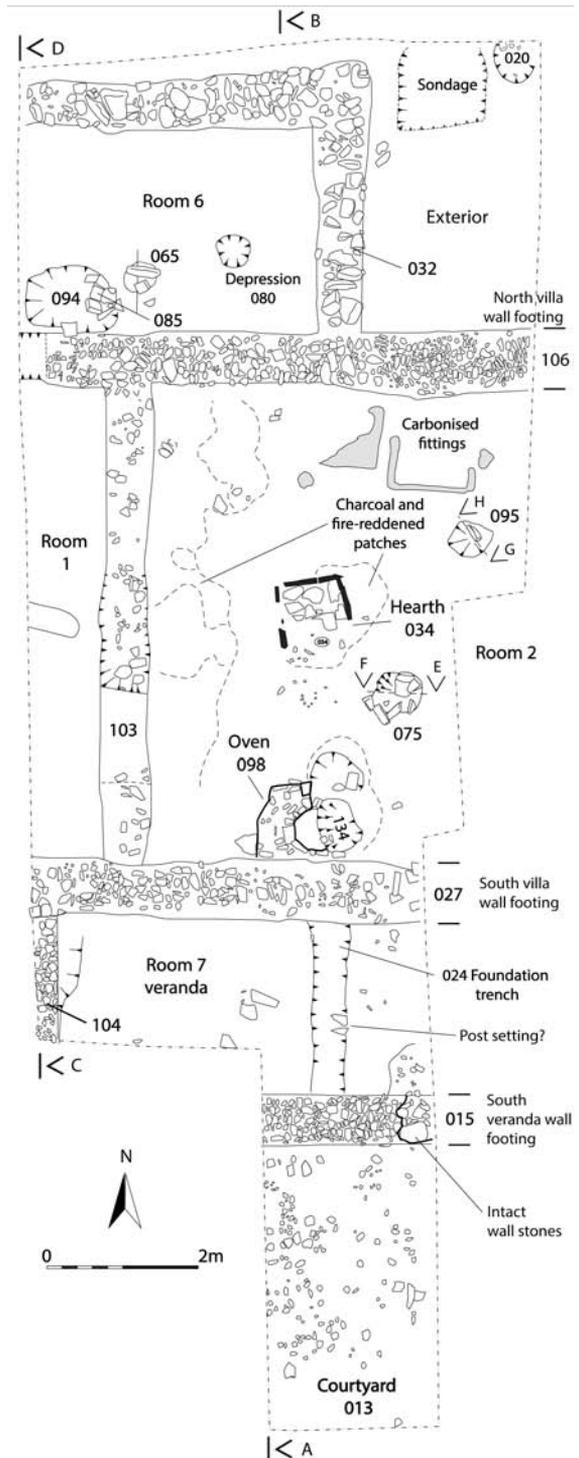


Fig. 7. Plan of Trenches A and C showing principal features to floor level. © Crown copyright, RCAHMW.

The question remains as to whether the house was of single or double-storey construction. It was previously considered that an upper storey, if such existed, may have been timber-framed and of wattle and daub construction.<sup>19</sup> However, the quantity of quarried stone recovered from the site in the 2011 season even after robbing (largely from the debris in Trench E), despite the depth of the footings, makes a full stone single-storey elevation more likely. The presence of an open hearth in Room 2 would have made ventilation extremely difficult in a two storey building, without the presence of a double height 'hall' arrangement up to roof level. The authors therefore conclude that a single-storey stone building is the most likely original form of the villa. The late first- to early second-century house at Lullingstone (Kent) is a useful comparator (Meates 1979).

## Room 2

Room 2 was initially explored with a narrow, L-shaped Trench A in 2010, widened into Trench C in 2011 allowing more of the western part of Room 2 and part of Room 1 to be examined. Room 2, as shown through excavation and geophysical survey, measures *c.* 10 × 8m (51.62 square metres) internally, of which just under a half was excavated down to the Roman floor levels and wall footings.

Features within Room 2 were set within and on top of a hard-packed floor of plastic yellow clay 021 (also recorded as context 023, the two being identical) which increased in depth from 0.08m at the north-east end near the footings for the north wall to at least 0.1m in the proximity of the hearth 034. A probable lower floor surface 100 was identified in the south-west corner of the room below hearth 036. The entire floor dips gradually towards the main hearth (from 0.3m below ground level by the south villa wall down to 0.5m below ground level at the hearth).<sup>20</sup>

It is assumed that context 021 was the original floor surface; no evidence survives for wooden planking or paving. The fire which destroyed this part of the villa and brought down the burning roof onto the floor (described below) appears to have burnt two rectangular wooden structures or fittings in the northern part of the room, whose positions were evident as carbonised marks left directly on the clay surface. That to the west was a solid charcoal mark, partly preserved with one right-angled south-east corner, measuring 0.75m east–west by 1m north–south. Alongside and to the east, charcoal marks defined three sides of a hollow rectangular structure measuring 1.1m externally on the south with an internal width of 0.8m; both were positioned in line with the north wall of the room suggesting either fitted wooden furniture in the style of a bench, or possibly two wooden boxes positioned against the rear wall.

The preservation of these carbonised features on the northern part of the clay floor is significant, as it confirms that the floor was unencumbered by planking or paving at the time the fire brought down the roof. This question had remained unresolved during the first season as a putative 'slate layer' 022, a discrete, concentrated deposit of broken slate, building stone and charcoal had been revealed above the floor in the north-eastern part of Trench A–C. This was associated with intense deposits of fire reddened clay, provisionally ascribed separate hearth contexts 067 and 068. While the level of the main clay floor here lay at 61.91m above Ordnance Datum (OD) two Roman coins were found on top of or within the disturbed slate layer 022 at the higher levels of 61.97m OD (coin 4, AD 312–13) and 62.05m OD (coin 6, AD 325–26). During excavations in 2011 it became clear that both the coins and the slates were part of a disturbed backfill at the edge of the robber trench which had cut through the stratigraphy of Room 2.

Set against the south wall 027 of the room were the remains of a small, circular clay-domed oven 098. Only the western half survived following disturbance associated with the digging of a later posthole 134 partly into its eastern half.

The oven measured 0.62m in diameter internally and was up to 0.2m deep at its centre. A 0.35m-long throat (of uncertain original width) protruded to the north. The oven was set within a block of packed clay

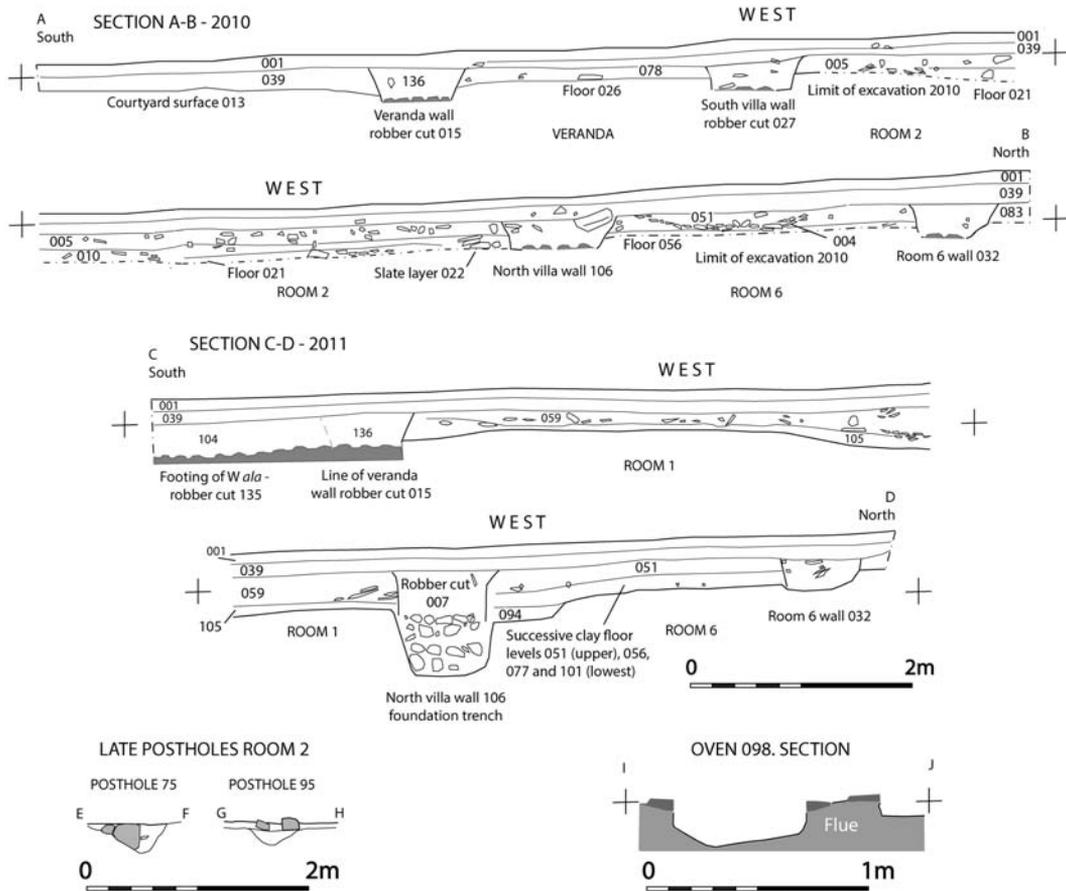


Fig. 8. Section drawings of Trenches A and C. © Crown copyright: RCAHMW.

and stone 0.5m wide and protruding 1.07m into the room from a robber trench cutting of the south wall of the *domus*; this block was 0.15m deep where sectioned at the throat of the oven.

The oven was originally identified at an upper level where a more obvious feature was packing of a later square posthole 134 measuring 0.23m across internally and 0.6m across overall (Driver and Davies 2011, fig. 6). The post had stood against the south wall of Room 2. The cutting of this posthole necessitated the digging out of much of the eastern half of the oven, and required the levelling of the standing oven structure on the west side, showing that it had become redundant. Whether the post-setting was related to the three or four other ‘late’ postholes dug across the villa plan (see below) is not clear.

Some 1.7m north of the oven was the off-centre slab-lined principal hearth of the room measuring 1.1 × 0.95m, floored with flat slates up to 0.3m across, and defined by thin slabs (between 0.06–0.08m wide) set on edge. The surface was composed of fire reddened and compacted clay.

Two informal, non-structural, hearths were excavated in 2010. One 036 close to the south wall of the room comprised fire-reddened clay deposits up to 0.76m wide, with another deposit (0.56m wide) close to the south wall alongside the oven 098, only subsequently recognised and fully explored in 2011. A further hearth 035, an oval spread of charcoal-rich material 0.8 × 0.74m, lay close to the footings of the

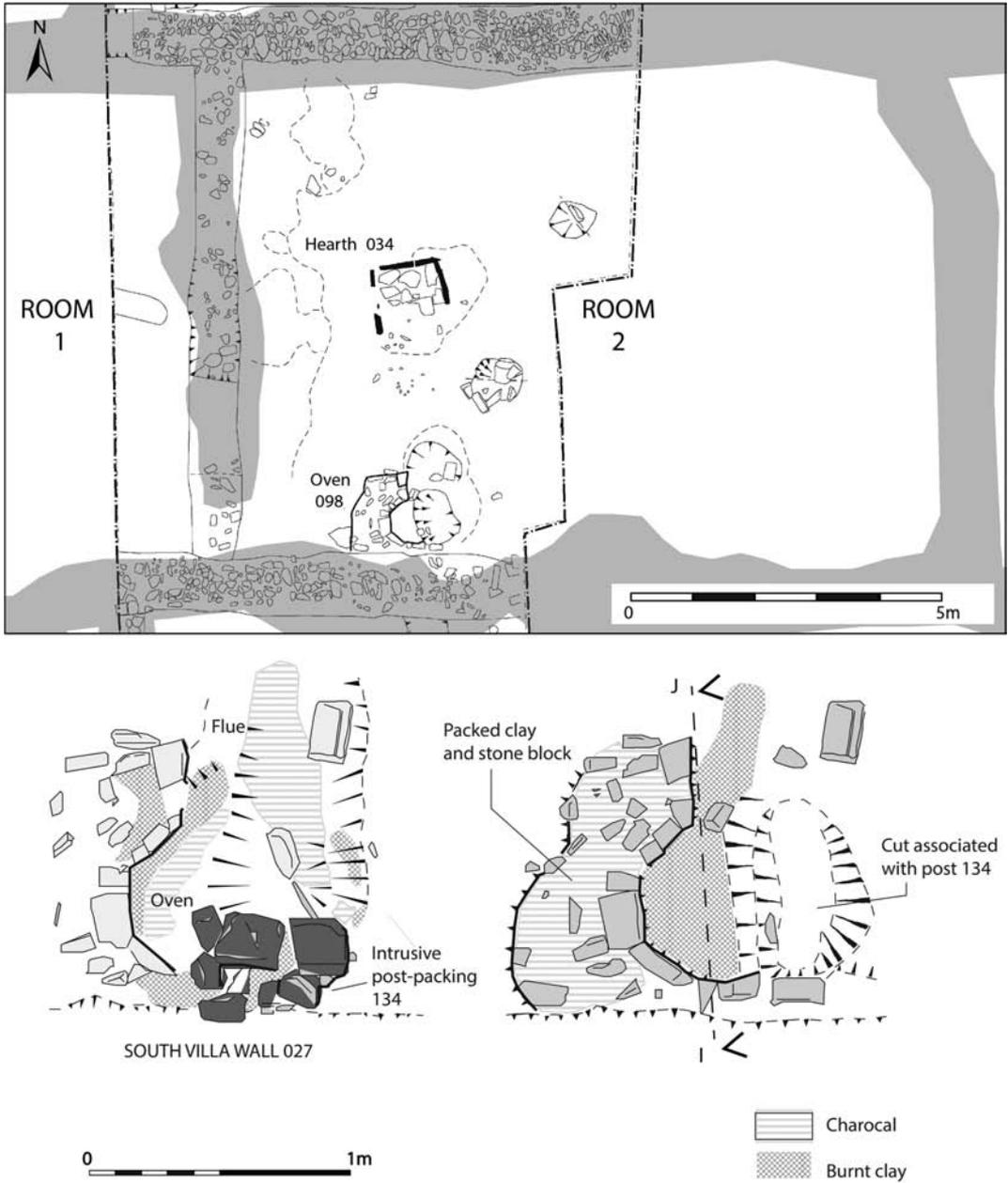


Fig. 9. **Top** Plan of excavated features in Room 2. **Bottom left** Plan of oven 098 showing later post packing prior to removal. **Bottom right** Plan of oven 098 following removal of post packing. © Crown copyright, RCAHMW.

north wall. The interpretation of these hearths is problematic. The northern one 035 was characterised by a mass of burnt material above the scorched clay floor of Room 2 and contained no artefacts. It could be interpreted as an informal hearth founded directly on the floor at a late stage of the villa's life. The southern hearth 036 yielded three lumps of lead (nos 1–3) as well as most of a Black-burnished jar (Fig. 17, no. 4) which had been dropped into the hearth and intensely burnt following breakage. The discovery of the oven 098 in 2011 initially led to the interpretation of hearth 036 as the raking from the oven's throat, with the dropped pot representing a 'lost meal'. However, post-excavation work clearly demonstrates that the hearth lay partly on top of the western side of the clay and stone block associated with the oven. This shows that the oven had ceased to function at the time the informal hearth was in use, perhaps indicating the hearth was a late, if not final, feature in the life of Room 2. The breakage of the Black-burnished jar into the hearth must represent one of the last acts in Room 2 (or indeed of the occupied villa) prior to destruction in a catastrophic fire. Taken together with the three lumps of burnt lead suggesting light industrial activity or construction/repair debris, this open hearth suggests a more informal final function for Room 2.

### Room 6

Room 6 was appended to the rear of the *domus*, straddling the internal division 103 between Rooms 1 and 2. This was the only room whose interior was completely excavated, although the westernmost wall



Fig. 10. Room 1 (left) and Room 2 (centre) during course of excavation, showing removal of debris layer 010 (centre), south villa wall 027 in the foreground, and oven 098 still obscured by late posthole 134 in the right foreground. Viewed from the south, July 2011. © Crown copyright, RCAHMW.

footings remained obscured by the trench edge. The eastern portion of the room was explored in 2010 and in 2011 this was expanded into Trench C, to address the entire room. Room 6 measured 4m by 2.8m internally, with the footings varying in width from 0.6–0.8m.

Despite clear differences in the construction of the footings between the main house and this ‘extension’, with the smaller close-packed cobbles of the north wall footings 106 contrasting with the larger cobbles and angular stones used in the footings of Room 6 033, there was no obvious chronological difference in finds. Regarding dating for the occupation, four coins were recovered from Room 6; coin no. 1 (AD 222–235) and no. 3 (illegible third-century), both found in the upper floor surface 056 of Room 6. Coin 2 (AD 224) came from the fill 093 of the intrusive pit 094 in the south-west corner of the room, while coin 5 (AD 313–314) came from context 004, a layer of burnt and collapsed slates.

The lowest floor level lay 0.5m below the modern ground surface, with around 0.28m of stratigraphy surviving between it and the base of the modern ploughsoil. The highest-level feature encountered in Room 6, just below the topsoil, was an east–west linear stone feature 047 described below, interpreted either as a degraded post-Roman wall or fence footing within the ruins or a ridge of rubble preserved between the voids of later robber trenches. This feature overlay context 051, a dense deposit of slate and rubble from the collapse of the villa, and this in turn partly overlay layer 004, a firm deposit comprising large slates, stones and charcoal within dark brown clay across the eastern side of the room, excavated in 2010. Burnt layer 004 was sectioned by Trench A in 2010 and yielded coin of AD 313–14 (coin no. 5) and



Fig. 11. Room 6, showing upper level rubble spread 051 at an early stage of excavation, with part of slate layer 004 exposed upper centre, July 2011. View from the north-west. Scale 0.5m. © Crown copyright, RCAHMW.

a fragment of prismatic glass bottle or jar (glass no. 5); excavations of the hearth 064 (described below) in 2011 suggested the burning observed in 004 could have been associated with it. Otherwise, across the western part of the room, context 051 directly overlay a compacted upper clay floor surface 056 within inclusions of stone and frequent charcoal inclusions. Beneath this floor surface, a lower compacted floor surface 077 was identified. Once removed this revealed a compacted yellow-clay surface 101, the lowest floor, which could in fact be natural.

The principal features of Room 6 were an irregular non-structural hearth 064 in the north-east part of the room which lay below floor surface 056, a shallow earth-filled depression 080, 0.46m in diameter, just to its south, and an area of digging and disturbance 094 incorporating postholes 085 and 065 in the south-west corner.

The irregular non-structural hearth 064 measured 1.4m by 0.9m and lay stratigraphically below floor surface 056 and above floor surface 077. The central part of the hearth was of burnt clay surrounded on the north, east and south sides by a dense spread of burnt material. These deposits were interpreted during excavation as likely to be part of the burnt layer 004 sectioned in 2010.

The hearth produced high levels of lead when sampled with a portable X-ray fluorescence scanner (see report by Keith Haylock below), perhaps suggesting smelting or processing of lead in the vicinity; two lead objects were discovered in the south-west part of the room from the fill 093 of pit 094 (see below). It is worth noting that informal hearth 036 in Room 2 also yielded three lumps of lead.

The south-west corner of the room was highly disturbed by the digging of two postholes and an irregular pit, all apparently dating to a post-Roman phase in the villa's history. Posthole 065, which appears to be earliest in the sequence, measured  $0.5 \times 0.4\text{m}$  and 0.22m deep and was packed with one large transverse

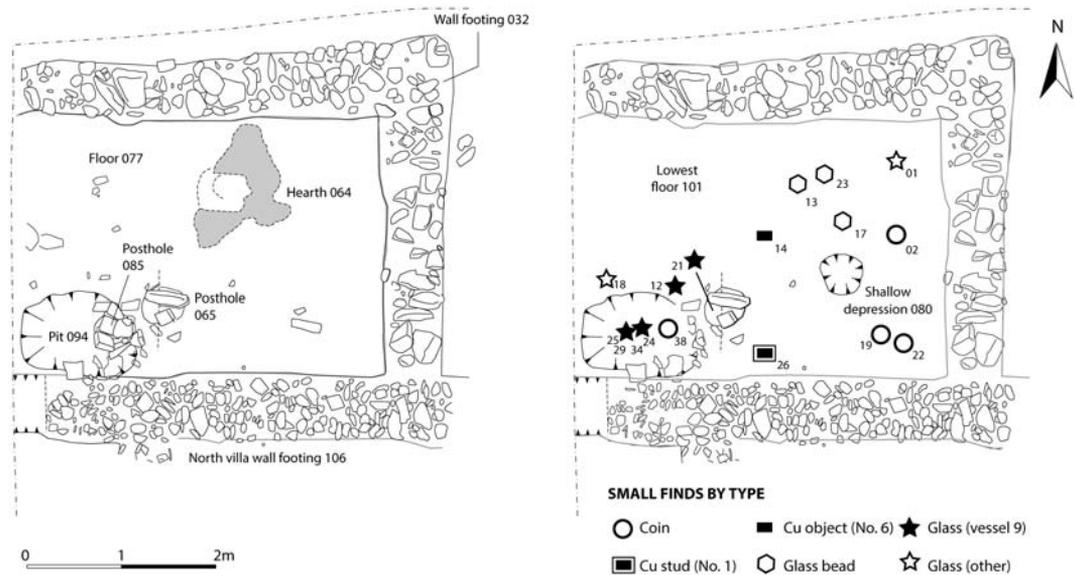


Fig. 12. Room 6 as excavated. **Left** Upper features. **Right** Lower features (after excavation). Positions of small finds are shown schematically with individual small find numbers. Note the disturbance in the south-west corner of room caused by intrusive postholes and pit, and in particular the mixing of fragments of glass vessel no. 9 between three contexts (056, 065 and 094). © Crown copyright: RCAHMW.

stone some 0.48m long and smaller stones. This post may be contemporary with the two others dug into Room 2 at a later date as it is of an equivalent size (see below). At an early stage in the excavation both postholes 065 and 085 had been identified in plan within a wider area of ill-defined disturbance measuring  $1.2 \times 0.85\text{m}$ . As excavation proceeded the full extent of pit 094 to the south-west of posthole 085 was revealed, extending to  $1.2 \times 0.9\text{m}$ . Pit 094 was in turn cut by the digging of posthole 085, indicated by a close mass of packing stones. Finds from the two postholes and the pit suggest they post-date the use of the room. Finds from posthole 065 and pit 094 (see below) were almost certainly residual and derived from earlier occupation debris in the room.

Room 6 produced a number of high status finds suggesting a special role for this small room. These included parts of the cut glass beaker (Fig. 19, no. 9), parts of several other glass vessels (nos 1, 5–8) found scattered in a number of the contexts described, namely from floor surface 56 and the later posthole 066 and later pit 094. The room also produced three glass beads, one (Fig. 19, no. 12) from floor surface 56, one (Fig. 19, no. 13) from lower floor surface 077 below hearth 062, and one (no. 14) from the deposit of slate and rubble 051 above floor surface 056. Metalwork finds included a fragmentary folded bronze sheet or strap end (bronze no. 4) from upper floor surface 056, a bronze bell-shaped stud (Fig. 18, no. 1), possibly a furniture fitting, from lower floor surface 077, and a conical-headed iron object (iron no. 9) found in lower floor surface 077. A number of lead fragments (lead nos 4, 6) were similarly found in the fill of pit 093 and floor surface 056.

### **The exterior of the *domus*, between Rooms 2 and 6**

Trench A was designed to examine what would have been the exterior of the *domus*, between Rooms 2 and 6, in the hope of recovering midden deposits at the rear of the building. Although no midden material was found, a large pile of former roof slates 037 was uncovered some 1.2m north of the rear wall, thought to have been a sorting stack from when the villa was ruinous and being robbed.<sup>21</sup> The core of the slate pile measured approximately  $1.15 \times 1\text{m}$  with loose slates scattered around, set within later washes of clay and silt. A number of the slates were complete, or nearly so, and many still had intact nails through them showing they had formerly been used on the roof. As noted below, the discovery of a complete roof slate laid flat in the partly infilled outer ditch 119 on the west side of the villa enclosure is further evidence of good slates having been selected and removed from the site during a robbing phase.

At the very north-east corner of Trench A, a further feature was excavated, pit 020, the fill of which (019) contained sherds of a very abraded thick-walled vessel in pink fabric. A roughly square sondage was excavated just to the west of pit 020 to test the character of the clay exposed in this external angle, and to check whether it was natural or redeposited. In the event no further horizons or finds were encountered in the sondage.

### **Room 8**

Trench E was dug immediately next the robbed east wall of Room 5 the eastern *ala*. Here the geophysical survey showed a linear anomaly, analogous in width to the enclosure ditches, apparently issuing from the *ala*, running east and discharging into the inner enclosure ditch. As a possible drain from the house it appeared to offer the opportunity to recover environmental data. In the event this expectation was not realised: instead the 'drain' proved to be a cut feature measuring approximately 3m from north to south which is interpreted as the substructure of what had been intended as a heated room apparently added to the eastern *ala*, a project it will be argued that may never have been brought to completion.

The initial exercise by the builders involved the digging of a pit measuring some 3m wide from north to south into the gravelly clay subsoil. Its southern margin was defined by a nearly vertical cut some 0.50m deep; the cut on the north being defined by a somewhat irregular sloping profile to a depth of about 0.45m.

The pit's western limit was the eastern wall of the *ala* as represented by its robber trench (099) with a basal fill of brown soil and stone (097). It was not possible to determine the eastern margin by virtue of lack of time though the 'ghost' image of a room on the geophysical survey suggests that it may have been of the order of 3.50–4m distant from the eastern wall of the *ala*. The remains of a wall some 0.45m wide, comprising a single basal course of four sandstone blocks 108, was built against the southern margin of the pit. The stones were set in a compact yellow clay 107 which spread a little to its north, a deposit which intriguingly produced a fragment of a South Gaulish form 15/17 of c. AD 70–90. This wall did not quite abut the robber trench of the *ala*. No traces of walling survived on the northern side of the pit: indeed the stratigraphy in this area, notably a charcoal-rich deposit 110, which ran up to the sloping cut defining the pit on the north suggests that no walling had ever existed on this side.

That the pit was designed to accommodate the sub-structural elements of a room is clear. A putative cellar may be ruled out by virtue of its lack of depth; a hypocausted room seems more probable. Whether the scheme was brought to completion remains doubtful. Apart from the remnants of walling 108 the remains of a possible support (*pila*) for a suspended floor comprising a sandstone block set in a plastic yellow clay 109 was noted some 1.10m from the northern margin of the pit, whilst a basal charcoal-rich deposit with patches of burnt clay 110 could be construed as the detritus from firing. On the other hand this layer, which produced large fragments of brick and box-tile, a fragment of blue glass as well as potsherds from at least four vessels, including a bowl in Oxfordshire colour coated ware, was noticeably patchy and ran up to the margin of the margin of the pit on the north indicating that no walling had existed at this point. This layer is thus best regarded as the first of a series of dumped deposits which levelled up a sunken area, part of what appears to have been an unfinished project. The lack of evidence for intense burning of the clayey gravel subsoil coupled with the total absence of material which would have comprised a suspended floor, namely *opus signinum*, gives further weight to the view that the scheme to provide what may have been at least a heated room or rooms, possibly a bath-suite, to the eastern wing of the villa was never completed.

The pit had then been filled with a complex series of dumped material. This included hard yellow clay deposits 057 and 069, the former incorporating fragments of brick and box-tile whilst deposit 070 included blocks of sandstone as well as roofing slate. Of particular significance were two deposits of charcoal-rich soil which appear to emanate from the dumping of household rubbish: the lower deposit 082 produced potsherds including a third-fourth-century cooking pot (Fig. 17, no. 19) included a substantial quantity of brick and tile fragments totalling 3.4kg; the upper deposit 050 also produced brick and tile fragments but a much greater quantity of pottery, a minimum of ten vessels being represented including Oxfordshire fine wares, a Severn Valley vessel as well as a third- to fourth-century flanged bowl (Fig. 17, no. 17) and a dish in Black-burnished fabric (Fig. 17, no. 18). The uppermost deposits included a dark soil 044 incorporating fragments of brick and tile, a dump of building stone 045 at the northern end of the trench which incorporated potsherds of the later third- to fourth-century date (Fig. 17, no. 16), and finally, a dump of quarried sandstone blocks 070 incorporating some slate fragments towards the north-eastern part of the cutting.

It is notable that the limited portion of Trench E that was excavated produced by far the largest quantity of brick and tile fragments from the site; a total of 17.7kg as opposed to 3.8kg from the remainder. Although the brick and tile fragments from Trench E were largely small there was a clear preponderance of fragments of *bessales* or *pedales* though layers 110, 082, 057, 050 and 041, the last named being lower topsoil, produced fragments of box-tile, whilst 041, 050 and 082 produced fragments of *imbrices*. If, as has been argued above, the scheme for adding a heated room or rooms to the eastern wing of the *domus* was never brought to completion then what was the purpose of the brick and tile found in Trench E and from where did it emanate? Had it been collected, if not manufactured on site, for the express purpose of

building? That surely can only have been the sole purpose of the box-tile, whereas *bessales* or *pedales* could have been useful in a number of ways, whilst the *imbrices* capped the ridge of the stone-tiled roof. The discontinuation of the heated room project could then have resulted in the discarding of brick and tile which was either too fragmentary or unsuitable for use elsewhere. There, however, remains the possibility that Rooms 3 and 5 may have been heated and that the fragments discarded in Trench E may be the detritus from such building activity.

### **Room 7: the veranda**

The veranda measured  $10.6 \times 2\text{m}$ , giving access to the neatly cobbled yard or surfaced path 013 beyond, only encountered 0.26m below the modern ground surface. The veranda was defined on the north side by the south wall 027 of the *domus*, and to the south by footings 015 for a narrow wall, conceivably for a light structure such as a stylobate. On the east side of these footing, towards the edge of Trench C, there remained the only *in situ* block of walling stone to survive the ravages of the stone robbers.

The floor comprised a loose clay soil 011, including layer 078, with patches of burnt clay and occasional larger horizontal stones, initially considered to represent vestiges of paving, which produced a fragment of a strap end (copper alloy no. 4.). The extension of Trench C in 2011 revealed the western extent of the veranda and also the edge of the wall footings of the western *ala* 104, Room 4.

The veranda was crossed by a north-south foundation trench 024, 2.34m long, truncated to the north and south by robber trenches. It measured between 0.4–0.44m wide, but widened to 0.5m to the north. Midway along this trench on the east side, a probable post setting was indicated by two packing stones 0.28m across. Although the trench was aligned with the posthole 134 cut into the oven in Room 2, the alignment is no doubt coincidental as the substantial south wall 027 stood between the two features. A plausible interpretation of the trench is a light footing for a screen or dividing wall across the veranda.

### **Evidence for destruction of the house by fire**

The impact of the catastrophic fire which is assumed to have brought an end to the occupation of the villa was most vividly seen during the excavation of Room 2, described above. A dense mass of roofing material, interspersed with charcoal deposits, covered the central part of the room. Lumps of burnt material and fire-reddened slates lay compressed upon the clay floor (seen under excavation in Fig. 10), which had been intensely scorched or blackened in places as a result of this process. This confirmed that the roof had collapsed, whilst burning, onto the floor of the room.

High resolution geophysical survey over the *domus* showed a number of darker anomalies which were revealed, upon excavation, to represent areas of intensely burnt or heated material including hearths (Fig. 3). The darker anomalies in the excavated portions of Room 2 accorded with the positions of the off-centre hearth, the oven, and the two informal hearths discovered there. The distinct anomaly against the north wall in Room 2, initially recorded as a hearth, was found to be a patch of burnt material most likely deposited during the collapse of the burning roof onto the clay floor. This shows that darker anomalies elsewhere on the geophysical survey, including extensive irregular anomalies in Room 1 and those within the west *ala*, probably indicate areas of intense burning from the collapse of the roof during the fire. With this in mind it is interesting to note that there are few distinct burnt anomalies in the eastern half of the house, particularly in Room 3 and the eastern *ala* (Room 5), suggesting that a third of the building may have been spared from the destructive effects of the fire which effected the central and western parts.

There is good evidence for a sudden end to life in the villa, seen most vividly in the discovery of sherds of a virtually complete Black-burnished jar (Fig. 17, no. 4) from the informal hearth 036 in Room 2 (described above). This jar had been dropped into the hearth, and then was intensely burnt as seen by

charring along the lines of breakage. The simple fact that the sherds were never cleared or recovered after it was dropped suggests that Room 2 was abandoned in a hurry. Fragments of the decorated glass bowl or cup (Fig. 19, no. 9) from Room 6 also appear to indicate a sudden end to occupation in the building since fragments of such a rare and special glass vessel would normally have been collected and recycled upon breakage.

### **Evidence for post-fire reoccupation of the villa ruins**

A potential late phase in the use of the villa is demonstrated by a series of substantial postholes dug into Rooms 2 and 6, clearly at odds to the Roman plan (Fig. 13). These comprise three in Room 2, and one or possibly two in Room 6, potential evidence of the erection of a shelter or structure during the re-occupation of the ruin. Further evidence is suggested by the discovery of hearth 062 constructed of former roof slates in Room 1 (see below). This fragile evidence of a late Roman, or post-Roman, history of the villa is part of what makes the Abermagwr site so special.

As well as the late posthole 134 which was dug through the oven 098, two discrete postholes were dug through the floor of Room 2 at odds to the contemporary fixtures and fittings. Both were sectioned but neither produced any finds. To the north-east of the main hearth 034 was posthole 095 measuring  $0.6 \times 0.5\text{m}$  and  $0.2\text{m}$  deep with one large packing slab, centrally placed. The second posthole 075 lay east of a line between the hearth 034 and the oven. It measured  $0.6 \times 0.52\text{m}$  and was  $0.24\text{m}$  deep, with multiple packing stones. Both postholes share similar dimensions, suggesting they were contemporary and probably held similar sized posts. Two later postholes were dug into the southern side of Room 6; posthole 065 measured  $0.5\text{m}$  diameter and was  $0.22\text{m}$  deep, with two large packing stones, while packing stones of posthole 085,  $0.6\text{m}$  across, immediately to its west were dug into the later pit 094. None were observed at a higher level in the upper rubble layers, making it impossible to be certain whether they pre- or post-date the collapse of the slate roof. It is therefore difficult to discern their function. The posts may have stood within the working villa at a late stage in its life to prop up a weak or sagging roof, or they may date to a post-Roman reoccupation of the partly collapsed ruin.

### **Room 1: late hearth 062**

During excavation of the lower layers of rubble and collapse across the eastern part of Room 1, a distinct circular deposit of roof slates was noted. The northernmost slates of the deposit lay only  $0.26\text{m}$  below the ground surface, but  $0.17\text{m}$  above the latest Roman floor surface of Room 1. This indicates the slates were laid down within the rubble-filled ruins of the *domus*.

The slates were burnt and laid flat, diagonally set in a broadly circular pattern measuring  $0.88\text{m}$  across, suggesting their use as a hearth. Several were complete (measuring up to  $0.4 \times 0.2\text{m}$ ) or nearly so, and several retained either nail holes or intact *in situ* nails showing they had previously formed part of the villa roof. The hearth was set into the north-east corner of Room 1, hard against the north wall against which some of the slates had apparently been leant. However, a bladed tool — probably a spade — used by later stone robbers to extract wall stone from the north villa wall had clearly cut through the slates on the north side  $0.1\text{m}$  away from the footing, destroying evidence of a relationship with the wall.

The slates dipped in towards the centre where there was a small deposit of charcoal-rich soil. A small sample of oak charcoal was obtained from this deposit. Whilst generally an unsuitable wood for precise radiocarbon dating, the potential for a probable post-Roman date justified proceeding with the dating process. Ultimately, the dates were not instructive. The charcoal produced a calibrated radiocarbon dates of cal. AD 89–245 (95.4% probability) or cal. AD 123–245 (93.1% probability) (SUERC-46234) which if anything may indicate that the building of the post-destruction hearth had reused available old building timbers for fuel.

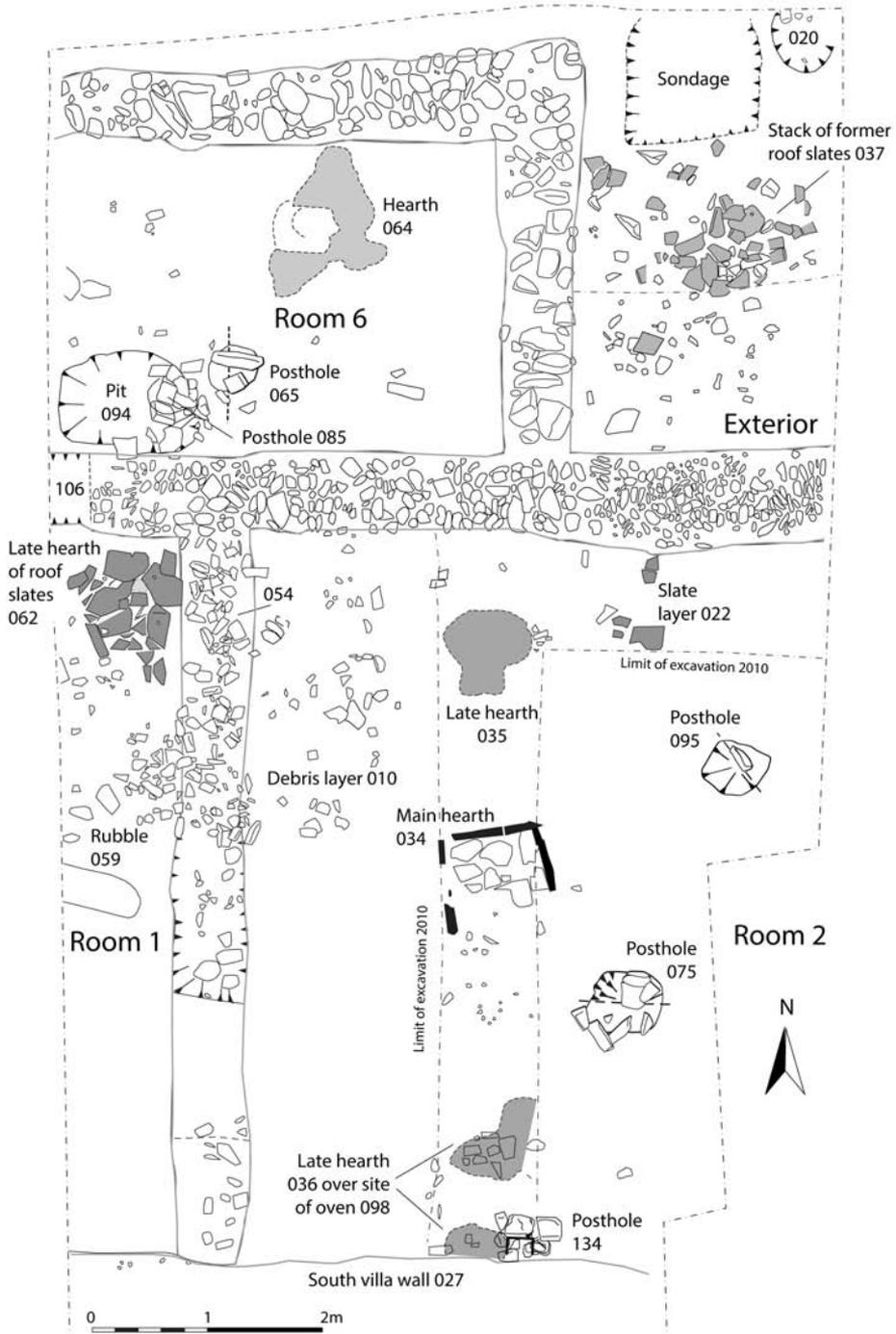


Fig. 13. Plan of late features in the central and northern part of the villa including late hearths and external slate stack. © Crown copyright, RCAHMW

### **Collapse layers, stone robbing and later history: Trenches A and C**

Excavation of Trenches A and C across the central part of the *domus* at first proceeded through a general upper mass of collapsed rubble, building stone and roof slates 010. In the eastern half of Trench C above Room 2, excavations revealed a tumbled deposit of stone 046 at a high level. These toppled stones overlay a brown soil layer 049 which in turn overlay the lower rubble layer 010, suggesting the collapse of the tops of walls from a standing ruin into a partly infilled and overgrown interior, at a late stage in the building's history. In addition, a linear stone feature 047 was encountered just below the topsoil at a high level crossing the centre of Room 6. This spread of rubble measured 2.2 long by 0.5m wide and was aligned north–south. While this may be considered tentative evidence for a post-Roman partition or fence within the ruins of Room 6, it could also have a more mundane interpretation as an untouched line of building rubble left between robber trenches to the north and south walls of Room 6; the feature produced no finds.

Where the geophysical survey had been thought to show Roman wall lines, voids within the upper level rubble spreads, infilled with soil, were associated with upcast of rubble debris to each side of the wall lines. These confirmed that the villa had been dug into by stone robbers who had excavated all quarried stones from the wall lines. Only a single block of wall stone remained *in situ*, resting on the footings of the south veranda wall 015, barely 0.2m below the topsoil. A stone spindle whorl and a curvilinear fragment of copper alloy scrap from the robber trench along the north wall of the *domus* were probably residual from earlier contexts. The potential date of this activity is outlined in the discussion below.

## THE VILLA ENCLOSURE

The villa enclosure sits to the north of the Nant Magwr, in the lee of a post-glacial river terrace which shows that this modest watercourse once cut a much wider course along the valley floor. The geophysical survey suggests at least one major pre-Roman flood event cut a wide river terrace in the area later occupied by the villa (Fig. 3). Subsequently in post-Roman times a sizeable part of the south-eastern and southern sides of the double-ditched enclosure was washed away, apparently in a significant flood event.<sup>22</sup>

The geophysical survey shows that the double-ditched villa enclosure measured 110m by 80m across, assuming it was once complete at its south-east angle. The form and character of the enclosure ditches, which vary in depth between 0.44m and 0.62m, is non-defensive. An approximately square annexe, measuring 37m by 40m across, is attached to the south-west corner. The enclosure has an internal area of 0.82 hectares, or 0.97 hectares including the south-west annexe. There seems to have been no formal entrance through the west side of the double-ditched enclosure from the annexe and access may instead have been from the south, where detail has now been lost. Throughout the enclosure the geophysical survey showed a range of potential archaeological features, in the form of pits, short lengths of ditch and even a circular 'ring ditch' feature, intermixed with anomalies more clearly representing natural fissures or voids in the subsurface geology. It is difficult to identify any obviously structural features in the wider enclosure from the geophysics alone and in this respect it may be instructive that Trench F, opened across the courtyard west of the villa, failed to find any substantive structural remains. The markedly elongated form of the enclosure, echoing that bounding the villa at Gorehambury (Herts.) (Neal *et al.* 1990), suggests that any timber buildings or structures which may have existed would have been disposed in linear fashion on either side of a metalled or open space along the long axis of the enclosure.

### **Trench B: the enclosure ditches north of the villa**

The enclosure was sampled in three places over the three seasons, in order to obtain dating material with a view to assessing its relationship to the *domus*. In 2010 the machined trench Trench B was dug

to the rear of the *domus*. In the event, only the southern half was fully excavated and bottomed as it proved extremely difficult to identify the course of the inner ditch 030 in plan, even at lower subsoil level. Excavation through the lower topsoil and subsoil 006 revealed a light brownish fine-clay wash of material which could be barely differentiated from the lower context or indeed the fill of the south (inner) ditch 031. The inner ditch 030 was only located when the western half of the machined trench was taken down more deeply in a series of spits to 0.76–0.8m below ground level. Only through over-excavation was it eventually possible to identify the cut of the inner ditch in section. This measured approximately 1.2m wide and 0.4m deep, buried some 1.2m below the ground surface. The depth of the overburden, and lack of finds, made it impractical to pursue the northern (outer) ditch.

An apparent cobbled ‘surface’ (029) was encountered bordering the inner ditch which was initially thought to be an extension of the cobbled courtyard or path seen at the front of the villa. However, excavations in 2015 in Trench G revealed a similar spread of naturally-deposited cobbles, part of the varied clay and gravel deposits along the river valley. In addition no cobbled surface was exposed immediately to the rear of the villa adjacent to Room 6 in Trench C. The ‘surface’ 029 is therefore most likely to be a natural deposit.

The excavators concluded that a deep deposit of hill-wash was rapidly deposited to the rear of the villa, possibly following heavy rain or a flood event similar to that which eventually cut away the south-eastern part of the villa enclosure (see above). This appears to have rapidly infilled the inner ditch 030, allowing no time for more gradual infill, and perhaps even before any contemporary Roman rubbish was deposited.

#### **Trench D: the enclosure ditches east of the *domus***

As the enclosure remained undated, in 2011 Trench D was excavated to investigate both ditches immediately east of the *domus* (Fig. 14). Excavation quickly located the darker upper fill (042) of the inner west ditch 090 and the location of the outer ditch 091, separated by a gap of 3.86m where it is presumed a modest bank may once have stood. The inner ditch (090) measured 1.7m wide and 0.46m deep. Its lower fills, 072 and 073, produced a number of finds consistent with having been used for waste disposal in Roman times. The tip line of 072 suggests the erosion of a median bank into the ditch, subsequently overlain by upper fills 048 and 042. The charcoal-rich basal fill 073 produced two fragments of a square glass bottle or jar (glass no. 4), described as having been almost new when broken. Sampling of context 073 yielded hazel charcoal which produced radiocarbon date SUERC-46233 (see below). The outer (eastern) ditch 091 measured approximately 1.7m wide and 0.56m deep, with two fills, 065 and 043. Its eastern portion was left unexcavated.

#### **Trench G: the enclosure ditches west of the *domus***

With the shift in emphasis of the 2015 season towards the ‘empty’ yard area to the west of the *domus*, it was also decided to section the enclosure ditches on the western side (Fig. 15). The trench was designed to obtain material for radiocarbon dating, uncontaminated by contemporary domestic rubbish from the villa of the type found in Trench D.

The geology of the natural subsoil in Trench G was quite different to that encountered in nearby Trench F and was initially difficult to interpret. The hard-packed surface of water-worn cobbles and fine gravel appeared to represent a cobbled yard surface similar to that fronting the *domus* and exposed at the margin of the enclosure ditch in Trench B. However, it became clear that both the inner 118 and outer 126 ditches were cut through this compact layer. The ‘surface’ was also uneven and erratic suggesting natural formation processes. This clear difference in subsoil at the north-west angle of the double-ditched enclosure was evident, with hindsight, on the geophysical survey. Even so, the presence of such a hard natural surface may have proved useful in providing a firm surface at the margins of the ditches whilst in use.

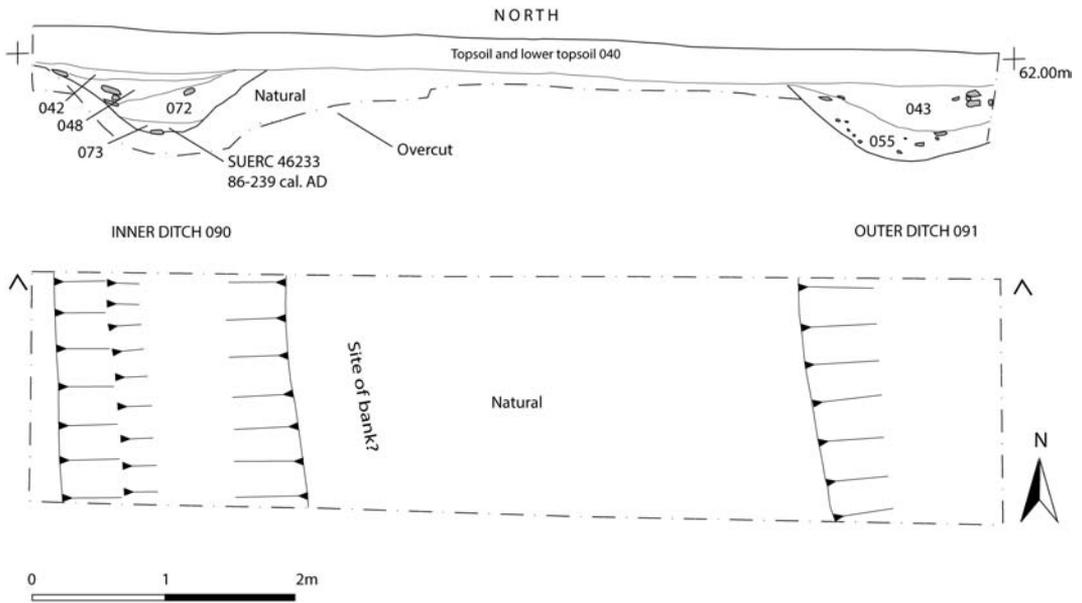


Fig. 14. Trench D. Plan and section of outer enclosure ditches on the east side of the villa.  
 © Crown copyright: RCAHMW.

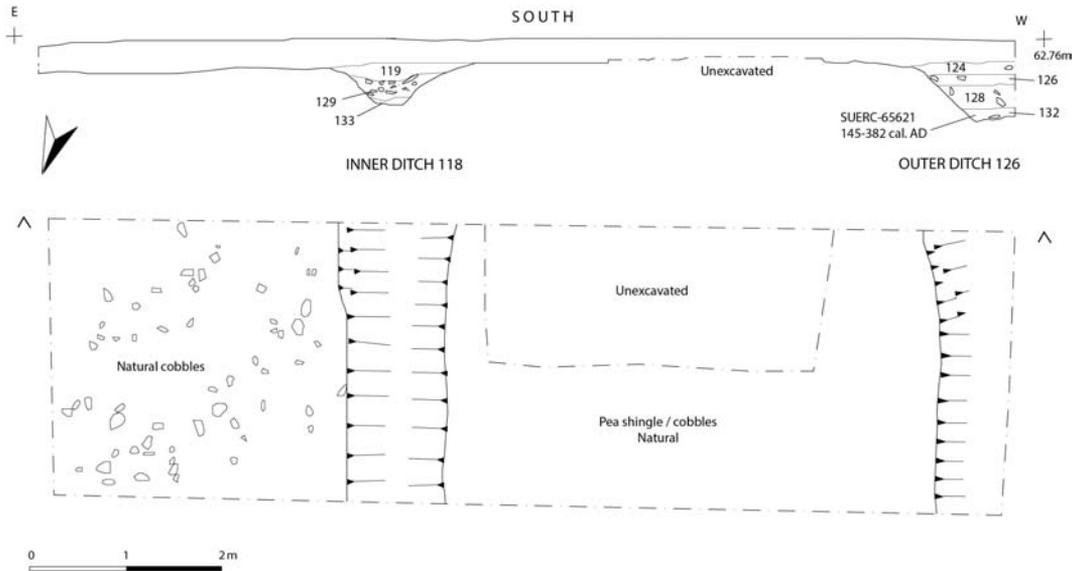


Fig. 15. Trench G. Plan and section of outer enclosure ditches on the west of the villa.  
 © Crown copyright, RCAHMW.

Inner ditch 118 measured 1.46m wide and 0.44m deep. Three distinct fills were identified (119, 129, 133) and produced two notable finds. Towards the base of upper fill 119 was found one of the most complete Roman roof slates to be discovered anywhere on the site. This specimen, measuring 0.47m long, was found lying flat within the ditch, aligned north-south. It was clearly deposited at a time when the ditch had partly infilled with some 0.2m of material. It is safe to assume this slate was robbed from the ruins of the villa in late Roman or post-Roman times. It could be further speculated — although not proved — that it was placed flat in the ditch to provide a convenient step across the feature, suggesting that those engaged in robbing material were exiting the site to the west. The lowest fill (133) of the ditch also produced one of the few possible agricultural implements from the entire site, a heavy oval pebble maul (stone no. 7). This naturally spherical river cobble shows signs of pounding or grinding on both flatter faces. In the absence of any quern stones from Abermagwr this object is reasonable evidence for the grinding of material or foodstuffs in the yard area.

Separated by a gap of 3.7m, the outer ditch 126 was deeper than the inner, measuring more than 1m wide (its western extent was not excavated) and 0.62m deep, with four fills (124, 126, 128, 132). These fills were largely sterile; the upper fill 124 produced a single sherd of medieval pottery. However, the lowest fill 132, a light, loamy clay, fortunately produced several lumps of oak and hazel charcoal, the oak (with >20 growth rings) possibly representing structural material (see palaeoenvironmental report below). The hazel charcoal produced radiocarbon date SUERC-65621 (see below).

#### THE VILLA COURTYARD

Trench F (measuring 4m × 20m) was excavated diagonally across the courtyard area to the west of the *domus* with the aim of identifying either pre-villa or contemporary structures in the ‘empty’ section of yard, and to possibly explain the eccentric placing of the *domus*. In practice only a 10m section of the north-east part of the trench was fully excavated to natural (at c. 0.76 depth). Few finds or features were encountered; topsoil stripping yielded a copper alloy weight (no. 2) of relatively recent date.

The lack of significant structural or cut features in the trench led to an excavation strategy of alternate trowelling/cleaning back and mattocking of spits down through the stony clay of the putative yard surfaces. At between 0.44–0.54m below modern ground surface, and immediately below the lower topsoil/subsoil, a hard packed stony clay layer 125 was encountered into which four putative small stakeholes (120–123) between 0.1–0.24m across, were dug defined by shallow, pebble-packed features sharing the same horizon. The packing stones of the putative stakeholes were planned along with a concentration of smaller stones (113), but none yielded any deeper packing in section. These four features represent the only potential evidence for light structures in the yard.

At a lower level beneath layer 125, the hard-packed stony clay continued to be removed in spits in an attempt to find either a coherent surfaced yard, or clean ‘natural’. In the event no deliberately surfaced courtyard horizon was revealed; the next layer down, 130, comprised a mix of dark brown, very stony soil immediately above brown gravel subsoil. This was initially thought to be natural but contained much fire-cracked stone towards the south margin of the trench and yielded a fragmentary flint blade (flint no. 3).

The trench was eventually bottomed at between 0.66–0.72m below the modern ground surface revealing an undulating cleaner clay surface 131. This was an orange-yellow gritty ‘subsoil’ layer with frequent charcoal flecks and lumps, considered to be the original surface of the Roman yard. Yet this apparent yard surface was remarkably devoid of finds of any date beyond flints and blades of Mesolithic character embedded in the glacial material (flint nos 4–5). It is likely that the yard here was informally surfaced for livestock, and periodically cleaned, resurfaced, patched up and worn down in stages during the lifetime

of the villa. It was certainly kept clean of any occupation debris which was remarkably absent despite lying only 11m west of the *domus*. The cobbled yard or path immediately to the south of the *domus* lies at 61.91m OD, some 0.20m lower than the lowest levels reached in Trench F.

## ROMAN AND LATER POTTERY

By Peter Webster

The excavations yielded around 5.1kg (530 sherds) of pottery of which only about 25 sherds were post-Roman. Within the Roman collection, two distinct groups were visible. The great majority of the pottery belonged to the third to fourth century with a small amount of later first- to early second-century material. All pottery is listed by context, fabric, weight and number of sherds in the site archive. All general comments are based upon this list and the catalogue below has been extracted from it in order to illustrate the more diagnostic items.

### Chronology

Along with the later Roman pottery the site yielded a small amount of early Roman material. The character of this can best be ascertained by listing the entire samian assemblage from the site:

Form 15/17 or 18, South Gaul. Two sherds probably from the same vessel, probably *c.* AD 70–90. Trench A, context 001

Fragment, South Gaulish. Trench A, context 011

Form 67, South Gaulish, Flavian. Trench C, context 023

Fragment, South Gaulish. Trench E, context, 041

Form 15/17, South Gaulish, probably *c.* AD 70–90. Trench E, context 107

It is noticeable that all sherds are in South Gaulish fabric suggesting deposition before *c.* AD 110 and possibly earlier, given the absence of Les Martres pieces. The assemblage is too small to read much into the range of forms but both forms 15/17 and 67 are more likely to be Flavian than later and an overall range of *c.* AD 70–100 seems likely. To this can be added a ring-neck flagon (context 001) which is probably Flavian, and a Malvern type jar, probably first- or early second-century (from Trench A, context 004) and fragments of Dressel 20 South Spanish olive oil amphora (from Trench A, contexts 017 and 023, the clay floor of Room 2 near the north wall) which is most likely to be first- or second-century. All may well belong to the same date range as the samian. Some activity, perhaps agricultural, associated with the nearby fort of Trawscoed seems possible.

The only other sherds which are likely to be earlier than the later third century are two colour coated pieces, a Lezoux beaker (from Trench A, context 003) and a Nene Valley beaker with barbotine swirling fronds (from Trench C, context 051). While it is possible that these indicate activity in the later second or third century, the absence of any corresponding pieces of coarser fabrics suggest that these fineware vessels were probably already old when brought to the site.

A broadly third- to fourth-century date has already been postulated for the majority of the collection recovered. Greater precision within this period is more difficult to determine and it has to be borne in mind that the historical sequences which underpin the dating of third- and fourth-century pottery are much weaker than that for the first and second century. However, it is noticeable that the Black-burnished ware flanged bowls present include none of the grooved type which are usually attributed to the late second to mid/late third century and which usually appear in smaller numbers even in late third-century

collections. If we look at the corresponding jars they are mainly of the later third or later. At the other end of the range, they include none with the exaggerated flare to the rims which are characteristic of the later fourth century. Neither are there any examples of the South Midlands calcite gritted jars which are typical of the later fourth century in the south of Wales and which appear with other late calcite grits in the north. We may couple this with the dating of the Oxford colour coated vessels at Abermagwr. Most carry the general *c.* AD 240–400 date of the entire Oxford production range of colour coated wares. Where we can be more precise they appear to be fourth- rather than third-century in date. However, an Oxfordshire white mortarium (from Trench C, context 077) probably dating to *c.* AD 240–300 may also be noted. Overall, a late third- to mid fourth-century date seems reasonable.

If we accept that the Roman pottery collection is unlikely to date any later than the mid fourth century, we may see its general pattern by plotting the 68 vessels with other than very generalised dates in histogram form (Fig. 16). This shows clearly the bulk of the Abermagwr material falling within the period from the late third to the mid fourth century. The *floruit* for the building within this period seems certain and a slightly narrower date range not impossible. Equally the histogram shows a background of material spreading across the first to third century. Polarisation at the two ends of the date range is again likely given the nature of the histogram which spreads vessels evenly across their possible date range. However, some activity on the site in the second and early to mid third century cannot be entirely excluded.

Only one sherd of medieval pottery was noted, a wall sherd of wheelthrown Dyfed Gravel Tempered Ware from the upper fill of the outer west ditch (Trench G, context 124). The latest material from Abermagwr is post-medieval. There is a scatter of pieces belonging to the seventeenth to nineteenth centuries mainly from upper levels and probably indicating the spreading of domestic rubbish upon the fields in the eighteenth and nineteenth centuries.

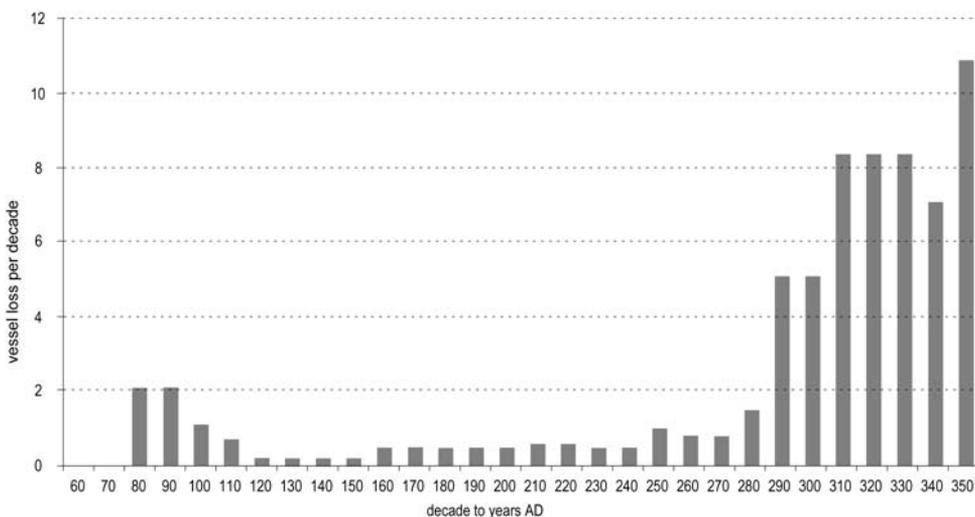


Fig. 16. Summary of Roman pottery dating. *Histogram by Peter Webster.*

### Sources of pottery

The relatively small number of rims makes the quantification of pottery by vessel count difficult. However, an overview of the approximate proportions of vessels from specific sources can be obtained by a sherd count. In the table below, small scraps of pottery have been ignored. The remaining Roman pottery can be divided by source as shown in Table 1.

Table 1. Sources of Roman pottery

Source	Sherds	%
Local Oxidised	29	9.29
Local Reduced	36	11.54
Severn Valley Ware	15	4.81
Malvern	1	0.32
Black-burnished 1	153	49.04
Oxidised	28	8.97
Reduced	4	1.28
Misc mortaria	2	0.64
Oxford colour coat	28	8.97
Oxford white mortaria	1	0.32
Nene Valley colour coat	2	0.64
Lezoux colour coat	1	0.32
South Gaulish samian	6	1.92
Dressel 20 Amphora	6	1.92
Total	312	100

In the table, fabric sources have been listed in approximate order of their distance from the site. A few notes can be added to amplify the information given.

*Local fabrics.* Local manufacture of Roman pottery at the time of the villa occupation cannot be proved, but a distinctive fabric represented by nos 7–8 and 11–14 in the catalogue is a likely candidate. The fabric is soft, usually a dull dark red to grey in colour and with a filler which usually appears to contain fired clay. The forms represented imitate those of late third and fourth-century Black-burnished Ware and it seems reasonable to suggest that this is a local product of that date. Other fabrics classified in the list above simply as oxidised or reduced could well also have a relatively local origin but are less distinctive and have not been listed separately.

*Malvern.* There is a single example of the dark gritted fabric made without the use of the potters' wheel which is characteristic of the Malvern area and is found in Central Wales in the later first and perhaps the early second century. The fabric is well represented in the Trawscoed *vicus* and may well be evidence of trade in some commodity.

*Black-burnished Ware.* This forms the predominant cooking ware of the site accounting for almost half the Roman sherds found. Where diagnostic pieces survive, all belong to the later third or fourth century. The likely source is the Poole harbour area of Dorset.

*Oxfordshire products.* With the exception of a single white mortarium, all Oxfordshire products are red colour coated ware, a common find on later third- and fourth-century sites. These account for about 9% of all Roman sherds and were clearly the main fineware of the late Roman site.

*Other colour coats.* The two sherds of Nene Valley colour coat and the single one from Lezoux both represent forms which are likely to have reached Britain in the period between the mid second and mid third century. However, as argued above, they seem more likely to have been a generation or two old before they reached the site, than to be sole representatives of occupation of the early to mid third century.

*South Gaulish samian.* As listed above, all samian derives from South Gaul and is unlikely to have reached Britain after the early second century. This along with the fragments of Dressel 20, olive oil amphorae clearly indicate some activity prior to the main villa phase.

### **Pottery catalogue** (Fig. 17)

The number of diagnostic vessels which were represented by rims was small. Most have been selected for illustration below and together give an accurate impression of the main weight of the assemblage.

1. Dish base in Black-burnished ware with looped decoration internally, the so-called 'Redcliffe design'; cf. Smith and Davies in Woodward *et al.* 1993, fig. 134, D67. A third- to fourth-century date is suggested. Trench A, context 001.
2. Jar in Black-burnished ware, Gillam 1976, no. 11. Early fourth-century. Trench A, context 005.
3. Four fragments, three joining, of a bowl in Oxfordshire red colour coated fabric, Young 1977, C46. *c.* AD 340–400. Trench A, context 012.
4. Jar in Black-burnished ware with obtuse-angled lattice decoration below a horizontal line; cf. Gillam 1976, nos 10–11. Late third- to early fourth-century. Trench A, context 036.
5. Rim fragment from an abraded Oxfordshire red colour coated bowl, probably of Young 1977, type C71. Fourth-century. Trench A/C, context 009.
6. Six joining sherds of an Oxfordshire red colour coated bowl, Young 1977, C45. *c.* AD 270–400. Trench C, context 056.
7. Flanged bowl in dark red fabric with a filler of mixed grit and what is probably fired clay. The form resembles Black-burnished ware bowls of the late third and fourth century and this, probably local, imitation is presumably of similar date. Cf. nos 8 and 11–14 for other examples of this local fabric. Trench C, context 062/064.
8. Straight-sided dish in grey fabric with a gravel-like filler. The vessel is probably an imitation of a Black-burnished ware form and the fabric seems likely to be local (cf. nos 11–14). Possibly from the same vessel as no. 11. Trench C, context 063.
9. Two joining sherds of a bowl in orange fabric with faint traces of a red colour coat. This is probably an Oxfordshire product; cf. Young 1977, C64. Fourth-century. Trench C, context 067.
10. Straight-sided dish in Black-burnished ware; cf. Gillam 1976, no. 83. Fourth-century. Trench C, context 067.
11. Straight-sided dish in grey fabric with a filler which appears to be fired clay. Probably a local imitation of a Black-burnished ware dish. Similar to no. 8 and possibly from the same vessel. Trench C, context 086.
12. Jar in soft grey to brown fabric, presumably local. The form imitates late third to fourth century Black burnished ware jar types. Cf. nos 7–8, 11, 13–14 for other examples of this presumed local fabric. Trench C, context 087.

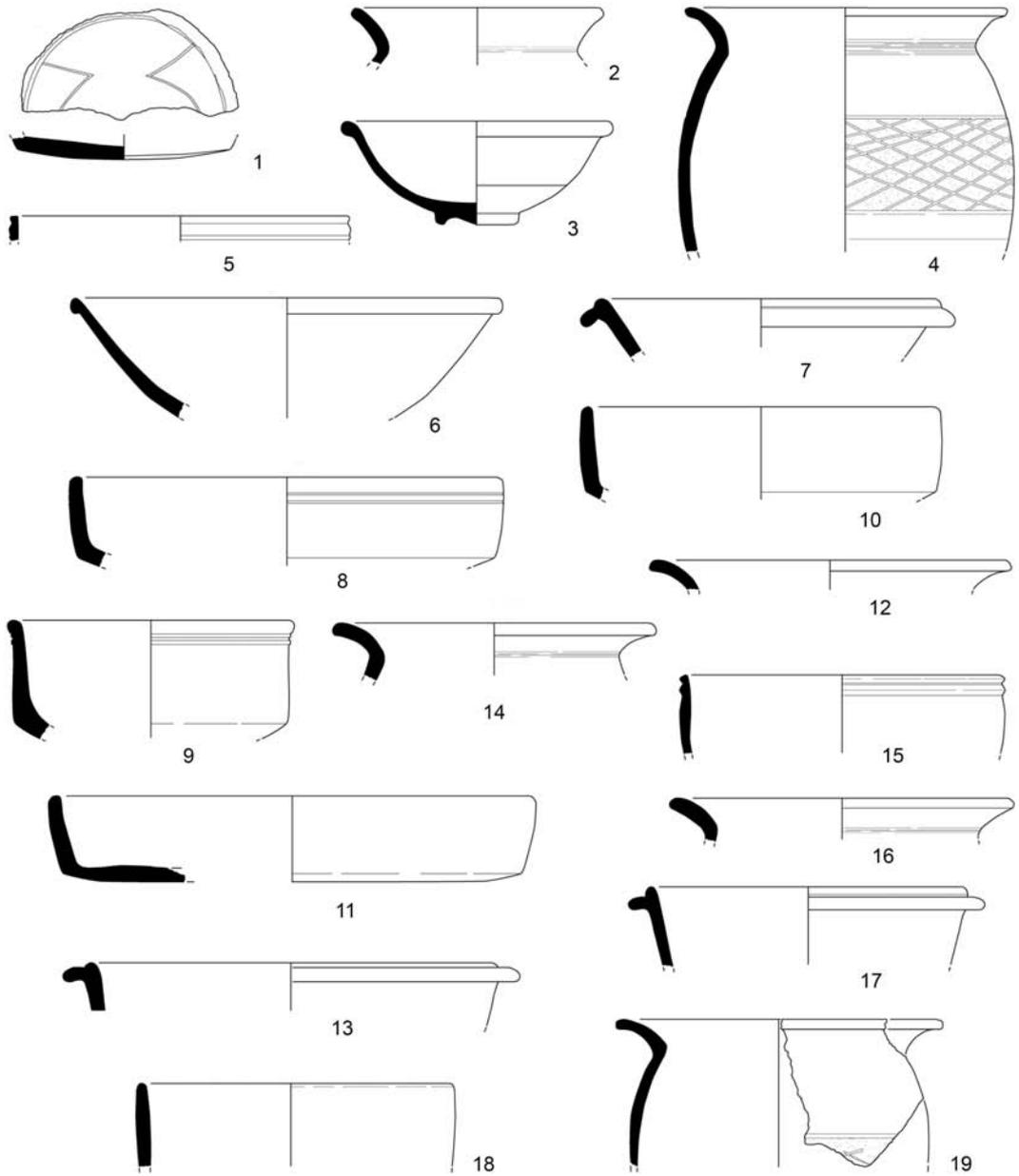


Fig. 17. Roman pottery. Scale 1:4. Drawings by Ian Dennis.

13. Flanged and beaded bowl in soft grey to brown fabric, presumably local. The form imitates late third- to fourth-century Black-burnished ware types. Trench C, context 087.
14. Jar fragments in soft grey-brown fabric, probably burnt. The form imitates late third- to fourth-century Black-burnished ware jar types and is probably a local product of similar date; cf. nos 11–13 above. Trench C, context 088.
15. Bowl in Oxfordshire red colour coated fabric; cf. Young 1977, C63. Mid to late fourth-century. Trench E, context 041.
16. Jar in soft brown fabric, probably local. The rim resembles that of later Black-burnished ware jars and this is probably of similar date. Cf. nos 11–13 and especially no. 14. Late third- to fourth-century. Trench E, context 045.
17. Flanged and beaded bowl in Black-burnished ware, Gillam 1976, no. 46. Late third- to early fourth-century. Trench E, context 050.
18. Straight-sided dish in Black-burnished ware. Trench E, context 050.
19. Jar in Black-burnished ware with lattice decoration below a line; cf. Gillam 1976, no. 11. Late third- to early fourth-century. Trench E, context 082 in Room 8.
20. (Not illustrated). Two joining fragments of abraded and burnt jar rim in Black-burnished ware. The rim was markedly flared and is likely to have dated to the fourth century. Trench F, context 115.

#### **Discussion of the pottery.** By J. L. Davies

Any analysis of the ceramic supply to the villa is severely hampered by the lack of comparative material from Ceredigion, but more specifically from villas which have been explored in south-west Wales. At Trelissey (Thomas and Walker 1959) a minimum of some 22 vessels are represented in an exceedingly fragmentary assemblage. Apart from Hadrianic-Antonine samian and coarsewares, which cannot be certainly linked with the construction and occupation of the stone *domus*, third- to fourth-century coarsewares are dominated by those in Black-burnished fabrics, including flanged bowls and cooking pots. An Oxfordshire mortarium is also present, whilst fine wares are represented by a single Oxfordshire colour coated product.

The small collection of third- to fourth-century pottery from Llys Brychan has been catalogued by Peter Webster (2009). Coarse wares are dominated by jars, bowls and dishes in Black-burnished fabric: only one vessel in Severn Valley ware being represented. The mortaria are of Oxfordshire origin as are all the fine wares which include bowls and flagons in Oxfordshire colour coated fabric. The assemblage is remarkably similar to that from Abermagwr in terms of origin, the only difference being the presence of a couple of late second-century plain samian vessels; one a Drag. 31 with another from the fill of the enclosure ditch. These vessels could be heirlooms, or may just possibly indicate an origin for the villa at the close of the second or beginning of the third century AD.

Of the three rural settlements sites investigated in the Llawhaden group (Williams and Mytum 1998), the Dan-y-coed enclosure produced a mid third- to fourth-century mortarium, as did Drim Camp: in this instance an Oxfordshire product. By way of contrast to the villas there were no late Roman fine wares from either settlement. Although late Roman pottery is known from Castell Henllys it remains unpublished.

Apart from Abermagwr the only site in Ceredigion to have a reasonably comparative ceramic range is the humble farmstead at Troedyrhiw (Murphy and Mytum 2012) in the south of the county. It produced 235 Romano-British vessel fragments, though Peter Webster states that the total number of vessels represented could be as small as four dozen from a site which has a considerably longer occupation, from the mid first to the mid fourth century AD, albeit with a bias in the ceramics towards the later third and fourth century. Apart from the oxidised and reduced fabrics which belong to the earlier Roman period the kitchenwares are overwhelmingly represented by those in Black-burnished fabric. A few Severn Valley

products reached the site, but only one Oxford mortarium. Fine wares were noticeably rare: only one Oxford colour coated product being present.

Abermagwr has produced 530 sherds of Roman date, the great majority of the vessels dating to the mid third to mid fourth century. Though there may be local oxidised and reduced products in the assemblage most of the pottery comes from outside the region. Several vessels in Severn Valley ware are present — these represent about 5 per cent of the coarsewares at Carmarthen (James 2003, 260) — though the bulk of the kitchenwares were in Black-burnished fabric. Mortaria were represented by at least two vessels, one being a late Oxfordshire product. What makes Abermagwr stand out, with clear implications for its social status, is the quantity of late Roman fine wares in the ceramic assemblage. The earliest are two beakers, one a Lezoux colour coat product, the other a Nene Valley colour coat vessel, both of late second- or third-century date. These were either heirlooms or reached the site at a very early stage in the occupation of the house. More common and representing about 9 per cent of all pottery in the assemblage were red colour coated Oxfordshire products. These vessels also represent by far the commonest fine ware products at Carmarthen in the later Roman period (James 2003, 260). They presumably reached Abermagwr, together with the other pottery, directly or indirectly from this the only major market centre in the region. Given the distance from this town to the villa it would not be surprising if the pottery was marketed by means of coastal shipping, or alternatively brought to a regional fair (the equivalent of the medieval Irish *óenach*) to which pedlars would have brought their wares by pack-horse or cart. We may note that the villa is situated only some 0.5 kilometres from the north–south Roman road.

## ROMAN BRICK AND TILE

By J. L. Davies

All the excavated areas produced fragments of brick and tile, for the most part in a very fragmentary state; however, when the fragments were of sufficient size it was possible to distinguish between brick, in the form of *bessales* or *pedales* and tile, both for roofing in the form of *tegulae* and *imbrices* and box-tiles from the cladding of a heated room. Both brick and tile were of a hard to very hard fabric ranging in colour from a creamy yellow in the case in some of the *imbrices* to a dark red to purple in the case of the *pedales*. The latter frequently showed gravel inclusions of up to 25mm in size, strongly hinting at local production. Fragments of *bessales/pedales* were by far the most common in the assemblage and frequently averaged a thickness of 50–60mm.

### Brick and tile catalogue

Trench A/C produced 3.4kg of brick and tile, all exceedingly fragmentary. Context 009, 011, 033, 036, 051, 078, 098, and 105 all produced fragments of *imbrices*. Context 033 produced the only fragment of box-tile. Contexts 039 and 078 produced a fragment of brick apiece with the only possible fragment of a *tegula* coming from context 010.

Trench D produced a total of 0.47kg of brick and tile fragments, the largest being that of a *pedalis* from context 074 in the outer ditch.

Trench E produced 17.728kg of brick and tile fragments, with a preponderance of *bessales/pedales* throughout. *Tegulae* were apparently not represented, though there were fragments of *imbrices* from context 050 and 082. Box-tile fragments were found on contexts 041, 050, 057, 082 and 110.

Trench F produced a mere 20g of brick/tile fragments from context 112 and 130.

### Discussion of brick and tile

The ubiquity of *imbrex* fragments from Trench A/C may be explained by the use of these tiles for capping the ridge of the slate/stone roof of the house. The virtual absence of *tegulae* fragments from all contexts on the other hand is readily explicable by reason of their singular lack of use in a stone-roofed building. However, the very presence of what must be regarded as a virtually useless *tegula* fragment begs the question of why is it present at all and, furthermore, whether the brick and tile was produced specifically for the building of the villa or whether they represent the reuse of building materials salvaged from the site of the long abandoned auxiliary fort at Trawscoed, less than two kilometres to the south-east. In the absence of evidence for stone or partly stone-built buildings in the central range of the fort the external bath-house would have been an obvious source of such materials. The fact that this ubiquitous adjunct has never appeared on aerial photographs may possibly be explained by its demolition and wholesale robbing by the villa builders.<sup>23</sup> There remains, however, the possibility that the *bessale/pedales* and box-tiles, if not the *imbrices*, were being produced specifically for the building of the *domus*. If such was the case then production by an itinerant brick and tile maker, as proposed by McWhirr (1984), seems probable rather than such products being supplied from a central brickyard situated, say, in the vicinity of Carmarthen. The wide dispersal of known villa sites producing brick and tile in south-west Wales is indeed supportive of peripatetic production. The villa at Cwmbwrwyn (Ward 1907) produced box-tiles as did Trelissey (Thomas and Walker 1959), together with possible fragments of *tegulae* at the latter, whilst Wolfscastle, Upper Newton (Fenton 1811) produced brick and tile appropriate for the fitting of a bath-house: Llys Brychan (Jarrett 1962) at least had a partly tiled roof, later replaced by one in slate, whilst the site of Castle Flemish (Wheeler 1923) — if a villa — produced box-tiles and *bessales* indicative of a bath-suite, though roofing seems to have taken the form of hexagonal slates.

In the Whitton report the quantity of brick and tile is unfortunately not discussed in terms of quantification and type. When *tegulae* and *imbrices* occur they always appear in early contexts (Jarrett and Wrathmell 1981, 79) the principal concentration being in the east range which probably had a tiled roof. There was no evidence for the roofing type for the north and west ranges. The excavators suggest that thatch was used. Oddly, the roofing of the period 2 east range was in Pennant sandstone slabs. This building probably belongs to the third or early fourth century.

The issue of whether the third- to fourth-century *domus* at Abermagwr was being equipped with contemporaneously produced brick and tile, probably fired in a local clamp rather than a kiln, is clouded by two factors. Firstly, the uncertainty of dating such ceramic material; to quote McWhirr (1984): ‘Demand for brick and tile during the third and fourth century is difficult to judge because much of what was used, particularly in the fourth century, was reused and excavators have not always been able to distinguish between what was recently produced and salvaged material’. Secondly, McWhirr points to regional differences which come into play in the later Roman period; as for example in the fourth-century Cotswolds where channelled hypocausts replaced brick-pillared ones and where roofs were covered with sandstone or limestone ‘slates’. The villas across the Severn in south-east Wales illustrate this point perfectly. No brick or tile was found in the excavation of the villa at Llandough (Robinson 1988). By way of contrast the primary phases of the *domus* at Llantwit Major (Nash-Williams 1953) and Ely (Wheeler 1922) in the same region were roofed in tile, the former being dated by Hogg to the middle of the second century (Hogg 1974) whilst brick *pilae* were used in the bath-houses of both villas; the baths at Llantwit Major being possibly of later third-century date. However, by the later third or fourth century the buildings at Llantwit Major were roofed with sandstone slabs. These three sites graphically illustrate the way in which at some villas in south-east Wales, especially those whose owners were sufficiently wealthy and had access to brick-casters or required brick and tile for specific building purposes in the second to earlier third century, brick and tile remained an important structural component long thereafter. At other villas,

whose *floruit* was delayed until the late Roman period then brick and tile does not figure at all.

Clearly, the argument as to whether the Abermagwr brick and tile represent reuse of salvaged material or mid/late third century production cannot be taken much further. The lack of any traces of mortar adhering to any fragment of *bessalis/pedalis*, *imbrex* or box-tile could be taken as evidence of production contemporary with the *domus*, especially given the evidence of what appears to be an unfinished heated suite. However, it is noteworthy that not a hint of mortar survives on any of the discarded stonework either. The acidity of the soil could well account for its disappearance in both instances and need not necessarily rule out the possibility of salvage encompassing both building materials.

### ROMAN COINS

By the late P. J. Casey

1. Denarius of Severus Alexander (AD 222–35), corroded: *Obv.* IMP [-] SEV [-]; *Rev.* Illegible. SF 19, Trench C, context 056.
2. Denarius of Severus Alexander, sw/sw, *RIC* 44, AD 224: *Obv.* IMP C M AVR SEV ALEXAND AVG; *Rev.* P M TR P III COS P P. SF 38, Trench C, context 093.
3. Illegible AE fragment, possibly third century AD. SF 22, Trench C, context 056.
4. Constantine I, *RIC* VI, London 284, AD 312–13: *Obv.* CONSTANTINVS P F AVG; *Rev.* SOLI-INVIC-TO COMITI, \* - // PLN. SF 09, Trench A, context 022.
5. Constantine I, *RIC* VII, Lyons 2, AD 313–14: *Obv.* IMP CONSTANTINVS P F AVG; *Rev.* SOLI INVIC – TO COMITI, S F // PLG. SF 02, Trench A, context 004.
6. Constantine I, *RIC* VII, Trier 461, AD 325–26: *Obv.* CONSTAN – TIN [VS AVG]; *Rev.* PROVIDEN – TIAE [AVGG], // [PTR] C. SF 05, Trench A, context 022.

#### **Discussion of the coins.** By J. L. Davies

The coins, though relatively few in number, are of some considerable interest not only because they are the most intrinsically datable items to have been discovered on the site but also because they are the latest to have been found on a Romano-British settlement in Ceredigion. They also go some way towards widening our understanding of coin usage in Wales as a whole, with special reference to the south west of the Principality.

The two *denarii* of Severus Alexander are unlikely to have circulated beyond about AD 250 at the very latest, and, together with the radiocarbon dates for the digging of the enclosure ditches point to the probable building of the villa sometime in the second quarter of the third century AD. It is notable that the earliest coins found at the site of the villa at Llanfrynach (Hay 1785) are also issues of this emperor. There is a somewhat perplexing near gap in the Abermagwr coin series with only one possible mid to late third-century bronze, at a time when issues of the Gallic Empire (AD 260–73) and the reigns of Carausius and Allectus (AD 286–96) are among the commonest coins to be lost and hoarded in Ceredigion, as elsewhere in Britain (see Davies 1994, 312–14; Guest and Wells 2007, 225–31). This can only be presently explained by the vagaries of artefact recovery.

The three Constantinian issues are not only the latest securely stratified coins from a Romano-British settlement in Ceredigion but are also among the latest to be found in the County, only exceeded in terms of date by two chance finds of AD 330–41 from the Capel Bangor area (Guest and Wells 2007, 227). It is noteworthy that although the farmstead at Troedyrhiw apparently remained in occupation to the mid fourth century on ceramic grounds it produced no coins of those periods when coin loss is deemed to have been to be common, including none of the fourth century. The only coin from the site, a *sestertius*

of Hadrian, is unlikely to have circulated beyond the early third century (Murphy and Mytum 2012). A mitigating factor here may be that the bulk of the Romano-British material was found in the enclosure ditch and rubbish deposits are unlikely to produce coins.

Given the paucity of Romano-British coinage in Ceredigion, and especially the absence of the common issues of the period AD 348–78, it is worth posing the question as to whether the slightly worn Constantinian issue of AD 325–26 is really indicative of the approximate date at which the villa was abandoned; also taking into consideration some undated building activity on the site thereafter. Quite simply, had the excavation been more extensive is it conceivable that coins of later date would have been found? It is here that the contrast between the latest coin loss pattern in Ceredigion and Wales in general requires consideration. The coin loss pattern in Carmarthenshire and Pembrokeshire, the other south-western counties, present a marked contrast to that in Ceredigion (see lists in Guest and Wells 2007, with some additions by the author). In Pembrokeshire there are seven find-spots with coins closing with issues of AD 348–64; one of the period AD 364–78 and one of AD 388–402. Setting aside the coins from the *civitas* centre at Carmarthen for the present there are no sites or find spots with coins closing in the period AD 348–64 in Carmarthenshire; only five of AD 364–78 and only one of AD 388–402 (a gold *solidus* said to have been found on the surface of the Roman road near Pencarreg). For an urban centre Carmarthen is singularly lacking on post-AD 348–78 coinage. Only one coin of the period AD 348–64 was found in the St Peter's Car Park excavations; only two post-AD 348 issues from the 1980–84 excavations in Priory Street and one of AD 364–78 from the excavations of 1987 in the same area. The Church Street excavations produced no coins later than AD 318–24, a terminal sequence analogous to that at Abermagwr. By way of contrast in south-east Wales coin usage to AD 364–78 and beyond to the latest issues of AD 394–402 is much more common. Glamorgan and Gwent can boast more than 20 such find-spots, leaving aside the huge numbers of Valentinianic and Theodosian coins from Caerleon, and Caerwent in particular. In north Wales too the coastal strip from Chester to Anglesey produces good evidence for coin usage with a minimum of 20 find-spots of post AD 348–64 coinage known to date. Its relative frequency in this region is most probably connected with military activity, the fort at Caernarfon being held to AD 393, and Chester possibly even later. Military activity may have been partly responsible for the very late coinage found at Caerwent together with coins of AD 394–402 from Kenfig and Stalling Down in Glamorgan and a similar explanation is also probable for the solitary issue of AD 388–402 from Carmarthen, another of the same era from the Tenby area (both coppers) together with the *solidus* from Pencarreg.

Leaving aside the differing later fourth-century coin loss patterns of the aforementioned regions and returning to address the original question it is clear that the coin loss pattern in Ceredigion differs markedly from that in the remainder of south-west Wales, with no coins apparently circulating beyond about AD 341. Neighbouring Pembrokeshire and Carmarthenshire together with the town of Carmarthen appear to show a marked decrease in coin circulation after AD 348–64 (taking into account a hiatus in coin supply *c.* AD 341–46) which would be about the latest date for the occupation of the villa judging by the chronological indicators in the ceramic assemblage. Simply put, we may predict with some confidence that even if the villa were to be fully excavated it is unlikely to produce a coin series later than AD 348–64. Like many rural sites in Wales the absence of a late Roman coinage may have no real chronological significance, since this coinage was increasingly tied to military expenditure and urban and industrial establishments from which the coinage seems to have rarely strayed. This effective withdrawal from a money economy, with a consequential impact upon the precise dating of archaeological sites, appears to have effected Ceredigion first before afflicting other parts of the south west Wales by last quarter of the fourth century. The impact upon the rural economy is unknowable, but a return to pre-Roman values in the form of the tangible commodity, the animal on the hoof, cereals and raw metal seems probable.

## COPPER ALLOY OBJECTS

By Janet Webster (JW) and Toby Driver (TD)

*Bell-shaped stud (JW)*

1. Bell-shaped stud with a short integral tapering shaft of bronze (Fig. 18). Bell-shaped studs were discussed by Allason-Jones (1985, 95–108) who identified two types based on the nature of the shank. The Abermagwr stud is a sub-group or variant of her Type 2 — bell-shaped studs with bronze shanks. Like an example from Caerleon (Evans and Metcalf 1992, 135–6, nos 141–2), the Abermagwr stud differs from the standard form in having a short, almost square-sectioned, tapering shank. Moreover, the edges of the shank are finely toothed. Bell-shaped studs seem to have served a variety of functions, see Allason-Jones 1985, but the fine tothing of the shank of the Abermagwr piece seems to suggest use with wood. Bell-shaped studs of both types are evidenced from Caerleon (Nash-Williams 1932, 88, fig. 36, no. 14; Evans and Metcalf 1992, 135–6, nos 139–142) and from Usk (Manning *et al.* 1995, 274–5, fig. 86, nos 7–8). Allason-Jones notes that bell-shaped studs occur throughout the Roman period in Britain and that, although her Type 1 studs may have a military connection, Type 2 studs may occur in military or civilian contexts. SF 26, context 077, Room 6, lower floor level, below hearth 062.

*Small weight (JW)*

2. (Not illustrated). Small weight in turned bronze or brass. A small area of the base has been removed by abrasion or perhaps a file. The weight now weighs 12g (about 3/8 ounce) and is likely to be a half ounce weight of relatively recent date. SF 51, Trench F, context 112, topsoil.

*Twisted copper alloy wire (JW)*

- 3 (Not illustrated). Small fragment of twisted copper alloy wire, too small for certain identification but it seems likely to be part of a Roman bracelet or armband in twisted wire. The type is common in the later Roman period (see for instance, Swift 2000, figs 145–150). SF 52, Trench F, context 113, with other small fragments.

*Strap end (TD)*

4. (Not illustrated). Fragment, 29mm long, 11mm wide, 1mm thick, broken. SF 04, Trench A, context 011, layer inside the veranda (Room 7) associated with horizontal ‘paving’.

*Curvilinear scrap (TD)*

- 5 (Not illustrated). Scrap, 12 × 6mm. SF 10, Trench C, context 008, fill of robber trench, north villa wall.

*Folded sheet or strap end (TD)*

6. (Not illustrated). 23mm long, 11mm wide tapering to 8mm; curved along one edge, with fragments. SF 14, Trench C, context 056, hard-packed floor surface in Room 6.

*Possible bronze pinhead (TD)*

7. (Not illustrated). 6mm long, 4mm diameter, with smaller fragments. SF 39, Trench C, context 039, lower topsoil.

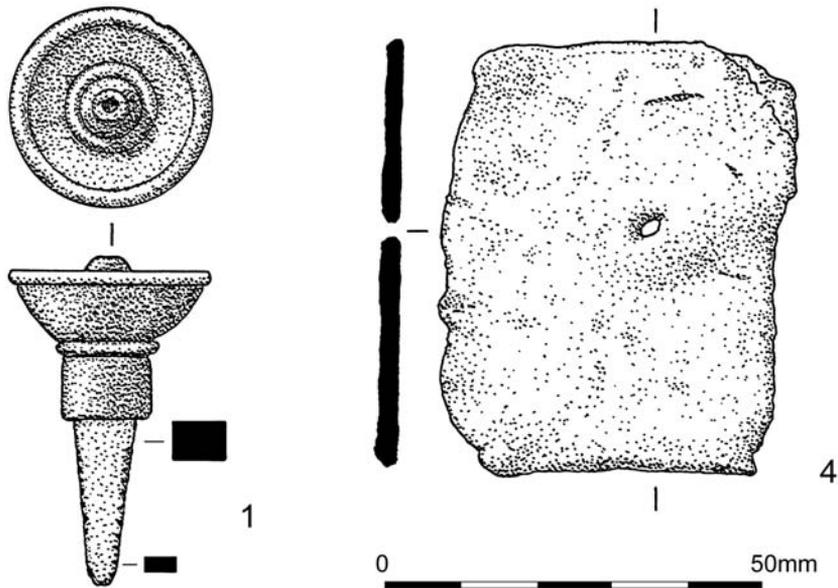


Fig. 18. Roman metalwork: 1 – copper alloy bell-shaped stud; 4 – perforated lead sheet. Scale 2:3.

*Drawings by Ian Dennis.*

### IRON ARTEFACTS

By W. H. Manning

The following iron artefacts were recovered during excavation, none of which are illustrated.

1. A number of fragments of thin plate now corroded together. The largest accessible fragment is 69mm long with straight, slightly converging edges. Its maximum width is 40mm narrowing to 34mm. It is 2mm thick. SF 66, Trench C, context 088.
2. Rectangular fragment of plate with parallel edges. 65mm long and 24mm wide. X-ray photographs suggest that it may have a nail hole near one end. A fragment of plate with a curved edge (measuring 25 × 22mm) is corroded to it. SF 66, Trench C, context 088.
3. Fragment of strip. Length 102mm, width 24mm. SF 41, Room 2, context 100.
4. Fragment of sheet. Small fragment of sheet with the remains of a nail through it. 38 × 25mm, thickness 3mm. Length of nail 17mm. Trench C, context 088.
5. Fragment of strip. Length 61mm. Trench A, context 008.
6. Tack. Length 38mm; diameter of head 20mm. It has a short, broken stem and a relatively large domed head. Probably a large example of a Type 8 tack or nail as defined in Manning 1985, 136, fig. 32, although such tacks were probably used as upholstery tacks this example may be rather large for such a function. Trench A, context 008.
7. Ring and pin. X-ray photographs reveal that it consists of a complete ring with a pin of the same length as the diameter of the ring. Whether the pin is complete or was slightly longer is not clear. In use the

- pin was probably driven into a wooden surface. External diameter of ring 54mm; thickness of ring 6mm; length of pin *c.* 55mm. SF 63, Trench C, context 056.
8. Fragment of hinge? It consists of a curving strip, broken at one end, with an almost cylindrical head the details of which are largely concealed by corrosion. What is visible suggests that the head consisted of a pair of flanges or plates with a gap between them into which was slotted a similar flange probably at the end of a second or arm, The remains of the central pivot, which will have run through all three flanges, is just visible. It is probably part of a strap hinge of the type discussed in Manning 1985 (126–7, fig. 31) where other examples are cited. Length 101mm; width 30mm; thickness of strap 7mm. SF 65, Trench C, context 088.
  9. Stem with conical head. X-ray photographs reveal a thick shank (whether square or circular in section is not clear) which is probably broken at its one end, with a large conical head. Length 123mm. SF 33, Trench C, Room 6, context 077.
  - 10–15. Nails. Six fragments of Type 1b nails (Manning 1985, 134, fig. 32). Length between 81mm (no. 1, complete), and 28–62mm (nos 11–15, fragments). Trench E, context 110.
  16. Type 1 nail. Length 44mm, complete. Trench C, context 051.
  17. Type 1 nail. Length 35mm, fragment. Trench C, context 051.
  18. Fragment of strip. Trench D, context 040.
  19. Concretion, possibly slag. SF 67, Trench F, context 082.
  20. Fragment, probably fragments of nails. Trench C, context 039.
  21. Fragment of strip, too corroded for comment. SF 15, context 050.
  22. Lump of concreted earth which may or may not contain a fragment of iron. SF 64, Trench C, context 086.
  23. Almost square washer (31.5 × 305mm) with a central hole 10mm in diameter. It is almost certainly a washer rather than a nut, which would probably have been more uniform in shape. The condition of the metal suggests that it is modern. SF 62, Trench A, context 009.
  24. Fragmentary Type 1 nail. Length 49mm. SF 55, Trench G, context 117 (lower topsoil).
  25. Nail, probably modern. SF 53, Trench E, context 117.

## LEAD OBJECTS

By Toby Driver

The following lead objects were recovered, of which no. 4 is illustrated in Figure 18. Isotopic analyses of nos 4 and 6 were undertaken by Keith Haylock (see below).

1. Burnt lead, rounded lump, 7 × 9mm. SF 06, Trench A, context 036.
2. Part of small lead object, curving section, 3 × 11mm. SF 07, Trench A, context 036.
3. Burnt lead, triangular section of sheet, 11 × 17mm. SF 08, Trench A, context 036.
4. Rectangular lead sheet, 57 × 46mm, one small perforation. SF 36, Trench C, context 093, fill of pit 094 in the south-west corner of Room 6.
5. Lead lump, irregular, 10 × 15mm. SF 43, Trench C, context 056.
6. Two irregular lumps, 16 × 28mm and a small strip. SF 44, Trench C, context 056, the hard-packed floor surface of Room 6.
7. Lead lump, rectangular, 22 × 9mm. 49, Trench C, context 080.
8. Burnt lead, large irregular lump 12 × 30mm, and fragments. SF 61, Trench A, context 025.

## ISOTOPIC ANALYSIS OF TWO LEAD OBJECTS

By Keith Haylock

Lead isotope analysis was carried out on two lead objects from Room 6 of the villa (lead nos 4, 6). The floor surface of Room 6 was also sampled with a portable X-ray fluorescence scanner during excavation in a regular grid of fifteen survey points, showing raised levels of lead pollution across the floor and in particular in the vicinity of the hearth 064 as described above.<sup>24</sup>

The isotope provenance of the lead sheet was established by direct comparison to spoil and galena samples obtained from Grogwynion mine 7 kilometres to the east of the Abermagwr. Additional comparative samples were taken from the Frongoch lode 5.2 kilometres to the east. Igneous petrology software was used to display the lead isotope data and compare it to plots of isotopes for the Cambrian ore fields indicating phases of mineralisation published in Fletcher *et al.* (1993). The results were also compared with the work of both Cummings and Richards 1975 and Rohl (1996). Furthermore, the ratios of  $^{207}\text{Pb}/^{204}\text{Pb}$  to  $^{206}\text{Pb}/^{204}\text{Pb}$  were plotted into a Cummings and Richards model to identify the geological period in which the mineralisation was formed.

The lead artefacts were in strong agreement with the isotope signature of local mineralisation that matched both Grogwynion spoil 1 and 2 (Haylock 2015, 192), all falling into isochrones of earlier complex phase (A1) mineralisation 440 to 360 Ma (millennia). Overall, some of the mineralisation isotopes gave similar results to the outcomes of both Fletcher *et al.* (1993) by comparison to the Cummings and Richards model, and Rohl's (1996) catalogue of isotope data on ores found both in the Cambrian ore fields and the Mendip hills of North Devon, where galena was also mined from the at least Roman times onwards.<sup>25</sup>

In summary, the samples fitted the target area of the expected isotope ratio confirming that the lead is of local, Ceredigion, origin, but it is still unclear where the smelting site or sites may have been situated. It is speculated that these may have been nearer to the Frongoch or Grogwynion mines.

## ROMAN GLASS

By Jennifer Price

Seventeen glass vessel fragments and three beads were found in the excavations at Abermagwr, of which a number are illustrated in Figure 19. Nine of the vessel fragments come from a minimum of four bluish-green containers made in the later first and second centuries (nos 1–8) and eight are from three colourless and greenish-colourless drinking vessels made in the later third and fourth century (nos 9–11). Most of the vessels are represented by a single small fragment, apart from nos 4 and 9, where two or more joining pieces have survived. The three complete beads (nos 12–14), made in gold-in-colourless, opaque green, and 'black' glass, are likely to have reached the settlement during the life of the villa.

This group of glass finds is interesting in several respects. It is the first opportunity to consider the use of glass at a Roman site of this kind in this region of Wales, and it shows that vessels were reaching the site at two widely separated periods, in the later first and second centuries — long before the villa building was constructed — as well as in the late third and early fourth centuries, and that the two episodes of glass use were rather different in character. The earlier one is recognised by the bluish-green container fragments mentioned above (nos 1–8), which come from a cylindrical bottle (no. 3) and square and prismatic bottles or jars (nos 1–2, 4–8). Containers of this kind were very common indeed in the Flavian to late Antonine periods, and given the official nature of Roman settlement in the vicinity of Abermagwr at that time it is likely that the bottles arrived in the area as containers for foodstuffs or other semi-liquid products supplied for the use of military personnel, perhaps the unit in garrison at Trawscoed. By contrast,

the glass fragments contemporary with the villa building in the later third and the fourth century up to the 330s or 340s when occupation ended, come from drinking vessels and should be seen as personal possessions that were presumably acquired and used by the occupants of the villa rather than official supplies. One of the vessels (no. 9) is of outstandingly high quality while the other two (nos 10–11) are competently made but are more everyday pieces.

The small quantity of the glass finds and its distribution within the site are also noteworthy. It is surprising that so little glass of the period of occupation of the villa was found, though it should be noted that only 30.6 per cent of the *domus* was excavated and that some areas of the building were not completely investigated, so the surviving fragments may not be an accurate reflection of the amount of glass originally present. If the house was largely kept clear of rubbish or if broken glass was carefully collected and removed for recycling it would not now be visible within the building; the recycling of broken glass has been widely recognised at civilian and military sites in Britain and elsewhere. On the other hand, it is possible that glass did not have a very significant place in the life of the villa, though at least one very fine vessel was found. Whatever the cause, the small quantity and limited range of the glass vessels is unusual at a late Roman villa.

In particular, it is puzzling that no fragments of window glass were found. As a rule, villa buildings in Britain had some glazed windows, as these were essential for the conservation of heat in the bath-house and in the heated rooms in the main residence. However, the panes may have been carefully removed before the building was abandoned, as has been argued for some early buildings at Caerleon (Boon 1966). Ingleby Barwick in North Yorkshire is another villa where no window glass was found (Price 2013, 121).

The glass finds were concentrated within Room 6 in the villa building. Six of the vessels (nos 1, 5–9) and the three beads (nos 12–14) were found there, as were a number of other finds of higher status. The positions of the finds is known but their original contexts were disturbed. Although it is not clear whether this represents a hoard of fragments, this concentration of glass fragments is extraordinary, as only nos 9 and 12–14 are contemporary with the villa building, the others coming from late first- or second-century containers which must have been collected from elsewhere and brought to Room 6 long after they were broken.

Discussion of the periods of use of glass finds at Abermagwr is based on information from elsewhere in Britain and the north-western provinces as few of the finds were stratified and many came from residual contexts. However, the deposition of two fragments from an almost new square bottle (no. 4) in the base of the inner enclosure ditch 090, dated by one radiocarbon date (SUERC-46233), provides support for the construction of that feature in the first or second quarter of the second century.

### **Later first- to second-century vessels**

The nine fragments are from bluish-green containers, that is vessels made to contain and transport liquids, semi-liquid foodstuffs and other commodities. These vessels are found in very large numbers in Britain in the later first and throughout the second century (Price and Cottam 1998, 191–202; Price 2011), and in continental European and North African provinces. The vast majority of the containers are bottles with a horizontal or diagonal folded rim, cylindrical neck, one or two handles and a cylindrical or prismatic body. A few examples were finished as jars, with a vertical folded rim and wide mouth above the body, but it is very probable that all the fragments at Abermagwr come from bottles. The cylindrical and prismatic vessels often have vertical scratch marks on the body from repeated lifting and replacing in close-fitting cases, and the prismatic bodied vessels almost always have designs in relief on the base. These vessels are found at urban and rural sites but are particularly common in military contexts in the frontier regions and they arrived at the forts as part of the network of supply for the units in garrison.

Each of the eight catalogued items might represent a different vessel but only four have been certainly identified — a cylindrical and a square bottle (nos 3–4) and two other prismatic bottles that are different from no 4 and from each other (nos 5 and 7). The cylindrical bottle (no. 3) is very likely to have reached the site by the end of the first century. Bottles with this body shape are very common finds in the later first century but disappear from circulation in the early second century, though they occasionally occur in burials until the middle of the century. Some cylindrical bottles were very large with tall and narrow or short and wide bodies (Price and Cottam 1998, 191–4), but the surviving fragment is too small for any estimation of the body diameter to be attempted. It is interesting, however, that there are no vertical scratches on the body, suggesting that it was not stored in a protective case.

The two joining fragments of the square body and base (no. 4) come from a bottle with a geometric basal design which has been reconstructed to show two concentric rings with twelve short bars or spokes linking them to form a wheel-like motif. No other examples with twelve spokes are known, but this appears to be a larger version of a very similar basal design recorded in forts, towns, *vici*, and villas in Britain, as at Lullingstone, Silchester and Corbridge (Charlesworth 1966) and Chesters, *Vindolanda*, Carlisle and Maryport (all unpublished), and from a burial at Welwyn (*ibid.*). There is no close dating evidence for the deposition of these pieces, although the presence of several at forts on the northern frontier suggests that they are likely to belong to the earlier second rather than to the first century, and the presence of a pontil scar on all the known pieces also suggest a second-century date, as the feature does not occur on first-century bottles. The dates provided by calibrated radiocarbon dating for the context of the Abermagwr bottle are therefore valuable. This basal design appears to be rare outside Britain, apart from one at Reims in north-eastern France which has been dated to the first century (Cabart 2003, fig. 2, no. 19).

The Abermagwr bottle appears to have been almost new when it was broken and deposited in the enclosure ditch. The outside surface of the body has not been scratched by use and the base shows almost no signs of wear.

### Later third- to fourth-century vessels

Fragments of three late Roman colourless and greenish colourless tableware drinking vessels were found in the excavation (nos 9–11). One of these (no. 9), a large and deep convex bowl or cup of high quality decorated with three bands of geometric facet-cutting, must have been an extraordinary item of luxury. The profile has been reconstructed from them to show the general form of the vessel. The height and angle of the body may not be quite accurate as it has been assumed that the vertical oval facets in two rows were of equal size and that the body was cylindrical, but it may have expanded out from the missing rim towards the missing base.

The large convex bowl or cup (no. 9) belongs to a small group of colourless convex bowls with geometric facet-cut decoration in circulation in the north western provinces in the later third and early fourth centuries. The principal bowl forms are hemispherical or deeper convex, and some also have two handles and a stem and foot (see Fremersdorf 1967, pls 66–68, 85, 139–45 for examples found in Köln and elsewhere in the Rhineland and eastern France). The bowls are not very common in Britain. Fragments have been found in towns, villas and military sites in many parts of the province, but few are known from the northern frontier region and they are rare in burials (see Price and Cottam 1998, 115–7 for some examples). Many fragments are too small for the bowl shape to be identified but deep convex examples comparable with the form of the Abermagwr fragment have come from *Verulamium* (Charlesworth 1972, 208, 5, fig. 78, no. 52) and King William Street in London (Wheeler 1930, 121–2, fig. 42.1–2; Price and Cottam 1998, fig. 47b, pl. 4.5).

No bowl with an exactly similar decorative scheme has been identified, but some of the decorative zones are recognisable on other bowls. In particular, the row of lozenges with crosshatched infill occurs

on a fragment from the fort at Caister-on-Sea in Norfolk (Price and Cool 1993, 141, no. 6, fig. 129) and as the second zone on a fragment from the villa at Castle Copse, Great Bedwyn in Wiltshire (Grose 1997, 302 no. 43b, fig. 142) and it is often found on bowls in the Rhineland, as at Bonn (Follman-Schultz 1988, 106, no. 392, taf. 46), and at Köln and elsewhere (Fremersdorf 1967, pls 66, 85, 140, 142–5).

Very few of the pieces in Britain have come from closely dated contexts, but the seven examples recorded in cellar deposits dated to AD 280–315 at *Verulamium* (Charlesworth 1972, 206 xiii, nos 8–13, fig. 78, nos 48–53) and the fragment in a context dated to AD 290–320 at Rose Lane, Canterbury (Charlesworth and Price 1987, 222, no. 12, fig. 88) suggest that the bowls were in circulation in the later third or early fourth century, which ties in well with the end of occupation of the villa at Abermagwr in the 330s or 340s.

The Abermagwr bowl is a particularly large and fine vessel, and it must have been recognised as a very good piece of late Roman tableware. The glass blank is of high quality with comparatively few bubbles and was blown thick enough to accommodate the facet cutting. The cutting is deep and accurate, and the decorative scheme carefully planned. Its quality is vastly superior to the rest of the glass vessels found at the villa, and indeed to virtually all the late Roman tablewares known in Wales, and it is intriguing to wonder about the circumstances in which it reached Abermagwr. In this respect it may be comparable with the remarkable polychrome glass plate from Egypt found at Ingleby Barwick in north Yorkshire, a villa in the northern frontier zone (Price 2013, 123–4, fig. 4.33).

The remaining fragments of late Roman drinking vessels (nos 10–11) come from cups or beakers made in very bubbly pale yellowish green and greenish colourless glass (Price and Cottam 1998, 117–9, 121–3; Price 2000, 5–11, figs 3–4). No. 10, probably from a convex cup, has a cracked off rim and slightly convex upper body with a narrow horizontal abraded band and no. 11, probably from a conical beaker, is an almost straight-sided body fragment with two narrow abraded bands. They are two carefully made examples the cups and beakers that appear before the end of the third century and became commonest glass vessel forms in Britain in the fourth century. They are found in large numbers in many parts of Britain, though they are often noticeably scarce in the northern frontier region and in many parts of Wales.

### Glass beads

Three beads were found, all from Room 6. They are a small colourless globular bead enclosing gold foil (no. 12), an opaque green hexagonal bead (no. 13), and a small black globular bead that may be made from jet or shale, rather than glass (no. 14).

No. 12 is a nearly spherical gold-in-glass bead with neatly finished edges to the very narrow perforation, and it does not appear to have been separated from a segmented bead. It was not found in a stratified context, but was almost certainly deposited in the later third or early fourth century.

Gold-in-glass beads appear to have arrived in Britain in the later second or early third century with troops from the Upper Danube region (Boon 1977). Their appearance is exotic but they occur in some numbers in the late second, third and fourth centuries, particularly in military settlements. For example, twenty-six were found in the deposits dated to *c.* AD 160–230 in the drain of the legionary fortress baths at Caerleon (Brewer 1986, 151–2, nos 1–26, fig. 49B) and eleven, dated to the Antonine–Severan period came from the auxiliary fort at Castell Collen, Powys, mostly from the filling of the drain of the baths (Boon 1978, 19; see also Davies 2006). Elsewhere in Britain, at least twenty-two examples are known from excavations in the baths and in civilian and military contexts at *Vindolanda* (Birley and Greene 2006, 33–4, fig. 1.17) and single or small groups of beads were noted in at least two third-century burials at the auxiliary fort at Brougham, Cumbria (Cool 2004, 386–7) and in four fourth-century burials at Lankhills, Winchester (Guido 1979). They do not, however, seem to be found very frequently at villa sites, so the presence of this bead at Abermagwr is noteworthy.

The second bead (no. 13) is a complete opaque green hexagonal bead with a small perforation which has a groove across one end. Opaque green glass beads were probably made as imitations of emeralds and glass and emerald beads are sometimes included in same necklaces. They were used throughout the Roman period in Britain, but more are known in later Roman contexts. Three similar beads came from deposits dating from *c.* AD 160–230 in the drain of the fortress bath-house at Caerleon (Brewer 1986, 147–8 nos 31–33 fig. 48.33) and they have also been recognised in ritual deposits, as well as in burials. The groove visible on this example may have been made to attach the bead as a decorative mount to the head of a metal pin. A copper alloy pin with a faceted glass bead set in this manner is known from Grave 336, a later fourth-century burial at Lankhills, Winchester (Clarke 1979, 316, pins type D, fig. 89, no. 332).

No. 14 is a small plain globular bead. It has a narrow perforation with signs of wear at both ends, and some chips are missing on the outside surface, so it may have been in use for a long time. The form is simple but it has not been possible to find any close parallels for it among assemblages of glass beads, and the unusually light weight and the extreme blackness of the object suggests that it is made of jet or shale, rather than glass.

*Later first- and second-century vessels (all bluish green)*

1. (Not illustrated). Fragment, base of cylindrical neck, bottle. Outside surface dull, stretch marks on outside surface. Dimensions 8.5 × 23.5mm; thickness 3.5mm. SF 28, Trench C, context 093; Room 6, south-west corner, in or close to intrusive pit 094 containing later material.
2. (Not illustrated). Fragment, base of neck and shoulder, bottle. Depression at junction with neck, narrow shoulder expanding out. Outside surface dull, edges chipped and nibbled. Dimensions 19.5 × 22.5mm; thickness 4mm. SF 45, Trench E, context 110; Room 8, from basal charcoal deposit in Trench E.
3. (Not illustrated). Body fragment, cylindrical bottle. Straight side. Outside surface dull, edges chipped. Little evidence of scratching on outside surface. Dimensions 29.5 × 28mm; thickness 3.75mm. SF 37, context 023; clay floor of Room 2.
4. Two joining fragments, lower body and base, square bottle. Clear glass, some bubbles. Part of two straight sides, concave base. Basal design in relief: two concentric rings with two (of twelve) short bars between them. Some movement within mould visible. Pontil scar on inner ring. No visible wear on body or base, except close to the corner (now missing). No visible weathering. Present height 47mm. Diameter of outer ring 60mm. Base width as reconstructed *c.* 100mm; thickness 1.0–3.5mm. SF 31–32, Trench D, context 073; lowest fill of inner ditch 090 of outer enclosure.
5. (Not illustrated). Body fragment, large thick-walled prismatic bottle or jar. Straight side. Elongated bubbles. Outside surface dull with scratches and wear. Dimensions 61 × 46.5mm; thickness 4.5–5mm. SF 01, Trench A, context 004; upper-level burnt deposit from eastern edge of Room 6.
6. (Not illustrated). Small body fragment, prismatic bottle or jar. Straight side. Vertical scratches. Dimensions 33 × 11.5mm; thickness 1.5–3mm. SF 18, Trench C, context 056; hard-packed floor surface of Room 6.
7. (Not illustrated). Body fragment, prismatic bottle or jar. Straight side. Small bubbles. Slightly dull. Some vertical scratches. Dimensions 49 × 11mm; thickness 1.75–2.5mm. SF 27, Trench C, context 077; Room 6; from lower floor level, below hearth 062.
8. (Not illustrated). Small body fragment, prismatic bottle or jar. Straight side. Vertical scratches. Dimensions 11 × 15.5mm; thickness 2–2.5mm. SF 30, Trench C, context 093; Room 6, in corner at rear, in or close to intrusive posthole 094 containing later material.

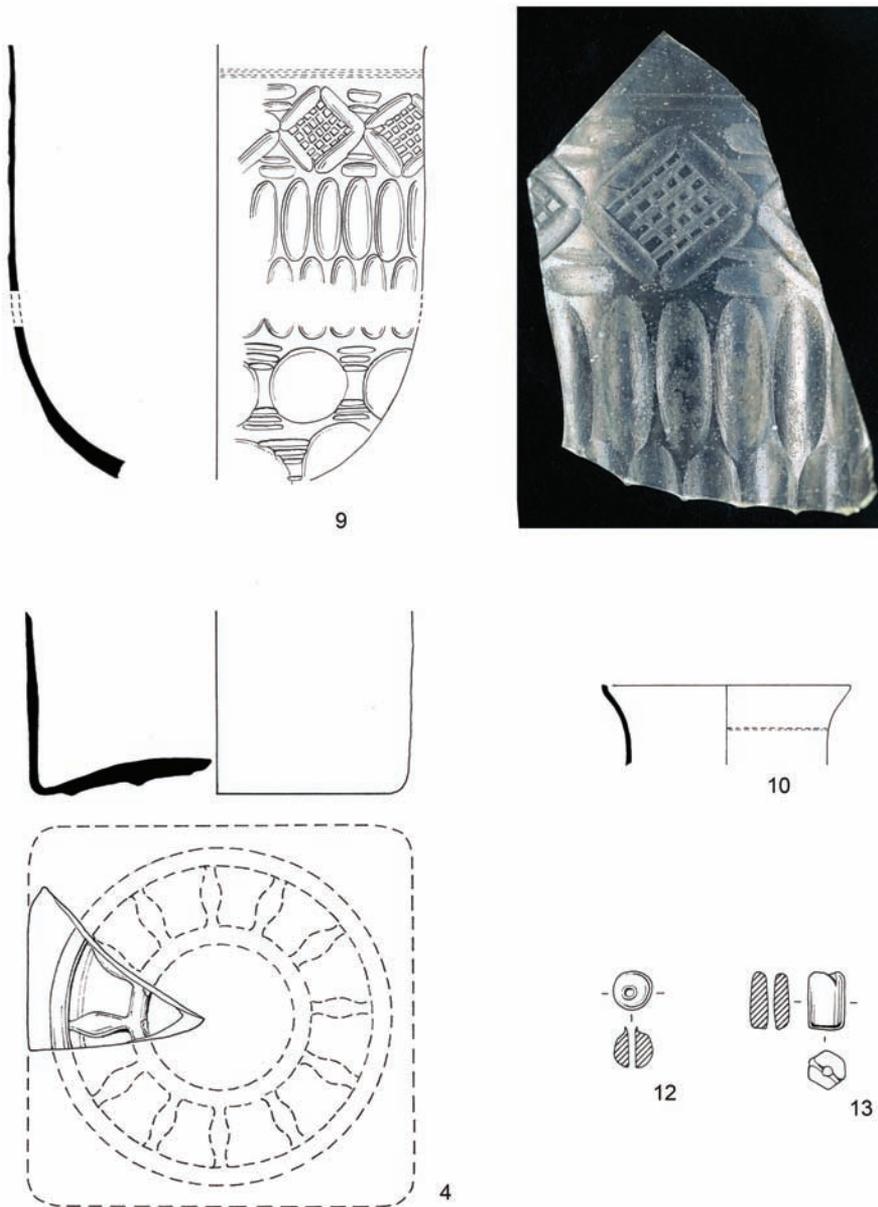


Fig. 19. Roman glass: vessels – 4, 9 and 10 (drawings scale 1:2, photograph scale 1:1); beads – 12–13 (scale 1:1). Drawings by Yvonne Beadnell; photograph by Fleur James, © Crown copyright, RCAHMW.

*Later third- and fourth-century vessels*

9. Six fragments, some joining, were separately excavated as six small finds from three different contexts. Tall convex beaker with geometric linear and facet cut decoration Colourless with pale greenish tinge. Clear glass, many very small bubbles. Vestige of curved rim (top edge missing), almost straight upper body, curving in to base (missing). Two horizontal abraded lines below rim, three zones of cut decoration on body and base as follows: (A) continuous band of lozenges formed by four rounded facet cuts arranged diagonally, infilled with lattice formed by two sets of four diagonal narrow wheel cuts, with two rows of short broad and narrow wheel cuts between the lozenges; (B) two offset rows of closely set vertical oval facets; (C) two offset rows of circular facets with two rows of three short cuts between the facets. Surfaces bright, some pitting in cut areas, no other visible weathering. Present height (as reconstructed) *c.* 115mm; body diameter *c.* 105mm; thickness 1.5–4.5mm. Trench C: SF 12 from floor 56, SF 21 from posthole fill 065, and SFs 24, 25, 29 and 34 from the fill of pit 094.
10. Rim fragment, convex cup. Pale yellow-greenish colourless. Curved rim, edge cracked off neatly, not ground, upper body expanding out. Narrow horizontal abraded band on upper body. Many small bubbles. Weathering streaks on outside surface. Present height 22mm; rim diameter *c.* 70mm; thickness 1.5mm. SF 40, Trench A, context 011 in veranda, Room 7.
11. (Not illustrated). Small body fragment, cup or beaker. Pale greenish colourless. Almost straight side, two narrow horizontal abraded bands. Many small bubbles. Weathering streaks. Some scratches on inside and outside surfaces. Dimensions 22.7 × 19mm; thickness 1.5–1.75mm. SF 48, Trench C, context 080; earth-filled depression in eastern part of Room 6.

*Beads*

12. Complete small globular bead, colourless glass enclosing gold leaf. Small perforation, ends neatly finished. Diameter 5mm. SF 17, Trench C, context 056; from hard-packed clay floor 056 of Room 6.
13. Complete hexagonal bead. Opaque green. Small perforation. Surfaces dull. Groove across one end. Dimensions 8 × 5mm. SF 23, Trench C, context 077; lower floor level 077 in Room 6, below hearth 064.
14. (Not illustrated). Globular bead. Black. Small perforation. Chips missing from surface, wear at both ends, dull in places. Diameter 7mm. SF 13, Trench C, from slate and rubble layer 051 above burnt deposit in Room 6.

## STONE SMALL FINDS

By Toby Driver

1. (Not illustrated). Shale spindle whorl. 39mm diameter, small circular central perforation, undecorated. SF 03, Trench A, context 008, fill of robber trench cut, north villa wall.
2. Shale spindle whorl. 30mm diameter, undecorated, off-centre rectangular/oval hole. SF 11, Trench D, context 042, upper fill of inner (west) enclosure ditch 090, double-ditched outer villa enclosure, above 048.
3. Shale bracelet fragment. 27 mm long section, 5 mm width, 3 mm deep D-shaped section. Original diameter *c.* 89mm, suitable for wrist. SF 35, Trench A, context 087, burnt deposit underlying collapsed slate layer.
4. (Not illustrated). Gaming counters. Three small, smooth, rounded, flattish, unshaped pebbles found close together in the eastern side of Room 1, against the room division. They comprise: (1) one white pebble 18 × 24mm, 17mm width, the smallest and most rounded of the three; (2) one rounded white pebble 28 × 26mm, 14mm width; (3) one very smooth black pebble with lighter veins crossing it, 27 ×

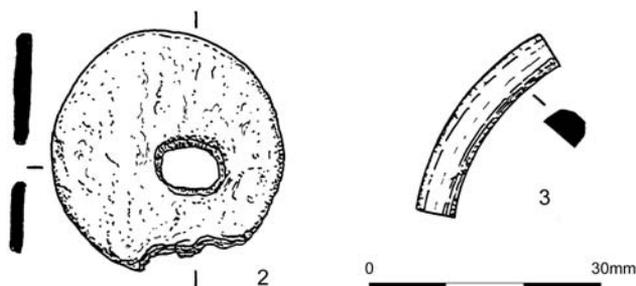


Fig. 20. Roman stone small finds: 2 – spindle whorl; 3 – shale bracelet fragment. Scale 1:1.  
*Drawing by Ian Dennis.*

31mm, 14mm width, comparable in size and width to the previous. The proximity of these three finds, and in particular the very similar size and width of (2) and (3), suggests they are lost Roman gaming counters. SF 42, Trench C, context 105.

5. (Not illustrated). Whetstone fragment. Unshaped, natural, narrow pebble with rounded end, 70 × 13mm, snapped along length. Flat underside. Rounded topside with longitudinal scratches. SF 50, Trench C, context 087.
6. (Not illustrated). Possible whetstone fragment. Rectangular natural block of shale, 73mm long, 41mm wide, 14mm thick, squared edges. Unshaped end, faces and one side, comprising smooth natural stone; snapped along length. One long side smooth, potentially highly polished with abraded long edge, possibly through use as whetstone. SF 68, Trench F, context 115, subsoil layer in villa courtyard.
7. (Not illustrated). Pebble maul/grinding stone. Heavy, natural, water-rounded oval cobble, 96 × 86mm, weighing 1.01kg with damage caused by pecking/grinding on opposite flatter sides. One side is more heavily damaged by pecking than the other indicating preferential use. SF 69, Trench G, context 133.

## FLINTWORK

By Toby Driver

Prehistoric flints have previously been recorded during fieldwalking in 1997 some 200m south of the villa,<sup>26</sup> comprising two flint cores, three cortical flakes, a blade and a flake fragment, together with a flint nodule with two removals and a natural flint fragment. They were found along the line of a relict stream channel recorded as cropmarks on aerial photographs taken by the Royal Commission in 1989. It seems likely that the flint finds from Trench F (nos 3–5), discovered in the lowest levels of the gravels and clay (no. 5, 0.66m below topsoil), may represent stray finds deposited in later prehistory along the former course of the Nant Magwr. Some of the flints, particularly no. 4, are Mesolithic in character, but with miniaturisation caused by the use of locally available pebble flint the finds could date to any period in later prehistory. The possible tranchet arrowhead no. 3 would typically be late Neolithic.

1. Split flint pebble, fire-reddened, 23 × 22mm, natural. SF 54, Trench F, context 115, subsoil layer in villa courtyard.
2. Secondary cortical flake on translucent grey flint, unretouched. SF 56, context 127, upper fill of outer (west) enclosure ditch 126.

3. Grey-white patinated fragment of snapped flint blade, 24 × 23mm; a possible tranchet arrowhead. SF 57, Trench F 130, context 130 in villa courtyard.
4. Narrow, long flint blade in black flint. 'Core cleaning' blade bearing scars of previous blade removals and a step fracture. Possibly Mesolithic. 33 × 8mm (max.). SF 58, Trench F, context 131, lowest layer of villa courtyard, possible natural river gravels, at 62.11m OD.
5. Heavily patinated flint flake in brown flint, 25 × 19mm, natural. SF 59, Trench F, context 131, lowest layer of villa courtyard, possible natural river gravels, at 62.15m OD.

### ROMAN STONE ROOF SLATES

By Toby Driver and W. T. (Bill) Jones

The *domus* was roofed with stone slates or tiles split from local Ordovician shale mudstone, forming the earliest known slated roof in Ceredigion. Fletcher (see above) identifies the closest source of suitable stone as lying between 4–5 kilometres south-east of the villa to the south of the Ystwyth Gorge, in a series of outcrops between Llanafan Bridge and Ysbyty Ystwyth.

Quantities of Roman slates were recovered from across the *domus*, both from the upper rubble layers (principally 010) and in increasing quantities as the lower stratigraphy across the central part of the villa was investigated including layer 014 uncovered in the northern part of Trench A, discrete layer 022 in the northern part of Room 2 and layer 051, a slate and rubble layer above Room 6. The vast majority of slates were discovered in a fragmentary state, and a number were burnt (e.g. slate corpus no. 11, not illustrated). However, a small number of complete slates were recovered principally from a stack of flat-laid slates (037) in the external angle at the rear of the *domus* between Rooms 2 and 6; a complete hexagonal slate was also excavated from context 119, the upper fill of the inner ditch 118 on the west side of the double-ditched villa enclosure. Due to the considerable weight of the slates, and the lack of storage space in the Ceredigion Museum, Aberystwyth, a 'slate corpus' of 27 of the best preserved, engraved or most instructive slates was photographed and retained for future study with the remainder of unmarked or broken slates returned to site (see examples illustrated in Fig. 21).

The majority of roof slates were pentagonal, neatly cut with a flat top, long sides tapering slightly outwards and a pointed base, although a fewer number were hexagonal including the most complete slate from context 119 (Fig. 21, no. 27). Other shaped slates were excavated including triangular ridge-top slates and narrow tapered slates designed to form the edges or base of the roof. In addition the corpus displays a range of original slaters' marks, the like of which are not preserved on the harder Cambrian slates of the Roman sites of north Wales. Their survival is part of what makes the corpus from the Ceredigion villa so important.

#### **Evidence of standardised manufacture of Roman roof slates in Wales**

The Roman roof slates from Abermagwr show the use of standardised methods of slate manufacture which were still prevalent in the north Wales slate industry of recent centuries. In general the roofing materials of Roman buildings receive cursory attention in excavation reports, often simply being weighed and measured. More detailed research was carried out on over 400 stacked Roman slates excavated at Y Bryn near Tremadog (Jones, G.P., 2012). It is likely the slates were associated with the nearby remains of a bath-house excavated in 1908, possibly associated with a *mansio*. In working with the slate specialist Bill Jones during post-excavation at Abermagwr, it became clear that the roofing materials show the hand of an experienced slater or slaters working on site during the villa's construction.



Fig. 21. Examples of Roman roofing slates from the retained slate corpus, with incised marks highlighted. Scale 1:8. Photographs by Toby Driver and Fleur James, © Crown copyright, RCAHMW.

Gwyn (2015, 30–35) usefully reviews the Roman evidence for slated roofs from Wales, in the context of the developing north Wales slate industry. He notes that roof slates from the Tremadog excavations, from Carmarthen and from Cwmbryn villa share a hexagonal pattern, being approximately 300mm wide and long, fixed by an offset nail hole near the apex hammered through from the outer surface. The off-centre nailing ensured water could not leak through gaps in the roof. Similar examples have been excavated from the Roman fort of *Segontium*. The shaped slates would have formed a highly decorative roof. Hexagonal and pentagonal slates or roof tiles are common from Romano-British contexts elsewhere in Britain and especially among villas of south-western England, the Isle of Wight and south Wales where softer limestone was often employed along with Cornish slate (e.g. Selkirk 2017, 31). Bill Jones suggests that the pentagonal slates, more common at Abermagwr may have evolved into the hexagonal slates found at Tremadog as they would have been lighter, reducing the weight of the roof by a fifth. This may suggest a chronological association between sites with predominantly pentagonal slates being earlier, and those with the more efficient hexagonal slates being potentially later.

Gwyn (2015, 31), citing Bill Jones, notes a standard measurement of 296mm from the nail hole to the base of the slate shared by the 425 complete or near complete Roman slates from Llidiart Ysbyty, Tremadog (Jones, G. P., 2012, 120–122), which equates to a Roman *pes* (roughly a foot; 295mm or 11.6 inches). At least two slates from Tremadog were a larger size, a *palmipes*, 370mm. This suggests standardised manufacture and also the use of a *pric mesur*, a measuring stick or slaters' rule (ibid. 34), notched to lock to the base of the slate with a projecting nail marking the desired position of the nail hole with a scratched or incised line. Measuring sticks were used in post-medieval and modern slate manufacture, but the preservation of scratched lines beneath some of the nail holes on the Abermagwr slates (see below and Fig. 21, no. 6) shows identical tools in place in third-century AD Ceredigion. Gwyn also describes the use of a *cyllell fach*, a 'small knife' or 'slaters' axe' to shape the slates; a similar tool was doubtless in use to trim the edges of the Roman slates. The nail hole would be punched from the outer surface with a slate hammer, producing a square hole from the Roman nail.

Bill Jones' theory that hexagonal and pentagonal slates could only be made by using a template was confirmed through experiments conducted at the Welsh Slate Museum, Llanberis, in 2014. An experienced slater found that a hexagonal slate could not be produced through traditional methods of hand trimming alone. When a Roman slate from Tremadog was introduced as a template the slater produced a hexagonal slate within a few minutes. The template was traced onto the back of the slate, with the *pric mesur*. On inspecting the newly made slate, though the template markings were made with pencil, the marks left behind on the finished slate corresponded with those on the Abermagwr slates. It is likely that the Roman template was made of metal rather than wood, for durability. Similar hexagonal templates have been observed in modern use by Bill Jones at Alta Slate Quarry, Finnmark county, Norway.

### Roofing logistics

Complete slates were encountered in two main sizes; greater numbers of a smaller pentagonal slate had a nail hole to base measurement of between 287–315mm (slate corpus nos 01, 02, 05, 07) centring on the Roman *pes*; fewer larger hexagonal slates had an average nail hole to base measurement of 355mm (including slate corpus nos 3, 8) although the complete slate 27 (Fig. 21, no. 27) is even larger, with a measurement of 382mm nail hole to base. This single large slate appears to have conformed to the Roman *palmipes* (370mm) similar to the two larger slates from Tremadog, cited above. Both *pes* and *palmipes* slates from Abermagwr have a base angle of 90 degrees.

As a guide to the weight of the stone slates, smaller pentagonal slate 01 (*pes*, Fig. 21, no. 1) weighs 2.73kg, close to the average 2kg for *pes* slates from Tremadog. Larger hexagonal slate 03 (not illustrated) weighs 3.35kg while the largest slate 27 (*palmipes*; Fig. 21, no. 27) weighs 4.18kg, and is 22mm thick. Bill

Jones estimates approximately 6,600 slates were required for the roof of the main villa block, and around 2,475 slates for the separate smaller roofs of Rooms 4, 5, 6 and 7, assuming a 45° pitch. Using the average 2kg weight for the smaller *pes* slates, the entire roof would weigh some 18.15 tonnes. The presence of two distinct slate shapes implies variable treatment of the roofs of the main block and ancillary roofs; due to the spacing of wooden battens on the roof, slates of different sizes cannot be mixed on one roof (Parry and Kenney 2012, 123). If the largest *palmipes* slates (Fig. 27. no. 27) was used on the ancillary roofs of rooms 4, 5, 6 and 7 alone it would add an additional 4.95 tonnes to the overall roof weight stated, assuming a higher average weight of 4kg per slate.

### Slate types and technology

While the significance of complete or partial pentagonal and hexagonal roof slates was recognised during excavation, little value was attached to the large number of unrecognisable slate fragments in the excavated sample. Only when these were examined by Bill Jones in 2012 was the actual range and diversity of specially-trimmed slate types fully appreciated among the apparently broken fragments. He identified the two quite rare triangular ridge-top slates (Fig. 21, nos 12–13), unmatched in the Tremadog assemblage, both trimmed to an identical template along with other flat-sided or narrow tapered slates essential to the creation of a complete slated roof (see Jones 2012, fig. 7). Finds of terracotta *imbrices* at Abermagwr (from contexts 009, 011, 033, 036, 050, 051, 078, 082, 098, and 105; see 4.2 above), no doubt robbed from abandoned military contexts nearby, would have been the only practical solution to roofing the ridge line itself. The slates were fixed to the roof with square iron nails, many of which were still in their holes. The slates would have been placed flat on the roof and hammered through from the front, shattering off spalls of stone on the underside. Some of the slates from Abermagwr have two or more



Fig. 22. Reconstructed section of the slated Roman roof from Abermagwr villa. Note the two triangular ridge-top slates, and the flat-edged slates at the base of the roof. Scale 1:8. Photograph by Iain Wright, © Crown copyright, RCAHMW.

nail holes (a good example being Fig. 21, no. 7) suggesting reuse during episodes of re-roofing or repair, itself a good indicator of change during the lifetime of the villa. Medieval and post-medieval Welsh slates commonly had moss put under them to improve insulation and waterproofing, but it seems unlikely at Abermagwr given the clean, ornate diamond-pattern roof which was aspired to; the maintenance required for a moss-slate roof would also not have been practical with the presence of fixed nails, rather than the wooden pegs used on many later Welsh roofs.

### **Abermagwr slaters' marks**

Bill Jones first identified a range of very slight slaters' marks made during the original production of the slates. These simple marks, scratches and incisions are evidence for the presence of at least one skilled craftsman on site at the villa during its construction. The marks also show direct continuity in slating skills, practice and tools from the Roman period to the recent industrial past.

Two main types of shale mudstone were used for the roofing. The first is a pale, grey mudstone, hard to the touch with a silvery 'glint' in sunlight. Only marks which have been more deeply incised into the surface of these slates are preserved (e.g. Fig. 21, no. 7) while the second type, a softer dark grey mudstone preserves a range of very fine scratches and incised lines across the surface (e.g. Fig. 21, nos 1, 6, 9). By way of comparison, no slaters' marks survived on the slates from Llidiart Ysbyty, Tremadog, as they were made of harder Cambrian slate; likewise, similar marks inscribed on softer stone roof tiles made of limestone from the villas of southern England and south Wales are likely to have eroded away. It is reasonable to conclude those at Abermagwr are among the earliest slaters' marks to be preserved anywhere in Wales.

The principal types of marks preserved on the Abermagwr slates comprise: (1) A short scratch or incision marking the position of the nail hole, made by a *pric mesur* or measuring stick (Fig. 21, no. 6); (2) Straight lines parallel to the present edges formed from tracing around a template (Fig. 21, no. 9); (3) template lines of other potential shapes incised into the slate (including median lines), suggesting either that alternate shape/size options were considered or abandoned, or that the slate was used as a 'cutting board' during the roofing process, or that a slate of a previous shape has been reused and re-shaped for a different roof (Fig. 21, nos 1, 7); (4) marks of a rectangular-tipped punch or chisel used either to score out trimming lines (as on the edge of Fig. 21, no. 6) or to form decorative notched edges seen on some of the smaller rectangular or straight-edged slates (seen on Fig. 21, nos 24–26); these examples may imply that the eaves of the house were decoratively finished.

**Illustrated examples from slate corpus** (Fig. 21), with incised marks highlighted.

1. Pentagonal slate, 380mm long, 258mm wide, 305mm from nail hole to base. Inner face showing template marks. Trench C, context 062.
6. Flat-based slate, 340mm long, 220mm wide, 210mm from nail hole to base. Inner face (left) with horizontal line; outer face (right) with diagonal and median lines, *pric mesur* line marking nail hole, and punch marks trimming edge at right. Trench A, context 037.
7. Hexagonal slate, reused, 312mm long, 232mm wide, c. 300mm from nail hole to base. Outer face (left) with template marks for hexagonal trimming; inner face (right) with diagonal and median marks. Trench E, context 082.
9. Narrow tapered (edging?) slate, 280mm long, 140mm wide, 240mm from nail hole to base. Outer face showing template mark parallel to edge. Trench A, context 004.
12. Ridge slate. Trench C, context 077.
13. Ridge slate, nail *in situ*. Trench A, context 036.
23. Flat-edged slate. Trench C, context 089.

24. Notched slate, fragment. Trench C, context 079.
25. Notched slate, fragment. Trench C, context 062.
26. Notched slate, fragment. Trench C, context 062.
27. Hexagonal slate, length 470mm, width 300mm, 382mm from nail hole to base (close to a Roman *palmipes* of 370mm). Outer face (left) and inner face (right). One of the most complete Roman slates discovered from the villa, trimmed at the top in series of punches around the edge, with four punches around the nail hole. The nail hole is slightly right of centre. Trench G, from upper fill 119 of the inner, western, enclosure ditch 118.

#### ANIMAL BONE

By Ros Coard

The bone fragments from Abermagwr are not particularly numerous, calcined to varying degrees, with poor bone surface texture generally, and highly fragmented. As such they are not easy to identify. This level of survivorship and condition makes them consistent with other bone fragments found in this area of west Wales from Roman sites. That they have survived is due to them being burnt and this has been done to various degrees. Even within the same context some look and feel highly calcined: e.g. context 005 from Trench A, has a highly calcined skull fragment alongside less calcined post-cranial bone fragments. All identifiable bones are animal and largely of domestic species. The levels of preservation do not really allow for detailed archaeozoological analysis; only a few are identifiable to both anatomical part and species. At least one bone (Trench C, context 098), most probably sheep, is a single epiphysis of an unfused calcaneus representing a juvenile of the species. Sheep are also represented by lower leg bones, including a tibia fragment (Trench E, context 110) from a basal charcoal deposit and a further tibia fragment (Trench C, context 077) from Room 6 is also most probably sheep. Cattle are represented by dental fragments including a worn upper pre-molar (Trench E, context 082) recovered from a dark charcoal layer. Further dentition (e.g. Trench A, context 049), most probably cattle, were also recovered from a lower soil layer in Room 2 but these are highly degraded and very fragmented.

#### PALAEOENVIRONMENTAL ASSESSMENT

By Fiona Grant

Three context samples were submitted for palaeoenvironmental assessment (Grant 2013). Suitable material for radiocarbon dating was extracted from samples from contexts 062 and 073. As the submitted quantities of material were relatively small, the entire samples requiring extraction of material for radiocarbon dating were extracted by hand-sorting, then, in accordance with the Association of Environmental Archaeology guidelines (1995) the remainder of each sample was subjected to flotation and wet-sieved through a nest of sieves in the mesh size range 5mm to 0.5mm for the isolation of the various organic and inorganic components. The residues and flots were dried before being hand-sorted by eye and using a binocular microscope. Samples of charcoal greater than 4mm were submitted to Environmental Archaeological Services at Durham University in order to identify species and thus isolate the most suitable material for radiocarbon dating.

Samples from contexts 073 and 098 were assessed for palynological potential by identifying the state of pollen preservation. Small sub-samples (c. 10mm<sup>3</sup>) were removed from the samples from 073 and 098 and prepared for pollen analysis using standard techniques (Moore *et al.* 1991), including treatment

with hydrochloric acid to remove carbonates, micro-sieving through a mesh aperture of 10 $\mu$ , high fidelity digestion to remove silicates and acetolysis to digest organic matter. A known quantity of *Lycopodium* spores were added to each sample to enable the calculation of pollen concentrations within the samples (Stockmarr 1971). The residues were mounted in silicon oil. Counting and identification was carried out using an Zeiss Axiolab at  $\times 400$  magnification, and with the aid of a reference collection of type slides, online pollen image databases, and the pollen and spore key in Moore *et al.* (1991). For the purposes of assessment a count of 100 grains was attempted. Where concentrations were low, counting was continued until a count of 100 *Lycopodium* grains was achieved.

### Summary of results

Pollen concentrations from both samples were very low, with five grains only from context 073, and ten from 098 (per 100 *Lycopodium* spores). Very low values of moss and fern spores were present in 073, and fern spores only in 098. Further analysis on these samples is not recommended. Organic material from contexts 062 and 073 consisted entirely of wood charcoal. No other macrofossils were present.

### Late hearth in Room 1, context 062

The sample originated from a late hearth on the northern edge of Room 1 (Fig. 13) constructed from roof slates and thus post-dating the abandonment of the building. A small portion of the sample was extracted from between the slates and may relate directly to the life of the hearth. Unfortunately, the organic material within this sample was limited in quantity and rather friable in nature making further analysis unviable. The larger portion of the sample was from immediately below the slate hearth. All organic material extracted from this sample comprised fragments of wood charcoal. No other macrofossils were identified. Further analysis identified this as oak stemwood. It should be considered that the charcoal from this sample may have its origins in timbers from the original building. This may have implications for any radiocarbon dates acquired from this material as they will relate to the original construction, not the post-abandonment period. Alternatively fresh fuel wood may have been gathered for the purposes of burning on this hearth. However, it is important to bear in mind when using oak to acquire radiocarbon dates that oak can be a very long-lived tree and can therefore provide earlier dates than expected. With this proviso in mind, those fragments of oak charcoal from this sample considered most suitable for radiocarbon dating have been extracted and identified. Radiocarbon date SUERC-46234 was obtained from the sample.

### Lower fill of inner enclosure ditch, context 073

The sample originated from lower fill of the inner enclosure ditch 090 (Fig. 14), and may probably belongs to the early history of the site. Identified charcoal comprised oak, alder stemwood and hazel branchwood. Radiocarbon date SUERC-46233 was obtained from the hazel charcoal in the sample.

Pollen concentrations were extremely low and thus provide very little information. The following were identified: *Quercus* (oak), 1 grain; *Alnus glutinosa* (alder), 1 grain; *Corylus avellana*-type (hazel), 1 grain; Poaceae (grass), 2 grains; *Sphagnum* (moss), 2 spores; *Polypodium vulgare* (fern), 2 spores. The presence of oak, alder and hazel pollen grains supports the evidence from the charcoal. Hazel readily occupies open ground and produces plentiful pollen. It may have formed part of a mixed local woodland along with oak, or occupied areas of scrub or hedging. Alder would flourish in any wet areas, such as may be provided by the ditch, or any watercourse nearby. The presence of grass pollen simply identifies areas of open ground. Fern and moss spores are particularly resistant to decay and their low level presence here is not significant.

**Fill of oven in Room 2, context 098**

Fill of oven 098, adjacent to hearth or charcoal deposits 036, in south part of Room 2. The pollen concentrations from this sample were again very low, and consequently little information can be derived from them. The following were identified: *Corylus avellana*-type (hazel), 1 grain; Poaceae (grass), 7 grains; Lactuceae (e.g. dandelion), 2 grains; *Polypodium vulgare* (fern), 4 spores. The presence of open areas is indicated by grass pollen, and species such as *Taraxacum officinale* (dandelion) are common on disturbed ground, as would be expected in an area of occupation.

## RADIOCARBON DATING

By Toby Driver

From Smith *et al.* 2016 *Rural Settlement of Roman Britain*, it emerges radiocarbon dates are available for just 278 (7 per cent) of the sites on the project database covering England and Wales. This makes the three radiocarbon dates derived from the Abermagwr Roman villa all the more important for our continuing study of later Iron Age and Romano-British settlement in mid and west Wales. The following samples were analysed at the Scottish Universities Environmental Research Centre (SUERC) AMS facility. The calibrated age ranges are determined from the University of Oxford Radiocarbon Accelerator Unit calibration program OxCal v4.

**SUERC-46234** (GU30350)

*Context:* late hearth (context 062) on northern edge of Room 1, constructed of former roof slates

*Material:* oak (*Quercus*) charcoal

*Radiocarbon age BP:* 1832±27

*Calibrated date:* cal. AD 89–245 (95.4% probability), cal. AD 123–245 (93.1% probability)

*Radiocarbon age BP:* 1844±26

*Calibrated date:* cal. AD 86–239 (95.4% probability), cal. AD 119–239 (89.3% probability)

**SUERC-46233** (GU30349)

*Context:* lowest charcoal-rich fill (context 073) of inner enclosure ditch 090, below 072

*Material:* hazel (*Corylus avellana*) charcoal

**SUERC-65621** (GU39884)

*Context:* lowest fill (context 132) of outer enclosure ditch 126, below 128

*Material:* hazel (*Corylus avellana*) charcoal

*Radiocarbon age BP:* 1761±30

*Calibrated date:* cal. AD 145–382 (95.4% probability), cal. AD 211–382 (92.4% probability)

## DISCUSSION

The following discussion is based upon the premise that the Abermagwr house was the *domus* of a villa, the centre of a Romanised agricultural estate: however, despite its manifest civilian character, is this interpretation necessarily correct? Is there an alternative explanation for a thoroughly Romanised building appearing well outside the orbit of the villa phenomenon in Wales? A site such as Pentre Farm, Flintshire (O’Leary *et al.* 1989) immediately comes to mind. Here, the excavator had no doubt as to the role of the timber, and later stone house as the administrative centre for the exploitation of the rich local lead-silver deposits; the residence of an imperial procurator and his staff. Similar questions surround the unclassified building at Tremadog, Gwynedd (Kenney 2005; Parry and Kenney 2012, 124–25). Could the Abermagwr house have had a similar function? After all there is good evidence for the exploitation of the north Ceredigion lead-silver deposits in the Roman period, albeit not evidenced in the form of pigs of lead. Lead ore was being smelted on the margins of Borth Bog (Page *et al.* 2012) and local lead was finding its way to the late first-early second century auxiliary fort at Trawscoed (Davies 1984, 278) and to late Roman Abermagwr in the form of lead items probably composed of ore from the Frongoch or Grogwynion lodes (see report by Haylock, above). However, the authors are persuaded that the

dimensions of the enclosure, its comparators, coupled with the date of the *domus*, are not in keeping with an interpretation as an official establishment concerned with mineral exploitation. We trust that the evidence presented below will demonstrate that far from being the exception the site simply demonstrates how our perception of Romano-British rural settlement is being subtly altered by new and sometimes quite unexpected discoveries.

### **The site**

The discovery and excavation of the villa represents a significant point in the study of Romano-British rural settlement in Wales, not least by virtue of its location well beyond the limits of what has been perceived as the south Wales ‘villa belt’; in turn raising questions about the geographical compass of the villa phenomenon in the Principality as a whole together with the regional economy and society.

The location raises some interesting issues. Its situation in a fertile river valley, just within a northern re-entrant to the Ystwyth, with the long abandoned auxiliary fort at Trawscoed only a kilometre or so to the east testifies to the presence of a population who were engaged in the exploitation of local resources. For this the villa was ideally placed, at the interface between the meadows of the river valley and the hill-edge zone giving access to the marginal uplands. The villa may also have benefited from its proximity to the Roman road, assuming that it was still in a fit state for wheeled traffic, when it came to supplies and the marketing of its probably pastoral agricultural produce, and there was a ready availability of building materials from the fort site and its adjuncts. The location was sufficiently attractive that by the later medieval period the ancestral home of a prominent local family, the Vaughans of Trawscoed, had been established next the site of the fort and its *vicus*. By the mid eighteenth century they had amassed sufficient capital to transform their seventeenth-century house into the grand Palladian mansion which occupies the site today. We may beg the question as to whether geographical determinism was at work here. If so might it possibly offer a clue as to the location of other villas in the north Ceredigion’s river valleys? The mansions at Nanteos and Gogerddan are possible candidates, and of the two Gogerddan could be the most plausible; a sub-Roman/early Christian cemetery being situated in close proximity to the present mansion (Murphy 1992, 27).

That the villa was occupied by persons of high status within the settlement spectrum of the region seems an obvious observation given the rarity of Romanised architectural forms in this part of West Wales (see Smith *et al.* 2016, 376–8). The form of the *domus* makes an obvious statement in this respect. That said the other indices of status are few. No painted wall plaster has been found, though the acidic soil would have been inimical to its survival, and in any case the rooms which might have been so decorated (Rooms 1, 3–5) have either been scarcely touched or are unexplored. No tesserae appear in the robbing deposits and metalwork of any quality is rare. However, glass vessels are present with a decorated vessel being a very rare item and described in the glass report above as ‘an extraordinary item of luxury’. It must have been a treasured possession and an inestimable loss to the family in the conflagration which destroyed their home. The ceramic assemblage is not large and pretty standard for a late Roman site, although the Lezoux and Nene Valley beakers, possibly old when the villa was built, add a further touch, pointing to the probable consumption of wine.

The history of the occupation of the site may be summarised as follows:

#### *Period 0*

The earliest evidence for human activity on the site consists of a handful of flint flakes and blades, including a possible Mesolithic blade, and part of a tranchet arrowhead presumably of Neolithic date. The finds are likely to reflect opportunistic settlement and transient prehistoric activity on the gravel banks bordering the river Ystwyth. Thereafter the only finds are Romano-British.

### *Period 1*

This is represented by a very small quantity of Romano-British pottery, samian and coarsewares, which Peter Webster has shown belongs to that period when the nearby fort at Trawcoed was occupied; *c.* AD 70–100. The glass too, comprising fragments of cylindrical and square bottles, fall into that category of being common on military sites of that period. Apart from one shallow pit 020 in the external angle of Rooms 2 and 6, the fill of which (019) which contained fragments of a Dressel 20 amphora and which may belong to the pre-villa phase, there appears to be no structural component on the site to explain the appearance of these early Roman items. In the case of the glass and samian, these could conceivably have been brought to the site as curios, though Webster sees the pottery as the products of agricultural activity associated with the fort. The proximity of the undated Tan-yr-allt enclosure 280m to the west of the villa may offer an alternative context. In any event the singular lack of classic second-century coarsewares in residual contexts, coupled with the radiocarbon dates for the digging of the enclosure ditches, appears to indicate that the site remained open until activity recommenced probably in the second quarter of the third century AD.

### *Period 2*

Later Romano-British occupation appears to have commenced with the digging of the double-ditched enclosure, essentially a non-defensive arrangement with the ditches apparently providing material for a median hedge or bank. Calibrated radiocarbon dates (SUERC-46233, -65621) from charcoal samples from the base of the enclosure are generally unhelpful since they span the later first century and the later fourth century AD but in all probability the ditches are broadly contemporary with the building of the house. Although the enclosure has a radiocarbon date range of cal. AD 86–382 at 95.4% probability, the lower levels of probability give slightly more refined date ranges, centred upon AD 179 from the inner ditch on the east to AD 296 from the outer ditch on the west. These provide good evidence that the enclosure is unlikely to be late prehistoric or early Roman in date and is in all probability broadly contemporary with the building of the house.

### **The stone house (*domus*)**

This was built eccentrically in the north-eastern part of the enclosure. Excavations in the north-western part of the enclosure in 2015, however, failed to locate any trace of a postulated timber precursor or any other structure that might explain the house's peculiar location; hence, the reason for this choice of location, eschewing a central, axial position, remains unknown. There are possible hints of activity which may possibly antedate the house in the form of a sub-rectangular anomaly located immediately south of the eastern *ala* as revealed by the geophysical survey. This could possibly represent a timber structure or a drainage gully of earlier date. However, the lack of evidence for earlier structures as well as residual second century pottery in the ceramic assemblage militates against the suggestion that the stone house has a timber precursor.

### *Phase 1*

Stone-built, with walls founded on deep foundations, the house conforms to the classic plan of what has long been termed a winged corridor house. Measuring some 22.2m east–west and 11.19m north–south from the veranda to the rear wall, the house was divided into five rooms; a main block of three rooms with a large central room (Room 2) measuring *c.* 10 × 8m flanked by two rooms (Rooms 1 and 3) of approximately 6.4 × 8m. Two rooms (*alae*) projected south from this block: the western (Room 4) measuring *c.* 5.4m square, the eastern (Room 5), slightly smaller, *c.* 5.4 × 4.5m. These were linked by a corridor, or, more plausibly a *porticus* or veranda some 3m wide. Another room (Room 6) measuring



Fig. 23. Reconstruction of the *domus* of the Abermagwr Roman villa. Drawing by Toby Driver.

c.  $5.4 \times 4$ m projected to the rear, in a somewhat eccentric position between Rooms 1 and 2, whilst another (Room 8) probably never completed, measuring c.  $5.4 \times 3$ m, was attached to the eastern *ala*. Fronting that portion of the veranda (Room 7) which was explored was an area of hard-packed water-worn cobbles, defining what was either a yard or a path leading to the main door, the threshold of which could well have lain just within the limits of the excavation, but no trace of which survived wall-robbing. Phase 1 of the building certainly comprised Rooms 1–5 and 7. The dating evidence for this phase is exceedingly small, comprising a single sherd of a Black-burnished jar incorporated in the foundation of the north wall (context 106). Although the ceramic is a long-lived type the general context would best fit a third-fourth century date. The eccentric placement of Room 6 and the different fill of its foundation trench could imply that it was an addition of Phase 2, though the two denarii of Severus Alexander found within may indicate that it was an integral part of the plan; the difference in foundation material being simply explained by a differing source of fluvial stone.

#### Phase 2

The unfinished Room 8 was clearly secondary and was probably intended as a heated room, an addition to the eastern wing, converting Rooms 3 and 5 into part of a heated suite — possibly part of a bath-suite or alternatively simply providing an additional a heated winter dining room (*triclinium*). Phase 2 saw the deposition of building material and rubbish into the pit which was certainly intended for a hypocaust in Room 8. A further modification but of uncertain phasing was the digging of a shallow foundation trench 024 through the floor of the veranda thereby linking the south wall of the main block and the veranda wall. It is suggested that it was designed for a timber screen which would have effectively defined the western side of the main entry passage into the villa as well as providing another room measuring  $3.50\text{m} \times 2.50\text{m}$  next the western *ala*.

Also of uncertain phasing was the disuse of the oven 098 and the creation of a number of informal, non-structural hearths 035 and 098 in Room 2 as well as hearth 064 in Room 6. Hearth 036, nearest the oven in Room 2, was clearly concerned with food preparation as it contained the broken Black-burnished jar (Fig. 17, no. 4). That this pot was never recovered suggests breakage shortly before or during the catastrophic fire. Hearth 064 in Room 6 could possibly represent the location of a brazier, though that would negate the possibility of a planked floor. Significantly hearth 036 in Room 2 contained splashes of lead, and lead levels around hearth 064 in Room 6 were significantly raised above background levels (Haylock 2012) suggesting a late phase in the use of the villa's rooms when lead was being worked over informal hearths, set directly on the floors. Such a scenario is hardly consistent with daily use of furnished rooms for domestic life, which one might expect at the height of the villa's prosperity.

Phase 2 ended with the destruction of the house by a fire, probably not long after *c.* AD 330–40, which, to judge by the interpretation of the geophysical survey, may have primarily affected Rooms 1, 2, 4, 6 and the veranda, just possibly leaving Rooms 3 and 5 unaffected.

### *Phase 3*

Post-destruction activity took the form of the digging of a number of postholes through the fallen roofing material; two in Room 2 (075 and 095), in addition to the smaller posthole 034 dug through the oven, and two in Room 6 (065) and (085). In addition a hearth 062 was created out of fallen slates at the north-eastern corner of Room 1. The calibrated radiocarbon date obtained for it of *cal.* AD 89–245 at 95.4% probability or *cal.* AD 123–245 at 93.1% probability (SUERC–46234) were not significantly different from those obtained from the enclosure ditch fills and, coupled with the fact that the wood was oak, suggests that the hearth was probably composed of timbers from the destroyed house and, as such, may not have long post-dated the fire. Without further, large-scale excavation it is impossible to make any meaningful interpretation of this post-fire activity, though the lack of any evidence for the clearance or levelling of the debris is significant. The preservation of these post-destruction (post-Roman?) structural remains at Abermagwr, barely 0.2m below the modern ground surface, is one of the special qualities of the site which makes its future preservation and protection against ploughing imperative.

### *Phase 4*

Evidence for the robbing of the site appears to have been ruthless and comprehensive. Robbing may have principally occurred when the nearby Trawscoed mansion was built in the sixteenth century, as place-name evidence indicates that the villa was probably a standing ruin into medieval times. Webster notes a single sherd of medieval pottery, a wall sherd of wheelthrown Dyfed Gravel Tempered Ware from the upper fill of the outer west ditch 124 deposited when the course of the ditches were still visible. Ten small stem fragments from clay pipes were recovered from the excavations, all from topsoil or upper contexts (001, 003, 011, 051). Although of varying diameters, no diagnostic sections of bowls suitable for dating were recovered.

Virtually no original walling stone was recovered from Trenches A and C. However, a dump of sandstone blocks (070) was found in Trench E along with several layers of dumping. These neat, squared blocks of locally-quarried stone give some indication of the quality of the original fabric.

### **The logistics of building the *domus***

Military installations apart, the building of the *domus* at Abermagwr represents the first, and to date, the only known example of the employment of Romanised building technology in the domestic sphere in Ceredigion. The novelty of building in stone — mortared or otherwise — brick or tile, coupled with the quarrying of stone, both for masonry and roofing material, in a region where timber had been the

traditional building material for millennia, cannot be over-emphasized, and is equally applicable to other parts of Wales. It was not a project that could have been undertaken without bought-in expertise, and there is little doubt that the design of the house and its building must have been undertaken by a professional architect/builder from outside the immediate area and presumably working for a person or persons of some status: a good example of building into prominence. Irrespective of whether the stone for the walls were robbed from the long abandoned fort bath-house at nearby Trawscoed, it appears to derive from sandstone beds near Llanilar, about 5 kilometres to the west, allowing relatively easy transportation by cart along the valley floor. The cobble footings were readily available from the Afon Magwr. In plan the footings of the entire building encompass 115 square metres, and would have required approximately 69 cubic metres of material to fill an average depth of 0.6m, weighing an estimated 117 tonnes. Slate for roofing was obtainable from several beds just to the west of Ysbyty Ystwyth and south of the Ystwyth gorge between 4–5 kilometres south-east of the villa. The slate roofing technique was sophisticated and would have required a craftsman with a particular proficiency. Bill Jones (above) estimates approximately 6600 slates required for the roof of the main villa block with around 2475 slates required for the separate smaller roofs, the whole weighing between 18.15–23.1 tonnes depending on the size and types of slates employed. If the brick and tile, especially that used in the abortive Room 8 project, did not originate from the Trawscoed bath-house then a kiln plant would have had to be set up in the vicinity. A forge must have been set up for the production of the roofing nails and iron for other structural purposes: the site producing far more of these commonplace items than were found at the Troedyrhiw farmstead and their usage must have been perpetuated from their first large-scale appearance in military contexts. To judge by the samples investigated, oak seems to have been used for constructional timber.

### **The appearance of the *domus* and room function**

That the house was stone built is clear. Unfortunately, robbing had removed all walling above foundation level and, coupled with the acidic soil, made it impossible to determine whether the walls were mortared or clay bonded. The foundations, where explored, were of sufficient depth to have supported a building of two storeys, either with a full stone elevation, a half-timbered upper story, a mezzanine or a loft. This would have substantially increased its dimensions in much the same way that the excavators of the villa at Whitton (Jarrett and Wrathmell 1981, 62) interpreted the deep foundations of the north range house as indicative of a two storied property; increasing the size of the Period 1 house from c. 170 cubic metres to 340 cubic metres, that of Period 2 from 220 cubic metres to 440 cubic metres. If such was the case at Abermagwr the total area would have increased to about 560 square metres. The main objection to this is the presence of the large hearth in Room 2 whose location rules out a hood and chimney. The overall ambience may thus have been much like that of a medieval hall and in terms of outward appearance the excavators are inclined to see the Period 1 house at Lullingstone as its nearest comparator; the main difference being a slated roof at Abermagwr as opposed to one of a tile at Lullingstone. Although it is tempting to conjecture a limewash to the exterior, both enhancing the appearance and proofing the fabric of the house, the lack of local limestone would have been a problem, albeit not an insuperable one.

Throughout all the excavated areas (the uncompleted Room 8 being the exception) the flooring of all the rooms was of clay or a gravelly, clayey soil. The clay surfacing of Room 2 (context 021) appears to have been more plastic than that found elsewhere and was probably deliberately laid; dipping slightly from east, west and south towards the central hearth. The surfacing in Room 6 was somewhat irregular and it is tempting to suggest that it may have been originally provided with a planked floor. About three floor levels were identified in the room and the hearth/brazier 064 would have been problematic on a planked floor, but it was preceded and superseded by floors with no hearth, so planking is indeed a possibility.

With its large, central hearth in the western part and an oven set against its south wall, Room 2 was clearly a public space where food preparation and general domestic activity could have been focused as well as serving as a reception area, akin to a medieval hall. The siting of a large hearth in a position analogous to that at Abermagwr can be paralleled in the fourth-century villa at Clear Cupboard, Farmington (Glos.) where it is centrally placed in the western third of a large, hall-like room (Gascoigne 1969). Intriguingly, this villa has a bath-suite at the eastern end of the hall and a smaller room at the western, though in contrast to Abermagwr the two projecting wings appear to have been additions (pers. comm. Roger Goodburn). Again, the placement of an oven next to an internal wall can be paralleled at the villa at Winterton (Lincs.) where it is placed within a third-century aisled building (Stead 1976; pers. comm. Roger Goodburn).

Room 6, projecting to the rear of the house is something of an enigma in terms of function. There are numerous examples of villas with similar rooms in England; for example, Gorehambury (Perring 2002, fig. 7) where it belonged to a house of the mid to late second century AD, and others at Spoonley Wood (ibid. fig. 62b) and Hambleton (ibid. fig. 25e). In Wales similar rooms can be found in the villas at Ely (Wheeler 1922), Llys Brychan (Jarrett 1962) and possibly at Croes Carn Einion, Monmouthshire (Lambert 1979), depending upon which direction that villa was facing. Sometimes the projecting rooms are heated: a suitable arrangement for a dining room or *triclinium* (Perring 2002, 76). Elsewhere, Perring notes that the rearward projecting rooms allowed for the enlargement of the principal reception rooms. This does not appear to be the case at Abermagwr where the nature and quality of the small finds found within suggest that Room 6 has all the hallmarks of privacy rather than for public use, though it may have later seen a change of use towards the end of the villa's life, when open hearths or braziers were associated with lead-working activity in Rooms 6 and 2.

Too little of Room 1 was explored to determine its function though a private role for it, and the corresponding Room 3 at the eastern end of the hall, may be postulated. Room 8 was never brought to completion though it was clearly intended to be heated. Its link to the eastern *ala* (Room 5) suggests that it may have been the intention to convert part, or all, of the eastern wing of the house into a bath-suite akin to the arrangement at the Clear Cupboard, Farmington villa. Alternatively, a winter dining room may have been intended (see Cosh 2001). The western *ala*, Room 4, was presumably for private use.

### **The *domus* and its comparators**

The winged corridor house plan seems to have reached Britain certainly by the early second century AD as is shown by examples at Gadebridge Park (Neal 1974), Boxmoor 1 (Neal 1970, fig. 3), Ditchley (Radford 1936) and best of all at Lullingstone (Meates 1979). The last named, occupied about AD 100–150, was a stone-built single-storeyed property measuring about 18 × 14m overall, the house being divided into three rooms, the central being the largest, and with two projecting wings linked by a *porticus* or veranda. A rear corridor completed the plan. With a total area of some 252 square metres it is not much smaller than Abermagwr's c. 280 square metres. Eaton by Tarporley (Cheshire), a stone house built in the last quarter of the second century AD, apparently succeeding a timber phase, is another good comparator in terms of size with a total area of c. 260 square metres (Rankov 1982). It comprised a block of five rooms, the large central room being subdivided and flanked by two rooms of equal size. Two projecting *alae*, one containing a bath-suite, linked by a veranda/*porticus* completed the plan. Closer to home the houses at Ely and Trelissey were also of winged corridor type. The former, probably of second-century date, modified in the third, comprised a block of rooms of broadly equal size and two *alae* linked by a veranda and with two narrow rooms to the rear. With a total area of about 393 cubic metres it is substantially larger than Abermagwr. Finally, there is Trelissey. Although the plan unfortunately incomplete the house is remarkably similar to Abermagwr. With overall dimensions of at least 18 × 8m it was divided into a

central room of *c.* 9 × 4.5m flanked by two rooms of *c.* 7 × 4.5 apiece. The remains suggest there was certainly an *ala* on the north and there may plausibly have been another on the south to complete the plan.

From the mid second century AD it seems to have been customary for new build properties to include a winged corridor façade and the plan, although perhaps a bit old-fashioned by then, seems to have remained popular into the late Roman period as is shown by the fourth-century house at Great Staughton (Hunts.). By this period newly founded villas exhibiting this plan also seem to diminish in size in comparison with those founded in the later first or earlier second century AD; the late third-century house at Barton Court Farm (Oxon.) being a good example (Miles 1986). There are exceptions. Llys Brychan occupies some 425 square metres and Ely some 393 square metres. The simple ‘cottage block’ style houses at Cwmbwrwyn and Caerau, Crosswell remained modest in comparison at some 300 square metres apiece. It is of some interest to note that in five instances — Lullingstone, Abermagwr, Ely, Whitton II and Crosswell — the length and width of the house varies between 20–25m and 10–12m respectively, which suggests that a length of 65–75 and a width of 30–35 Roman feet respectively was considered normal by the builders.

There is nothing to indicate precisely when rectangular, Romanised stone-built houses first appeared in west Wales but if parallels with sites in south-east Wales can be drawn then we might not expect radical changes in domestic architecture before the Hadrianic–early Antonine period. The ‘cottage-block’ or row-type building at Cwmbwrwyn represents the simplest form, with its north end incorporating a small bath-suite. Caerau, Crosswell is similar, with the addition of a *porticus*. The logical progression from this simple form was the addition of one, or, from the point of symmetry, more frequently two projecting wings (*alae*) producing the familiar winged corridor type of which Abermagwr is a classic example. As the property of an elite group, and a new foundation, the villa shows in classic form the ways in which a new Romanised identity was displayed; allowing a paterfamilias to show generosity in a large hall, coupled with plentiful private space and aspired-to amenities.

### **Abermagwr and other Welsh villas**

Contextualising Abermagwr in respect of the other known Welsh villas is difficult because with the exception of Whitton, Llys Brychan, Llandough, Dan y Graig House, and now Crosswell, the remainder have not been subject to modern excavation, and only the first named of these has been fully explored. Some useful information may be gleaned from the reports of earlier work at Llanfrynach (Hay 1785), Cwmbwrwyn (Ward 1907), Ely (Wheeler 1922), Llantwit Major (Nash-Williams 1953; see also Hogg 1974) and Trellissey (Thomas and Walker 1959) whilst small-scale exploratory work following field-walking over a half century ago, together with aerial survey and recent field-walking, added a significant number of certain as well as possible villa sites to the total known to date. This now far exceeds the number listed in *The Rural Settlement of Roman Britain* (Smith *et al.* 2016). It is also difficult because only about a third of the Abermagwr house has been explored. Moreover, apart from the *domus* no other structures have been identified within the enclosure; hence saying something meaningful about the site and its economy in comparative terms is fraught with difficulty. However, one must conclude that villa studies in Wales have not progressed greatly since one of the authors attempted a brief overview nearly two decades ago (Arnold and Davies 2000, 80–7; see also Davies and Burnham 2012, 12). On the fieldwork front there has been little advance other than the discovery and partial excavation of Abermagwr and Crosswell, the recognition and excavation of a large enclosure bounding the villa at Llys Brychan (Meek 2011) and the failure of an attempt to locate Fenton’s presumed villa at Ford (Fenton 1811, 182; Chapman 2011, 320).

That a number of Welsh villas can trace their origins to a pre-conquest settlement is demonstrable at several sites where structural, but more frequently ceramic, evidence for a pre-Roman origin has been forthcoming. It is noteworthy, however, that where pottery appears as the only indicator of pre-Roman origins it is frequently of a type which ‘spans the conquest’ and may not as such indicate a long-lived pre-

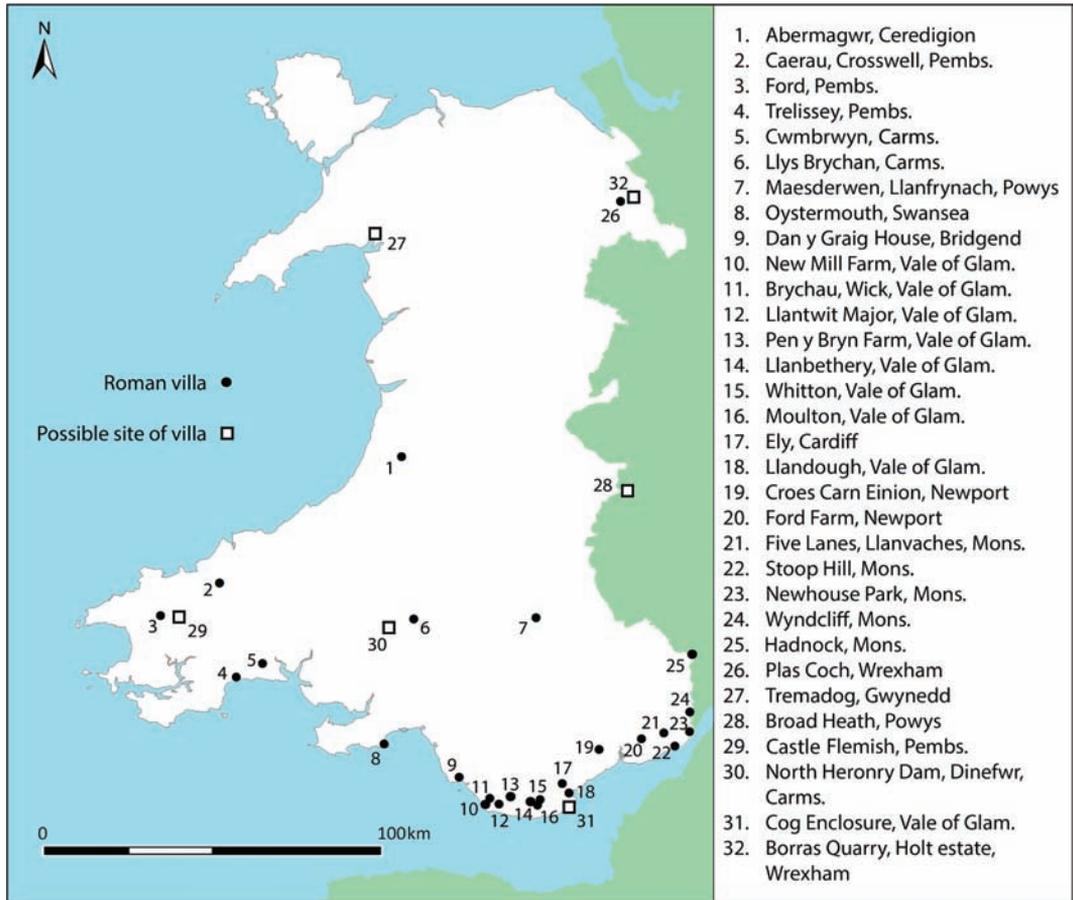


Fig. 24. Roman villas in Wales. © Crown copyright, RCAHMW.

Roman settlement as such. Whitton is the classic instance where the defended farmstead's origins cannot be dated much earlier than *c.* AD 30. At Llantwit Major there is some evidence that occupation began within a ditched and embanked enclosure: a substantial rock-cut ditch lay just beyond the north range together with traces of a bank into which the wall of Room 10 was dug. Traces of this ditch were also found to the east of Room 52 in Building C, where it appears to have been doubled. Although the ditch remains undated, pottery of late Iron Age type was found beneath buildings of the east range whilst there are clear indications of foundation trenches preceding the stone phases (see Nash-Williams 1953, fig. 5, section MN; fig. 7, section GH; fig. 14, section QR). Clearly, the full story is much more complicated but there is clear evidence for a timber phase as well as the possibility of very early Roman or late pre-Roman Iron Age origins for the villa. At Llandough the villa also seems to have been established on the site of an existing settlement as demonstrated by the presence of palisade trenches, a probable roundhouse and pottery in a late Iron Age tradition which may be described as 'spanning the conquest' (Robinson 1988). At Dan y Graig House a pre-Roman origin rests upon radiocarbon dates from animal bones found outside

the excavated building (Newman 1990; see also Knight 1853). Elsewhere, as at Llanbethery (Thomas 1958, 296), Moulton (*ibid.* 294), and New Mill Farm, Monknash (Dowdell 1976) a pre-Roman origin rests upon the presence of late Iron Age pottery, though at the last named the villa also lies within a circular enclosure possibly harking back to a pre-conquest era.

That many villa sites lay within a boundary enclosure is frequently demonstrable, and the form which the enclosure takes is frequently an indicator of the presence of a Romanised building within. Although some villas such as New Mill Farm, and Five Lanes, Llanvaches (Burnham 2000, 375) and Trelissey lie within circular enclosures which most probably antedate the establishment of the villa, and are by implication likely to be of late prehistoric date, the trend is for villas to be situated within ditched enclosures of markedly rectangular form and frequently with sharply defined angles. These are for the most part much larger than the ubiquitous rectangular farmstead enclosures of late Iron Age date commonly found in south-west Wales and the Welsh Marches, and more rarely elsewhere: Whitton is an example of the latter. Where excavated these larger enclosures have been shown to be of Romano-British date. Indeed, the Abermagwr villa would probably not have been discovered had it not been for the recurrent aerial monitoring and subsequent investigation of the enigmatic, sharp-angled, double-ditched enclosure bounding the site of the *domus*. Geophysical survey has played a key role in demonstrating the existence of such enclosures bounding villa and possible villa sites. For example, the large, rectangular ditched enclosure, dated to between the late second and earlier fourth century, bounding the villa at Llys Brychan (Meek 2011). A much larger rectangular, ditched enclosure has now been identified surrounding that already known bounding the *domus* at Ely (Burnham 2002, 276–67), whilst at Llanbethery (Thomas 1958) geophysical survey shows that this villa too lies within a double-ditched, rectangular enclosure. More recently geophysical survey at Caerau, Crosswell, Pembrokeshire,<sup>27</sup> identified a villa within a ditched enclosure some 40m square, concentric within a much larger enclosure in an area of grassland that has never shown cropmarks during aerial photography. In north Wales, rescue excavations at Plas Coch, Wrexham (Jones 2011) showed that what is almost certainly a villa lying within a sharp-angled, embanked and ditched enclosure, of which more in due course. If a large, sharp-angled, rectangular ditched enclosure may be indicative of a Romanised settlement — if not its hallmark — it is important to note that not all may harbour a villa within. A classic case is the Broad Heath enclosure (Jones 1999; Driver and Jones 2011) where a substantial ditch is concentric to a much slighter, rectangular enclosure. Although excavation showed that the site was occupied from the second to fourth century AD its status appears to have remained that of a farmstead.

Whereas the excavations at Whitton revealed a remarkable evolutionary sequence from a pre-Roman farmstead to a villa, work on other villa sites has for the most part merely provided an overall plan of stone buildings, whether as a result of excavation as at Llantwit Major and Ely, geophysical survey at Abermagwr and Crosswell or aerial photography at Croes Carn Einion (Lambert 1979).<sup>28</sup> Sometimes, even the excavated stone buildings only represent part of what is clearly a much more complex arrangement as at Llandough, Dan y Graig House and Moulton, whilst timber buildings have frequently not been recognised at all. An analysis of the spread of the villa phenomenon also has to be tempered by the frustrating lack of information concerning stratigraphical details from those few excavated villas such as Trelissey, and more pertinently from those more numerous sites in south-east Wales which are only known through the collection of surface material following ploughing, such as New Mill Farm, Llanbethery (Thomas 1958, 284) or Hadnock (Burnham 2004, 258). Where Romano-British pottery of the later first to earlier second century date has been found on a villa site, sometimes accompanied by ceramic roof tiles, as at Whitton, Llantwit Major, Ely, Llandough, Ford Farm (Williams 2005), New Mill Farm (Dowdell 1976) and Moulton, it is tempting to suggest that these are the earliest villa foundations, although the buildings themselves may have been partly or wholly of timber. Unsurprisingly, the known

or postulated early villa sites all lie in the Vale of Glamorgan or Gwent, none being known in West Wales unless the enigmatic site of Castle Flemish (Wheeler 1923) is to be categorised as a possible early villa. It is probably only from about the mid- to late- second century that stone-built houses appear as at Llantwit Major where a row-type house with a tiled roof was built, thereafter forming the core of the north range. A similar date range may be possibly applicable to the winged corridor house at Ely. Mid- late-second century pottery in the ploughsoil suggests that Llanbethery, Pen y Bryn Farm (RCAHMW 1976) and Hadnock (Mein 1977; Burnham 2004, 258) were now extant and pottery recorded at Llanfrynach and Trelissey may imply the same. However, the fact that the last named lies within what is probably a pre-Roman earthwork, and none of the pottery can be stratigraphically linked to the stone building, must temper this observation. The same caveat applies to the villa at Llys Brychan where the pottery from Jarrett's excavations is overwhelmingly of mid-third to fourth century date, with a few late second century sherds coming from the recent examination of the enclosure ditch. At Dan y Graig House an outbuilding produced mid-third to early fourth century pottery and may indicate that this villa was a later foundation. It would appear that it was the earlier/mid- third century that saw villas such as Abermagwr and Llys Brychan, and probably Cwmbwrwyn too, being established, indicating the further spread of the villa phenomenon into West Wales; still a relatively peripheral region insofar as Romanizing trends were concerned. Judging by what little data we possess from excavation, geophysical survey and flue tiles in the debris of the ploughed sites, by the later third century several villas in south-east Wales had attained a complex plan with a multiplicity of rooms, including bath-houses, heated rooms and/or outbuildings, as is shown at Whitton, Llantwit Major, New Mill Farm, Pen y Bryn Farm, Moulton and probably Llanbethery. Rarely has it been possible to show the developmental sequence of the *domus* from a simple 'cottage' or row-type house to something much more complex. The more recent foundations in West Wales, however, were seemingly more modest, retaining the 'cottage block' or winged corridor plan and apparently with a much less sophisticated interiors, though heated rooms and/or bath-houses were being built, or aspired to as is shown at Trelissey, Cwmbwrwyn and Abermagwr.

That British villas, the Welsh examples included, reached the height of their prosperity in or by the early fourth century is borne out by the evidence for 'conspicuous consumption' in the form of tessellated pavements or mosaics such as are known at Llantwit Major, Llanfrynach, Oystermouth, Ford Farm, Ely and possibly at New Mill Farm, Hadnock and Five Lanes where tesserae are known (see Cosh and Neal 2010, 382–8). The villas in Demetic territory, by way of contrast, were much less pretentious: only the 'lost' site at Abercyfor is known to have possessed a tessellated pavement, whilst a possible tessera is recorded from Llys Brychan. At the same time the practice of roofing with ceramic tiles had apparently given way to using stone slabs at even the most sophisticated sites such as Llantwit Major. At Abermagwr slate was used from the very beginning and the same seems to apply to the villas at Cwmbwrwyn and Castle Flemish, though it may well be secondary at the latter (Wheeler 1923).

The villa at Abermagwr suffered a catastrophic fire probably not long after AD 325–26, the date of the latest coin to be found, though activity of indeterminate character continued for some time after. This later activity did not leave a ceramic footprint, whilst none of the pottery from the site can be shown to post-date the middle of the fourth century AD. The longevity of the other villas in west Wales is less clear. No coins post-dating the later third century are known from Trelissey, Llys Brychan or Cwmbwrwyn although the ceramic range from all three could support occupation continuing to the middle of the fourth century. In south-east Wales the dating of the plough-damaged villas at Ford Farm and Pen y Bryn is wholly depended upon surface sherding which simply indicates occupation continuing to the later third or fourth century, though at Llanbethery the latest coin is of AD 330–50 (Thomas 1958, 294) whilst at Ford Farm (Langstone) and New Mill Farm (Monknash) coins indicate occupation to AD 348–64 and AD364–78 respectively. The latest coins from Llantwit Major are of

AD 348–64 whilst, intriguingly, at Ely the small coin sequence closes with an issue of AD 320–24 and at Whitton the latest is of AD 330–41. Llanfrynach and New Mill Farm are the only villas to have produced coins of the Valentinianic era (AD 364–78). Why the great majority of the Welsh villas fail to produce the common issues of this period is unknown: even more puzzling is the apparent closure of Whitton and possibly Ely at about the time that occupation ceased at Abermagwr (see Guest and Wells 2007 for the coinage from the villas in south-east Wales).

### **Access to consumables**

Despite its considerable distance from a major market centre the inhabitants of the villa had access to a surprising range of late Roman consumables, most of which had travelled a considerable distance to reach the site. Here, the proximity of the villa to the Roman road 0.5 kilometres to the west may have been significant.

Pottery figures large, and represents by far the most common, bulky and breakable item on the site. Although Peter Webster notes that there may be some local products in the assemblage the bulk, not unexpectedly, comes from well outside the region. In terms of range it compares well with the late Roman assemblages from the villas at Llys Brychan (Webster 2009) and Trellissey (Thomas and Walker 1959), though it includes infinitely more fine-ware products than those found during the course of excavation of the farmstead at Troedyrhiw (Murphy and Mytum 2012). This relatively uniform late Roman ceramic range is also echoed at Carmarthen, the only major market centre in west Wales, from which the pottery was marketed directly or indirectly.

Although the inhabitants seem to have possessed at least one item of quality furniture judging by the presence of a bell-shaped stud (Fig. 18, no 1), their access to items of personal adornment — commonplace finds on villa sites elsewhere such as brooches, pins, rings and the like — remains unknown; the only recognisable item being a fragment of a shale bracelet (Fig. 20, no. 3). It must be borne in mind, however, that at least some valued items may have been rescued from the fire which destroyed the house. What does make Abermagwr stand out is the presence and quality of objects made out of glass. The smallest items are beads: a rare gold-in-glass example (Fig. 19, no. 12) is significant insofar as they are most common on Roman military establishments and hitherto unknown on non-military sites in Wales. Three glass cups, beakers or bowls are also represented, two of which would have readily served for the consumption of wine, the third being a truly exotic piece. This is a large beaker with geometric facet cut decoration and presumably of Rhenish origin (Fig. 19, no. 9). The type is not common in Britain and no parallel for it exists in a Welsh context. To quote Jennifer Price, it is ‘particularly large and fine, and it would have been seen as a very good piece of late Roman tableware . . . . It stands out from the rest of the glass found at the villa, and in this respect it may be comparable with the remarkable polychrome glass plate found at Ingleby Barwick, a marginal villa in the northern frontier zone’. How such an extraordinary, valuable piece arrived at an equally marginal villa remains a mystery. Its possession must clearly echo something of the social aspirations of the owners of the Abermagwr villa prior to its destruction by fire, and the breakage of this exceedingly rare item must surely have been viewed as an unfortunate loss.

### **The economy**

Although the villa was well placed to exploit both lowland and upland environments the lack of information concerning its economic base was one of the disappointments of the project. Evidence for food production and consumption was very thin. Given the acidic nature of the soil animal bone survived only in the form of calcined fragments. The only identifiable species were cattle and sheep. There was a total lack of cultivated plant species. Given the presence of an oven in Room 2 it is a little surprising that no querns for the preparation of grain for baking into bread were found, although the stone maul found

in the western enclosure ditch (stone small find no. 7) may have served a similar purpose. Although sampling was by no means exhaustive the two contexts which produced pollen proved negative evidence for cereal cultivation in the vicinity. If bread and pulses were consumed then their source lay outside the immediate catchment area.

The size of the enclosure bounding the *domus*, with the addition of an annexe to its south-western corner, strongly suggests that space was being created for the corralling of livestock: animal husbandry, cattle and sheep being a predominant element in the economy. In comparative terms the large enclosure bounding the villa at Llys Brychan in the Tywi valley (Meek 2011), again apparently devoid of structures, suggests that the inhabitants of this villa too were primarily concerned with the rearing of livestock. This contrasts with the evidence for the economic base of the broadly contemporary farmstead at Troedyrhiw in south Ceredigion where at least some cereal production, namely that of spelt, bread wheat and barley, was taking place locally (Murphy and Mytum 2012). The evidence for a predominance of pastoral farming in north Ceredigion, in contrast to cereal cultivation in the south, as documented in the post-medieval period (Parkinson 1985, 120) may thus have had its antecedents long before. Wheat and barley may well have reached Abermagwr in the form of rents or food renders. However, it is equally possible that the economic base of the villa could have changed over time. The evidence from the villa at Whitton (Jarrett and Wrathmell 1981, 251) is instructive here insofar as the absence of four-post structures and querns suggest that the pre- and early Roman settlement may have been principally a pastoral farm (Arnold and Davies 2000, 93). Thereafter the building of a timber granary in the earlier second century could indicate a change in the regime with evidence now forthcoming for the cultivation and consumption of emmer, bread wheat and barley. Numerous querns are known from the site including fragments of a mechanical mill, indicative of large scale flour production. However, according to the excavator the villa seems to have essentially remained a mixed farm.

Any comparison with the economy of other Welsh villas is severely hampered by a singular lack of data. Nothing is known of the economic base of the other villas in the south west when compared to that of settlements of lesser status. The better quality soils of the Vale of Glamorgan, coupled with ease of access to larger markets, seems to have been conducive to a greater emphasis upon cereal cultivation in south-east Wales as is evidenced at Whitton and by the presence of a corn-dryer of third-century AD date at the Dan y Graig villa: spelt, bread wheat and barley being present (Newman 1990).

## Conclusion

It remains to consider the significance of the of the villa's discovery. Prior to its identification the distribution of villas in west Wales, itself seen as peripheral to the Welsh 'villa belt' in the Vales of Glamorgan and Gwent (both areas falling into a zone termed 'The Central Belt' in the *Rural Settlement of Roman Britain*; Smith *et al.* 2016) was seen as indubitably restricted to south of the Teifi and more specifically to south Pembrokeshire and south Carmarthenshire, the areas viewed as the heartland of the Demetae, with a focus upon the tribal caput at Carmarthen. These were seen as modest establishments indicative of the ability of some few elements in Demetic society who could command resources to build residences in a Romanised manner and in so doing to identify themselves with the cultural values of elites elsewhere in the Roman west. Their rarity in this region and virtual absence from other parts of Wales could be explained in a number of ways; social differences, the growth of larger landholdings or the greater productivity of those lands in conjunction with ready access to larger markets as represented by the legionaries and their dependents at Caerleon on the one hand and the much smaller and less productive holdings of the far west. Aberrant sites such as the splendidly appointed Llanfrynach in the upper Usk valley has been explained by one of the authors (Arnold and Davies 1990, 86) as the product of the growth of a substantial late Roman estate, for which parallels can be found over much of the Roman West.

Was Abermagwr then simply the poorer equivalent of the opulent Llanfrynach — just another outlier? New discoveries suggests otherwise. By sheer chance a small, ‘cottage-block’ type villa has been discovered at Caerau, Crosswell in the upper reaches of the valley of the Nefer, on the northern flank of the Preseli range. Details of its chronology are awaited, but to say that this was a most unexpected discovery would be an understatement. It begs the question as to whether not only has the distribution of villas has been substantially underestimated not only in west Wales (partly the result of an overwhelmingly pastoral regime) but in other parts of Wales as well. The fact that Abermagwr, Llys Brychan and the newly discovered villa at Crosswell all lie within markedly rectangular, sharp-angled enclosures, signals of potential villa sites, has already been remarked upon. Two such enclosures have been identified through aerial reconnaissance in Ceredigion: one downstream of Abermagwr at Pyllau-isaf, the other at Pen-y-bontbren, Cyncoed, Capel Bangor in the Rheidol valley (see section on the villa hinterland, above). Neither site shows any sign of structures within. The ‘magwyr’ element of Abermagwr’s place-name, coupled with the ‘dol y cappel’ field-name, could also have signalled a potential Roman site prior to its discovery, and similar evidence may yet guide reconnaissance in other parts of Wales. More pertinent still from the point of a wider spread of villas is the site of Plas Coch, Wrexham, which despite its near obliteration prior to excavation possesses sufficient evidence in terms of structural elements (the remains of stone buildings associated with *tegulae*, *imbrices* and flue tiles within a sharp-angled rectangular enclosure) and artefactual evidence to rank as a villa (Jones 2011). Its *raison d’être* may be its relative proximity (some 20 kilometres) to Chester from which, like the villa at Eaton by Tarporley, it may have benefited economically. The remains of a possible villa site has been found in the Gower at Church Hill, Parkmill (Chapman 2009, 324–5) and another possible candidate in the Towy valley near the North Heronry Dam in Dinefwr Park, Carmarthenshire (Schlee 2008; Chapman 2010, 342). A further recent discovery with potential for classification as a villa is that of a double-ditched rectangular enclosure near Bodelwyddan, Denbighshire, which has produced *tegulae* and an apparently rich Romano-British material assemblage (Chapman 2014, 309). Clearly, in the light of these discoveries, the future of villa studies in Wales looks promising; the watchword being the unpredictability of the process of discovery.

#### ACKNOWLEDGEMENTS

In such a long-running and complex research project the directors have a number of people to thank. The excavations would have been impossible without the permission and support of the landowners, Hugh and Ann Tudor, and the support of successive Secretaries and Commissioners of RCAHMW and its staff. The project received generous funding from the Cambrian Archaeological Association, the Centre for Advanced Welsh and Celtic Studies – University of Wales, the Society for the Promotion of Roman Studies, and the Society of Antiquaries of London, to all of whom the authors remain very grateful. The project was further supported by Ken Murphy and the Dyfed Archaeological Trust through the loan of tools and equipment for the 2010 and 2011 seasons. David Hopewell of the Gwynedd Archaeological Trust, with John Burman, carried out the geophysical surveys in 2009 and 2010. Richard Brewer of the National Museum Wales and Professor William Manning provided numerous references for funding applications. Invaluable detailed survey and site assistance was provided by Louise Barker and Susan Fielding of RCAHMW, with mapping assistance by Jon Dollery. Oliver Davis drew preliminary digital plans for Trenches A–C and E. The project could not have progressed without a number of dedicated volunteers who helped during the excavation including David Browne, Harry Charnock, Oliver Davis, Matilder Duncker, Richard Hamer, Jenna-Marie Heard, Linda Jones, Trevor Jose, Lorna Leadbetter-Jones, Barry Lewis, Scott Lloyd, Ann MacGarry, Lisa Osborne, Sam Pamment, Clare Parry, Olwyn Pritchard, Simon Rodway,

Maddie Ryan, Howard Thomas, D. Thompson, and Geoff Ward. Special mention must go to Debbie Richards who acted as a skilled volunteer throughout all seasons of excavation at the villa, and assisted the directors with numerous aspects of the project. Lorna Leadbetter-Jones undertook the laborious task of labelling finds during post-excavation and enhancing site records on Roman villas in Wales at the Royal Commission. Gerald Morgan provided useful information early on regarding the estate maps and field-names for the site. Wyn Evans freely provided much local knowledge on the local landscape and guided the authors to the shale slate outcrops at Craig yr Ogof and Geufron. Dr Roderick Bale assisted in sample preparation for Fiona Grant's palaeoenvironmental analysis while charcoal identification was carried out by Lorne Elliott and Dr Charlotte O'Brien. Jane Kenney (GAT) provided comparative material on the roof slates. Amanda Williams, Radiographer at Bronglais General Hospital, Hywel Dda Health Board, made X-rays of the iron objects in 2012. Derek and Eirionedd Baskerville assisted with Community Council liaison and on site. The authors are grateful to all the contributing specialists to this paper for greatly enhancing its contents and breadth, particularly the late John Casey. Further information on comparative villas was provided by Roger Goodburn. A selection of finds from the villa is on permanent display in the Ceredigion Museum, Aberystwyth and the authors are grateful to Michael Freeman, Carrie Canham and Stuart Evans for assistance with past and present displays. The authors are grateful to Bill Britnell for his editorial work on an earlier draft of this paper.

*Ordnance Survey mapping:* Figures 1–2, 24 use or are based upon Ordnance Survey map data with the permission of Ordnance Survey on behalf of the Controller of Her Majesty's Stationery Office © Crown copyright, licence number: 100022206.

#### NOTES

1. Cambridge University Committee for Aerial Photography, CKS9 and CKS10, 8 August 1979.
2. RCAHMW, National Primary Record Number (NPRN) 303579.
3. NPRN 302038.
4. NPRN 400269.
5. NPRN 86838.
6. *Llanilar 1:50,000 scale Geological Map, Solid and Drift Edition*, Sheet 178; British Geological Survey, 'Geology of Britain viewer', available at <<http://mapapps.bgs.ac.uk/geologyofbritain/home.html>>, (accessed 10/10/2017).
7. National Library of Wales, Crosswood Volume 1, Map of Nant Bir Ucha in the Parish of Gwnnws (map 16NW), 094/9/2; NPRN 260014.
8. NPRN 405316.
9. NPRN 417206, near SN 6826 7213.
10. NPRN 303578.
11. NPRN 400287, SN 6299 7468.
12. NPRN 400286.
13. NPRN 86830.
14. RCAHMW online catalogue available on *Coflein* at <[www.coflein.gov.uk](http://www.coflein.gov.uk)>. Abermagwr can be found by searching for record number (NPRN) 405315 or 'Abermagwr villa'.
15. At SN 6693 7419.
16. Between 3–19 July 2010.
17. Between 11–28 July 2011.
18. Between 13–24 July 2015.

19. This was suggested in the 2011 reconstruction drawing of the villa by Toby Driver.
20. With other priorities pressing towards the end of the 2011 season, time did not allow for cross-sectioning the floor to discover its foundation levels or any earlier phases of flooring within the *domus*; nonetheless bagged samples of flooring material were recovered and retained for future study. It is likely that natural clay and gravel would be present just below the currently observed floor, based on observations around the villa and in the section of the north wall.
21. Roger Goodburn, pers. comm.
22. Given the restricted catchment of the Nant Magwr which only rises some 4.5 kilometres to the north-east, one can only assume the occurrence of a localised extreme flood event similar to that seen on the river Leri at Talybont, Ceredigion, in June 2012 where a month's worth of rain (120mm) fell in 24 hours, causing major structural damage to bridges, houses and river banks.
23. The question as to whether the bath-house of the long abandoned fort at Trawscoed was the source of the brick and tile, as well as building stone, for the villa rests upon on the issue of the negative evidence of any sign of that bath-house in the fort environs, despite repeated aerial photographic coverage in optimum conditions for the recognition of such traces. Where might that bath-house have lain in relation to the fort? The evidence from other Welsh auxiliary forts suggests that bath-houses are rarely situated more than 100m distant (as at Brecon Gaer and Llanio) and if not built with an annexe (as at Caer Gai, Pennal and Gelligaer II) then they are inclined to be located no more than 40–60m from the fort (as at Caernarfon, Caerhun, Caersws and Tomen y Mur) and to the right-hand (dextral) side of the *praetentura* or the prolongation of the *via praetoria*. Trawscoed faces the river Rheidol and it is unlikely that the bath-house would have been built on the other side of that fast-flowing stream. There is a strong probability, therefore, that the bath-house should have lain in the field to the east of the *praetentura*. That field is known to have been recurrently ploughed, but when sown with a crop, or under grass, has consistently failed to show any sign of a stone building such as a bath-house. It is thus possible that the lack of evidence for such in this locality may be explained by its total removal through robbing.
24. The work was carried out as part of doctoral research by the author in the Institute of Geography and Earth Sciences Aberystwyth University (see full descriptions of the results in Haylock 2012; 2015).
25. British Geological Survey, 'Foundations of the Mendips', available at <<https://www.bgs.ac.uk/mendips/home.htm>>, (accessed, 10/10/2017).
26. At SN 668 739; NPRN 305804; Driver 1997.
27. Crosswell Villa, NPRN 422274. A simple corridor-style villa measuring approximately 25 × 12m, set within a square enclosure measuring approximately 42m across within an outer concentric enclosure. To the north of the villa there is a small square enclosure. The site was discovered during geophysical survey in 2017 (Professor Mike Parker Pearson pers. comm.) and is currently unpublished.
28. See also RCAHMW aerial photographs taken on 24/07/96, 21/06/2010.

#### BIBLIOGRAPHY

- Allason-Jones, L., 1985. "Bell-shaped studs'?", in M. C. Bishop, (ed.), *The Production and Distribution of Roman Military Equipment*, British Archaeological Reports, International Series 275 (Oxford), 95–108.

- Allen, M., and Smith, A., 2016. 'Rural settlement in Roman Britain: morphological classification and overview', in Smith *et al.* 2016, 17–43.
- Arnold, C. J. and Davies, J. L., 2000. *Roman and Early Medieval Wales* (Stroud: Sutton Publishing).
- Association for Environmental Archaeology Guidelines, 1995. *Recommendations concerning the environmental archaeology component of archaeological evaluations in England – Working Papers of the AEA – Number 2* (Report of the AEA Working Party on Sampling and Recovery).
- Birley, E., and Greene, E., 2006. *The Roman Jewellery from Vindolanda*, Research Reports (new series) IV, fasc. V (Greenhead, Northumberland: Vindolanda Trust).
- Boon, G. C., 1966. 'Roman window glass from Wales', *Journal of Glass Studies* 8, 41–45.
- 1977. 'Gold-in-glass beads from the ancient world', *Britannia* 8, 193–207.
- 1978. 'More finds from Castell Collen Roman fort', *Transactions of the Radnorshire Society* 48, 17–19.
- Brewer, R. J., 1986. 'The beads and glass counters', in J. D. Zienkiewicz, *The Legionary Fortress Baths at Caerleon, Volume II – The Finds* (Cardiff: Cadw/National Museum of Wales), 146–56.
- Burnham, B. C., 2000. 'Roman Britain in 1999', *Britannia* 31, 276–77.
- 2001. 'Roman Britain in 2001', *Britannia* 33, 276–7.
- 2004. 'Roman Britain in 2003', *Britannia* 35, 258.
- Burnham, B. and Davies, J. (eds), 2010. *Roman Frontiers in Wales and the Marches* (Aberystwyth: RCAHMW).
- Cabart, H., 2003. 'Productions and importations des verreries romaines dans l'est de la France', in D. Foy and M.-D. Nenna (eds), *Échanges et Commerce du verre dans le monde antique*, Monographies Instrumentum 24 (Montagnac: Monique Mergoil), 161–76.
- Chapman, E. M., 2009. 'Roman Britain in 2008', *Britannia* 40, 220.
- 2010. 'Roman Britain in 2009', *Britannia* 41, 342.
- 2011. 'Roman Britain in 2010', *Britannia* 42, 320.
- 2014. 'Roman Britain in 2013', *Britannia* 45, 309.
- Charles, B. G., 1992. *The Place-Names of Pembrokeshire*, 2 vols (Aberystwyth: National Library of Wales).
- Charlesworth, D., 1966. 'Roman square bottles', *Journal of Glass Studies* 8, 26–40.
- 1972. 'The glass', in S. S. Frere, *Verulamium Excavations Volume I*, Reports of the Research Committee of the Society of Antiquaries of London, 28 (London: Society of Antiquaries), 196–215.
- Charlesworth, D. and Price, J., 1987. 'The Roman and Saxon glass', in S. S. Frere, P. Bennett, J. Rady and S. Stow, *Canterbury Excavations: Intra- and Extra-Mural Sites 1949–55 and 1980–84*, The Archaeology of Canterbury Volume VIII (Canterbury: Canterbury Archaeological Trust), 220–31.
- Clarke, G., 1979. *Pre-Roman and Roman Winchester, Part II, The Roman Cemetery at Lankhills*, Winchester Studies 3 (Oxford: Oxford University Press).
- Coates, R., 2005. 'The antiquity of Moggerhanger, Bedfordshire', *Journal of the English Place-Name Society* 37, 48–51.
- Cool, H. E. M., 2004. *The Roman Cemetery at Brougham, Cumbria. Excavations 1966–67*. Britannia Monograph Series 21 (London: Society of Roman Studies).
- Cosh, S. R., 2001. 'Seasonal dining-rooms in Romano-British houses', *Britannia* 32, 219–42.
- Cosh, S. R. and Neal, D. S., 2010. *Roman Mosaics of Britain Volume IV. Western Britain* (London: Society of Antiquaries of London).
- Cummings, G. L. and Richards, J. R., 1975. 'Ore lead isotope ratios in a continuously changing earth', *Earth and Planetary Science Letters* 28, 155–71.

- Dauzat, A, and Rostaing, C., 1963. *Dictionnaire étymologique des noms de lieux en France* (Paris: Larousse).
- Davies, J. L., 1984. 'Excavations at Trawscoed Roman fort, Dyfed', *Bulletin of the Board of Celtic Studies* 31, 259–92.
- Davies, J. L., 1994. 'The Roman Period', in J. L. Davies and D. P. Kirby (eds), *Cardigan County History, Volume 1, From the Earliest of Times to the Coming of the Normans* (Cardiff: University of Wales Press), 276–317.
- 2006. 'Gates, beads and Danubians. The defences and garrison of the auxiliary fort at Castell Collen: a speculative relationship', *Bayerische Vorgeschichtesblätter* 71, 3–13.
- Davies, J. L. and Burnham, B. C., 2012. 'Conquest, co-existence and change: a retrospect and prospect on Roman Wales', *Archaeology in Wales* 51, 3–21.
- Davies, J. L. and Driver, T. G., 2012. 'The first Roman villa in Ceredigion: a summary report on the discovery and excavation of a late Romano-British villa at Abermagwr, near Aberystwyth, 2010–11', *Ceredigion* 16.3, 1–15.
- 2014. 'The villa hinterland: recent work on the environs of the Abermagwr Roman villa at Llanafan and Llanilar, Ceredigion', *Ceredigion* 17.1, 1–11.
- Driver, T., 1997. 'Abermagwr, Aberystwyth', *Archaeology in Wales* 37, 55.
- 2016. *The Hillforts of Cardigan Bay* (Almeley: Logaston Press).
- Driver, T. and Davies, J. L., 2009. 'Nant Magwr Roman site, Abermagwr, Trawscoed', *Archaeology in Wales* 49, 111–12.
- 2010. 'Abermagwr Project 2010. Report of first season of excavation, 2010', unpublished report, RCAHMW.
- 2011. 'Abermagwr Project 2011. Report of the second season of excavation at Abermagwr Romano-British villa, Ceredigion, 2011', unpublished report, RCAHMW.
- 2012. 'Abermagwr Romano-British villa, Ceredigion, mid-Wales: interim report on its discovery and excavation', *Archaeologia Cambrensis* 160, 39–49.
- 2013. 'Llanilar, Pen y Castell, trapezoidal enclosure', *Archaeology in Wales* 53, 199–200.
- 2015. 'Draft report of the third and final season of excavation at Abermagwr Romano-British villa, Ceredigion', unpublished report, RCAHMW.
- Driver, T. and Jones, N., 2011. 'Broad Heath Romano-British enclosure, Presteigne, Powys, SO 34206347', *Archaeology in Wales* 51, 117–19.
- Dowdell, A., 1976. 'New Mill Farm, Monknash', *Archaeology in Wales* 16, 34.
- Ekwall, E., 1922. *The Place-Names of Lancashire* (Manchester: Manchester University Press).
- Evans, D. R., and Metcalf, V. M., 1992. *Roman Gates Caerleon*, Oxbow Monograph 15 (Oxford: Oxbow Books).
- Fenton, R., 1811. *A Historical Tour Through Pembrokeshire* (reprinted 1994 by Cyngor Sir Dyfed County Council, Cultural Services Department).
- Fletcher, C. J. N., 2013. 'Provenance of the building materials from the Abermagwr Roman villa', unpublished report, NMRW Archive.
- Fletcher, C. J. N., Swainbank, I. G. and Colman, T. B., 1993. 'Metallogenic evolution in Wales: constraints from the lead isotope modelling', *Journal of the Geological Society London* 150, 77–83.
- Follmann-Schulz, A.–B., 1988. *Die römischen Gläser aus Bonn* (Köln: Rheinland-verlag GMBH).
- Fremersdorf, F., 1967 *Die römischen Gläser mit Schliiff, Bemalung und Goldauflagen aus Köln* (Köln: verlag der Löwe).
- Gascoigne, P. E., 1969. 'Clear Cupboard villa, Farmington, Gloucestershire', *Transactions of the Bristol and Gloucestershire Archaeological Society* 88, 34–67.

- Gillam, J. P., 1976 'Coarse fumed ware in north Britain and beyond', *Glasgow Archaeological Journal* 4, 57–80.
- Grant, F. R., 2013. 'Palaeoenvironmental Assessment of Samples from Abermagwr Romano-British Villa', unpublished report, Report No. 02/13.
- Grose, D. F., 1997. 'Glass vessels and objects', in E. Hostetter and T. Noble Howe (eds.), *The Romano-British villa at Castle Copse, Great Bedwyn* (Bloomington, Indianapolis: Indiana University Press), 298–305.
- Guest, P. and Wells, N., 2007. *Iron Age and Roman Coins from Wales*, Collection Moneta 66 (Wetteren: Moneta).
- Guido, M., 1979. 'Beads and necklaces', in Clarke 1979, 292–300.
- Gwyn, D., 2015. *Welsh Slate: Archaeology and History of an Industry* (Aberystwyth: RCAHMW).
- Hay, C., 1785. 'Description of a Roman hypocaust discovered near Brecknock. In a letter from Mr. Charles Hay to John Morgan Esq. of Thurrow at Tredegar', *Archaeologia* 7, 205–10.
- Haylock, K., 2012. 'Lead provenance of finds associated with the Abermagwr Romano-British villa excavation', unpublished report, Aberystwyth University, Institute of Geography and Earth Sciences.
- 2015. 'The Relationship Between Iron Age Hill Forts, Roman Settlements and Metallurgy on the Atlantic Fringe', unpublished PhD thesis, Department of Geography and Earth Sciences, Aberystwyth University.
- Hogg, A. H. A., 1974. 'The Llantwit Major villa: a reconsideration of the evidence', *Britannia* 5, 225–50.
- Hopewell, D., 2012. 'Tan-yr-allt Defended Enclosure, Abermagwr. Geophysical Survey Report', unpublished report, Gwynedd Archaeological Trust, Report No. 1041.
- James, H., 2003. *Roman Carmarthen. Excavations 1978-1993*. Britannia Monograph Series No. 20 (London: Society for the Promotion of Roman Studies).
- Jarrett, M. G., 1962. 'Excavations at Llys Brychan, Llangadog, 1961', *Carmarthenshire Antiquary* 4, 2–8.
- Jarrett, M. G. and Wrathmell, S., 1981. *Whitton. An Iron Age and Roman Farmstead in South Glamorgan* (Cardiff: University of Wales Press).
- Jones, G. P., 2012. 'The slates', in Parry and Kenney 2012, 120–23.
- Jones, N. J., 1999. 'Excavation and survey at Broad Heath Romano-British enclosure, Presteigne, Powys', *Archaeology in Wales* 39, 17–26.
- 2011. 'Roman-British settlement at Plas Coch, Wrexham, excavations 1994–96', *Archaeologia Cambrensis* 160, 51–113.
- Kenney, J., 2005. 'A Roman T-shaped corn-drier from Tremadog, Gwynedd', *Archaeology in Wales* 45, 25–32.
- Knight, H. H., 1853. 'Account of Newton Nottage', *Archaeologia Cambrensis* 8, 90–8.
- Lambert, I. J., 1979. 'Rhiwderin-Wentloog Gas Pipeline', *Archaeology in Wales* 19, 44.
- Manning, W. H., 1985. *Catalogue of the Romano-British Iron Tools, Fittings and Weapons in the British Museum* (London: British Museum).
- Manning, W. H., Price, A. J., Webster, J., 1995. *Report on the Excavations at Usk 1965–1976. The Roman Small Finds* (Cardiff: University of Wales Press).
- McWhirr, A. D., 1984. 'The Production and Distribution of Brick and Tile in Roman Britain', unpublished PhD thesis, University of Leicester.
- Meates, G. W., 1979. *The Roman Villa at Lullingstone. Kent. Volume 1: The Site* (Maidstone: Kent Archaeological Society).
- Meek, J., 2011. 'Exploration Tywi! Llys Brychan, Bethlehem. Archaeological Evaluation 2009', unpublished report, Dyfed Archaeological Trust Report No. 2010/24.
- Mein, G., 1977, 'Hadnock', *Archaeology in Wales* 17, 36.

- Miles, D. (ed.), 1986. *Archaeology at Barton Court Farm, Abingdon, Oxon.: An Investigation of Late Neolithic, Iron Age and Saxon Settlements*, CBA Research Report 50 (London: Council for British Archaeology).
- Moore, P. D., Webb, J. A. and Collinson, M. E., 1991. *Pollen Analysis* (2nd edn, Oxford: Blackwell Science).
- Murphy, K., 1992. 'Plas Gogerddan, Dyfed. A multi-period burial and ritual site', *Archaeological Journal* 149, 1–38.
- Murphy, K. and Mytum, H., 2012. 'Excavations at Troedyrhiw Enclosure, Ceredigion 2005', *Archaeology in Wales* 52, 57–67.
- Nash-Williams, V. E., 1932. 'The Roman Legionary fortress at Caerleon in Monmouthshire. Report on the excavations carried out in the Prysge Field, 1927–9. Part II. The finds', *Archaeologia Cambrensis* 87, 48–104.
- 1953. 'The Roman villa at Llantwit Major', *Archaeologia Cambrensis* 102, 89–163.
- Neal, D., 1970. 'The Roman Villa at Boxmoor. Interim Report', *Britannia* 1, 156–62.
- 1974. *The Excavation of a Roman villa at Gadebridge Park, Hemel Hempstead, 1963–8*. Reports of the Research Committee of the Society of Antiquaries of London, 31 (London: Society of Antiquaries).
- Neal, D., Wardle, A. and Hunn, J., 1990. *Excavation of the Iron Age, Roman and Medieval Settlement at Gorehambury, St Albans*, English Heritage Archaeological Report No. 14 (London: Historic Buildings and Monuments Commission for England).
- Newman, R., 1990. 'Excavations of a Romano-British building at Dan-y-Graig, Porthcawl, Mid-Glamorgan', *Bulletin of the Board of Celtic Studies* 37, 247–80.
- O'Leary, T. J., with Blockley, K. and Musson, C., 1989. *Pentre Farm, Flint 1976–81. An official building in the Roman lead mining district*, British Archaeological Reports British Series 207 (Oxford).
- O'Neil, B. H. St J., 1934. 'The Roman villa at Magor Farm, Near Camborne, Cornwall', *Journal of the Royal Institution of Cornwall*, 116–175.
- Padel, O. J., 1985. *Cornish Place-Name Elements* (Nottingham: English Place-Name Society).
- Page, N., Hughes, G., Jones, R. and Murphy, K., 2012. 'Excavations at Erglodd, Llangynfelyn, Ceredigion: prehistoric/Roman lead smelting site and medieval trackway', *Archaeologia Cambrensis* 161, 285–356.
- Parkinson, A. J., 1985. 'Peat, wheat and lead: settlement patterns in west Wales, 1500–1800', *Ceredigion* 10.2, 111–30.
- Parry, L. W. and Kenney, J., 2012. 'Archaeological Discoveries along the Porthmadog Bypass', *Archaeology in Wales* 52, 113–32.
- Perring, D., 2002. *The Roman House in Britain* (London: Routledge).
- Price, J., 2000. 'Late Roman glass vessels in Britain, from AD 350 to 410 and beyond', in J. Price (ed.), *Glass in Britain and Ireland AD 350–1100*, British Museum Occasional Paper No. 127 (London: British Museum), 1–31.
- 2011. 'Mould-blown and impressed designs and names on vessels in Britain', in D. Foy and Nenna M-D eds, *Corpus des Signatures et Marques sur Verres Antiques, Volume 3*, Aix en Provence/Lyon, Association Française pour l'Archéologie du Verre, 15–80.
- 2013. 'Glass', in S. Willis and P. Carne (eds), 2013. *A Roman Villa at the Edge of Empire. Excavations at Ingleby Barwick, Stockton-on-Tees, 2003–04*, CBA Research Report 170 (York: Council for British Archaeology), 120–5.
- Price, J. and Cool, H. E. M., 1993. 'The vessel glass', in M. J. Darling (ed.), *Caister-on-Sea. Excavations by Charles Green, 1951–1955*, East Anglian Archaeology 60, 141–52.
- Price, J. and Cottam, S., 1998. *Romano-British Glass vessels: a Handbook. Practical Handbook in Archaeology 14* (York: Council for British Archaeology).

- Radford, C. A. R., 1936. 'The Roman villa at Ditchley, Oxon.', *Oxoniensia* 1, 24–69.
- Rankov, N. B., 1982. 'Eaton by Tarporley', *Britannia* 13, 353–54.
- RCAHMW, 1976. *An Inventory of the Ancient Monuments in Glamorgan. Volume 1: Pre-Norman. Part 11 The Iron Age and the Roman occupation*, (Cardiff: HMSO).
- Robinson, D. M. (ed.), 1988. *Biglis, Caldicot and Llandough. Three Late Iron Age and Romano-British sites in South-East Wales. Excavations 1977–79*, British Archaeological Reports, British Series 188 (Oxford).
- Rohl, B., 1996. 'Lead isotope data from the Isotrache Laboratory, Oxford: Archaeometry database 2, galena from Britain and Ireland', *Archaeometry* 38.1, 165–80.
- Roseveare, M. J., 2013. 'Pen-y-Castell, Llanilar, Ceredigion. Geophysical Survey Report Produced for RCAHMW', unpublished report, ArchaeoPhysica Report No. PCW131.
- Schlee, D., 2008. 'Excavation and Survey at Dinefwr Park, Llandeilo, Carmarthenshire', unpublished report, Dyfed Archaeological Trust Report 2008/117.
- Selkirk, A., 2017. 'Druce Farm villa', *Current Archaeology* 323, 28–33.
- Smith, A., Allen, M., Brindle, T. and Fulford, M., 2016. *New Visions of the Countryside of Roman Britain Volume 1: The Rural Settlement of Roman Britain*, Britannia Monograph Series No. 29 (London: Society for the Promotion of Roman Studies).
- Stead, I. M., 1976. *Excavations at Winterton Roman Villa and other Roman sites in North Lincolnshire 1958–1967*, Department of the Environment Archaeological Reports No. 9 (London: HMSO).
- Stockmarr, J., 1971. 'Tablets with spores used in absolute pollen analysis', *Pollen et Spores* 13, 615–621.
- Swift, E., 2000. *Regionality in Dress Accessories in the Late Roman West*, Monographies Instrumentum 11 (Montagnac: Monique Mergoil).
- Thomas, H. J., 1958. 'Roman discoveries in the Vale of Glamorgan', *Bulletin of the Board of Celtic Studies* 17, 293–6.
- Thomas, W. G. and Walker, R. F., 1959. 'Excavations at Trellissey, Pembrokeshire, 1950–1', *Bulletin of the Board of Celtic Studies* 18, 295–303.
- Ward, J., 1907. 'Roman remains at Cwmbwrwyn, Carmarthenshire', *Archaeologia Cambrensis* 62, 175–212.
- Webster, P. V., 2009. 'Draft Roman Pottery from Llys Brychan, Llangadog', in Meek 2011.
- Wheeler, R. E. M., 1922. 'Roman buildings and earthworks on the Cardiff racecourse', *Transactions of the Cardiff Naturalists Society* 55, 19–45.
- 1923. 'A Roman site in Pembrokeshire', *Archaeologia Cambrensis* 78, 211–24.
- 1930. *London in Roman Times*, London Museum Catalogue 3 (London: London Museum).
- Williams, D., 2005. 'Ford Farm Roman Villa: Geographical and Topographical Survey', unpublished report.
- Williams, G. and Mytum, H., 1998 (ed. K. Blockley). *Llawhaden, Dyfed: Excavations on a Group of Small Defended Enclosures, 1980–4*, British Archaeological Reports, British Series 275 (Oxford).
- Wmffre, I., 2004. *The Place-Names of Cardiganshire*, 3 vols, British Archaeological Reports, British Series 379 (Oxford: Archaeopress).
- Woodward, P. J., Davies, S. M., Graham, A. H., 1993. *Excavations at the Old Methodist Chapel and Greyhound Yard, Dorchester 1981–1984*, Dorset Natural History and Archaeological Society Monograph Series 12.
- Young, C. J., 1977. *Oxfordshire Roman Pottery*, British Archaeological Reports, British Series 43 (Oxford).

