Hen Gastell, Llanwnda
A Medieval Defended Site

Summary of Excavation Report

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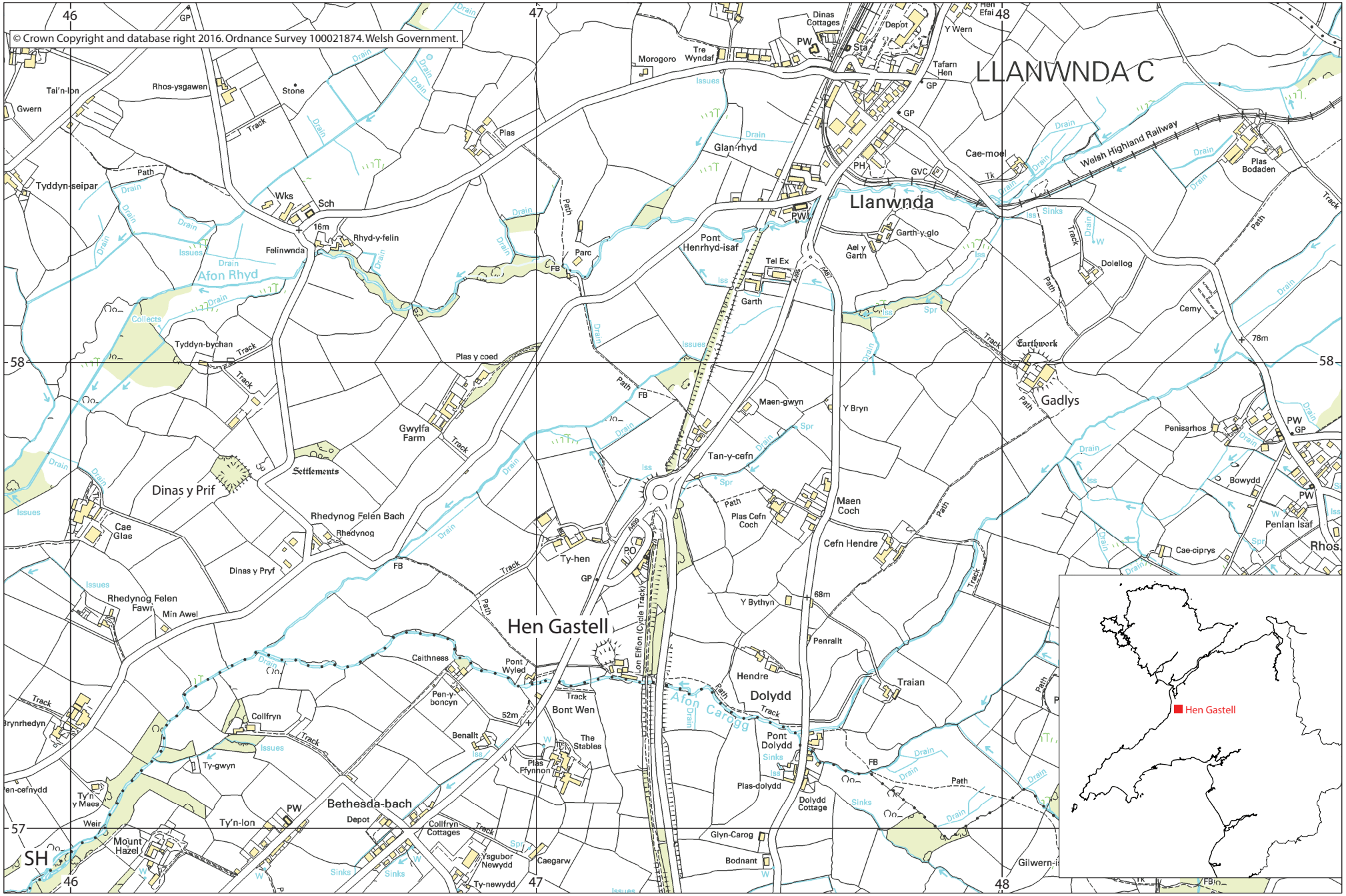


Figure 1. Location of Hen Gastell and nearby sites

HEN GASTELL, LLANWNDA
A MEDIEVAL DEFENDED SITE

By Jane Kenney of Gwynedd Archaeological Trust

INTRODUCTION

Hen Gastell is an impressive earthwork monument located at OS grid reference SH 4713 5737 on the northern bank of the Afon Carrog (Figure 1).

Previous work by Gwynedd Archaeological Trust (GAT) had identified Hen Gastell as an important site, perhaps of national importance, but more work was needed to find out why and when it was built, and what it may have been used for. To help answer these questions a geophysical survey was carried out over the site. This identified a number of possible buried remains inside the earthwork, and so a narrow trial trench was excavated to examine some of these remains. At the same time a detailed survey of the earthworks was carried out, which enabled us to draw up an accurate plan of the visible remains (figure 2). For the results of this work see GAT report 1167[1].

The first phase of work confirmed that there were interesting buried remains surviving on the site, and so this led to a second phase of work, involving the excavation of nearly half of the interior of the site. The excavation was carried out with the help of volunteers under the supervision of GAT archaeologists. The full report describing this work can be found in GAT report 1306.

SITE DESCRIPTION

See figure 2. Note: the site is on private land and permission from the landowner is necessary to visit the site.

Hen Gastell is a defended enclosure situated on the southern end of a low ridge of glacial gravels. A large, steep-sided ditch cuts across the end of the ridge and there is a substantial bank on the outside of the ditch. Inside the ditch is a small, flat platform, measuring approximately 30m by 14m, originally surrounded by a slighter inner bank, and defined on its southern side by a steep slope. Later stone walls cross the site, and the sloping sides have been revetted with stone to stop them eroding.

Hen Gastell from the west (view taken from digital 3D model)

The excavation of the trial trench showed that the ditch was massive and steep-sided. The outer bank at its full height before erosion would also have been substantial. However the geophysical

[1] All the GAT reports are available on the GAT website at http://www.heneb.co.uk/hengastell/info.html

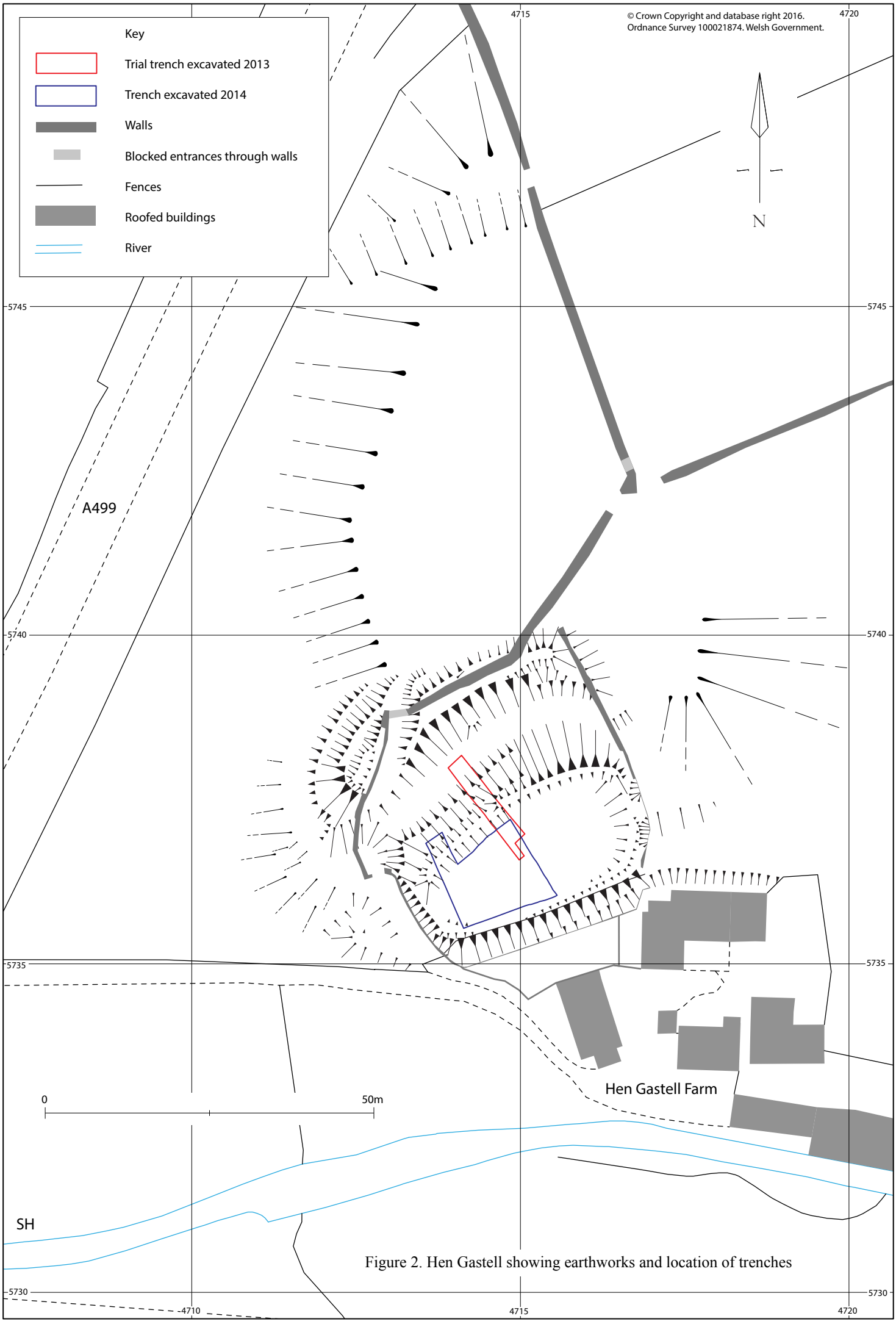


Figure 2. Hen Gastell showing earthworks and location of trenches

survey suggested that there was no ditch beyond the outer bank, and there is no trace of one visible in the ground surface. As the site is assumed to be defensive this is unusual. It would mean that attackers could access the bank and would be higher than the interior of the site making it easier to assault.

Section of ditch in the trial trench

The trial trench revealed evidence for a possible semi-subterranean building constructed in the largely infilled ditch. Only the very end of this was found and no dating evidence was recovered but it is most likely to date to the 16th to 18th centuries AD. A trackway cut through the outer bank and the field walls forming a small paddock may have been associated with this proposed building.

End of possible semi-subterranean building in evaluation trench

The large scale excavation was carried out in 2014 and aimed to find out more about the monument by targeting the inner platform on which the original occupants must have lived. The object was to find out what date the monument was and how it was used.

Site under excavation from the air (copyright Alan K Hole)

RESULTS OF EXCAVATION

See figure 3 for a plan of the trench (numbers in bold in the text refer to features on the plan)

Timber Building

Most of the features found during the excavation were postholes, which had held posts for a building. These could be confidently identified as such because they contained packing stones and in many cases a post-pipe. The post-pipe is an area of darker coloured soil left when a timber post has decayed away; in effect a cast of the post. Four large, sub-circular postholes (**2068**, **2108**, **2118** and **2122**) formed an arc across the trench. These were between about 0.9m and 1.0m in diameter and up to 0.77m deep. All the postholes in this arc had visible post-pipes, which were up to about 0.5m in diameter, indicating the size of the original posts.

The post-pipes in postholes **2068** and **2108** were filled with dark soil containing a lot of burnt stone and fragments of burnt bone. It appeared that the posts had been removed and the burnt stone had been used to fill the resulting hole. The burnt stone probably came from a dump around the inside of the inner bank, described below.

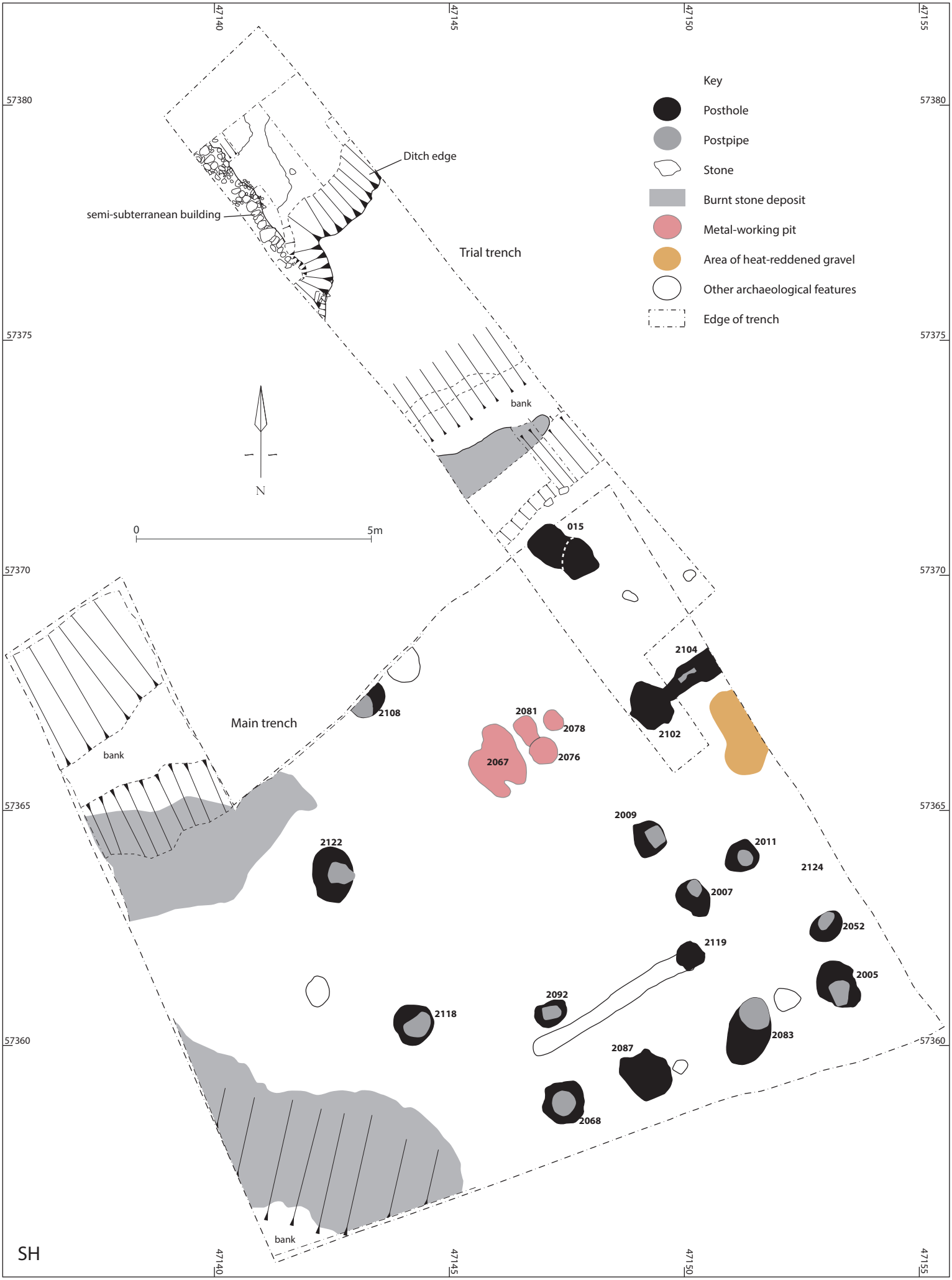


Figure 3. Outline plan of features within excavated trenches

Arc of postholes marked by white arrows

As well as forming the end of the arc posthole **2068** also formed the start of a straight line of postholes running west-south-west to east-north-east close to the south-eastern edge of the trench. The other three postholes on this line (**2005**, **2083** and **2087**) were also very substantial, measuring up to 1.2m long and up to 0.92m wide; however they were shallower and no more than 0.45m deep. No post-pipe was recognised in **2087**, which seemed to have been disturbed, but **2005** contained a nearly rectangular post-pipe measuring 0.65m by 0.22m. It also had large packing stones. Posthole **2083** probably also had a post-pipe but this was not as well-preserved.

*Posthole **2108** half sectioned showing burnt stone in post-pipe*

*Packing stones in posthole **2005***

Roughly parallel to this line of large postholes was a line of three smaller postholes (**2052**, **2119**, and **2092**), with another group of three postholes (**2007**, **2009**, and **2011**) to the north-east.

A feature, initially recorded in the trial trench, was reopened and the area around it explored. This appears also to have been a posthole (**2102**). A straight slot (**2104**) ran north-east from posthole **2102**, and extended beyond the limits of the excavation. It measured more than 1.26m long by up to 0.66m wide, and was at most 0.30m deep. A few of the larger stones in its fill appeared to be packing stones, probably used to pack a timber beam in place. This may therefore have been the foundation cut for a horizontal beam to support a timber superstructure.

*Posthole **2102** and beam slot **2104***

The arc of large postholes and the line of postholes on the south-eastern side seem to have supported the wall of a timber building. If the arc is projected it can be seen that another feature (**015**) found in the trial trench was on the same arc and was almost certainly another posthole. The straight line of postholes suggests that the building could not have been completely circular but that one wall at least was straight. It is probable that all the other postholes supported internal structures within the building. Some of the postholes had rectangular post-pipes suggesting squared timbers were used, indicating that considerable time, effort and skill was used in the construction.

Finds from the postholes included fragments of burnt bone and iron nails for use in timber and for horseshoes; the latter can be dated to the 11-12th centuries AD.

Blacksmithing forge

Three small pits and a shallow hollow were excavated just north-west of the centre of the building. The three pits (**2076**, **2078**, **2081**) were roughly circular, up to 0.6m in diameter.

*Pits **2076**, **2078** and **2081** fully excavated*

The adjacent hollow **2067** was irregular in plan and measured 1.60m by 1.10m, but was only 0.15m deep. The soil filling this hollow contained charcoal and a large quantity of slag and other metal-working debris. Over 6kg of metal-working debris was collected. This included fragments of furnace lining and pieces typical of the base of a smithing hearth. There were also two small pieces of bar iron.

Pit **2081** was also little more than a hollow, but it did contain a tiny fragment of a bronze rivet and an object possibly formed by the accumulation of iron-rich deposits in the corner of an organic container. The rivet was part of a high status decorative item as analysis showed that it had been gilded.

Pit **2076** was almost precisely circular. It had steep sides and a flat base and was 0.3m deep. Its fill contained a large amount of charcoal as well as slag, especially tiny fragments called hammerscale which are produced when a smith hammers an iron object on an anvil. There was also a tiny sherd of medieval pottery, too small and worn to date precisely.

Pit **2078** was the smallest feature in the group. It was sub-circular with steep sides and a flat base. Near the base lay a lump of heat-reddened clay, which might have been part of a floor or collapse from a superstructure. The fill of this pit also contained metal-working debris, including a large piece of slag that had formed in the base of a smithing hearth. There was also a timber nail and a small iron knife with traces of mineralised organic remains, probably a handle, on its tang.

*Iron knife found in pit **2078***

These features are interpreted as the remains of a blacksmithing forge, with pit **2078** being the base of the smithing hearth. Pit **2076**, with its hammerscale, was probably the foundation cut for a wooden block to support a small metal anvil. Waste from the smithing was dumped or accumulated in feature **2067**, which may have been a working hollow. The knife from pit **2078** and fragments of bar iron in **2067** represent the types of small objects being produced.

The smithing pits contained more charcoal than any other features in site, from the fires used in the forge. The fuel was mostly oak, although some hazel and willow was also used. It seems that waste from processing cereals was used to fuel or at least start the fire as large numbers of charred cereal grains were recovered and some cereal chaff. These grains show that mainly wheat was being grown, or at least processed, near the site, although there were some traces of oats. There were also lots of charred hazelnut shells, some of which may have been introduced on hazel branches for fuel, but it is likely that shells were thrown away on the fire after the hazelnuts had been eaten.

The inner bank

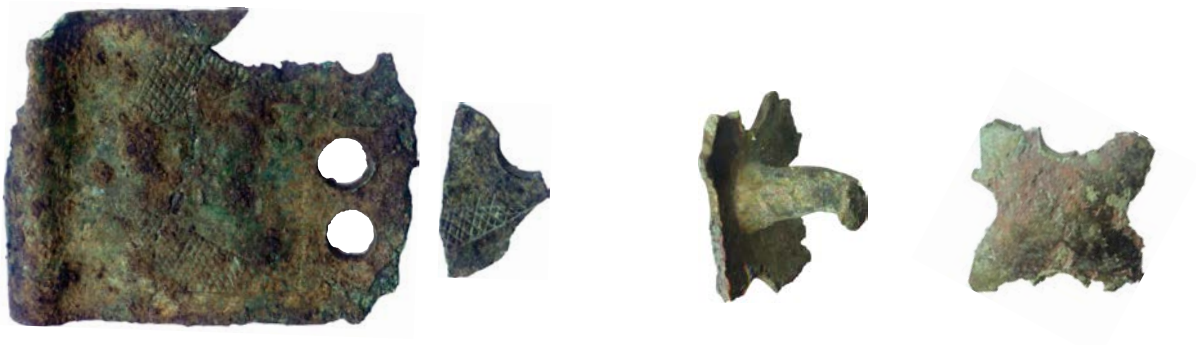
The inner bank around the occupation platform was investigated in two places; in the south-western corner of the trench and to the north-west, where an extension to the trench was dug specifically to investigate the bank.

In both places the bank was seen to be a substantial feature, up to 0.7m high, despite being heavily eroded. It was built mainly of rounded cobbles and gravel, and rested on a layer of soil, which would have been the ground surface when the bank was built. Over this ground surface and under the bank in the south-western corner of the trench was a dark silty layer containing charcoal and burnt bone with some heat-shattered stone. This seemed to be the remains of activity pre-dating the bank.

Section through the inner bank

Pollen from the soil under the bank was analysed and suggests an open environment prior to the construction of the bank, with both arable and pastoral activity close by. The presence of cereal pollen could indicate cereal cultivation on the site but it could alternatively suggest crop processing, such as threshing.

An extensive deposit of burnt stone had been dumped up against its inside face of the bank. This deposit was composed mainly of heat-shattered stones with some charcoal, burnt bone and metal-working debris. Also found were an unburnt pig's tooth, nails for timber and horseshoes, and the blade of a small knife. Two studs and a decorated strap end all of bronze (or a similar alloy) came from this deposit. The studs have four leaves or petals to provide a decorative effect and were probably used to decorate a leather belt or other personal accessory. The strap end had simple incised decoration and the impression of woven textile on its surface, which may suggest that it had been attached to a textile girdle rather than a leather strap.


Decorated strap end and decorative studs

The burnt stone deposits clearly post-date the inner bank and seem to have been related to the use of the building. It is suggested that the burnt stones were produced during cooking activities taking place inside the building; the burnt bone and charcoal in the deposits suggest domestic waste. This kind of cooking is more usually associated with the Bronze Age when troughs or pits were dug into the ground to hold water heated by adding hot stones. No such pit was found on the

site but other containers could have been used to hold water. A similar deposit dating to the medieval period was found during an excavation at the Deanery Yard, Bangor (Smith 2013 and 2015), and here it was suggested that it could have been derived from cooking for the work force building Bangor cathedral (Smith 2013, 43).

Radiocarbon dates

A total of 14 samples were submitted to the Scottish Universities Environmental Research Centre Radiocarbon Laboratory for radiocarbon dating. Four of the dated samples were from the trial trench and 10 were chosen from features in the main trench.

All the dates were similar suggesting one main phase of activity with nothing significantly earlier or later. Statistical analysis of the dates, known as Bayesian modelling, was carried out. This uses the stratigraphical relationships of the dated deposits to improve the precision of the dates. The modelling suggested that activity on the inner platform covered a period of up to 130 years within the 11th and 12th centuries AD. The smithing hearth fits well within the main phase of activity and must have been in use at the same time as the building. It appears that the burnt stone layers were deposited over an extended period during the use of the site. There was clearly some activity that took place before the bank was constructed but the radiocarbon dates suggest that this was not significantly earlier than the main phase of activity and probably related to preparations for the construction of the inner bank, or possibly the outer defences. .

The evidence of the radiocarbon dates therefore suggests that the defences were constructed and the site occupied during a single period of occupation lasting some 130 years within the 11th and 12th centuries.

DISCUSSION

The results of the excavation have shown that this is a small defended medieval site dating to the 11th or 12th centuries AD. Hen Gastell is unusual in having a very large ditch for the size of the interior and a substantial bank outside the ditch. The interior platform on which the main building stands measures only about 30m by 14m and the overall dimensions of the site cannot be much more than 50m by 46m.

Excavated sites within north Wales of a 11th to 12th century date are rare. One example is Castell at Porth Trefadog, Anglesey, excavated in 1984 (Longley 1991). This had a massive ditch and large inner bank, surrounding a small interior, and was situated on a cliff edge. While not exactly the same as Hen Gastell, there are similarities in the small interior size and large ditch. Excavation revealed the remains of a rectangular stone building, and iron-working hearths. The building was probably occupied in the 11th and 12th centuries AD and the site may have been constructed by Vikings (Longley 1991, 79-84).

Small mottes and ringworks were probably built by the native Welsh lords in the late 11th and 12th centuries, such as Castell Crwn, Llanrhwydrys, Anglesey, (RCAHMW 1937, 108-9) and Tomen Fawr, Llanystumdwy, (RCAHMW 1960, 237; Gresham 1973, 338). None of these sites closely resemble Hen Gastell, but indicate that there was a range of options for a local lord to choose from when considering building a defensive site.

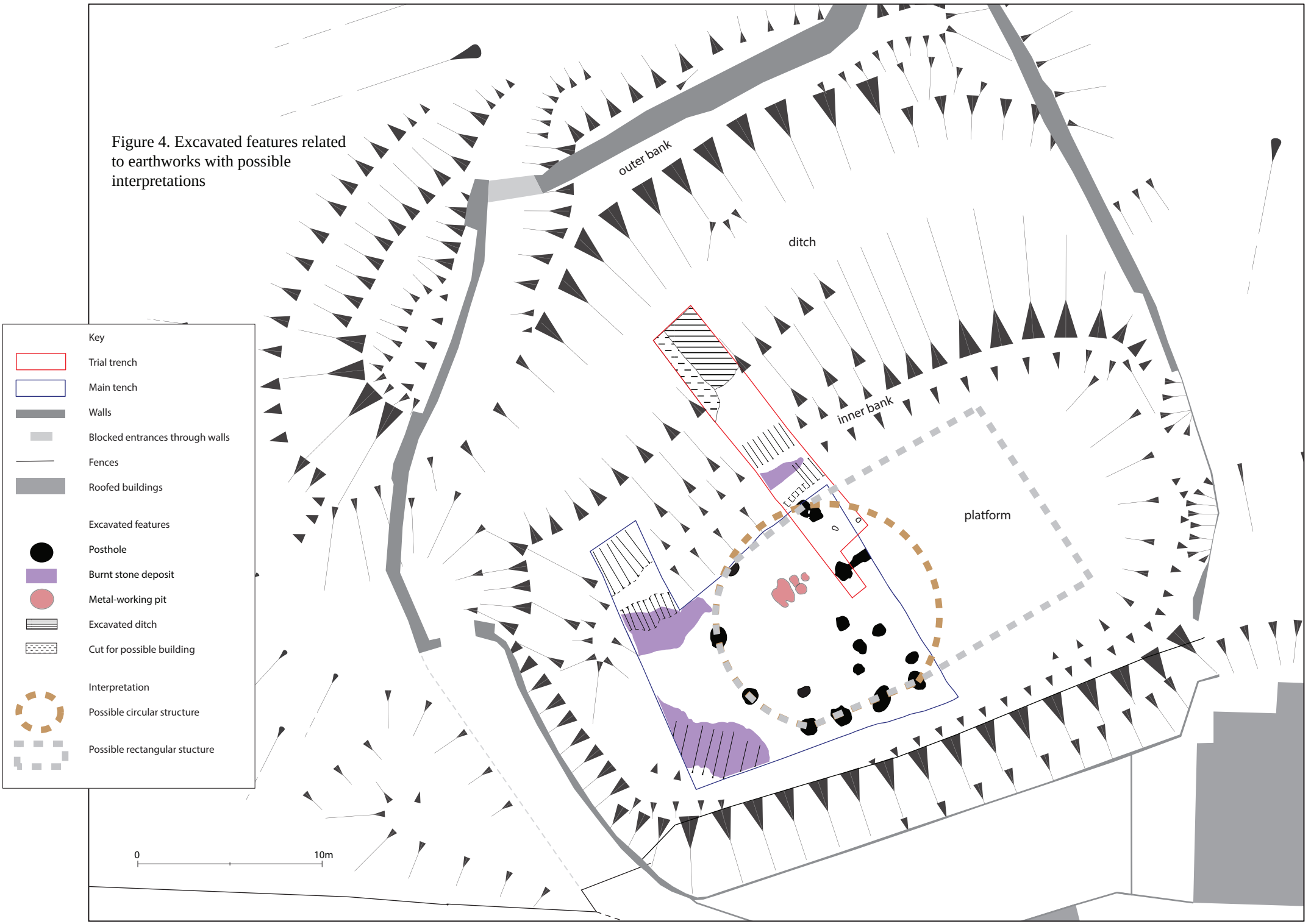
Only about 850m to the west of Hen Gastell is Dinas y Prif (PRN 593). This is a small defended site with an interior measuring 40m by 40m. It is unlike Hen Gastell as it is nearly square in plan with mounds at the corners of the rampart, which may have supported towers. It has not been dated by excavation, but is suggested as possibly early medieval in date (RCAHMW 1960, 225). Hen Gastell and Dinas y Prif are joined by a footpath that may indicate the route of an ancient trackway and they might possibly have been contemporary.

A close comparison for Hen Gastell is located on the south coast of Anglesey. A defended enclosure near St Mary's Church, Llanfairpwllgwyngyll was investigated by geophysics and trial trenching (Smith 2012). The sub-rectangular enclosure resembles the inner platform of Hen Gastell. It has a fairly substantial ditch and an inner bank but no large outer bank was evident. Postholes suggested structures inside the enclosure and radiocarbon dates indicated its use in the 11th or 12th centuries. The St Mary's enclosure has been suggested as a response to the political instability of the 11th century in north Wales (Smith 2012, 36), and Hen Gastell could be seen as a similar response that became unnecessary as stability increased in the later part of Gruffydd ap Cynan's reign and under Owain Gwynedd (Carr 1982, 40-44).

A D-shaped tower or a round-ended hall?

The postholes revealed in the excavation of Hen Gastell suggest the presence of a large timber building dating to the 11th or 12th centuries AD. As the full area of the inner platform was not excavated the plan of the building remains open to discussion (figure 4). There are two probable alternatives for the building plan; sub-circular or sub-rectangular. A circular structure with one side flattened would fit the evidence well and would fit neatly in the space available with room for ancillary buildings in the eastern end of the platform. In this reconstruction the building would have been about 12m in diameter. However the flattened side suggests that this could alternatively be interpreted as the western end of a rectangular building with at least one curved end. This could have been up to between 18m and 20m long depending whether the eastern end was curved or straight. Both alternative interpretations leave several internal postholes unexplained, although it is probable that they supported internal structures inside the building.

Figure 4. Excavated features related to earthworks with possible interpretations



In either case the large postholes with post-pipes up to 0.5m in diameter suggest that this was a substantial building, possibly with a second storey. A two storey building, especially a type of tower, would make the site more defensible as defenders on top of the building could fire down on attackers that might storm the outer bank.

Unfortunately the geophysical survey gives no help in predicting what may be under the unexcavated part of the platform. While the survey clearly picked up the metal-working pits it did not detect the postholes found in the excavation, so a lack of apparent postholes in the remainder of the area cannot be taken to mean that there were no structures there. Only further excavation would solve the question of the shape of the building but good practice means that such work should be left for future generations when techniques and questions may be different.

On the basis of the current evidence it seems reasonable to see Hen Gastell as the well-defended home of a local medieval Welsh lord with tenurial rights over the adjacent lands.

ACKNOWLEDGEMENTS

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Llywodraeth Cymru
Welsh Government

Gwynedd Archaeological Trust
Ymddiriedolaeth Archaeolegol Gwynedd

Craig Beuno, Ffordd y Garth, Bangor, Gwynedd. LL57 2RT
Ffon: 01248 352535. Ffacs: 01248 370925. email:gat@heneb.co.uk