Moel y Gaer
Llanbedr Dyffryn Clwyd

Excavations, Summer 2009

Preliminary Report

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Cover image: The excavations from the air (© RCAHMW 2009)

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Introduction

Location, geology and site description

Moel y Gaer Llanbedr Dyffryn Clwyd hillfort, Denbighshire, is located at SJ 1490 6174.

The site is located in the Clwydian Range and is situated on a low spur below Moel Famau. It is one in a series of six hillforts in the Clwydian Range (from North to South: *Moel Hiraddug*, *Moel y Gaer Bodfari*, *Penycloddiau*, *Moel Arthur*, *Moel y Gaer Llanbedr D.C.*, *Moel Fenlli*). Compared to the other hillforts in the Clwydian Range, it is an unusual position: at c. 320-345m height, it is the lowest in altitude, and is also unlike the other five hillforts in that it does not occupy a position on the main ridge of the Clwydian Range, but is set on a lower spur jutting out into the Vale of Clwyd. Unlike e.g. *Moel Fenlli*, which is located directly above Bwlch Pen Barras pass (Brown 2004, 71), it not so much controls the passage across the Clwydian Range rather than the Vale of Clwyd itself. Due to its position, almost all of the Vale of Clwyd is visible from the site, as are a number of the other hillforts in the Clwydian Range (*Moel y Gaer Bodfari*, *Penycloddiau*, *Moel Fenlli*) and Llantysilio Mountain (*Moel y Gaer Llantysilio*).

The slopes of the spur *Moel y Gaer Llanbedr D.C.* is located on are quite steep on the northern, western and southern side, while the approach from the east is almost level. This gives the site the character of an inland promontory fort (Brooks & Laws 2008, 3). The eastern side is also where the main entrance to the hillfort is located, although there is a second, but clearly not functional, entrance on its western side, where it extends the furthest towards the valley (fig 1). The hillfort is overlooked in its entirety from the east from the main ridge of the Clwydian Range and the summit of Moel Famau.

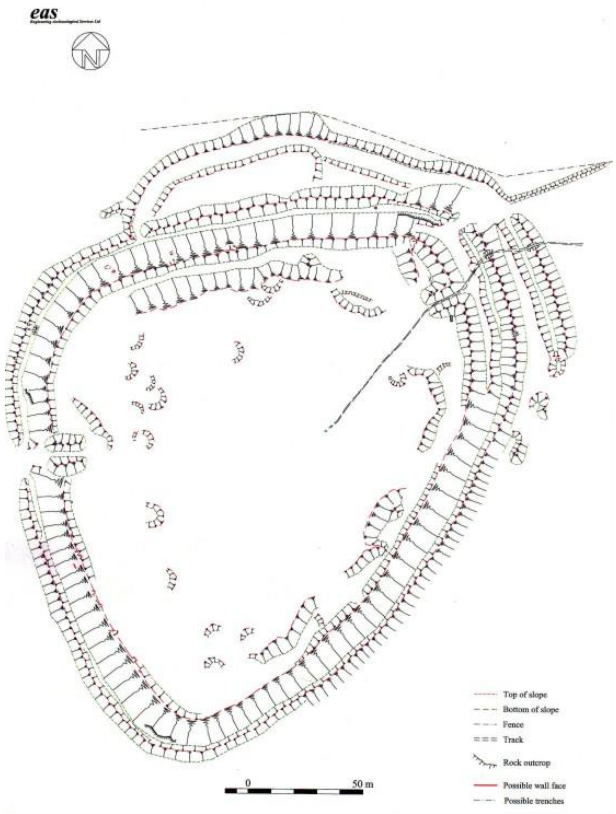

Figure 1: *Moel y Gaer, Llanbedr D.C.* Hachure survey (Brooks & Laws 2007, fig 4)

The geology is of Elwy Formation mudstones and sandstones of the Silurian Period, Ludlow Series. It consists of thinly bedded, turbidite mudstone, siltstone and sandstone. There are scattered thin- and thick-bedded sandstones and 'disturbed' beds. The disturbed beds are the result of slumping and debris-flows during deposition. The principle outcrop of the formation extends along the length of the Clwydian Range. All features on the site have been constructed from local stone (Malpas 2009).

The hillfort has two ramparts on the western third of its northern, its western and south-eastern side, with an additional third rampart on its eastern side, the main side for approaching it, and on the eastern two thirds of its northern side, where the third, outer rampart extends furthest from the two inner ramparts to form a small extension around an area of flatter ground. Some damage to the outer rampart has occurred during agricultural works in the 1980s (Brown 2004, 71).

Previous archaeological work

Moel y Gaer Llanbedr D.C. has attracted early antiquarian interest, but only limited excavation has taken place. In 1849, W. Wynne Ffoulkes carried out an eight day campaign on the site, during which he seems to have opened a total of six rather small trenches (Wynne Ffoulkes 1850, 174-81; Forde-Johnston 1965, 148-9; Brown 2004, 72; Brooks & Laws 2008, 3; also see fig 2 below). Concentrating mainly on the defences and the eastern entrance, and a small area on the inner area of the hillfort immediately south of the eastern entrance, Wynne Ffoulkes concluded that the eastern entrance passage had been paved with small stones. He also suggested that the inner rampart (see section drawing on fig 2 below, section taken at point b on plan) was stone-built or at least stone fronted. He also recorded an area where large amounts of highly burnt stone were found (at area c on plan, see fig 2), where he also states that according to a 'rustic', 'at this spot, two iron balls had been picked up some years ago, but he did not know what had become of them' (Wynne Ffoulkes 1850, 177-8). It has been considered (Brown 2004, 72) that this could either suggest a major burning of the defences or that the rampart was at least partly vitrified; or that an earlier entrance could have been located in this area which was later closed up (Brooks & Laws 2007, fig 9; 2008, 8-9). It was one of the aims of our excavations in 2009 to examine whether that had been the case. The only find made during Wynne Ffoulkes excavations was a piece of Roman pottery, 'well fabricated, and of a deep red colour, with the remains of glaze upon it, but so extremely rotten, as to bear no trace of what description of vessel it was a fragment' (Wynne Ffoulkes 1850, 176).

Gardner (1926) describes *chevaux de frise* in the second ditch and on the slope (cf. Brown 2004, 72; Brooks & Laws 2008, 3), but this is as of yet unconfirmed and no such feature has been recorded in more recent surveys (Brooks & Laws 2007; 2008).

Other than Wynne Ffoulkes (1850, 176) Roman potsherd and a number of stray finds, including a bronze looped palstave and a bronze 'axe', which according to Davies (1929; cf. Brown 2004, 72) were shown to the Ruthin meeting of the Cambrian Archaeological Association in 1854 but are now lost, no finds have been reported from *Moel y Gaer*. The two bronze finds, if actually from the site, could indicate a Late Bronze Age occupation or at least use of the site (Brown 2004, 72), but since they have been lost and their provenance may be questionable, this does not allow to make any firm statements.

Only recently in 2007 and 2008, more archaeological work has been carried out on the site by EAS Ltd. In collaboration with the 'Heather and Hillforts' project of Denbighshire CC in form of 2 campaigns of surveys (Brooks & Laws 2007; 2008), which were followed up by yet another campaign in 2009 which coincided with the first week of our excavations on the site. All three survey

campaigns[1] were very successful and produced a number of very interesting results, as well as providing valuable preliminary works for our excavations.

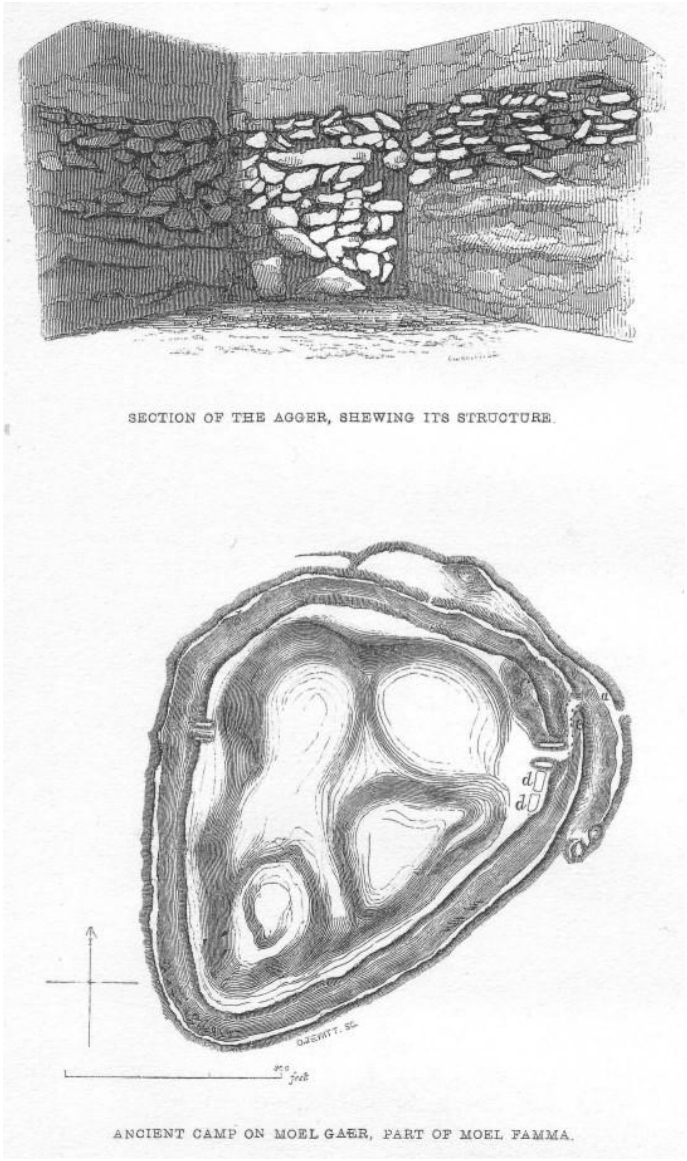

Figure 2: W. Wynne Ffoulkes drawings of *Moel y Gaer Llanbedr D.C.* in 1849 (Wynne Ffoulkes 1850, 174-5).

In 2007, a full contour survey of the hillfort was made (Brooks & Laws 2007), with a number of interesting suggestions made in the report regarding the possible phasing of the site, including the possibility that an earlier entrance into the hillfort may have existed in the area at the north-eastern corner of the hillforts inner rampart. During this survey, sheep scrapes were also observed in this area north of the easterly entrance and vitrified material that was exposed in these sheep scrapes was recorded, which suggested that the hillfort's defences may have been subject to a major period of burning. In addition, fifteen possible hut platforms were identified within the hillfort, mainly on its western internal slope, as well as a series of quarry hollows, mainly along the inner side of the northern inner rampart (Brooks & Laws 2007, 3-4).

[1] We thank Ian Brooks for the opportunity to see some of the preliminary results of the 2009 survey campaign during a site visit on 10/8/2009.

In 2008, a range of geophysical survey methods were used to examine an area inside of the eastern entrance through the innermost rampart of the hillfort and across a part of the northern rampart system, including the area affected by sheep scrapes which exposed highly burnt and partly vitrified rampart material (Brooks & Laws 2008). Carried out by EAS Ltd. with local volunteers, Magnetic Susceptibility, Fluxgate Gradiometer and Resistivity surveys were carried out and allowed to identify a number of possible features, including a potentially paved path / road into the hillfort in line with Wynne Ffoulkes (1850, 178) description and a number of potential lines of stone walls in (stone fronting of) the ramparts being identified.

The results of the 2007 and 2008 surveys, particularly the discovery of a large anomaly in the northern inner rampart in the 2008 survey (Brooks & Laws 2008, fig. 6), and the recorded damage caused by the sheep scrapes, opened up a number of research questions as well as providing justification to undertake research by excavation in those areas of the rampart most damaged by sheep scrapes and thus requiring repair.

Excavations 2009

In collaboration with the 'Heather and Hillforts' project, a team of Bangor University excavated two trenches (to a maximum of c. 200 m2 in line with the conditions of the Scheduled Monument Consent) in the area most affected by sheep scrapes and showing evidence of extensive burning near the north-eastern corner of the inner rampart of *Moel y Gaer*. The excavations also served as a field school for some Bangor University students and some students from the University of Vienna, Austria[2] and also as a community archaeology project allowing several local volunteers to gain direct experience of the archaeological excavation process by participating in the excavations. The excavation began on 20/7/2009 and ended with the complete refilling of the trenches and reconstitution of the rampart on 18/8/2009. The weather, while occasionally somewhat wet and windy, was generally moderately good and allowed for the work to progress relatively speedily and without major problems. Post-excavation work started immediately after the completion of the fieldwork and is currently still under progress.

Research questions

The excavation had a number of aims and objectives, some of which also relate to the interests of project partners[3] or other research projects carried out by Bangor University[4] and the University of Wales Centre for Advanced Welsh and Celtic Studies[5]. The two main aims and objectives of the excavation were

- to gather data on the construction of the rampart
- to collect datable material to establish a dating range for the site.

Secondary aims and objectives were

in collaboration with the *Heather and Hillforts* project

[2] At the University of Vienna, Austria, the excavation was offered as field school 1 & 2 modules 160076 LG Lehrgrabung 1 and 160077 LG Lehrgrabung 2 in summer term 2009.
[3] *Heather and Hillforts* project.
[4] *Hillforts of North Wales* project; University of Wales Publications and Collaborative Research Committee funded *Early Celtic Societies in North Wales* project.
[5] *Ancient Britain and the Atlantic Zone* project directed by Prof. John T. Koch.

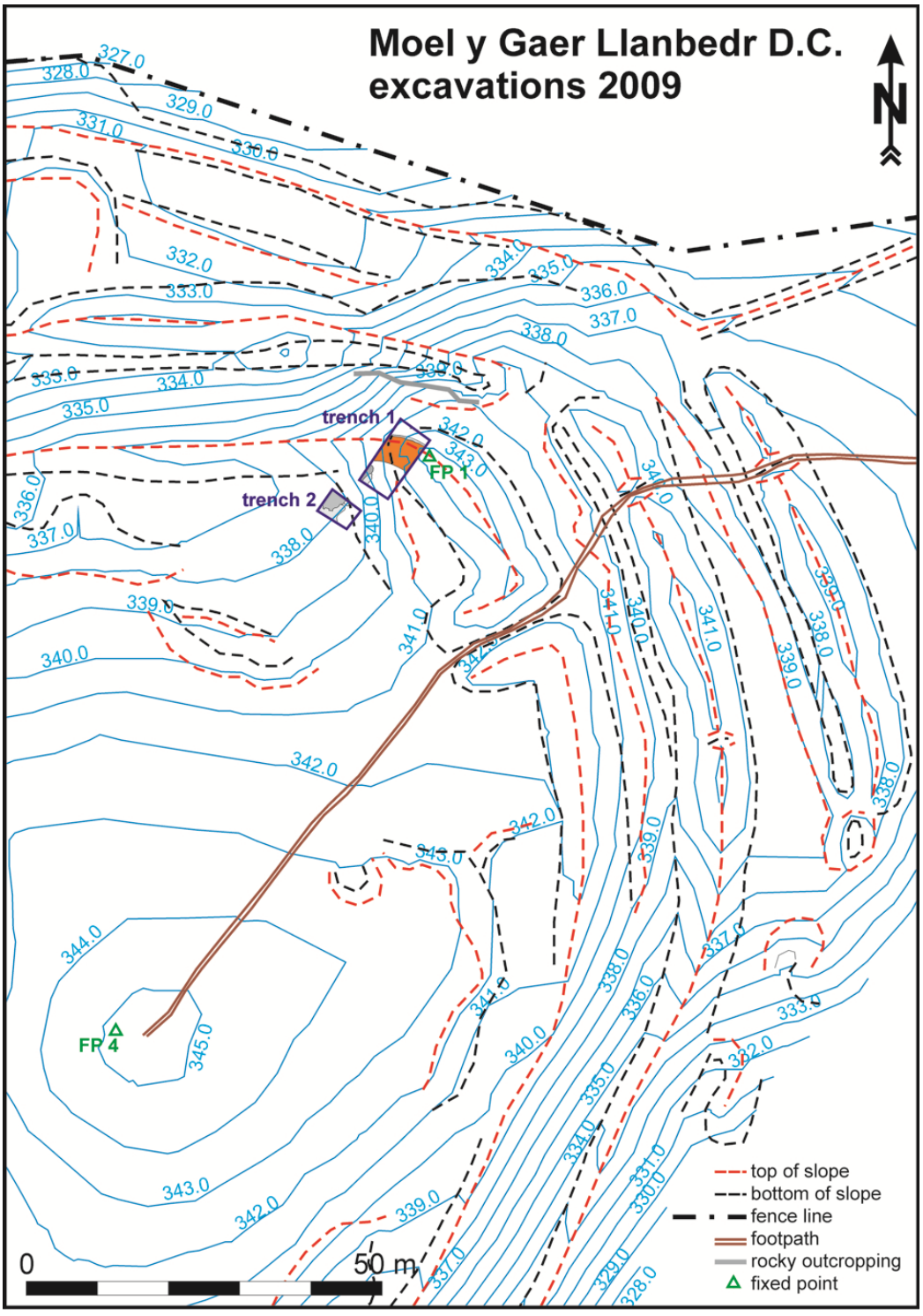

Figure 3: Location of the trenches on the site (basemap data provided by EAS Ltd.).

- to examine whether an earlier entrance into *Moel y Gaer Llanbedr D.C.*, hillfort existed at the site indicated by the magnetic susceptibility survey (Brooks & Laws 2008)
- to gather additional data for the interpretation of the monument, particularly regarding dating, construction methods used, and the relationship of *Moel y Gaer Llanbedr D.C.* to the other hillforts in the Clywdian range and Llantysilio mountains

in collaboration with the *Early Celtic Societies in North Wales* project

- to gather additional data on hillfort settlement activity in North Wales

- to gather additional data for establishing a firm typology of Iron Age settlement in North Wales
- to gather dates of the site to establish its position in a chronological sequence of the development of upland and lowland settlement in North Wales
- to gather additional data on the relationships between local late 2nd and 1st mill. BC communities in North Wales

and in collaboration with the *Ancient Britain and the Atlantic Zone* project

- to gather additional primary evidence on early Celtic communities in the Atlantic zone for comparison with other areas along the 'Atlantic fringe'.

Methodology

The excavations were carried out in the stratigraphic method (Harris 1989, Harris et al. 1993). All contexts were recorded in single context recording on Bangor University's standard context record sheets, as were samples. In addition, where appropriate, single and multiple context plans and profile plans were drawn on A3 planning paper. Digital photos were taken using a Nikon D50 Digital SLR camera with a AF-S DX18-55 mm F3.5-F5.6G ED lens. Both trenches and all contexts as well as, where appropriate, photo reference points, were recorded as 3D survey points using a Spectra Precision Geodimeter 600 Surveying Total Station in fixed positioning at FP 1 (see fig. 3, on the highest point of the rampart at its NE corner above trench 1) using 3 locally set referencing points (FP2, FP3 and FP4) as well as the Moel y Parc TV mast at SJ 123 702 as an additional referencing point for standardised station orientation. All records, plans, photos and 3D measurements were taken by students and volunteers under guidance and supervision of the excavation directors, who also checked the records for correctness and completeness. All students, and almost all volunteers, performed all these tasks at least once, in most cases repeatedly over the course of several days. Finds were recorded using standard finds record sheets, with the responsibility for finds recording and keeping the site diary as well as the general excavation record book rotating between student member of the excavation team on a daily basis.

Contexts and features

Trench 1

Deturfing in trench 1 started 27/2009. Backfilling started 13/8/2009 and was completed on 18/8/2009. The following contexts were recorded during the excavation:

CN	Description
9	Modern turf
10	Dark brown soil partially mixed with longish fragments of stone on outer (N) side of main rampart body
11	Reddish brown silty sand intermixed with highly burnt longish fragments of shale, main rampart body material
12	Drystone wall / foundation, consisting of roughly laid c. 20x10x10-50x20x20 cm blocks of grey shale / mudstone
13	c. 10x5x2-30x10x4 cm fragments of shale, very similar to local bedrock (CN 3), levelling (?)
14	Mixed layer of brownish-grey and reddish-orange soil with longish fragments of shale / upper layer of rampart stone fronting collapse
15	Brownish-yellow clay, partially intermixed with longish fragments of shale, old subsoil with decomposing / eroding fragments of natural bedrock (CN 3) in it
16	Drystone rampart fronting collapse, mostly consisting of large c. 20x10x10-50x20x20 cm blocks of grey

	shale / mudstone
18	Drystone rampart fronting, mostly consisting of large c. 20x10x10-50x20x20 cm blocks of grey shale / mudstone
19	Dark purplish-red sandy soil intermixed with highly burnt fragments of shale and blocks of vitrified material / slag
20	Black old burnt turf layer, containing substantial amounts of charcoal
3	Bedrock (outcropping of shale / mudstone in c. 2-4 cm strong bands, partially eroding / easily breaking off in longish c. 10x5x2-30x10x4 cm fragments)

Table 1: List of contexts in Trench 1.

The stratigraphic sequence in trench 1 (fig 4) mainly consists of a single phase, stone fronted (CN 18) rampart built, in the area excavated, mostly from highly burnt (CN 11) and partially vitrified (CN 19) mixed broken up fragments of shale, partially stuck together by flow slag, with the stones very similar to the local bedrock. The rampart partly sits on a layer of burnt old turf (CN 20), which in turn sits partially on natural bedrock (CN3), partially on a thin layer of brownish-yellow subsoil (CN 15) on top of the natural bedrock. However, the natural bedrock (CN 3) and the layer of subsoil which lies over it in parts of trench 1 (CN 15) interestingly shows no evidence of having been subject to heat, neither underneath nor outside of the rampart (fig 5). The rampart stone fronting collapsed in parts of the section (CN16), with various layers of intermixed material (CN 10, 14) on top of it.

In the south-western part of trench 1, the foundation layer of what may have been a drystone wall (CN 12), which continues downwards towards trench 2 where it was also found, and the broken stone levelling (CN 13), which also continues in trench 2, lie on top of the old turf layer (CN 20). Above both the wall / foundation (CN 12) and the rubble levelling (CN 13) is rampart material, which seems to have eroded downhill from the rampart, and which corresponds roughly to the material of the rampart body (CN 11) in trench 1 and the reddish-orange layer of eroded rampart material (CN 4) in trench 2. This indicates that the drystone wall / foundation (CN 12) and the rubble levelling (CN 13) either predate or are contemporary with the rampart construction and were later covered over by material from the rampart as it slowly eroded.

On top of all the other features in trench 1 lies a c. 10-15 cm thick layer of modern turf.

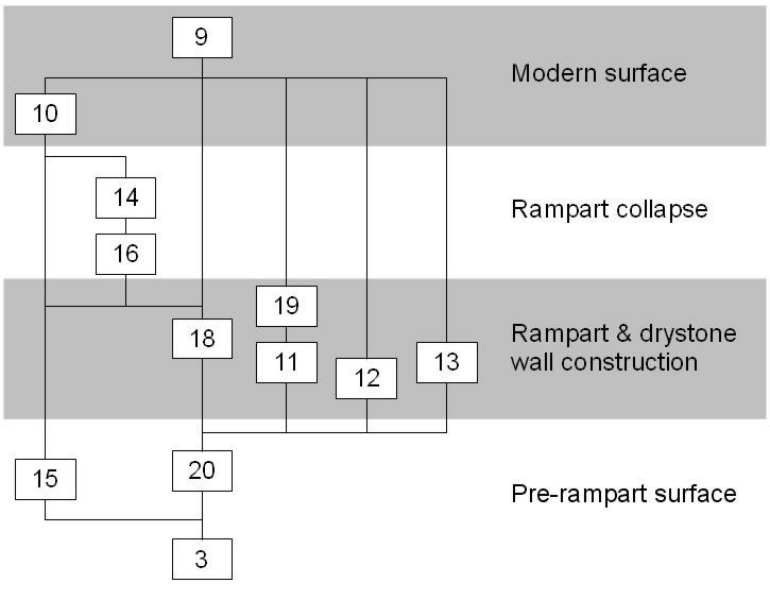

Figure 4: Stratigraphic sequence of trench 1.

Figure 5: The rampart in section, with the subsoil layer (CN 15) and bedrock (CN 3) exposed in the foreground, clearly showing no exposure to heat as compared with the rampart body (CN 11) itself. The stone facing of the rampart (CN 18) is to the left of the rampart body.

Trench 2

Deturfing in trench 2 started 22/7/2009. Backfilling started 10/8/2009 and was completed on 13/8/2009. The following contexts were recorded during the excavation:

CN	Description
1	Modern turf
2	Yellowish-orange silty, sandy soil, mixed eroded rampart material and subsoil
4	Reddish-orange sandy soil mixed with large amounts of burnt fragments of shale, eroded rampart material
5	Whitish-grey loose fragments of rock, eroded bedrock (CN 3) from outcropping to east of trench 2
6	Blackish burnt soil containing large amounts of small charcoal fragments, modern fireplace
12	Drystone wall / foundation, consisting of roughly laid c. 20x10x10-50x20x20 cm blocks of grey shale / mudstone
13	c. 10x5x2-30x10x4 cm fragments of shale, very similar to local bedrock (CN 3), levelling (?)
17	Brownish-black layer of old decompsed / burnt turf containing substantial amounts of charcoal
3	Bedrock (outcropping of shale / mudstone in c. 2-4 cm strong bands, partially eroding / easily breaking off in longish c. 10x5x2-30x10x4 cm fragments)

Table 2: List of contexts in Trench 2.

The stratigraphic sequence in trench 2 (fig 6) mainly consists of a drystone wall / foundation (CN 12; fig 7) also observed in the south-western corner of trench 1, and a layer of broken stone (CN 13) to the north-west of it, possibly a levelling layer, also observed in trench 1. Both sit more or less directly on a layer of decomposed / burnt old turf with substantial amounts of charcoal in it (CN 17), which in

turn rests on the natural bedrock (CN 3). On top of these two features (CN 12, 13) is a layer of orange-brownish material which seems to have eroded down from the rampart (CN 4), which is partially overlain by a lense of eroded natural bedrock from the outcropping directly to the east of trench 2 (CN 5), and, in the south-western corner of trench 2, a modern fireplace (CN 6) surrounded by large stones of the kind used to make up the rampart facing in trench 1 (CN 18) and the drystone wall / foundation (CN 12). Much of the stratigraphy in trench 2 is overlain by a thin layer of silty, yellow-orangy sand (CN 2), probably material washed down from the rampart (CN 11) in trench 1 and intermixed with subsoil / turf. The whole stratification of trench 2 is overlain by a c. 5-15 cm strong layer of turf.

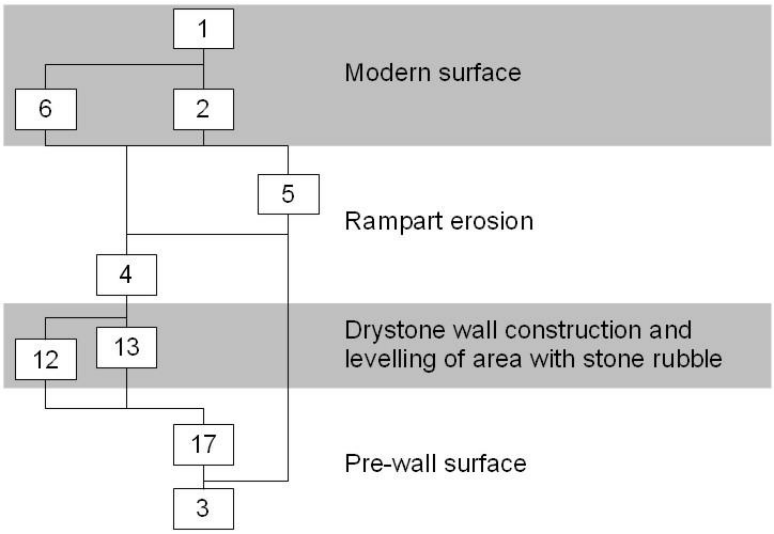

Figure 6: Stratigraphic sequence of trench 2.

Fig. 7: The drystone wall / foundation (CN 12) exposed in trench 2.

Finds

The following finds were made during the excavation:

FN	CN	Material	Description
1	1	Stone	Rounded pebble (possible slingshot?); angular piece of white quartz
2	6	Metal	Modern tin can (possibly iron?)
3	4	Stone	Pieces of white quartz
4	4	Stone	Flat, rounded pebble
5	4	Stone	Rounded pebble
6	9	Stone	Pieces of white quartz
7	4	Stone	Pieces of white quartz
8	9	Slag	Small flat piece of possible slag
9	11	Stone	Longish, flat fragment of radially oxidized stone (from local bedrock?)
10	11	Slag	Possible iron slag?
11	11	Slag	Thin piece of possible slag
12	11	Charcoal	Small fragments of charcoal
13	13	Stone	Roundish pebble
14	13	Charcoal	Charcoal sample (sample no 1)
15	11	Slag	Vitrified lumps of stone sticking together due to flow slag (see fig. 8)
16	13	Charcoal	Charcoal sample (sample no. 2)
17	11	Charcoal	Small fragments of charcoal mixed with soil / old burnt turf
18	11	Charcoal	Charcoal sample (sample no. 3)
19	17	Charcoal	Charcoal sample (sample no. 4)
20	11	Slag	Pieces of iron (?) slag with stones
21	16	Charcoal	Charcoal sample, substantial (sample no. 5)
22	11	Charcoal	Charcoal sample, substantial (sample no. 6)
23	11	Charcoal	Charcoal sample, substantial, underneath rampart (sample no. 7)
24	11	Charcoal	Charcoal sample, substantial, underneath rampart (sample no. 8)

Table 3: List of small finds recovered during the excavations at *Moel y Gaer Llanbedr D.C.* in 2009.

Figure 8: a piece of vitrified material / flow slag, original dimensions c. 15X10x10 cm.

Preliminary analysis

Most finds made were either stone considered as unusual at the site during the excavation process (FN 1, 3, 4, 5, 6, 7, 9, 13), e.g. rounded pebbles or larger pieces of white quartz (although white quartz does appear locally, but usually only in very thin seams of less than 3 mm thickness), charcoal (FN 12, 14, 16, 17, 18, 19, 21, 22, 23, 24) taken as samples for 14C dating, or vitrified material / slag (FN 8, 10, 11, 15, 20), mostly taken directly out of a particularly highly burnt / vitrified area in the rampart body, and based on surface observation possibly iron smelting slag (awaiting further analysis). The only exception to this is FN 2, which are clearly the remains of a modern tin can, probably dating from the last c. 30 years, found in CN 6, the modern fireplace found at the SW corner of trench 2 directly in / beneath the turf surface.

The absence of any finds of bone is not surprising, since the soil on *Moel y Gaer* is acidic and thus dissolves bone completely in a relatively short period of time. The absence of any, even the smallest fragments of pottery, while not allowing any conclusive statements, is indicative of an Iron Age date of the site, or at least of its first, innermost phase, given that pottery is quite rare in the Welsh Iron Age, and that particularly the Early Iron Age in Wales seems to be largely aceramic (Davies & Lynch 2000, 199-200) between c. the 7th and 5th century BC.

Samples

The following samples were taken during the excavation:

SN	FN	CN	Type
1	14	13	Charcoal
2	16	13	Charcoal
3	18	11	Charcoal
4	19	17	Charcoal
5	21	16	Charcoal
6	22	11	Charcoal
7	23	11	Charcoal
8	24	11	Charcoal

Table 4: List of samples collected during the excavations at Moel y Gaer Llanbedr D.C. in 2009.

Eight charcoal samples were taken from different contexts, mainly from underneath the rampart, immediately outside the rampart in the drystone facing collapse in trench 1, and from underneath the drystone wall / foundation and the fragmented bedrock levelling in trench 2. Virtually all charcoal samples seem to come from the layer of old burnt turf underlying the respective features and thus are expected to all be of roughly the same date. An application to NERC's Radiocarbon Dating Facility / ORADS is in preparation and will be submitted for the 10 October 2009 deadline.

Preliminary conclusions and interpretations

While final conclusions will only be possible once 14C analyses of the charcoal samples and analyses of the lumps of vitrified material / possible iron slag have been completed, some preliminary conclusions seem possible at this stage of the post-excavation process already.

Given the absence of any datable potsherds or other small finds, it seems likely that the construction of the inner rampart of *Moel y Gaer Llanbedr D.C.* can speculatively be dated to the end of the Late Bronze or the early Iron Age, to roughly between the 7th - 5th century BC. This dating is of course

subject to the results of 14C analysis of the charcoal recovered from the burnt layer of old turf beneath the ramparts body. The rampart was clearly of a single phase and shows no signs of having been repaired or refurbished at any later stage. However, given that the site is clearly a multivallate site, multivallation usually being an indication of Middle or Late Iron Age building activity in hillfort contexts, one can tentatively assume that *Moel y Gaer* had at least two main phases of occupation, an Early Iron Age univallate phase during which the inner rampart was constructed, and possibly a second, Middle or Late Iron Age phase, in which the outer ramparts were added.

The excavation also helped to clarify the construction of the rampart (fig 9), which seems to be a simple dump rampart with an external stone fronting. The stone fronting leans slightly onto the dump rampart's body, which stabilises the not very sophisticated and not particularly well-built drystone wall which makes up the external facing. It can probably be assumed that the drystone facing would not have lasted much longer than c. 3-5 decades before collapsing. Indeed, during the excavation, rampart collapse pretty much down to its foundation was discovered in parts of trench 1. The dump rampart itself turned out during excavation to consist of relatively loose rubble with a lot of highly burnt stones and vitrified lumps, probably slag from metalworking / smelting which in itself cannot have been very stable either. The rampart itself was approximately 4 meters wide, which allows, in conjunction with the amounts of material which seem to have eroded from the rampart down into the area covered by trench 2, to estimate that the rampart would originally have stood to probably at least 2 meters height, but no more than c. 3 meters height in the area we excavated. However, since the area is on an elevated natural outcropping of bedrock, this may have been a rather lowish section of the rampart, which may have been somewhat higher in other parts of the hillfort. No evidence was found for any internal construction features in the rampart, nor for any palisade or fencing on top of it, but this is hardly surprising since even the best preserved parts of the rampart in trench 1 did not exceed c. 1 meter in height, that is at least 1 meter below its original height. Any feature that may have originally stood on top of the rampart is thus necessarily lost without trace, since not even the strongest palisade would have been set over a meter into the rampart's body.

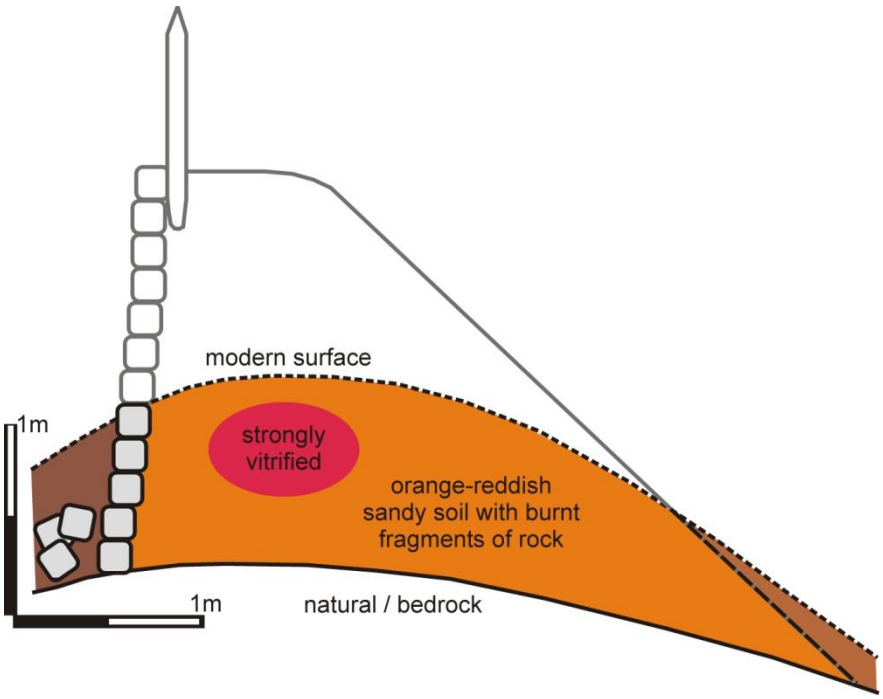

Figure 9: Tentative reconstruction of rampart based on simplified section drawing.

The theory that there might have been an earlier entrance in this part of the rampart as suggested by EAS Ltd. based on the survey results (Brooks & Laws 2007, fig. 9; 2008, 8-9) has been conclusively disproved by the excavation. There was no indication of any phasing of the rampart, nor any evidence for an earlier passage through the rampart in this area.

Equally disproved was the theory, suggested based on the reports of find of vitrified material in the rampart, that it, or some wooden construction on it, had (been) burnt down and caused the rampart to partly vitrify (Brown 2004, 72; Brooks & Laws 2008, 8-9). Not only was the most strongly burnt and vitrified material concentrated in the core of the rampart body, with less strongly burnt material surrounding it (see fig. 9). Even more tellingly, neither the natural subsoil and bedrock underneath the rampart body itself, nor the stone facing, nor the natural subsoil and bedrock directly outside the rampart show any signs of having been exposed to heat, least of all to temperatures of the kind that would have been required to burn and partially vitrify the rampart.

Rather, as is clearly evident from the sharp boundary between the natural and the burnt material that makes up the rampart body (see fig. 6 above), the burnt and vitrified material was dumped on site to construct the rampart body after having been exposed to intensive heat elsewhere. Since the vitrified material seems to mostly consist of light, bubbly flow slag, possibly from iron smelting, we suggest that the material to construct the north-eastern corner of the rampart of *Moel y Gaer* was taken from an iron smelting midden. Since there is no evidence of iron working on the hillfort itself or in its immediate vicinity, nor of a midden with large amounts of burnt and vitrified stone, it has to be assumed that the midden material was brought to the hillfort. This raises some interesting questions.

Firstly, vitrified material is occasionally found on British hillforts, which is then often seen as evidence for fiery destruction events (cf. the interpretations of the vitrified material in the case of the site excavated by us). The evidence from *Moel y Gaer* calls such interpretations into question. Rather than assuming that such ramparts vitrified as the result of some major fire, it may much more frequently be the case that ramparts were built from material that had vitrified elsewhere and only later been used in the construction of hillfort defences.

Secondly, it raises the question why such vitrified material was used in the construction of the inner rampart of *Moel y Gaer*. Since there is no evidence that substantial amounts of burnt midden material were accidentally available on the hilltop at the time the rampart was constructed and since much of the rest of *Moel y Gaer*'s ramparts seem to have been constructed from material extracted on site from quarry hollows (Brooks & Laws 2007, 3; cf. Wynne Ffoulkes 1850), we assume that the burnt midden material was brought to the site and deposited in the rampart deliberately.

The structured deposition of midden material in Iron Age settlement contexts is something that is well known from both lowland settlement and hillfort contexts (cf. Hill 1995). However, most such structured depositions of midden material seem to be of (more or less) ordinary settlement rubbish as it may have been produced during the occupation of any site, deposited in pits or ditches which were (more or less 'accidentally' available on a site during its occupation period. It has been assumed that such structured depositions of rubbish were performed as a ritual to keep up the fertility of nature, the prosperity of a site etc.

The material used in the rampart of *Moel y Gaer*, however, is clearly not ordinary settlement rubbish, seems not to have been available on site but rather brought there intentionally from elsewhere, and seems to have been deposited not during the 'ordinary' working life of the settlement, but rather in a 'founding' event, i.e. the construction of the ramparts that defined the settlement. Depositions

during founding events, especially if they are part of or even make up the enclosure of a site, will probably have played a role in establishing the site as a place of safety, in creating 'magical' protections for boundaries (as ramparts clearly are), and possibly also in establishing the site in a legal sense as somebody's or some community's property (cf. van Gennep 1909; Turner 1969; Karl 2008).

The deposition of metalworking debris in enclosure ditches is known from lowland settlements, starting in the late Bronze Age (Parker-Pearson 1996, 120-8). While these are not necessarily founding deposits, they usually occur in the ditches north of the eastern entrance of a settlement, and thus are in a very similar position to the vitrified elements in the rampart of *Moel y Gaer*, which are also north of an easterly entrance, even if making up the rampart rather than being dumped in the ditch (however, the ditch was outside of the trenches we opened up, so there is a possibility that metalworking debris is also to be found in the ditches below). At any rate, this may indicate that a late Bronze Age tradition was continued in the deposition of metalworking debris in the boundary enclosure of the site north of its eastern entrance, which also makes a latest Bronze or early Iron Age date for the inner rampart of *Moel y Gaer* likely.

The deposition of foundation offerings is also known from the wider European lowland settlement and hillfort context, even though not, as of yet, in the form of metalworking debris having been used to construct parts of the ramparts. Rather, depositions of, amongst other things, metal working tools are known from e.g. the ditches / ramparts of late Iron Age 'Viereckschanzen' type rectangular settlement enclosures in Central Europe (Wieland 1999, 56; von Nicolai 2005, 105), and also from hillfort ramparts (Urban & Ruprechtsberger 1998).

While no conclusive statements can be made, it seems as if the deposition of vitrified material in the rampart of *Moel y Gaer*, material that had been brought to the site from elsewhere, is evidence for ritual practices having been carried out during the establishment and construction of the site as a defended settlement. Using material related to metalworking seems to have been significant enough to justify bringing midden material up to the hilltop even though sufficient building materials were available on site. It is tempting to link this practice with later narrative motives in early Welsh and Irish literary tradition, like that craftsmen are allowed to enter an enclosure even if it is closed for the night like in Culhwch ac Olwen (Gantz 1976, 137) and Cath Maige Tuired (Gray 1982, 39-41), but even if such a link doesn't exist, the practice demonstrates that metalworkers and the metalworking trade must have been seen as very important and imbued with magical or religious significance by later prehistoric populations in the Vale of Clwyd.

As such, it can already be stated with confidence that the 2009 excavations in *Moel y Gaer Llanbedr D.C.* have been very successful. We succeeded in gathering solid data, answer some of the research questions asked immediately, and more will be answered once the results of the 14C analyses become known. In addition, the excavations have produced significant new data that will help to improve our understanding of later prehistoric societies in the Vale of Clwyd, North Wales, and along the wider 'Atlantic fringe'.

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Figure 10: best preserved zone of drystone fronting of the rampart, with rampart collapse to the left.