ARCHAEOLOGICAL EVALUATION AND SALVAGE RECORDING AT LLANGYNFELIN, TALYBONT

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Archaeological evaluation and salvage recording at Llangynfelin, Talybont

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SUMMARY

The salvage recording of a timber box-structure was undertaken in September 2002, at Llangynfelin, near Talybont (NGR SN64929064). The structure had been reported by a local farmer during land improvements on the southern edge of Cors Fochno (Borth Bog). Two Bronze Age radiocarbon dates were obtained for samples from the oak timbers and evidence of an associated burnt mound was identified when the field was subsequently ploughed. This salvage work was followed in March 2004 by the small-scale evaluation of a linear feature located in an adjacent field. The linear feature proved to be the remains of a timber trackway that had subsequently been sealed by layers of gravel. Two of the timbers provided 10th-11th century AD calibrated radiocarbon dates.

INTRODUCTION

This report provides an interim description of the results of the salvage excavation and recording of a timber box-structure and a small-scale evaluation of a nearby timber trackway at Llangynfelin, near Talybont, Ceredigion (Fig. 1). The features were identified during land improvements on the southern edge of Cors Fochno (Borth Bog) (NGR SN64929064). The salvage excavation was undertaken in September 2002 by the Heritage Management section of Cambria Archaeology following the discovery of timbers by the farmer during the excavation of a trench for a new land drain. The evaluation was undertaken by Cambria Archaeology in March 2004 and this phase of the work was funded by Cadw: Welsh Historic Monuments.

Cors Fochno is an important ecological resource designated (1976) as a British Bio-sphere Reserve. Land reclamation within the area '*has continued since 1820, with the last major phase dating from 1945 to 1970 … These have produced major change over the once extensive area of raised mire, with transitions to a range of tidal and freshwater marshes, reducing the wetland expanse by two-thirds, obliterating the natural habitat transitions, and leaving the remaining mire with damaged margins.*' (http://www.ukmab.org/BRReport/dyfi.htm)

The immediate area around the site contains archaeological evidence dating from the Bronze Age, Roman Period (Erglodd Roman Fort, PRN 6203) and medieval period (Settlement at Goythenes, PRN 10902 and possible place-name evidence at Ynysycapel, PRN 6095). In addition there is evidence for Medieval/Post medieval mining at Coed Erglodd Lead mining complex (PRN 25965). To the north of the site there is evidence for mining in the Roman period at Llangynfelin copper mine (PRN 19500).

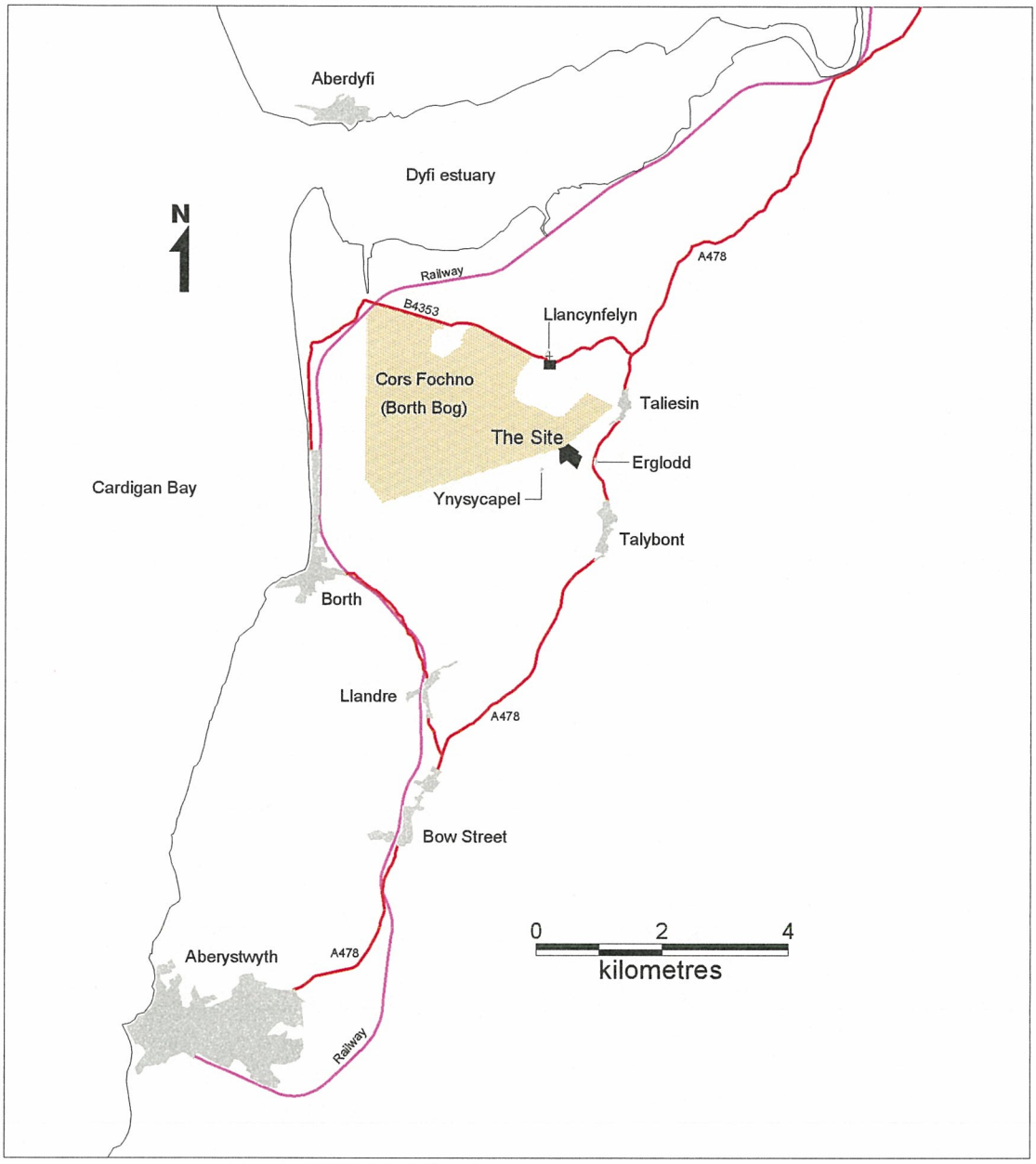

Figure 1 – Location plan

The site is close to the transitional zone between the solid geology and the outer margins of the bog itself. The current owner, in a bid to improve the production quality of the fields, is currently undertaking land improvements by installing land-drainage to facilitate ploughing. The timber box was located in a peat-filled 'hollow' in the centre of an undulating field to the southeast of the area investigated (Fig. 2, Trench 1). The Ordnance Survey map depicts two minor watercourses draining northwest from the centre of the field into a substantial field drain that forms the northwest boundary. The new land drains were inserted at regular (5m) intervals in the poorly drained, central, peaty areas of the field, effectively replacing these natural watercourses. The field was subsequently ploughed in April 2004.

The location of the timber trackway was visible as a linear surface feature orientated north-south in the fields immediately to the northwest. These fields are relatively level

and appeared to be unimproved grazing land (although the farmer subsequently reported that the westernmost field had in fact been ploughed at least once before in the recent past). Further land drains have recently been inserted into this western field and the farmer intends to plough it in the near future. The linear feature was visible as an 'agger', approximately 5m wide, 0.5m high and 150m in length. Further stretches of what might be the same feature have been identified in the area of Cors Fochno to the northeast (Mike Walker pers com). These are currently under investigation by students from the University of Lampeter.

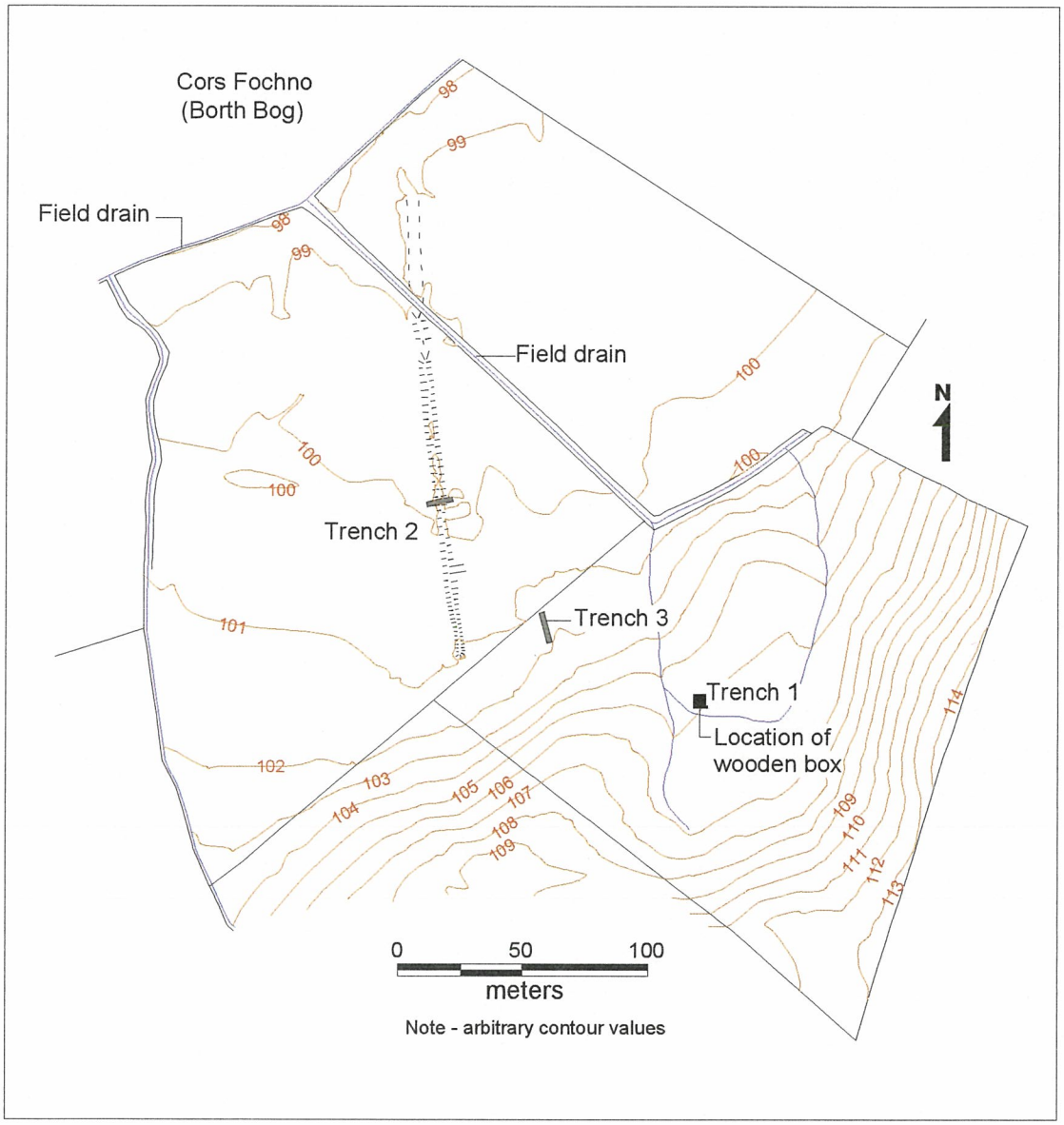

Figure 2: Location of Trenches

METHODOLOGY

Salvage excavation (Trench 1) – the salvage excavation and recording of the timber box-structure was undertaken under very difficult conditions in September 2002. The work was undertaken during the insertion of the land drains described above and the whole field had the appearance of a battle-site making the observation of the context

of the discovery very difficult. However, the farmer provided much needed assistance and an attempt was made to fully expose the timber box (partly by hand and partly by machine) and to rapidly record the individual timbers and stratigaphy. Unfortunately, due to the conditions and lack of resources it was only possible to retain a sample of the timbers. These were examined by the archaeo-botanical department at the University of Lampeter and sub-samples were submitted for radiocarbon dating.

Evaluation phase (Trenches 2 and 3) - A topographical survey was undertaken of the landscape in the immediate vicinity of the site investigated in 2002 (Fig.2). This was followed by the excavation of two small trial trenches (Fig. 2, Trenches 2 and 3). Trench 2 was located in the northwest area of the field in which the timber box was located with the objective of investigating a surface spread of burnt stone. Trench 3 was located across the line of the linear feature in the field to the northwest. Both trenches measured approximately 10m long by 1.6m wide. In both trenches the topsoil and overlying deposits were removed by machine and any underlying structures and deposits were sample excavated by hand.

RESULTS

Trench 1

The timber structure proved to be a substantial box-like structure *c* 3m long, 1.5m wide and 0.6m high (Photo 1). The individual timbers were, on average, 60mm thick. The structure was sealed by a deposit of water-worn pebbles up to 0.6m thick. A number of extremely friable timber branches suggested that the structure was covered by a softwood 'corduroy'. The timbers were identified as oak with evidence for working with an adze rather than a saw. Two samples were radiocarbon dated (Table 1, Beta –BT02/1 and Beta- BT02/2). A visit was made to the site following the ploughing in April 2004. This had exposed a spread of burnt and shattered stone approximately 20m in diameter in the immediate area of the box suggesting that it had originally been associated with a burnt mound.

Photo 1 – The timber box *in situ* during recording

Trench 2: SN64879065

The earliest feature encountered was a layer of large, angular stones (1007), which lay on top of the peat (1008). Within these stones the excavation identified 6 probable stakes penetrating the subsoil between the stones and running in two parallel rows along the line of the trackway. A section of one of these stakes was sampled for Radiocarbon dating (Table 2, Beta – 191064, BTH04-W179). Within and alongside this context were short pieces of round-wood and cut timber fragments thought to be the product of the construction process and the ongoing decay of the structure. Some showed possible evidence of tooling and working (Wood ID number W156).

Overlying the stone spread (1007) were successive layers of dark grey/brown 'gritty' gravel with a sticky consistency due to organic inclusions. Within context 1004 were three fragments of charcoal (BTH04-1004).

Above the gravel was a decayed timber structure (1003), up to 3.5m wide. The structure consisted of two parallel 'rails', approximately 1.5m apart, running along the length of the feature, i.e. north-south. The east rail consisted of decayed round wood of *c.* 85mm max diameter and an exposed maximum length of 1.4m (Wood ID W158. A section of this timber was used for Radiocarbon dating (Table 1, Beta-191065, BTH04-W158). The west rail, also of decayed round wood, had a maximum diameter of c.175mm and an exposed length of 2m (Wood ID W172). Close to the latter and running in the same direction were the remains of an additional rail (Wood ID W173) which had a maximum diameter of c.50mm and over lapped W172 by c. 500mm suggesting a continuation of the rail structure. The spaces between the timbers of the trackway and the underlying stone were filled by gravel (1007).

The rails supported heavily decayed timber planking, which formed the surface of a walkway *c.* 2.4m wide. The planking consisted of decayed round wood or possible half split timbers. The approximate widths/diameters of the exposed planking ranged from *c.* 85 – 300mm (Wood ID's W151, W156, W157, W165, W166, W167, W168 and W169).

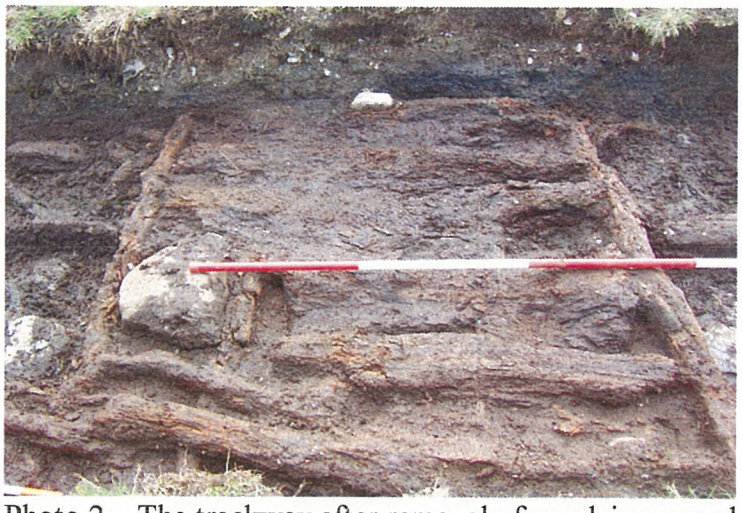

Photo 2 – The trackway after removal of overlying gravel

Overlying the walkway/track was a layer, *c* 100-150mm thick, of dark grey course gravel (1002). This layer contained fragments of metal slag some having a glassy appearance. Also identified within this context were two small sherds of pottery of possible Post medieval date. This was in turn overlain by was a layer, c.150mm thick, of compacted light grey/brown 'gritty' gravel (1001). These layers were then covered by a peaty, dark brown/black topsoil (1000) up to 0.2m thick.

Timber samples were taken from the walkway (1003) for timber identification, radiocarbon dating and palaeo-environmental analysis. Palaeo-environmental samples were taken from the south facing section of trench two c. 150mm below ground level and sampling to a depth of 1.2m taking in contexts 1002-1008.

Photo 3: the trackway during excavation

Trench 3: SN64909063

Trench 3 was excavated through a spread of stony material including some heat-cracked stone, visible on the surface, some 50m southeast of Trench 2. Preliminary excavation was by machine and the trench was then cleaned using hand tools. A sondage, c. 0.6m wide, 0.6m deep and 2m long was excavated by hand to evaluate the depth of heat-cracked stone, and identify any possible archaeology below.

The stony spread was up to 0.3m thick and overlay orangey/light brown silty clay with stone. The test sondage demonstrated that this in turn overlay the natural, light-grey clay subsoil. Samples of heat-cracked stone were taken for petrographic analysis.

Radiocarbon Dates

All samples submitted were of timber and all samples were analysed using standard radiometric techniques including stable isotope ratios C13/12.

Lab No	Sample No - Timber ID	Result (BP)	Calibrated range at 1 sigma	Calibrated range at 2 sigma
Beta-189526	BT02-1	3210 ± 60	BC 3475-3370	BC 1620-1390
Beta-189527	BT02-2	3280 ± 60	BC 1625-1500	BC 1695-1425

Table 1: Radiocarbon dates for Box structure

Lab No	Sample No - Timber ID	Result (BP)	Calibrated range at 1 sigma	Calibrated range at 2 sigma
Beta - 191064	BTH04-W179	1070 ± 30	AD 970 - 1000	AD 900-1020
Beta - 191065	BTH04-W158	1060 ± 40	AD 970 - 1010	AD 900-1030

Table 2: Radiocarbon dates for Timber Trackway

CONCLUSIONS

The timber box-structure – It seems very likely that the timber box was associated with the nearby burnt mound that became visible only after the field was ploughed. It is likely that the stone spread that was identified in Trench 3 was derived from the burnt mound and had been spread by ploughing. The function of burnt mounds has long been discussed. Interpretations vary, but the two main opinions are that they were either cooking sites, or were a form of sauna or sweat lodge (Buckley 1990; Barfield and Hodder 1987). They are often found in association with springs or streams and, when excavated, sometimes reveal a small pit or trough, often wood-lined. It is thought that the trough would be filled with water that could then be heated by the addition of hot stones. The burnt mound would be formed by the resulting heat-cracked stones and the debris from the fires. It is very unusual to identify a timber box or trough in association with a burnt mound such as that recorded at Llangynfelin. The size of the structure is exceptional and it seems inconceivable that such a feature was used for simple domestic cooking.

Around 350 known or suspected burnt mound locations are recorded in west Wales (Williams 1995). However the distribution of these sites is very much skewed towards Pembrokeshire, due in part to a geographical bias in fieldwork carried out at the beginning of the 20th century (Crane 2002). Coincidentally, a burnt mound has recently been recorded and dated at Pwllauduon near Tregaron (Groom 2004).

Radiocarbon dates have now been obtained from several burnt mounds in the region. As can be seen in Table 1 the majority of dates obtained from burnt mounds within the region fall within the Bronze Age (with one or two exceptions). The two dates for the Llangynfelin timber box fall comfortably within the Bronze Age date range. It is to be hoped that analysis of the environmental samples will provide valuable information about prehistoric land-use and environment in this area.

Site name	Lab No	Uncalibrated date
Carne (Pembs)	CAR-589	3960±65BP
	CAR-591	3710±65BP
	CAR-292	3790±70BP
	CAR-496	3400±70BP
	CAR-498	3205±70BP
	CAR-497	80±90BP
Felin Fulbrook (Pembs)	CAR-469	3875±70 BP
Morfa Mawr (Pembs)	CAR-458	1180±60BP
Parry's Castle (Carms)	Beta-159459	3750±80BP
Plasgwyn Farm (Carms)	Beta-159460	3660±70BP
Llancynfelin (Cer)	Beta-189526	3210±60BP
	Beta-189527	3280±60BP
Pwllauduon (Cer)	Beta-191062	2890± 90BP
	Beta-191063	3130± 40BP

Table 3 – Radiocarbon dates from Burnt Mounds in southwest Wales

The trackway – Timber trackways of the kind identified at Llangynfelin have been recorded and excavated in many areas of Britain and Ireland and have a wide date range from the early Neolithic through to the Medieval period. Some bear a striking similarity in their constructional technique to the Llangynfelin structure, such as the examples from Co. Longford in central Ireland (Raftery 1996). The pre-conquest dates for the timber trackway were a considerable surprise and, in many ways, add to the unusual nature of the discovery. It is possible that the trackway provided a route across the marsh towards Llangynfelin: the possible early medieval origins of the church at Llangynfelin have recently been considered by Neil Ludlow (Ludlow 2004). Of particular interest is the raised oval churchyard, occupying an 'island' within the coastal marshland and the British dedication. Clearly, the trackway has significant potential to contribute to our understanding of construction and woodworking techniques and the implications for local woodland management during the early medieval period. The potential for providing evidence for contemporary environmental conditions along with other organic and non-organic artefacts is also high. With this in mind, and given the threat to the structure from land drainage and ploughing, a programme of salvage excavation is now planned for June 2004. During this work an attempt will be made to place the structure in its contemporary landscape context and also to establish its possible association with the possible contemporary religious sites at Ynyscapel and Llangynfelin.

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Yn unol â'n nôd i roddi gwasanaeth o ansawdd uchel, croesawn unrhyw sylwadau sydd gennych ar gynnwys neu strwythur yr adroddiad hwn

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