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# Cefn Graianog Quarry Extension

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## Archaeological Evaluation and Watching Brief

GAT Project No. 1598

Report No. 549

October 2004

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Report No. 549

Prepared for Tarmac Quarry Products Ltd

October 2004

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# **Cefn Graianog Quarry Extension**

## **Archaeological Watching Brief (G1598)**

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## **Summary**

*A programme of trial excavation and watching brief was undertaken to examine the status of two potential sites, and to record any sites exposed during top soil removal.*

*Following excavation, Site 2, a potential cairn, was interpreted as a modern field-clearance cairn. At Site 11, a possible enclosure, there were no features identified to suggest any archaeological activity, and the site was interpreted as a natural feature.*

*A watching brief during top soil removal did not identify any archaeological sites.*

## **Introduction**

The watching brief described in the present report is a long-standing project monitoring the extension of the sand and gravel quarry at Cefn Graianog, Gwynedd. The assessment of the proposed expansion area was undertaken in 1994 by Gwynedd Archaeological Trust (GAT) for Tarmac Quarry Products Limited (Flook 1994 GAT report no. 124). A project design was submitted in March 2000 by GAT, proposing a programme of field evaluation and mitigation.

An area of roughly 0.81 hectares was to be stripped as part of the next phase of quarry expansion to allow completion of the quarrying of 2C, centred on NGR SH457044960 (Fig 1). Tarmac Quarry Products Limited asked GAT to carry out a watching brief and evaluation prior to this on features 2 and 11 identified in GAT report 124 (*ibid*).

The area to the south-east had previously been covered by another watching brief (see GAT Reports 388 and 505).

## **Archaeological Aims**

The aims of the watching brief were to monitor the removal of a stone cairn located within a small-walled triangle where three field walls met (Feature 2), and to monitor the subsequent top soil removal from the study area (see Fig 1).

The aims of the evaluation were to investigate a large circular feature visible on an aerial photograph and suggested to be a possible prehistoric enclosure (Feature 11; Flook, 1994).

## **Methodology**

A watching brief and evaluation took place between the 4<sup>th</sup> and 5<sup>th</sup> of August 2004; with a second watching brief undertaken between the 16<sup>th</sup> and 17<sup>th</sup> of August 2004.

An eight tonne 180° wheeled excavator with a 1.80m ditching bucket was used throughout the first phase of watching brief/evaluation. Feature 2 was excavated by removing the large boulders comprising the cairn and also excavating to the subsoil beneath. Feature 11 was excavated inserting two 2.0m x20.0m trenches across the proposed enclosure boundaries and the "interior".

A 34 tonne 360° tracked excavator was used throughout the second phase of the watching brief.

## **Recording**

Identified features were recorded photographically and by notes and sketches, and located by measuring from the field boundaries. The archive is held by GAT under the project number G1598.

## **Topography and Geology**

The name of Cefn Graianog literally translates as a gravely ridge (Mason 1998, xvi), and this accurately describes its character. The low, hummocky ridge lies at the eastern end of the Lleyrn Peninsula, within a basin, about 3km across, surrounded by hills. The ridge rises to a height of 160m and forms an island in an area of wetter, heavier soils and bog. The soils from the basin are derived from glacial and fluvio-glacial deposit, mostly of Snowdonian origin, which have been heavily

weathered under periglacial conditions. In the poorly drained areas silty clays and peat have formed, but the soils on the ridge are well drained, if stony, brown earths of the Arfon series, with brown podsoles on the steeper slopes. Although acid, these are some of the best soils in the northern Llyn, and are excellent soils for small-scale arable agriculture (Mason 1998, xvi-xix)

## Archaeological Background

### *Prehistoric and Roman activity*

The early prehistory of the ridge is far from clear. No Mesolithic artefacts have been discovered, suggesting that the area was avoided during that period, when occupation was mainly concentrated near the coast. However, there are some slight hints from the pollen record that forest clearance may have occurred before 4000BC (Chambers 1998, 57), and a patch of burnt stone under a later burnt mound was dated to 5955-5500 cal BC (CAR-721) (Kelly 1992, 85). Kelly (*ibid.*, 86) dismisses the date as a result of dating inadequate quantities of charcoal, but a recent excavation about 1km southwest of the ridge also produced Mesolithic dates. The dates, ranging from 5310-6625 cal BC at 2 sigma, were from a deposit of charcoal within what may be a natural, periglacial formation (Kenney 2000). The evidence raises the possibility of deliberate burning of the vegetation in the Mesolithic period.

The Neolithic is almost as invisible on the ridge, although the pollen evidence is clear that there was anthropogenic forest clearance during this period (Chambers 1998, 57). The long history of farming on the ridge began during this period, although no trace of these early farmers has yet been found. The nearest Neolithic monument is the chambered tomb at Penarth (PRN 199), situated 3.25km northwest of the ridge (Kelly 1998, 161).

The earliest monument on the ridge itself is a standing stone (PRN 124) of presumed Bronze Age date. Whilst the numerous cairns on the ridge are generally undated, the two located close to the standing stone are presumably also Bronze Age, and appear to be funerary monuments rather than clearance cairns (PRN 224, 225). These three monuments are collectively scheduled as Cn98 (Mason 1998, xix). The pollen evidence shows phases of clearance and regeneration throughout the Bronze Age, and the presence of burnt mounds may indicate Bronze Age settlement in the area (Kelly 1998, 161). One of these mounds (PRN 129) was excavated (Kelly 1992), producing dates demonstrating its use between the third and early second millennium BC, and later in the late second to early first millennium (Kelly 1998, 161). There is another burnt mound site, 175m south of the excavated one, which appears to be a complex site with three conjoined mounds (PRN 3997). The chance discovery of the ring (PRN 3446), of the type known as Bronze Age ring money, by a farm worker in 1970, suggests Bronze Age activity near the summit of the ridge.

Major and sustained forest clearance started on the ridge in the mid first millennium BC, and the earliest settlement sites discovered so far date from the mid 2<sup>nd</sup> century BC. Three hut groups have been excavated on the ridge (Mason 1998). The Graianog site and Cefn Graianog II were founded in the 2<sup>nd</sup> century BC and continued through the end of the Roman period. The third hut group, Cefn Graianog I, was established in the 2<sup>nd</sup> century AD, and again continued to the end of the Roman period. There may have been a fourth hut group (PRN 118) 300m to the west of Graianog (Kelly 1998, 162) and there are similar sites about 1km away to the southwest of Caerau (PRN 108, 109). The Iron Age is further represented in the area by a small hillfort (PRN 203) on Y Foel, the rounded hill to the north of the area (Mason 1998, xix).

### *Medieval and later periods*

Although the hut groups went out of use at the end of the Roman period the pollen record showed that ridge continued to be farmed, and the settlements had probably not moved very far away (Kelly 1998, 162). Resettlement of the ridge occurred from the 8<sup>th</sup> century AD. The Graianog hut group site was reoccupied between the 8<sup>th</sup> and 11<sup>th</sup> centuries, and a medieval homestead (PRN 120), excavated by Kelly (Kelly 1982), was in use between the 11<sup>th</sup> and 13<sup>th</sup> centuries. A further group of medieval platform houses (PRN 123) were located on the bog margin to the south, but they were destroyed without excavation (Kelly 1998, 162). A possible medieval farmstead (PRN 3999) and an isolated platform house (PRN 4360) are located on the northeastern slope of the ridge.

In the medieval period Graianog first appears in the written history, the confirmation of the grant of 'Grayanawt' to the *clas* of Clynnog Fawr, in the 1209 charter of Llewelyn ap Iorwerth, probably refers to the excavated medieval homestead (PRN 120) (Kelly 1998, 162). Modern Graianog was probably



founded in the 15<sup>th</sup> century, when the pollen record shows intensified clearance activity. The present settlement was certainly established by the early 17<sup>th</sup> century, when a farmhouse was built. This is now a Grade II listed building (RCAHMW 1960, site 800, p44). The modern farm of Cefn Graianog was founded in the mid 19<sup>th</sup> century, and was demolished in 1990 in advance of quarrying (Kelly 1998, 160, 162). The existing field system probably dates to the early 19<sup>th</sup> century, when fields were enlarged to open up areas for progressive farming techniques (Flook 1994, 4). Gravel extraction has taken place on the ridge for at least 100 years, with large scale extraction started after the Second World War (Mason 1998, xvi). The quarrying activity has been the impetus for much of the archaeological work on the ridge, as sites have been excavated in advance of the gravel extraction.

### Results of the Archaeological Watching Brief

The stone cairn was located within a small-walled triangle, c.10.0m x 10.0m x 9.0m in size where the field boundaries met. The cairn comprised a collection of loosely piled, large sub-circular stones up to 1.54m in length arranged in no particular order standing to an overall height of 2.5m. It was noted prior to removal that sandwiched between the stones were what appeared to be plastic bags or sheeting as well as a truncated field post.

The removal of the stones confirmed that the plastic sheets/bags were not only between but also *beneath* the stones and were probably deposited at the same time as the stones. Moreover, the stones were found to be resting on the pasture and not set into the topsoil or the subsoil. The topsoil was subsequently removed but no features were identified below.

The second phase of the watching brief involved stripping the remaining 0.81 ha of the field. The topsoil was stripped to a depth between 0.35 and 0.45m, exposing a glacial subsoil, orange-brown in colour. A concentration of sub-rounded stones was noted halfway up the slope of the hill, covering an area c.2.0m by 2.5m in size. They appeared to be extant only in the topsoil and were interpreted as post-medieval farming activity, as was a similar concentration at the base of the slope.

The only potential feature recorded during this phase was a small sub-circular feature, 1.0m by 0.80m by 0.25m in size (l x w x d). Examination of the feature proved that it was little more than the remnants of bioturbation, possibly a root or tree bowl. There was no evidence to suggest that it was a cut feature such as a post hole or a pit.

The topsoil strip at the base of the slope revealed an extensive spread of sub-rounded stones set into the subsoil. They were not distributed in any structural fashion and were interpreted as glacial boulders.

No archaeological features were identified or recorded.

### Results of the Evaluation

Feature 11 was identified through aerial photography as a c.20.0m wide sub-circular negative feature. It was located a couple of metres north of the stone cairn (Figure 2). The identified feature was difficult to locate on the ground, with only the potential northern end visible as a slight depression in the ground, c.2.00m wide. There was nothing visible of its purported southern, eastern or western boundaries. It was also noted that feature 11 was located at the top of a steeply sloping hill, with the western "side" in particular located at the steepest incline. Two trenches were subsequently inserted, both measuring 2.0m x 20.0m in size. Trench 1 was located at the proposed southern end of the feature, located several metres from but running parallel to an east-west boundary wall (Figure 2). Trench 2 was located several metres to the north of Trench 1 on a north south axis in an attempt to characterise the slight depression in the area noted on arrival. In both cases the trenches were inserted to locate any enclosure boundaries and/or interior surfaces.

The topsoil within Trench 1, context (101), was removed to a mean depth of 0.35m across its length, exposing the subsoil beneath, context (102). The subsoil was identified as a natural deposit, comprising an orange-brown sand-silt with ill-sorted sub-rounded stones spread throughout. No archaeological features of any size were identified cutting or sealing context (102). The trench was recorded as being archaeologically sterile with no evidence for any enclosure boundaries.

Trench 2 was removed to a mean depth of 0.38m, exposing the subsoil beneath, context (202). The subsoil was identified as a natural deposit comprising an orange-brown sand-silt with frequent inclusions of sub-rounded stones of varying size spread throughout. No archaeological features of any size were identified cutting or sealing context (202). The trench was recorded as being archaeologically sterile with no evidence for any enclosure boundaries. No artefacts of any kind were recovered.

### **Conclusion**

The stone cairn is interpreted as a modern field clearance cairn.

The subsequent watching brief of the entire area found no archaeological features within the study area.

Feature 11, identified through aerial photography as a possible prehistoric enclosure, was not identified in any form within the trenches. It is almost certainly a natural feature, the marks on the photograph being created by the severe gradient within the field.

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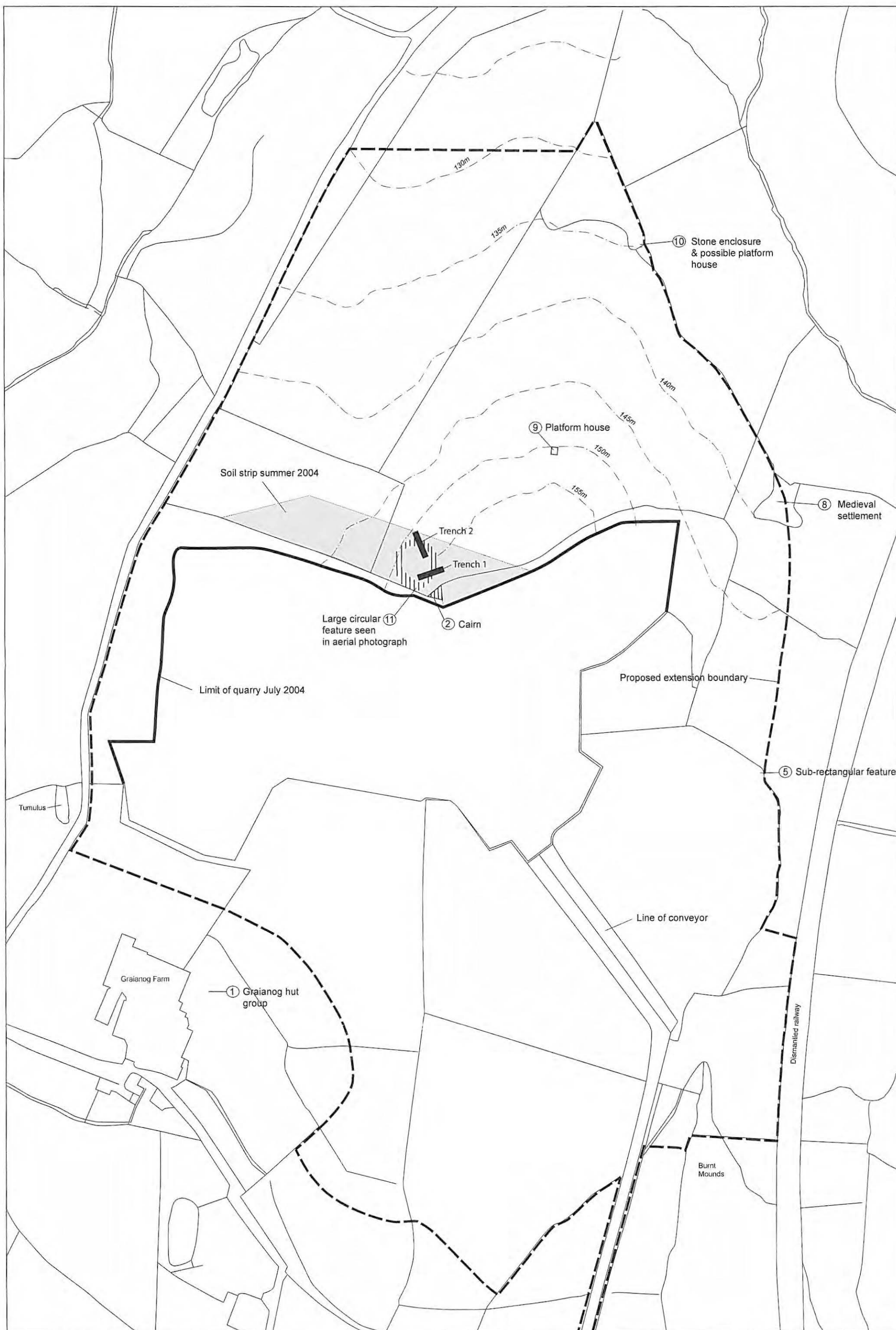


Figure 1. Site location map





Plate 1



Plate 2



Plate 3



Plate 4





Plate 5