Seiont Brickworks, Caernarfon

Archaeological Watching Brief 2007

GAT Project No. G1952

Report No. 687

August 2007

Ymddiriedolaeth Archaeolegol Gwynedd
Gwynedd Archaeological Trust
Craig Beuno, Ffordd y Garth, Bangor, Gwynedd, LL57 2RT

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Prepared for HANSON

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By

John Roberts

Ymddiriedolaeth Archaeolegol Gwynedd
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Craig Beuno, Ffordd y Garth, Bangor, Gwynedd, LL57 2RT

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SEIONT BRICKWORKS

Archaeological Watching Brief (G1952)

Summary

An archaeological watching brief has been conducted during the expansion of the Seiont Brickworks Quarry, Gwynedd. No archaeological features were identified and all activity below the topsoil was interpreted as glacial in origin. It was determined that agricultural use was limited to pasture as the glacial boulders were too prevalent to facilitate cultivation.

1 INTRODUCTION

Gwynedd Archaeological Trust (GAT) has been asked by Hanson PLC to conduct an archaeological watching brief during topsoil stripping associated with Seiont Brickworks, Caernarfon, Gwynedd (NGR SH491561302) as detailed in Hanson PLC Drawing No.: C22/24.

GAT commissioned a geophysical survey of the area in 1991, centred on NGR SH49306140 (*Geophysical Surveys of Bradford*: Report No.: 91/51). A possible burnt mound was identified at NGR SH49346149 although full interpretation was hindered by the proximity of an underground pipe (*Geophysical Surveys of Bradford*: Report No.: 91/51: 2). A subsequent visit to the site by GAT in 1993 stated that the features highlighted by the geophysical survey were not of an archaeological nature (GAT letter dated 26 January 1993; Ref.: 0126RK43/0724RK64).

2 SPECIFICATION AND PROJECT DESIGN

The basic requirement was for a watching brief of the proposed area, in order to assess the impact of the proposals on the area concerned. The importance and condition of known archaeological remains were to be assessed, and areas of archaeological potential identified. Measures to mitigate the effects of the construction work on the archaeological resource were to be suggested.

Gwynedd Archaeological Trust's proposals for filling these requirements were as follows:

- Watching brief
- Report

3 METHODS AND TECHNIQUES

The watching brief was undertaken between the 16th and 18th of July, 2007.

The aim of the watching brief was to monitor the topsoil strip of an elongated area, *c*.520m long by *c*.15m wide, to the south of the existing clay extraction pit/quarry (Figure 1).

A 33-tonne 360°-tracked excavator was used throughout the watching brief.

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 G1952.

4 TOPOGRAPHY

The site is situated *c*.1.6km to the southeast of Caernarfon, within land belonging to *Hanson PLC* and is part of the Seiont Brickworks. The area under investigation occupies gently undulating ground, between the A4085 and the A4086 roads. The area was formerly three pasture fields, located to the immediate south of the existing clay pit associated with the brickworks. The underlying geology is predominantly boulder clay, with morranic drift geology in isolated areas.

5 HISTORICAL BACKGROUND

Historically, there were four brickworks in the Caernarfon area: Morfa Cwta, Llanfaglan; Parkia works, Griffiths Crossing; Peblig Works and Seiont Works (Harris Jones, 2000).

The original Seiont brickworks was built *c.*1850, alongside the river and below the present Eryri Hospital and continued producing bricks until the new factory was built and opened in 1966 on the opposite side of the river on the old Caernarfon to Llanberis railway track (*ibid*).

Local papers reported that a fire occurred at the old works in 1862 (*ibid.*). As in the case of Peblig works, royalties were based on the quantity of clay dug, but when an increase in royalties was demanded there were strong objections. Bricks imported by sea from Glasgow could have been supplied at a cheaper price as compared to Caernarfon bricks, had the increase in royalties been accepted. Although the Seiont brick was both heavier and of a better quality and consequently more expensive compared to the ordinary common brick, it was not used as a facing brick on buildings because it was not considered sufficiently artistic and too expensive. Seiont works had the added handicap of not having shipping facilities.

Mr John Ormerod who managed Seiont works during the 1920s lived at Rhyddallt Fawr, a large house owned by the company and situated at the top of the clay pit (*ibid.*).

Six men were employed in producing shale from a pit during the early 1930s with one man working at the top of the pit clearing stones from the overburden while the remainder loaded the shale into side-tipping wagons, known as Jubilee wagons. The work was done by pick and shovel. If it became necessary to blast the shale rock so as to make the task easier for the men, then this was done by Robert Evans, known as 'Bob Powdwr Du'. He also had the task of maintaining the tramlines in the pit (*ibid.*).

The shale was conveyed from the pit by means of an endless rope system with loaded wagons being hauled along the track until it reached the staging where the wagons were emptied into the crushing plant, and the empty wagons returned to the pit. From the point where the endless rope system ended, a pony was used to haul the empty wagons to the face of the shale. The slight incline allowed the loaded wagons to return by force of gravity. When the mechanical digger was introduced to dig out the shale, it was loaded on to a hopper which was mounted directly over a conveyor belt which replaced the endless rope system. This allowed the clay to be tipped and crushed into powder by two heavy rollers and conveyed by buckets on an elevator belt prior to being deposited on the hopper stage directly above the brick-making machines. A constant flow of clay to the mixer trough was maintained where water was added to the clay to make it sufficiently plastic for it to pass through and fill each of sixteen moulds on a revolving table (*ibid.*).

When a new kiln was built in 1934, it was raised to a level that would prevent the periodic flooding from the nearby River Seiont stopping production. The Caernarfon to Llanberis branch line that ran past the works delivered wagons of slack (coal/powder dust used in the firing process), as well as empty wagons for carriage of bricks from the works. The kiln built in 1934 had the added advantage of having a concrete ramp which, being level with the floor of the railway wagon, made the task of loading bricks much easier and quicker. Orange coloured Sentinel steam wagons were also used in the 1930s to deliver bricks to local building sites (*ibid.*).

Soon after the Second World War, another kiln was built alongside the first, each being long enough to accommodate two phased-firings and two setting and drawing-points for "air". As in the previous kilns hot air was introduced from the cooling zone by means of flues and dampers to dry the brick (*ibid.*).

Working conditions were improved in the 1950s when the yard was concreted. The three- holed perforated brick was introduced during the 1950s. It made the task of drying and firing the brick easier and quicker since the holes allowed heat greater access to the clay. This type of brick had the advantage of being lighter in weight so allowing a greater number to be carried on the lorries, reducing transport costs. When used by the building industry, some of the mortar applied when laying bricks would seep into holes, so strengthening the bond. In the Seiont works prior to 1966, machines turned out 1500 bricks per hour making a total of 6000 for the four machines. With the introduction of modern machinery in the new factory, bricks were automatically set on kiln cars at the rate of 11,000 per hour. Compared to the old systems of bricks being static and fire travelling through the kiln, the loaded cars are passed through the dryers-kilns and taken to the unloading bays where they are formed into packs

ready for offloading by fork-lift trucks and taken out onto the yard to await collection. The old works with a staff of 140 and many improvements, produced 444,000 bricks weekly, whereas the new factory employing 70 men was capable of turning out 600,000 bricks per week initially, rising to 800,000 by 1972 (*ibid.*).

During the twentieth century, Parkia, Peblig and Seiont works were bought by John Summers & Sons Ltd., Shotton in 1931 and traded as Castle Fire Brick Co. Ltd. and were Nationalised in 1967 under the Labour Government. Within five years they were privatised again and bought by the Butterley Brick Company owned by Hanson. By now only Seiont works, trading as Hanson Plc, remains open, the others having been demolished (*ibid.*).

6 RESULTS OF THE WATCHING BRIEF

The topsoil strip revealed a thin spread of topsoil atop a glacial deposit of boulder clay and isolated patches of morrainic drift geology. The boulder clay included extensive spreads of sub-rounded stones. They were not distributed in any structural fashion and were interpreted as glacial boulders. The shallow depth of the topsoil, coupled with the frequency of large glacial stones and boulders, suggested that the area saw limited agricultural use and was used mainly for pasture.

No archaeological features were identified or recorded and there was no evidence for prehistoric burnt mound activity.

7 SOUCES CONSULTED

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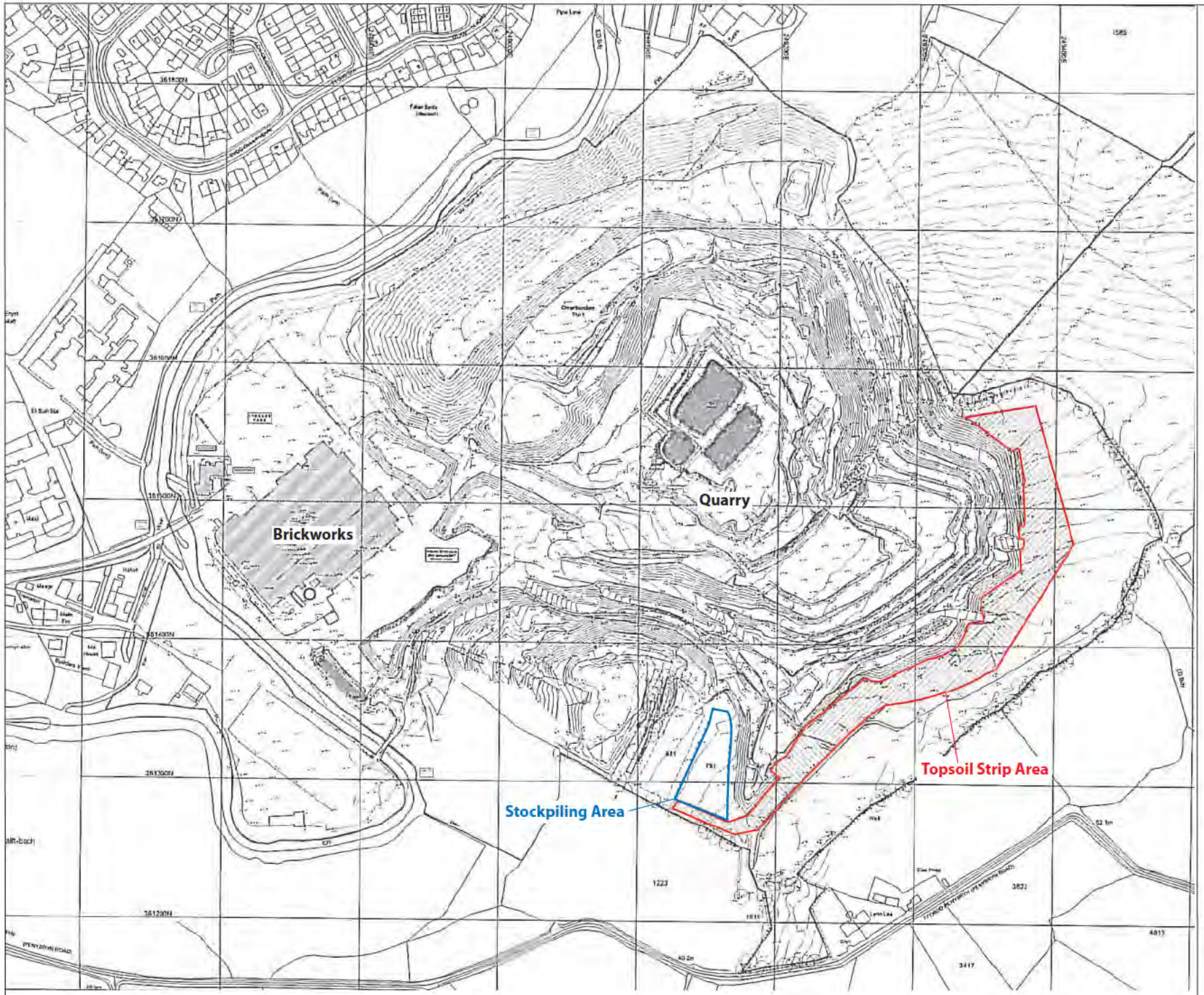

YMDDIRIEDOLAETH ARCHAEOLEGOL GWYNEDD
GWYNEDD ARCHAEOLOGICAL TRUST
Craig Beuno, Ffordd y Garth, Bangor, Gwynedd. LL57 2RT
Ffon: 01248 352535. Ffacs: 01248 370925. email:gat@heneb.co.uk

Figure 1: Site Location
(Based on Hanson Drawring C22/24)

Scale: Not to Scale

Plate 1: View East of Quarry Extension prior to Topsoil Strip

Plate 2: View East of Quarry Extension During Initial Strip

Plate 3: View East of Quarry Extension. Note distinct Morrainic Drift Geology Below Topsoil

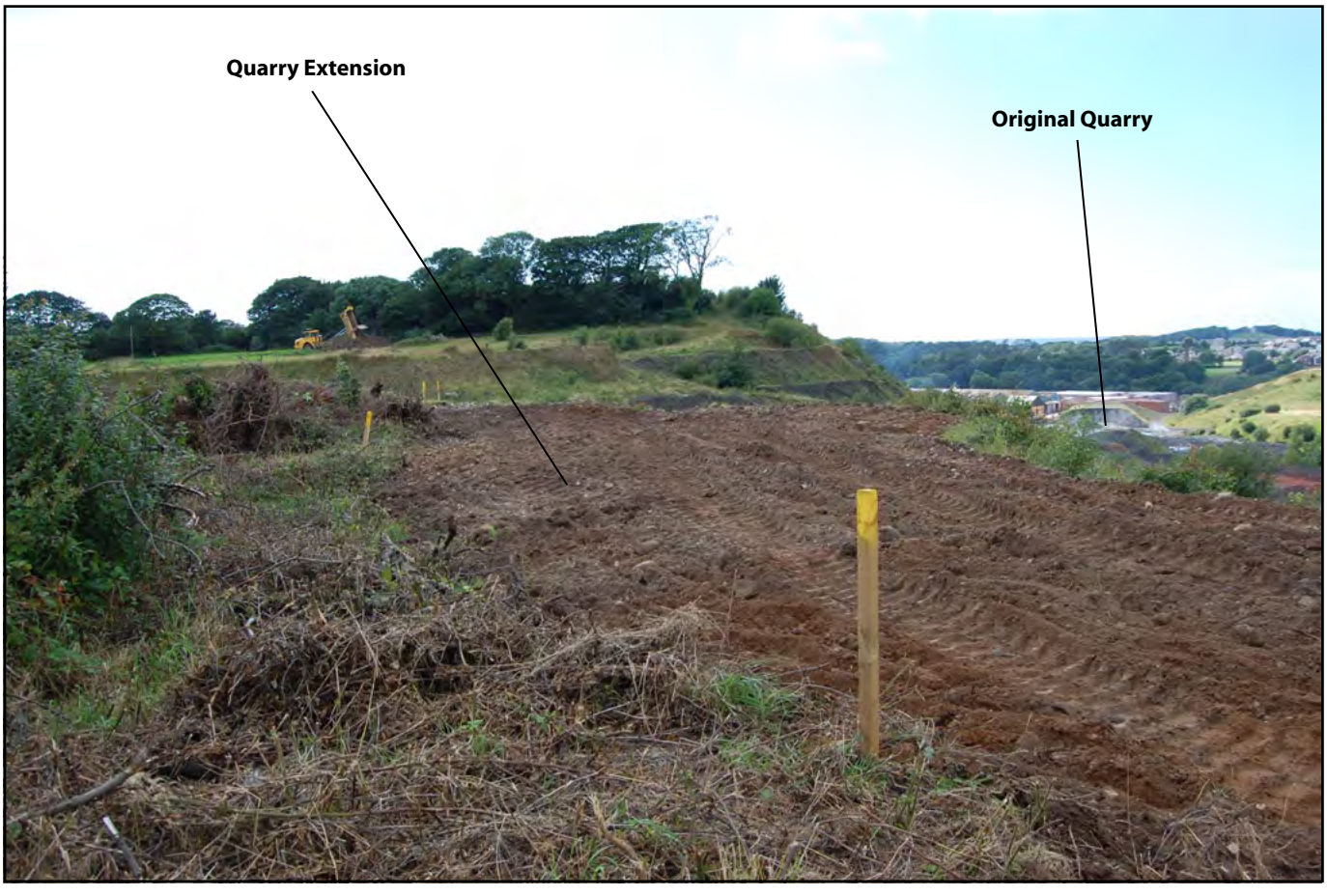

Plate 4: View West of Quarry Extension

Plate 5: View Southwest of Quarry Extension

Plate 6: Close-up of Southern end of Strip

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