
Industrial Recording



CN159: Klondyke Lead Mill
CN331: Afon Llugwy Lead Mill
CN332: Coed Mawr Pool

Archaeological Survey and Record

2007

GAT Project No. G1910

Report No. 690

Industrial Recording

CN159: Klondyke Lead Mill
CN331: Afon Llugwy Lead Mill
CN332: Coed Mawr Pool

Archaeological Survey and Record
2007

By

Tanya Berks
Andrew Davidson
John Roberts

Industrial Recording

CN331: Afon Llugwy Lead Mill

Archaeological Survey and Record

2007

GAT Project No. G1910

Report No. 690

CN331 Afon Llugwy Lead Mill (NGR SH77185763)

Introduction

A lead mill associated with Coed Mawr Pool Lead Mine (CN332), but located to the south along the Afon Llugwy. The mill dates from the 1880s and was powered by a 1.80m Pelton Wheel, supplied with water by pipes carried on a bridge from the north side of the river, the two piers of which survive. The mill building housed Green's patent crushing mill, a compressor house, a jigger and vanning tables, with smiths and joiners shops. A series of filter beds are located to the east of the mill. On the north side of the river is a level, which provided ore to the mill via the bridge. The Scheduled Area is in two parts on either side of the river. The southern portion takes in the mill, the filter beds and the southern bridge pier. The northern portion extends around the level and the northern bridge pier. The current project is focussed on the southern portion only.

Description

The mill building stands to eaves height, with foundations of contemporary structures alongside. North of the mill are two tall stone piers (3.50m in height), one on either side of the river and a level into the mine. A timber lintel on the east side of the mill has rotted, causing the northeast corner of the building to slip and start to collapse. The north and east sides of this building have been recorded in detail, and the associated structures have been recorded in plan.

The Mill: Northeast Facing Elevation

Northeast facing aspect constructed from irregular igneous stone. Elevation measures c.7.00m in length and 2.80m in height. Two 0.60m wide entrances are visible, providing access to a large rectangular room with an internal partition. The entrance on the eastern side is blocked with mortar, irregular igneous stone and brick fragments. A stone lintel is visible (height above ground: 1.82m). The entrance on the western side is open, with a wooden lintel (height above ground: 1.82m). The sides of the entrance have been repaired with mortar, irregular igneous stone and brick fragments.

Two small brick lined ventilation holes are visible between the entrances, c.2.00m above ground level.

Evidence for disrepair is most apparent along the eastern and western ends of the elevation, with the eastern side in particular having collapsed to a height of c.2.20m above ground level.

The Mill: East Facing Elevation

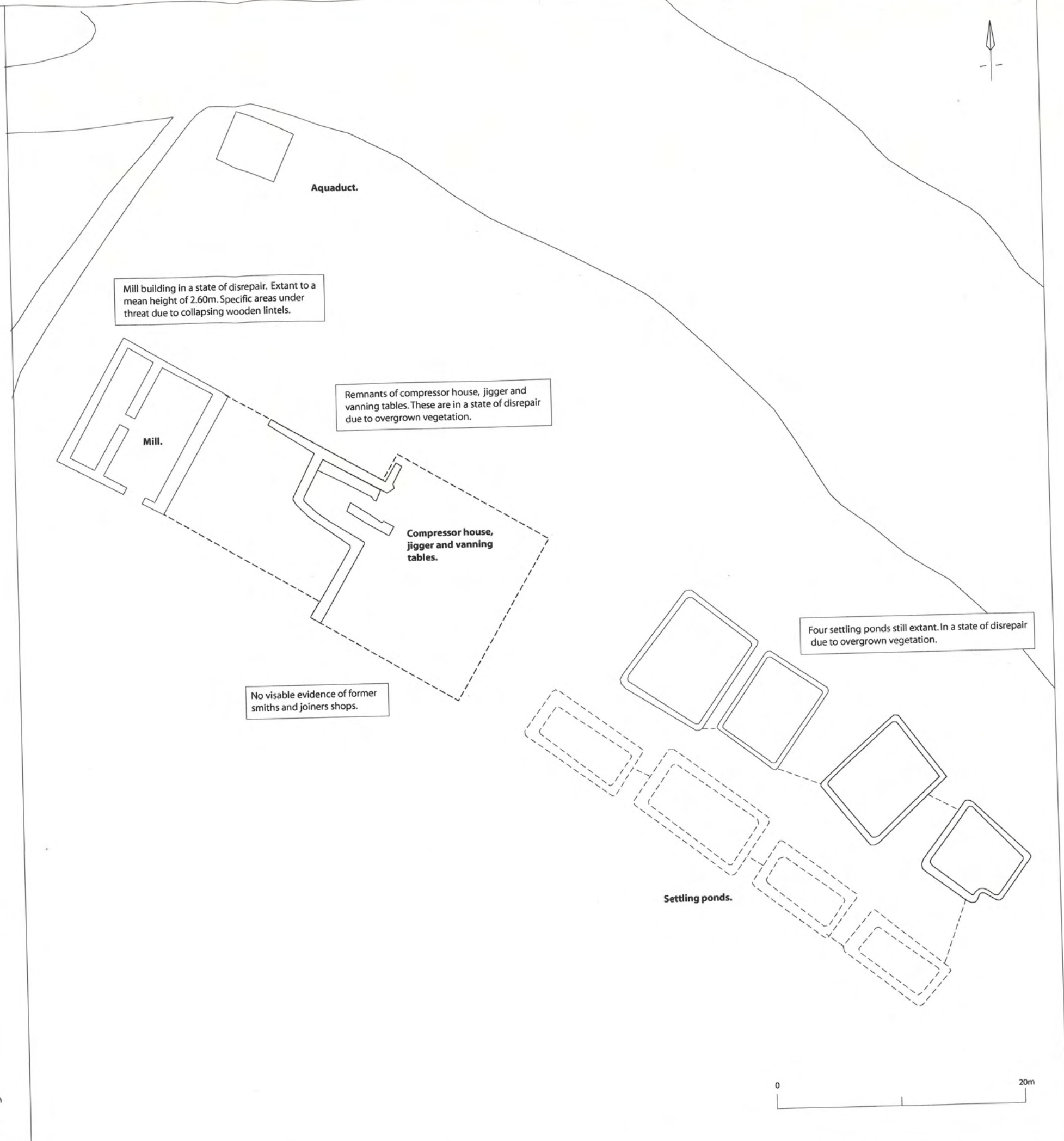
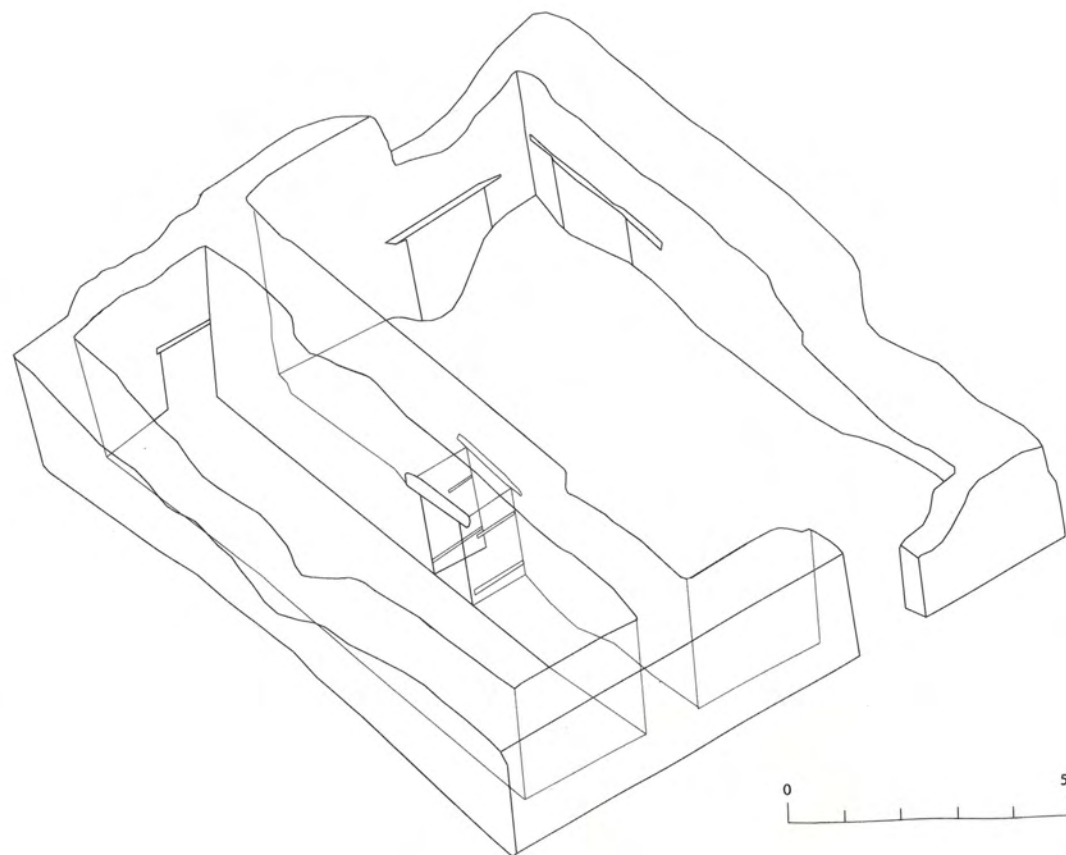
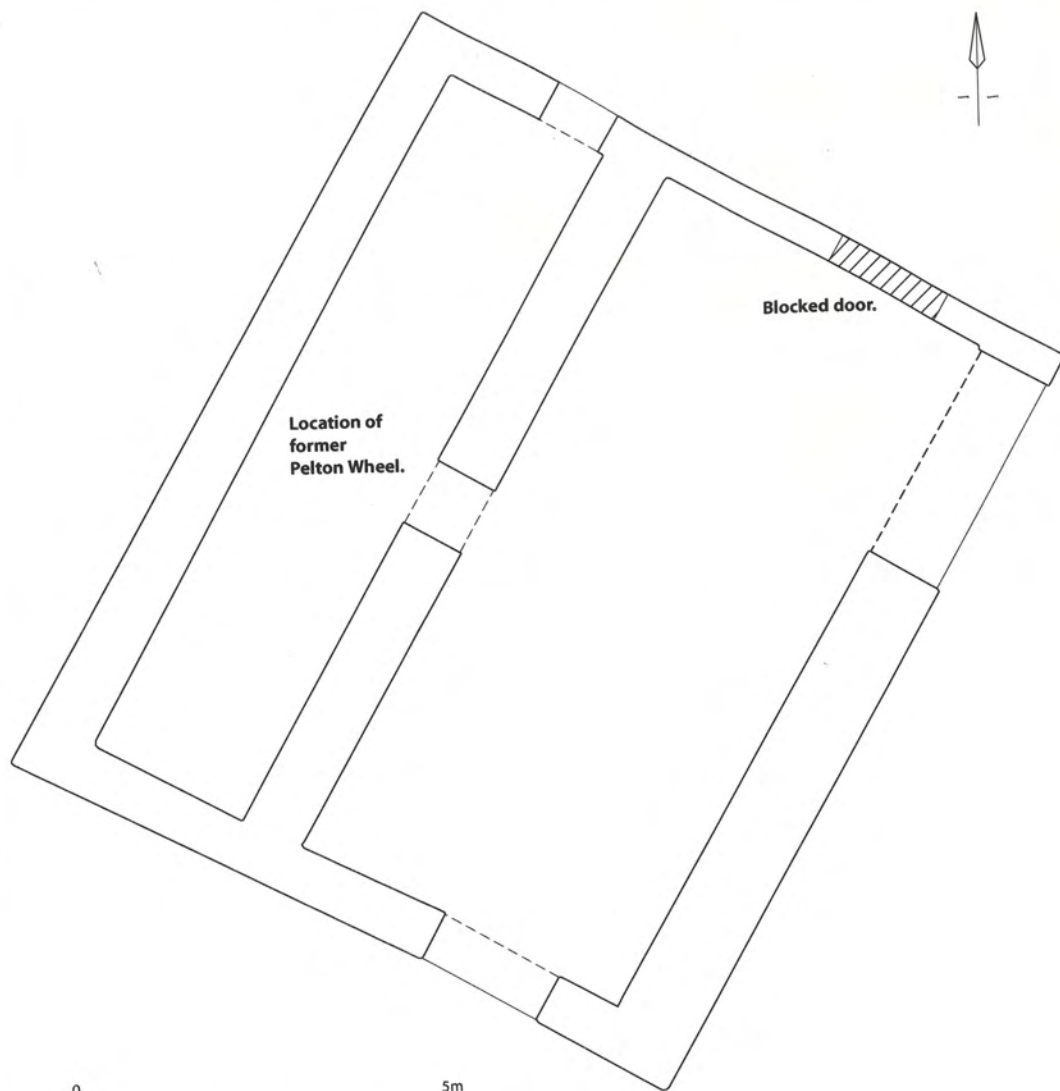
Evidence for collapse and impending collapse is most apparent on this elevation. A large portion of the southern end of this elevation has collapsed, leaving a standing height of c.1.20m. The collapse has removed a former window, now extant as one jamb with a fragment of wooden lintel. There is evidence of brick and mortar repair to the centre of the elevation. A doorway is located towards the northern end of the elevation. The wooden lintel is cracked and the stone above is subsiding northwards. The lintel is providing the only support in this area.

The Mill: Internal

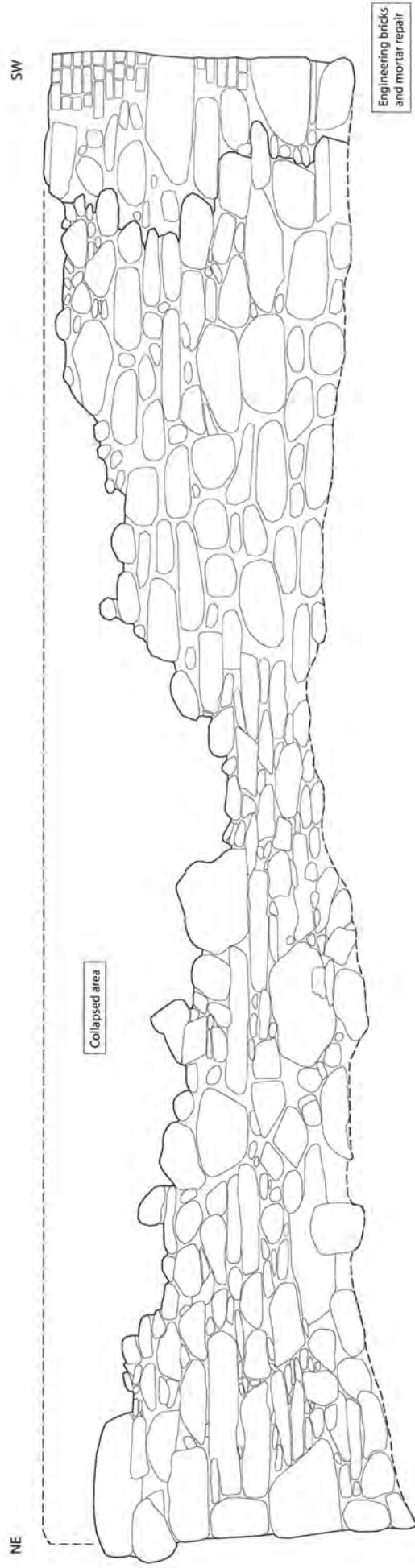
The mill contains an internal partition (orientated north to south) dividing the structure into two rooms. The larger room has three entrances: the northeast-facing elevation has a blocked entrance with a wooden lintel; the east-facing elevation has an open entrance with a wooden lintel. The entrance for the southwest facing elevation has partly collapsed. The floor surface is now masked by building collapse and overgrowth. The smaller room is accessed by an entrance through the partition.

The internal partition measures 0.93m wide and 2.80m high and is surmounted by a wooden beam/wall brace. Construction matches the external elevations.

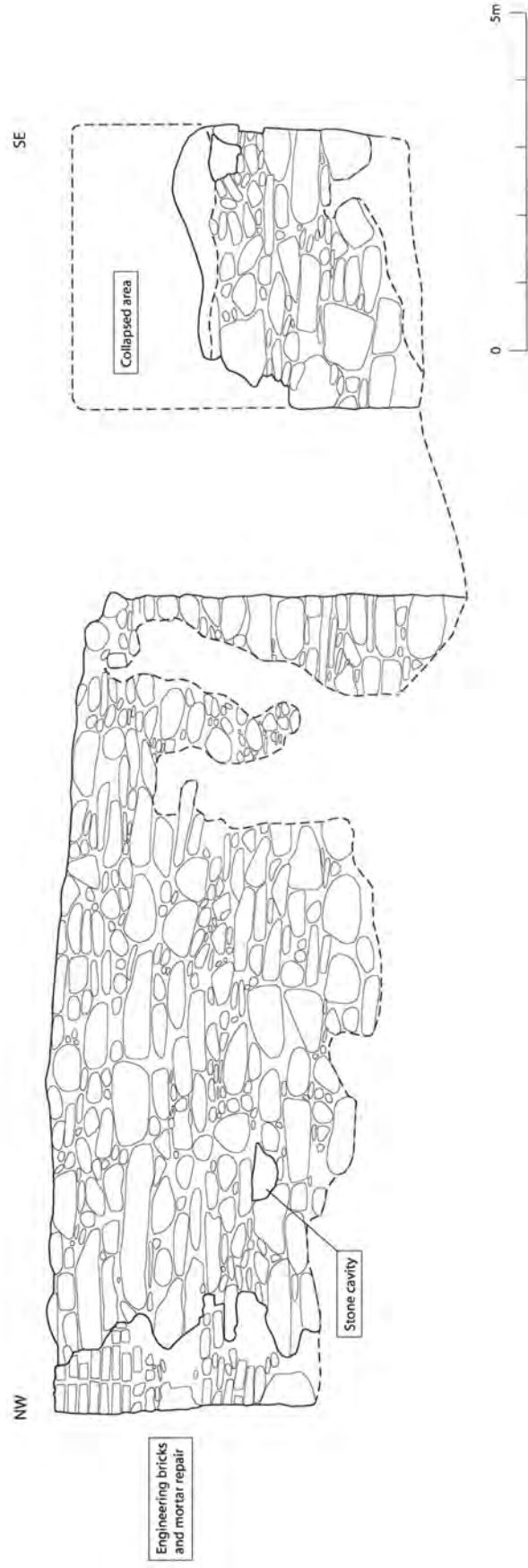
The larger room measures 4.00m wide and the smaller room, 2.00m wide. The smaller room is accessed by an entrance on the northeast-facing elevation. Within the room, three metal fixings are visible on the west-facing elevation of the partition wall, with limewash also evident across this wall, up to a height of 1.00m above current ground level. No other fixtures/fittings are visible.



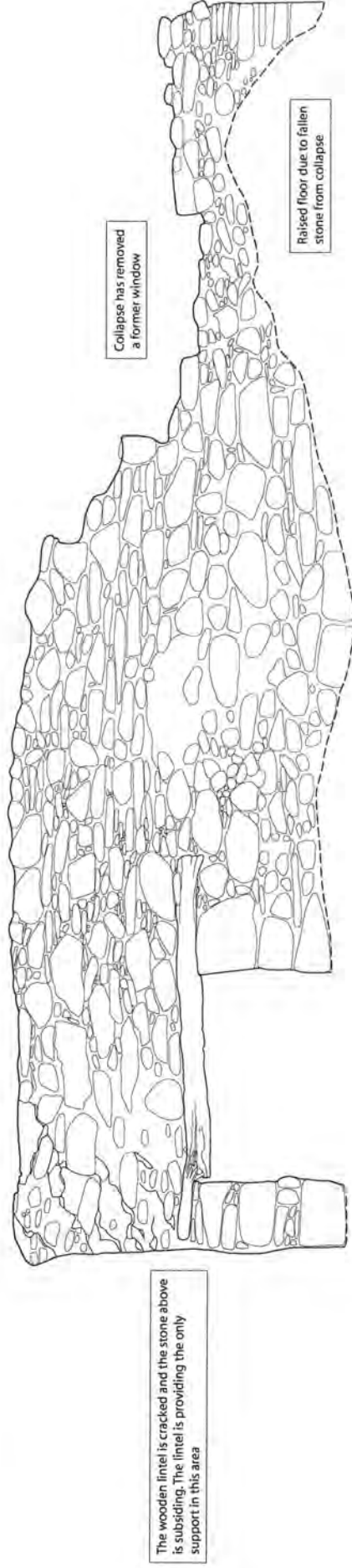
North west facing elevation



South west facing external elevation



South east facing internal elevation



North west facing external elevation

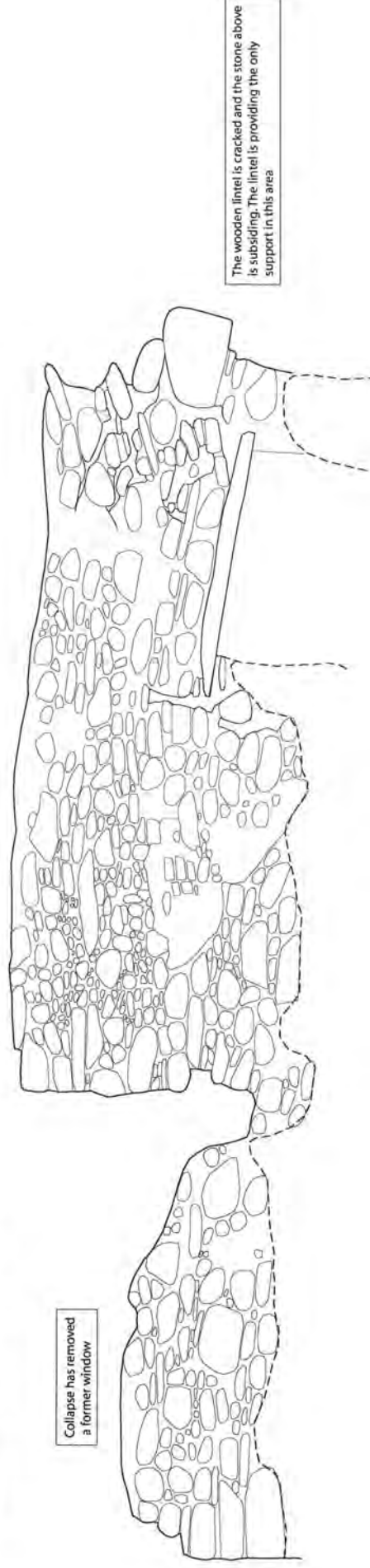




Plate 1: CN331: Northeast Facing Elevation of Mill Building



Plate 2: CN331: East Facing Elevation Mill Building



Plate 3: CN331: West Facing Elevation of Mill Building



Plate 4: CN331: Southwest Facing Elevation of Mill Building



Plate 5: CN331: Internal Partition: Entrance



Plate 6: CN331: Internal Partition: Detail of Limewash and Fittings

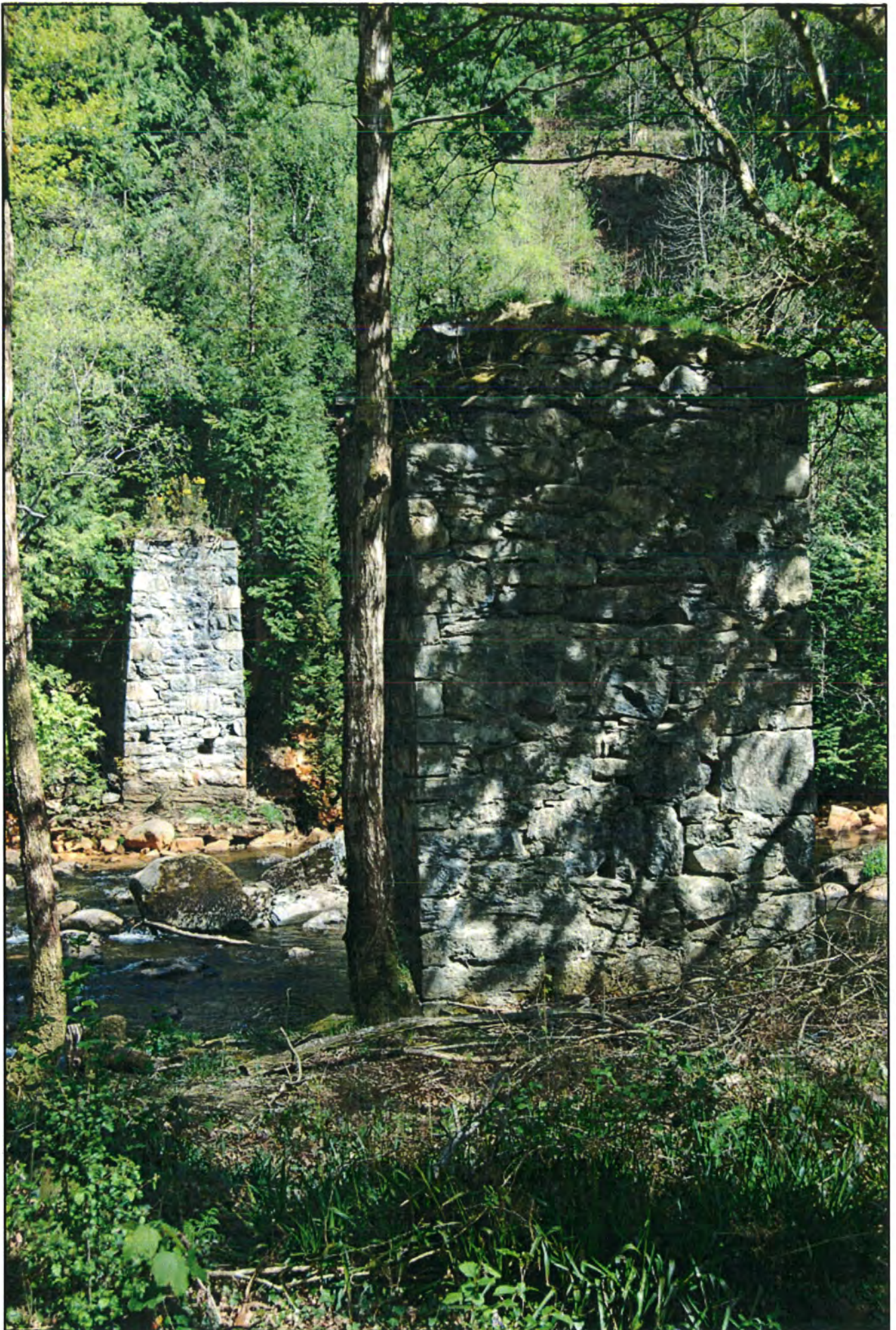


Plate 7: CN331: Bridge Piers Supplying Water to the Lead Mill

Industrial Recording

CN332: Coed Mawr Pool

Archaeological Survey and Record

2007

GAT Project No. G1910

Report No. 690

CN332 Coed Mawr Pool Lead Mine (NGR SH78105840)

Introduction

The scheduled area forms one of the principal dressing floors of a much larger mine site that lay dispersed around Llyn Pencraig. The mine may have begun as "Coedmor", recorded as producing lead before 1697. The site was probably being worked in the 1750s and was prospering by the 1820s. There was substantial investment after 1851, but the final company at the site was dissolved in 1930.

Description

Several structures lie within the scheduled area, including a substantial wheel pit, a bob pit, a circular powder store and various lengths of upstanding walling. A part of the wheel pit, particularly the south wall, is eroding and the other structures, mostly of drystone build, are also very vulnerable to collapse. No detailed plan exists of the location of all the masonry structures. This site has been surveyed in its entirety using a total station and then each feature has been recorded by photograph and written description.

Aqueduct

Comprises three stone-built platforms designed to support water pipes/compressed air pipes for the wheel pit located to the south. The platforms are built into a rock outcrop and vary in height in response to the topography (0.80m, 1.10m and 1.60m respectively). They are constructed from locally sourced stone; no bonding visible.

Gunpowder/Magazine Store

Stone-built, lime mortar bonded circular structure. Measures 2.20m high, with a 0.96m entrance on the eastern side. The structure is located c.15.0m to the southwest of the aqueduct, atop the same rock outcrop. The structure is in a state of disrepair, with rubble collapse on the north and western sides and within. No internal details to note.

Shaft

The remains of a shaft entrance, located c.30.0m to the north of the No. 1 wheel pit. Three elevations are still extant; the fourth is a pile of rubble. Constructed from locally sourced stone; no bonding. Built onto a low-lying platform of stone and is surrounded by mining waste. Another, similar example, is located c.12.0m to the northeast. Three elevations extant (two partially collapsed; south-facing is complete). Same construction as example to southwest. Partially subsumed by waste tipping.

Capstan/Wheel Bob Pit

Stone-built platform with key-shaped capstan pit towards centre. Platform built from locally sourced stone; in a state of disrepair. Capstan appears intact; 3.20m long and 1.5m wide, built from stone. Base of pit obscured by vegetation and rubble. Hillock incorporating aqueduct and magazine store to immediate west; No.1 wheelhouse c.10.0m to the southwest. Waste tips surrounding pit to north, east and south.

Possible boundary wall

Short, stone-built elevation of unknown function located at eastern end of site, c.15.0m west of the access road. Measures 4.00m in length, 1.10m in height and 0.65m in width. Tapered construction: wider at the base; no bonding used. Located c.40.0m to the north of the mine office. Surrounded by mine tipping waste.

Office Building

Partially extant rectangular-shaped stone-built structure. Measures 35.0m long and 20.0m wide, with a mean height of 1.20m. In a state of disrepair: external elevations have collapsed exposing central

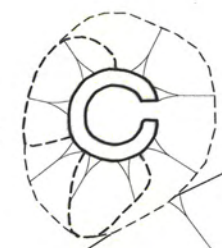
partition and internal divisions. Central partition measures 0.60m in width; internal partitions are 0.50m wide. No further details visible due to collapse and extensive overgrowth.



Shaft

Aqueduct

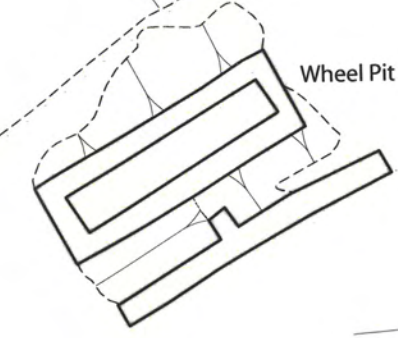
Powder House



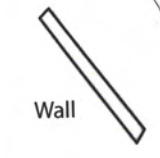
Capstan pit



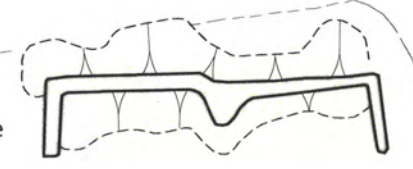
Wheel Pit



Wall

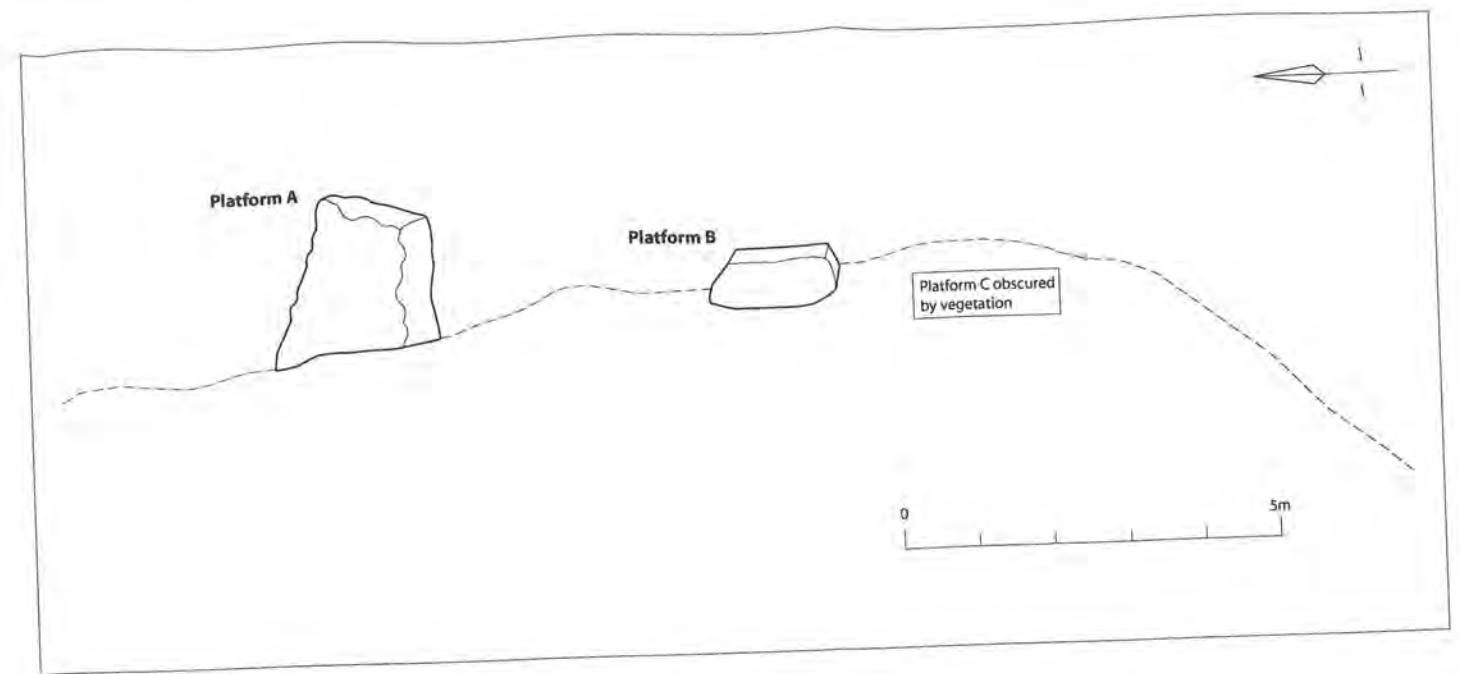
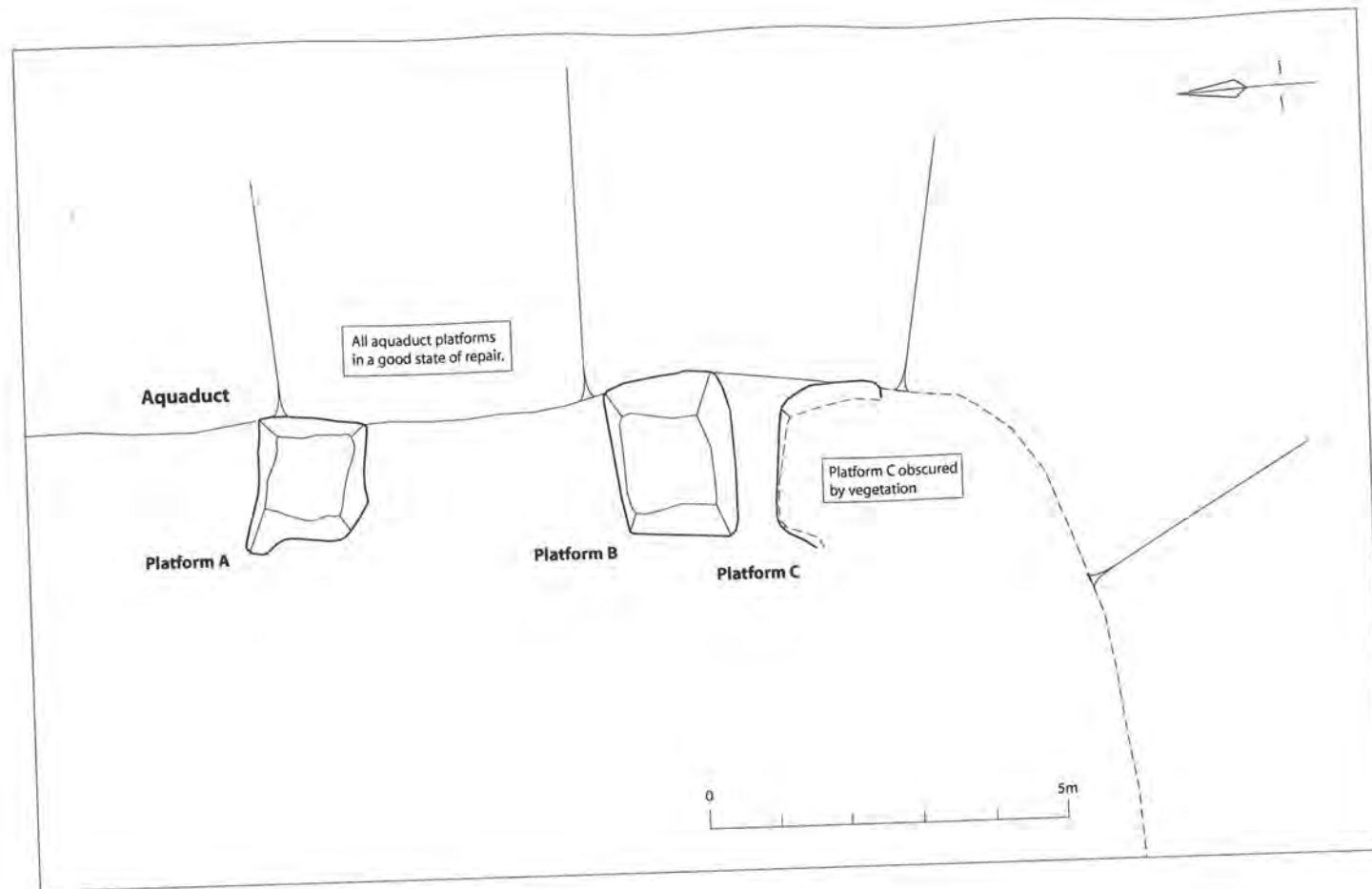


Office

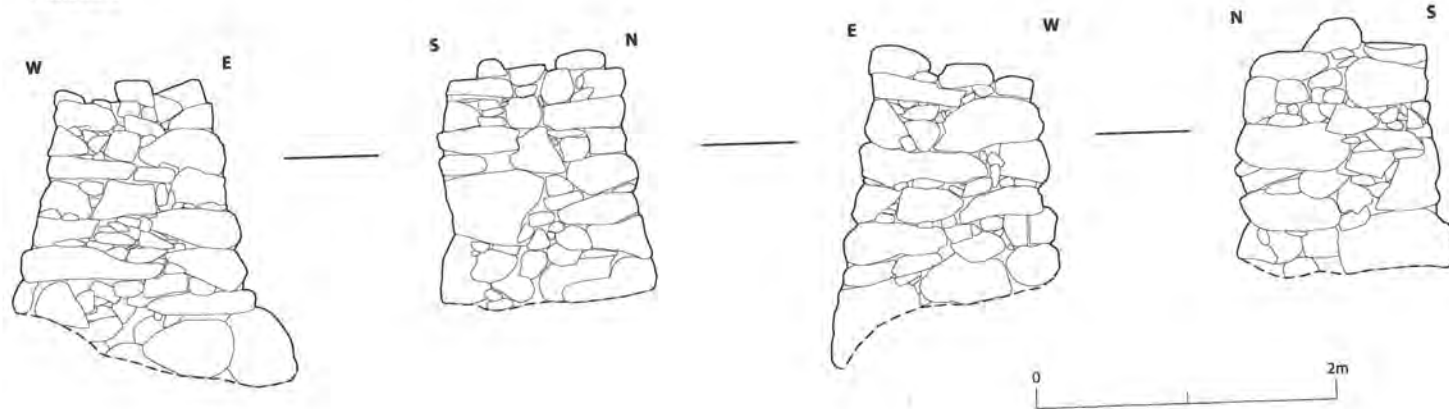


Leat

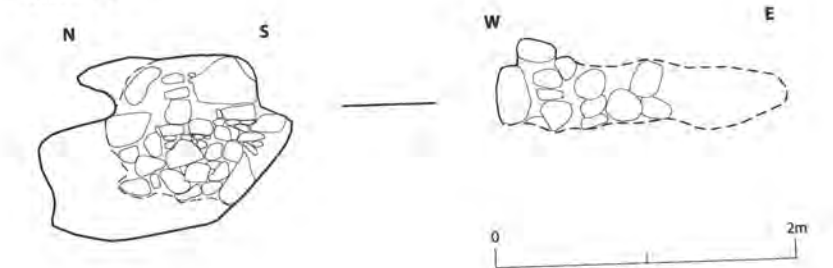




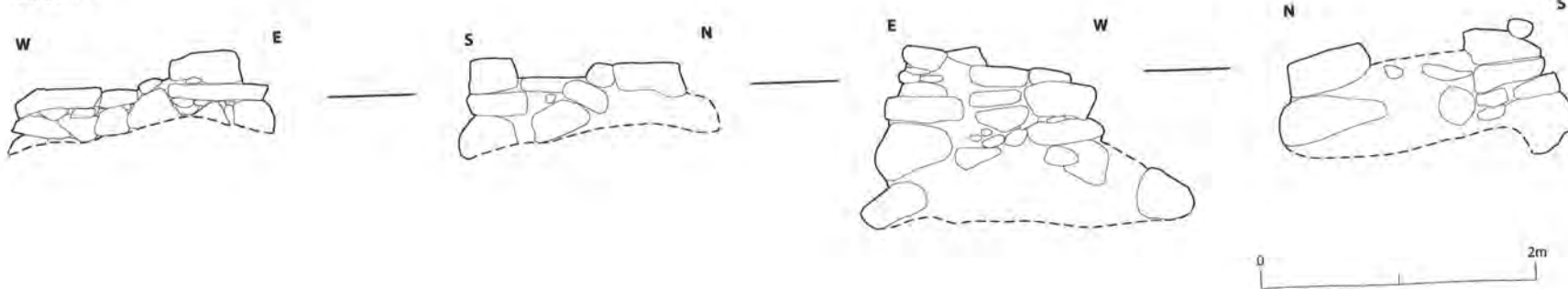
Platform A



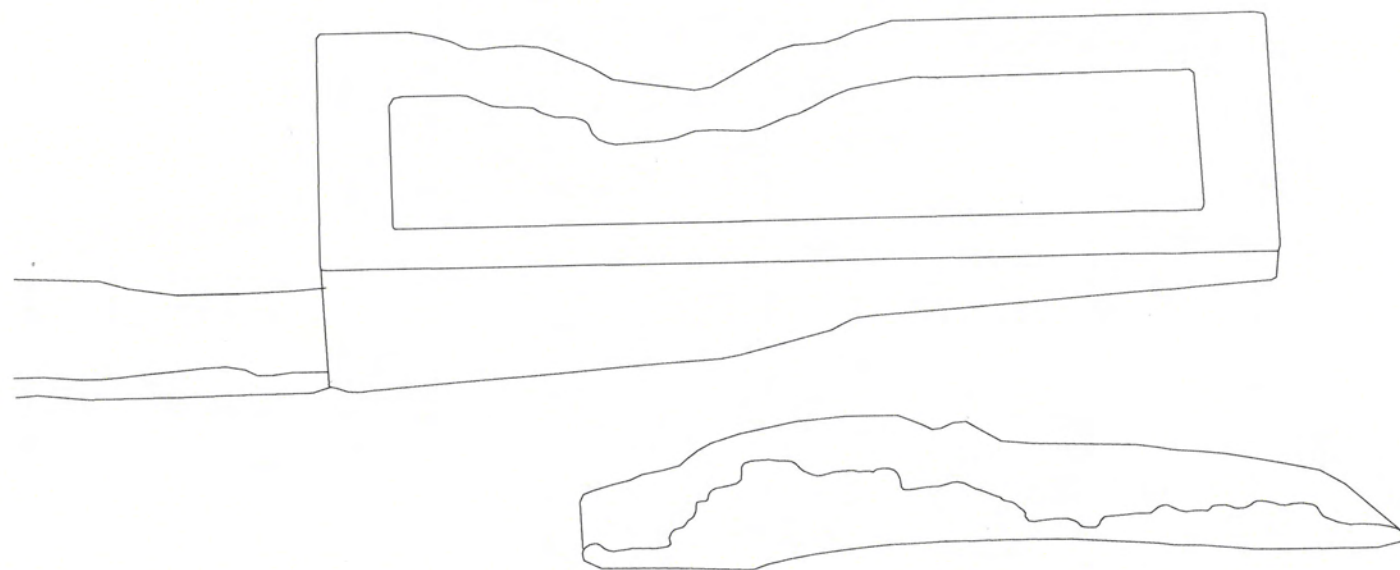
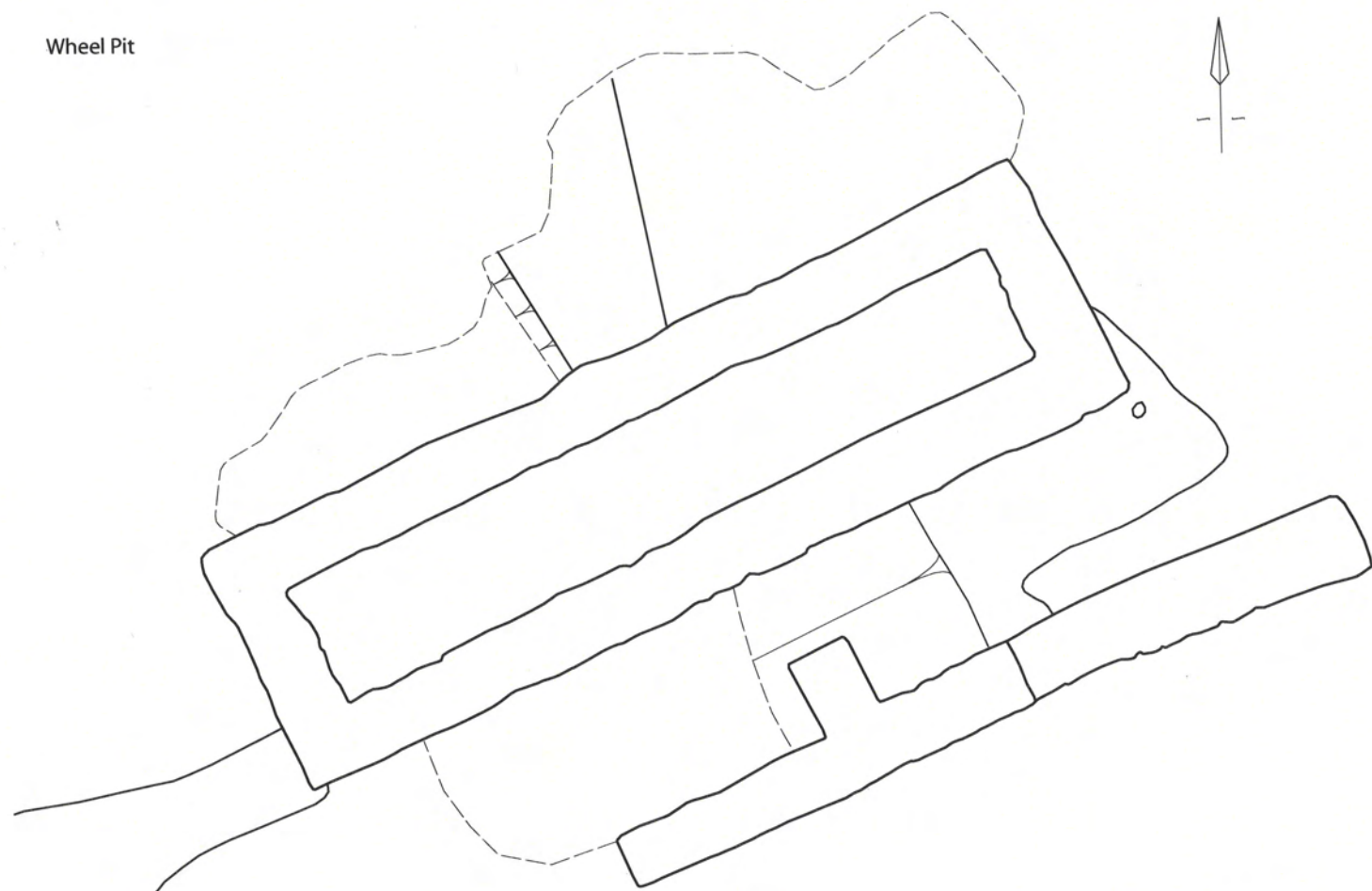
Platform C



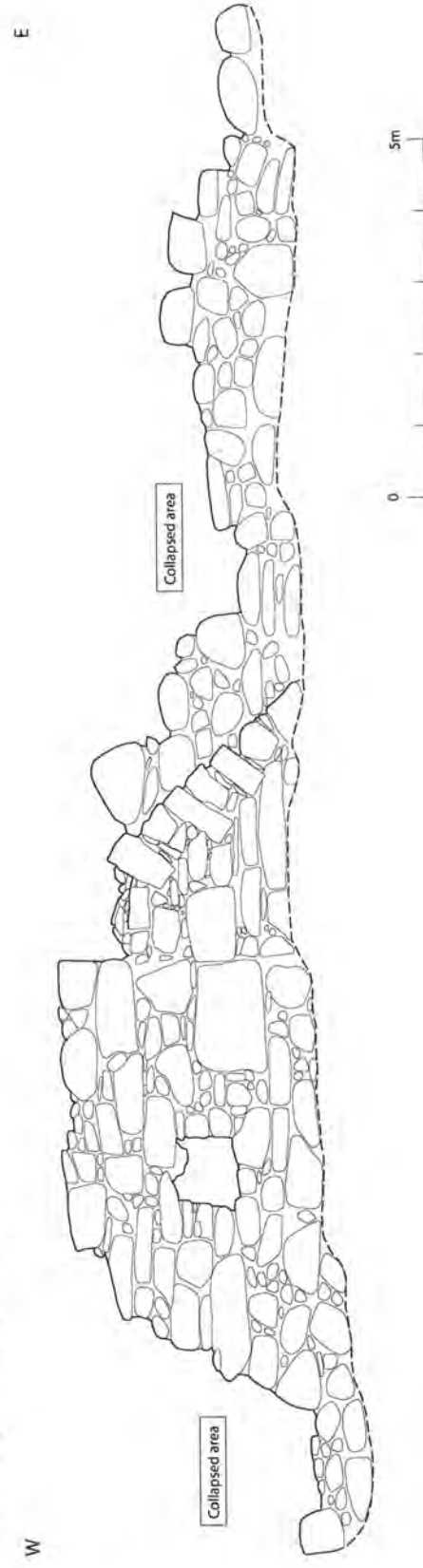
Platform B



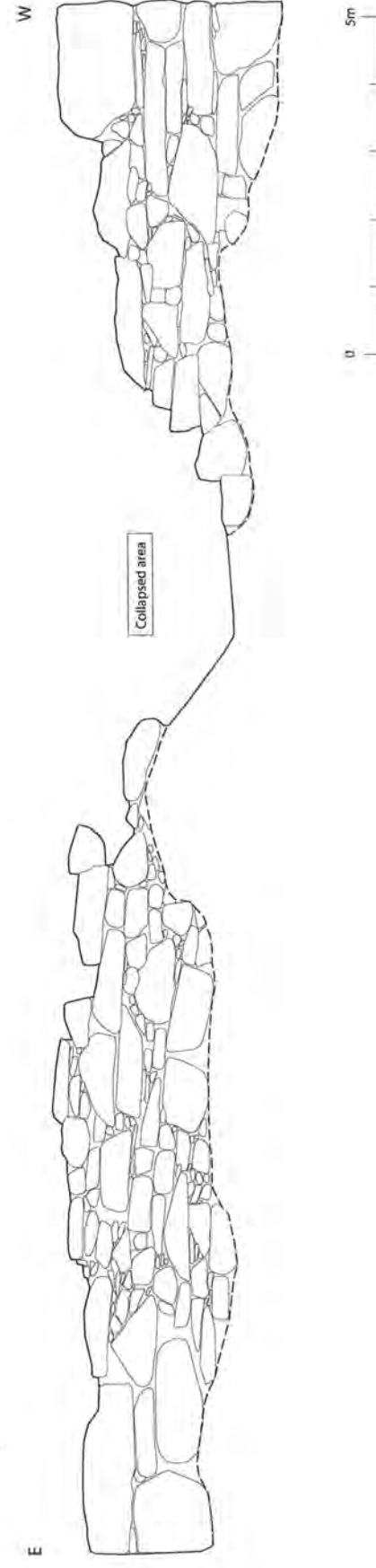
Wheel Pit



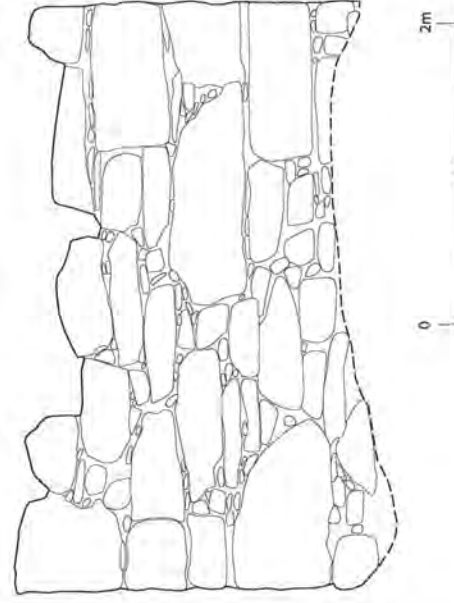
South facing elevation of wheel pit



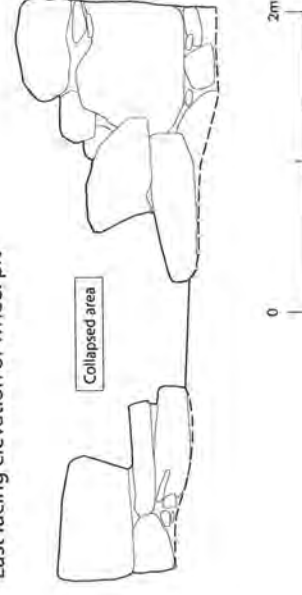
North facing elevation of wheel pit



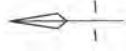
West facing elevation of wheel pit



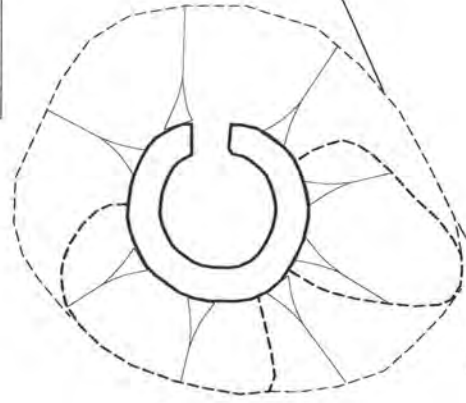
East facing elevation of wheel pit



Gunpowder store

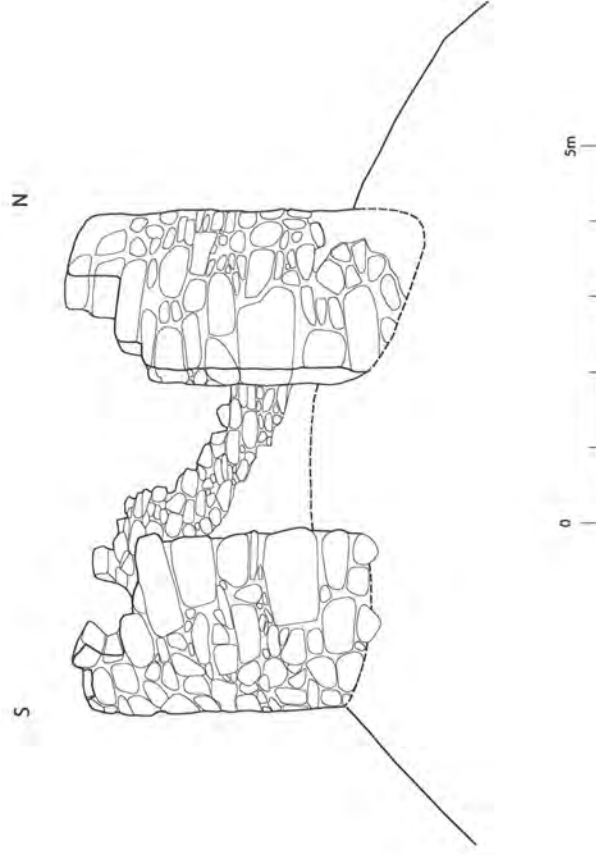


The structure is in a state of disrepair with rubble collapse on the north and western sides



Collapse

Collapse



Capstan pit

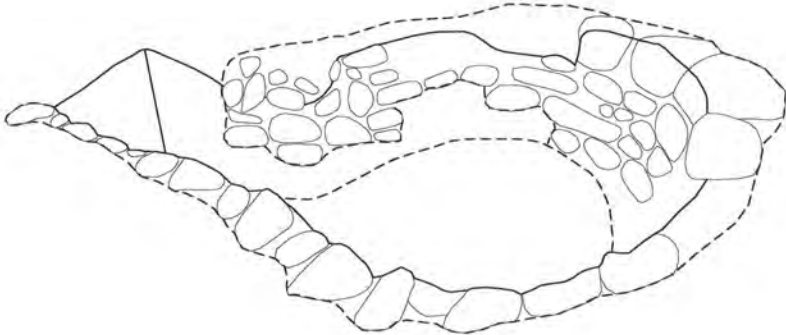
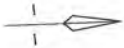




Plate 1: CN332: Aqueduct Platforms (View North)



Plate 2: CN332: Aqueduct Platform (View South)

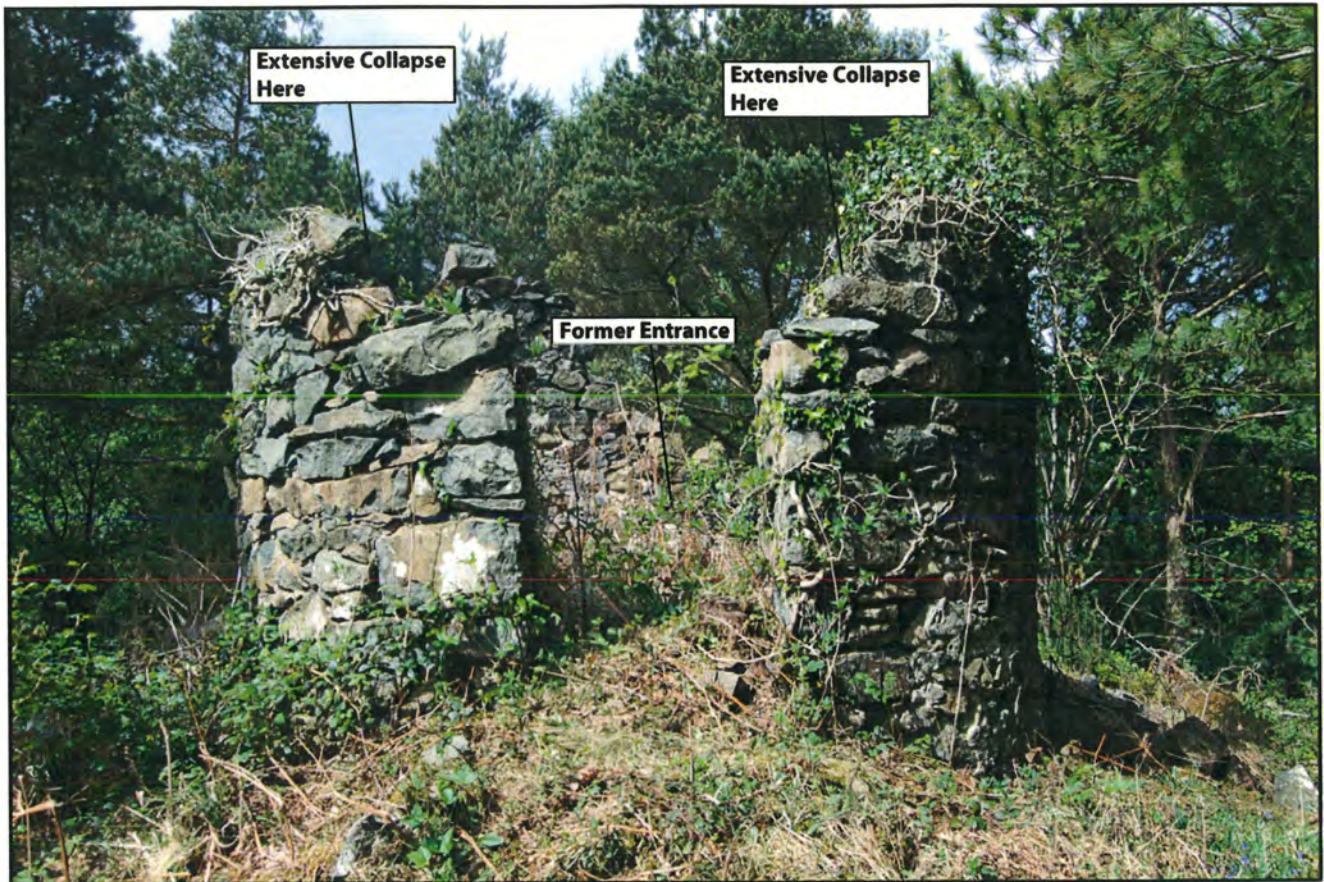


Plate 3: CN332: Magazine Store



Plate 4: CN332: Shaft Entrance



Plate 5: CN332: Possible Shaft Entrance



Plate 6: CN332: View Southeast across site detailing waste tips



Plate 7: CN332: Capstan Pit



Plate 8: CN332: View East Locating Wall and Office



Plate 9: CN332: Possible Boundary Wall



Plate 10: CN332: View West of Former Office



Plate 11: CN332: Office: Central Partition et al.



Plate 12: CN332: View West of Former Office



Plate 13: CN332: Wheel Pit No. 1: View from Aqueduct Area

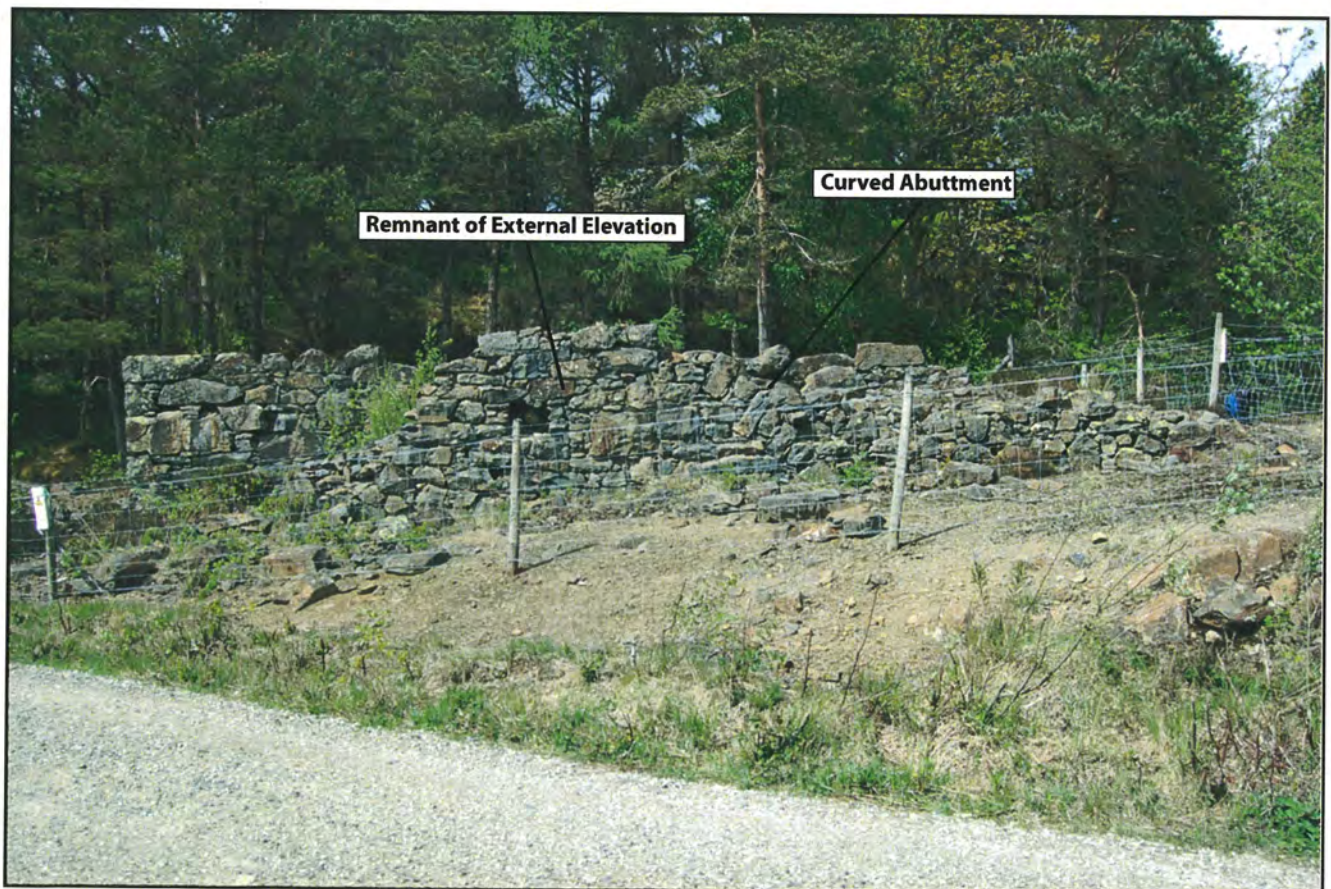


Plate 14: CN332: Wheel Pit No. 1: South facing Elevation



Plate 15: CN332: Wheel Pit No. 1: View from Southwest



Plate 16: CN332: Wheel Pit No. 1: Detail of Ruined East Facing Elevation



Plate 18: CN332: Wheel Pit No. 1: Detail of Entrance within Pit



Plate 17: CN332: Wheel Pit No. 1: Detail of Pit



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

Industrial Recording

CN159: Klondyke

Archaeological Survey and Record

2007

GAT Project No. G1910

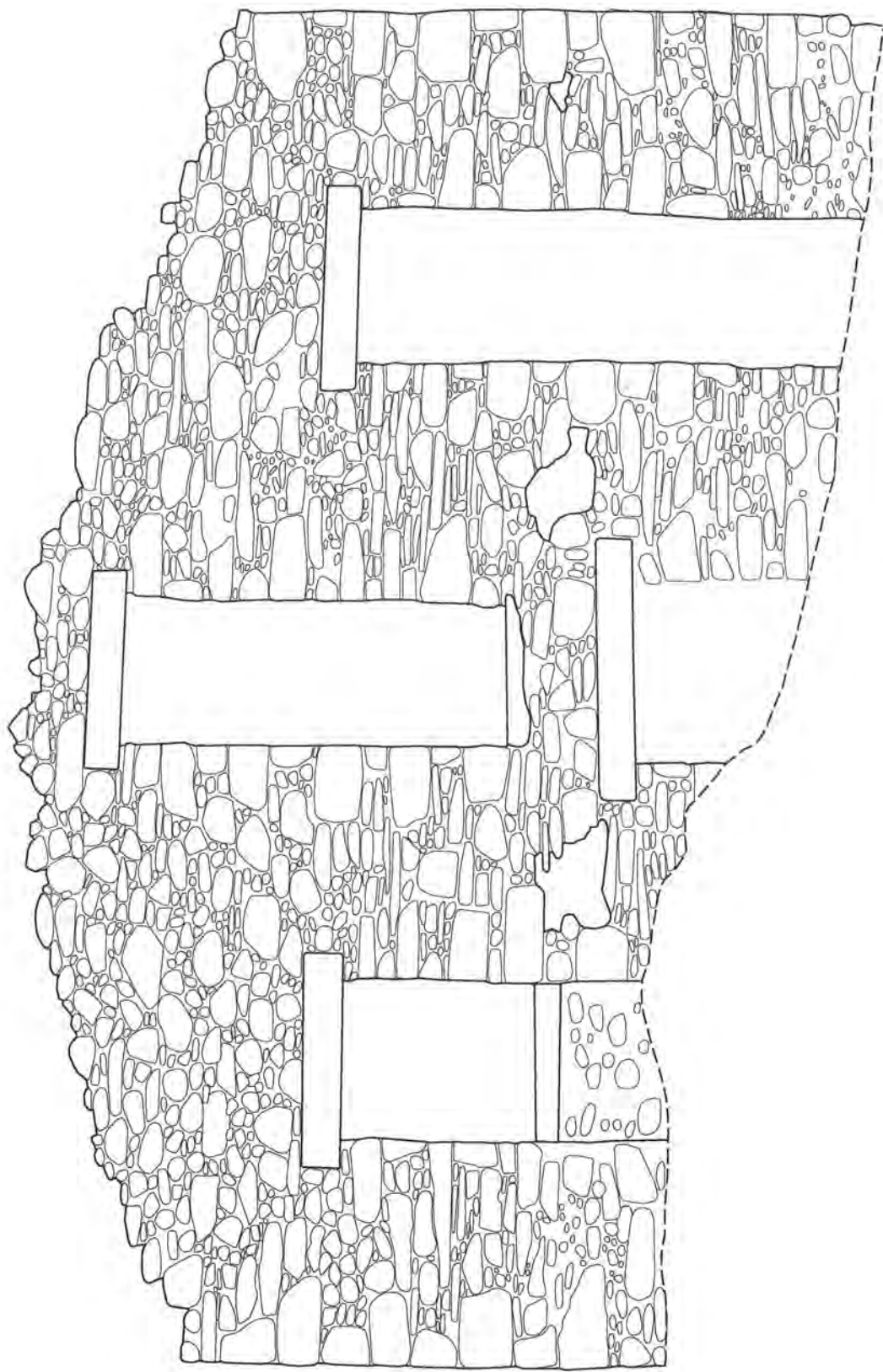
Report No. 690

CN159 Klondyke/New Pandora Lead Mill (NGR SH76506215)

Introduction

A large lead processing mill, established in 1871 and abandoned in 1932, is a complex of six rooms of varying size. The two largest rooms incorporate the ore processing/turbine machinery, with a smaller, narrower room attached to the south for the water wheel. A partially extant slate roof with wooden supports is still extant over the ore processing room. The remaining rooms are no longer roofed. To the west of the complex are a series of buddle pits, partially buried beneath waste material.

One small area of collapse has recently occurred on the east wall of the turbine house, though the remainder of the wall appears relatively stable. Despite the height of the walls, the remainder of the building also appears relatively stable and it is the timber work that once supported the roofs, floors and machinery that is at greatest risk. The rotting of the timbers will have a direct impact upon the masonry, which will be dislodged by falling timbers and in danger of collapse where wooden lintels occur. A full record of this structure, including masonry and timber elements, has therefore been undertaken using a reflectorless total station.



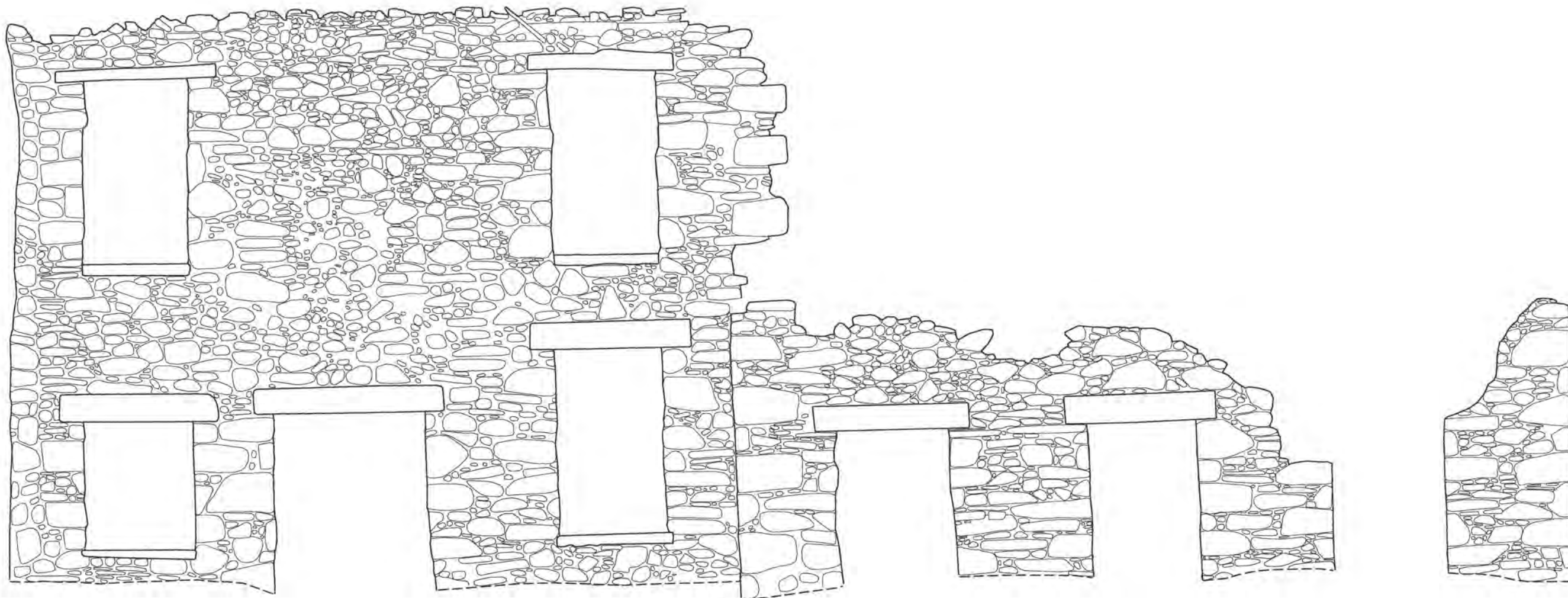




Plate 1: CN156: North Facing Elevation Turbine House/Stone Breaker Room and Aerial Ropeway



Plate 2: CN156f: Wheel Pit No. 1: Detail of Ruined East Facing Elevation



Plate 3: CN156: East Facing Elevation of Former Jig House



Plate 4: CN156: North Facing Elevation of Former Jig House



Plate 5: CN156: Detail of Aerial Ropeway into Stonebreaker Room



Plate 6: CN156: Turbine House/Stone Breaker Room and Aerial Ropeway Link



Plate 7: CN156: Detail of Aerial Ropeway



Plate 8: CN156: Buddle Pit



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