

Archaeology Wales

Stack Cottages, Blaenafon Iron works

Archaeological Evaluation



By

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Report No. 1032

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Summary

Due to recurring flooding problems and in advance of further possible conservation and renovation work, Archaeology Wales was commissioned by Cadw to carry out an archaeological evaluation of the rear drains of the eastern row of Stack Square Cottages, Blaenavon Iron Works, Blaenavon. The whole square is a Scheduled Ancient Monument and has UNESCO World Heritage Site status. The work involved locating, cleaning and recording four drains. Three of the drains were located immediately adjacent to the rear doors of the houses at the base of exterior stairwells. The fourth was located near the centre of an enclosed possible yard or altered structure at the southern end of the row.

1. Introduction

In July 2011 Archaeology Wales was commissioned by Steve Jones at Cadw to carry out an archaeological evaluation of the drainage at the rear of the eastern row of Stack Square cottages, Blaenavon (NGR: SO 250 092; fig. 1). The cottages are adjacent to and located on the same site as Blaenavon Iron Works. The site is a Scheduled Ancient Monument and since 2000 as part of the Blaenavon Landscape, has been awarded UNESCO World Heritage status. The north-eastern row of cottages are currently being conserved and renovated. Frequent and recurring flooding occurs at the rear of the houses and prior to any further conservation or renovation work the drainage immediately outside three of the rear doors needed to be assessed.

The evaluation was carried out on the 18th and 19th of July 2011 by Dr Iestyn Jones for Archaeology Wales Ltd.

2. Historic Background

The houses, originally known as Shop Square, are a small group of solidly constructed stone cottages probably built between 1789 and 1792 to house the skilled workers who operated the adjacent iron furnaces (RCAHMW 2011). The houses form three sides of a U-shaped square into which a 50 metre high chimney stack for a new engine house was placed in 1853, the base of which is still visible. The central and southern range of the square was originally the Company office, shop and manager's house in 1788, and was converted to dwellings in the 1860s (RCAHMW 2011). Some of the cottages were occupied until the 1960s and a photograph taken in 1977 shows them to be derelict (RCAHMW- Catalogue Number C514839). The whole square is now a Scheduled Ancient Monument.

3. Evaluation results

The four doors associated with the front of the north-eastern row would suggest that these were originally constructed as four separate structures, although in their current form they are two separate empty buildings without upper floors or dividing walls. The row is built into a bank that is higher than the housing and three of the rear doors are accessed by staircases from a raised platform pathway that runs the length of the row. The most northerly structure had no rear door or associated staircase. The narrow space outside these rear doors at the foot of each staircase appeared to be full of soil

upon preliminary inspection and no drainage mechanism was visible. A fourth drain was located in an open unroofed area accessed from the path by way of a staircase in the southern end of the same row.

Each of these spaces was excavated and a drain located. The drains at the rear of the row are labeled 1, 2 and 3 respectively (north to south). Drain number 4 is the one located in the open unroofed structure at the southernmost end of the row.

3.1 Drain 1

An 0.74 x 0.80m area outside the northernmost rear door was located 1.13m below the rear path level at the foot of 4 steps leading down north-south (fig. 3). Approximately 15 cm of soil and wind-blown debris had been deposited over an indeterminate length of time and was cleared down to a brick tiled and mortar base floor (see fig. 4). A square 0.24 by 0.24m centrally located ceramic drain with a 0.13 by 0.13m opening was discovered 0.37m from the current doorway timber frame. The sunken square opening to the drain was lined on all four sides with bricks, some of which had been cut to fit. The drain opening possessed a removable degraded and damaged metal grill. The 0.25m deep drain was full of soil and consequently unlikely to function as an effective drain. After clearing the drain an attached outlet pipe was found midway down the drain that appeared to lead towards and under the rear doorway (fig. 2, blue arrow). A later pipe outlet possibly from an interior sink appears to have been inserted and covered with cement near the corner of the exterior drain (fig. 2).

3.2 Drain 2

A similar soil filled area was located outside the rear of the next house (to the south). This 0.75m by 0.75m space was also located at the base of a staircase 1.13m below the rear path (fig. 3). 6 steps descend from the rear pathway south to north. A square ceramic drain of identical proportions to Drain 1 was again located under 0.15-0.20m of soil and debris and 0.44m from the door threshold (see fig. 3). The drain was northeast of centre and inserted into a sunken brick or tile lined hole in a mortared surface. Other than the sunken drain surround no other bricks were visible on the floor surface. A damaged and degraded removable metal grill was also present over the drain (fig. 5). The drain was found to be full of soil and was cleaned to its base. An identical outlet was located on its eastern side leading towards and under the house doorway.

3.3 Drain 3

This soil and debris covered drain was located near the rear door outside the final southernmost house in the row (fig. 3). The area (0.90m max x 0.85m max) enclosed by a curved wall on its southern end was 1.50m below the rear path and was accessed via 8 steps descending north to south. The 0.25m deep ceramic drain, again identical in proportions to Drains 1 and 2, was found sealed by a square cut wooden cover which had been inserted sometime after it had been filled with soil. It was cleared and found to function in exactly the same way as the previously excavated drains; an outlet drained towards and under the house floor (fig. 5). This drain was very close to the rear door, only 0.12m from the wooden frame.

3.4 Drain 4

In contrast to the previously described drains this was located bisecting an exterior enclosed space at the southern end of the north-eastern row, incorporating the gable end of the house associated with Drain 3 (see fig. 3). The original location of the drain in relation to its current location is unclear as the space appears to have been much altered.

The square ceramic drain appears to be very similar to Drains 1, 2 and 3 but the end of the identically located outlet pipe was, in this case, discovered. The drain was emptied of soil and was found to be 0.25m deep. Excavation of the soil immediately to the north of the drain revealed two rusty riveted metal sheets (1.42m by 0.44m and 1.15m by 0.44m) that acted as covers for a three brick deep (0.35m) lined 0.32m wide conduit with a metal base. The conduit contained approximately 0.10-0.15m of soil and some modern pottery sherds. The connected drain outlet protruded 0.10m from the brick lined wall and drained to the base of the conduit. This conduit appeared to be brick sealed under the eastern wall and had one further pipe draining into it under the eastern metal sheet. The easternmost metal sheet cover appeared to underlay or had been inserted under the eastern wall of the possible yard. It was not possible (or desirable for safety reasons) to fully remove this sheet to enable further investigation.

The conduit leads in a north westerly direction towards the western doorway of the enclosed space. Adjacent to the ceramic drain a brick archway supports the opening of a 27cm diameter pipe which appears to drain water out of the conduit towards the north-west. The course of the pipe may be indicated by the presence of two flagstones leading towards a threshold and an associated entrance, although this would need to be further investigated to confirm.

4. **Conclusion**

Preliminary investigations of the areas outside the rear doors revealed the drains, which were cleared of accumulated sediment. In order to fully understand the mechanism by which water drains under the house floors it would be necessary to uncover areas now under cement and flagstones around the door thresholds.

5. **Acknowledgments**

Thank to the staff at Blaenafon Iron Works for their kindness and also to Dr. Sian Rees of Cadw for on site advice at short notice.

6. **References**

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<http://www.coflein.gov.uk/en/site/20853/details/STACK+SQUARE,+BLAENAVON/>
(accessed 07/ 2011)

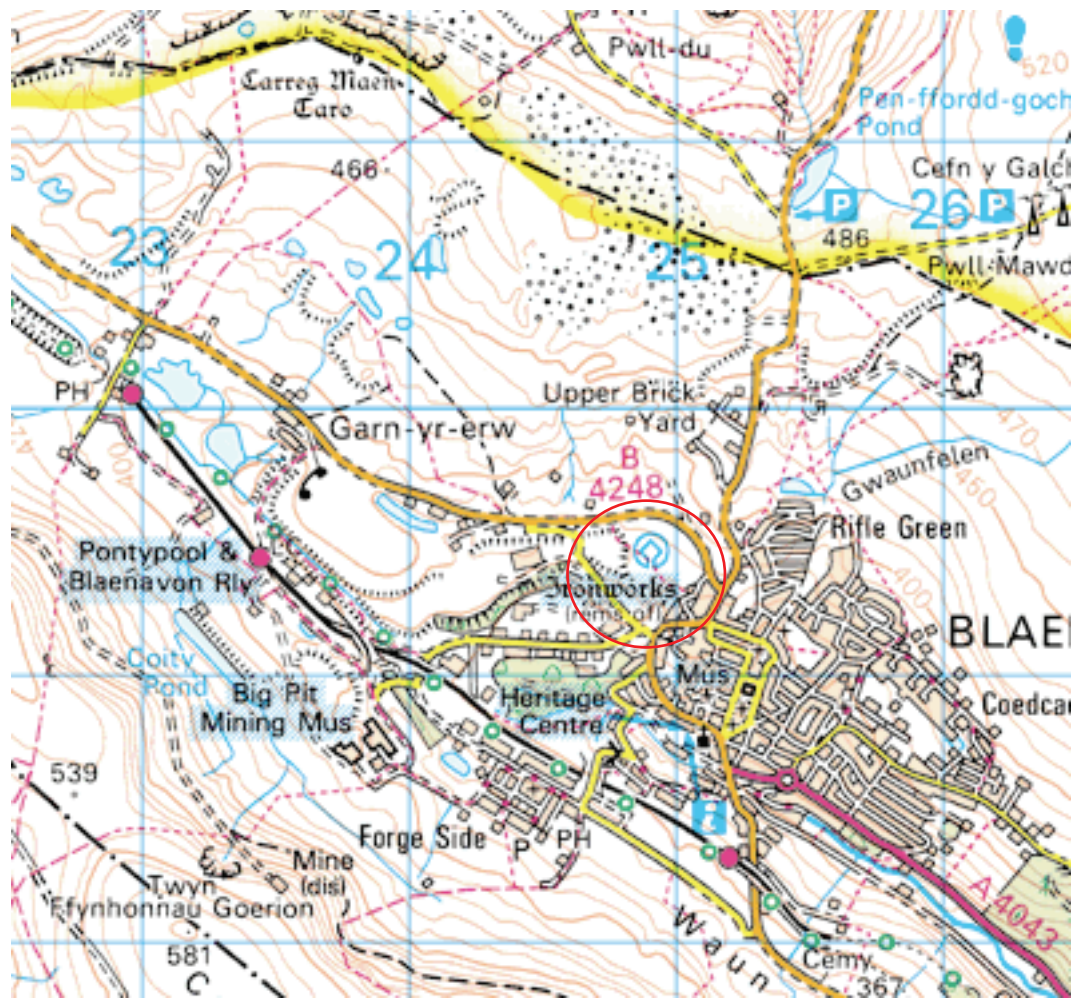


Fig. 1
Location of
site

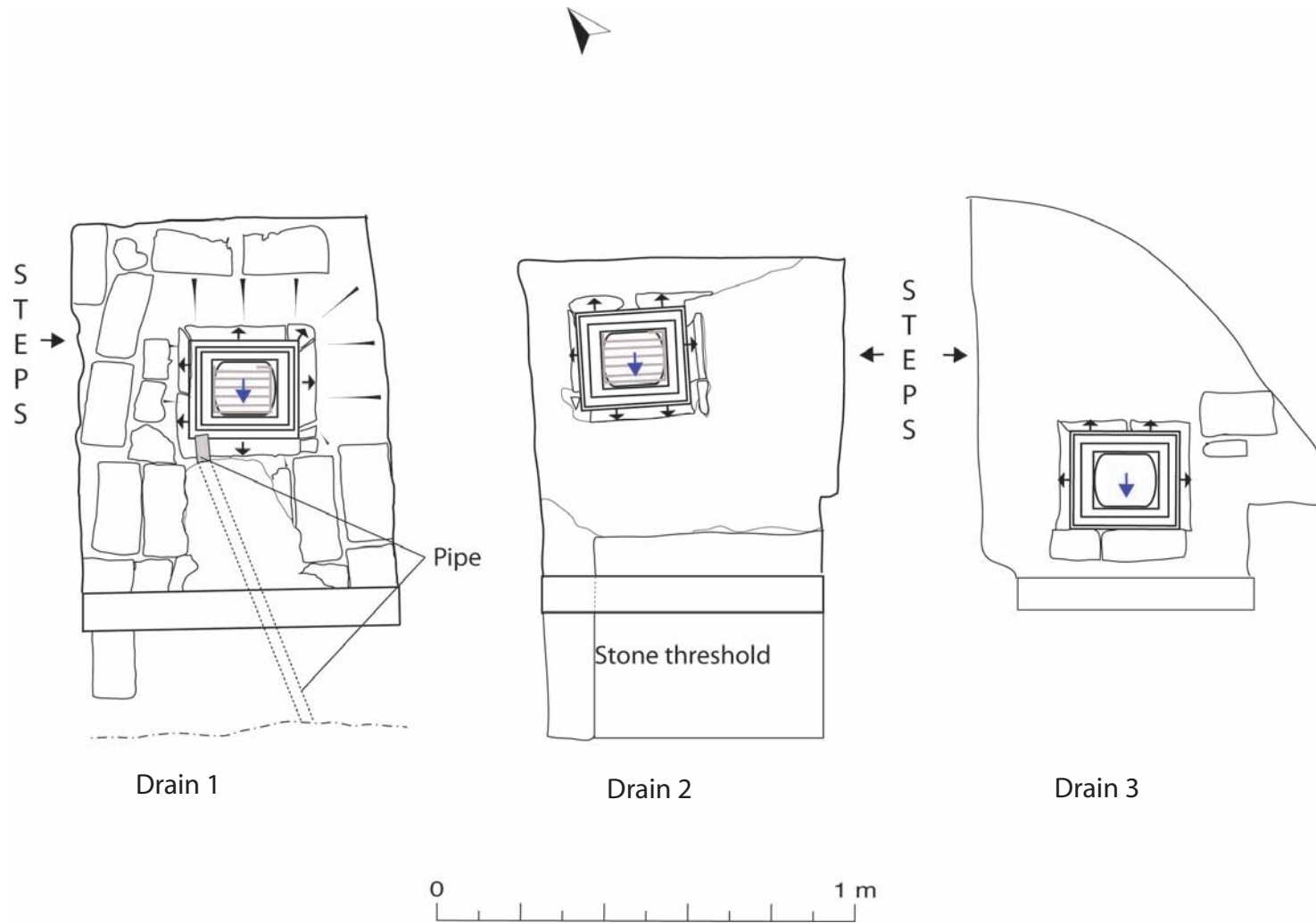


Fig. 2
Drains 1, 2 and 3
post excavation

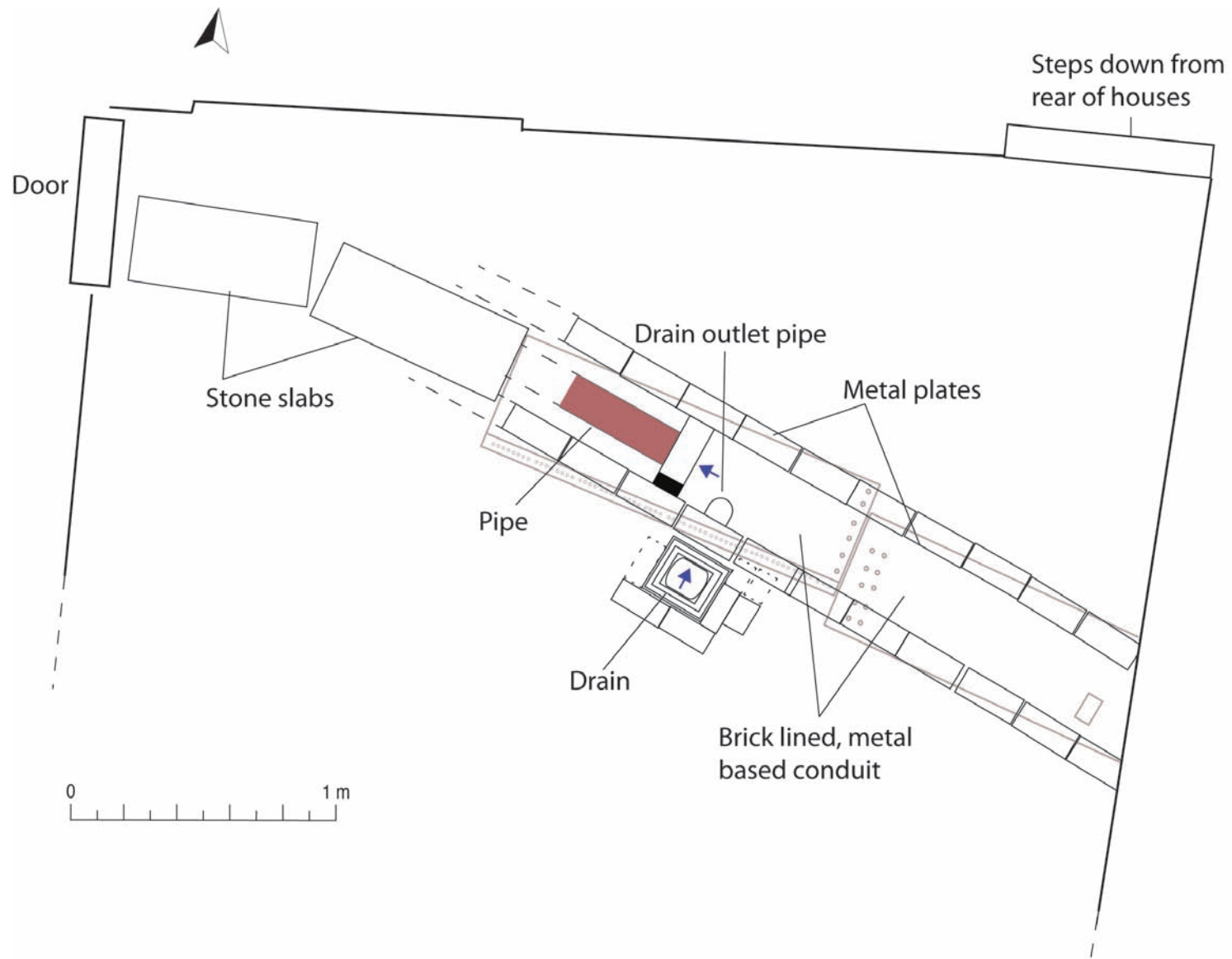


Fig. 3
 Drain 4 post
 excavation



Viewed from inside the adjacent house

Fig. 4
Drain 1



Drain 2



Drain 3

Fig. 5
Drains 2 and 3



Fig. 6
Drain 4

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