



# **The Dye House, Hallthwaites, Millom, Cumbria**

## **Supplemental Archaeological Watching Brief**



**Oxford Archaeology North**

September 2009

**Mr and Mrs P Metcalf**

Issue No: 2009-10/981

OA North Job No: L10134

NGR: SD 1820 8539

**Document Title:** THE DYE HOUSE, HALLTHWAITES, MILLOM, CUMBRIA  
**Document Type:** Supplemental Archaeological Watching Brief

**Client Name:** Mr and Mrs P Metcalf

**Issue Number:** 2009-10/981  
**OA Job Number:** L10134

**National Grid Reference:** SD 1820 8539

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## SUMMARY

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This report sets out the results of a third phase of investigative works at the Dye House, Hallthwaites, Millom, Cumbria (NGR SD 1820 8539), undertaken during repair and development works, on behalf of Mr and Mrs Metcalf. The previous phases of work were undertaken in 2005 and 2007, both by Oxford Archaeology North. This report presents the results of the watching brief undertaken in June 2009 and should be read in conjunction with the earlier building investigation and watching brief reports (OA North 2005 and 2007).

The watching brief monitored works within the northern extent of Room 7, previously inaccessible due to the presence of scaffolding. A series of sunken features thought to represent the remains of four hearths were observed, along with a flight of stone steps leading to an access passage. Two of the hearths appeared to originally have been conical in shape, and all four probably held dye vats.

No recommendations are made for further work during the current development works.

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## ACKNOWLEDGEMENTS

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Oxford Archaeology North (OA North) would like to express its thanks to Mr and Mrs Metcalf, the owners of the Dye House, for commissioning the project and personally supporting this additional phase of work.

Chris Wild carried out the watching brief and Karl Taylor compiled the report and illustrations. Alison Plummer managed the project and edited the report.

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## 1. INTRODUCTION

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### **1.1 CIRCUMSTANCES OF THE PROJECT**

- 1.1.1 This report sets out the results of a third phase of archaeological investigative works at the Dye House, Hallthwaites, Millom, Cumbria (NGR SD 1820 8539), undertaken during repair and development works, on behalf of Mr and Mrs Metcalf. This final phase concentrated on the recording of an area within Room 7, previously unrecorded due to the presence of scaffolding required for the consolidation works. The previous phases of work were undertaken in 2005 and 2007, both by Oxford Archaeology North, and as a result of specifications issued by the Cumbria County Council Historic Environment Service. No specification was issued for this final phase of work, which was undertaken at the request of Mr and Mrs Metcalf.
- 1.1.2 This report presents the results of the watching brief undertaken in June 2009 and should be read in conjunction with the earlier building investigation and watching brief reports (OA North 2005 and 2007).

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## 2. METHODOLOGY

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### 2.1 PROJECT BRIEF

- 2.1.1 No brief was issued for this final phase of the archaeological works; however, the watching brief methodology was consistent with the relevant standards and procedures of the Institute of Field Archaeologists (IFA) and generally accepted best practice.

### 2.2 WATCHING BRIEF

- 2.2.1 **Descriptive Record:** written records using OA North *pro-forma* record sheets were made of uncovered building elements, both internal and external, in addition to any features of historical, archaeological or architectural significance. Particular attention was paid to the relationship between building elements that could provide information relating to its development and the industrial processes undertaken within.
- 2.2.2 **Plans:** the plans were produced from both the previous phases of work and further instrument survey, using reflectorless EDM and manually drawn additions. Features of historical, structural and archaeological significance were annotated on to the drawings. An industry standard CAD package was used to produce the final drawings.
- 2.2.3 **Photographic Survey:** photographs were taken using 35mm back and white print film, as well as digital images using DSLR cameras. This part of the photographic archive comprises of detailed photographs of features of particular interest, which were obscured during the previous investigations.

### 2.3 ARCHIVE

- 2.3.1 The results of the archaeological watching brief will form the basis for a full archive to professional standards, in accordance with current English Heritage guidelines (*Management of Archaeological Projects*, 2<sup>nd</sup> edition, 1991). This archive, including a copy of the final report, will be provided in the English Heritage Centre for Archaeology format and a synthesis will be submitted to the Cumbria County Council Historic Environment Service (CCCHES), comprising the index to the archive and a copy of the final report. In this instance, the archive will be submitted to the County Record Office in Barrow-in-Furness.

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### 3. BACKGROUND

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#### 3.1 LOCATION, TOPOGRAPHY AND GEOLOGY

- 3.1.1 The Dye House (SD 1820 8539) is situated on the east side of the village of Hallthwaites, which is approximately 5km north of Millom, Cumbria. The site lies on a level adjacent to the Black Beck at approximately 40m OD.
- 3.1.2 The solid geology of the area comprises Palaeozoic undifferentiated andesitic lavas and tuffs. The drift deposits are predominately boulder clay (British Geological Survey 1979).
- 3.1.3 It forms part of a group of buildings relating to the woollen industry positioned throughout Hallthwaites, including a woollen mill and walk mill. These buildings are not in close proximity to each other, presumably because they have been positioned close to suitable water supplies.

#### 3.2 HISTORY OF THE DYE HOUSE

- 3.2.1 A detailed account of the history of the Dye House and Hallthwaites, is given in the report of the initial building investigation (OA North 2005). A short summary of the history of the Dye House will be outlined below.
- 3.2.2 Hallthwaites is an outlying hamlet of Millom in what was formerly south Cumberland. The earliest reference to Hallthwaites is from 1449, and it is thought that the name derives from the prefix 'hall' attached to the earlier (Norse) 'thwaites' meaning clearing (Armstrong *et al* 1950, 417). The area merits little mention although by the post-medieval period it was clearly becoming a local centre of industry with slate pencil making and a blacking mill being active in the area (Warriner 1932, 48), besides the woollen mill with its associated walk mill and Dye House.
- 3.2.3 Dye houses formed an integral part of the woollen industry, and it is clear that from an early date cloth was given a variety of colours. Sites at which woollen cloth was produced would tend to contain many of the necessary stages of processing in order to maintain efficiency, particularly by the nineteenth century (Satchell 1984, 56). This could include weaving and fulling mills, tenter frames and drying grounds and even areas where the dye was produced (*op cit*, 56-7).
- 3.2.4 Examples of Dye Houses in Cumbria are extremely scarce and where examples are known, these are often part of larger complexes or different branches of the textile industry, such as Langthwaite Cotton Mill at Carlisle (Mawson 1976). Early records are known elsewhere in the country; in East Anglia, for example, there are numerous references to Dye Houses (known as 'Woadhouses') in the sixteenth century, many of which may have been housed in shops that formed part of larger domestic dwellings (Alston 2004, 39).



- 3.2.5 Records of a complex at Beckfoot, also in Millom parish, in 1771 refer to it as comprising ‘*All that mess and tenement or dwelling house, called the old house the new cowhouse, and loft over it the peathouse, Dyehouse, fulling mill, Indigo mill and carding mill, and the two lower pairs of Tenters*’ (BD HJ/Precedent Book 1/p20-22 1771), perhaps suggesting that blue or green cloths were produced. A second Dye House was apparently also to be built at the end of the existing Dye House ‘*on or before Christmas the next*’ (*ibid*). This potentially shows that a complex of buildings, such as that at Hallthwaites, could easily have its origins in the eighteenth century.
- 3.2.6 The origins of the Dye House at Hallthwaites are obscure, but it is evident that it was part of a complex of buildings making and finishing woollen cloth. Dyeing associated with blanket manufacture was possibly carried out at Hallthwaites from at least 1829. There are a few specific references to the buildings making up the complex, such as one which states that between the 5<sup>th</sup> and 6<sup>th</sup> of December 1879 the cold weather stopped the walk mill wheel from turning (DH 322/2).
- 3.2.7 During the late nineteenth century at least, the Dye House was evidently operated by a small number of people, probably only a single family, with Mr John Moore doing much of the work, including maintenance, deliveries and collecting bills, himself. The business evidently supplied a large area, however, as mention is made of trips as far north as Whitehaven, as far south as Barrow-in-Furness and Ulverston, all along the Cumberland coast, and even east into Yorkshire.
- 3.2.8 The complex, including the Dye House, is known to have ceased production in 1935, with many of the original fittings still intact (Marshall and Davies-Shiel 1971, 16). Many of the buildings within the complex were subsequently used by a poultry farmer (*ibid*), who appears to have purchased much of the estate, including the Dye House in 1939 (BD/HJ/131/16/6 1939; BD/HJ/131/16/7 1939). Even at this date the Dye House came with its own tenter ground and the right to erect tenter frames upon it (BD/HJ/131/16/7 1939).

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## 4. WATCHING BRIEF RESULTS

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### 4.1 INTRODUCTION

- 4.1.1 The watching brief monitored works within the northern extent of Room 7 (Fig 3), which were previously inaccessible due to the presence of scaffolding (Plate 1).
- 4.1.2 Following removal of the scaffolding, this area was excavated and recorded. Manual cleaning revealed a series of sunken features, four of which appeared to be hearths (Plate 3).

### 4.2 RESULTS

- 4.2.1 **Hearth (01)**: this is located in the north-east corner of Room 7, and comprises a 1ft (0.3m) wide x 2ft (0.6m) deep rectangular-shaped hearth, with a brick and stone-lined angled flue (Plate 4). The bricks are handmade and the mortar is lime-based. The hearth cheeks survive to a height of approximately 2ft (0.6m) and similar bricks as those lining the flue are visible. There is a slate cap to the flue, which was presumably inserted as a cover. There is some damage to the north side of the flue, probably caused by scaffolding (from an earlier repair to the adjacent wall). The base of the hearth is approximately 3ft (1m) below the floor level of Room 7.
- 4.2.2 **Hearth (02)**: this is a second, larger hearth, lying adjacent to hearth **01** (Plate 5; Fig 3). It measures 2ft (0.6m) wide and is approximately 3ft (0.9m) deep at the base, which is approximately 4ft (1.2m) below the current floor level of Room 7. It is of stone and brick construction with a brick-lined round head, which is conical in plan, suggesting that it was used to hold a circular dye vat.
- 4.2.3 **Hearth (03)**: this is almost identical to hearth **02** but would appear to have been altered in shape by narrowing the width to approximately 1ft (0.3m) through the use of a stone and brick infill. The resulting reduced size and shape is very similar to hearth **04** (*Section 4.2.4, below*).
- 4.2.4 **Hearth (04)**: this hearth is approximately 1ft (0.3m) wide and 3ft (0.9m) deep. It is stone-built and has an almost vertical back wall with a rough cobble base (Plate 6). There is a 1ft (0.3m) wide bench on the west side, the top of which is 2ft 3ins (0.7m) below the floor surface of Room 7, and up to 1ft 6ins (0.5m) above the base level. Above 2ft 3ins (0.7m), the back of the hearth has a sloping floor of edge-set handmade bricks, with a single-skin re-facing brick wall around the sides. There is green staining on the hearth, probably relating to dye or copper from the dye vats.
- 4.2.5 **Stone Steps (05)**: a series of stone steps (Plate 7) lead down into the access passage (**07**) (*Section 4.2.7, below*). These are constructed from flagstones of similar appearance to the main floor of Room 7. Access to Room 5 is provided via a small step down at the top of these steps, from the floor level in Room 7, as observed during the watching brief of 2007 (OA North 2007).

- 4.2.6 **Floor (06)**: the partial remains of a flagged floor were observed at the base of the stone steps (05). The flagged floor did not extend along the full length of the access passage.
- 4.2.7 **Access Passage (07)**: the access passage was located at the base of the stone steps (05) and along the line of the north wall of Room 7 (Fig 3; Plate 3). For the most part, the floor of the passage comprised cobbles laid in a silty, compacted matrix. The relationship between the cobbles and the flags (06) at the base of the steps (05) is unclear. It is likely that the hearths were fuelled and maintained from this passage.
- 4.2.8 **Drain (08)**: remnants of flagstones were observed beneath the extant flagged floor of Room 7. These were seen to contain a 4-inch (0.1m) wide drainage channel, lined with a single skin of handmade brick.
- 4.2.9 **Hearth (09)**: a blocked aperture in the north wall of Room 7 possibly represents a further, but much smaller hearth (Plates 2 and 8). It measures 2ft 8ins (0.8m) wide x 4ft 4ins (1.3m) high. This corresponds with a similar-shaped aperture in Room 5. Its specific function within the wall remains unclear.
- 4.2.10 **Floor (10)**: this comprises a 10ft (3m) by 9ft (2.7m) external flagged floor, located to the north-west of Room 7 (Plate 9). There is a drain along the southern side, and it is bounded to the west side by cobbles.

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## 5. DISCUSSION

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### 5.1 DISCUSSION

- 5.1.1 Following the watching brief in 2007 (OA North 2007), the nature of the area at the base of the north wall of Room 7 remained unknown. This section of the wall was seen to contain three flues (Plate 2). During this final phase of investigation several features relating to the dyeing process were revealed, a number of which appear to be hearths.
- 5.1.2 Of the four hearths (**01** to **04**), three (**02** to **04**) appear to be served by flues visible in the north wall of Room 7 (Plate 2). A hood or canopy may have channelled the smoke and fumes through the flue openings, although no evidence for such remains. All of the hearths appear to have undergone some modification and alteration.
- 5.1.3 Two of the hearths (**02** and **03**) appear to originally have been conical in shape, and probably held large dye vats. The remaining hearths (**01** and **04**) may have housed square tanks or other such smaller containers. A set of flagstone steps allowed entry into the access passage from which the hearths were fuelled and maintained. This also appears to have undergone some modification and repair.
- 5.1.4 The results of the watching brief have provided a brief insight into the function of Room 7 and the actual dyeing process undertaken on site. The results cannot, however, provide any further information into the original date of construction of the Dye House itself, which remains obscure, although is tentatively dated to 1829. Evidence for repair and alteration to the hearths and the floor of Room 7 itself, would certainly suggest an extended period of use, which has been shown to have ended in 1935.
- 5.1.5 The watching brief was carried out during the final phase of restoration work at the Dye House and, therefore, it is unlikely that there will be any further opportunity to investigate the building at this stage. Should further development take place at the property then every opportunity should be taken to further our knowledge of this complex structure.

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## 7. ILLUSTRATIONS

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Figure 3: Plan of Watching Brief area in Room 7

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Plate 2: Area below scaffolding in Room 7 following removal of scaffolding and excavation

Plate 3: General view of the excavated area illustrating the series of sunken hearths

Plate 4: The easternmost of the hearths **(01)**

Plate 5: Hearth **(02)**

Plate 6: Hearth **(04)**

Plate 7: Stone steps **(05)**, providing access to the hearths

Plate 8: Blocked hearth **(09)**, in the north wall of Room 7

Plate 9: External flagged floor **(10)**



Figure 1: Site Location



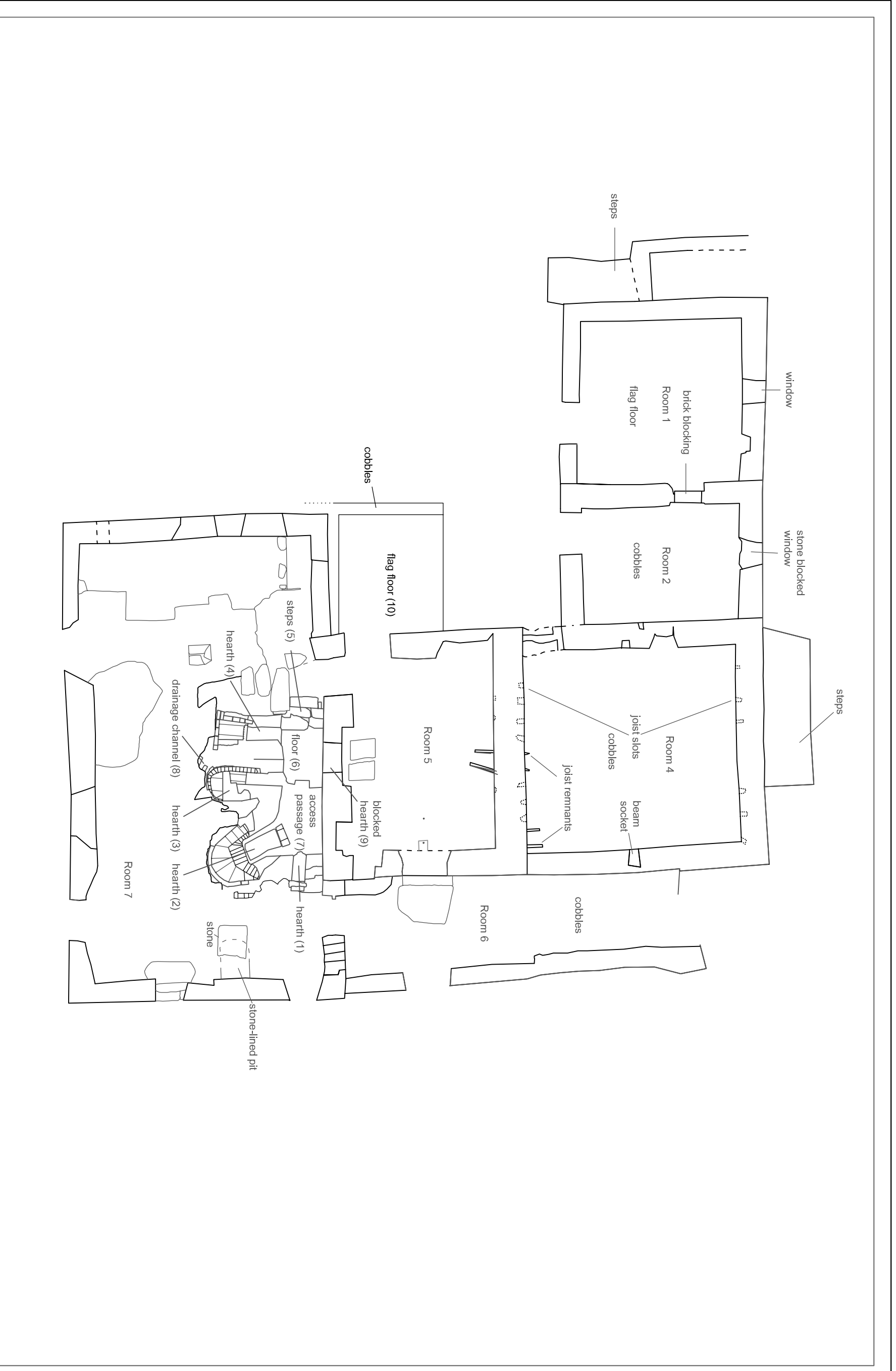
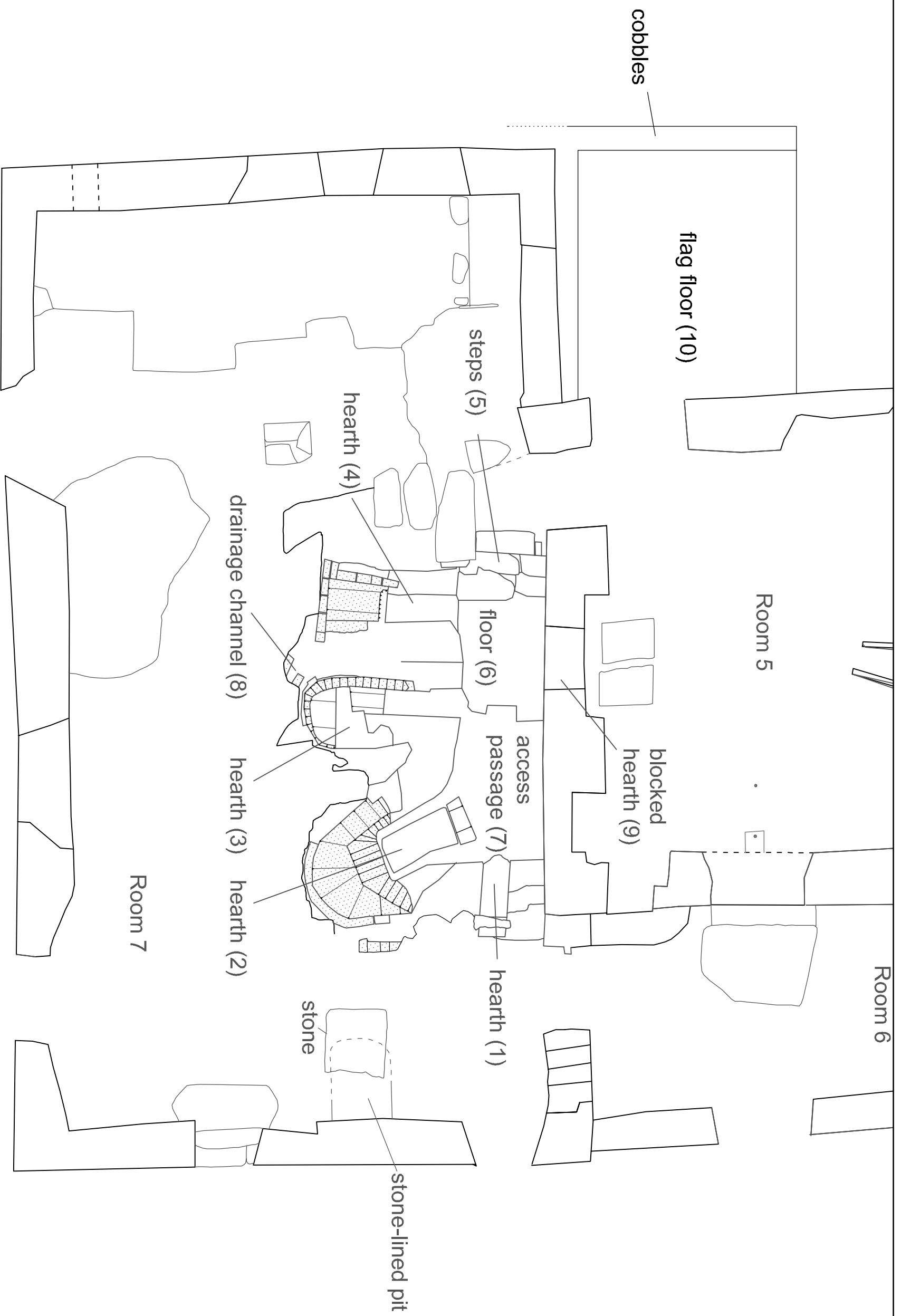


Figure 2: Ground floor plan

0 2.5m  
Scale 1:100 @ A3





Brick

0 1 m  
1:50 @ A3

Figure 3: Plan of Watching Brief area in Room 7



Plate 1: Area below scaffolding in Room 7 prior to excavation in 2007



Plate 2: Area below scaffolding in Room 7 following removal of scaffolding and excavation





Plate 3: General view of the excavated area illustrating the series of sunken hearths



Plate 4: The easternmost of the hearths (01)



Plate 5: Hearth (02)





Plate 6: Hearth (04)



Plate 7: Stone steps (05) providing access to the hearths



Plate 8: Blocked hearth (09) in the north wall of Room 7



Plate 9: External flagged floor (10)