

THE VAULTED BUILDING AT CASTLE HEATON

CORNHILL-ON-TWEED, NORTHUMBERLAND

ARCHAEOLOGICAL MONITORING
DURING GROUNDWORK FOR
INSTALLATION OF BUTTRESSES

July 2015



Prepared for Countryside Consultants Architects, Alston by:

Alan Williams Archaeology
53 Derwentdale Gardens, High Heaton
Newcastle upon Tyne, NE7 7QN
Email: awarchaeology@btinternet.com
Tel: 0191 218 9838

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OASIS ID - alanwill1-219353

SUMMARY

Remedial works were carried out in 2015 on the unstable east wall of a grade II listed building at Castle Heaton Farm, Cornhill-on-Tweed, Northumberland as part of a Higher-Level Stewardship Agreement between Natural England and Penmar Farming Ltd. Works included the excavation of trenches to take foundations for two new buttresses against the east face of the wall. During excavation of the northern foundation (Trench A) the below-ground remains of an existing buttress were revealed. The following report describes the remains of the buttress, other archaeological deposits and features within the trench, and notes a relatively late feature seen in Trench B, towards the south end of the wall.*

Monitoring works also provided limited information on the historic context of the building: Inspection of the exposed foundation of the east wall in Trench A showed the re-use of a number of worked building stones, two with mouldings; and one sherd of medieval pottery was recovered from below the foundation of the east wall.

1. BACKGROUND

1.1 This Report

This report describes archaeological remains uncovered during groundworks for the installation of new buttresses on the eastern face of a vaulted building (see figures 1 and 2) at Castle Heaton Farm, Cornhill-on-Tweed, Northumberland (NT 90113 41916) carried out as part of a Higher-Level Stewardship Agreement between Natural England and Penmar Farming Ltd.

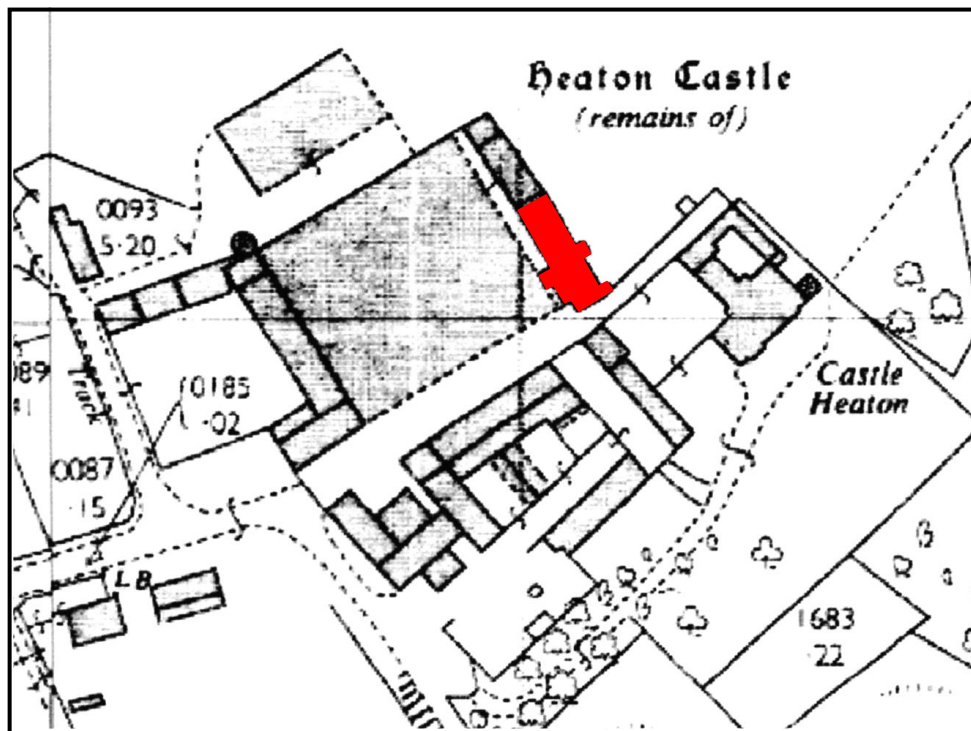


Figure 1: Castle Heaton Farm on the 1964 25 inches to one mile Ordnance Survey. The vaulted building is shown in red. North to top.

1.2 The Vaulted Building

The grade II* listed building, currently on the Historic England 'At Risk' Register is an isolated structure, parts of the fabric of which may be of late-medieval date, standing adjacent to later farm ranges. It is a long, tunnel-vaulted, two storey range, about 75 feet (26.9m) long by 25 feet (7.2m) wide and running NNW by SSE. Construction is of squared and random sandstone rubble with a double-pitched roof covered with Welsh slate. There is a number of protrusions and projections from the long side walls: Stone steps on the west side of the building access a first-floor doorway. A door set beneath the steps is stylistically of later 16th or 17th century in date. North of the steps is a solid, square projection with a chamfered

plinth which steps back but continues northwards with the same plinth course. This section contains a window with a steeply-sloping sill. This portion of the building may have formed a part of the south-western curtain wall of the castle and the stump of an interval tower (EH 2014, 15). Projecting from the east wall are two buttresses with offsets and two blocked loops between. The first floor wall on the east side is rebuilt as is just about the entire south gable. Internally, the ground floor comprises one long barrel or tunnel-vault which springs from three-feet above the floor surface. Walls are generally around three-feet six inches thick. The first floor is lit by 19th century lights in older masonry.

Stylistically, the vaulted building is comparable with a number of bastle-type buildings in the Tweed area including Akeld Bastle and Pressen Bastle at Carham dating to around 1600 (Pevsner 1992, 125, 213, 587). Both are also long buildings with high, rounded tunnel vaults. As mentioned, the medieval component at Castle Heaton is not quantified but may be a part of the curtain wall shown in the 16th century sketch.

1.3 Archaeological Potential

Four test-pits (shown in red on figure 2) were excavated in 2014 along the eastern wall of the vaulted building to inform the engineering strategy for remedial works to prevent movement of the unstable wall. The pits also provided information on the survival of archaeological remains (AWA 2014). These included the truncated remnants of a stone foundation towards the north end of the building in Test Pit 1, and soil deposits towards the centre of the building in Test Pit 2. Test Pits 3 and 4 indicated that no significant deposits had built up towards the south end of the face.

1.4 Remedial and Consolidation Works

Based on the site investigations, the agreed solution to the structural problems of the building was to install two new buttresses against the east wall and for existing buttresses to be underpinned; works to be carried out as per a management plan prepared by Countryside Consultants Architects. Archaeological input was limited to retention of an archaeologist to monitor works if required.

2. FOUNDATION TRENCH A

Construction of the new northern buttress (figure 2 for location), involved the initial excavation of Foundation Trench A, nominally 2m square, into which a concrete slab set on piles would be inserted, and from which the masonry superstructure of the new buttress would be constructed.

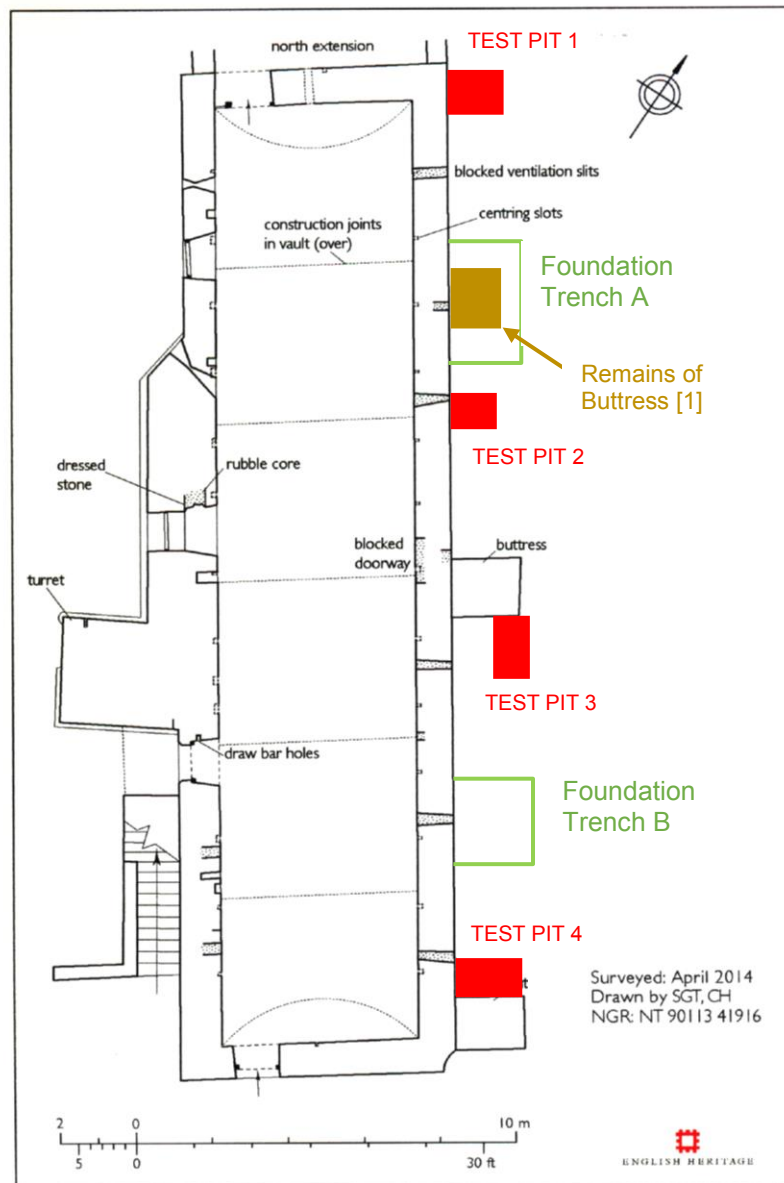


Figure 2: Location of Foundation Trenches A and B (outlined in green) for the installation of new buttresses against the unstable east wall of the building, and the remains of an earlier butress in Foundation Trench A. Previous Test Pits are in red. Plan with thanks to English Heritage (2014). Not to scale in this figure.

Excavation of the foundation by Heritage Consolidation Ltd (conservation builders for the project) revealed a stone structure immediately below the present ground surface. In order to establish the nature of this structure, the trench was extended by c0.8m to north and south. Investigation by the retained archaeologist, Alan Williams Archaeology (AWA) showed that the remains formed the first and (partial) second foundation-courses of a butress in just about the same location chosen for the new structure.

2.1 Remains of Buttress [1]

Figure 3 and plates 1 to 3 show the exposed remains of the buttress located 5.5m from the north end of the building. The foundation butted wall [2] but was not bonded to it. It extended 1.6m along the face of the building and projected 1.3m from it, surviving to a maximum depth of 0.5m below ground surface. The maximum surviving depth of the structure was 0.45m. It sat over a thin layer of dense clay-loam [3] above clay subsoil. The lowest course of the buttress was of large, fairly regular and thin blocks of sandstone with only little core. The partially surviving second course was of large facing stones to the south with a considerable core. It is likely that the east face of the buttress had been lost. Both courses were bonded with a pale whitish-cream mortar.

2.2 Stratigraphy within the Foundation Trench

Stratigraphy varied across the trench. Deposits seen at the south end are shown on figure 4. Here, what may have been an early developed soil [6] was cut away to the west by a negative feature - a shallow pit or hollow – [7] with a broad bowl-shaped profile, filled with a fine silty-clay loam [8], becoming increasingly compacted and tenacious towards the base. Both cut and fill pre-dated the east wall of the east wall [2] of the vaulted building and ran below the structure: A sherd of oxidised pottery with an external green spatter-glaze, probably of thirteenth-century date, was recovered from below the foundation (see figure 3 for location). There was no evidence for feature [7] in Test Pit 2, excavated in 2014, although a thin clay loam (Layer [2F]) did run beneath the east wall of the building.

Subsequent to the construction of the vaulted building, a series of irregular features ([9], [10] and [11]) filled with amorphous and loose sandy and gritty loam and stones had built up across the area. Modern topsoil [5] overlay these features.

Northwards in the trench to the south face of buttress [1], feature [7] had gone, with just a thin layer of dirty, clay loam [3] extending beneath the buttress and overlying clay subsoil. The north section of the foundation trench showed limited stratigraphy, with a number of probably modern sandstone slabs set below topsoil [5] and directly over clay subsoil.

2.3 Removal of Buttress

It was decided to incorporate the remains of the early buttress into the new structure. This entailed the temporary removal and re-installation of the feature. Following recording of the buttress and associated deposits, each stone of the buttress was numbered (see plate 8) and removed by the conservation builders. Once the piles and concrete slab for the new

buttress were installed in the trench, the stones were replaced in the same location and at the same height.

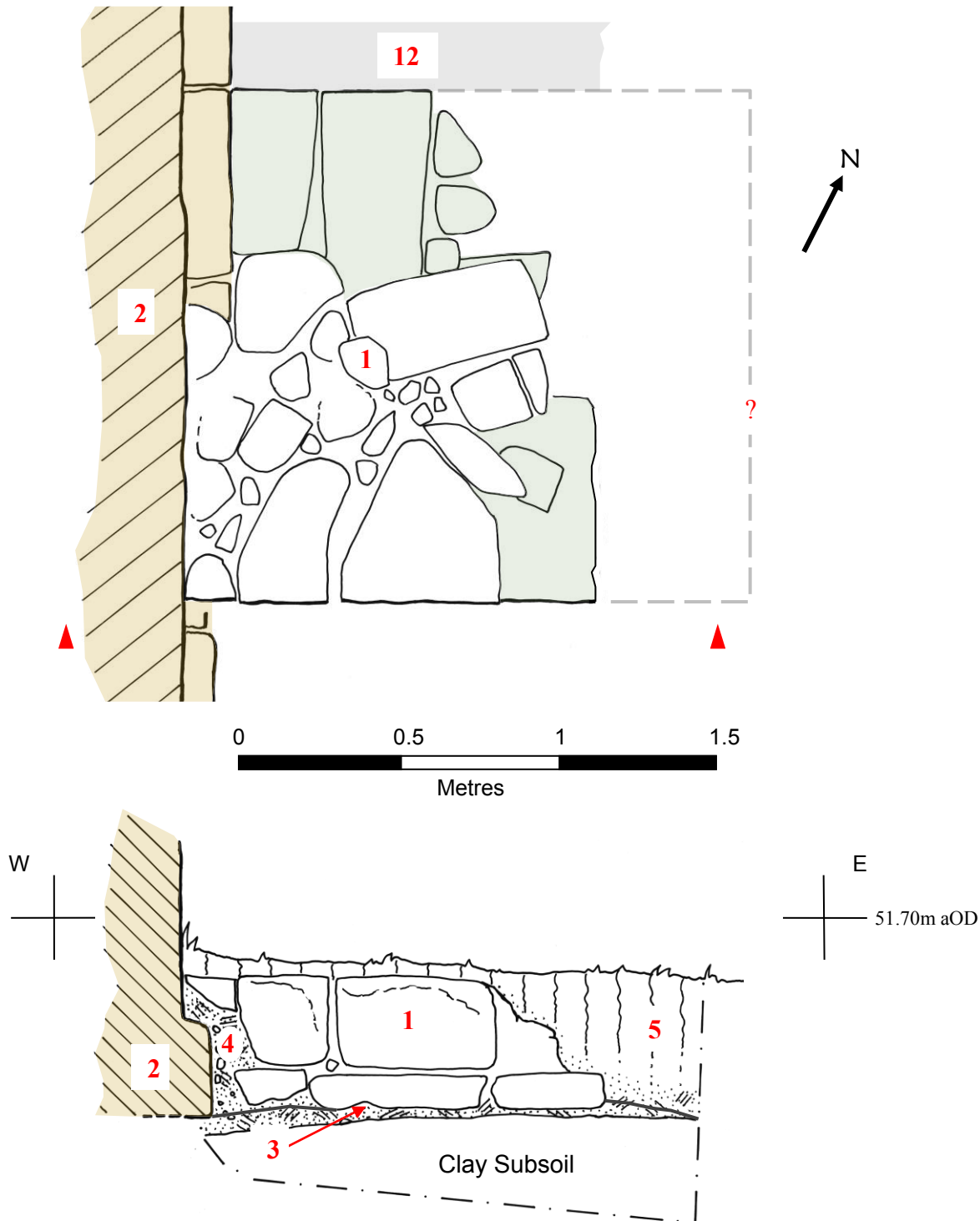


Figure 3: Plan (top) and south elevation of the remains of an buttress [1] in Foundation Trench A. Pale green tone indicates the lower course on the plan. 1: 40 scale.

2.4 Foundation of the Vaulted Building

Removal of the buttress exposed a length of the foundation offset course of the vaulted building (Figure 4 and plate 7). The stones were irregular and a number re-used. Two of the stones (A and B on figure 4 and plate 8) were moulded. Stone A, a simple ogee; stone B, a square section. At some point, a drainage channel [12] had been cut through the wall, running out along the north face of the buttress.

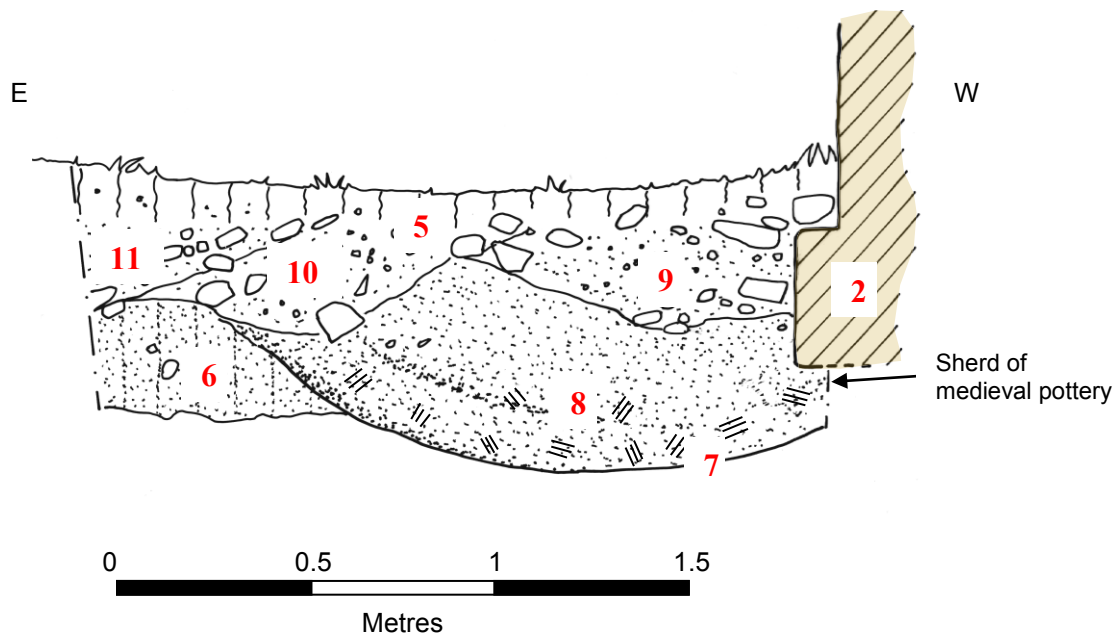


Figure 4: East-west section forming the south face of Foundation Trench A. 1: 40 scale. AOD as per figure 3.

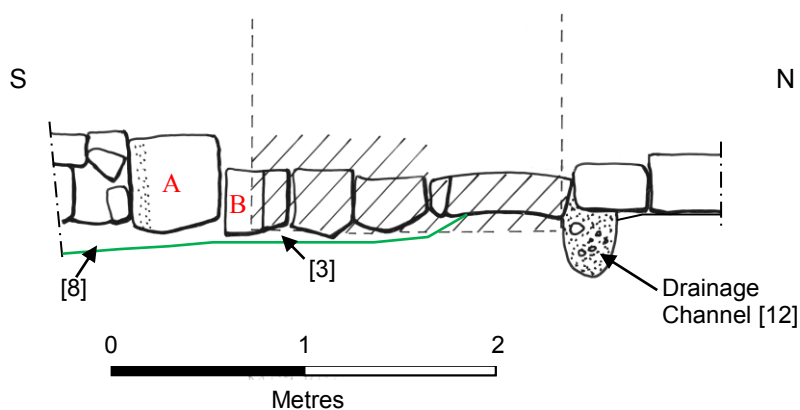


Figure 5: Offset course of the east wall of the vaulted building exposed in Foundation Trench A. Hatching marks the location of the early buttress. All the stones are irregular and a number re-used. A and B have mouldings. The green line indicates the extent of deposits [3] and [8]. 1: 80 scale. AOD as per figure 3.

3. FOUNDATION TRENCH B

The excavation of this trench, for a second new buttress (see figure 2) was not monitored archaeologically, given the indication from previous test pitting that archaeological deposits had not survived in this area. However, the trench was inspected during recording of Foundation Trench A. Although no deposits other than topsoil had accumulated over subsoil, north and south sections showed the profile of a substantial negative feature [13] (plates 9 and 10). This was filled with amorphous and loose deposits, including some brick fragments, suggesting that it had been excavated in fairly recent times. The context of the feature is not known.

4. CONCLUSIONS

4.1 Date of the Vaulted Building

A useful result of the archaeological monitoring has been further demonstration that the vaulted building is likely to be of post-medieval date. Evidence (albeit limited) includes the fragment of medieval pottery located in a deposit pre-dating the building, and re-used stones in the foundation of the east wall, including two moulded pieces.

4.2 Historic Context of Buttress [1]

This buttress was not an integral feature of the building, added at some point to stabilise the east wall. Its construction, and mortar, are similar to the two standing buttresses to the south. It is also of a similar width to the two standing buttresses, although less deep. This lack of depth is probably due to the loss of its east face. The truncated structure [1B] projecting from the north end of the east face of the building seen in Test Pit 1 (AWA 2014), was quite different to the standing or fragmentary buttresses formed of small stones and with a brown mortar. It was also possibly earlier than the building, although this is by no means certain. If a buttress, it was of a different nature to others on the face.

5. BIBLIOGRAPHY

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6. PLATES



Plate 1: *Remains of buttress as exposed in Foundation Trench A.
Looking west. 2m scale.*



Plate 2: *The buttress. Looking south.*



Plate 3: Looking north at the south face of the buttress. 1m scale.



Plate 4: The south section of Foundation Trench A (see figure 4)



Plate 5: Most of the upper course of the buttress removed. Looking south-west.



Plate 6: Stones numbered for removal.



Plate 7: *The offset foundation course of the vaulted building exposed in Trench A following removal of the buttress (see figure 5). A and B mark re-used stones with mouldings.*



Plate 8: *Re-used stones A (left) with a simple ogee moulding and B (right) with square moulding.*



Plate 9: South section of Foundation Trench B showing feature [13] below concrete. Its fill was amorphous clay loam soil with some stone; probably a modern feature



Plate 10: The north section of Foundation Trench B showing feature [13] with banded fill including a central area of sandy clay. The fill was loose and amorphous and probably fairly modern.

APPENDIX 1: CONTEXT DESCRIPTIONS

- 1. Structure** Remains of sandstone buttress set against the east wall of vaulted building. 1.3m east-west (truncated to east) by 1.6m north-south. Maximum surviving depth 0.45m. Complete base course and partial second course survived when investigated in July 2015.
- 2. Structure** East wall of Vaulted Building. Sandstone rubble with an irregular foundation 'plinth' course with much re-used stone.
- 3. Layer** Thin band of very compacted and tenacious dark grey-brown silty-clay beneath south part of buttress [1]. Probably = [8].
- 4. Layer** Dark grey-brown clay-loam with some small stone packed between buttress [1] and east wall [2].
- 5. Layer** Dark brown sandy-loam topsoil.
- 6. Layer** Medium purple-grey brown silty clay-loam. Relict developed topsoil?
- 7. Cut** Feature with broad, bowl-shaped profile seen in south section of Foundation Trench A.
- 8. Fill** of [7]. Dark grey-brown silty-clay loam. Becoming clayier and more compacted to base.
- 9. Cut/Fill** Dark grey brown sandy loam and grit with numerous small stones and some pantile and brick fragments.
- 10. Cut/Fill** Dark grey brown sandy loam and grit with numerous small stones and some pantile and brick fragments
- 11. Cut/Fill** Dark grey brown sandy loam and grit with numerous small stones and some pantile and brick fragments.
- 12. Cut/Fill** Drainage channel running through wall [2] of vaulted building. Fill of amorphous sandy and gritty loam with some small stones.
- 13. Cut/Fill** Modern cut feature seen in north and south sections of Foundation Trench B. Fills were very amorphous clay loams and stone with a band of sandy clay in the north section.