Exeter City Wall, Fabric Recording
No's 42-49 Northernhay Street
Exeter, 1992

EXETER CITY WALL
FABRIC RECORDING AT
NO'S 42-49 NORTHERNHAY STREET,
EXETER, 1992

by

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INTRODUCTION

In November 1992 scaffolding was erected on the outside face of the city wall in Northernhay Street for the removal of ivy growth, other vegetation, and the selective repointing and general maintenance of the masonry. The work was initiated by Exeter City Council as part of its programme of routine maintenance of the wall. The section concerned, in the rear gardens of Nos 42-49 Northernhay Street (numbers 43 and 47 are missing), was heavily obscured by ancient ivy growth. When a survey of the fabric of the wall was carried out in 1991 many details of the masonry, especially at key positions where structural breaks occurred, were obscured by the density of vegetation.

The opportunity of access to this area was used by members of Exeter Museums Archaeological Field Unit to make a record of the wall in an outline drawing, supplemented by some more detailed recording work. The prime item of interest in the section is the central build, here numbered 505, which has long been known to contain two musket loops (Burrow 1977, 19) and which also contains a possible datestone, probably of 17th-century date. Research in 1991 suggested that this section dated to 1643-4 and could be equated with a payment of £23.8s.9d recorded by the Receiver in that year for repairs to a decayed wall in Northernhay, including a datestone (Blaylock 1991, 21). The opportunity to examine this build more closely was welcome, as was that of examining the adjacent sections of wall, to establish a structural sequence, and to date the various different builds of facework.

The area available for examination stretched from the boundary of 42 Northernhay Street with the former Easton's Granite Yard in the north-east to a point south-west of the boundary of 48/49 Northernhay Street to the south-west, some 40m in all. The north-east boundary coincided with the south-west limit of a previous EMAFU recording exercise of the wall in Easton's Granite Yard, prior to repair in 1979. Resources did not permit the recording of the whole accessible area as a stone-for-stone elevation. This was drawn at 1:50, in an outline style which delineates breaks in build and the major features in the masonry. A stone-for-stone elevation, at 1:20, was made of a part of the 17th-century build, spanning the two gun loops, the possible datestone, and showing a specimen of the distinctive masonry style (below). This was supplemented with a plan and section of the wall parapet to show details of the loops, and a further small stone-for-stone elevation of the interior elevation, where only 3.5m of contemporary facework has survived later alterations. The drawing work was supplemented by some photography (although general shots were hampered by the presence of scaffolding and detailed shots limited to oblique angles, Pl. 2) and by notes on the geology and composition of mortars. This was accomplished between 10th and 13th November 1992.

DESCRIPTION

From the boundary of the Granite Yard and 42 Northernhay Street (marked by a sloping buttress, 500) a stretch of 39m of facework was recorded. Four main facework builds were seen: 503 (6.5m), 504 (10.5m), 505 (19m) and 516 (3m), with a variety of later parapet builds above: 501, 502, 506, 511, etc. (all numbers of this description refer to those marked on the outline elevation, Fig. 1). The south-westernmost build (516) continues for a further 18m or so beyond the limit of this recording exercise (Blaylock 1991, 22). In this description the main builds will be described first, then the later parapet builds.

Main facework builds

(i) *503, 6.5m.* Irregularly-coursed blocks of volcanic stone, fairly uniform in colour and texture: all purple or purple/grey and vesicular texture. The blocks appear roughly squared but this could be the result of weathering, especially if they are re-used (below). The courses are laid sloping with the gradient of the natural ground (towards the North Gate) and are not continuous throughout the build, i.e. the depth of the courses varies. The mortar is cream, lime mortar with frequent grit tempering. There is a frequent occurrence of two stylistic traits in the masonry, first: the use of deeper-than-usual blocks which span two courses of regular blocks; second: the cutting of blocks into the corners of adjacent blocks where discontinuous courses meet. The uniformity of colour, size and texture all suggest that the stone here is derived from the Roman wall, but the overall style of the masonry, plus the two traits just described, suggest that it is not *in situ*, i.e. that the facework is a later rebuilding employing materials from the

Roman wall face, without the introduction of materials contemporary with the rebuilding. Rebuilding of this type is always difficult to date, but here the relationships with adjacent builds contribute: the buttress (500) to the north-east is cut into the fabric of 503, and the breccia facework to the south-west (504) also abuts it. Flanked by later builds (late medieval and post-medieval respectively), this section is probably medieval; possibly quite early in view of the absence of additional, introduced, materials. No plinth was seen, but the ground is built up to a high level here and it could be buried. This section was very badly overgrown with ivy prior to 1992: the roots had penetrated deeply into the joints and removed much of the mortar; the worst of the empty joints were filled in November 1992 with new pointing.

(ii) *504, 10.5m.* Large blocks of breccia (Heavitree stone) laid in sloping courses with the natural gradient. Occasional use of volcanic stone to make up courses, or, with two or more blocks, to fill the height of a breccia course. Small rubble is also used to pack out joints and to level individual blocks with courses. The mortar is a cream or pale brown lime mortar with moderate grit inclusions. Some very large breccia blocks appear in this facework, up to 900 x 450mm; occasionally a block is joint-bedded. The stone is rather better-preserved than that of 505 to the south-west (q.v.).

This build abuts the medieval build 503 to the north-east and appears to be abutted by 505 to the south-west: several blocks of 505 are built over courses of 503. In some ways this work is very similar to 505, but several differences suggest that, although possibly close in date, it is of a separate construction: the courses are laid with the gradient rather than horizontally; volcanic stone in odd blocks within the breccia is used only occasionally (whereas it is habitual in 505); the courses of the two builds do not match; there is no Permian sandstone in this build (cf. 505 below). Nonetheless the build is post-medieval, and could be close in date to 505: perhaps early to mid 17th century.

A row of beam or joist sockets cut into the facework near to present ground level in the garden of No. 45 may represent the roof or a floor of a building against the wall.

(iii) *505, 19m.* This build begins just within the boundary of 45 Northernhay Street. The new material used here was breccia but it was mixed with an appreciable quantity of volcanic blocks (presumably derived from an earlier build on the site) in a very distinctive way. Large breccia blocks again form the predominant material; they are well squared, in horizontal courses within which the breccia blocks alternate with volcanic blocks, or groups of blocks usually. Thus a chequered effect is given to the masonry (Pl. 1b). There are some small stones, slate and an occasional Roman tile fragment, to level the joints. Much of this build was thoroughly repointed some 15 years ago, so it is difficult to see specimens of primary mortar: in small areas white or cream lime mortar with moderate grit is seen. The masonry is in good condition, but many of the breccia blocks are heavily weathered. Where this has happened the volcanic stones, which are generally much less prone to weathering, indicate the original plane of the wall face and show that up to 100mm has been lost through weathering.

Towards the base of the wall successive later structures built onto or against the wall face have protected the masonry from weathering, and here the chequerboard effect is less marked, as the breccia and volcanic stone tend to survive in the same plane (and are coated with remnants of limewash etc). The latest of these structures, the base of a breeze-block wall, is still in position and continues to protect the base of the wall (Fig. 1).

The most characteristic stretch of chequerboard-style masonry is in the north-east half or two-thirds of the build, up to the area drawn in detail around the musket loops and ?datestone (Fig. 1, detail A). At the south-west the style changes, occurrences of volcanic stone are less regular and the masonry is more uniformly of breccia. The change is gradual and there is no doubt that this is the same build throughout.

Features within the build

(a) *?Datestone* (507). This is a very large slab of Purbeck stone set into the facework some 2.5m above present ground level. The block measures approximately 860 x 740mm and is rectangular; one small section is removed from its lower right corner. It spans two courses of the adjacent facework and has long, narrow blocks of volcanic stone forming its edges, to left and right. In view of its size the block is

probably a slab, i.e. is relatively thin and therefore is face-bedded (is positioned with its natural bed in the plane of the wall face, a usage certain to encourage weathering in any bedded, rather than massy, stone. The surface of the stone is weathered and retains no plausible original surface; thus we are denied information of its date. Nonetheless, a plausible context for this section of wall has been identified in the accounts of the Exeter City Archives (above p. 1): the account of expenditure in 1643-4 includes detailed payments for a datestone, including oil and colours for its painting and lead for the 'inscription' (Receivers' Account Book 1643-44, ff.4-5; Juddery *et al.* 1988, 20-21). To support the identification of the stone as a datestone the preference for Purbeck stone for this purpose should be mentioned; several other examples occur in the circuit of the walls although only one, in Southernhay and dated 1743, retains its inscription (Blaylock 1991, 5). Purbeck stone does not appear routinely in the fabric of the wall, even as an accidental, and must have been obtained specifically for this purpose.

(b) *The gun or musket loops*. These two features (508, 509) are set high up (5.5m above present ground level) near the surviving top of the build (although this is probably cut down by later alterations), some 2.25m apart and nearly central to the axis of the datestone below. On the external elevation both features appear complete, but 508 is poorly preserved on the interior, where only two stones of the south-west reveal survive later blocking (Fig. 1, internal elevation). Since both features appear similar in dimensions, where this can be tested, the description here is of the complete example, 509.

The parapet wall at the level of the embrasures is between 0.6 and 0.7m wide. The sill of the embrasure is a little over 1m above present interior ground level; excavations in Paul Street in 1985-6 uncovered Roman wall core just below this level which gives a minimum level near to that of the present. On the outside elevation the loops take the form of a narrow slit, *c.* 0.6m high and 0.10-0.15m wide, framed with large, but narrow, blocks of breccia. Lintels and sills are formed of regular coarse blocks; only the lintels are central to the embrasures. Both slits are blocked with 19th-century bricks (to a depth of *c.* 0.25m). On the interior the splayed reveals are formed by the breccia blocks from the outside face and by dressed volcanic blocks on the inner face. A massive breccia block forms the inner lintel. The inner opening is 0.6m high and *c.* 0.65m wide. A short length of contemporary inner facework survives containing a high proportion of Permian sandstone in its fabric. (This stone is a common factor in most sections of wall attributed to the Civil War: Blaylock 1991, 4-5).

In addition to the loops described here other examples are to be seen on the eastern side of the castle, and possibly in West Street (Blaylock 1991, 9; 28). A further example was recorded in the mid 20th century on the other side of the North Gate, in the yard of the Crown and Sceptre Hotel (Croump 1942, not paginated). This is no longer visible. Those at the castle, a run of five embrasures in a stepped parapet, are very similar in size and construction to the Northernhay Street examples. Recent examination of the wall in this area suggests a narrow parapet (*c.* 0.6m) above the top of the pre-existing wall/bank, from which the loops were accessible. The bank has since been lowered in this area (Blaylock 1993, 4). Similar gun loops (with splayed reveals, carefully constructed in masonry) were recorded in the Newarke at Leicester in the 19th century and have recently been published in the context of an examination of the Civil War archaeology of that city (Courtney and Courtney 1992, 68 and Fig. 12). In contrast to the situation at Exeter, most of the extant examples at Leicester were much cruder, being cut through existing masonry (*ibid.*).

(iv) *516, 3m* (+ 18m not recorded). The build is abutted by 505 at the north-east in a straight join; 505 stands some 0.2m further out than 516, which curves inwards slightly at its north-east end. (The later parapet above the junction is of one build and bridges this change in the plane of the face; see below.) Despite this change of alignment the junction is formed as a neat straight join. The build forms the full height of the wall, spanning the properties of 48-51 Northernhay Street and continuing into the area of 51a, where structures abut the face of the wall itself. The wall here is composed of a base, a chamfered plinth and at least 26 courses of large squared blocks of breccia of a durable type; the stone is considerably less weathered than that of 505, for instance, although 516 is older than that build. The blocks are very closely jointed in a fine white, gritty, lime mortar (Pl. 1a). The 26 courses are counted at the rear of 50/51; the build survives to a lower level in the rebuilt parapet 511 (below). Above the abutting structures of 51a, at the south-west end of the build, the masonry may survive to 30 courses but this is difficult to see with certainty. The wall probably contains putlog holes, on several tiers – but insufficient of this build was

scaffolded for the identification to be verified, and none appears in the short length of wall that was accessible. This build is not closely dated by independent means, but it can be shown that it is earlier than 505, and thus earlier than the mid 17th century. General experience of the use of breccia in the wall (although not in other buildings in Exeter, such as churches) would suggest that the concentrated use of breccia in this way ought to place this build after 1500, so a 16th- or early 17th-century date is probable (Blaylock 1991, 4). The nearest parallel in the surviving fabric of the wall would be the Elizabethan Water Gate at the southern corner of the city, built in the 1560s (*ibid.*). Here the fabric which survives is wholly of breccia in similar large blocks and fine-jointed style, although the stone has not weathered so well as that at Northernhay Street.

Parapet builds

Two main phases of parapet are seen: a narrow parapet wall for almost 29m above builds 503, 504 and 505, and a more substantial rebuilding of the facework above the south-west end of 505 and 516, which incorporates remains of 18th- and 19th-century structures.

(i) The simple parapet is of two very similar builds, 502 and 506 (Fig. 1). Both are constructed of rubble, and some blocks, of mixed stone type: volcanic stone, chert, breccia, bricks, South Devon limestone, pink Permian sandstone and occasional exotics, bonded with a cream lime mortar which was heavily decayed from the penetration of ivy roots. The mixture is characteristic of walling assembled, probably in the 19th century, from re-used materials and some new stone (hence the exotics and late materials such as South Devon limestone). The incidence of Permian sandstone may show a derivation from 17th-century work prior to the present parapet. The parapet is narrow, 300-400mm wide. The work extends to a lower level on the inside face than on the outside, i.e. the rear face was cut back and refaced on the construction of the parapet.

Above, most of the combined build 502/506 is coped with a distinctive coping of cobbles set in cement (501). This is continuous except for a length of 4m in the centre where some sort of ephemeral structure had been positioned on top of the wall: three timber braces which supported this structure remained in position on the outside face (Fig. 1).

(ii) Cutting down into 505 by some 3m, build 511 is more a rebuilding of the top of the wall than a simple parapet, extending to the south-west as far as the point where the 16th-century(?) build 516 steps up nearly to the wall top within the rear yard of 50 Northernhay Street. Most of the masonry is of re-used stone breccia and volcanic blocks (*c.* 30% of each); Permian sandstone (*c.* 20%); the remainder being composed of Triassic sandstone, brick and chert pebbles. To the south-west (beyond the limit of the outline drawing) the incidence of pink sandstone is especially noticeable.

Integral to the build are four windows, all now blocked with a variety of materials, which mark the remains of structures in the courts at the back of Paul Street. These were probably built in the 18th century (structures are shown in this position on Rocque's map of Exeter of 1744, for example), incorporating re-used stone but some brick for dressings around the windows etc. The rebuild continues to the top of the parapet, although the brick terminals to the steps in the parapet, the topmost courses of the parapet, and the cement coping are all later, presumably coeval with the removal of the buildings and the blocking of the window embrasures (all the buildings on the north-west side of Paul Street were razed in slum clearance in the 1920s). It is not known if the houses that survived until the 1920s were 18th-century structures or later replacements.

Rear elevation, supplementary recording

In the aftermath of the work in Northernhay Street an outline elevation of the rear elevation of some 22m of the parapet, south-west of the gun loops, was drawn (some 12m further to the south-west than was accessible on the exterior). The purpose of this was two-fold: (i) to provide a linear drawing of the length of wall inaccessible on the outside face, albeit of later rebuilding of the upper stage (i.e. no ancient builds survived on the interior), and (ii) to provide a link between the internal elevation of the gun loops drawn as a part of this recording project, and a section of rear elevation at the south-west extremity of

Northernhay Street which was recorded, again in outline form, in 1988.

The result, a total of 37.5m of elevation south-west of the site of the gun loops, is presented here as Fig. 2. The level of recording was altogether more superficial than that conducted on the exterior. Thus it has been judged best to present the work as an outline drawing, shaded to show phases where possible. Further work would be required to develop a more detailed interpretation.

Two individual points might be mentioned: (i) the exposed Roman wall core at the base of the wall is that excavated by EMAFU in 1978 (EMAFU site 'North Gate 1978, site B'); (ii) It is noteworthy how little ancient work survives on the interior when there are substantial remnants on the exterior. This must be a reflection of the recent structural history where buildings have clustered inside and on top of the wall.

ACKNOWLEDGEMENTS

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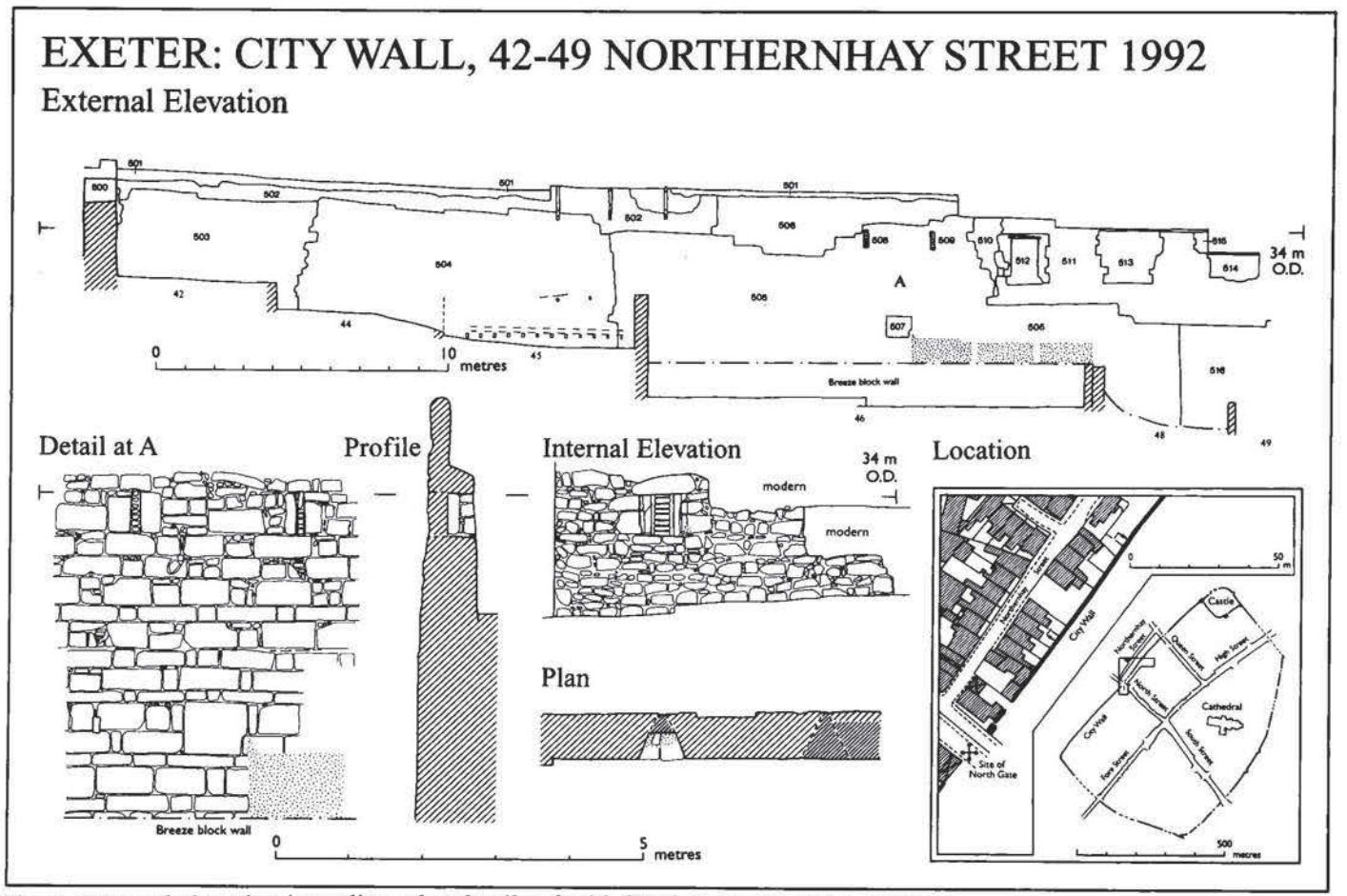

Fig. 1 External elevation in outline, plus details of mid-C17th masonry and gun loops.

Fig. 1

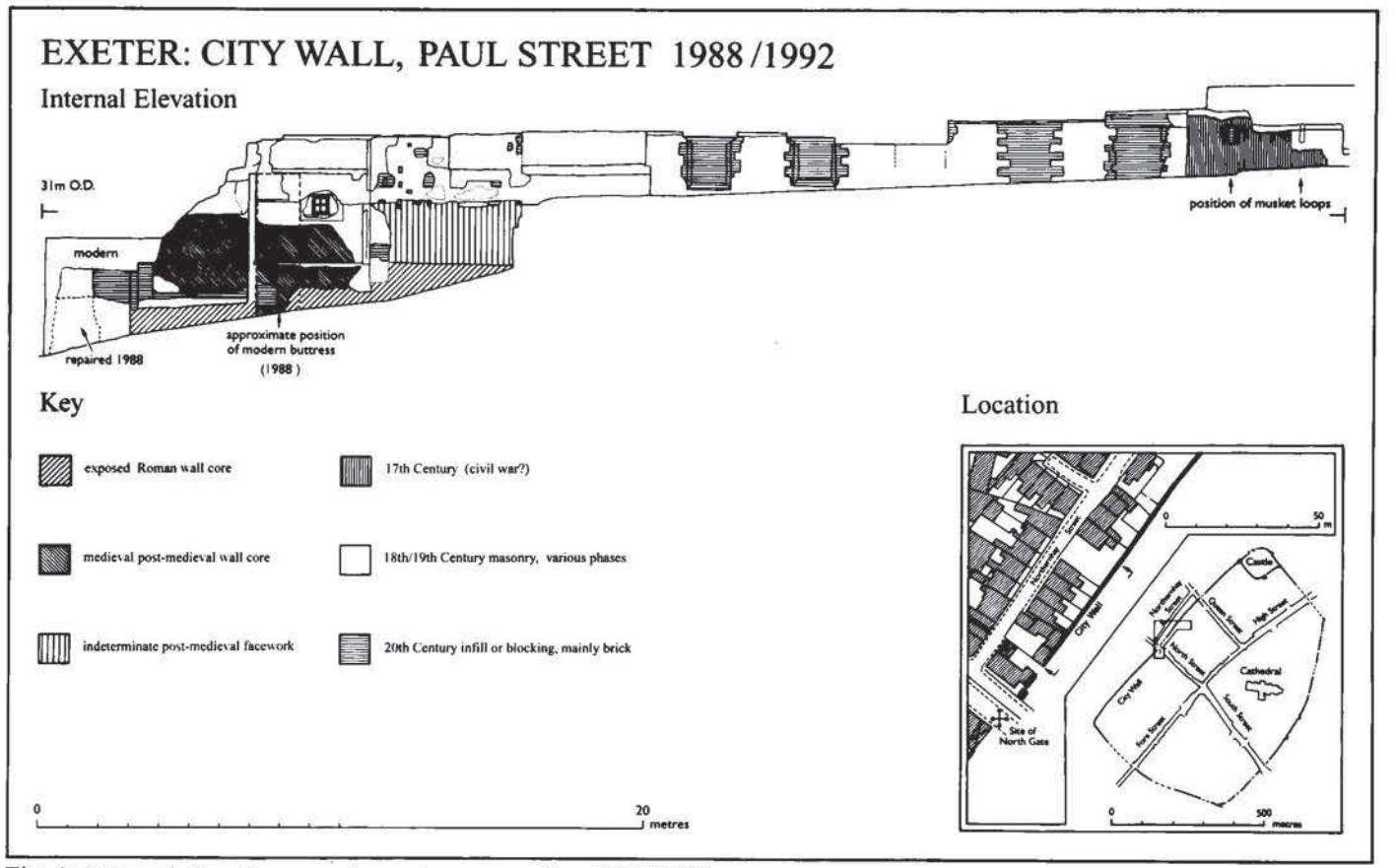

Fig. 2 Internal elevation, supplementary recording 1988/1992.

Fig. 2

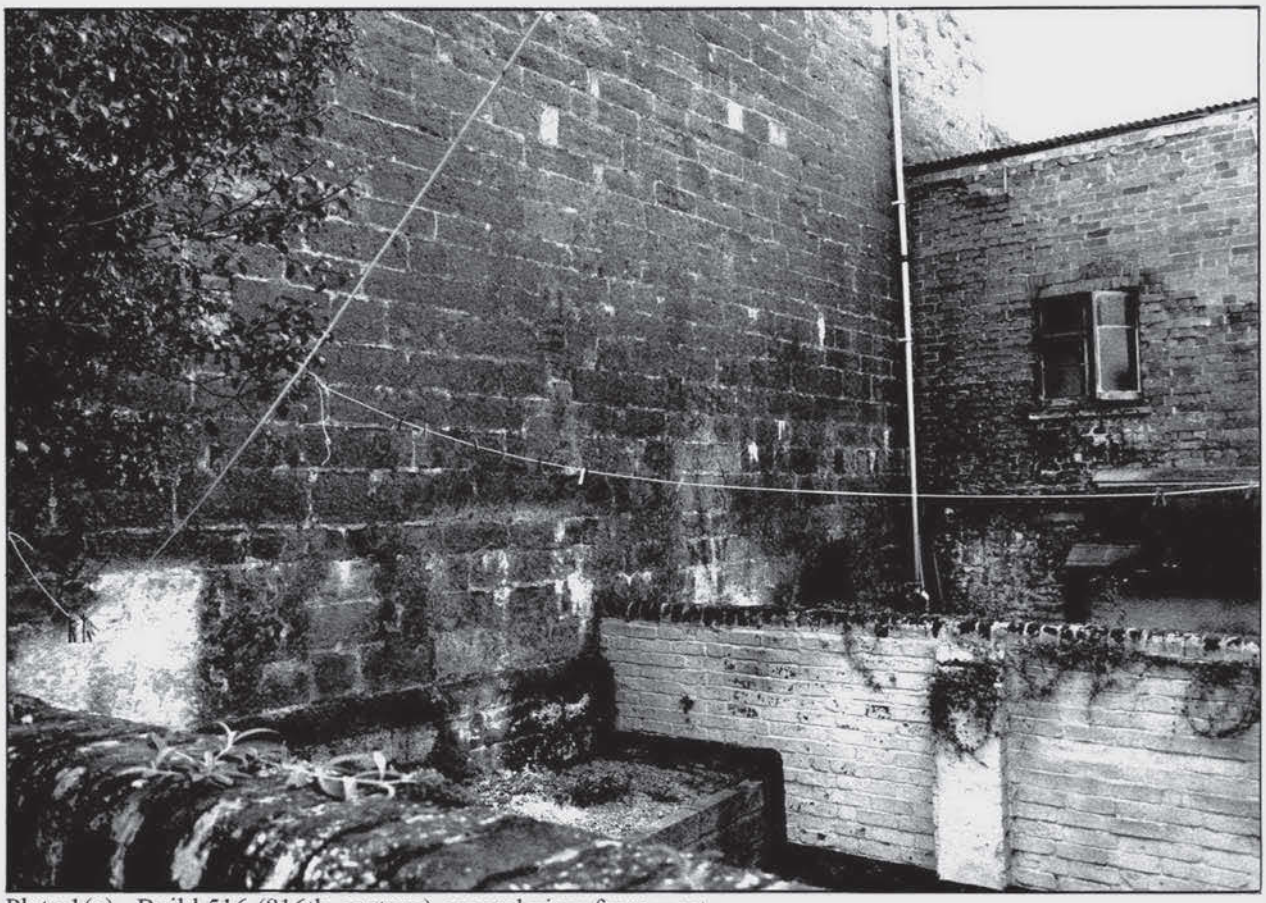

Plate 1(a). Build 516 (?16th-century) general view from west.

Plate 1(b). Build 505 (?mid 17th-century) general view from north-west.

Plate 2(a). Build 505, oblique view, gun loop 508 in foreground, looking south.

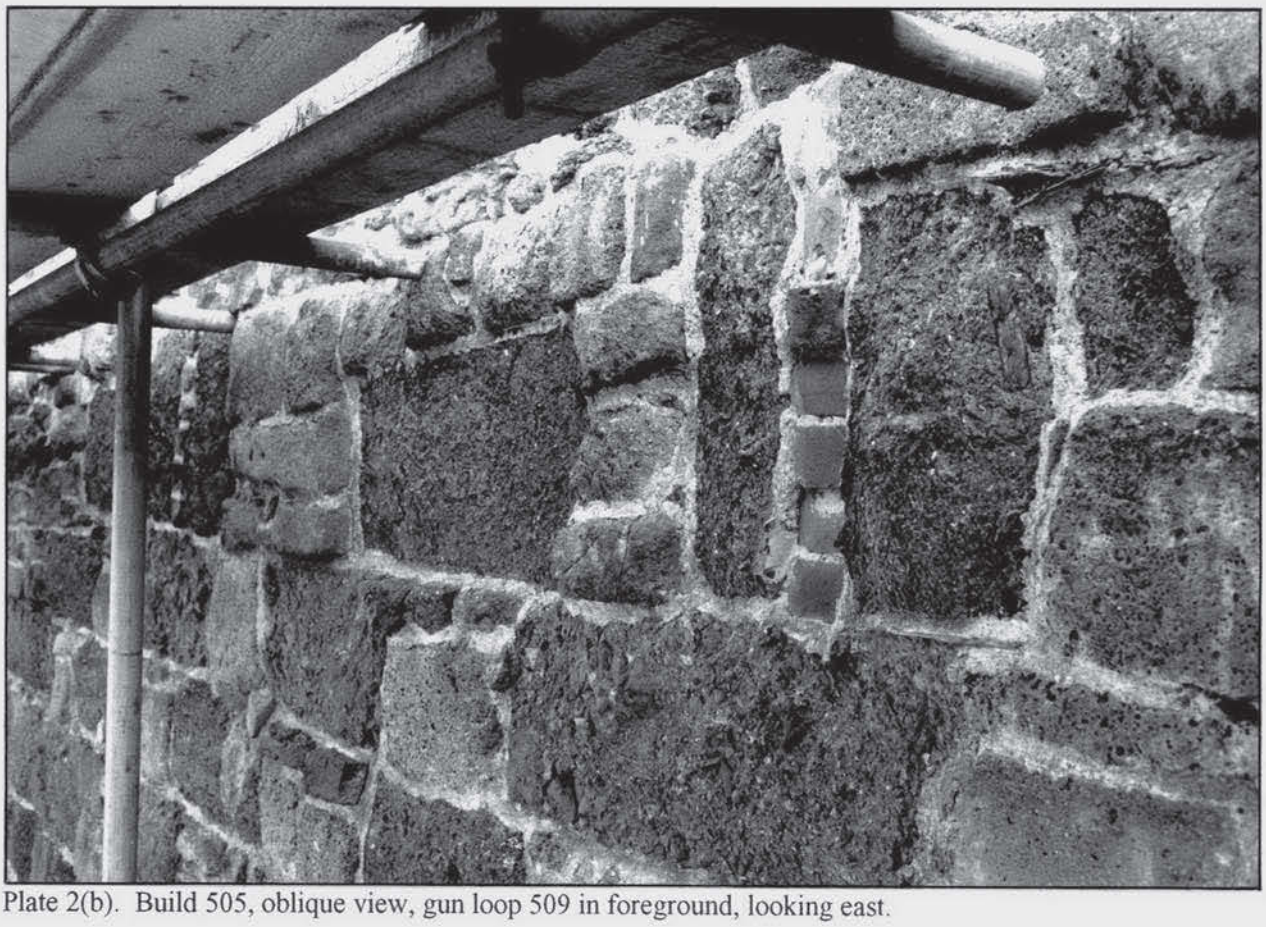

Plate 2(b). Build 505, oblique view, gun loop 509 in foreground, looking east.