Exeter City Defences: A Fabric Survey of The City Liadl. Part I The Extrior

13.66

Grenof FS

EXETER CITY DEFENCES A FABRIC SURVEY OF THE CITY WALL PART I THE EXTERIOR by

S.R. Blaylock

Exeter Museums Archaeological Field Unit

Report No. 93.66

October 1993

[A revised edition of EMAFU Report No. 91.56]

Contents

Introduction	1
Stone	1
Previous accounts of the city wall	2
The identification of Roman facework in the wall	2
Dating evidence for medieval work on the wall	3
Dating evidence for post-medieval work on the wall	4
The Gates and their removal	5
Recent Losses	6
Gazetteer and Description	7
Acknowledgements	44
Bibliography	44
Map	at end

INTRODUCTION

Roman in origin, added to and maintained as a defensive enclosure for the city throughout the Middle Ages, and until the late 17th century used for defensive purposes, Exeter's city wall retains fabric representing all of the periods of its existence. Although much of the circuit of 2.35km retains its Roman core relatively few sections of the wall preserve any Roman facework, more fragments of which are seen on the interior face, where protection has been provided by the earth bank which was the other component of the Roman defences, than on the exterior. There is no conclusive evidence that any additions or repairs were made to the city wall during the Saxon period, although it will be seen that there is one candidate for pre-conquest work at the Castle, but with the Norman conquest the city wall entered into a period of probably continuous repair and maintenance which has lasted until the present century. Although the walls ceased to function in the defence of the city after the Civil War the circuit continued as a boundary until the removal of the gates in the period 1769-1819, and even beyond. After the loss of the gates it is the later 20th-century developments in Exeter which have caused the greatest losses in the circuit, but even so c. 1705m or 72.5% of the total circuit survives.

The fabric of the wall, containing as it does so much alteration and repair, is a palimpsest of different builds and patches. It is the purpose of this report to provide a description of all of the surviving fabric of the exterior wall-face (a later report will attempt the same for the much smaller amount of the interior face that is visible) and to attempt an interpretation of its date and structural history where possible. To do this the main bulk of the text is presented in the form of a gazetteer, taking the wall section-by-section from the site of the East Gate in an anti-clockwise direction, a format established by the survey of the wall of 1978 (below p. 7).

The origins, first structural phases and dating of the Roman defences of Exeter have received recent attention elsewhere (Blaylock 1988, 5-15; Holbrook and Bidwell 1991, 9-11) and will not be repeated here. The same may be said of the building stones of the wall, although a brief outline of the variety of stone in the wall will aid comprehension of the description. The remainder of the introduction will be devoted to an outline of previous work on the wall and to a discussion of certain aspects of the fabric which benefit from collation from the description.

Stone

A full description of the building stones of the city wall is planned for elsewhere (Blaylock in Simpson, forthcoming) but a brief outline of the major building stones, their sources and terminology here will avoid repetition in the main text.

The principal stone of the wall is the volcanic lava of which Rougemont Hill is composed (locally called *trap*), and which was also quarried in a number of other places in and around Exeter (see Allan 1991, 10-11). The stone is varied in colour and texture, ranging from dark purple to pale grey and from a bubbly, vesicular texture to dense crystalline rock with white quartz veins. Other textures also occur but the greater proportion of stone can be divided into vesicular and veined varieties, terms which are employed here.

The second most common stone is breccia, from the Permian beds to the east and south of Exeter. Breccia is a composition of angular fragments of older rock in a sandstone matrix. It was quarried in large blocks and to its original users must have seemed an ideal stone for ashlar work. Most of the stone weathers very badly and this is its great disadvantage, as may be seen in several Exeter church towers, for instance. In the wall a good example may be seen in the former Trinity Mews (Section 24.7) where a build of ashlar dated 1743 contains a section which has been protected by the abutment of a building (now removed). The line of the outer wall can be seen clearly in the differential weathering of the stone. Breccia was first quarried in the mid 14th century, and seems to have achieved its greatest use in the wall between the early 16th and late 18th centuries. The stone is often called Heavitree stone, a name avoided here since although much of it came from the Heavitree quarries (also called Wonford or Whipton in medieval accounts) more was quarried at Peamore and Exminster to the south of the city.

White or pink Triassic sandstone occurs in many sections of the wall, often mixed with other stones,

but sometimes as the predominant component. The white variety in large squared blocks is probably an indicator of early date. It occurs for instance in the Castle Gatehouse of the 1070s, and at St Nicholas Priory (late 11th-century). Evidence for the date of its use in the walls is only available from comparison of the relationships of sections in which it appears with structures of known date: the Castle, the eastern angle tower etc. As far as is known there is no documentary reference to this stone and the assumption is that it had passed out of use (other than in secondary contexts where it was re-used from collapsed sections of wall etc.) before the Receiver's Accounts provide us with details of building materials, in the first half of the 14th century. Neither is the source of the stone known; it occurs on the coast from Exmouth, and in the Otter valley to the east of Exeter. This stone has been mistaken for Beer stone in the past. Beer stone, in fact, appears in the wall only as an accidental.

Other stones can be covered very briefly: Salcombe sandstone (from the Greensand) and Beer stone (Cretaceous limestone), the predominant building stones of the Cathedral, appear only as accidentals in the wall. Portland stone appears occasionally in odd blocks and although the material did find its way to Exeter in the Middle Ages is probably of late origin here. Purbeck stone, also from Dorset, seems to have been the favoured material for datestones in the 17th and 18th centuries (see below). Brick appears in original contexts in one or two late-17th-century builds, e.g. section 20.3 near the Quay, but is mainly a material of the 18th-20th centuries. Modern work has employed stone from a greater distance such as South Devon limestone, e.g. the rear of section 27.4 in Post Office Street, dated 1832, and this material, along with other unusual stone such as granite and York paving stones, occasionally makes an appearance in 19th and 20th-century repairs.

Previous accounts of the city wall

The first account of the structure of the city wall to be based on analysis of the fabric came with the work of the Exeter Excavation Committee in the 1930s (Radford and Morris 1936 (a) and (b); Montgomerie-Neilson and Montague 1934). This work was followed by a number of excavations conducted on areas which had survived war damage in 1945-50 (Fox 1952). These two episodes of work established the sequence of construction of the Roman city wall and bank and showed that the wall had undergone phases of repair and refacing. Further work at the South Gate in 1964-5 amplified the picture of the wall, especially the nature of its rear face (Fox 1968).

Perhaps surprisingly, the first attempt to give a description of the whole of the wall and to apportion dates to the obvious builds was not made until 1977 (Burrow 1977). Much of Burrow's analysis was of a pioneering nature and some aspects of the report have been superseded by later detailed archaeological work. For instance, it can now be shown that much of that identified by Burrow as Roman facework, i.e. well-squared volcanic blocks over a chamfered plinth, is medieval refacing of Roman core, or medieval rebuilding.

Finally, an unpublished report produced for Exeter City Council in 1978 (here cited as '1978 survey') adopted the approach and format that have been continued here: that of dividing the wall into sections based on the topographical or property divisions and of describing and analysing the fabric build-by-build within such sections. For each section of the wall the survey gave details of ownership, comments on the condition of the wall, maintenance requirements (some of which have yet to be carried out!), and comments by structural and highway engineers before the fabric of each section was described in detail. The format of the description has been retained here, although it has been necessary to alter the breakdown of individual sections and in one case to amalgamate two sections of the 1978 survey (sections 19 and 20) into one here (section 19). Thus the section numbers in the latter part of the gazetteer are different by one to those of the 1978 survey.

The identification of Roman facework in the wall

A number of excavations against the rear face of the wall have led to the observation of undisturbed Roman facework (Blaylock 1988, 13-15). These, in turn, allow other sections of masonry which are not sealed by Roman bank deposits to be identified as Roman work (*ibid.*). Applying the criteria so obtained to the front face of the wall it is possible, with some confidence, to identify a well-preserved section of Roman facework on the downhill side of the breach for the Western Way (Section 21.8, p. 36 below). In this section, the key characteristics of the Roman masonry are seen to be: an offset plinth, large squared

blocks of uniform colour and texture, often a weathered appearance, pebbly mortar, absence of putlog holes. Using these characteristics a number of poorly-preserved candidates for Roman work can be identified around the circuit of the walls - often no more than a few surviving blocks of a weathered plinth, or remnant courses of large, squared, weathered facework.

Key areas of the rear face are to be seen at Bradninch Place, Paul Street, South Gate (James Street) and Post Office Street. On the front face, other than the 'type-section' 21.8 other remnants occur at the rear of the Castle, section 5.3 (i) comprising a small area of facework; in Northernhay Gardens section 6.1 (ii) which is a run of c. 5m of plinth and two or three courses of facework above; and 7.3 again a horizontal plinth with one or two courses of facework above. Several more sections of wall contain fabric which may be described as possible Roman survivals: 11.4 in the yard of the Crown and Sceptre just outside the North Gate has a remnant of plinth and facework; 22.2 near the South Gate may retain some blocks of Roman plinth below later work; 24.13, a section of facework with large heavily weathered blocks to the rear of 6-7 Southernhay West; 28.2 is now buried but was recorded in section by Lady Fox. The published photograph suggests that this may have contained comparable fabric to section 21.8 (above) (Fox 1952, Pl. VI A) although the top of the section, which is all that is now visible, is probably medieval. Also 28.3 has large weathered volcanic blocks in pebbly mortar which is earlier than ?early medieval sections to the north.

Dating evidence for medieval work on the wall

(i) Early medieval, ?11th or 12th century. The appearance of Triassic sandstone as a freestone in buildings of early date has already been mentioned (above p. 2). Certain evidence of early contexts for the use of this stone exist on the north side of the Castle, section 5.3 (ii), and adjacent to the eastern corner tower in Southernhay West, section 28.4 where the tower appears to cut the Triassic sandstone build which is thus earlier than the 13th century. The rectangular tower at the western angle of the castle/city wall, the so-called Athelstan's Tower (section 5.4) employs a mixture of volcanic stone and Triassic sandstone for ashlar dressings. This tower is 12th-century in date (Blaylock 1991 (a), 6). The stone was still in use in the 13th century when the eastern angle tower (28.4), John's Tower on the eastern wall of the Castle (section 4.5) and the eastern corner tower of the Castle (Blaylock 1991 (b)) all employed it for ashlar dressings.

Further instances of Triassic sandstone have to be assessed on a case-by-case basis. Since there is nothing in the medieval or post-medieval documentation to suggest that this stone was in use in these periods, it must be presumed that any build which contains the stone in a primary context is likely to be early, i.e. pre late 13th-century (Cathedral) and 1330s (City) accounts. The problem lies in establishing primary contexts, since many builds may be composed entirely of stone derived from earlier facework. An outline scheme might suggest that only in cases where there is uniform use of large coursed blocks of Triassic sandstone, such as those at the Castle, be deemed primary, and where the coursework is patchy, or other stones are introduced, the stone be judged to have been re-used from earlier builds on the site. On this basis a number of builds at the western corner of the city, in the vicinity of Snayle Tower (sections 15.2, 15.3, 16.4, 16.5) might indicate building activity of this period, although themselves being of later construction, since these sections contain large quantities of Triassic sandstone.

(ii) Nature of later medieval rebuilding. The complete rebuilding of at least 34m of wall at Cricklepit Street was traced by excavation in 1974 (section 19.4). This build is of a style which previously had been thought to be the classic Roman style of the city wall (Burrow 1977, 23-4), comprising smallish squared blocks of volcanic stone over a chamfered plinth, with buttresses and putlog holes in the main face of the wall. Many other sections of the circuit bear similar work, most of it no doubt refacing of the medieval period on Roman core (as was demonstrated in the case of the adjacent build in Cricklepit Street, section 19.3 (Simpson forthcoming). A second instance of this was demonstrated by excavation at North Gate in 1978 where a section of wall recorded in advance of redevelopment (Site A) comprised Roman rubble core with a medieval facing of volcanic blocks including a double chamfered plinth stepping down towards the southwest (Blaylock 1988, Fig. 3). Material associated with the rebuilding of section 19.4 included a number of floor tiles of c. 1300 (Allan 1984, 234) which were very heavily worn by the time of their deposition. Thus a date after 1400 is actually the most probable for this stretch of wall (Allan, pers. comm.). If this is to be dated into the 15th century then it is notable that there is no breccia at all in the facework,

although section 19.2 to the north-west which is of similar composition and style does contain two blocks of breccia. With this dating evidence in mind it is possible that the large amount of expenditure on building new section(s) of city wall in the years 1403-4 to 1405-6 relates to the various builds of Cricklepit Street. The Receiver's Accounts contain great detail of expenditure on labour and materials but give neither a specific location for the work, nor details of the stone type which might enable a firm identification. The total sums involved are large: under headings of 'Expenses on the city walls' they are £73 7s 2d in 1403-4, £74 5s 93/4d in 1404-5, and £50 10s 31/2d in 1405-6 (Juddery et al 1989(a), 18-31).

(iii) The significance of breccia for dating. The first documented occurrence of this stone is a purchase of Whipton stone for the Cathedral in 1341 (Erskine 1983, 263). The stone was not necessarily widely used until the end of the 14th century, by which time it was used, for instance, for the inner facework of the top stage of the north tower of the Cathedral when it was rebuilt in 1393-5 (Allan 1991, 15). The evidence of the Cricklepit Street builds suggests that its use in the city wall may not have begun until some time after its first introduction. Although purchases of Whipton stone for the city wall outside East Gate are recorded in the Cathedral Accounts in 1349-50 (Erskine 1983, 284) and the City Accounts mention Whipton in 1372-3 (Miscellaneous Roll 6 m. 14), the first specific purchase of Wonford stone in quantity in the Receiver's Accounts belong to the second half of the 15th century. The use of breccia seems to be universal thereafter, e.g. in the rebuilding of the Guildhall in the 1460s and the rebuilding of Exeter churches in the late 15th century etc. As suggested above, the heyday of the use of breccia in the city wall runs from the early 16th century to the late 18th century.

Dating evidence for post-medieval work on the wall

(i) 16th century. The Receiver's Accounts of the city contain records of the purchase of breccia and other stone but few entries are of much use for general dating purposes. The probable identification of a length of wall in Friernhay rebuilt in 1530-31 is discussed below in the gazetteer (section 14.2). There are tantalising entries some years earlier to sections of the wall which do not survive. Richard Tute, the same mason who rebuilt section 14.2 in 1530-31 was paid £24 in 1527-8 for 'makyng of a pice of walle in the southe part of West gate...' 61 feet in length; this presumably fell in section 18.7 somewhere in the area of wall demolished for the Inner Bypass in 1960. No record of the appearance of the wall in this area is known to the writer. Further substantial work to the north of West Gate took place in 1528-9 (£16), and in 1539-40 next to the church of All Hallows on the Walls (£170), i.e. in the vicinity of sections 17.4 and 17.5.

The only fixed point in this period is the construction of the Watergate and works on the Quay nearby in 1564-5. This work is poorly documented in that the Receiver's Account records only a lump sum of £109 8s 9d rather than including any details of expenditure, and the appropriate Receiver's Book (the more detailed account, perhaps a draft for the final Roll) does not survive (RAR 1564-5, m. 2v). Neither does any fabric of the actual Watergate survive. Excavations beneath the site of the Watergate and study of the standing fabric in 1987 enabled work of this period to be identified, comprising buttresses, facework and a pavement of breccia blocks constructed to support an approach to the new Watergate, and to carry the flow of water away from the outflow in the wall above (sections 19.7 and 19.8, below). This is the only firmly dated early build of uniform, good-quality, large blocks of breccia in the city wall and may provide a parallel for another section of very good-quality masonry in Northernhay Street (section 9.9).

(ii) 17th century/Civil War. In the first half of the 17th century the Receiver's Accounts provide a good deal of topographical detail on repairs to the walls (Juddery et al. 1988), Unfortunately none of the documented works is sufficiently large or distinctive in character to stand a chance of recognition in the fabric of the walls. For a period in the 1630s where there was greater-than-normal expenditure, the accounts lapse mostly into non-specific entries, although there are hints of work in the vicinity of West Gate and Snayle Tower in 1632-33 (expenditure £30 1s) (RAB 1632-3, f. 6). General repairs to the cost of £41 19s 5d in 1633-4 are completely unlocated except for one entry regarding the repair of the barbican at North Gate which may or may not bear on the rest of the expenditure in the year (RAB 1633-4, f. 6). In 1634-5 work took place at the Palace, the Barbican near West Gate and a small additional sum for work in Friernhay, the total being £23 9s 6d (RAB 1634-5, f. 5). In the following year work tailed off. None of this work has yet been recognised in the fabric, indeed it may have been mostly of routine maintenance rather than concerted rebuilding: a process which would not yield distinctive traces in the fabric.

A decade later however the Receiver's Accounts and the Siege Accounts provide a wealth of information, described in detail elsewhere (Juddery et al. 1988; Stoyle 1988). Certain aspects of interest need mentioning here. Of the vast sum of £4374 11s 3½d spent on fortifications in 1642-3 some £432 was spent on work at the Castle (DD 391 H35v-43v; Stoyle 1988, 31-46), seemingly in Heavitree stone, i.e. breccia. Suggestions for the identification of this work are made in the gazetteer below (sections 3 & 4). Other areas are specified in the account of 1642-3 but no other individual location has as much expenditure detailed as the Castle. Southernhay, where expenditure of some £82 is specified, may have received work to the walls but much of the sum must have been spent on earthworks.

The association of several builds which contain small windows or gun ports with works of the Civil War is not inconsistent with the conclusions drawn at the castle: all are built mostly of breccia and show no relationships which may preclude a mid 17th-century date. Builds containing musket ports are: 3.5, 3.6 in Northernhay Gardens, 9.8 in Northernhay Street and 18.3 in West Street. The accounts contain a number of payments for the cutting or insertion of datestones in the walls in 1642-3 (RAB 1642-3, f. 7), 1643-4 (RAB 1643-4, ff. 4, 5 & 12), and 1644-5 (RAB 1644-5, f. 4). No such datestones, with inscriptions, survive from this period. There is a large slab of Purbeck stone of integral construction in section 9.8 in Northernhay Street. The surface of the stone is weathered and no trace of an inscription survives but it is possible that this stone was one of the datestones. The first such stone mentioned in the account of 1643-4 is amongst payments for the rebuilding of a section of decayed wall in Northernhay which employed 224 seams of Heavitree stone and which, it is suggested below, can be identified with section 9.8. Other large slabs of Purbeck stone in the walls (a unique usage, this material has not been observed in regular facework, even as an accidental) are almost certainly weathered datestones, although their date is uncertain. One of the 18th-century datestones is also of this material (below).

A number of cruder sections of masonry also may be identifable as additions of the Civil War period. A particular aid to identification here is the use of a pink Permian or Triassic sandstone somewhat resembling the white variety already mentioned but normally used in crudely shaped blocks for parapets etc. Two such instances may be quoted as clear examples associated with post-medieval work. Sections 3.4 (vi) and 3.5 (v) form a continuous parapet in this stone, overlying but probably associated with 3.5 (iv) and 3.6 (ii) which are identified as work of 1642-3. The second example occurs in Trinity Street, immediately beside Holy Trinity Church, a crenellated parapet (the embrasures now filled with brick) incorporating some work in pink Permian sandstone (section 23.1 (iv)). This not closely dated, though is well before work associated with the rebuilding of the church in 1820, but is most likely to be 17th-century.

(iii) Post Civil War: late 17th and 18th centuries. There is some evidence for dating a section of wall at 39 Northernhay Street to 1697 (below, section 9.1). Two builds retain legible datestones or inscriptions: 24.7 in the former Trinity Mews, Southernhay is a block of Purbeck stone in a chamfered recess with AD 1743 inscribed in elegant Roman letters. The masonry is very good quality ashlar of breccia blocks. A similar style is seen in the second dated section in the vicinity of Maddocks Row, Northernhay Street (sections 8.4, 9.1). The arch and associated facework again are good-quality breccia ashlar in hard white mortar dated 1772 by an inscription on the keystone of the arch. There is a small amount of similar work at the rear of the Castle also of the 1770s (sections 5.1, 5.2) and other structures associated with the reorganisation of the castle enclosure, such as the crenellated archway forming the entrance to the inner ward, also contain similar work.

Other than the possible datestone in section 9.8 discussed above, the other candidates are found in the Southernhay area. Build 23.3 contains a weathered block of Purbeck stone, without a frame, built into rather rough facework. An area of blocking above the scare of a buttress in section 24.8 may represent the position of a former datestone on a parallel with section 24.12 where a datestone of Purbeck stone (with weathered surface) is set in an elaborate aedicule above a buttress. Any of these examples might be remnants of those datestones for which there is evidence in the Civil War accounts (above) or may belong to later activity in this section of wall. The stones in sections 24.8 and 24.12 are both let into well-built walling, predominantly of breccia, but that in section 23.3 is different in character. The walling is hastily constructed with re-used stone, perhaps the Purbeck stone itself was re-used, or could the habit of inserting datestones in the Civil War have extended even to areas where rough repairs were necessary?

The gates and their removal

No detailed description of the gates will be provided here. It is intended that a separate section on the gates will comprise a concordance of the various pictorial sources and an analysis of expenditure on the construction of the gates in the City records. Nonetheless a brief mention of the removal of the gates is required since this formed the first episode of breaching the circuit of the walls.

The North Gate was the first to be removed, in 1769 (Jenkins 1841, 211; see also engraving of the gate opposite p. 211). Jenkins' account implies that the purpose, in part at least, was to improve access into the city and to lessen the gradient of the hill. The removal of the East Gate came next, in 1784, in order to improve the entrance into the city (*ibid.*, 217-8 and plate opp. p. 218). Descriptions and engravings of the West and South Gates are also provided by Jenkins (*ibid.*, 401 and 372 respectively) but since these gates were still standing in 1806 when he was first published he gives no dates for their removal, which took place in 1815 and 1819 respectively (Sprake 1832, 8; 6). The second edition of Jenkins' *History* is cited here since it is illustrated with engravings of the gates (using the same plates as Sprake, although they are not attributed to him); the first edition, of 1806, had different illustrations. The Watergate was also removed in 1815.

Other early losses to the circuit of the walls were associated with the construction of new streets: New Cut, from the Close to Southernhay in 1750 (section 25.3), New Bridge Street in 1770 (section 17.5), an opening in the line of the present Bedford Street from Bedford Circus to Southernhay in the 1770s which was contiguous with the length breached for the construction of the Theatre Royal in 1787 (section 26.6) and on the line of Queen Street in the 1830s (section 8.1).

Recent losses

Two major 20th-century losses came as the result of post-war redevelopment. A long stretch of wall from the eastern angle of the city as far as High Street was removed in 1949-52 (section 29; 82m). Two substantial lengths were demolished for the construction of the Inner Bypass c. 1961. The first of the two sections of wall, 24m in length near the site of the South Gate, at least retains standing wall to either side indicating what has been removed (section 22.1). At the lower end of the incision of the bypass, the road corridor removed some 40m of wall from the south-east end of an existing gap (perhaps created by the removal of the West Gate in 1815), creating a breach 77m long in total (section 18.7)

Other sections of the wall have been breached or removed by redevelopment, but on a smaller scale. Some 10m or so of wall to the north of the High Street was removed on the construction of Bailey Street in 1952 (Section 1). A new entrance was cut through the wall between Southernhay and St John's Hospital in the 1930s and spanned by an arch (photographs in Venning 1988, 46 & 48; Fox 1952, Pl. VA). The arch was removed in 1952, and the gap widened to form a road access into Southernhay. Since the mid 1970s the gap has accommodated the entrance to an underground car park beneath Broadwalk House (section 28.1).

GAZETTEER AND DESCRIPTION

As far as possible the format adopted here is standardised: commencing with the build number, a composite number in which the first element indicates the area of the wall and the second the subdivision relating to separate constructions within that area, then the length of the build. The final element is the description, which of necessity varies according to the complexity of individual builds.

The descriptions of individual builds given here are based on those of the 1978 survey, but very often they have been rewritten and expanded. Some owe a greater amount to the 1978 survey and a few have been left unchanged either because they remain valid or because the wall is now obscured by vegetation or buildings. In the course of the preparation of the present work an effort has been made to gain access to every section of the wall, especially those which are adjoined by private property which, by and large, were not covered by the 1978 survey. Nevertheless it has been found necessary to vary the level of coverage given to individual builds since ivy cover, particularly, prevents full analysis of some builds. The basis of the subdivision of sections also requires some explanation. Where there are clear structural breaks between one length of wall and the next there is no problem. Each build receives a discrete number. However, often the wall is not susceptible to such easy subdivision since a given build is much more likely to comprise a number of separate building operations, varying in scope from a minor patching to full rebuilding, none of which falls into convenient breaks. Thus a flexible approach has been necessary, based on the principle of a separate number for a distinguishable build, but adapted where necessary. Where, for one reason or another, a departure has been made from this principle an explanation has been given in the text.

Dating evidence has been considered throughout and it is hoped, where a date is suggested for a given build, then it is reliable. The present author thinks that much of the wall must remain without a precise date in view of the patchy survival of firm evidence. Having given this qualification, however, it is often possible to establish broad limits: 'medieval' in cases where the geological mix suggests this; 'post-medieval' - ditto, '18th century' if style or the presence of brick is distinctive enough. Ability to establish such a date category is also qualified by the nature of the facework of a given build: thus if a section of wall has been newly built with newly assembled materials then some diagnostic features are likely, but a section of wall that is newly built employing existing materials, i.e. those salvaged from a previous collapse, may contain only stone from the older build leaving the period in which it was erected unrepresented.

SECTION 1 High Street to Bailey Street

1.1 55m

The wall from the High Street frontage may have been removed in redevelopment after the removal of the East Gate in 1784 but c. 10-15m at the north-west end survived. It is shown on the Ordnance Survey 1:500 town plan of 1876, and was only removed on the construction of Bailey Street in the 1950s. A trench was excavated behind the wall in 1945-7, just to the south-west of the Castle Street Congregational Chapel, i.e. in the position of the present course of Bailey Street (Fox 1952, 52-3). The published section of the trench (*ibid.*, Pl. XXIV) includes a profile of the city wall.

This stretch of wall contained a semi-circular bastion projecting from the front face. It is shown on Rocque's map (1744) and in the Chamber Map Book (1758). Measurement from the latter source suggests that the tower began at c. 40.5m north-west of the centre of the East Gate and was c. 6-6.5m wide. A buttress is shown some 6m further to the north-west. The tower is not shown on the OS 1:500 town plan but the buttress is (although there is a discrepancy in aggregate measurement: the buttress here lies at c. 47.5-48.5m from the site of the East Gate, as marked). It is presumed that the bastion was removed on the construction of the 'Royal Public Rooms' or the 'Subscription Rooms' c. 1820.

SECTION 2 Bailey Street and Northernhay Place

2.1 15m A high retaining wall of breccia constructed forward of the line of the wall, and presumably abutting the wall-face itself. The wall contains a door and metal stairway forming an entrance to the British Legion Club in the former Congregational Chapel on the site of the High Gaol, built in 1797 (Brockett 1962, 167). Both ends of the wall are finished in rounded quoins. C20th, presumably post-war, and post-dating the removal of Nos 7-9 Northernhay Place.

10m The wall at the rear of 6 Northernhay Place is not accessible since a late C20th extension to the solicitors' offices is constructed against the wall-

2.3 7m The wall at the rear of 5 Northernhay Place comprises a modern wall, tidied up by Exeter City Council c. 1986.

SECTION 3 Northernhay Place and Northernhay Gardens, to the boundary of the castle (inner ward).

3.1 12.5m

2.2

The wall at the rear of 4/3 Northernhay Place (the build is continuous across the boundary) is of mixed geology: breccia, red and white Triassic sandstone and volcanic trap. Four horizontal zones are visible:

- (i) c. 2m high at base is a probably-late underpinning containing roughly-coursed breccia and brick.
- (ii) c. 2m is well-coursed volcanic trap and Triassic sandstone sometimes in squared blocks, very little breccia in the area of No. 4, a little more to the north-west in No. 3.
- (iii) c. 1-1.5m rubble rebuild at the top of the wall comprising 90% red and white Triassic sandstone rubble, uncoursed and unsquared. This is a distinctive type of build, fragments of which are also to be seen on the inside face of the wall in this area and to the north-west (see section 3.4) but nowhere else.
- (iv) c. 1.5m of rebuilt parapet at the top of the wall, nearly all volcanic trap with much of the veined variety. ?19th-century.

3.2 16m

The wall at the rear of 1/2 Northernhay Place is obscured by late C20th office buildings abutting the wall.

There is a densely-planted flowerbed against the wall in the car park between Northernhay Place and Northernhay Gardens, making close examination of sections 3.3 and 3.4 difficult. This area is in need of further examination. Description here is an amended version of the 1978 survey.

3.3 6.4m

Virtually uncoursed rubble containing volcanic stone, breccia and some Triassic sandstone and incorporating some fairly large re-used blocks. Underpinned by up to 1.5m of coursed volcanic rubble. Except near the base of the wall, the junction of 3.3 with the various builds of 3.4 is obscured by vegetation. Post-medieval.

3.4 6.5m There are a number of superimposed builds in this section, here described in ascending order. Holly trees growing against the wall-face make details difficult to see.

(i) At the base of the wall are a few courses of volcanic blocks over an unchamfered plinth. Probably medieval.

- (ii) Roughly coursed, re-used volcanic blocks of various sizes. late medieval or early post-medieval.
- (iii) Fairly similar to, and possibly one build with, 3.3, but having a somewhat neater appearance and containing no breccia. 16th or 17th-century.
- (iv) Small breach containing rounded volcanic rubble similar to 7.3. 16th or 17th-century.
- (v) Build of breccia. Probably 1642-3.
- (vi) Build of Permian sandstone. Probably 1642-3. The bank behind the wall is well-preserved in the north-western part of section 3, although it has been subject to some lowering of its level since the 17th century (see interior, section 3.4).

3.5 10.3m

- (i) Three courses of dark, well-coursed volcanic trap, sloping slightly uphill. If this is the same as 3.4(i) a plinth might be expected below ground at this point. Presumably medieval but possibly Roman.
- (ii) Up to five courses of a less well-coursed, jumbled build, still all volcanic trap.
- (iii) c. 2m of rough-coursed and uncoursed rubble, principally volcanic trap, occasional Triassic sandstone.
- (iv) Predominantly breccia but with fair amount of small trap blocks as infilling. Continuous over the C19th niche with an arched brick head and down to ground level to the north-west. Contains a so-called musket-port and therefore presumably 17th-century along with (v), 3.4 and 3.6 (qq.v.).
- (v) Build of Permian sandstone with some breccia. Small and rubbly. Appears also on the inside of the wall.

3.6 6.2m

- (i) Re-used volcanic trap blocks with occasional breccia. Neat but courses often discontinuous. Since this build is earlier than those attributed to the Civil War hereabouts: (ii) below; 3.5(iv-v) etc. it is presumably late medieval to early 17th-century in date.
- (ii) Build entirely of coursed breccia. Contains three musket-ports (best seen from the inside of the wall where large breccia slabs act as capping to the embrasures), large breccia coping stones. The build abuts and partly underpins the easternmost pilaster buttress of the corner tower of the castle. This is presumably datable to the Civil War and thus represents a part of the expenditure of more than £400 on the castle in 1642-3: as documented in the siege accounts (Stoyle 1988, 31-46).

SECTION 4: The castle from the eastern tower to the northern corner.

4.1 4m

Immediately north of the easternmost buttress of the corner tower of the castle and ?contemporary with it is a build of uniformly undressed small volcanic trap fragments, roughly coursed, the lower limit of which is level with the base of the buttress. Similar in some ways to the facework of the tower (Blaylock 1991(b), 5). This small area of masonry is of interest in that it could be contemporary with the tower (i.e. 13th century), or might even predate it.

4.2 11.5m

- (i) A small area of Triassic sandstone blocks at the junction of 4.1 and 4.2 may represent a surviving fragment of early facework, as may some surviving courses of Triassic sandstone blocks near to present ground level a little further to the north-west. These may be re-used.
- (ii) Base to wall of volcanic trap blocks or underbuilding of same, may

include Triassic sandstone blocks as described above under build (i). (iii) An extensive build of breccia blocks forms the greater part of this section, beginning with underpinning of 4.1. At the base of the southernmost part of the build there is a rough batter which becomes a plinth further to the north-west. The build is probably a part of the 17th-century work on the castle, as identified in 3.6(ii) above. The relationship between 4.2(iii) and 3.6(ii) is uncertain, the joint between them being messy. The two builds are sufficiently similar in style and composition to suggest that they are near contemporary.

(iv) Brick parapet: this caps 4.1 and runs as far as John's Tower to the north-west, i.e. caps 4.3 and 4.4 as well.

- 4.3 22.3m
- (i) Volcanic trap build at the base of the wall, plinth and facework courses above. Plinth steps up c. halfway along build.
- (ii) Breccia rebuild extensive across top of south-east half, less extensive but still large across the top of north-west half. Occasional blocks appear at base of wall, i.e. in repair of (i) in south-east half. As 4.2(iii) 1642-3.
- (iii) Brick parapet as in 4.2(iv).

4.4 7.6m

In gap between 4.3 and John's Tower. Bulging facework of breccia, veined volcanic trap and Triassic sandstone. Contains a blocked window. Post-medieval.

4.5 6.5m

John's Tower, a semi-circular 'drum' tower projecting from the wall. Although the tower now has a rather bogus appearance, due to its conversion into a gazebo in the late 18th or 19th century, much of the original 13th-century fabric does survive.

Exterior Elevation: The best view of the tower, that with the least disruption from later repairs and additions, is from the north. All of the main elements in the tower structure survive: the base of the tower comprises three courses of battered masonry with traces of a vertical lower face beneath this. The main drum of the tower rises from a chamfered or beaked string course above the battered base. The drum is punctuated by three shallow pilaster buttresses in ashlar of volcanic trap and Triassic sandstone. The string course runs around the buttresses which carry down below it to die into the battered base. The facework between the buttresses is of uncoursed or roughly coursed volcanic trap rubble. Much of the lower part of the facework is disturbed. The original character of the masonry is probably best seen in the upper half of the section on the north side between the last pilaster and the city wall.

At the top of the drum is a second chamfered string course above which the line of the facework is continued in a rebuilt parapet which is of stone but is probably coeval with the brick parapet to the north and south (4.2(ii); 3.5(iii) etc.).

Two narrow lancet windows in the first-floor stage of the tower are probably survivals from the original. The windows face north and south and are backed inside the tower by arched embrasures which also appear to be undisturbed. There are no windows in the outward-facing bays of the tower, i.e. the areas between the outer pilasters and the broader buttress in the centre of the elevation but this buttress bears a looped arrow slit, again with an embrasure to the rear. The ashlar around the arrow loop is weathered and appears to be *in situ* so it is probable that this is a primary feature of the tower. The inserted corbel below truncated the lower arm of the loop. The possibility that the loop was

'improved' when the lower stage of the tower was altered perhaps should be borne in mind.

The broader central pilaster terminates in a corbel inserted on the creation of a broad arch in the ground-floor stage. In addition to the central pilaster this arch cut through the string course and battered base of the tower. The inner arch of the embrasure is of breccia ashlar. The dressed stone of this and the broad pointed-arched windows to either side is Bath stone and veined volcanic trap.

Interior: Inside the tower is now open between ground and first floor. A brick vault above the first floor supports the earth fill of the topmost stage. The arched embrasures belonging to the first-floor windows, as has been said, are probably original elements in the tower. The similar embrasures of the ground floor are suspect, for unless they contained loops or other very narrow apertures, such an arrangement at ground level is unlikely. The nature of any floor within the tower and of means of access into it from the castle enclosure are unknown.

Relationship to adjacent wall: The masonry of the city wall immediately to the north of the tower looks similar to the facework of the northern bay of the tower which is suggested as an original survival (above). The battered base of the tower seems to abut the vertical face of the adjacent wall so this is presumed to be earlier than or coeval with the tower. To the south the rubble build 3.6 is of post-medieval date and abuts the tower.

Date: The geological mix of building stone, the small lancet windows, the shallow pilaster buttresses, and the semi-circular form of the tower combine to suggest a date in the 13th century. Similarities with the corner tower of the castle to the south-east (Blaylock 1991 (b)) and the angle tower at the eastern corner of the city (see 28.6 below p. 40), although not close suggest that all these structures may have been built within a short time.

The alterations are presumably part of the landscaping of the Northernhay area which took place from the later part of the 18th century onwards. Some levelling work had taken place in Northernhay as early as the early 17th century (Oliver 1850, 135) and although elms were felled during the Civil War they were replanted in 1662 (ibid.). Two valuable mid-18th-century maps, Rocque's of 1744 and the Chamber Map Book of 1758 show that a part of the ditch outside the city wall was still open at that time. Landscaping began in Rougemont Gardens with the construction of Rougemont House c. 1768 (ibid., 136). and continued in the 1770s within the castle enclosure (Blaylock 1991(a), 5). The area is shown with groves of trees and labelled Northern Hay Walk on Charles Tozer's map of 1792. Two drawings by Exeter artist John Gendall, undated but perhaps early 19th-century, show the wallwalk within the castle enclosure at this point and include the brick parapet, the retaining wall behind the walk and show the top of the tower as continuous with the walk (Baker 1979, 39 and Pls: cover and p. 28). Some of the alterations, at least, had taken place by 1851, since a sketch of that date shows the broad arch in the ground-floor stage (Carter 1915, opp. 209).

Other references: Burrow (1977, 20) gives a plan at wall-top level; Brown gives the names of three towers that were ruinous in the late 13th century (Brown et al. 1963, 648), one of which may relate to this tower.

(i) The section of wall immediately north-west of John's Tower is probably medieval in origin. The evidence of the similarity of style, and the relationship with the base of the tower have been described above.

The build is composed of volcanic trap rubble with putlog holes. Much of the battered base, which is higher than that of the adjacent tower, is probably refaced and the facework beneath is largely modern, containing a high proportion of veined volcanic trap, probably C19th or C20th. (ii) The build is surmounted by a brick parapet of the same date as that of the tower to the south-east and the continuation of the wall beyond (4.3(iii) etc.). This continues over 4.7 to the north-west and stops in a straight joint against 4.8.

4.7 c. 19m

- (i) Coursed squared blocks of breccia (predominant) and a scattering of re-used volcanic trap and Triassic sandstone blocks. Straight joint where this work abuts 4.6 to south-east. The build incorporates some of the battered base below but the extent of this is obscured by growth of moss. Possibly work of 1642-3. The build is constructed in three distinct faces with articulated breaks in angle between them as the wall begins to round the corner of Rougemont. The third face contains a late patch comprising very heavily veined volcanic rubble.
- (ii) Brick parapet as 4.6(ii).
- (iii) Base of the wall, below the batter, is modern refacing. Some patching was carried out here in 1989 after the footings were cracked by the movement of an adjacent tree in the January storm.

4.8 8.7m

- (i) Mixed composition of squared blocks of volcanic trap, and Permian and Triassic sandstone. Has a crude, steeply chamfered plinth at base, unworked, i.e. with blocks set on an angle rather than worked to a chamfer. At least 4-5 courses above the plinth look undisturbed. Above this the facework is, at least, heavily repointed and probably rebuilt in part.
- (ii) The parapet is late, possibly contemporary with the extension to the Court buildings within the wall, of 1905 (Cherry & Pevsner 1989, 401). Part of the build at least looks as if it is built over 4.7 and might be contemporary with the construction of the Court buildings in the 1770s, as 4.9.

4.9 13.3m

Boundary wall of mixed geology forming the northern limit of the Court buildings of the 1770s. Incorporates a doorway with flat relieving 'lintel' of breccia (which was subsequently lowered, presumably c. 1905, with a replacement in brick) and a pier of volcanic trap ashlar which acts as a terminal to the wall and the railings beyond.

SECTION 5 Northernhay Gardens: rear of Court to Athelstan's Tower

5.1 34m

Iron railings on a low sleeper wall forming a rear boundary to the Court buildings. The wall here was demolished for the construction of the courts in 1774. Comparison of various views of the mid 18th century and earlier shows that the northern gate of the castle and the postern/barbican lay in this area. Rocque's view, incorporated in his map of 1744, shows a possible masonry break in the fabric of the wall (where the surface treatment changes); a crenellated parapet running as far as Athelstan's Tower (5.4, below); and people walking on the top of the wall. Both Rocque and the Chamber Map Book of 1758 show that the earlier 'Sessions House' lay against the inner face of the city wall slightly further to the south-west than its successor and that the 'sally port', as it is called on the Chamber Map Book, lay slightly to the east of the Sessions House.

5.2 4m

Pier of volcanic trap and associated work to south-west, comprising a wall and doorway with jambs of neat breccia and volcanic trap ashlar. Equivalent to 4.9 but no early phase of lintel to the door is preserved here, presumably because the upper part of the wall has been rebuilt. Originally built in the 1770s, rebuilding (?) 1901. There is some associated work further to the south-west over the upper builds of 5.3, especially the concave-topped parapet immediately south-west of 5.2

5.3 30.3m

An interesting and complex section best described by builds from bottom to top:

(i) The earliest build detectable here comprises two detached areas of facework with coursed large blocks of grey-purple volcanic trap. The blocks are weathered with wide joints. The second, south-western, section has a level upper limit, perhaps representing a horizontal offset some 0.13-0.17m deep, and is obscured by the modern pathway approaching Athelstan's Tower, some 3.9m short of the tower. This build is interpreted as a remnant of Roman facework. A further observation in 1988 showed that, at a point some 15m north-east of Athelstan's Tower where several blocks of facework had come away, Roman herringbone core was visible immediately within the facework. Examination of the mortars at this point suggested that the core and facing blocks were of one construction. The gap has now been filled in. (ii) Large blocks of white Triassic sandstone, approximately squared and with fairly wide joints. This section overlies the north-eastern section of (i) and abuts the south-western section, building up the wall-face to the level of the offset, and then set back on the line of the wall-face proper for a further three to seven courses (0.60-1.50m). For much of its length this build has been heavily cut down. Much has been made in the past of several blocks of Triassic sandstone positioned on end c. 3m to the north-east of Athelstan's Tower. Interpretations have suggested that these represent a jamb or quoin of some feature in the wall at this point, coeval with the masonry of (ii). More likely it seems is that the stones are either reset in later masonry and are thus coincidental, or they represent a remnant of original upper facework of this phase which has become surrounded by later masonry.

The dating of this masonry presents an interesting possibility: if the volcanic trap work beneath is Roman (above) and if the usually rubbly facework in a brown mortar is late 11th-century (below) then this build, which must fall between the two, could be pre-Norman in date. This dating was first suggested by Burrow (1977, 20). Recent researches have, at first, tended to disbelieve Burrows' sequence suggested for this build (and illustrated by a sketch elevation), but still later work has shown the similarity between work at the early Norman Gatehouse (Blaylock 1987) and build (iii) below, plus the likelihood that the use of Triassic sandstone (Burrow's 'Beer stone') is an indicator of early date. Thus much of the outline sequence proposed by Burrow is supported here. (iii) Several areas of poor-quality facework composed of weathered uniformly dark purple-grey volcanic trap in very small rubbly stonework. The bonding material here is very distinctive comprising a yellow-brown sandy mortar. Both the character of the masonry and that of the mortar are best seen in an area north-east of the centre of the build, some 20-25m north-east of Athelstan's Tower. Elsewhere masonry of this phase is heavily patched due to its poor quality, e.g. in the section of c. 4m immediately north-east of the tower.

The dating of this build depends on a comparison with the low-grade rubble facework of the castle gatehouse tower which it resembles closely (Blaylock 1987, 3-4). Admittedly this is not a conclusive method of dating, especially for this build on which so much depends for the relative dating of the earlier build. Possible alternatives might be that this build is Norman but belongs to some period of hasty rebuilding, perhaps after the seige of 1136, or that the work belongs to some other, later medieval period. If so the style and composition of the work are unique. Such an interpretation would open other possibilities for the dating of build (ii).

(iv) An extensive area of predominantly breccia facework but with a good percentage of Triassic sandstone and volcanic trap plus occasional blocks of Beer stone. Coursed and roughly squared blocks. The extent is mainly limited to the south-west by (iii) and to the north-east by builds of the late 18th century (5.2) associated with the Court buildings. The composition is consistent with a rebuilding employing mostly new material (the breccia) but re-using some blocks from an earlier build in the same position (the trap and Triassic sandstone). In two areas blocks of breccia project from the facework and may indicate the positions of buttresses now removed.

Build (iv), along with sections of similar composition on the north-east wall of the castle, is probably a part of the Civil-War work on the castle. (v) The latest build in the sequence comprises extensive areas of rebuilding at the top of the wall. Virtually all of the parapet, plus a large area of facework towards the north-east end, are composed of small hard volcanic rubble in a distinctive style with modern cement bonding: second half of the 20th century.

Athelstan's Tower. A 12th-century tower at the junction of the castle and city walls. Precise dating is in doubt: whether a rectangular tower such as this can be placed in the early part of the century, that is before Stephen's siege of 1136 (when, according to the Gesta Stephani, the castle possessed a stone wall [Brown et al. 1963, 648]); or whether it belongs to some later phase of additional fortification to the castle circuit, as must have been so in the case of its counterpart at the eastern angle of the tower (above p. 9; and Blaylock 1991(a), 6).

(i) Primary form of the body of the tower. The masonry of the tower shows many phases of repair but its primary form is recognisable still. The body of the tower is square in plan with shallow pilaster buttresses on the south-west and north-west faces. The stone of the primary build is a mixture of volcanic trap and white Triassic sandstone, employed as ashlar for the quoins and the bulk of the pilaster buttresses, but as coursed unsquared rubble for the remainder of the facework. Where visible the primary mortar is a hard, buff-white, stony mortar. Several courses of an original battered base survive (in volcanic trap) on the south-west face. Most of the deep batter is now replaced below, although original facework at the base of the tower shows that the replaced batter is the same depth and projection as the original. Where the later pathway giving access from Rougemont Gardens into Northernhay Gardens has broken through the base of the tower, dense mortared rubble core, apparently entirely of volcanic trap, may be seen. The broken-through passage, and the applied stair turret of breccia which abuts the south-east face are both recent additions; the tower was originally solid to its full height and approached only from the interior of the inner ward of the castle.

5.4

7m

- (ii) Repairs to the body of the tower, comprising blocks of breccia and re-used Triassic sandstone and volcanic trap. The rebuilding covers the upper halves of the south-east and north-east faces, and the uppermost (?) four courses of the south-west face. Predates the addition of the stair turret (below), but is probably still C19th.
- (iii) Addition of stair turret. The turret abuts the south-east face of the tower with a very clear straight join. Squared breccia predominates although the fabric also contains volcanic trap, occasional other stone, and brick vaults to the ground-floor entry to the passage through the base of the tower proper. The interior contains a stone newel stair lit by small triangular-headed windows in south-west: two in the south-west and three in the south-east faces. The turret rises one stage further than the tower, to a total height of 11m, and is capped off by a crenellated parapet with breccia coping stones. Modern repairs and repointing to the turret (following the fall of a tree onto the structure in 1973) are visible at the top of the south-east face.

The brick parapet to the upper stage of the tower was added at the same time as it abuts the stair turret. The crenellations are topped with coping stones of breccia.

The dating of this addition is aided by various map sources. 18th-century maps show Athelstan's Tower as a square structure on the corner of the inner ward of the castle and communicating with the top of the inner bank thereof. Jenkins' engraving entitled 'North view with the Sally Port', to be dated in or before 1806 (Jenkins 1806, 278) shows only the tower without a stair turret rising above it. Furthermore the stair turret is not shown on the map of Coldridge of 1819 but by the first edition of the 1:500 Ordnance Survey town plan (1876) the turret is there. A further refinement is provided by a sketch of the tower by Deckement of c. 1856 (DRO/Z19/31/3/12, fo. 73) which shows it complete with stair turret. Thus we see that the tower received the stair turret (and presumably was also knocked through to Northernhay, although this event could have taken place at an earlier date than the addition of the stair) somewhere in the second quarter of the 19th century.

The battered base and below: (i) North-west face. One or two remnants of the original battered base survive at the top where the pilaster buttress of the face above dies into it. The majority of the batter is rebuilt in breccia blocks, totalling seven or eight courses, plus five to six courses of vertical facework beneath. This rebuild could be a 17thcentury repair, cf. the work identified as of 1642-3 further east on the north-east side of the castle. Below the breccia rebuild the north corner is rebuilt recently (i.e. C19th or C20th) using old stone. The remainder of the vertical face comprises three to four courses of good-quality squared volcanic trap and Triassic sandstone facework and perhaps represents a remnant of the original base of the tower. Beneath the squared facework is the lowermost section of lower-quality rubble facework, still of volcanic trap and Triassic sandstone in a brown gritty mortar which, although repaired and repointed, may also be original. The lower-quality being because this section was intended to be below ground, or to be covered by a bank.

(ii) South-west face. Again there is a remnant of the original battered base at the top, then the majority of the batter is rebuilt in breccia, which may also be C17th. This section is overgrown and it is not possible to see the precise limits of the two builds.

Beneath, the vertical facework is of two varieties: squared volcanic trap blocks towards the western quoin; volcanic trap rubble within this. Both are affected by some rebuilding, with breccia and brick introduced into the fabric but the two builds may parallel those of the north-west face and reflect the amount of fabric that was intended to be seen above ground.

SECTION 6 Northernhay Gardens/Rougemont Gardens, i.e. that part of Northernhay backed onto by Rougemont.

6.1 56m

This is a complicated stretch of wall, the fabric of which is the product of a continuum of repair and alteration. It is described as one build here because (a) there is a continuous plinth with associated facework which, although heavily patched, can be seen as a Roman/medieval original; (b) none of the patches and repairs are sufficiently well-defined to warrant the description of a separate 'build'. The ground slopes gently towards the south-west over this length and the succeeding builds of section 6; by and large the coursing follows the gradient.

(i) Primary builds. 5-6m of work at the south-western limit of the section survives as a stretch of probable Roman wall. This comprises a plinth and 2-3 courses of dark purple vesicular volcanic trap bonded in a very stony mortar. The plinth is chamfered but there is evidence that the chamfer is the product of recutting: one very large block at the south-west end of the build and a shorter one adjacent to the north-east show an unusual profile in that the upper surface of the block is not level with the top of the chamfer but continues upwards on the plane of the wall-face for 10mm or so. Such an arrangement is highly unlikely if the blocks had been worked with a chamfer originally so it is most likely that the chamfer (the surface of which survives with very clean-cut edges) is the product of remodelling. Comparison of the angles on the blocks of this stretch shows that they vary considerably: another factor which supports the recutting contention. The face beneath the plinth is late underpinning and above the courses of Roman facework is a large area of rubble facework with occasional runs of squared blocks which look as though they may be survivals of earlier facework.

The remainder of the build to the north-east retains a chamfered plinth which does not seem to have been regularly re-cut and a varying number of courses of volcanic trap facework above. This probably medieval but could be Roman.

(ii) General Description. Since it is difficult, without a drawing, to differentiate builds and repairs in a description, the main bulk of the description is best handled in a north-east/south-west sequence. The facework may briefly be described as follows: At the north-east end the standing face comprises up to six courses of dark purple volcanic trap surmounted by a further five courses of weathered paler-coloured stone. The former shows a relationship with the facework of the lowest stage of Athelstan's Tower, which abuts the facework of the wall. Unfortunately there is enough patching in the tower to preclude a definite assertion that the wall facework predates the tower, but the nature of the blocks would not be inconsistent with a Roman date. The plinth is replaced by breccia work for the first 3.4m from the base of Athelstan's Tower. Above the volcanic-trap facework, just described, the remainder of the height of the wall is of rubble facework, predominantly

of trap, with some later repairs. At a point 11-11.5m south-west of the tower there is a patch of breccia in the lower face, including an inserted breccia plinth block. This insert may mark the position of a former buttress. It also marks the limit of the rubble facework described above. To the south-west the facework continues with: (i) c. six courses of uniform dark purple volcanic trap above the plinth and (ii) c. eight courses of mixed dark purple and paler grey/purple volcanic trap in c. 30:70 proportion; (iii) Above is a rebuild of mixed geology which may include some original blocks and extends north-east over the rubble facework of the first section. This rebuild terminates in an offset which supports the modern, rebuilt, parapet; (iv) a stretch of better-looking facework of weathered pale mauve volcanic blocks, c. twelve courses for c. 2-3m, again surmounted by rebuilt parapet; (v) (iv) is succeeded by a build at the top of the wall in which Triassic sandstone predominates. The key parapet build commences towards the north-east end of the build (c. 10m from Athelstan's Tower) with 1-11/2 courses and increases in depth to the south-west. This build sits on a shallow offset at the top of the wall fabric (c. 0.1m deep). Above the arch into Rougemont Gardens the parapet consists of six courses of white Triassic sandstone blocks, with some pink Permian sandstone, and some breccia. Remnants of crenellations are visible here: one fairly clear blocked embrasure above and slightly to the south-west of the archway; a second is represented by a patch of breccia rebuild c. 5m to the south-west of the arch. Any further crenellations are obscured by repairs and later fabric to south-west and north-east (cf. also the description of the interior fabric survey, Blaylock 1993, 8-9).

The arch lies at 26.75-27.75m from Athelstan's Tower, is finished with neat breccia quoins and voussoirs and has herringbone facing of rubble in the reveals. The entrance was made in 1913 (after the demolition of Northernhay House and the annexation of its grounds to the public gardens). The archway is cut through the plinth which has been dressed off for c. Im to either side of the arch although the blocks are still visible.

The bulk of the wall south-west of the archway to Rougemont Gardens continues with squared volcanic trap facework, although there is a large patch of breccia, thirteen courses above the plinth, from c. 4.50-7.00m south-west of the archway. At c. 16.75m south-west of the archway there is a slight change of angle in the wall beyond which the facework deteriorates with the volcanic-trap rubble facework, of the type best seen at the south-west end above the Roman plinth, predominating. This is surmounted by six or seven courses of rebuilt parapet.

Regularly-coursed volcanic trap with some Triassic sandstone, the latter increasing towards the top. The upper part is less well-coursed but there is no clear horizontal division between the two styles. No plinth. Straight joints at either end. Later than 6.1; relationship with 6.3 unknown. Rebuild using original materials? One brick could be a blocking.

Coursed veined volcanic rubble, some vesicular trap, one block of breccia. Straight joint with 6.4. ?Earlier than 6.4. No plinth.

Good-quality coursed volcanic blocks, some Triassic sandstone, two bricks and several sharp-edged blocks of white oolite, probably Portland stone. Steps out from 6.3 by 0.05m. No plinth; straight joint at either end. Presumed later than 6.5. Post-medieval rebuild.

6.2 6.5m

6.3 6.9m

6.4 4m

6.5 2m

Steps out from 6.4 by 0.15m. Part of build 7.1 within this sector, i.e. within south-west boundary of Rougemont Gardens on the interior of the wall. See 7.1 for description.

SECTION 7 Northernhay Gardens: boundary of Rougemont Gardens to Queen Street

7.1 21m [plus 2m of 6.5 = 23m]

Well-coursed volcanic blocks with some Triassic sandstone, one block of breccia and occasional blocks of South Devon limestone which are probably inserts. Putlog holes. There is an occasional stylistic trait whereby large blocks which span two courses are introduced, possibly near putlog holes. The plinth, which was set substantially higher than those of 6.1 or 7.2, has been removed and the lower section of the wall comprises a high underpinning containing much densely-veined volcanic stone and some brick, breccia and South Devon limestone, i.e. 19th-century. The uppermost seven or eight courses of the main facework show a slight difference in style and may be a later rebuild. The masonry here is still all of volcanic stone but is in smaller blocks.

7.2 10m

Facework of squared and coursed volcanic blocks to the full height of the wall in three builds. All contain dark-coloured vesicular blocks. There is no plinth as such but a straight lower edge from which the plinth has been removed and, towards the south-west end, c. 4m of remnants of the plinth and underlying work, which was continuous with that of 7.3 (q.v.) which survives. Most of the base of the wall is filled with late underpinning containing brick and breccia.

The facework above comprises (i) six courses of dark blocks in fairly deep courses averaging c. 0.25-0.30m and with a tendency to be rather tall, i.e. taller than they are wide; (ii) a central section of ten courses with smaller blocks c. 0.15-0.20m deep; (iii) seven courses of deeper courses again, similar to (i); (iv) the top of the wall is finished with five more courses of modern rebuild on the top. The blocks of (i)-(iii) are very uniform in texture and could be Roman facework in situ, although some is probably rebuilt facework employing blocks from the Roman wall.

7.3 9.5m

One or two courses of very large, dark purple vesicular volcanic trap blocks with an horizontal offset beneath, weathered to a shallow chamfer although the original upper surface may be seen to have been level by examining the blocks at the wall-face. Roman.

Above is a very poor-quality rebuild of small weathered volcanic stone rubble: a rebuild employing core stones. Probably post-medieval.

This section is of importance in the interpretation of the Roman wall. Although only two courses or so of Roman wall survive on the outside of the wall, these include the plinth and so demonstrate the level of the base of the wall (the plinth is reckoned to be within a course or two of the contemporary ground surface). Moreover the rear face in this position retains an exceptionally good section of Roman facework in three steps (EMAFU Northernhay Gardens 1982, section 3; drawing 211.2). This enables the relative levels of observations on the inside face in 1982 to be established in relation to the exterior in this part of the city, and provides useful comparative evidence to information recovered from Lower Coombe Street in 1992 (see interior fabric survey).

7.4 15.4m

Large square volcanic and breccia blocks (c. 60:40) above a chamfered plinth of breccia and apparently contemporary facework beneath. Integral buttress at 5.6-6.2m from the beginning of the build. The upper courses (c. ten courses) may be later in that there is a change in style from mixed breccia/volcanic to 100% volcanic blocks - but the upper part of the buttress is also volcanic and this change may be one of material only with no change in date implied. Probably late medieval or 16th-century.

The top three or four courses are rebuilt forming a parapet to the wall top.

7.5 5.8m

Between 7.4 and the point where the wall is obscured by abutting buildings. A later build abutting 7.4 in a straight join. All volcanic blocks well-coursed and squared. Coursing downhill. No plinth. Although there is a clear straight join with the lower half of 7.4 it is not easy to detect a break between 7.5 and the upper, all volcanic, section.

7.6 10m

Wall obscured by Northernhay Gate United Methodist church of 1857-8 (Brockett 1962, 197).

SECTION 8 Queen Street to Maddocks Row

8.1 48m

Wall demolished for Queen Street, 1838. Street fronted by former Post Office (north-east side) and Dispensary (south-west side). The 1876 OS town plan suggests that the wall survived as the boundary wall between 25 Queen Street and 26, the Dispensary of 1841. More recent OS plans suggest that this is no longer the case but that the line of the wall is maintained as the boundary of 25-26 Queen Street.

8.2 21m

The wall is obscured by buildings of the Elim Providence Chapel (1839; Brockett 1962, 228), built against the wall.

8.3 3m

A short length of wall is visible in a yard to the rear of the Elim Providence Chapel (between the original build, above, and the extension to the south-west of 1894). N.B. This point coincides with excavation and fabric survey work on the interior of the wall at Paul Street in 1983-4 (Blaylock 1988, 8-12) and the profile drawn across the standing wall shows this section (*ibid.*, Fig. 6, section 122). This short section comprises:

- (i) Twelve courses of well-squared volcanic trap blocks above a chamfered plinth. The first and the eighth courses are of tall blocks set on end (i.e. taller than they are wide); four blocks of breccia appear in the second and third courses. Presumably late medieval.
- (ii) Underbuilt battered base of Heavitree breccia plus occasional volcanic trap blocks. Twelve courses in total, six of which are battered, six approximately vertical. The chapel extension of 1894 has cut into the battered base but abuts the facework of (i) which can be seen running behind the building. Presumably post-medieval.
- (iii) Underpinning of brick and stone abutted by the chapel extension. Presumably contemporary with the main build of the chapel (i.e. 1839)

8.4 20m

First part of the build is obscured by the Elim Chapel extension but presumably build 8.3(i) at least continued for some way. By the time the face is visible once more, however, it is composed of large well-squared breccia ashlar blocks of the 1772 build associated with the Maddocks

Row arch ('Opened 1772' is inscribed in the keystone). The style of the blocks is useful for comparative dating as is the mortar, which is a hard white-lime mix which could readily be mistaken for medieval mortar. This build continues for some way to the south-west of Maddocks Row.

SECTION 9 Northernhay Street

9.1 15m

The first 5.5m is wholly obscured by the abutment of the building of 39 Northernhay Street but since the breccia build of 1772 may be seen running over the building from the north-east (8.4), and masonry of a similar style emerges at the south-west above the roof of a modern leanto structure, it is assumed that the late 18th-century work continues behind No. 39.

For a further 5.5m the wall is visible above a modern lean-to structure in the garden of 39 Northernhay Street (presumably erected in the early 1980s on the removal of more extensive buildings in this position, cf. 1978 Wall Survey).

Three builds are visible here: (i) large breccia blocks neatly cut and coursed, narrow joints, white mortar. Presumed to be a continuation of 8.4, of 1772. (ii) In the lower left corner (still above the lean-to roof) is an area of volcanic blocking with diagonal upper surface and a remnant of cement flashing from a roofline. Either filling in the scar left by an earlier building, or a remnant of an earlier wall-face protected by the abutment of a standing building from the rebuilding of 1772. Of these two options the latter is the more likely. (iii) Brick parapet of 19th or early 20th century, itself repaired in the 1980s.

Lastly, for 4m to the south-west of the standing building, is a good-quality build composed of breccia ashlar with c. 20% vesicular volcanic stone blocks, all well squared but coursed slightly with the slope of the ground rather than horizontally. The blocks, although well squared, are substantially more weathered than the work of 1772 to the north-west (which also lacks the volcanic stone element). The build ends to the south-west with an integral buttress c. 1m wide and 1m deep of the same breccia/volcanic mixture but a high percentage of vesicular blocks forming the weathered offsets. Parapet as the previous section: 19th or early 20th-century brick.

Croump (1942, not paginated) recorded a building inscription in the wall at 39 Northernhay Street reading: 'BUILDED AO.DO 1697 / CHRISTOPHER BALE ESQ / MAIOR / JOSHUA HICKMAN / RECEIVER. The stone does not survive and its location is unknown. It suggests a context for this build predating the 1772 work around Maddocks Row, yet post-medieval in character.

A relatively large sum of money was paid in repairs to the walls in 1696-7 (Juddery and Stoyle 1988, 17-18); although few details of where this expenditure was made survive, the Chamber Act Book of the period suggests that some of the work was 'near St Bartholomew churchyard (*ibid.* xi). The erection of a datestone must indicate a fairly large scale of work; some at least of this sum therefore may have been directed at this section.

A rather ragged build of volcanic trap blocks by and large uncoursed, bonded in a pink, gritty mortar. It resembles facework assembled from components of other collapsed builds. A number of brick patches. Earlier than buttress of 9.1 which abuts 9.2 (therefore pre-late C17th); also abutted by the boundary wall between 39 Northernhay Street and

9.2

4m

the former Easton's Yard. A small extension of the same build (1.5m or so) extends beyond the boundary wall into Easton's Granite Yard. This is excepted from dimensions here as 9.3 runs beneath it. Numbered 2 in the 1979 survey of that stretch of wall (see drawing 213.1).

The upper build above the stone section is mainly of brick but with some breccia, it abuts the south-west face of the buttress of 9.1. Two integral brick pilasters, or stumps of cross walls. Three courses of late 19th or early 20th-century at the top.

The builds described here under Nos 9.3, 9.4 and 9.5 encompass the section of wall in the former Easton's Granite Works yard, in the area of Nos 40 and 41 Northernhay Street. This area was recorded by EMAFU in advance of repairs to and some rebuilding of the fabric in 1979. The archaeological record is shown on drawing 213.1 which represents a much greater level of detail than that aimed for here. Consequently only the major builds are identified and described here. These are cross-referenced to the context numbers of their equivalents in the full record.

9.3 12m

Well-coursed weathered grey volcanic trap blocks with occasional Triassic sandstone blocks. Chamfered plinth below at ground level. No. 8 in 1979 survey. Later patches above (including No.2, the equivalent of 9.2, see above) and surmounted by a parapet of breccia (1 in 1979 survey). Medieval, uniform stone type and course size, so could be interpreted as an undisturbed build. Earlier than 9.2 and 9.4

9.4 20.4m

Begins with the scar of a former buttress (13 in 1979 survey) cut back to the wall-face. Good-quality mixed breccia and volcanic trap masonry with very variable course widths. The plinth steps down towards the south-west; next to the buttress the plinth is seven courses above the modern ground level for a distance of 1m before dropping five courses (0.80m); it then continues for 8.9m with 2-3 courses visible above ground level, inclining slightly south-westwards with the courses, before a second drop takes it below ground level. The main build is No. 16 in the 1979 survey, the plinth is No. 15. Presumably late medieval or 16th-century. The parapet is continuous with that of 9.3.

The top twelve or thirteen courses of masonry were rebuilt in 1979. The new work is characterised by saw-cut stone (breccia and volcanic trap) with razor-sharp edges.

9.5 5.4m

Relatively modern rebuild between 9.4 and a flat sloping breccia buttress of earlier date on the boundary between the yard and the garden of 42 Northernhay Street. No. 38 in 1979 survey. Composed of brick, granite, volcanic trap, Triassic sandstone, South Devon limestone etc., re-used square blocks in random courses. 19th or 20th-century. The buttress (39 in 1979 survey) is earlier. Measurement includes the buttress up to the boundary wall.

The stretch of wall in gardens of Nos 42-46 Northernhay Street. Sections of the wall here were badly overgrown with ivy in 1991, especially at 44 and, to the south-west, at 48. Both areas of ivy covered crucial changes of build. Removal of the ivy in 1992 enabled the structure of the wall to be recorded. The details of this area will be the subject of a separate report. The visible portions are described in sequence.

9.6 6.5m

In the garden of 42 Northernhay Street ending just within the garden of 44 Northernhay Street. Entirely volcanic trap, well-coursed but the stone weathered and the joints wide. No plinth is visible. As far as can be seen beneath the ivy growth this is all of one build and is presumably medieval. The sloping breccia buttress of 9.5 abuts this build. The boundary wall of the garden (north-east side) contains a good deal

of old stone of various types, presumably culled from a collapsed wall at one time or another.

9.7 11m

Spanning much of the width of the garden of 44 and 45 Northernhay Street is a build comprising large breccia blocks laid in sloping courses with occasional odd volcanic blocks intermingled. Is probably earlier than 9.8 below, as blocks of that build ride over the courses of 9.7 but similar in composition, so might also be c. 17th-century in date. later than 9.6, earlier than 9.8.

Two blocks of volcanic trap bearing a chamfer are loose in the garden of No. 45 (presently in a rockery). The ground level against the wall is some 1.50m higher than that in the adjacent property.

9.8 19m

From 0.65m short of the boundary of 45/46 Northernhay Street to midway across 48 Northernhay Street. Regular courses of good-quality breccia with some volcanic trap. There is a tendency for the breccia blocks to alternate with the trap, which were presumably re-used from an earlier build, hence a chequered effect on the wall-face. At parapet level are two narrow slits in the wall-face with splayed openings to the rear (visible from the rear of the wall in the Paul Street Car Park). The openings are integral to the build of the wall, are all of breccia, except for the later blocking. If the interpretation of these features as musket-ports of the Civil War is correct, they determine that the entire build must be of the mid 17th century (1978 survey; Burrow 1977, 21).

A further feature of interest is a very large slab of Purbeck stone integral to the build. The block spans two deep courses, with vertically-set blocks of volcanic trap to each side as packing. The surface of the block is worn away but it is likely that it is a datestone and once bore an inscription of some form. There is considerable evidence for the use of datestones in sections of wall which were reconstructed during the Civil War, above all in 1643-44 when £23 8s 9d was spent on repairs to the decayed wall in Northernhay, an amount which included a date stone (RB 1643-44, fo. 4; Juddery et al. 1988, 20-21). Payments later on in the same year shed further light on the form of datestones, for 'A quart & ½ a pinte of Linseed oyle & for 2li of colours for the date stone sett upp in the walle' on 11th May 1644 (ibid., fo. 4) and 'the Plumer for 6p o' Leadd for the inscripcon of the date stone' on July 11th 1644 (ibid., fo. 5). If the association of the build of wall with the work referred to in the Receiver's Book is sustainable this is one of the rare instances when an entry in the accounts can be associated with a particular build of the

There is a rebuild at the top of the wall comprising a mixture of breccia, volcanic and occasional Triassic sandstone rubble. The build is of variable depth but, at its lowest, lies one course beneath the base of the musket-ports, and continues upwards to the top of the parapet.

This build abuts 9.9 to the south-west and is set slightly back from the

This build abuts 9.9 to the south-west and is set slightly back from the earlier build at the base of the wall.

9.9 c. 21m

One build comprising base, chamfered plinth and superstructure of large well-squared, closely-jointed breccia ashlar in a very good state of preservation. Very occasionally a volcanic trap block is included in the masonry. The build commences about halfway across the plot of No. 48 Northernhay Street where it is abutted by 9.8. The two builds join in a step, 9.9 being set slightly forward of 9.8. Both builds 9.8 and 9.9 are cut off at the top and replaced by 19th-century rebuild going with houses built on the inside of the wall.

In the rear yard of 49 Northernhay Street the superstructure of the wall comprises nineteen courses of regularly-cut blocks, c. 0.20-0.30m deep. Less regular masonry above the nineteenth course is probably a rebuild. To the rear of numbers 50 and 51 the main build rises to twenty-six courses of masonry and, above the roof of the workshop 51a, probably to thirty courses. There is some evidence for putlog holes, the lowest seemingly in course nine where blocks are cut away for putlogs; the holes are now infilled with brick. The south-west end of the build is ragged, cut away and filled with rubble masonry (section 9.10). This is all visible in the interiors of No. 51a Northernhay Street (first floor) and 52 (ground floor), which although whitewashed are not rendered. 2.5m within the building the good masonry and the plinth terminate and are succeeded by late-looking rubble masonry.

Most of the top of the wall is rebuilt in stone of mixed geology that includes brick (above the later build in No. 49, already mentioned). The parapet includes two rectangular apertures which could be a remnant of crenellations but are more likely to be windows of structures formerly built on top of the inside face of the wall.

The main build is likely to be 16th-century in date, as there is evidence that it is earlier than 9.8 above, and there are strong similarities in the use of good-quality large-blocked ashlar of breccia, with a plinth, between this work and that on the wall in the vicinity of the Water Gate in the 1560s (see below p. 33).

9.10 11m

Rubble wall on the line of the city wall, certainly founded on core of Roman wall as shown by the North Gate excavations of 1978. Fabric recording of the rear face in 1988 revealed little ancient work. Probably 19th century. The south-western extension of this wall was demolished in 1978 on the construction of flats on the Lower North Street frontage (10.1 below).

N.B. Length here comprises 4m within 51a/52, south-west of 9.9 and 6m behind adjacent workshop of [?]52.

SECTION 10 Lower North Street

10.1 12.5m

The wall is missing up to the frontage of Lower North Street. At least a part of this was demolished in 1978. Evidence of Roman core and medieval ashlar refacing and chamfered plinth were recorded (Blaylock 1988, Fig. 3; photographs in EMAFU archive).

10.2 12.5m

Wall demolished for Lower North Street (4.5m) and Iron Bridge (8m). Site of North Gate, demolished 1769. Iron Bridge constructed 1834.

SECTION 11 Crown and Sceptre Public House and rear yard

11.1 10m

Entrance passage to the Crown and Sceptre, the left-hand wall is on the line of the wall and comprises C20th brick on three courses of breccia base. The latter is a part of the wall fabric as there is similar work in the wall-face immediately south-west of the entrance. The pub was constructed in 1836.

11.2 13.5m

Irregularly-coursed breccia with some volcanic trap and Triassic sandstone, and some brick. The build continues beneath the brick wall of the pub entrance (11.1 above), thus it is pre-1836 in date. Possibly 18th century. Terminates in a straight joint projecting c. 0.30m from the face of 11.3 and abutting the same. South Devon limestone and Portland stone blocks are included in the quoin.

The build is capped by a brick parapet continuous with that of 11.3

11.3 13m

Coursed volcanic trap and Triassic sandstone blocks with many smaller stones employed for levelling and for filling gaps. Quite well squared blocks although they degenerate towards the north-east end. The most representative section is towards the south-west end, and shows the build to be well-coursed trap and sandstone in varying proportions. At the end of the build is a run of c. 3m of projecting plinth of volcanic trap, unchamfered, or with only a very crude chamfer. This is c. 0 50m lower than 11.4 to the south-west.

The level of the plinth is replaced to the north-east by underpinning c. 1.5m high of breccia with occasional brick.

This build abuts that to the south-west, at the point where they meet. The face of 11.3 is some 0.10m within the line of that of 11.4 and the first blocks of 11.4 are shaved back to the plane of 11.3.

Both the main build and the underpinning decrease in quality towards the north-east, due to greater disturbance. Parapet, as above, brick.

11.4 15.5m

The primary build comprises at least four courses of large and deep blocks of volcanic trap, up to c. $0.80 \times 0.45 \text{m}$ in size, above a rough chamfered plinth. The plinth could be a weathered offset or re-cut. The facework and plinth are candidates for consideration as Roman work. Above is a rebuild comprising undulating courses of 70% volcanic trap and 30% Triassic sandstone as high as the wall-top, except at the northeast end where a concrete parapet joins the brick parapet of 11.2 and 11.3. Two window embrasures at the wall-top are filled in with bodged rubble.

According to a sketch by Croump (1942, not paginated) two 'loop-holes', i.e. gun loops, were visible in the wall in the Crown and Sceptre yard. The sketch shows features of very similar form to the loops at 46 Northernhay Street (above section 9.8). The loops are no longer visible, perhaps obscured or removed by the demolition of Lant's Almshouses which lay against the inside face of the parapet in this position until 1959.

Below the plinth (which is c. 2.2m above present ground level) there are at least two phases of underpinning:

- (i) at the south-west end of the build as far as the first buttress. Three courses of squared blocks immediately beneath the plinth could be original facework or a first phase of underpinning. The rest of the underpinning comprises c. 2m of small irregular trap and Triassic sandstone rubble. Exposed natural shillet and weathered clay is visible at one or two points at the bottom of the wall, suggesting that, as in (ii) this underpinning is a facing-up of a cut in the subsoil or bedrock beneath the wall.
- (ii) Mixed blocks and rubble between the two buttresses and to the north-east of the second buttress. The underpinning terminates in the scar of a further buttress or abutting wall which has been removed. The scar rises from ground level to a point c. 0.25m beneath the plinth. All of the exposed area consists of natural clays. At the very top of the scar a course of mortared wall-core is visible, suggesting that at this point the

original base of the wall lay just below the plinth and that a levelling operation has taken place in the Crown and Sceptre yard, cutting into the originally sloping ground outside the wall. The construction of the wall at this point may well originally have been on a steeper section of slope, or by means of terracing, may have exploited a natural slope to increase the difference in level. The present internal ground level is at the top of the wall with only the parapet above ground. Finally, two sloping buttresses of breccia abut both the primary build and plinth and the underpinning (ii). No relationship was established with underpinning (i). The buttresses are probably 19th-century.

SECTION 12 The Old Malt House, Bartholomew Street East

The wall is completely obscured by the building.

SECTION 13 Old Malt House to Friernhay Burial Ground

13.1	12m	(2m completely obscured by steps to Napier Terrace 1834 [Cherry & Pevsner 1989, 422]). Good, fairly narrow, courses of variable width, in which volcanic trap predominates, much of it brownish in colour, occasional Triassic sandstone. Weathered. probably late medieval. Late underpinning c . 1m high, abuts steps, therefore late 19th-century.
13.2	9m	Late rubble wall, butted by steps with railings added (i.e. demonstrably cut in). Contains breccia, granite, Triassic sandstone, York paving stone, brick and South Devon limestone. ?Mid 19th century. Abuts 13.3.
13.3	3m	Mainly breccia with occasional small volcanic trap and Triassic sandstone, levelling stone and slate. Post-medieval. Abutted by 13.4.
13.4	4m	Up to five courses of distinctive coursed old work at south-west end of build, no more than 2.5m long. The rest small volcanic trap and Pocombe stone with some Triassic sandstone. The small blocks in the later work were presumably derived from fabric of the same type as the original build. Railings inserted. Provisional dating: primary build ?medieval, rebuild post-medieval.
13.5	4.5m	Modern wall with ribbon pointing, itself repointed in 1990.
13.6	61.5m	The bulk of the build is of irregularly-coursed purple, veined volcanic, or Pocombe, stone with squared blocks of varying size. Granite coping

The bulk of the build is of irregularly-coursed purple, veined volcanic, or Pocombe, stone with squared blocks of varying size. Granite coping obelisks and gate piers. Presumed to be coeval with the catacombs of 1837. At the north-east end where the wall is just a low sleeper wall for iron railings there is a greater variety of stone type: including breccia, York stone, South Devon limestone, granite, as well as Pocombe stone. The cross wall at 52m south-west of the Old Malt House is a later addition, abutting the face of 13.6. A long ramp, parallel to the wall-face is shown on the OS Town Plan of 1876. As far as is known, the construction of the catacombs did not breach the line of the wall or involve the removal of wall fabric. Some ancient fabric may survive below ground/within the catacombs, therefore.

SECTION 14 Friernhay Burial Ground/St Bartholomew's Cemetery

14.1 46.8m

As 13.6. Abutting the granite obelisk of the gate and supporting the railings of Friernhay Burial Ground. As in the north-east extremity of 13.6, a greater mix of stone type occurs here.

14.2 22m

Well-coursed, large, square breccia blocks with some alternating thinner courses of light grey volcanic stone, the scheme not fully consistent. Putlog holes. Hard, white, gravelly mortar. Slates and occasional volcanic stones used throughout for levelling. There are several stones of a breccia plinth exposed by the falling away of the ground at the south-west end of the build. In the middle of the breccia blocks (which are unchamfered) is one block of volcanic trap with a crude and weathered chamfer - perhaps a remnant of a previous plinth.

The joint between 14.2 and 14.3 is untidy: the wall-face of 14.2 is some 0.10m back from that of 14.3, and at the junction is a narrow area without facework. 14.2 abuts 14.3. A possible interpretation is that 14.3 originally terminated in a buttress which was respected by the construction of 14.2, and which was subsequently removed. The breccia blocks of 14.2 show some differential weathering which may support this suggestion, as may one roughly chamfered volcanic block at the top of the break.

Date: late medieval or 16th-century. There is a payment in the Receiver's Accounts of 1530-31 to one Richard Tute, for the making of 76 feet of new wall in 'Frerenhay'. Tute provided the materials himself and received a total of £27 13s 4d for 70 feet plus an additional payment of 48s for a further 6 feet (RAR 1530-31, m.5d). Although the recorded length of 76 feet (23.16m) is rather longer than the surviving section of wall in this build (22m) the character of the construction suggests such a date and no other section of wall is a candidate for this entry. The discrepancy in length could easily be accommodated at the north-east end where the 1830s masonry abuts 14.2.

14.3 14.5m

Well-coursed, of variable width, volcanic trap, some very large blocks/deep courses, predominantly light grey, some brownish. Repointed in 1990, photographic and note record. Weathered. Hard white mortar, levelling slates in joints. Chamfered plinth in poor condition and part buried at north-east end of the build. From c. 4.5m into the build the plinth is replaced by a later underpinning of breccia and brick. The plinth and some of the large blocks of the facework are candidates for identification as Roman work, fulfilling several of the criteria: large, squared, but weathered blocks; uniform texture; rough plinth with 'chamfer' of a variable angle. Some of the facework is, more probably, a medieval rebuilding using stones from the Roman face. One course at the top is rebuilt to take the granite base of iron railings.

14.4 6.8m

Irregularly-coursed work of small volcanic stone, some of it veined, and breccia (15%), plus some chert and brick. 14.3, i.e. coursed uniform volcanic blocks, rides over 14.4 at the north-east end and it is not easy to trace a precise break between the two builds, although their individual characteristics are very different. 14.4 is a late repair/underpinning to 14.3. Post-medieval.

14.5 5.4m

Irregularly-coursed volcanic stone with some veined stone, and Triassic sandstone, with putlog holes. ?Late medieval. Abutted by a breccia buttress with battered top and chamfered string course or plinth near base at 1.10-2.00m from north-east end of build. Buttress late medieval or early post-medieval. A profile was published by Burrow (1977, Fig. 12 [All Hallows]). Two-three courses at the top were rebuilt in 1990.

14.6 13m

Coursed breccia blocks with some volcanic trap and Triassic sandstone and two square blocks of hard white limestone, Bath or Portland stone? and one of Ham Hill stone. Post-medieval, ?18th-century. There is a change in the style of the facework some 2.5m short of Barbican Steps; from slightly mixed work the build reverts to wholly breccia masonry which is noticeably less weathered.

N.B. The stretch 14.2-14.6 was recorded by photographs in March 1990 in advance of repointing and general repairs (by C.J. Tansley).

14.7 5.5m

Barbican Steps obscures the wall. Steps later than railings, therefore mid-late 19th-century.

SECTION 15 Barbican steps to Snayle Tower: garden of Hillyfield House

15.1 2m

Obscured by steps.

15.2 5.5m

Re-used, mainly Triassic sandstone blocks with a little volcanic trap, several blocks of a foreign stone, probably greenish-grey York stone, and occasional (early-looking) bricks. Abuts 15.3. ?18th-century. Parapet is a separate build, later, containing breccia.

15.3 33.5m

A composite of several builds, partly overgrown (by wisteria, so more accessible in winter). Described in linear order:

The length begins with c. 4.5m of well-coursed large Triassic sandstone blocks. The courses of varying depth, ending in a modern brick buttress constructed in 1979. The wall was photographed before the buttress was constructed and shows a break in the masonry at this point which is not now visible (ref: EMAFU/1210; 1211/2 & 4). Some at least of the break is merely the late rebuilt parapet (continuous with that of 15.2 above) stepping down to a lower level.

The 10-11m beyond the modern buttress is completely obscured by the wisteria but where it becomes visible again the masonry is of broadly the same composition and style of build, adjacent to the first old buttress. There may be a break somewhere in the hidden section as there is more volcanic trap in the latter section.

The first buttress is of 60% Triassic sandstone with volcanic trap and breccia. The weathered cap to the buttress is rebuilt with foreign inclusions, blueish granite, Beer stone etc. There are two weathered offsets to the body of the buttress.

The facework between the buttresses is still of predominantly Triassic sandstone, but is much rebuilt, with a higher percentage of breccia. The facework appears to merge into the rebuilt parapet.

The second buttress is mainly breccia, with a weathered plinth of volcanic trap. The top is rebuilt. One block of Bath stone on one of the quoins suggests that the whole has been rebuilt, perhaps in the 19th century.

From the second buttress to the southern boundary of 15.3 two builds are distinguished: (i) Triassic sandstone with some breccia in smaller

blocks and less well-coursed than that further to the north-east (c. 3.5m). (ii) Abutting (i) in a straight join is a further c. 3.5m of volcanic, breccia and Triassic sandstone roughly coursed up to the modern brick buttress on the site of Snayle Tower (16.1 below). This build must be late 17th-century or later. The parapet is a modern rebuild, here of very small stones. Immediately north of the end of the build (i.e. brick buttress of 16.1) is a vertical chase in the wall-face which represents the rear boundary of the 19th-century Paradise Place (cf. 1876 OS plan).

SECTION 16 Snayle Tower to Bartholomew Street West

16.1 5m

Two substantial brick buttresses and intervening wall-face of brick constructed c. 1979 in the position of the Snayle Tower, refacing the position where a house abutted the wall in the 19th century. Nine courses of stone at the base of the wall may be a remnant of the previous build. A photographic record of the old wall-face in this position was made in 1979 during the work (EMAFU/1211/1, 3). Snayle Tower was a semi-circular bastion at the western angle of the city, presumably (along with the other similar bastions of the circuit) constructed in the 13th century. No reference to the removal of the tower has been identified in the city archives, although a date between 1806 and 1813 can be isolated by means of a variety of evidence (see interior fabric survey, Blaylock 1993, 18, for references).

16.2 1.5m

Squared large breccia blocks, slightly weathered, volcanic trap and Triassic sandstone fragments at west end. Probably a remnant of the infill of the wall after the removal of Snayle Tower; if so, then the western limit of the build may mark the same of the tower. Again, if this is so, the date of this build should be early 19th-century.

16.3 8m

Dense small volcanic rubble with occasional blocks or runs of blocks showing as remnants of once-good-quality coursed facework. Contains the scar of a wall at ground level 3.8-4.3m from start of build. Presumably medieval in origin. Date of patching?

16.4 24m

Well-coursed facework of c. 60% volcanic trap and 40% Triassic sandstone, only distinguished from coursed remnants in 16.3 by use of sandstone so 16.3 and 16.4 originally may have been of one build. Three levels of putlogs. One fragment of late medieval/early post-medieval type floor-tile in a joint. Incorporates a crude niche with rendered inner faces at 3.4-4.7m. Parapet and uppermost courses of face rebuilt. Late medieval or early post-medieval, the Triassic sandstone being re-used from an earlier build.

16.5 16m

Irregularly-coursed facework of c.~80% Triassic sandstone, the rest volcanic, veined volcanic, breccia, slate, ?Beer stone, and South Devon limestone. Originally one build with 16.4 but completely rebuilt in the 18th or 19th century.

16.6 7.4m

Large blocks of well-coursed weathered volcanic stone, some brownish in colour. Chamfered plinth, and three-four courses of original facework remain. Rebuilt above in irregular volcanic rubble. The rebuild is respected by 16.5 and 16.7. The plinth and lowest facework courses are probably Roman, otherwise early medieval with post-medieval rebuild.

16.7 4.8m

As 16.5. A rubble rebuild patch of 1990 (Tansley's) spans the junction between 16.6 and 16.7. The first 0.75m of the build is disturbed with no blocks in the face and may represent the scar of a buttress, now removed.

16.8 14.5m

Mainly modern refacing but with some well-coursed volcanic blocks visible which may be medieval in origin. The parapet continues from further west. There is ancient-looking dark purple volcanic and Triassic sandstone rubble on the rear of the parapet - presumably this is re-used. Wall cut to east by footway.

SECTION 17 Bartholomew Street West to New Bridge Street

17.1 c. 12.5m Entrance to Bartholomew Street car park and footways. Some wall may survive below ground.

17.2 c. 68.5m

The wall was cut back by c. 2m and the core was refaced in late 19th century, on the construction of Rackclose Lane. Some original core may remain behind the refacing. This section was described as a grass-grown scarp in 1977 (Burrow 1977, 23). The present arrangement shows even less of the line of the wall than was visible at the time of the 1978 survey, after the construction of Beedles Terrace housing in 1977-81.

17.3 4.5m

A stretch of wall was recorded in the 1978 survey next to 2 Bartholomew Street West as: good-quality late medieval work, well-coursed volcanic and Triassic sandstone. This wall is (a) now much obscured by vegetation and the steps leading to Beedles Terrace, (b) has undergone some rebuilding and now shows mostly modern facework. Standing wall is shown in this position on the OS 1:1250 map of 1973 (sheet SX9192SE).

17.4 25m

Obscured by buildings as far as New Bridge Street, and mostly destroyed by the same. A pier of masonry in the cellar of 41 New Bridge Street incorporates a section of c. 1m of outer wall face in which two builds are visible beneath a heavy coating of limewash: (i) for a height of c. 0.60m above floor level is facework of random rubble including breccia, above which is (ii) four courses of more regularly-coursed blockwork (whose stone type is not visible although from the size and texture is probably volcanic). The upper facework could be Roman or medieval work; the rubble facework might be underpinning of the base of the wall after the removal of a plinth. At each end the pier is cut and faced with 19th-century brickwork so nothing is visible in section.

The section of wall lies c. 4.5m from the north-west boundary of the property; to each side the building is supported by brick piers on the line of the wall (thus 1770s or later) suggesting that no other trace of the wall survives.

17.5 15m

Demolished in 1770-76 for the construction of New Bridge Street. Site of the church of All Hallows on the Walls, ruined from the late 17th century, removed 1770.

SECTION 18 New Bridge Street to site of West Gate

18.1 13m

Obscured by the buildings of 2 West Street (inside) and 1/2 New Bridge

Street (outside). It is not known if any fabric is visible, or indeed if any survives. In the lower floor of No. 2 New Bridge Street the north-east wall may contain some wall fabric but none is visible. From a small window at the south-east end of the building the exterior wall to the south-west is visible and the internal elevation of the building is seen to cut into the line of the face by c. 0.5m. This, along with the lack of visible masonry (except late-looking work on the line of New Bridge Street), rather counts against there being any surviving visible fabric.

18.2 16m

The wall is standing to a height of c. 6m, composed of well-squared and coursed volcanic trap blocks, some brownish in colour, and c. 20% breccia blocks which occur throughout. Occasional Triassic sandstone blocks. Putlog holes. The West Street houses (Nos 2-8) are built on top of the wall, aligning with the outer face, and much brickwork, drainage pipes etc from these intrudes on the fabric. At the base is later underpinning in breccia. There is evidence for two former buttresses, one at each end of the surviving build: the western buttress scar is immediately by the cut for the New Bridge Street buildings, the eastern buttress is near the boundary of 8 and 10 West Street.

Limited observations of the core and position of the inner face of the wall were made in 1990 during the refurbishment of 8 West Street (EMAFU drawing: 275.1), work which included the cutting of a new window into the fabric of the wall.

The surface of this build has weathered very unevenly. There is a good deal of evidence for joists and other supporting elements of buildings having been cut into the wall-face.

Build 18.2 is probably late medieval in origin. It has some similarities with similarly-dated builds in Cricklepit Street to the south-east (cf. section 19 below).

18.3 5m

A very disturbed build with much late patching at ground level, but the topmost eight courses or so are mostly breccia, with some volcanic trap and contain an opening which resembles the musket-ports of the Castle and Northernhay Street (see builds 3.6(ii) and 9.8 above). If so this is presumably mid 17th-century with extensive 18th and 19th-century patching, or a partial rebuild of this date. Corresponds to 10 West Street.

18.4 18m

Stone ground floor containing brick relieving arches/barrel vaults to cellars, first floor all brick. Corresponds to Nos 12-18 West Street. The wall has probably been removed entirely from this section although the stone in the piers between the cellar arches may be re-used from the wall. Early-mid 19th-century.

18.5 3m

Short length of wall-face of large breccia blocks with some volcanic and Triassic sandstone blocks. Chamfered breccia plinth. probably 16th or 17th-century, cf. area of Quay Lane/Watergate (Section 19.8) and Northernhay Street (Sections 9.8/9.9). Immediately north-west of 18.5 are a few stones of an earlier build in neat squared blocks of volcanic trap. These are abutted both by 18.5 and the cellar walls of No. 18 West Street in 18.4. Possible buttress at this point?

18.6 13m

Rubble wall of 18th or 19th-century date. Two builds, the first (western) is predominantly volcanic stone, the second (eastern) is still later and resembles the 'bus station' work of the 1930s at Paul Street. At the end of the build, immediately west of the site of the West Gate a small fragment of old work survives.

18.7 77m

Site of West Gate (demolished 1815) and wall to south-east, demolished in 1960 for the construction of the Inner Bypass. The situation 1815-40 is shown by Shapter (1849, 111): a rounded terminal on each side of the breach (that to the NW survives in an altered form). Further widening to the south-east of the site of the gate took place c. 1840, being recorded in a pencil sketch by (?)John Gendall (WCSL P&D 5664). Little is known of the late 19th-century history of the wall; an etching of 1912 of West Street by David Neave shows railings on top of the wall but this is taken from the interior of the city and shows nothing of the character of the outside face (WCSL P&D D7280 [EPRS 306]). According to a description of 1956: 'the section south of the site of the West Gate has been entirely rebuilt up to the flight of steps [i.e. the present NW limit of section 19] and is set back from the original line' (letter from Aileen Fox to City Surveyor, 6h December 1956: ECC Department of Technical Services microfiche file).

SECTION 19 Cricklepit Street

The section of wall from Western Way to the site of the Watergate was recorded in 1985, and has since been the subject of two excavations: the site below the Watergate (section 19.8) and a strip at the base of the wall mid-way along Cricklepit Street (sections 19.4-19.5). These have generated large quantities of records and no attempt to give detailed descriptions based on their findings will be made. Rather the description of section 19 will be cut down to a summary of the main builds. Detailed description is contained in a separate report on the fabric survey of the wall (Simpson forthcoming). In the descriptions of the main builds the context numbers from the survey of 1985 are given as cross-references.

19.1 1.4m

Roughly-coursed mixture of stone c. 1960 associated with disruption caused by construction of the Inner Bypass. Other associated work employs all South Devon limestone. Cricklepit Street 1985, 2.

19.2 13.5m

Well-coursed build of small well-squared blocks, including an integral buttress (123). Volcanic trap predominates, with lesser quantities of Triassic sandstone and two blocks of breccia. Chamfered plinth. One course of original facework below this but underpinned below that. Two levels of putlog holes. The build has two parts separated by 8m of ?19th-century rebuild (numbered 5 in 1985; previously described as 19.3 in 1978 survey). During recording in 1985 however, it was noticed that the two sections to either side were of exactly the same style and composition. Cricklepit Street 1985, 6. Late medieval (cf. the two blocks of Heavitree).

19.3 18m

Build of well-coursed blocks with plinth, on same level as that of 19.2, and two levels of putlog holes at different levels to those of 19.2. Facework continues below plinth although underpinned for much of its length. The composition of this build gives a distinctive appearance. The lower courses contain as much as 30-40% Triassic sandstone with the remainder of volcanic trap. There are occasional blocks of Salcombe sandstone, a rare example of the use of this stone in the wall. In the upper part of the wall there is an increasing use of a dark dense veined volcanic trap, concentrated in the top four-six courses. Cricklepit Street

1985, 8.

This is the earliest build in this section, being abutted by both 19.2 and 19.4. A trench excavated behind the wall in 1974 showed that 19.3 consisted of medieval facework added to the Roman core, whereas the build to the south-east had been completely rebuilt in the late medieval period. Perhaps 14th-century?

Well-coursed and squared, three blocks with chamfered plinth (located below ground by excavation) and tiers of putlog holes. Begins with an integral buttress cutting 19.3, the face of which is cut off; a second buttress is cut back flush with the wall-face 15.5m further south-east. The build is of well-coursed and squared volcanic stone with occasional Triassic sandstone (less than in 19.3). The dark dense veined stone noted in 19.3 also appears here in two prominent broad courses near the plinth (prominent because of the resistance to weathering), and in the top five-six courses of the build.

When the area to the rear of the wall was examined by excavation in 1974 it was found that the junction of 19.3 and 19.4 represented a change from medieval facing on Roman core to a complete medieval rebuild, presumably after a stretch of wall to the south-east had collapsed. This change is also shown at the outside face of the wall at the junction of 19.3 and 19.4 because the plane of the wall-face is set further back to the south-east of the buttress, i.e. in build 4, by some 0.50m. This feature was interpreted by Burrow as the junction of the work of two Roman building gangs (Burrow 1977, 23 and Fig. 6). Further work, including excavation in Cricklepit Street in 1988-9 (to be described separately), suggests that the collapse in the wall may have involved a long section of wall and been due to undermining of the original build of the wall which was set up to 3.5m further out, and further down the slope (the natural fall of the land at this point is considerable). After the collapse the wall was rebuilt on a line within that of its previous course thereby ensuring greater stability.

Cricklepit Street 1985, 10. Later than 19.3 and 19.5 although possibly of the same overall period as the latter since 19.5 has putlog holes and plinth on the same level. The straight joint between the two builds may reflect a building sequence rather than fully separate constructions. late medieval: presumably 14th or 15th-century. There is a possible context for this section of wholly-rebuilt wall in the record of large amounts of work on rebuilding the wall in the Receiver's Accounts for the years 1403-4, 1404-5 and 1405-6 (Juddery et al. 1989(a), 18-31). The accounts contain no topographical information but it is conceivable that this expenditure, which totalled approximately £198 over the three years, relates to this section (and 19.5?). Archaeological evidence suggests a date in the region of 1400, if not later, and few other candidates for such quantities of work suggest themselves (see also introduction above, p. 4).

Well-squared and coursed blocks of volcanic trap with increasing incidence of dense, dark veined stone in the upper courses (cf. 19.3 and 19.4). Two integral buttresses, both cut back flush with the wall-face; chamfered plinth and contemporary facework beneath, underpinning beneath that. The build begins at the fourth buttress of this section, with build 19.4 abutting the north-west quoin of the buttress. There is a change of alignment in the wall at this point, which was thought to indicate the end of the fully-rebuilt stretch of wall, but which probably simply represents a change in orientation in the rebuilt wall. It is certainly noteworthy that all three of these builds (19.3-5) are similar in composition. Cricklepit Street 1985, 94. Late medieval. Excavations at

19.4 34m

19.5

27m

the foot of the standing wall in 1988-9 showed that this section of wall is also a complete rebuild on a line slightly within that of the original Roman wall (the excavated footings of which lay c. 3.2m outside the face of the standing wall).

Numerous features cut into the face of the wall in this stretch reflect successive phases of structures built against the wall. Five large, blocked openings at parapet level are probably windows relating to houses built on the inside of the wall (cf. West Street) rather than crenellations. The collapse of the wall to the south-east in January 1974 led to various remedial actions, including the construction of buttresses of stone and brick against the south-eastern terminal of 19.5 and the north-western terminal of 19.7.

31.5m

19.6

This section of wall collapsed in January 1974. Large sections of facework are still visible on the collapsed fragments of masonry and show facework of similar appearance to 19.5 and 19.7 with putlog holes, but whether this was all of one build is uncertain. The OS records a change in angle in the wall at or just beyond the south-east limit of 19.5 and the face of the wall bulging outwards in a convex curve from that point. This is suggestive of a separate build. A structural engineer's report in the aftermath of the collapse contrasted the solidity and thickness of the standing portion with poorer construction and lesser thickness of the collapsed portion, but this may have been a mere statement of the obvious!

The area was levelled to an even slope and, in 1983, buttresses were constructed to support each end of the surviving wall, together with a revetment wall around the base of the cone of debris from the collapse. We are fortunate to possess an excellent photograph of this stretch of wall taken in June 1955 by Mr J. Caunter, formerly of Exeter. This shows the portion which was to collapse and the adjacent sections from the south-east end of Cricklepit Street. The bulging section described above seems to coincide with the NW end of the collapsed portion and to lie within a long curving battered base (also shown by the OS). As far as can be judged there seems to be a change in angle more or less at the point which marks the end of the collapse and this may mark a change in build. Otherwise the facework looks very similar across the break, although there is a higher incidence of projecting, unweathered blocks within the collapsed area.

19.7 12m

Good-quality squared blocks of volcanic trap, well-coursed, weathered with a slightly lower incidence of the hard, dense, veined volcanic stone seen in the other Cricklepit Street builds. Three tiers of putlog holes; integral buttress at the south-east end with a section of an arch of volcanic stone blocks adjacent to the south-east, representing a remnant of a culvert for the waters of the Coombe stream, the medieval 'Watergate' (Juddery et al. 1989(b), 51-7). This structure presumably dates to the 13th or 14th century; it is limited below and on the right by additional structures associated with the 16th-century Watergate and culverting works (19.8); and, still further, by the 19th-century arch which supports the causeway of Quay Hill (19.9). Cricklepit Street 1985,998, 143, 145 etc. Underbuilt by breccia structures of 16th-century date (see 19.8).

19.8

Below the south-east section of 19.7, overlapping it by c. 3m, is a broad buttress of breccia with a sloping top of seven-eight courses. Further breccia facework is visible within the modern arch of the Quay Hill

causeway, and the base of the further buttress, supporting the south-east springing of the arch, may also be seen. These structures belong to works relating to the outflow of water from the Coombe stream, and eventually to the construction of the Watergate in 1564-5; they will be described separately elsewhere with EMAFU excavations here of 1987.

19.9

The arch of breccia and brick and the revetment wall of the carriageway of Quay Hill were built in the early 19th century, after the demolition of the Water Gate in 1815 and are not part of the city wall.

* Neither of these structures belongs to the circuit of the wall and thus their measurements are excluded.

SECTION 20 Quay Lane (lower)

c. 15m

An oblique measurement across the Quay Hill causeway on the site of the Watergate (removed 1815). Views of the gate suggest that it aligned with the section of wall above the site of the gate but its interpretation is complicated (Collings forthcoming).

20.1 10m

Build of squared, well-coursed, volcanic trap and occasional triassic sandstone. Greater proportions of vesicular trap towards the bottom of the wall, of veined stone towards the top. ?Two tiers of putlogs, chamfered plinth. Similar in character to builds 19.4, 19.5 and 19.7 on Cricklepit Street, and thus presumably C14th or 15th? recorded as Quay Lane 1988, build 340.

Cut to the west by the removal of the Water Gate in 1815, or, since there are no traces of Elizabethan work surviving in the structure, perhaps by some subsequent widening of Quay Hill. There are many disruptions to the facework, rubble patches, inserted drainpipes etc. Late underpinning, beneath the plinth, of brick.

Re-examination in 1993 of the front elevation in this position shows that there is a low additional build at the top of the wall which includes crenellations of breccia. Occasional blocks with a chamfered upper surface represent the sills of the embrasures and, counting from the west, the third embrasure retains upright blocks of breccia which represent the sides of the adjacent merlons. It is presumed that this build is contemporary with that to the east (section 20.3) which was dated to the latter part of the 17th century on the basis of its integral brick and on its general similarity to the various works on the Quay of that period (but this attribution could be revised to fall slightly earlier). Further to the east, above 20.3 itself, no convincing crenellations are to be seen although much of the top two courses of this section is rebuilt (breccia and brick) and such features may be disguised by later patches. Looking at the end of the wall in section at this point a break can be seen between the masonry associated with the front face of squared and coursed volcanic blocks (section 20.1) and that associated with the rear facework build of breccia; the front face is medieval, the rear later -16th-18th century?

20.2 3.5m

Roughly-coursed build, mainly of breccia, but with some Triassic sandstone, brick and occasional trap. Cuts right down to ground level. Post-medieval, later than 20.3. Quay Lane 1988, 337.

20.3 14m

Coursed large blocks of breccia with regular use of brick for infilling of gaps and levelling courses. Two changes in alignment form an angled curve at the corner. Probably mid-late 17th-century (cf. Custom House and other quay buildings of this date). Quay Lane 1988, build 333. There are two rooflines. and various sockets as traces of later buildings abutting the wall at this point.

20.4 10.5m

Collapsed in March 1927. A photograph of the wall pre collapse (above thr roof lines of the Custom House Inn and other adjacent buildings) appears in *Western Morning News* for 10th March 1927.

SECTION 21 Quay Lane (upper)

21.1 19.5m

Semi-coursed rubble and blocks with some coursed blocks of breccia, in the plinth and at the point where the wall changes alignment. In addition to breccia the build contains Triassic sandstone, vesicular trap, pebbles and chert plus occasional Roman tile. Probably four tiers of shallow putlog holes, many blocked with their original blocking stones. The plinth is integral; it was once chamfered but is now heavily weathered. At 10.8m the plinth steps up by 0.4m. The facework build continues below the plinth suggesting that it stood some way above the contemporary ground level. Abuts 21.2. Quay Lane 1988, build 323. Late medieval.

21.2 9.5m

Coursed construction of vesicular trap, veined trap, Triassic sandstone and chert, with putlog holes on two levels. The lowest courses are mainly of well-cut and laid volcanic blocks. Incidence of chert is higher in the upper part of the wall. The chert is likely to be derived from Roman wall core of a type seen in this section, most notably at the South Gate (as in sections 21.7 and 22.2, below). Late underpinning at the base of the wall may have removed a plinth. Quay Lane 1988, build 314 (underpinning, 316). Medieval.

21.3 11m

Brick facework of 1979, glaring red colour. The previous facework collapsed before the 1930s (no record is known of its date or appearance) exposing a good section of Roman herringbone corework which was recorded by EMAFU before the new facing was constructed. Three builds were recorded in the core: foundations of trap rubble and chippings bonded in clay (up to 0.70m deep); herringbone trap corework bonded in light brown sandy mortar with pebbles (0.70-1.05m deep); and a second build of herringbone core in a white mortar (up to 1.55m deep). This three-part division of core at the base of the wall was also seen in the other areas where core has been recorded, on the rear face at Paul Street and in Bradninch Place and Northernhay Gardens (Blaylock 1988, 11; 14). Quay Lane 1988, build 312.

21.4 6.5m

Irregular build of volcanic trap and Triassic sandstone. Lower courses of breccia are probably integral to the build, thus it is probably 16th or 17th-century in date. The trap and sandstone may well be re-used material from an earlier build. Recorded as 571 in Quay Lane 1992 (Drawing 217.12).

21.5 9.5m

Well-coursed build of squared blocks, predominantly of volcanic trap, but with some Triassic sandstone and occasional tile fragments. Three tiers of putlog holes. At the base of the wall no plinth survives but there is rubble core visible on the same plane as the facework above

showing that the face at the base of the wall formerly lay further out. Thus a plinth is probable. Medieval, 13th or 14th century. Recorded as 567 in Quay Lane 1992 (Drawing 217.12).

21.6 7.5m

Volcanic blocks and rubble, breccia blocks, Triassic sandstone and occasional chert in very roughly-coursed facework. No visible plinth. Presumed post-medieval. Heavily covered in deciduous creeper. recorded as 546 in Quay Lane 1992 (Drawing 217.12).

21.7 17.5m

Coursed facework of vesicular volcanic trap, Triassic sandstone and chert giving a distinctive appearance to the build. Triassic sandstone forms occasional prominent single courses within the facework otherwise comprised of volcanic blocks and rubble and chert fragments. Some courses are also formed solely from chert; some tile is used for levelling. It is probable that the volcanic stone and chert derive from the fabric of the Roman wall, with the Triassic sandstone introduced at the time of the rebuilding. Since this material is characteristic of an early medieval date the rebuilding here might be 12th or 13th century. The bottom of the facework is level with the position of the plinth of section 21.8 to the north-east suggesting that a plinth has been removed from this section. Later underpinning at the base of the wall of breccia and chert is continuous with the underpinning of section 21.8. Recorded as 523 in Quay Lane 1992 (Drawings 217.3 and 12).

21.8 17.5m

Well-coursed facework of large blocks of uniformly-coloured dark purple vesicular volcanic trap, over an offset plinth. The form of the plinth is such that it can only have possessed a very shallow chamfer and it probably originally had a flat upper surface, as several blocks are still nearly level. There are no putlog holes. The dark purple blocks form the lowest twelve courses of facework and are succeeded by six further courses of paler grey-mauve stone which may represent a rebuild or just a change in stone at this point. The size of the blocks in the lower build decreases noticeably in the upper courses yet the paler stone commences with a course of larger blocks.

This section has long been considered the best candidate on the circuit for well-preserved Roman exterior facework. In 1992 it was possible to demonstrate that, at the survving wall-top level, outer face core and rear facework (also of well-coursed dark purple blocks) were all of one build and indubitably Roman. Further reasons are:

- (i) The uniform character of the stone matches that seen in other possible Roman remnants elsewhere on the outside face of the wall and those sections of the inner face that have been identified as Roman by excavation or observation.
- (ii) The very pebbly white mortar matches that seen in excavated sections of core and facework at Paul Street.
- (iii) The different form of the plinth, i.e. strictly an offset at the base of the wall, is unlike other sections of wall that are medieval or early post-medieval. Other sections of potential Roman plinth are similarly equivocal in their evidence for having been chamfered, but most have evidence that chamfers are the product of weathering or later recutting (cf. builds 6.1, 7.2, 7.3, 11.4, 14.3, 16.6, 22.2 and 28.2). It is possible that the chamfered plinth that was widely used in the medieval and post-medieval wall was an imitation of a weathered offset of this type in the Roman wall.
- (iv) The absence of putlog holes in this otherwise well-squared facework suggests that it is not medieval, and it is certainly not post-medieval.

The base of the wall, beneath the plinth, is composed of underpinning of breccia and chert, probably continuous with that of 21.7.

SECTION 22 Western Way and South Street

SECTION .	bb western way and	a South Street
22.1	26m	Wall demolished for Inner Bypass (Western Way) c. 1961. Excavation and observations, including a section through the wall and a sighting of an external ditch, were made by M.J. Mountain. A note was published in 'Roman Britain in 1961' (J.R.S 52 (1962, 184 and Pl. XXIII). A photograph of the appearance of the wall during demolition appears in Thomas and Warren (1980, 125).
22.2	15.4m	The build begins with c. 1m of modern masonry finishing the stump of the wall left by the breach for Western Way (of c. 1961), irregularly-coursed blocks of volcanic trap and chert. For the remaining 14.4m an ancient build survives in the form of a chamfered plinth of volcanic trap. Four large squared blocks of a first course of wall above the plinth are all that survive of the superstructure of this build. The plinth is probably recut: several blocks bear the chamfer part-way down the block with a dressed vertical face on the upper part of the blocks (see discussion of similar features above, build 6.1). This plinth and the four blocks of facework could be remnants of Roman work although parts of it at least look reset and the mortar looks similar to the main facework above. Recorded as South Street-Western Way 1992, 635. The remainder of the build above the plinth is late medieval or post-medieval rebuild comprising irregularly-coursed facework of volcanic trap, breccia and some chert, one possible original brick, some tile and Triassic sandstone. Several rows of blocked sockets in the face show the former presence of buildings, some very characteristic long, narrow sockets blocked with brick. Recorded as 550 in South Street-Western Way 1992.
22.3	5.9m	Roughly-coursed, re-used blocks of volcanic trap, with some Triassic sandstone and a little breccia. Face projects from that of 22.2 by c . 0.10m. Possibly earlier than 22.2 as several blocks of 22.3 at the junction of the two builds have been cut back to the plane of the face of 22.2 and the mixture of stone types also looks earlier. Medieval. Recorded as 558 in South Street-Western Way 1992.
22.4	36m	Wall demolished from south-west of South Street to Holy Trinity Church. This stretch included the South Gate (demolished 1819) and the old Holy Trinity Church. The new church was rebuilt further to the north and east in 1820.
22.5	9m	Early 19th-century boundary wall of mixed rubble and brick.

SECTION 23 The former Trinity Street, from Holy Trinity Church to the boundary of the Bishop's Palace

23.1 Well-coursed, weathered, grey, vesicular volcanic trap. No plinth visible. Although the build can be characterised as of one type there are a number of distinct changes within it which mark building breaks in one overall phase.

(i) The first 5.7m is built of mainly pale grey/mauve volcanic stone with

an occasional block of Triassic sandstone. Well-coursed and squared. (ii) From 5.7-17.1m the build is more or less continuous above, and of the same description but the base of the wall shows a break in the

coursing, with c. eight courses of distinctively smaller blocks more heavily weathered and perished than those of (i). There are various brick patches and one rubble patch at the north-east end of (ii).

(iii) Although of the same description, the remaining 7m is a distinct build which does not course through with the blocks of (i) and (ii). Good-quality facework. The join between (ii) and (iii) is quite clear. (iii) is built over (ii) with occasional blocks let in to fill the discrepancy in the courses. Thus this build is likely to be the later of the two in order of construction.

Overall, although these distinctions may be drawn between the three areas, the wall is likely to be of one build. The colour and the texture of the stone is uniform and occasional courses can be seen to run across the junction of (ii) and (iii). The build is medieval, possibly 13th-century, on the basis of a comparison with the masonry to that of Exe Bridge.

(iv) Overlying the whole of 23.1 is a rebuilt parapet containing a good deal of pink Permian sandstone in its lower courses and which is crenellated. Two to four courses of regular blockwork support the crenellations which have very wide, though regularly-spaced, merlons. The embrasures are filled and the wall capped off with bricks, but no brick can definitely be attributed to the primary phase of the parapet (where it does occur it is in later patching). Thus the parapet could be of 17th-century date, a suggestion supported by its resemblance, in the use of pink Permian sandstone, to builds similarly dated at the Castle (3.1; 3.4 above).

Over (iii) the build is stepped up higher and is probably rebuilt at the top. A further two possible embrasures lie in this section, filled with brick and rubble and surmounted by a rebuild of breccia and volcanic rubble.

The crenellations are also visible on the inside face of the wall, in the small graveyard behind Holy Trinity Church where they can clearly be seen to belong to a build which predates the early 19th-century work associated with the church.

A build of very small rubble containing a very varied selection of textures of volcanic trap and some chert and occasional blocks of Portland stone in a fawn/pale brown sandy mortar. About 3m above ground is a shallow offset above which the wall is of a different build, containing breccia where below there is none, although this is still characterised by the predominance of small volcanic rubble. The structure has the appearance of having been hurriedly constructed, from the complete absence of any surviving blocks of any size. Comparable to rubble infill in build 7.3 (q.v.). Similarly, probably post-medieval but note the absence of breccia and other late elements in the lower part of the build. Later than 23.1 which it oversails by c. 1.5m to the southwest. Rebuilt parapet above, probably the same build as that of 23.1.

Roughly-coursed re-used blocks mainly of volcanic stone with some Triassic sandstone, breccia and one square block of pale cream Purbeck stone fairly low down, which may have been a datestone. Probably later than 23.4. ?Post-medieval.

23.2 13m

23.3 9.3m

23.4 28.6m Well-coursed, weathered, volcanic blocks over a chamfered plinth which is no longer visible (the ground level having been raised c. 0.25m in the aftermath of the construction of the hotel in Southernhay in the late 1980s). Coarse, width of courses very variable. Preservation also variable in the middle of the build to either side of a late door into the convent grounds (at 16.8-17.9m) an example of this comprising seven courses of hard dark blocks, well-preserved, but eight courses of greyer, softer blocks above are very weathered. Presumably medieval ?13th or 14th-century. Late parapet of coarse rubble and brick is ?19th-century.

SECTION 24 Trinity Street and 1-8 Southernhay West (Bishop's Palace to rear of wall)

24.1 8_m Basically similar construction to 23.4, with continuous courses, but employing paler and softer (therefore more heavily weathered) volcanic stone. At the base of the wall, for c. 18 courses above present ground level, the fabric is 100% vesicular volcanic blocks. This is succeeded by 4-5 courses in which Triassic sandstone (c. 70%) predominates over volcanic stone. Parapet and upper part of the wall was rebuilt in 1912 with crenellations. A datestone with the arms of Bishop Archibald Robertson (1903-16) impaling those of the see and the date MDCCCXII (a blunder for MDCCCCXII as the others further to the north-east show) records the rebuilding.

24.2 5m

Virtually uncoursed re-used blocks with Triassic sandstone predominating plus volcanic trap and breccia. South-west end oversails 24.1 by up to 1.2m. Post-medieval. Parapet same build as that of 24.1.

24.3 1m

Rubble masonry of 1912 continuous with build of parapet and associated with rebuilding of tower. Rebuild over Roman corework which is not now visible but was recorded in Magdalen Street excavations in 1987 (see the archive drawing 813, context Nos 3045-9 incl.)

24.4 10.5m Late 13th-century tower completely rebuilt as a ruin in 1912. Veined volcanic stone (Pocombe stone) throughout.

24.5 9.2m

Mixed build comprising two-to-three courses of large breccia blocks with an occasional block of volcanic trap at the base of the wall. ?Late medieval or early post-medieval. The main body of the wall comprises c. 2m height of small rubble and re-used facing blocks in very roughlycoursed work, in a large mixture of stone types: volcanic trap, Triassic sandstone, brick, South Devon limestone, granite. Fairly frequent use of Roman tile fragments amongst the rubble. This section is probably 19th-century. Finally the parapet, of 1912 work, is of c. twelve courses mainly of breccia, occasional other stone, especially Triassic sandstone and small fragments of volcanic stone used for levelling.

A section was cut through the bank behind the wall, c. 3.5-4.5m northeast of the tower, in 1939 by the Exeter Excavation Committee (Morris et al. 1946, 136-9). Work inside the wall complemented a trench outside of the wall, some 12m noth-east of the tower, which had been excavated

in 1936 (Radford and Morris 1936 (b), 238-40).

24.6 13m Coursed re-used blocks of volcanic stone, including much of the veined variety, mainly small in size, plus Triassic sandstone and chert. Granite and brick occur in small patches which could be later insertions. Remnants of a projecting plinth survive at present ground level for c. 3m at the north-east extremity of the section. Of uncertain date, but probably earlier than 24.7. Top five-six courses comprise rebuilt parapet of 1912, as that of 24.5.

24.7 17.7m

Breccia ashlar in large blocks with an integral date stone of Purbeck stone, bearing A.D. 1743, set in a chamfered recess. Much of this build was obscured by the buildings of Trinity Mews until their demolition in 1986. The roofline and joist sockets survive from this building, cut into the blocks. The south-western limit of the building is visible in the form of a line of differential weathering in the stone; within, the breccia retains most of its original cut surface; without, it displays the characteristic surface appearance of weathered breccia.

24.8 26.2m

Well-coursed build comprising large breccia blocks, alternating with small volcanic trap blocks, occasional larger blocks of volcanic stone, Triassic sandstone, one block of Salcombe stone. Midway along is the position of a former buttress. The lower two-thirds has been patched up recently, above is some ancient patching. Above the position of the buttress is an area of blocking with a square outline which might represent the position of a former date stone, a parallel arrangement to that which is seen to the north-east in build 24.12 (q.v.). This build is earlier than 24.7, post-medieval, possibly 17th-century?

The top three-to-four courses comprise rebuilt parapet, presumably of 1912.

24.9 1.5m

Ancient volcanic rubble facework, roughly coursed, against the tower. The build steps out at c. 2m width above. Some quoins of weathered volcanic trap survive at the inner angle of the tower, and occasional short runs of blocks amongst the rubble facework suggest that the rubble is patching-up of weathered or damaged facework. Medieval.

At the top of the wall, five courses of 24.8 oversail 24.9 up to the face of the tower.

24.10 9m

Semi-circular tower, often called 'Lollards Tower or prison'. The external facework was completely renewed in 1912 in veined volcanic stone, with an elaborate date stone of Bishop Robertson on the front face of the tower. Much medieval work survives on the inside of the wall. Two photographs of the tower during the dismantling of the facework in 1912 are held in the EMAFU (no negatives, prints only). Much of the previous facework is visible in these views, and apparently included regularly-coursed ?volcanic blocks with two string courses in the lower part and ?less well-coursed facework of ?breccia or mixed stone type above. An arch, presumably part of an embrasure on the interior, is visible on the south-west side of the tower where facework had been removed at the time of the photograph.

The tower is shown before rebuilding in three sketches attributed to George Townsend and dated between 1844 and c. 1870 (WCSL P&D 4962, 6564, 6588).

24.11 2m

A narrow section of wall immediately to the north-east of the tower. The lower c. 1.5m is of rough uncoursed volcanic rubble with a single block of Triassic sandstone. Above this is c. 4.5m of 50% breccia, volcanic, veined volcanic, occasional Triassic sandstone and granite, roughly coursed. This section is surmounted by three courses of rebuilt parapet of the same period as the tower and the parapet to the southwest, i.e. 1912. The lower build of the wall is probably medieval, the

upper pre-1912, but probably 19th-century.

24.12 32m

80-90% breccia. 10% + volcanic trap and Triassic sandstone in close-set well-cut blocks. Well-coursed, some possible putlogs, levelling slates. Three integral buttresses, or scars thereof, at 7.5m, 19m and 31m, the first surviving, the second and third removed. The third buttress lies at the junction of 24.12 and 24.13, at a point where the wall changes alignment. Above the scar of the central buttress (in a juxtaposition equivalent to that suggested in build 24.8 above) is a date stone in an elaborate aedicule comprising a curved pediment above and a projecting sill supported on two projecting corbels of Triassic sandstone. The pediment and sill are of breccia, the stone itself a white stone possibly Purbeck stone, but it has not been examined in detail. Other possibilities are Portland or Beer stone.

Date: 16th or 17th centuries?

Top two-three courses reset as parapet. The upper part of the main build continues over 24.13 for c. 4m.

24.13 11m

Well-coursed weathered volcanic trap blocks in two visible styles:

- (i) eight courses (at south-west end) of medium-sized and medium weathered blocks;
- (ii) seven-eight courses of larger blocks heavily weathered. No plinth visible, no putlog holes. Possibly Roman, or medieval.

The top of the wall is of nine-ten courses of mixed stone, poorly coursed, beginning at the point where the upper part of 24.12 over 24.13 gives out. This build is later than 24.12, thus post-medieval.

24.14 10m

The lower part is irregularly-coursed, mostly volcanic stone with some breccia; several breccia blocks form a quoin at the north-east limit of the build. The upper part is a separate build and is almost all breccia blocks. One large block of Triassic sandstone spanning two courses could be a crude date stone (surface weathered).

Post-medieval. A considerable amount of work was carried out on the Palace wall in 1786, at the same time as a buttress was built in section 25.1. Thus the breccia upper section and the facing of the quoin are probably of that date. 'At Exminster Quarry for Hewing the Ashlar Stones for the Buttress against the Town Wall towards the end of Chancellor Quicks Garden and Hewing the Coaping Stones for the Town Wall in the Palace Garden' (ECA Receiver's Vouchers, Box 128 July 8th 1786).

24.15 2.5m

Well-coursed volcanic blocks with some Triassic sandstone. Variable course widths. No plinth is visible. Medieval. Parapet rebuilt in 1912. The limit of the grounds of the Bishop's Palace on the interior is marked by another datestone bearing the arms of Bishop Robertson.

SECTION 25 Rear of Nos 9, 10 & 10a Southernhay West

25.1 6m

As 24.15. medieval facework of volcanic blocks and occasional Triassic sandstone continues. Inserted in this facework is a low sloping buttress of breccia constructed in 1786 ('At the Town Walls by the New Cutt upon Southernhay for posting and Cuting out the Wall for the Buttress against the Wall of Mr Chancellor Quickes Garden and Diging out and Lying the foundation'; ECA Receiver's Vouchers Box 128, June 24th 1786). Like 24.15 the parapet was rebuilt in 1912, as it is of the same

style as that in the section fronting the Palace garden to the south-west (this section is owned by the Dean and Chapter of Exeter Cathedral).

25.2 12m Wall obscured by building, 10a Southernhay West.

New cut, 1753, enlarged 1813; cast-iron bridge of 1814. Site of semicircular tower, presumably 13th-century, removed by 1587 (i.e. not on Hogenberg's map). (ECA Chamber Act Book XIV, 197a; dated 29th March 1753; Chamber Minute Book 17, 175; 17th June 1813).

SECTION 26 Rear of Nos 13-24 Southernhay West

4.5m Well-coursed squared blocks of volcanic stone of very varied colour and texture. Chamfered plinth. Frequent use of the piecing-in of small blocks in the corners of blocks. One block of Beer stone is integral to the build. One block of breccia also apparently is integral, although at the extreme north-east end of the build. Probably 14th or 15th century. Parapet rebuilt.

Poorly-coursed, re-used volcanic blocks and rubble with Triassic sandstone and breccia. No plinth; rebuild across line of plinth to southwest. Post-medieval. Earlier than 26.3 as 26.3 continues beneath 26.2.

Well-coursed and generally large volcanic blocks. Different in character to 26.1. 26.3 is probably the earlier build; uniform, vesicular textured stone, large, not always well-squared. There is evidence of a chamfered plinth over much of the length of 26.3 although it is mostly removed. To the rear of No. 17 Southernhay West, at the north-east limit of the build, the plinth is removed by underbuilding in brick. The plinth survives on the line of the boundary wall of Nos 16/17, i.e. where the wall abutted the city wall the plinth was protected from removal. Further to the south-west much of the plinth was dressed off, leaving the blocks at the base of the facework. Medieval, 13th-14th century? Upper part of wall unknown.

This section of wall and those to the north-east is heavily overgrown with ivy and, although the extent of builds is traceable at ground level, the nature of the upper part of the wall and parapet is not known. At least one published photograph suggests that ancient facework survives to the top, or near the top, of the standing wall (Sharp 1946, Pl. opp 63).

Rear of 17 and 18 Southernhay West. There is c. 1.6m of underpinning at the base of the wall comprising 80% breccia, 20% volcanic trap. The main build above is of good-quality volcanic blocks of uniform pale mauve vesicular texture, with occasional blocks of Triassic sandstone. This sequence continues to c. 2m short of the north-east boundary of No. 18 where the wall steps back in a sloping angle. Medieval. Later than 26.5?

Rear of 18-20 Southernhay West. Chamfered plinth c. 1.50m above ground level in No. 18, c. 1.20m in No. 19, below ground in No. 20. Uniform superstructure in good-quality volcanic trap, apparently to the full height of the wall. Medieval. Underpinning of Heavitree blocks beneath the plinth (cf. photograph in Sharp 1946 quoted above). At the north-east end the top of the wall steps down to the point where it is cut

25.3

26.1

6.4m

26.2 6.5m

26.3 25.5m

26.4 c. 9m

26.5 c. 14m

off by a cross-wall of breccia. This in turn survives only as a stump on the line of the city wall. The wall is probably a remnant of the southwest wall of the Theatre Royal of c. 1787 which stood here until the 1870s [?]. The overgrowth of ivy is particularly bad in this section and requires treatment. No doubt the lack of maintenance here is partly due to the seclusion of this section, being one of the few areas of the wall where both sides are beyond public access.

26.6 45m

Wall demolished at rear of Nos 21-24 Southernhay West and on line of Bedford Street.

SECTION 27 Rear of Broadwalk House, Southernhay West, Bedford Street to car park entrance

SECTION 27 Rear of Broadwalk House, Southernhay West, Bedford Street to car park entrance					
27.1	13m	City wall demolished. Low modern boundary wall, the east end comprises a cut-down version of 27.2.			
27.2	4.8m	Coursed breccia, volcanic trap and Triassic sandstone with a hard white mortar, with levelling slates. Several brick fragments appear integral, therefore the build is probably after the mid 18th century. Four courses of an earlier build at the bottom of the wall are entirely of volcanic trap. Cut through by modern doorway. Parapet modern.			
27.3	4.4m	Destroyed by an air vent for the underground car park beneath Broadwalk House; of pale grey South Devon limestone.			
27.4	11.7m	Well-coursed, weathered volcanic blocks, plus occasional Salcombe and Triassic sandstones with slate levelling. No plinth visible. Blocked doorway c. 1m north-east of 27.3. The lowest visible courses could be Roman. A photograph published in 1973 shows this section, before the raising of the ground level, with a plinth and six courses of weathered brickwork which now are obscured (Fox 1973, Pl. VIII). The upper part, and peripheral areas, are probably medieval; the parapet is a rebuild post-dating 1832 (the date of the rear facework). Weathered plinth blocks are re-used as a base to the parapet. Rear cut back and refaced in South Devon limestone in 1832 (date inscribed on a block on the rear face).			
27.5	8.7m	Modern gap, post-1974. Modern unweathered breccia pier terminals to the gap. This is the position of the electricity sub-station marked on plans in Fox (1952, Pl. XIX). A similar large obstruction is shown on the OS Town Plan of 1876. Presumably removed on the redevelopment of the area in the mid 1970s.			
27.6	6m	Well-coursed, volcanic blocks, all vesicular, a little Triassic sandstone. Putlog holes. No plinth visible. Later than 27.7. Late medieval. An outline sketch elevation of section 27.6-12 was published by Burrow (1977, Fig. 10).			
27.7	5.5m	Well-coursed weathered volcanic blocks, large, variable course widths. Hard white mortar. No putlogs visible. Possibly Roman, otherwise medieval. Parapet modern. Inserted buttress nearly all of breccia with			

a little volcanic, plinth at base, 16th or 17th century.

This is the site of Lady Fox's Area IX, excavated in 1950 (Fox 1952, 57-9). The bank was well-preserved behind the wall, and the footings of the wall survived to their full original width (see section, *ibid.*, Pl. XXIII, and

location of trench Pl. XIXF).

27.8	4.6m	Well-coursed mixed breccia and volcanic blocks. Some of the breccia blocks are very long, up to c . $1.00 \times 0.30 \text{m}$. Integral buttress at junction with 27.9. Later than 27.7 and 27.9, i.e. 16th or 17th century. One large block of a chamfered plinth is re-used in the top course of this build. Modern parapet as 27.7, 27.6.
27.9	10m	Irregularly-coursed weathered volcanic blocks; random placing as though the masonry has been hurriedly constructed from re-used stones. Probably medieval or early post-medieval. An inserted buttress of breccia and volcanic stone is probably of the same date as that in 27.7 and build 27.8. The parapet is modern. N.B. This section preserves Roman rear face with offsets above herringbone rubble core in pebbly yellow mortar. Nearly all of the facework is of dark purple vesicular volcanic stone, roughly squared and unevenly coursed, i.e. the offsets which were covered by rampart clay, cf. South Gate and Paul Street.
27.10	2.5m	Two to three courses of remnant of medieval facework at base, and running beneath 27.9 to the south-west. More poorly-coursed volcanic blocks above, c. ten courses degenerating to rubble facework above. Parapet as 27.9.
27.11	6.4m	19th-century rubble wall with breccia quoins and a considerable quantity of pink Permian sandstone in pinkish-brown soft mortar. An integral small, shallow sloping buttress. This fills the breach caused by the removal of the Bedford Postern tower. The tower was described by Jenkins as 42 feet high, but his description says that the structure was very decayed (Jenkins 1806, 18 and Pl. opp. p. 365). Coldridge's map of 1819 does not show the tower. Presumably it was removed during the construction of the houses of Southernhay West (comparison of Hedgeland's map published by Jenkins (1806, frontispiece) and Coldridge's map [WCSL]).
27.12	14.6m	Wall of mixed construction. There are traces of an original medieval build in the shape of occasional remnants of well-coursed volcanic blocks and an upstand of c . 1.6m of medieval build towards the north-east end. No plinth is visible. At the north-east end is a tall sloping buttress of breccia with c . 0.3m of associated work built against the upstand of medieval coursework described above. This is reminiscent of 18th-century work elsewhere, although the masonry is very weathered in

SECTION 28 Rear of Broadwalk House, Southernhay West, car park entrance to eastern angle tower

The remainder of the facework of the build is of rubble and is probably

comparison to, say, 8.4 or 24.7.

of 19th-century date.

This was recorded by Griffith as 'Broadwalk House' 1972. No record of this was known until an ink drawing came to light on 11.viii.93. This shows the wall before the butt-up of mud soil (landscaping post-construction of Broadwalk House) with plinth and a somewhat different breakdown of builds to that given below. The buried portion, or part of it, could well be Roman.

28.1 12m

Car park entrance. The gap is referred to as 'the new entrance into Southernhay from St John's' in 1936 (Radford and Morris 1936 (a), 183), when sections were recorded across both exposed ends of the wall (*ibid.*, sections 2 and 3). The south-west terminal survives from this period, that to the north-east is contemporary with the Southernhay West redevelopment of the mid 1970s. A photograph of the arch which accommodated this opening until 1952 is published by Venning (1988, 46; also visible on Fox 1952, Pl. 5a).

28.2 19.8m

Well-coursed volcanic blocks with putlogs. No plinth is visible, as the ground level in front of the wall has been raised recently by up to 3m; less than 1m of early build is visible at the south-west end. The top courses of about half of the build to the north-east are rebuilt with new. very sharp cut stone. Medieval. The core and rear face of the wall were removed in 1933 (Fox 1952, Pl. 25), consequently the wall here is very narrow and the rear face is modern. A section was excavated in 1945-7 within and without the wall in this build, c. 5m north of the start of the build (in the garden of the former 39 Southernhay West) and 34m south of the eastern angle tower (28.6) (Fox 1952, 53-5). The published section (ibid., Pl. 24) and photograph (ibid., Pl. VIA) show masonry now obscured by modern build-up. It is possible that some of the lowest seven courses of masonry shown in Lady Fox's photograph are a survival of Roman work; but the topmost courses, which are still visible, are presumably medieval since they contain putlog holes. There is a useful general view of the outside face of the wall in Southernhay West in the same place (ibid., Pl. VA) and a drawing of 1972 by M. Griffiths of this stretch of wall before the redevelopment (EMAFU archive).

28.3 10.5m

Well-coursed weathered large volcanic blocks in a hard white and very pebbly mortar. No plinth visible. Earlier than 28.4. Could be Roman, otherwise early medieval.

28.4 9.6m

Well-coursed Triassic sandstone, very weathered and generally quite deep courses; soft sandy off-white mortar. Earlier than 28.5, possibly Norman in view of the relationship to 28.5 and the tower. This build includes the line of a section across the wall and bank recorded in 1934-5 (Radford and Morris 1936 (a), 185-6; section 1).

28.5 1m

Small area of infill of volcanic blocks in hard white mortar abutting the eastern pilaster of the east angle tower. Probably of same date as the tower.

28.6 c. 7m

Pentagonal eastern angle tower. Flat pilaster buttress on the south side at the junction with the city wall; the other angles are clasped by pilaster buttresses. There is a chamfered plinth at the base around the full body of the tower but apparently stopping against the flat southern pilaster. Below the plinth is a battered base sloping out to a lower plinth at the base of the pilasters, a level which may mark the original ground level. All of the work which can be identified as primary is in volcanic trap and Triassic sandstone, as with the two similar towers in the castle, John's Tower (cf. above, 4.1) and the eastern tower of the inner ward of the castle (Blaylock 1991(b)). Thus the tower is presumably to be dated to the 13th-century. Both interior and exterior faces of the tower are heavily repaired, mainly modern, 19th and 20th century.

The tower was cleared of vegetation and several trenches excavated at its base in 1933 (Montgomerie-Neilson and Montague 1934, 60; 78-81;

Pl. XLV, 1). Excavation in the interior showed traces of 17th-century filling of the core of the tower. On the outside a detailed profile of the base of the tower was recorded (*ibid.*, Fig. 5). It is noted that the fabric of the tower was very decayed, an observation which provides a terminus for the most modern of the repairs, which were carried out by the Ministry of Works (*ibid.*, 60). The junction of the tower with the wall to the north-west and a view of the parapet of the tower from within, before it was emptied of its fill, were published by Lyster (1913, Pls 3 & 4).

SECTION 29 Eastern Tower to site of East Gate

29.1 78m

The wall was destroyed in 1947. A photograph of the interior of the tower with wall standing adjacent to the north-west is in Radford & Morris 1936(a), Pl. XLVI. The course of the wall is now marked out in paving of differential style in the precinct at the north-east end of Princesshay. The part of the wall nearest to the tower (20 feet) was demolished in 1947 (letter from Ransom-Pickard, President of the Devon Archaeological Society to the Town Clerk, 21st August 1947: ECC DTS file 0681). Fifty feet of wall of late-medieval character north-west of the angle tower is referred to in a letter from Aileen Fox to a Mr Gayton of 5th October [1956].

Much of the rest of the wall in this section was trimmed back and/or front and was little more than modern boundary wall of the Eastgate Arcade and St John's Hospital; at the position of Area VIII of the postwar excavations, for example, ancient footings supported a wall of brick (below). Excavations were made on the wall in this stretch some 21m north-west of the eastern angle tower in the post-war period (Fox 1952, 55-6 and Pls XIX, XXII and XXIV [Area VIII]). A useful photograph of this area Trench VIII (*ibid.*, Pl. VB) shows a portion of the wall still standing and the open view northwards across the High Street as far as Castle Street Chapel, Northernhay Place and the Castle. East Gate was removed in 1784.

ACKNOWLEDGEMENTS

The main text of this report is based on fieldwork by the writer and S.J. Simpson in 1988 and by the writer in the summer of 1991. The format and some of the description (above p. 6) are derived from the earlier survey of the wall which was produced by C.G. Henderson with some assistance from J.R.L. Thorp in 1978.

I wish to thank all those residents of property adjoining the city wall who assisted the work by allowing me access to their gardens to examine the wall, some of them on more than one occasion. Richard Parker assisted with the fieldwork in 1991, the text has been typed by Pam Wakeham and the map, Fig. 1, drawn by Tony Ives and Richard Parker.

BIBLIOGRAPHY

Allan, J.P. 1984 Medieval and Post-Medieval Finds from Exeter, 1971-1980, Exeter Archaeological Reports 3.

----- 1991 'A Note on the Building Stones of the Cathedral' in *Medieval Art and Architecture at Exeter Cathedral*, British Archaeological Association Conference Transactions XI, 10-18.

Baker, C.J. 1979 John Gendall (1789-1865), Exeter's Forgotten Artist, Exhibition Catalogue.

- Blaylock, S.R. 1987 Exeter Castle Gatehouse, Architectural Survey, 1985, Exeter Museums Archaeological Field Unit Report No. 87.04.
- ----- 1988 Excavation and Survey on the City Walls from the North Gate to the Castle, 1978-88. Part I: Roman, Exeter Museums Archaeological Field Unit Report No. 88.13.
- ----- 1991(a) Excavation and Fabric Recording at the southern corner of Exeter Castle, 1990, Exeter Museums Archaeological Field Unit Report No. 91.29.
- ----- 1991(b) Fabric Recording at the Eastern Angle Tower of Exeter Castle, 1990 Exeter Museums Archaeological Field Unit Report No. 91.30.
- ----- 1993 Exeter City Defences: A Fabric Survey of the City Wall Part II The Interior Exeter Museums Archaeological Field Unit Report No. 93.65.
- Brockett, A. 1962 Nonconformity in Exeter 1650-1875.
- Brown, R.A., Colvin, H.M. and Taylor, A.J. 1963 The History of the King's Works Vol 2.
- Burrow, I. 1977 'The Town Defences of Exeter', Rep. Trans. Devonshire Ass. 109, 13-40.
- Carter, G.T. 1915 'Exeter City Wall' Devon & Cornwall Notes & Queries 8, 209-10.
- Cherry, B. & Pevsner, N. 1989 The Buildings of England: Devon. Revised edition.
- Collings, A.G. forthcoming Documentary Evidence for the History of Properties in Cricklepit Street, West Street and the Watergate Area, Exeter Exeter Museums Archaeological Field Unit Report.
- Croump, W.G. 1942 'Mural Monuments and other items of Historical and General Interest to be seen in the streets of Exeter. Original drawings by W.G. Croump 1933-1940' MS in Devon & Exeter Institution Library, Exeter.
- Erskine, A.M. 1983 The Accounts of the Fabric of Exeter Cathedral, 1279-1353 Part 2: 1328-1353. Devon and Cornwall Record Society, New Series 26.
- Fox, A. 1952 Roman Exeter, Excavations in the War-Damaged Areas 1945-1947.
- ----- 1968 'Excavations at the South Gate, Exeter 1964-5', Proc. Devon Archaeol. Soc. 26, 1-20.
- ----- 1973 Exeter in Roman Times.
- Holbrook, N. and Bidwell, P.T. 1991 Roman Finds from Exeter, Exeter Archaeological Reports 4.
- Jenkins, A. 1806 History and Description of the City of Exeter.
- ----- 1841 History of the City of Exeter and its Environs. 2nd Edn.
- Juddery, J.Z., Staniforth, P.R. and Stoyle, M.J. 1989(a) Exeter City Defences. Expenditure on the Walls and Gates Recorded in the Receivers' Accounts 1339-1450. Exeter Museums Archaeological Field Unit Report 89.09.
- -----, -----, 1989(b) Exeter City Defences: Expenditure on the Walls and Gates Recorded in the Receiver's Accounts 1450-1570 Exeter Museums Archaeological Fiueld Unit Report No. 89.10.
- ----- & Stoyle, M.J. 1988 Exeter City Defences: Expenditure on the Walls and Gates Recorded in the

Receiver's Accounts 1650-1700' Exeter Museums Archaeological Field Unit Report o. 88.16.

----- & Thomas, P. 1988 Exeter City Defences. Expenditure on the Walls and Gates Recorded in the Receivers' Accounts 1600-1650, Exeter Museums Archaeological Field Unit Report No. 88.15

Lyster, C.B. 1913 'Exeter City Wall as it was originally built', Devon & Cornwall Notes & Queries VII, 161-71.

Montgomerie-Neilson, E. and Montague, L.A.D. 1934 'Report of the Exeter Excavation Committee', *Proc. Devon Archaeol. Soc.* 2, part 2, 35-83.

Morris, P., Montague, L.A.D. and Ralegh Radford, C.A. 1946 'Report of the Exeter Excavation Committee' *Proc. Devon Archaeol. Explor. Soc.* 3, 136-41.

Oliver, G. 1850 'The Castle of Exeter', Rep. Trans. Devonshire Ass. 7, 128-139.

Radford, C.A.R. and Morris, P. 1936 (a) 'Report of the Exeter Excavation Committee, 1934-35, The Defences of Roman Exeter' *Proc. Devon Archaeol. Explor. Soc.* 2, 181-7

----- and ----- 1936(b) 'Report of the Exeter Excavation Committee, The Examination of the City Wall beside Trinity Street' *Proc. Devon Archaeol. Explor. Soc.* 2, 238-40.

Shapter, T. 1849 The History of the Cholera in Exeter in 1832. Reprinted 1971.

Sharp, T. 1946 Exeter Phoenix. A Plan for Rebuilding.

Simpson, S.J. (forthcoming) Exeter City Defences: West Gate to South Gate, Survey and Excavation in the West Quarter, Exeter Museums Archaeological Field Unit Report 00.00.

Sprake, C.J.G. 1832 The Gates and other Antiquities of the City of Exeter.

Stoyle, M.J. 1988 Documentary Evidence for the Civil War Defences of Exeter, 1642-3 Exeter Museums Archaeological Field Unit Report No. 88.12

Thomas, P. & Warren, J. 1980 Aspects of Exeter.

Venning, N. 1988 Exeter the Blitz and Rebirth of the City.

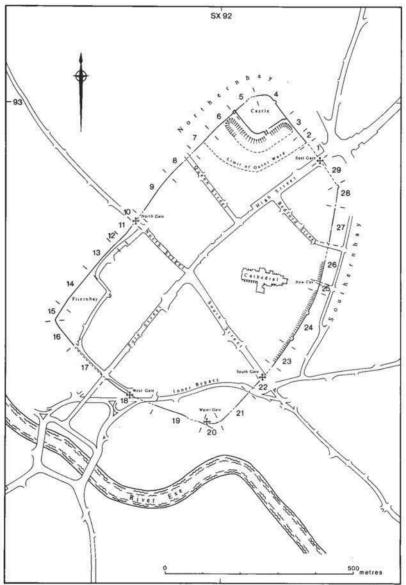


Fig. 1 Exeter, showing major streets and features, and the city wall with the numbered sections of the gazetteer.

