Exeter City Council

EXETER ARCHAEOLOGICAL ADVISORY COMMITTEE, 24th June 1983

Report to Committee

1. EXCAVATION

Paul Street site

With the aid of supplementary grants from the DOE it was possible to continue the excavation at Paul Street on a small scale over the winter and spring. We now expect to finish on the site early in July.

Excavation of the bell foundry of c. 1625-1720 is now complete. Although much of the tenement occupied by the foundry remains unexcavated, the area investigated is thought to contain most of the workshops, as well as the furnace and casting-pit. The Paul Street site is probably the most thoroughly investigated post-medieval bell foundry in Britain.

Perhaps the most important source of information for the history of the foundry is the bells themselves. Those cast in the 17th century and later usually bear the initials (occasionally the full name) of the founder, the date of casting, and often have a motto or inscription giving additional information. All the church bells of Devon were catalogued in the 19th century by the indefatigable Rev. H.T.Ellacombe who visited every church in the county and published his findings in the Transactions of the Exeter Diocesan Architectural Society for 1867. Although this work contains many inaccuracies, it is an indispensible source because many of the bells described have since been recast. The modern historian of the county's church bells is the Rev. John Scott. He has been most generous in providing information on bells and founders, and we hope very much that he will be able to find the time to contribute to the final report on the Exeter bell foundries.

The Paul Street foundry was operated between c. 1625 and 1720 by successive members of the Pennington family. Branches of this family were active throughout the south-west for a period of over 200 years and hundreds of church bells cast in Devon and Cornwall in the 17th to 19th centuries are attributable to them. The Exeter branch were probably responsible for at least 200 bells (Fig. 1).

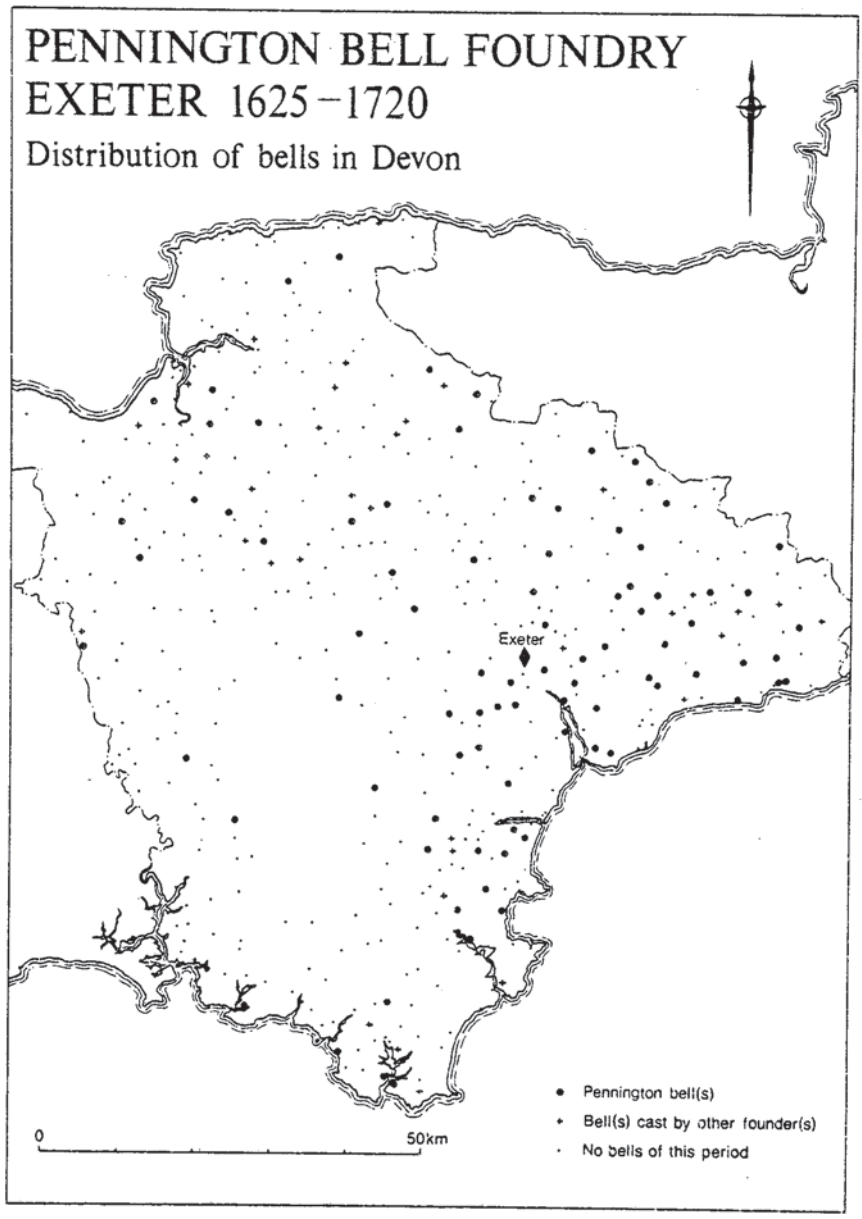

Figure 1. (Compiled with information provided by the Devon SMR)

Thomas Pennington I and his sons cast bells in North Devon between 1618 and 1623. To judge from the evidence of the recorded bells, Thomas II probably came to Exeter around 1625, following the death in 1624 of Thomas Birdall, who had a foundry in St. Thomas (at Albany Road -partly excavated by the AFU in 1978). Whether the Paul Street tenement was acquired immediately is not known. The earliest reference linking Pennington with St. Paul's parish is the record of

EXETER: PAUL ST 1982-3 PENNINGTON BELL FOUNDRY c 1625-1720

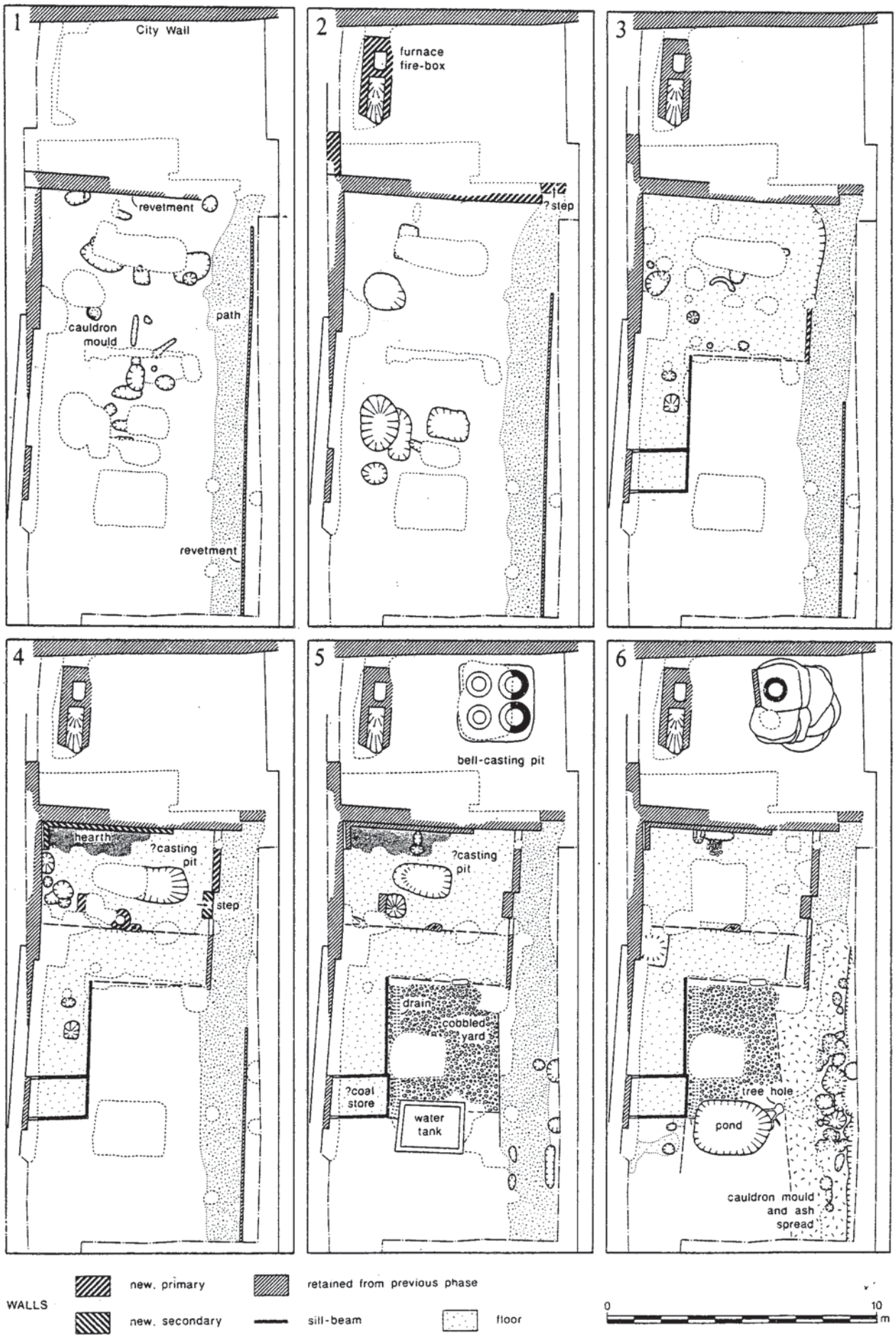

Figure 2.

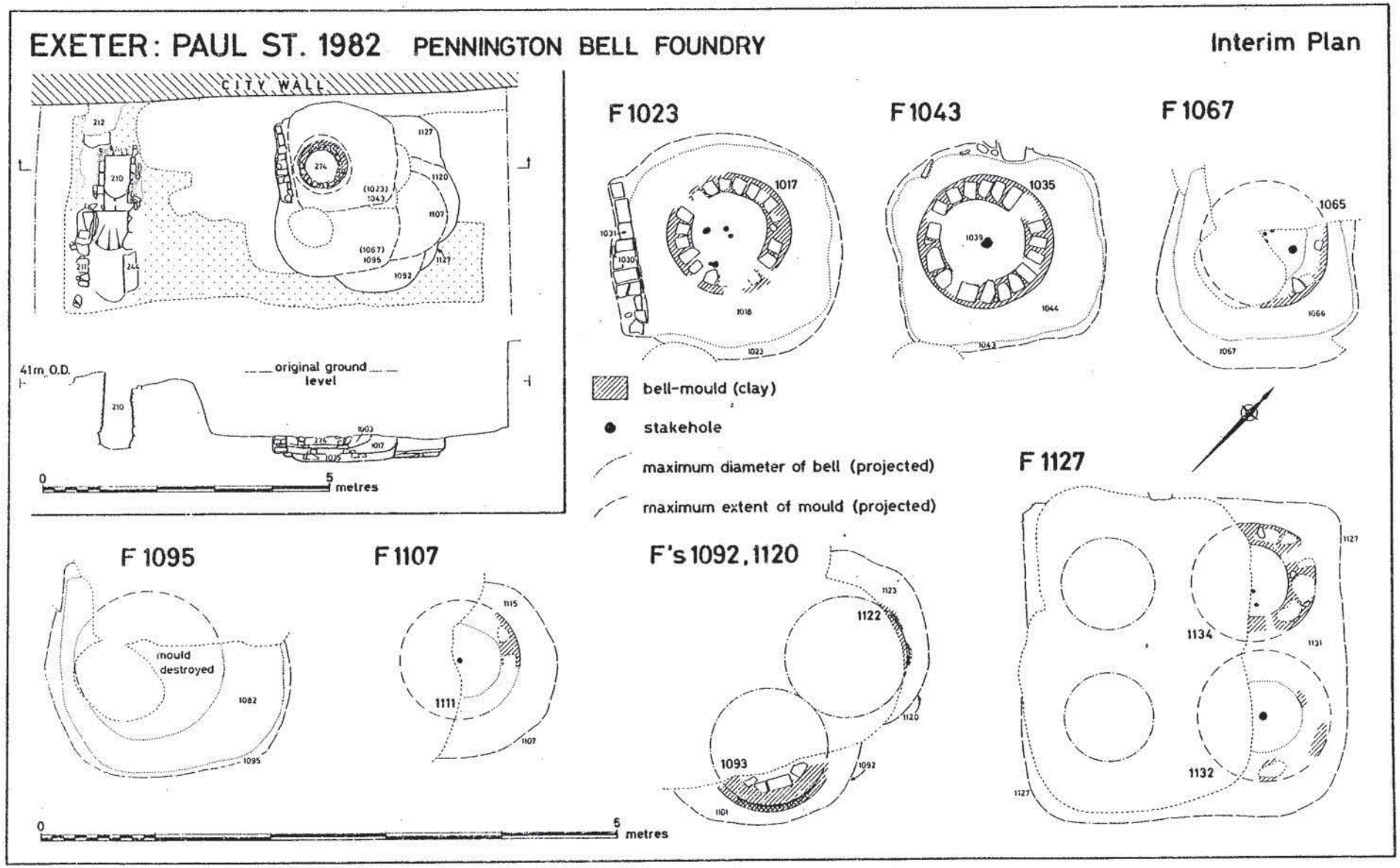

Figure 3. Paul Street bell-casting pit.

his marriage in 1629. Pennington was certainly casting bells in Exeter by 1627, when a peal of five was made for Colebrook church. The entries in the churchwardens' accounts indicate that this casting took place in Exeter rather than at the church. In 1628 Thomas II entered into an agreement to cast a bell for St. Peter's, Tiverton 'at the casting place outside Northgate' and in the following year a bell recast for Woodbury church had to be carried 'down over Northernhay' to the foundry.

It is clear therefore that when the foundry was first established bells were not cast in the Paul Street tenement but at a site outside the North Gate. The archaeological evidence from Paul Street nevertheless indicates considerable activity in the second quarter of the century: stages 1-5 in Fig. 2 all date to the period before 1650 (except for the casting pit in stage 5). The stage at which the furnace next to the City Wall was constructed is not firmly fixed in the sequence and could have been later than suggested in Fig. 2.

Copious mould debris in the workshop area shows that domestic utensils such as cauldrons and skillets were cast in the Paul Street tenement throughout the occupancy of the Penningtons. The manufacture of such vessels provided the bread and butter business of the foundry, which no doubt continued regardless of the demand for bells.

The reverberatory furnace firebox has been carefully dismantled and it is hoped to mark out its plan when the site is redeveloped. The firebox had clearly seen considerable use over a long period and preserved evidence in its fabric for a number of repairs and patchings. The remains of over 20 bell moulds were found in the successive casting pits next to the furnace (Fig. 3). The earliest surviving pit was almost certainly intended to contain four moulds. The only recorded casting of four bells in the post Civil War period occurred in 1656 when John Pennington cast the bells which still hang in the tower of St Mary Steps church, Exeter. The latest moulds date from after 1710. The best preserved of these is also the last in the sequence and could well be for the bell cast by Thomas III for Ide church in 1720, the year of his death and the closing date of the foundry.

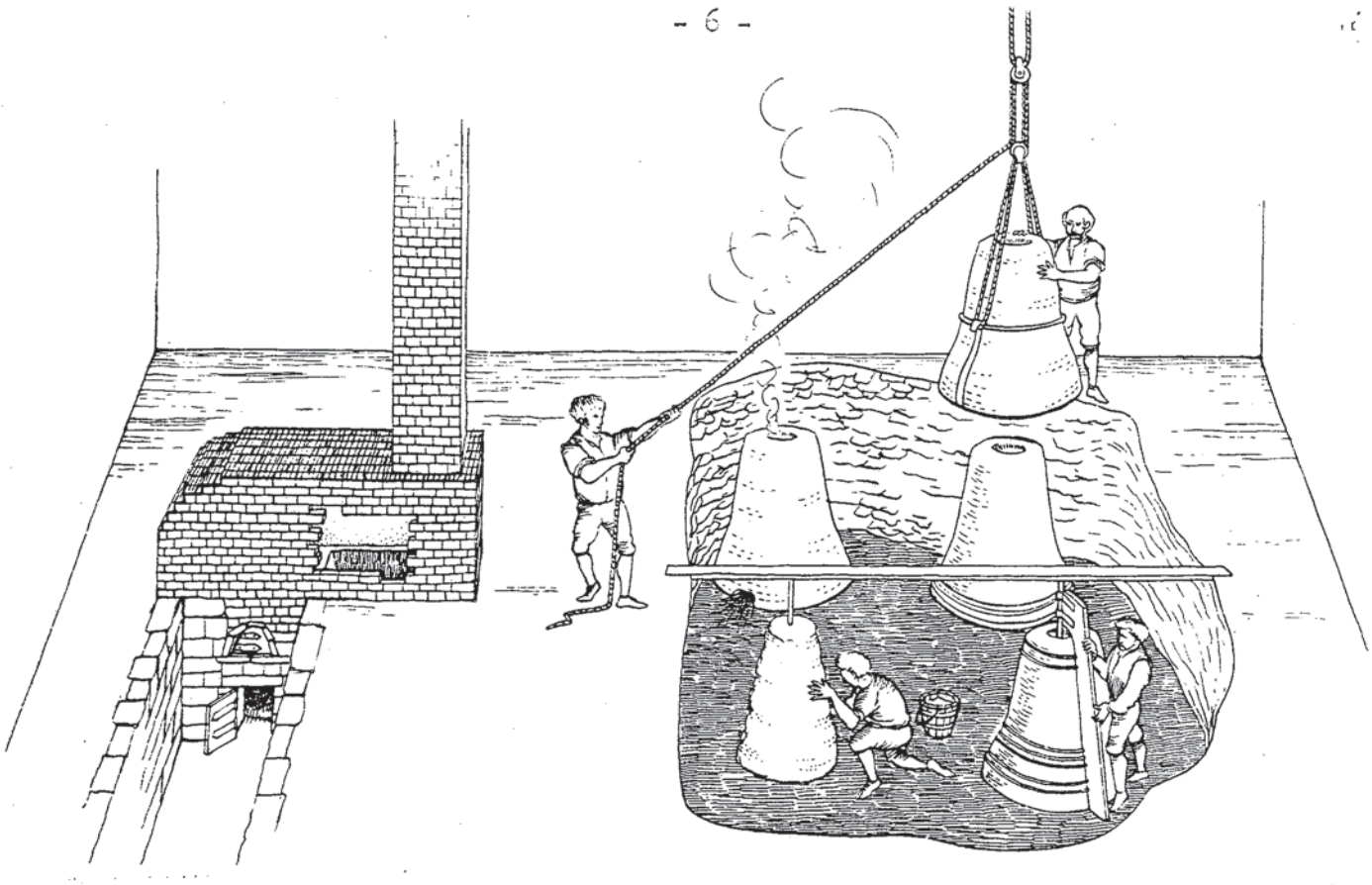

Figure 4. Imaginative reconstruction of bell foundry.

Since the foundry levels were completed work has concentrated on the elucidation of a number of problems concerning the later Roman and medieval defences and street systems. This site is the only one likely to provide an opportunity in the near future to examine the construction of the Roman wall and the clay bank to its rear. The excavation has established for the first time the full width of the later Roman bank (c. 12m) and it remains to examine closely the relationship between the two constructional phases of the bank noted on other sites. Was there, for example, any lengthy interval of time separating the two phases, or was the earlier phase of the bank perhaps left incomplete as apparently happened at Verulamium? Late Roman levels overlie the tail of the second phase bank. It is hoped that these will yield a sequence of datable material to give a terminus ante quem for the construction.

Layers of gravel at the back of the bank are being examined at the time of writing to determine whether they represent street metalling. It is conceivable that a late Roman intra-mural street ran around the inside of the town wall but has never been detected in an excavation.

2. FUTURE EXCAVATIONS

St. Nicholas Priory

The vacant plot of land next to the standing west range of St. Nicholas Priory will be landscaped in the autumn and opened to the public next year. In advance of this scheme the AFU will carry out a superficial examination of the area, partly to record levels to be affected by the landscaping and partly to locate the wall lines of the priory church with a view to their being marked out. Although the walls are probably largely robbed, at least one piece of masonry is known to survive a few centimetres beneath the surface.

King William Street

A small test excavation will be mounted in August on a plot of ground which is to have a multi-storey car-park extension built on it in the autumn. The topography of the area suggests that Roman and/or medieval aqueducts fed by the springs in the Well Street area may be found to run across the site.

Albany Road

It is hoped that it may be possible to carry out limited further work this summer on the Leisure Centre site in St Thomas, where the Birdall family had their bell foundry c. 1560-1624. There are grounds for believing that a late Saxon mill leat crosses the site and this would be sectioned if further excavation takes place.

3. STANDING BUILDINGS (J.R.Thorp)

41-2 High Street

Although 41 and 42 High Street, Exeter, have long been known to be a well-preserved pair of merchant's town houses built together in 1564, it was not until the recent renovation took place that the Elizabethan fabric could be examined in any detail. Four hundred years of changes have combined to hide most of the original masonry and timber-framing behind many layers of plaster and wallpaper. These have now been stripped away and for the first time it has been possible to record the surviving original structure in its entirety.

The houses were essentially identical. The front block of each house lies gable-on to the street. There were originally small courtyards and

detached rear blocks behind. The latter have been replaced but the front blocks are largely original although they have been knocked together to form a single unit. Both are four storeys high over stone-lined cellars - timber-framed between outer stone party walls and sharing a central chimney stack. The framed front and back walls jetty on each floor and the front end of the contemporary eastern stone side wall corbels out with moulded edges. The houses were laid out as mirror images of each other about the central division, each floor having a front and back room separated by the central stack and a newel staircase. Even on the ground floor, where all the walls have been knocked out and the courtyard infilled to create a single shop floor taking up the entire space of both properties, evidence of the original layout was preserved in the ceiling structure, including the position of the front doors and the form of the shop fronts.

Perhaps the most important and unusual aspect of the buildings was the survival in the main domestic rooms of the late 16th-century decorative scheme. Although most of the paintwork was poorly preserved it offers a rare glimpse of contemporary tastes in interior decor. The rear parlour of 41, for instance, contained the remains of a mural apparently depicting St. George and the dragon, and the front bedchamber of 42 was painted with vertical stripes of orange and blue surmounted by a frieze of short Latin homilies in strapwork frames. The rear chamber of 41 also preserved an original garderobe alcove complete with oak lavatory seat and lid! To the left of the fireplace in this room there was a small warming cupboard with a heated base which included the seating for a round bowl.

Home of the Good Shepherd, Holloway Street

The larger of the two houses which make up the Home of the Good Shepherd, off Holloway Street, has hitherto been considered to be an early 18th century building. However during its conversion into flats recently the Georgian external stucco and internal plasterwork were stripped off to reveal the well-preserved structure of a late 17th-century brick mansion. This is an important discovery for several reasons. The building is very large for its date and context with at least twenty original fireplaces, a very large number by 17th-century standards. In plan it is a double-pile house standing three storeys high over a half basement. The imposing front door leads into a wide entrance hall with two rooms on either side and the original monumental stair with turned balusters rising at the back. It is the earliest house in the Exeter area with a fully integrated 'modern' plan. Furthermore it

differs from the normal double-pile plan in having clear evidence of subsidiary wings at each side. The structural carpentry was of a high standard and was largely preserved intact. Platform-framed construction (an unusual technique apparently peculiar to the Exeter area in the late 17th century) was employed. The monumental staircase is a particularly fine example and evidence was also found of mullion and transom windows and for the lining of some fireplaces with imported Delft tiles. It is the last surviving house in the extra-mural suburb which developed in the late 17th century outside the South Gate. Two fine contemporary houses, John Mathew's house on Magdalen Street and Holloway House, Holloway Street, were recorded before their demolition in the 1970's but several others close by were pulled down without record in the 1960s.

10-11 The Close

10 and 11 The Close make up one of the best-preserved urban courtyard houses in the country. The house comprises four wings around a courtyard and dates mainly from the late medieval period; but it is clearly not the work of one period. Over the centuries it has been extended, rebuilt, adapted and modernised many times.

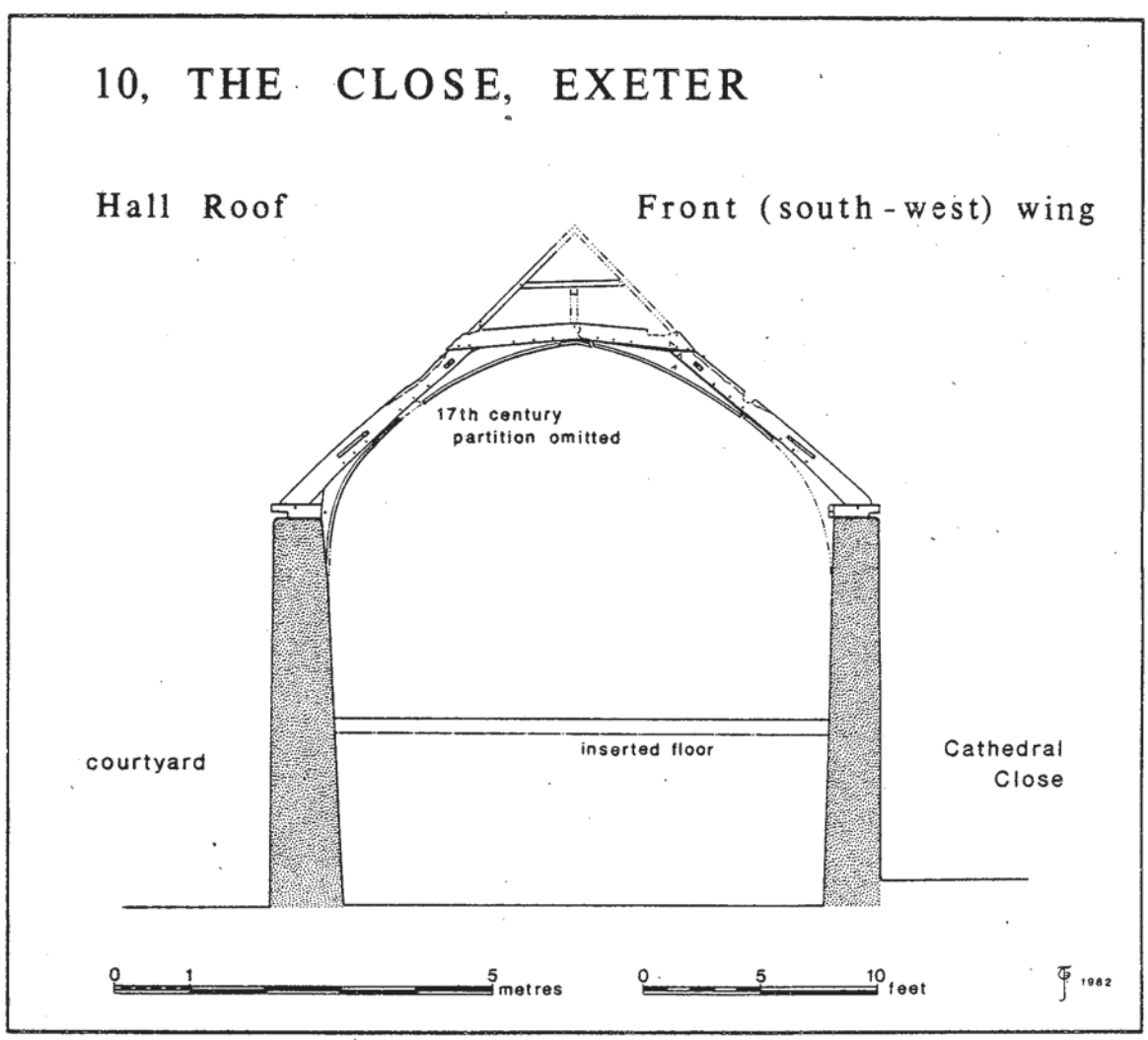

Figure 5.

Dating the various parts is further confused by the incorporation in the fabric of several salvaged medieval features in the 19th century. Despite these difficulties the recent survey has resulted in a clearer picture of the development of this important building.

The earliest part is the block next to the Close, where the remains of an arch-braced, short-principal roof have been discovered. This distinctive type of roof is usually considered to be 14th century in date; it is the earliest domestic roof in Exeter and one of the earliest in the south-west. The timbers of the roof were blackened with deposits of soot from an original open hearth. The roof presumably covered an open hall and suggest that the house began as a single-block hall-house fronting onto the Close. In the late 15th or early 16th centuries the other wings were added to make up the courtyard plan. Kitchen and services were built on the southern side (now No. 11), parlour and chambers with a private chapel on the eastern side and another block, possibly a second open hall, on the northern side. The southern wing was rebuilt in the 1940s after bomb damage and the northern wing was rebuilt in the 17th century. The eastern wing thus contains most of the surviving late medieval features.

After the Reformation (probably within the period 1597-1621 on the evidence of a tablet displaying the arms of Bishop Cotton) the house was extensively refurbished. It was at this time that the original hall in the front wing was floored over and divided up. The contemporary round-headed stone arch in the front wall still retains an original oak door complete with a small central wicket-gate. Its heavy ornamentation and shell head is similar to the door at the front of the Guildhall dated 1593.

4. POST-EXCAVATION PROJECTS

The main project in the current financial year is the compilation of Exeter Archaeological Reports Volume 4, which will contain reports on post-Roman extra-mural sites and buildings. The sites include Polsloe Priory, Exe Bridge, Albany Road, Flowerpot Lane, Magdalen Street, Southernhay Gardens, Holloway Street, Friars Gate and Friars Walk. The principal buildings to be published in the volume are 42-6 Magdalen Street, Holloway House, Larkbeare House, Pinbrook House, 30-33 Lower North Street and the Home of the Good Shepherd.

It is intended to complete archive reports on the Roman levels of all the extra-mural sites this year. Further work will also be undertaken on the Cathedral Close medieval report. It is hoped to produce

the final reports on the Exeter bell foundry sites this year.

The DOE are grant-aiding the preparation of a Policy Document outlining priorities for future archaeological work in Exeter. This will be presented in draft form to the Archaeological Advisory Committee for discussion at the next meeting.

5. PUBLICATION

E.A.R. Volume 3

The manuscript of John Allan's monograph on the medieval and post-medieval finds from Exeter is now complete and estimates have been obtained for printing and for the production of microfiche. Alan Sutton Publishing Ltd of Gloucester will be printing the book, which we hope will appear before Christmas, perhaps in time for a launch on the same day as the next Committee meeting.

C. G. Henderson

Director, Archaeological Field Unit

JA

King William Street Excavation and the Underground Passages

Introduction

In August 1983 three trenches were excavated in advance of the construction of a multi-storey car park extension on a site in the suburb of St Sidwell's, outside the east gate of the Roman and medieval town. The site lies to the NW of St Sidwell's church on the steep upper slopes of the Longbrook valley. There is no reason to suppose that much of this ground was ever built on in the past, and the site would not normally merit archaeological investigation. ~~However,~~ A few hundred metres further up the valley however are the sites of several springs which supplied the system of medieval aqueducts known as the Underground Passages.

From the mid 14th century water from springs in the vicinity of St James' Park was conveyed into the town along aqueducts following the line of Longbrook Street. The authors of an archaeological survey of the Underground Passages made in 1931 put forward the suggestion that prior to the 14th century water may have been brought into the town along a different route, in a conduit which tapped St Sidwell's Well, situated lower down the valley near the corner of Well Street and York Road. It was with the objective of locating this putative Norman aqueduct that the trenches at King William Street were dug. It was also considered possible that a Roman aqueduct might be encountered.

St Sidwell's graveyard

The main excavation cutting extended about 38 m down the hillside from the pavement of King William Street (formerly Church Lane). The natural subsoil was located next to the pavement at a depth of about 3 m. Most of this depth was accounted for by a homogeneous deposit of dark soil retained by a revetment wall marking the boundary of a 19th-century annexe to St Sidwell's churchyard. This part of the graveyard was deconsecrated and the graves removed in 1969 prior to the widening of King William Street in the early 1970s. Only a few gravestone fragments and a handful of human bones remained.

Early history of the Underground Passages

At this point it will be convenient to review the earliest documentary evidence relating to the medieval water supply of Exeter. This was summarised in a report on the Devon Archaeological Exploration Society's 1931 survey of the Underground Passages published in the Society's Proceedings for 1932.

The medieval water supply of Exeter is first mentioned in the Cartulary of St Nicholas Priory where it is recorded that in 1226 the dean of Exeter Cathedral granted to the priory one third part of the well of St Sidwell. This grant has been taken to indicate that by 1226 the Cathedral chapter were already bringing water from St Sidwell's parish into the Close, whence it was probably distributed to the priory and to a town fountain at Carfax. When the supply was first brought to the Close is not recorded, but this is likely to have been in the second half of the 12th century, a period which saw a number of major ecclesiastical establishments first provided with running water - eg. Canterbury Cathedral Priory in the 1150s and Lichfield Close in the 1160s. In both these cases the water was conveyed from ~~the~~ springs in lead pipes laid in trenches.

The division of the cathedral supply into thirds is mentioned in more explicit terms in an agreement of 1346 which states that the water was conveyed to an enclosed building in the Close and there divided ~~into~~ between three branches supplying the Close, the town and the priory. A number of late 13th-century documents make it clear that the pipe bringing the water into the Close entered the town not at the East Gate but through a defensive tower which stood on the City Wall at the point where St Martin's Lane (now The Close) enters Southernhay.

For the years 1347-9 the Cathedral Fabric Rolls record the expenditure of over £50 on the construction of a new aqueduct. From the nature of the payments entered in the accounts it is evident that this took the form of a stone-lined and -roofed conduit containing a lead pipe. This conduit can be identified with the section of the Underground Passages which runs up the east side of Longbrook Street as far as the point where the passage makes a sharp turn to the SW before curving round to run across the front of the East Gate. It is this abrupt change of alignment at the top of Longbrook Street that was thought by the authors of the 1931 survey to mark the point at which a hypothetical earlier conduit from St Sidwell's Well could have joined the system.

Norman aqueduct

The hillside below the old churchyard wall at King William Street was covered with garden soil up to 0.5 m deep which was removed by hand to expose the weathered Permian subsoil. A little below the 45 m contour, at a point where the slope starts to ~~increase~~ steepen markedly, a feature about 1.1 m wide was located cutting across the line of the main excavation cuttings.

This proved to be a trench 3.25 m deep with sides sloping inwards towards a narrow bottom lined with yellow clay. The fill of the trench consisted of very clean redeposited natural material probably dug out from the trench and then filled back again. It provided one or two Roman finds, two early medieval cooking-pot sherds and a once partly-melted lump of lead. The trench was also located in two further cuttings and its course traced for a total distance of about 17 m on a line roughly parallel with the 45 m contour.

The prediction made in 1931 for the line of the first aqueduct supplying water to the Cathedral Close seems to be confirmed by the excavation carried out at King William Street more than 50 years later. The deep trench which crosses the site certainly represents a medieval aqueduct. Its profile and the nature of its fill indicate that it was not an open watercourse and the provision of a clay bedding has been noted in medieval pipe-trenches elsewhere - eg. at Friernhay Street in 1981. We may safely conclude that the trench originally contained a buried lead pipe. As noted above, the most likely period for the creation of this sophisticated system of water supply is the later 12th century.

But why was the pipe laid at such a great depth? Comparison of the absolute levels in the King William Street trench and the earlier section of the Underground Passages outside the East Gate is informative. The floor level in the passage was recorded in 1931 as equivalent to 41.36 m OD. The bottom of the trench discovered in 1983 some 250 m to the NE is at about 41.45 m OD. Hence the two sections of aqueduct are very nearly on the same level. In the Roman and earlier medieval periods it was usual for aqueducts to be built wherever possible with a relatively slight gradient, even when the water flowed in a sealed pipe.

Exeter's Norman aqueduct seems to have been constructed in this way. ~~However,~~ A considerable expenditure of labour would however have been required to achieve a reasonably constant, gentle gradient over the whole length of the pipeline. The Cathedral Close is around 5 m lower than the springs in the Longbrook valley; moreover, the aqueduct had to negotiate a low ridge in the region of the East Gate. These factors made it necessary to lay the pipe several metres below ground over much of its course.

The 14th-century conduit

The Norman aqueduct was probably at least 150 years old when in 1347-9 the new conduit was built along Longbrook and Catherine Streets

to tap springs in Headwell Mead, just below St James' Park near Lions Holt where the London and South Western Railway (Waterloo Line) now cuts across Well Street.

There were several important differences between the old aqueduct and its successor. As we have seen, the Norman pipeline was probably buried and relatively inaccessible over much of its length. The pipe of the new aqueduct lay in a ~~low~~ covered stone-built passageway that rendered all parts of the system accessible for repairs and maintenance. Whilst the 12th-century aqueduct flowed down an even gradient the conduit built to replace it in the mid 14th century rose and fell according to the local topography along its course. Thus until it reached St Martin's Lane in the Cathedral Close the earlier aqueduct traversed open ground along a line selected to facilitate a gradual fall from one end of the pipe to the other. By contrast, the later system took a longer and more difficult route, mainly confined to roads, which involved two crossings of the Longbrook and in several places required the action of a siphon.