ST BARTHOLOMEW'S HOSPITAL, BRISTOL

THE EXCAVATION OF A MEDIEVAL HOSPITAL: 1976–8

ROGER PRICE WITH MICHAEL PONSFORD

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Roger Price

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Specialist contributions by
Gerry Barber, John Bryant, David Dawson,
Les Good, Reg Jackson, Julie Jones, Ann Linge,
Gillian Stroud & Bruce Williams

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Abbreviations

B   Burial
Bg   Building
CG   Context Group
Dr   Drain
F   Floor
Gy   Gully, unspecified slot or other shallow linear pit
OD   Ordnance Datum (Height above mean sea level)
P   Pit
PH   Posthole
R   Room
SF   Stone Feature which is not necessarily a wall
SH   Stakehole
T/T   Test Trench
W   Wall

BPT   Bristol Pottery Type
BRO   Bristol Record Office Document
PRO   Public Record Office (London) Document
QEH   Queen Elizabeth's Hospital (School), Bristol

Abbreviations other than to BRO & PRO documents used for bibliographical references are given in Bibliography.

Fig   Figure
Pl   Plate

On the relevant plans, site north is the dashed arrow, true north is the solid arrow.

On sections and elevations, the vertical scales show OD heights.

Acknowledgements

Contributors

Gerry Barber   Rheumatology Unit, Bristol Royal Infirmary, Bristol BS2 8HW

John Bryant   Bristol & Region Archaeological Services, City of Bristol Museum, Bristol BS8 1RL

David Dawson   Somerset County Museum Service, Castle Museum, Taunton TA1 4AA

Les Good   Dept of Archaeology, City of Bristol Museum, Bristol BS8 1RL

Reg Jackson   13 Sommerville Rd, Bristol BS7 9AD

Julie Jones   Dept of Geography, University of Bristol, Bristol BS8 1SS

Ann Linge   Bristol & Region Archaeological Services, City of Bristol Museum, Bristol BS8 1RL

Michael Ponsford   12 Seymour Rd, Bristol BS7 9HR

Roger Price   23 Trelawney Rd, Bristol BS6 6DX

Gillian Stroud   (Formerly of Environmental Archaeology Unit, University of York, York YO1 5DD)

Bruce Williams   Bristol & Region Archaeological Services, City of Bristol Museum, Bristol BS8 1RL

Summary

The site of St Bartholomew's Hospital, located on the banks of the River Frome alongside the principal northern entrance to Bristol, had been occupied since late Saxon times. The earliest structural evidence from Period 1 was in the form of fences, other unidentified features, and boat nails associated with waterfront activity centred on a river inlet or creek in the years up to, and including, the 12th century. At the beginning of Period 2 (c 1175+) the creek was partly filled in, a pavement was laid, and work commenced on the construction of a substantial first-floor aisled hall, incorporating an undercroft below a wooden floor, probably for the use of the locally prominent de la Warre family. A short while afterwards, on the same pavement was laid a wooden slipway, possibly for the delivery of materials to the creek to aid the building programme, which might have continued in use thereafter as a facility for receiving trade goods delivered to that hall by small river craft.

The site was rededicated by John de la Warre for use as the new St Bartholomew's Hospital some time around 1232–4 (Period 3A) which happened to be only a few years before the river was rechannelled to provide improved quay facilities for the expanding town. The former hall was probably taken over for multi-purpose accommodation, perhaps including the chapel and infirmary. In the later 13th century a new porch was added to its entrance, the rest of the old creek was filled in, and the site of the slipway was redeveloped for the first of a series of small outhouses. Documents suggest that the women's dormitory, a garden, and the burial ground lay outside the excavated area to the north of the site. Around 1300 (Period 3B) it became necessary to strengthen the increasingly precarious hall by inserting bracing walls and raising floor levels. At about the same time, a refectory/hall and kitchen, possibly with the men's dormitory upstairs, were erected on the north side of what became an approximately triangular-shaped cobbled courtyard. The bakehouse seems to have been sited adjacent to that building on its north side. Water was supplied by a well dug into the yard, but the latrines were not located. Another range, possibly the guesthouse and master's lodgings, with a stone path leading to it from the street outside, was built on the west side of the courtyard. An inventory of the hospital, taken in 1303, has been related to the excavated structures. A few years later, north of the kitchen range work commenced on developing service buildings such as the bakery, granary, and an improved water supply.

Between about 1340 and 1400 (Period 4A) when the hospital was mainly administered by women, most of the buildings were reconstructed. Almost all the above-ground structure of the old Norman hall was demolished, the undercroft backfilled, and a replacement built on the same foundations, reusing much of the decorative freestone. From then on it certainly became a church with added chancel and began to be used for human burial. Most of the skeletons were of elderly and infirm persons, but there were some young adults and even children among them. A stone staircase probably led to an upper room over the south aisle. The west end of the north aisle was temporarily used as a separate domestic area, probably while the existing refectory/hall and kitchen were rebuilt. There is evidence that an infirmary was attached at right angles to that area of the church, possibly with a similar provision in another room directly adjoining. No evidence was found to show that any form of medical care other than basic nursing was ever practised. To the rear of the new refectory/kitchen range, a stone-built water tank seems to have been the successor to an earlier conduit. A formal walkway was constructed around the periphery of the courtyard, perhaps to segregate the men from the women.

In 1445, the hospital expanded to include a home for retired mariners, who moved elsewhere some time around the end of the 15th century. St Bartholomew's was closed shortly before the Dissolution in 1532, when the Bristol Grammar School was established on the site. The church was probably partly demolished in the late 16th or early 17th century, and other buildings were subsequently taken down for a major rebuilding programme in 1765, which activity continued into the 19th century.

Some elements of the former Norman hall and the hospital church, as well as substantial parts of the 18th/19th-century school buildings, have survived to be incorporated into the most recent (1981–4) redevelopment.

A comparative study of the medieval hospitals and almshouses of Bristol, undertaken as part of the research project, has shown that even by local standards St Bartholomew's was impoverished, and built on a small scale as economically as possible. Because medieval hospitals are not well understood archaeologically, so few having yet been excavated extensively using modern techniques, the Bristol project is important, but even more so because of the ordinariness of St Bartholomew's, about which little had previously been known.

Zusammenfassung

Das Gelände, auf dem St Bartholomew steht, liegt an den Ufern des Flusses Frome, entlang der nördlichen Hauptanfahrt nach Bristol und wurde seit dem spät-sächsischen Zeitalter benutzt. Die ersten strukturellen Beweise dafür waren eine Art von Zäunen , nicht identizifierbare Gegenstände und Bootnägel, die aus Phase 1 stammen und die auf Hafenbeschäftigungen hinweisen. Diese spielten sich in den Jahren vor dem und im 12. Jahrhundert um einen Flussarm und einer kleinen Bucht ab. Am Anfang der Phase 2 (ca.1175) wurde die Bucht teilweise aufgefüllt, ein Gehsteig gebaut und man begann mit dem Aufbau einer soliden einstöckigen Halle mit Gang und Krypta, die unter einem Holzboden, wahrscheinlich zur Benutzung für die örtlich prominente Familie De la Warre, eingebaut war. Nicht lange danach wurde auf demselben Gehsteig ein Helling aus Holz gebaut, wahrscheinlich für die Zufuhr des Baumaterials zur Bucht, um den Bau zu erleichtern. Es kann wohl möglich sein, dass dieser auch weiterhin als Einrichtung für die Lieferungen von Handelswaren mit kleinen Flussbooten zur Halle benutz wurde.

Das Gelände wurde von John de la Warre um 1232 – 4 als St Bartholomew Krankenhaus wieder eingeweiht (Phase 3A), nur wenige Jahre bevor das Flussbett der Frome neu gelegt wurde, um verbesserte Zugangsanlagen für die sich vergrößernde Stadt zu gewähren. Die ehemalige Halle wurde wahrscheinlich als vielseitige Unterkunft verwendet, dazu gehörten vielleict auch die Kapelle und das Krankenhaus. Im späteren 13. Jahrhundert wurde ein neuer Vorbau zum Eingang gebaut, der Rest der Bucht wurde ausgefüllt und der Platz, wo der Helling stand, wurde zuerst mit einer Reihe von kleinen Nebenhäusern saniert, Dokumente lassen darauf schließen, dass die Frauenschlafsäle, ein Garten und eine Begrabungsstätte nördlich des Geländes, außerhalb der ausgegrabenen Fläche lagen. Um 1300 (Phase 3B) wurde es notwendig, die immer unsicherer werdende Halle durch stützende Wände zu stärken und die Fußbodenebenen zu erhöhen. Um ungefähr dieselbe Zeit wurden ein Refektorium/Saal und Küche, möglicherweise auch der oben gelegene Männerschlafsaal auf der Nordseite des später gebauten, ungefähr dreieckigen Hofes aus Kopfsteinpflaster gebaut. Das Backhaus scheint auf der Nordseite neben diesem Gebäude gelegen gewesen zu sein. Wasser erhielt man von dem im Hof gegrabenen Brunnen. Die Latrinen konnten nicht gefunden werden. Auf der Westseite des Hofes wurden andere Bauten errichtet, wahrscheinlich das Gästehaus und das Haus des Herrn (master) mit einem aus Stein gebauten Weg, der von der Straße her zu diesen Bauten führte. Das aus dem Jahre 1303 stammende Inventar des Krankenhauses wurde mit den ausgegrabenen Konstruktionen in Verbindung gebracht. Wenige Jahre später bagann man auf der nördlichen Seite des Küchengebäudes mit dem Bau der Diensthäuser wie der Bäckerei, dem Kornspeicher und einer besseren Wasserzufuhr.

Zwischen ungefähr 1340 und 1400 (Phase 4A), als das Krankenhaus hauptsächlich von Frauen geleitet wurde, rekonstruierte man die Mehrzahl der Gebäude. Die alte normannische Halle wurde demoliert und die Krypta zugefüllt. Eine neue Krypta wurde auf demselben Fundament, wobei meistens dieselben dekorativen sogenannten Freestone verwendet wurden, gebaut. Von diesem Zeitpunkt an kann man mit Sicherheit sagen, dass daraus eine Kirche mit zusätzlicher Kanzel wurde, die zum Zweck menschlicher Beerdigungen benutzt wurden. Die Mehrzahl der Skelette waren von alten und kranken Menschen, aber darunter fand man auch Skelette junger Erwachsener, ja sogar Kinderskelette. Möglicherweise führten Steintreppen zu einem oberen Raum über dem südlichen Seitenschiff. Das westliche Ende des nördlichen Seitenschiffs wurde vorübergehend als separate Wohnräume benutzt, möglicherweise während des Umbaues der existierenden Refektorium/Halle und Küche. Es ist beweisbar, dass ein Krankenzimmer rechtwinklig zu dieser Fläche der Kirche angebaut war, möglicherweise mit ähnlicher Versorgung, in einem direkt angeschlossenen Raum. Unbeweisbar ist jedoch, dass es außer elementarer Krankenpflege jemals andere ärztliche Versorgung gab. Am hinteren Ende des neuen Refektoriums/der neuen Küche scheint ein aus Stein gebauter Wassertank der Nachfolger eines früheren Leitungsrohrs gewesen zu sein. Ein formaler Fussweg wurde um die Peripherie des Hofes gebaut, vielleicht um die Männer von den Frauen zu trennen.

1445 wurde das Krankenhaus erweitert, um Raum für pensionierte Seeleute zu machen, die aber später am Ende des 15. Jahrhunderts woanders hinzogen. St Bartholemew wurde kurz vor Auflösung in 1592, geschlossen, dann als die Bristol Grammar School (Bristol Realgymnasium) sich auf diesem Gelände etablierte. Die Kirche wurde wahrscheinlich im späten 16. oder im frühen 17. Jahrhundert teilweise demoliert und andere Gebäude später abgerissen, um 1765 einen bedeutenden Umbauprojekt, das bis ins 19. Jahrhundert hineinreichte, Platz zu machen. Einige Reste der ehemaligen normannischen Halle und der Kirche, wie auch bedeutende Teile des Schulgebäudes aus

dem 18./19.Jahrhundert haben überlebt und konnten in den letzten Sanierungen integriert werden.

Eine als Bestandteil eines Forschungsprojekts unternommene Vergleichsstudie über mittelalterliche Krankenhäuser und Armenhäuser in Bristol zeigt, wie St Bartholemew, selbst unter örtlichen Normen verarmt war; es wurde auf kleinem Maßstab und so sparsam wie möglich gebaaut. Das Bristol-Projekt ist nicht nur deshalb von Bedeutung, weil Krankenhäuser aus dem Mittelalter archäologisch noch nicht sehr gut verstanden werden – nur wenige sind mit Hilfe moderner Technik weitgehend ausgegraben worden – sondern es ist deshalb noch wichtiger, weil es nichts Außergewöhnliches an St Bartholemew gab, worüber man sich vorher wenig bewußt gewesen war.

Sommaire

Le site de l'Hôpital de St Bartholomew, situé sur les rives de la rivière Frome, à côté de la principale entrée septentrionale de Bristol, a été occupé depuis la fin de l'époque saxonne. L'indice structurel le plus ancien de la Période 1, se présentait sous la forme de clôtures, d'autres caractéristiques non identifiées et de clous de bateaux liés à l'activité riveraine axée sur un bras de rivière ou crique dans les années menant au 12ème siècle et l'incluant. Au commencement de la Période 2 (vers 1175), la crique fut partiellement comblée, un pavage fut posé et le travail de construction d'une grande salle à bas-côtés, au premier étage, commença, intégrant une crypte sous un plancher de bois, probablement destinée à l'important famille locale des de la Warre. Peu de temps après, sur le même pavage, une cale de lancement en bois, peut-être pour la livraison de matériaux à la crique afin de faciliter le programme de construction et qui pourrait avoir continué à être utilisée par la suite pour la réception de denrées commerciales livrées à cette salle par de petites barques fluviales.

Le site fut reconsacré par John de la Warre, pour devenir le nouvel Hôpital de St Bartholomew vers 1232-4 (Période 3A), quelques années seulement après la percée d'un nouveau chenal pour la rivière afin de fournir de meilleures installations portuaires pour la ville en expansion. L'ancienne salle fut probablement réutilisée à plusieurs fins, peut-être pour la chapelle et l'infirmerie. A la fin du 13ème siècle, un nouveau porche fut ajouté à son entrée, le reste de l'ancienne crique fut comblé et le site de la cale fut redéveloppé pour les premières d'une série de petites dépendances. Les documents suggèrent que le dortoir des femmes, un jardin et un cimetière se trouvent à l'extérieur de la zone fouillée au nord du site. Vers 1300 (période 3B), il devint nécessaire de renforcer la salle, dont l'état était de plus en plus précaire, en insérant des murs de renforcement et en élevant le niveau des sols. Environ à la même époque, une salle de réfectoire et cuisine, le dortoir des hommes se trouvant peut-être à l'étage, furent construites sur le côté nord de ce qui devint une cour pavée de forme à peu près triangulaire. La boulangerie semblait se trouver à côté de ce bâtiment, sur son côté nord. L'eau était fournie par un puits creusé dans la cour, mais on n'a pas localisé les latrines. Un autre alignement, peut-être la maison des invités et la demeure du maître de maison, avec un sentier de pierre y allant de la rue, était construit sur le côté ouest de la cour. On a fait une liaison parallèle entre un inventaire de l'hôpital, fait en 1303, et les structures fouillées. Quelques années plus tard, au nord de l'alignement du bâtiment de la cuisine, on commença à développer les bâtiments de service comme la boulangerie, le grenier et une meilleure alimentation en eau.

Entre environ 1340 et 1400 (Période 4A), lorsque l'hôpital était pour la plupart géré par des femmes, la plupart des bâtiments furent reconstruits. Presque toute la structure de l'ancienne salle romane au-dessus du niveau du sol fut démolie, la crypte fut comblée et un bâtiment de remplacement fut construit sur les mêmes fondations, en réutilisant une bonne partie de la pierre décorative. Ensuite, le bâtiment devint certainement une église avec l'addition d'un choeur et commença à être utilisé pour les sépultures humaines. La plupart des squelettes étaient ceux de personnes âgées et infirmes mais il y avait quelques squelettes de jeunes adultes et même d'enfants parmi eux. Un escalier en pierre menait probablement à une salle du haut, au dessus du bas-côté sud. L'extrémité ouest du bas-côté nord fut utilisé temporairement comme partie ménagère séparée, probablement pendant la reconstruction du réfectoire/salle et de la cuisine. Il existe des indices qu'une infirmerie était adjointe à angles droits à cette partie de l'église, peut-être avec une

disposition similaire dans une autre pièce, directement attenante. On ne trouva aucun indice indiquant la pratique d'autres soins médicaux que des soins élémentaires. A l'arrière du nouvel alignement réfectoire/cuisine, un réservoir d'eau en pierre semble être le successeur d'un conduit antérieur. Un sentier à l'agencement régulier était construit autour de la périphérie de la cour, peut-être pour séparer les hommes des femmes.

1 The St Bartholomew's project

The production and structure of the report

The city of Bristol has been the subject of intense archaeological scrutiny for many years. From the late 1960s until the early '90s, during which time he held the post of Field Archaeologist in the Dept of Archaeology at the City of Bristol Museum and Art Gallery, Mike Ponsford had overall executive responsibility for a concentrated programme of excavation which was designed to examine in detail the origins and subsequent development of the town. In parallel with this, as a personal research interest he assembled a reference series of the pottery types recovered, which took as its focal point the locally made wares of the medieval period, and that type series became the principal method for establishing the chronology of the excavated sites.

The St Bartholomew's excavation, undertaken between 1976 and 1978, was part of that ongoing programme. The project was directed on behalf of the City Museum by Roger Price, then a Field Officer in the Dept of Archaeology. His role was to devise and manage the overall excavation strategy, ensuring that safety standards were rigorously complied with while allowing sufficient flexibility to maximize the potential of the site; to interpret and present what was found, and to undertake a simultaneous search of the documentary record, which by then had become one of his specialist studies.

Two other members of museum staff also made crucial contributions. On a day-to-day basis, site supervisor Bruce Williams oversaw the innumerable minutiae of a complex urban site: identifying features, recording and photographing them, and deciding on the sequence of excavation. John Bryant was responsible for surveying all the structures revealed.

Soon after the excavation was completed, a summary interim report was published (Price, 1979a) but it was recognized from the outset that a far more detailed account would have to be prepared to do this important site full justice. The advancement of the project was delayed because Roger Price left Bristol in 1981 to take up a post in London, but in his spare time he continued to work on cross checking and interpreting the site records, and ordering them as a preliminary draft in note form. No further progress could be made without detailed examination of the finds by specialists to provide both a workable chronology and a perspective on important topics such as the human skeletal remains, so for a time matters were laid to rest. The project was resurrected in 1992 when English Heritage provided funds for the compilation of a detailed research report.

Liz Induni (then an employee of the City Museum) drew the potsherds which were selected for inclusion. Later, Ann Linge (employed as illustrator by the sponsors of the project, Bristol and Region Archaeological Services) completed the drawings of all the other finds, and designed and prepared all the plans and sections for publication.

There are various ways in which this report could have been structured, but it was decided that it should be written according to the main periods of occupation. The means by which the chronology was established are given later (see p 7). As far as is practical, but without being over pedantic, every attempt has been made to separate actual evidence from its interpretation – which inevitably must to some degree be a personal matter and reflect the views of the times. Doubtless much will be seen differently in the future. No apology is made for those parts of the report which are highly speculative, especially in the discussions of the earlier periods of occupation. Without stretching the evidence as far as it will bear, little progress can be expected to be made in the understanding of issues for which hard facts are rare, and the contentious has ever been a stimulus to healthy debate.

The overall logistics of the St Bartholomew's project are described subsequently in this chapter. Chapter 2 is an introduction to the historical context of the hospital; Chapters 3 and 4 describe the periods before the hospital was established, the discussion at the end of each of them drawing together all that has been discovered. The heart of the report lies in Chapters 5 and 6, which describe the two principal periods of hospital occupation. The discussion accompanying each chapter interprets all the internal evidence in terms of the layout and function of the hospital itself, without complicating matters by referring to hospitals elsewhere. In Chapter 7, the closure of the hospital is discussed and a description of the subsequent reoccupation of the site up to the present day is set out. The later archaeological deposits, which consisted largely of systems of drains and other structures connected with the industrial use of the buildings, are not detailed here as they do not add significantly to the history of the site. Those interested should consult the site archive (see p 8).

Although it would have been desirable to have intercalated the finds reports more closely with the foregoing, this was not a practical option as they had already been assembled in their present form before the final editorial phase and resources were

not available to rearrange them; besides which, they were in many ways disappointing in terms of their significance in understanding hospital life. Therefore, the specialist reports are published separately in Chapters 8 and 9.

As pottery was central to correlating and dating the stratigraphy in all areas it is reported in some detail. The post-medieval pottery has not been studied in depth, mainly because much of it was found in deposits which had been disturbed by the recent installation of services and continuing building work. Roof tile has been treated in similar fashion. Although by definition coming from later contexts, kiln-waste clay tobacco pipes are included because they were made on or near the site. The other finds which have been selected for publication are presented by material, function, area, and period. The coins and tokens have been reported in their entirety, as is usual. A few post-medieval objects have been included if they are of intrinsic interest. Despite on-site remedial conservation of the ironwork, there were no facilities for following up this work at the museum, so much of it has deteriorated since excavation. X-radiographs could not be taken until 1986–7, when corrosion had already destroyed many of the objects. The human bone is described as fully as possible. Of the animal bone recovered, only fragments found in floors, drains or accumulated dumps are included, no midden having been found. All relevant details of the plant and insect remains are given.

Finally, it is in Chapter 10 that St Bartholomew's is considered in a wider context by relating its main features (in terms of foundation, political economics, functions, and contemporary living standards) to current understanding of hospitals elsewhere, but particularly in Bristol. This system has the advantage of allowing the actual findings of the project to be stated simply, yet putting the various arguments in perspective. In this way, the clearest picture has been given in digestible portions with minimum repetition. The broad conclusions of the project and recommendations for future action are set out in Chapter 11.

The site surveyor and his assistants prepared several hundred scale drawings, including plans with numerous overlays of all features excavated, all sections, and elevations and cross-sections of most aspects of the standing buildings. Obviously, only a small proportion can be published and those which are most relevant have been selected. Many of the sections were extremely complex and it was found at the time of excavation to be too confusing to annotate them with yet further descriptions of the layers. For this reason, and as a double check on the accuracy of the records, the context codes were identified and inserted on the originals when they were first drawn during excavation; which is why a selection of such codes has been used in the published versions. Descriptions will be found in the appropriate part of the text, and Tables 1–5 show their stratigraphical and chronological contexts.

Anyone interested in more detail should consult the site archive.

Wherever possible, plans have been drawn according to the period of occupation under discussion and have been published as close as possible to the descriptive text. In some cases, especially for the multi-phase sections, this was impractical without resorting to excessive repetition, and some cross reference between different sections of the report could not be avoided. This minor inconvenience is regretted, but the page numbers of the figures are easily found in the list given at the start of the work.

The site

The site of St Bartholomew's Hospital (NGR: ST 58667319) was defined by Host Street to the south, Narrow Lewins Mead to the east, Johnny Ball Lane to the north, and the rear of properties on Christmas Steps to the west (Figs 1 & 2; Pl 1). In the topography of Bristol, Narrow Lewins Mead was a name introduced some time during the 18th century to describe that part of Lewins Mead which lay west of Johnny Ball Lane, but the line of that stretch of the street was obliterated during redevelopment in 1981–4. These streets enclosed an approximately wedge-shaped area measuring some 60m north to south by about 40m at its widest point. This did not take in the full extent of the original hospital land, which apparently continued past Johnny Ball Lane for another 60m or so, approximately as far as the middle of the present Unitarian Chapel; but that portion of land was not available for investigation (see Fig 35). Immediately prior to excavation, the part of the site to be studied was occupied by Burleigh Press Ltd.

The local geology is typical of all riverside sites in central Bristol. The channel cut by the River Frome since the end of the last Ice Age became filled with alluvial silt, largely composed of organic clays which in places overlie, or lie against, the earlier gravel terraces. To the rear of the St Bartholomew's site is a shallow cliff with a vertical face up to 6m high but continuing above that as a series of narrow shelves, which was formed by the river in a manner similar to that of the nearby Avon Gorge at Clifton. It is composed of the very hard Brandon Hill Grit (a local variant of the Millstone Grit series) intercalated with the Coal Measures and the Carboniferous Limestones, and is cut into a hill which rises to the north to a height of 60–70m OD. The site is therefore squeezed into the narrow space between the cliff and the river itself, where the two features come closest together.

The buildings standing on the site must have been significantly affected by their proximity to the river and would have been prone to flooding. Mean high-water Spring tide in the medieval period has been estimated to have been at about 6.4–6.7m OD, within some 0.5m of what it would be today were

Plate 1   External view of St Bartholomew's Hospital, showing porch and adjacent buildings, 1995
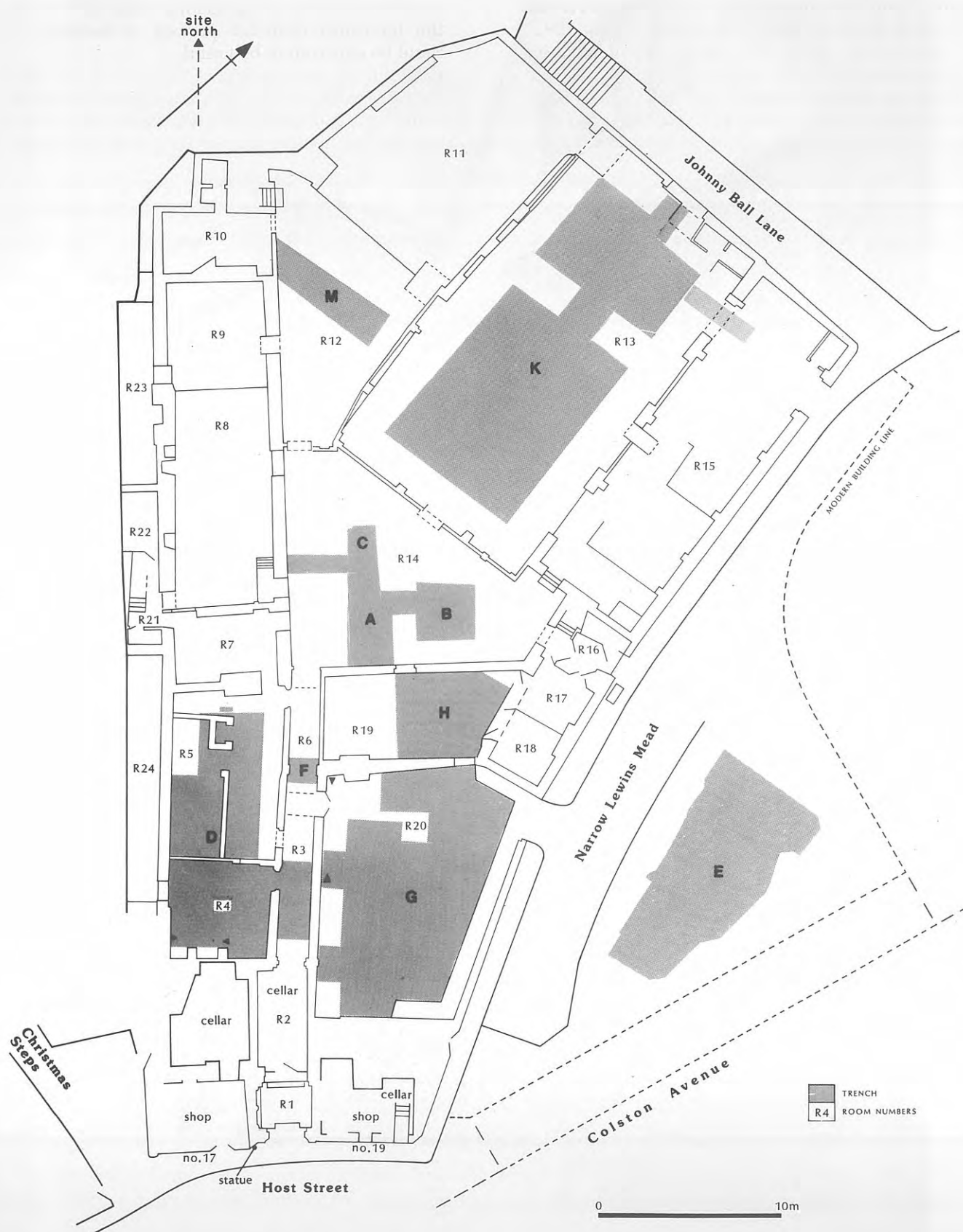
Figure 1 Plan of the site, surveyed in 1976, showing locations of trenches excavated

the waters of the Bristol basin not controlled by a lock system at a mean of 6.95m OD. The tidal range was huge, probably a little over 10m. The important matter of the tides in medieval Bristol is discussed by Jones & Watson (1987, 139–41), by Jones (1991, 19) and by Price (1991, 27). Over much of the site, modern ground level is still below 9m OD.

The present-day streets broadly preserve what is known of the medieval pattern (Pl 2). Immediately west of the site is Christmas Steps, known in medieval times as Stypestrete (or Steep Street) and in the 17th century as Queen Street. This street, repaved in 1664, provided an arduous route up the cliff from Frome Bridge. An easier route is represented by Host (formerly Horse) Street, which continued west from Narrow Lewins Mead to a branch turning north on a more gentle gradient towards St Michael's Hill. These two roads formed one of the principal northern exits from the city, heading towards Gloucester (Lobel & Carus-Wilson, 1975, maps 2 & 7).

On Host Street, above the surviving hospital porch, is a jettied building of 16th-century date. On one side of the porch is what is now a fish-and-chip shop, built in typical mid-17th century orielled style. It was restored as part of the 1980s redevelopment. On the other side, at the corner of the former Narrow Lewins Mead, is an essentially 18th-century building which is now occupied by a newsagent. None of these has yet been surveyed in detail, but many scale drawings and sketches were made for the City Museum by John Bryant while the redevelopment was in progress.

Project aims and strategy

Extensive archaeological excavation of English hospitals has occurred relatively infrequently, and this was to be the first undertaken on a Bristol example. Spicer's Almshouse, in Temple Street south of the River Avon, was excavated in 1975–6, but there were some notable contrasts in scale and complexity between that house and St Bartholomew's Hospital (Williams, 1988). Considerable interest in the site had been aroused by a preliminary examination of the surviving buildings in 1976. It was already known that most of the 13th-century porch and gateway survived, but the rediscovery in a warehouse bordering Narrow Lewins Mead of part of a burnt and damaged column, incorporating a scalloped capital and apparently of late 12th-century date, suggested that substantial remains might have survived below ground.

The principal spur to the excavation of this historic site was the proposal that it be redeveloped. As is almost inevitably the case with such a venture, the most important factors to be taken into consideration had both positive and negative aspects. Among the strengths of the site, seen from the perspective of 1976, were:

– Substantial remains which were still standing in an excellent state of preservation and which appeared to date from the late Norman period onwards; so that an unusually clear picture of the buildings from all periods of occupation could be expected to be found.
– Preliminary examination of the surviving documentary evidence yielded a fragmentary picture which might dovetail with the excavation findings. In particular, an inventory of buildings and contents made in 1303 had been preserved.
– There were no obvious cellars other than those under the shops on the Host Street frontage, so the recovery of an excellent sequence of well-stratified features was anticipated.
– There was a high probability of finding human burials, as a cemetery was recorded in the contemporary documentary record. Skeletons would produce pathological evidence about the hospital's population.
– Being so close to the river, there was a good chance that organic materials would be found well preserved in the waterlogged clay.
– The standing buildings would provide protection against poor weather, allowing excavation to proceed throughout the year.
– It was available for excavation which could be undertaken at an appropriate rate over two years rather than being unduly rushed.

Among its weaknesses were:

– The invaluable standing remains, particularly those from the earliest period of occupation, would have to be left *in situ*, which would hamper the gathering of evidence for their construction. Understandably, the owners of the site were reluctant to permit demolition of any major buildings before details of the redevelopment had been finalized.
– For the excavation to proceed safely and in accordance with statutory regulations, the presence of standing buildings, particularly those from later phases of occupation, would impose severe restrictions on the extent of excavation, and shoring would be needed in some places. Even the courtyard which took up the northern half of the site had been covered by a corrugated roof for the purposes of the last occupiers (see Pl 24) and its supporting posts would have to be worked around.
– Such structures would also mean digging in extremely poor light, so that features would inevitably be missed, particularly at the deepest (hence earliest) levels.
– All these difficulties would be aggravated by the need to keep the excavation spoil on site, which would limit available space yet further.
– Poor drainage of water lying over the alluvial clay, exacerbated by proximity to the river,

would multiply the difficulties of excavation at the deepest levels.

– Documentary evidence was, on the whole, rather slight apart from certain key references.

Having assessed the site potential, the aims of the project were formulated, which may be summarized as:

1 To investigate the earliest evidence of occupation and its relationship with the River Frome.
2 To understand the significance of the standing Norman-style remains.
3 To determine the origins of the hospital and its later development.
4 To obtain a detailed ground plan of the hospital, relating this to surviving above-ground structures and interpreting the functions of buildings.
5 To compile a detailed history of the site from contemporary records, and to integrate this with the excavation findings.
6 To obtain evidence for the living standards of the hospital staff and inmates, including diet and pathology. In particular to determine whether it had ever been a leper house, as suggested by Clay (1909) on the basis of its dedication to St Bartholomew, and whether any actual medical treatments were employed.
7 To investigate details of the demolition of the hospital buildings after closure and the foundation of the Grammar School.
8 In post-excavation work, to compare St Bartholomew's with hospitals elsewhere.

Taking into account all the foregoing, a detailed strategy was devised, comprising:

– Preparation of a detailed ground plan of existing buildings and the survey of elevations of the most important standing structures, to serve both as a permanent record and as a means of correlating all features found by excavation.
– Opening up a test trench in advance of the main excavation.
– A more rigorous system of recording than had hitherto been attempted on any excavation in Bristol. This included the drawing in plan of every feature observed.
– Ongoing examination, as the project progressed, of the most promising documentary sources for the history of the hospital.
– Close liaison with the owners of the site (Bristol Municipal Charities) to ensure that full advantage could be taken of the opportunities afforded as they occurred and that the risk of inadvertent demolition of important remains during redevelopment, including those discovered below ground, would be minimized.
– Regular consultation with the local Buildings Inspector to ensure that, while nothing was done which would prejudice the stability of the

standing buildings, maximum use was made of the limited space available.

– Collaboration with the Conservation Dept at the Bristol Museum so that recovered artefacts could be given attention as soon as possible after excavation. This included the assignment of a Conservation Assistant to work on site for much of the time.
– Regular press releases and guided tours for the general public, which had the added benefit of enforcing an ongoing critical evaluation of what had been found.

This was the first time in Bristol that preliminary and collaborative discussion between the city planners, the owners of a site, and archaeologists had led to the agreement by all parties of a sensible work programme with a realistic timetable to meet the needs of such an important site. Funds were provided by the Bristol City Council, both in the form of the full-time museum staff employed by them and the financing of a Job Creation Scheme which allowed temporary assistants to be taken on. No money was contributed by the developers of the site as at the commencement of the project no firm plans had been agreed and no contractors had been commissioned. The preliminary survey was undertaken in the summer of 1976; excavation commenced early in the following year and was completed, as far as resources would allow, during the autumn of 1978.

System of excavated areas

Prior to excavation a detailed ground plan was drawn up and elevations of the more important buildings were surveyed. On the plan, the various rooms and corridors were assigned room numbers (Fig 1) and numbers were allocated to the standing walls. This approach allowed most effort to be concentrated on the below-ground excavation once it commenced in 1977.

The site was excavated in areas labelled A to M for ease of recording (Fig 1). These areas were treated approximately in alphabetical order, which meant that work in the later trenches benefited from the information gleaned earlier, such as the expected depths of stratified deposits and natural alluvial clay. There were occasions when more than one area was being dug at any one time. All areas were further subdivided on site for ease of reference but to avoid unnecessary complication this nomenclature is ignored in the present report. It is explained in the summary plans contained in the original archive (see p 8).

Overall, the areas were designed to investigate specific and different aspects of the site, viz:

Area A complex – structures in the centre of the site, thought to be approximately where any courtyard or cloister might lie.

Area D/G complex – the building including the sup-
posed Norman arcade north of the porch,
thought to be the church.
Area K complex – structures towards the northern
margin of the available site which might have
included domestic ranges or the burial ground.
Area E – structures outside the hospital, close to
the river bank, which might provide evidence
concerning early activity alongside the Frome.

The Area A complex was initially L-shaped to avoid
sewers which were still in use. Once the existence of
medieval stratification was established it was ex-
panded into Areas B & C. The highly irregular
shape of the extended area (hereafter referred to
simply as Area A) was determined by the presence
of roof supports which had to be left in position.

For the investigation of Area D, the site owners
generously permitted the demolition of superficial
structures and a small section of W2 after it had
been surveyed. This greatly increased the amount
of ground available for investigation and allowed
that part of the site to be excavated in full daylight.
Part of this complex was Area F, which was dug
specifically to investigate the continuation of a wall
between Areas D and G. Area G was also highly
irregular in shape owing to the presence of upper-
floor supports and other disturbances. Area H was a
shallow excavation of the structures immediately to
the north of Area G, made to examine any northern
extension of the building found as well as in the
hope that some integration could be made with
structures found in Area A.

Area E was the only trench opened outside the
hospital precinct, but its form was dictated by the
presence of extensive cellaring, and experience
showed that it was impractical to excavate to any
depth except in a test trench at its north end.

To avoid confusion, no areas were designated I
or J.

Area K took in as much of what had formerly
been open courtyard as could be excavated safely,
but it too had to avoid roof supports. Area M was
opened specifically to investigate the westward con-
tinuation of the building found in Area K. There
was no Area L because the large number of contexts
found in K necessitated extending into an L series
for the recording process (see below).

Because of a dangerous crack running through
the whole length of the building, no trench was
opened on the site of the 1818 QEH range. This
would have been extremely difficult to undertake
for the additional reason that the concrete floors
had been reinforced to support printing presses and
breaking through this would have required machin-
ery. A narrow eastward extension of the northern
part of Area K had to be abandoned for the same
reasons. Extremely poor light, limitations on time
and labour, and the high probability that it would
not be disturbed during redevelopment, were the
principal factors involved in the decision not to ex-
cavate within the range north of Area D.

Recording system

The site was recorded by context (or layer, that
being the term used at the time of excavation) and
feature. Over 1800 contexts were distinguished,
each being given an alphabetical code according to a
system introduced into Bristol by Ponsford in the
late 1960s. For Area A this ran in the sequence AA,
AB, AC, ... etc. Contexts in the other trenches were
noted in the same style but were prefixed by the
letter of the area, viz: DAA, DAB, DAC, ..., or
KAA, KAB, ..., etc. In Area K, so many contexts
were found that it was necessary to extend the sys-
tem beyond KZZ into LAA ... etc. Additionally,
features were assigned a number preceded by a
letter or letters descriptive of their shape or compo-
sition (eg P59 is context RY, where Pit 59 is the cut
feature and context RY the material with which it
was filled). For the letters used and their meanings
see Abbreviations.

It is important to understand that, although most
of the alphabetical context codes followed the chron-
ological and stratigraphical sequence, for technical
reasons to do with the way in which the excavation
was conducted, this was not always the case. All the
records have been scrutinized minutely by both au-
thors to check any inconsistencies. If it seems that
any of the layers might be out of place, they have all
been satisfactorily accounted for in the full record,
which may be examined in the site archive.

True north is approximately 45 degrees east of
the line of the western ranges and the corridor lead-
ing into the site from the south porch (Fig 1). To
avoid the use of inconveniently long definitions of
orientation in the site records, for all descriptions
relating to Areas A and D/G north is taken to mean
a line parallel to the west range of the site (ie from
R1 to R10). Owing to the curve in building lines
further north, for descriptions of Areas K and E
north is taken to mean a line parallel to the east
range of the site (R15). **On the relevant plans,
site north is the dashed arrow, true north is
the solid arrow.**

Establishment of site chronology

The chronology of the site has been derived by
amalgamating several kinds of evidence: the strati-
fied deposits and finds, architectural features of
standing structures, and details given in contempo-
rary documents.

Although the stratigraphy of individual trenches
was for the most part fairly straightforward, there
were some difficulties in assembling a reliably co-
herent overall picture because of the considerable
degree of later disturbance and the requirement (for
safety reasons) to excavate the deepest deposits
only in restricted test trenches. Further, the exca-
vation of the site by area meant that relationships
between those areas were severed. Moreover, the
overall characters of most excavated areas were

different. Therefore, any integration solely on the basis of heights above the natural alluvium could be ambiguous since the development of the site during any one period was not necessarily progressing uniformly. Nevertheless, when the standing structures were taken into account, excellent correlation could be made between Areas D and G, which were shown to be two halves of the same building. More difficulty was found in directly linking structures in Areas A and K. Post-excavation analysis demonstrated that there had been comparatively few major building phases within each area, and parallel examination of those phases strongly suggested direct connections between them. It was concluded that each phase involved extensive reconstruction of virtually the whole hospital at any one time or, if not exactly contemporary, then within a period which was less than the error of detection by any other means. Of course, between each major redevelopment there were minor modifications to buildings, pavements etc.

Pottery has proved to be by far the most useful material in enabling broad dates to be assigned and for assisting with the correlation of the contexts across the site. Owing to their scarcity, coins were only of very limited use. Other artefacts have also played a role; if much less important than pottery, then certainly not insignificant. Two wood samples were dated by radiocarbon analysis.

It is a matter of good fortune that substantial fragments of one medieval building have survived above ground. This includes parts of a medieval arcade and virtually the whole of a porch. These have been crucial in fleshing out the picture gained from an examination of the finds.

The total evidence gained from excavation and survey was assembled on the basis of the 'best fit', and this scheme provided a framework for the dates of the five periods, with their various sub-periods, by which the hospital is described. All the structures observed are dated according to that scheme. However, parallel with the excavation account, a history of the hospital which deals principally with administrative and economic affairs has been assembled from the fragmentary documentary record. Happily, the two narratives are mutually supportive and generally in excellent agreement. Thus, considering the circumstances of the foundation of the hospital, according to the pottery evidence the first hospital structures observed date to around 1250; the documents indicate a foundation date of c 1232–4, only some fifteen or twenty years earlier. The small discrepancy is easily accounted for in terms of economic necessities and a pragmatic interpretation of all the known facts. The excavation demonstrated that the hospital was almost completely rebuilt in the second half of the 14th century, commencing c 1350; the documents refer to a major change in administration in c 1340, along with proposals for selling off part of the site and the commencement of some reconstruction. The establishment on the site of Bristol Grammar School in 1532 is well attested by the documents, but they do not make it clear how this affected either the surviving inmates or what happened to the buildings. Regrettably, for reasons made clear in Chapter 7, the excavation record for this crucial period is also only fragmentary.

Taking into account all the evidence, the original outline dating scheme drawn from an analysis of the excavation results is adhered to, but it has been slightly broadened at the three key points described to include the wider issues arising from contemporary documents. This is why, at first sight, the overlaps between some of the major periods might seem rather precise. It is stressed that no change has been made to the dating by finds of any of the structures.

For assessing the evidence from the excavated features and finds, the stratigraphic record for each area was first organized in matrix form. It was quickly recognized that in order to make the huge amount of data manageable some compression was necessary, and the concept of a broad matrix of context groups was developed (Tables 1–5). These refer to the stratigraphic groupings of contexts (or layers) by period and area of the site. The system takes account of the fact that many contexts do not have individual meaning in the interpretation of the site. For example, the backfill to the undercroft of the Norman hall was excavated as numerous layers which had subtle differences in colour or texture, but as the excavation progressed it became obvious that they were really only differential fills which were deposited over a short span of time. These and other directly associated deposits have been grouped together both for defining the phases of redevelopment and as an aid for examining the finds, particularly the ceramics. In this system, where no activity is represented during any particular period, it is presumed that the buildings from the preceding periods survived to bridge the gap.

All relevant contexts have been included in the tables, which serve as a guide for those wishing either to examine in more detail the relationships between the finds or to consult the original site archive. It has not been thought necessary to identify all of them in the main descriptive text unless they are key contexts or those included in sections, and most of the site is adequately described in terms of context groups.

Site archive

Much of the excavated evidence is reported here. Among the more detailed material available in the site archive are: all site records; a number of original drawings which were not thought to add materially to the main discussion; fine details of the contemporary documentary evidence, together with various explanatory correspondence; drafts giving detailed descriptions of each area set out in stratigraphic sequence with accompanying summary

plans and preliminary interpretation. It is most regrettable that by far the greatest part of the site had to be excavated in extremely poor light, as explained previously, which limited the potential for useful photography. Attempts to provide supplementary artificial light met with only limited success. Nor could many wide-range general shots be taken owing to the confines of standing buildings. For these reasons the quality of record photographs is not as high as would be expected of such a site, and relatively little is worthy of publication. Nevertheless, numerous monochrome prints and colour slides are included in the archive.

The finds were generously donated by Bristol Municipal Charities. Both these and the site records form part of the collections of Bristol City Museums and Art Gallery (Accession Number BRSMG: 21/1977). A copy of the site archive list, both of the original records and the research archive, may be obtained on application to the museum. A microfiche copy of the archive may also be consulted at the National Monuments Record, Fortress House, 23 Savile Row, London W1X 1AB. It should be noted that certain additional details of documentary research undertaken during 1995 are available in the archive held in Bristol.

Table 1: Broad matrix of contexts: Area A

PERIOD 1
Context Group A1   SB–SR

PERIOD 2A
Context Group A2   RM, RP, RR–RV, RX, RZ

PERIOD 2B
Context Group A3   RC, RK, RL, RN.
Context Group A4   QQ, RJ, RQ, RW, RY
Context Group A5   QD, QG, QM, QO, QP, QR, QX–QZ, RD, RO

PERIOD 3A
Context Group A6   PN, PO, PW, PY, QA, QB, QH, QJ, RB

PERIOD 3B
Context Group A7   OD, OE, OS, OX–OZ, PA, PB, PD–PM, PP, PR, PT, PV, PX, PZ, QC, QE, QL
Context Group A8   NN, NQ–NS, NV, NX–NZ, OA, OC, OF–OL, ON, OP, OT–OW, PC, QF
Context Group A9   MX–MZ, NA, NC–NE, NG–NJ, NM, NP, NT, NW

PERIOD 3C   Not represented

PERIOD 4A
Context Group A10   LB, LD, LF, LG, LM, LQ, LW–LZ, MD, ME, MH, ML, MM, MS, MT, MW, NL
Context Group A11   KH, KL, KM, KQ–KT, KY, KZ, LA, LH, LN, LR, LT, LV, MG, MN, MO, MQ

PERIOD 4B
Context Group A12   DL, EX, FE, FH, FJ, FP, GF, GR, HD, HT, JD, JG, JH, JL, JN, JP–JT, JW–JZ, KA–KG, KJ, KN–KP, KV, KX, MA–MC, MJ, MK, MP, MV

PERIOD 5
Context Group A13   DT, DV, EE, EG, EK, EM–EO, EQ, EW, FK, FL, FO, GM, GQ, GS, GT, GW, GY, GZ, HA, HL, HO–HR, HW, HX, JM, JO, LO, LP

Table 2: Broad matrix of contexts: Area D

PERIOD 1	
Context Group D1	DJC, DJL
Context Group D2	DHS–DHW, DJA, DJB
Context Group D3	DHR
Context Group D4	DFV, DGC, DHA, DHQ
Context Group D5	DFS
Context Group D6	DFE, DFG–DFJ, DFL, DFR, DFT
PERIOD 2A	
Context Group D7	DER, DGD, DGZ, DJO, DJQ, DJR
Context Group D8	DLP, DLQ
PERIOD 2B	Not represented
PERIOD 3A	Not represented
PERIOD 3B	
Context Group D9	DLL–DLO
Context Group D10	DMV, DMX–DMZ
PERIOD 4A	
Context Group D11	DKL–DKZ, DLA–DLK, DLS–DLV
Context Group D12	DME–DMK, DMM, DMP, DMR–DMT
Context Group D13	DEZ, DDP, DDR
PERIOD 4A–B	
Context Group D14	DCW, DCX, DCZ, DDC, DEF, DML, DMO, DMN
Context Group D15	DMA–DMD
Context Group D16	DJG–DJK, DJS–DJV, DJX, DJY, DKB–DKE, DKH–DKK
Context Group D17	DGF, DGW, DHX–DHZ, DJM, DJN, DJP, DJW, DLW
Context Group D18	DGT, DGV, DHB–DHD, DHF–DHP
Context Group D19	DET, DEV, DFA, DFW–DFZ, DGB, DGE, DGG–DGN
PERIOD 4B	
Context Group D20	DDM, DDN, DEC, DEL–DEQ, DEY, DFB–DFD, DGY
Context Group D21	DDE, DDW–DDY, DEA, DEB, DEE, DEF, DEH–DEK
Context Group D22	DCD–DCF
PERIOD 5	
Context Group D23	DDK
Context Group D24	DBS, DBX, DCN, DCS–DCV, DDA

Table 3: Broad matrix of contexts: Area E

PERIOD 1	Not represented
PERIOD 2A	Not represented
PERIOD 2B	Not represented
PERIOD 3A	
Context Group E1	ECN–ECV
Context Group E2	ECM
PERIOD 3B	
Context Group E3	ECG, ECJ
Context Group E4	ECH
Context Group E5	ECA–ECF

PERIOD 3C	Not represented
PERIOD 4A	
Context Group E6	EAQ, EBT, EBV, EBY
Context Group E7	EAR, EBS, EBW, EBZ
PERIOD 4B	
Context Group E8	EBD–EBF, EBL–EBN, EBR
PERIOD 5	Not represented

Table 4: Broad matrix of contexts: Area G

PERIOD 1	Not represented
PERIOD 2A	
Context Group G1	GQV, GTO, GTP, GVE, GVF
PERIOD 2B	Not represented
PERIOD 3A	
Context Group G2	GTM, GTN, GTQ
Context Group G3	GNG, GNJ, GNK
Context Group G4	GOT, GPT, GPV
PERIOD 3B	
Context Group G5	GTG–GTL
Context Group G6	GRA, GRK–GRN, GVA, GVB
Context Group G7	GNB, GND–GNF
Context Group G8	GPK, GPL, GPS
Context Group G9	GOL, GOM, GOO–GOS
PERIOD 3C	Not represented
PERIOD 4A	
Context Group G10	GQX, GQW, GSP–GSS, GSV, GSW, GSZ, GTB–GTF
Context Group G11	GFL, GFP–GFR, GFV, GGX, GKF, GKK, GKM, GKT, GKY, GMX, GMZ
Context Group G12	GEN, GEP, GEX, GFD
Context Group G13	GEV, GEY, GEZ, GFA, GFE, GFF, GFH, GFJ
Context Group G14	GNX
Context Group G15	GJJ, GJK, GKE, GKZ, GLM, GME, GNT, GNW, GNY
Context Group G16	GOZ, GPG–GPJ
Context Group G17	GHD, GHO, GHP, GKC, GKJ, GKL, GKN, GLE, GLG, GLN–GLP, GLV–GLX, GML, GMN, GMP, GMR, GMS, GNL–GNN, GNP–GNS, GNV, GPQ, GOC–GOE, GQB
Context Group G18	GCS, GCZ, GDH, GDM, GDP, GDT, GDZ, GED–GEG, GEK, GEW, GFK, GFS, GFT, GFW, GFY, GHE, GHK, GJM, GKG, GKW, GKX, GLL, GLR, GLS, GNZ, GOA, GOB, GOF–GOK
Context Group G19	GON, GPA, GPC–GPF, GPM–GPO, GPR, GPW, GRB, GRC, GRE, GRF
Context Group G20	GJO, GJP, GKS, GMF, GMG, GNO
Context Group G21	GJG, GQH
PERIOD 4A-B	
Context Group G22	GFB, GFC, GFZ, GGB, GGC, GHC, GHZ, GJS, GJT, GLA–GLD, GLF, GLH–GLK, GLQ, GLY, GLZ, GMB, GMD, GMK, GMM, GMO, GMQ, GMT, GMW, GNH, GRO–GRR, GSY, GSX, GTA, GVH
PERIOD 5	Not represented

Table 5: Broad matrix of contexts: Area K

PERIOD 1	Not represented
PERIOD 2A	Not represented
PERIOD 2B	Not represented (?)
PERIOD 3A	Not represented

PERIOD 3B
Context Group K1   KYN, KYO
Context Group K2   KZZ, LA–LAC, LAE, LAF
Context Group K3   KTA, KTE, KTF, KXZ, KYS, KZV–KZY, LAD
Context Group K4   KWA, KWD–KWF, KWH, KWZ, KXA–KXC, KXE, KXO, KXW, KYF–KYH, KYM
Context Group K5   KVT, KZH, KZK
Context Group K6   KZQ–KZT
Context Group K7   KXT, KXY, KYC, KYK, KYL, KYV, KYW, KZA–KZC
Context Group K8   KYX, KZF
Context Group K9   KRT, KTG, KTH, KVH, KVJ, KVS, KVW–KVY, KXX

PERIOD 3C
Context Group K10   KYA, KYQ, KYR, KYY, KYZ, KZD, KZG, KZJ, KZN
Context Group K11   KWT, KZE, KZP
Context Group K12   KWC, KWW, KWX, KXK–KXM
Context Group K13   KWV, KXN, KYB
Context Group K14   KTC, KVC, KVV, KVZ
Context Group K15   KWB, KWG, KWJ, KWK, KWN–KWS, KWY, KXD, KXG, KXH, KXJ, KXP–KXR, KXV, KYD, KYE, KYJ, KYP
Context Group K16   KVK
Context Group K17   KJK, KJQ, KJR, KKM, KNK, KNL, KRQ, KSE, KTB

PERIOD 4A
Context Group K18   KRG, KRV, KSF, KSO, KSR, KSW–KSZ, KTD, KTM–KTO, KTQ–KTV, KTZ, KVA, KVD–KVG, KVL–KVR, KWL, KWM, KZL, KZM
Context Group K19   KEJ–KEL, KQA, KTK
Context Group K20   KPS, KRH–KRN, KRS, KSA, KSG–KSJ, KSP, KSS, KTY
Context Group K21   KRO, KSK–KSN, KTP, KTX
Context Group K22   KRD–KRF, KVB
Context Group K23   KQH, KTW
Context Group K24   KPV–KPZ, KQD–KQG, KQJ–KQY, KXF
Context Group K25   KDT, KDV, KKS–KKW, KLJ, KLK, KNB–KND, KNM, KRR

PERIOD 4B
Context Group K26   KKH, KNO, KOE, KOJ, KOL, KON–KOP, KOR–KOT, KPA, KPG–KPL, KPT, KRW–KRZ, KSB–KSD
Context Group K27   KLD–KLG, KMB, KMJ, KMT, KMV, KMY, KMZ, KNA, KNQ, KNS, KNY, KNZ, KOA, KOH, KOK
Context Group K28   KEQ, KFT, KJZ, KKE–KKG, KKP, KLW, KLY, KLZ, KMQ, KMW, KNG, KNR, KOX
Context Group K29   KGN, KGV, KHB, KHD, KHH, KHP, KJB, KJY, KMC
Context Group K30   KJW, KNJ, KNN, KNT, KNW, KNX, KOB, KOC, KOQ, KOW, KQC
Context Group K31   KKQ, KLH, KMR, KMX, KNE, KNF
Context Group K32   KJM, KJN, KMS
Context Group K33   KFZ, KGA, KGH, KGL, KGW–KGY, KJX
Context Group K34   KKB, KKL, KMF, KPM
Context Group K35   KEA, KOG, KOY, KOZ, KPB–KPE, KPO–KPR
Context Group K36   KLC, KMM–KMP, KNP, KNV, KOF, KPN
Context Group K37   KGM, KGQ, KGS, KGT, KGZ, KHA, KHN, KHO, KHT–KHZ, KJC–KJJ, KJO, KJP, KJV, KKC, KKJ, KKN, KKO, KKR, KKX, KKZ, KLA, KLB, KLL–KLV, KLX, KMA, KML

PERIOD 5
Context Group K38   KDD, KDW–KDY, KEB–KEG, KEM, KEO, KEP, KES–KEW, KEZ, KFA–KFD, KFH,
Context Group K39   KFJ, KFL–KFN, KFS, KFW–KFY, KGB, KGC, KGF, KGG, KGJ, KGK, KGR, KJA,
Context Group K40   KKA, KKD, KMH, KNH
                     KDG, KDZ, KFG, KFK, KMG
                     KCR, KDA–KDC

2 Historical perspective

The nature of medieval hospitals

When the St Bartholomew's project was first mooted in the mid 1970s, the study of hospitals was a rather poor relation of research into other aspects of medieval history and archaeology. Clay's pioneering study of 1909 was still regarded as the key work, supplemented by other useful surveys such as the account of almshouses by Godfrey (1955) and the tabular summary of religious houses by Knowles & Hadcock (1971). A number of hospitals had been investigated in part and the observations published, but none had been excavated on anything like the scale required for adequate understanding of its history.

Since then the subject has burgeoned and new studies on hospitals and related topics are coming on stream with almost startling frequency. Notable among such works are: accounts of hospitals and related institutions in towns such as London (Rawcliffe, 1984), Cambridge (Rubin, 1987) and Norwich (Rawcliffe, 1995a); papers on a more general history of hospitals by Carlin (1989) and by Rubin (1989); a study of hospitals mainly in terms of their architecture by Prescott (1992); an updated national survey and study of hospitals in south-west England by Orme & Webster (1995); more advanced studies of monasteries edited by Gilchrist & Mytum (1993); critical reassessments of almsgiving and religious piety by Brown (1995) and by Swanson (1995); a more comprehensive study of medieval medicine in its diverse aspects by Rawcliffe (1995b), and reappraisals of the role of women in monasteries and hospitals by Thompson (1991) and by Gilchrist (1994 & 1995). These are but a selection of the overview literature which has recently become available. On a more specialist plane, in addition to the St Bartholomew's example, extensive excavation of hospitals has been successfully undertaken at St Mary Ospringe, Kent (Smith, 1979) at St Mary Spital in London (Thomas *et al*, 1989 & forthcoming) and at St Giles by Brompton Bridge, North Yorkshire (Cardwell, 1990; Cardwell *et al*, 1995). Examination has been made on a smaller scale of a number of others, among which might be mentioned St John Cirencester (Leech & McWhirr, 1982), St Mary York (Richards *et al*, 1989) and St John the Baptist Oxford (Durham, 1992).

Given the proliferation of the literature, it seems unnecessary to do more here than to summarize in a thumbnail sketch the main points by which St Bartholomew Bristol can be understood in a general context: this is essentially an excavation report, not another reworking of the whole subject, and the interested reader should consult the references cited. A much more detailed discussion of how St Bartholomew's and the other Bristol hospitals fit into this picture is given in Chapter 10.

Hospitals were a heterogeneous group of institutions, which makes their study all the more difficult, and generalizations are fraught with peril. Perhaps undue weight has been accorded by some to the list of Knowles & Hadcock in calculating statistics, especially in terms of administration and principal function (Orme & Webster, 1995, 10–12): the latest research into Bristol hospitals bears this out. For these reasons, expressions used in the following summary such as 'most', 'usually', 'few' etc, should be treated with caution: they are merely culled from the cited texts, and often one has been weighed against a contrasting opinion.

English hospitals in the Middle Ages were nothing like their modern counterparts. Although the reception of medical casualties was not entirely unknown, there were no ambulances bringing in the sick or injured for treatment; no casualty wards with queues of patients waiting to be seen by a doctor. Indeed, in contrast to provisions made in some other countries, any professional medical treatment in English hospitals was rare (whatever private arrangements might have been made among the non-hospitalized) and according to a fairly recent account no really convincing evidence at all has been found for such attention outside London. Many of their staff and financial supporters even saw the care of the sick as an unwelcome or impossible burden, and there are cases of exclusion of both the sick and invalids. Rather, they were more like semi-monastic houses in which relief was given to the poor and infirm, but also where the care of the eternal soul was considered more important than the healing of the body (Carlin, 1989, 24–31).

Although military hospitals had been introduced into Britain by the Romans, those institutions did not survive the collapse of their rule. In Anglo-Saxon England, care for the sick and needy was probably left to the domestic household, although the king and nobles sometimes provided extra help. With the beginnings of monasticism, basic facilities began to be provided in a few places for sick brethren, but whether or not outsiders were ever allowed in is unclear. Despite some claims, however, there is no convincing evidence that any hospitals, as such, existed before the late 11th century, when the Archbishop of Canterbury, Lanfranc, founded the

Hospital of St John in Canterbury and a house for lepers outside the town (Orme & Webster, 1995, 15–22; Tatton-Brown, 1995).

A spur to the establishment of hospitals in the 11th century was the dramatic increase in incidence of leprosy, with the belief derived from the Bible that such people needed some form of special care which involved seclusion. Lepers were forced to live on the margins of towns, outside the gates or in the countryside, and were usually prohibited entrance. Many people were abhorred by the terrible disfigurement which the disease inflicted and insisted that alms had to be sought via an intermediary acting on their behalf (Gilchrist, 1995; Orme & Webster, 1995, 23–7). Why leprosy increased during this period, then subsequently declined, has been the subject of much debate, but is a topic much too complex to address here. The interested reader is referred to the accounts by Manchester (1984) and Rawcliffe (1995a, 33–59; 1995b, *passim*) and the literature which they cite.

The great period for the foundation of hospitals was the late 12th and early 13th centuries. This was at a time when economic and social life was developing, but inevitably the poor were left behind. Nevertheless, the need for relief was recognized by many, who also saw the opportunity to enhance their public esteem and perhaps gain greater favour in the afterlife. Because of the central place of religion in medieval thought, it was natural that these charitable works should be mediated via religious institutions. In the earliest foundations at Canterbury, Lanfranc had already put the salvation of souls firmly at the centre of their responsibilities (Rubin, 1989, 43–5; Orme & Webster, 1995, 22).

There was a second wave of hospital foundation in the late 13th century. During that period, for a variety of reasons there had been a gradual shift in the population away from the countryside, but some means of accommodating the incoming poor had to be found in the swelling towns. One of the ways of meeting the need was provided by hospitals, which often had their own chapel and were usually sited near the entrances to towns. In these institutions, not only was relief given to the poor (and sometimes to the sick) but a more organized religious lifestyle was often adopted, administered by secular clergy who might be assisted by a staff of brethren and sisters. Indeed, the larger hospitals functioned more or less as monasteries, and daily life was frequently led according to a modified form of the monastic rule established by St Augustine, so that the distinction between them and the smaller monasteries was often merely one of degree. Although such a rigorous lifestyle was not necessarily applied in the smaller hospitals, in practice all were religious houses because disease was thought to be closely related to the condition of the soul. Most hospitals were dedicated to one or more of the saints, as is discussed further in Chapter 10 (Rubin, 1989, 46–7; Orme & Webster, 1995, 35; Gilchrist, 1995; Rawcliffe, 1995, 1–25).

Various classes of persons founded hospitals, although relatively few seem to have been women. But as Gilchrist (pers comm) has pointed out, recent research has shown that earlier historians have tended to ignore the role of the wife, even when the cartulary of a nunnery shows the foundation to have been a joint venture of husband and wife. It seems probable that the degree of involvement of women in founding hospitals has been substantially underestimated. Many hospitals were established by wealthy patrons, from royalty to prominent burgesses, because of religious piety. This concept was related to that of the chantry. In return for their endowment, an arrangement was made whereby the hospital guaranteed that regular prayers would be said for the founder and his family, or whoever else was nominated. The belief in the Day of Judgement, Purgatory, and Hell was very real in the Middle Ages, and it was thought that having someone pray on one's behalf would reduce the period spent in Purgatory. Such foundations were not, therefore, entirely altruistic. In addition to lay founders, certain monastic orders were active in setting up hospitals, and some hospitals evolved from other religious institutions. From the 14th century onwards, smaller hospitals which were often called almshouses and named after the patron were founded by rich merchants and trades guilds. A yet smaller type of hospital was the *maison dieu* (Latin *domus dei*) or house of God, sometimes called houses of pity. Often, these establishments were accommodated within the founder's house or in a building in a churchyard. They were frequently short lived, so surviving records are consequently very sketchy and they are not now easily recognized (Gilchrist, 1995).

All these institutions relied ultimately on the generosity of others; from the original endowment of the founder, who usually donated gifts of lands which provided income in the form of rents and produce, to bequests in the wills of compassionate citizens. The scale of such gifts varied enormously, even within the same town, so that one hospital might be relatively prosperous while others remained virtually destitute. In such cases, casual alms solicited from those passing by would be especially welcomed. Most hospitals were not at all well off compared with the larger monasteries, and they usually had to be economical with their building programmes. This means that there was a huge diversity in size and layout (Cullum, 1993, 11; Gilchrist, 1995).

From the foregoing, it can be seen that there was a variety of needs which hospitals might fulfil: housing the destitute; caring for the sick; accommodating lepers in relative seclusion, and providing temporary facilities for travellers of different kinds. Such functional diversity has led to hospitals usually being classified according to whom they catered for: almshouses for the general poor or special groups such as retired priests and mariners; hospitals for the sick poor; leper hospitals; hospices for

pilgrims and wayfarers. Detailed statistics are not entirely reliable given the current level of knowledge, but the majority were probably of the almshouse type, with a smaller number of leper houses, and fewer of the houses for the sick or hospices. Many of them seem to have served more than one of these functions, if not necessarily simultaneously then during different periods in their development (Carlin, 1989, 21; Gilchrist, 1995).

Hospitals were often based around an infirmary, whether deliberately designed to care for the sick poor or, in the case of the earlier almshouses, those which looked after the poor and aged. Infirmaries specially for the sick poor seem to have been the least common type, but such a view might change with further research. They varied enormously both in terms of economic wellbeing and size. Most seem to have cared for only a few inmates, although they could occasionally be much larger. The layout also varied considerably, but usually the buildings were arranged around a courtyard to which entrance from outside was controlled at a gate. The infirmary was a long hall, typically divided into three aisles, the centre of which was kept clear for the staff, while the outer two might be further subdivided into cubicles where the patients lay in beds positioned so that they could witness the divine services taking place in the chapel at the eastern end. The staff lived apart from the sick, and any non-sick inmates might either share the infirmary, where passing travellers would also stay if there was no reserved guest house, or sleep in the dormitories. The furnishings would have been minimal (Carlin, 1989, 26–35; Gilchrist, 1995).

The staff and inmates would often (but not always) have been of both sexes, but one of the brethren, usually called the master (or sometimes the warden or prior) was in overall charge. The sisters or women servants tended the sick while the brethren took responsibility for religious observances. There was strict segregation of the sexes at all times, except for the performance of the essential duties of the staff. There were various ways by which this was arranged, from having separate halls with a shared chapel, to segregation on separate storeys of buildings. In some mixed-gender houses, special care might be provided for pregnant women and orphans. Some hospitals were predominantly female and overseen by a sister called the prioress. In houses which allowed only a limited stay, the chronically ill, the wounded, pregnant women, and the mentally ill were deliberately excluded so that they did not become an unwelcome burden. Specific medical attention for the sick would have been minimal and restricted to a bed, rest, reasonable diet, and warmth – although it is probable that some simple medicines were administered. Professional medical care was rare. Some larger hospitals managed to employ a cook, baker, and so on. Many placed emphasis on a good supply of clean water and, by the standards of the time,

decent sanitation (Carlin, 1989, 26–35; Gilchrist, 1995; Rubin, 1989, 49–50).

Of the classes of hospital, leper houses are the easiest to identify. It was thought that one of the main causes of leprosy was a sinful life, and society demanded that lepers be kept out of town. Interestingly, although sited on the edges of the community, leper houses were often in prominent positions alongside the main road. This might have been so that charity towards the unfortunate was clearly on view for all to see. Evidence for the ground plans of such hospitals is slight, but they seem usually to have been small, perhaps for about a dozen people. They had defined precincts, if less well ordered than the infirmary types, with the lepers often living in individual cells or cottages, and for the most part they were not furnished with good water supplies or drainage. The administration of the hospital was the charge of the master, with some religious or lay staff, sometimes of both sexes. No more medical care was provided than elsewhere. With the decline of leprosy, they began to be taken over more by the non-leprous poor, and by the 15th century most had either become redundant or re-established as almshouses or other types of institution (Carlin, 1989, 22–4; Gilchrist, 1995; Rawcliffe, 1995b, 14–17).

Hospices for travellers also varied enormously. They catered for itinerants, sometimes the reasonably wealthy as well as the poor, who arrived too late to be admitted into town; or pilgrims travelling to various shrines, for example at Walsingham and Canterbury. They might be viewed in the same way that one would think of hostels today. Often this function was shared by the infirmary hospitals, but it must not be forgotten that many monasteries also provided a guest house (Carlin, 1989, 24).

A common feature of hospitals, especially during the 14th century, was financial corruption on the part of the (usually) male staff. This was particularly so in mixed houses, where the men often acted to the detriment of the women. On top of this, society began to change its attitude towards poverty, moving away from the charitable ideal to the view that the poor were a nuisance and source of trouble. The reasons for this are complex, but an important factor was the decline of the countryside, which led to a fall in the trade enjoyed by townspeople, with the concomitant loss of earnings. The result was that less surplus was available for charitable works, and hospitals suffered along with the rest. Famine and the Black Death also made a huge impact. Inevitably, many hospitals went into decline and they had to adapt in order to survive (Rubin, 1989, 52–5; Gilchrist, 1995).

However, later in that century and during the 15th century, there was a revival in the foundation of new almshouses by rich citizens and crafts guilds. In these, it is generally thought that there was less emphasis on religion and their prime purpose seems to have been to get the poor off the streets. Such a view is challenged by Orme &

Webster (1995, 55) who argue that the prayer requirements for almsfolk show that the central role of religious worship was maintained. Whatever the truth of that, and there was probably as wide a range of degree as in other aspects of hospital life, there was also a tendency for any new almshouses to be established with a more specific purpose in mind: for example the care of retired priests or mariners, or the aged who had belonged to a particular guild. There were many mixed communities, in some of which the sexes were segregated but in others less so. They were usually based on a collegiate plan: ie a collection of separate dwellings sited around a quadrangle, which allowed a greater degree of privacy than had been thought appropriate before, but there were many variations depending on the land available and the scale of resources allocated (Rubin, 1989, 54–6; Gilchrist, 1992, 103; Gilchrist, 1995).

Many of the latter type of almshouse survived throughout the 16th century, and some even operate today, but with the advent of the Reformation most of those older institutions which were based on a religious lifestyle came to be viewed along with the monasteries as undesirable and were closed during the Dissolution (Gilchrist, 1995; Orme & Webster, 1995, 147–66).

The topography of medieval Bristol

For such an important city, the origins of Bristol are poorly understood. It is generally accepted that it was first established some time around the end of the 10th century as a small settlement which grew from modest beginnings by virtue of its position as a safe harbour and strategic bridging point over a tidal river. However, various proposals have been put forward for the precise manner in which this happened. One idea is that it commenced by development of an earlier settlement around Old Market, to the east of the town; another is that the area then called Billeswick, to the south-west across the River Frome, was the starting point (Lobel & Carus-Wilson, 1975, 1–3; Watts & Rahtz, 1985, 15–17; Dawson, 1981, 12 & 18; Dickinson, 1976, 120–6).

Whatever the actual truth of the foregoing, it seems likely that the first town which might be called Bristol, as opposed to its nearby neighbours, occupied the peninsula of Triassic sandstones and marls (now termed Mercian Mudstone) between the valleys of the rivers Frome and Avon. On that knoll, the fledgling town assumed early on the street pattern which has largely survived to the present day (Fig 2; Pl 2). Its centre was the meeting point of four main thoroughfares: Broad St, Wine St, High St, and Corn St. Other lesser streets ran either on courses parallel to this system or were arranged in a ring manner following the line of the town wall. The original town was a Saxon *burh*, which implies that it was then fortified, but such defences usually comprised merely a defensive ditch and wooden palisade. Work commenced in the 11th century on the construction of a strong castle at the east end of the peninsula and the town itself was enclosed by stone walls some time during, or before, the mid 12th century (Price, 1979b; Ponsford 1980). The precise lines of many stretches of these walls are uncertain, and in the case of the land upstream of Bristol Bridge, going towards the castle, it has never been proven that there actually was a such a defensive wall. For convenience, however, the conventional plan is shown in Fig 2.

Bristol Bridge crossed the River Avon on the southern edge of the town to connect with the marshy land of Redcliffe, which was at first an independent community. The bridge was probably one of the first major building works undertaken when the settlement was founded: indeed, it was from this structure that the town took its name – 'the place of the Bridge'. It seems almost certain that the first bridge would have been a wooden structure which was replaced by a more substantial stone-arched construction in about 1247 (Price 1979d, 30–1). The lesser River Frome was crossed by the Frome Bridge, the first version of which might also have been built in the late Saxon period to complete the direct north–south route from Gloucestershire into Somerset. The original course of the Frome is uncertain, but it is thought to have debouched into the Avon a little below Bristol Bridge (Lobel & Carus-Wilson, 1975, maps 2–3; Sherborne, 1971, 5–7). The discussion of this important issue is developed further in Chapter 3 (p 27). The excavation of a new channel for the river, achieved *c* 1240–7, was an important feat of civil engineering and of considerable topographic and economic importance, as it provided excellent harbourage for the larger ocean-going ships which were vital for the town's rise in prosperity.

This massive redevelopment led to the enclosure, by an enlarged circuit of walls, of lands which had formerly lain outside the town, especially those alongside the new Frome channel. This, like the outlying districts on the south side of the Avon, was marsh – which was probably the main reason for its relative neglect until then – but the new channel must have improved drainage enormously. Grants of murage were made and the new so-called Marsh Wall was built to enclose and encourage the rather sporadic settlement which had until then been the characteristic feature of the district. Meanwhile, facilities for the new quay were developed. On the other side of the Avon, the marsh which comprised much of the Redcliffe and Temple areas had already begun to assume a more industrial character, particularly in accommodating the textile trades. The increasing importance of the district, much of which was part of the huge Berkeley estates, resulted in its enclosure by the Portwall at about the same time as the other redevelopments were progressing, stretches of that wall having already been completed by *c* 1240. From then on, the area was effectively a suburb of Bristol, even if the men of Redcliffe

BRISTOL

Outline plan of the medieval town

St.Michael's Hill — M3 — M5 — M1

St.Bartholomew's Hospital — A6

Lewins Mead

Steep Street — A7 — FROME BRIDGE — City Walls — Broadmead

A8

M6 — River Frome — M4

Frogmore Street — Pipe Street

H5 — Corn Street — Broad Street — Small Street — Tower Lane — Wine Street — CASTLE

M2 — A1 — High Street — Mary-le-Port Street

H7 — H1
Old Market
H7
LAWFORDS GATE

Billeswick — River Frome after circa 1240 — early course of River Frome ? — Marsh Street — BRISTOL BRIDGE

Marsh Wall — Tucker Street — A9

The Marsh — Long Row — A2 — Temple Street — Temple

Redcliff Street — Thomas Street — A10

River Avon — Redcliffe — A5 — Portwall and ditch — A3 — M8

KEY — H2 — M7

M Monastic Houses — A11

H Hospitals — Redcliff Hill

A Almshouses — H4

A4 / H3 — 0 — 300 metres

Monastic Houses	Hospitals	Almshouses
M1 St James's Priory (Benedictine)	H1 St Lawrence's (leper)	A1 All Saints'
M2 St Augustine's Abbey	H2 St John the Baptist	A2 Burton's
M3 St Mary Magdalene's Nunnery	H3 St Katherine's, Bedminster	A3 Spicer's
M4 Dominican Friary (Blackfriars)	H4 St Mary Magdalene's (leper)	A4 Canynges's
M5 Franciscan Friary (Greyfriars)	H5 St Mark's (or Gaunt's)	A5 Richard Forster's
M6 Carmelite Friary (Whitefriars)	(H6) St Bartholomew's	A6 Spencer's
M7 Friars of the Sack	H7 Holy Trinity	A7 John Foster's
M8 Augustinian Friary (Austin Friars)		A8 Strange's (or St John's)
		A9 Fullers'
		A10 Weavers'
		A11 Magdalens's

Figure 2   Bristol: outline plan of the medieval town, with site location
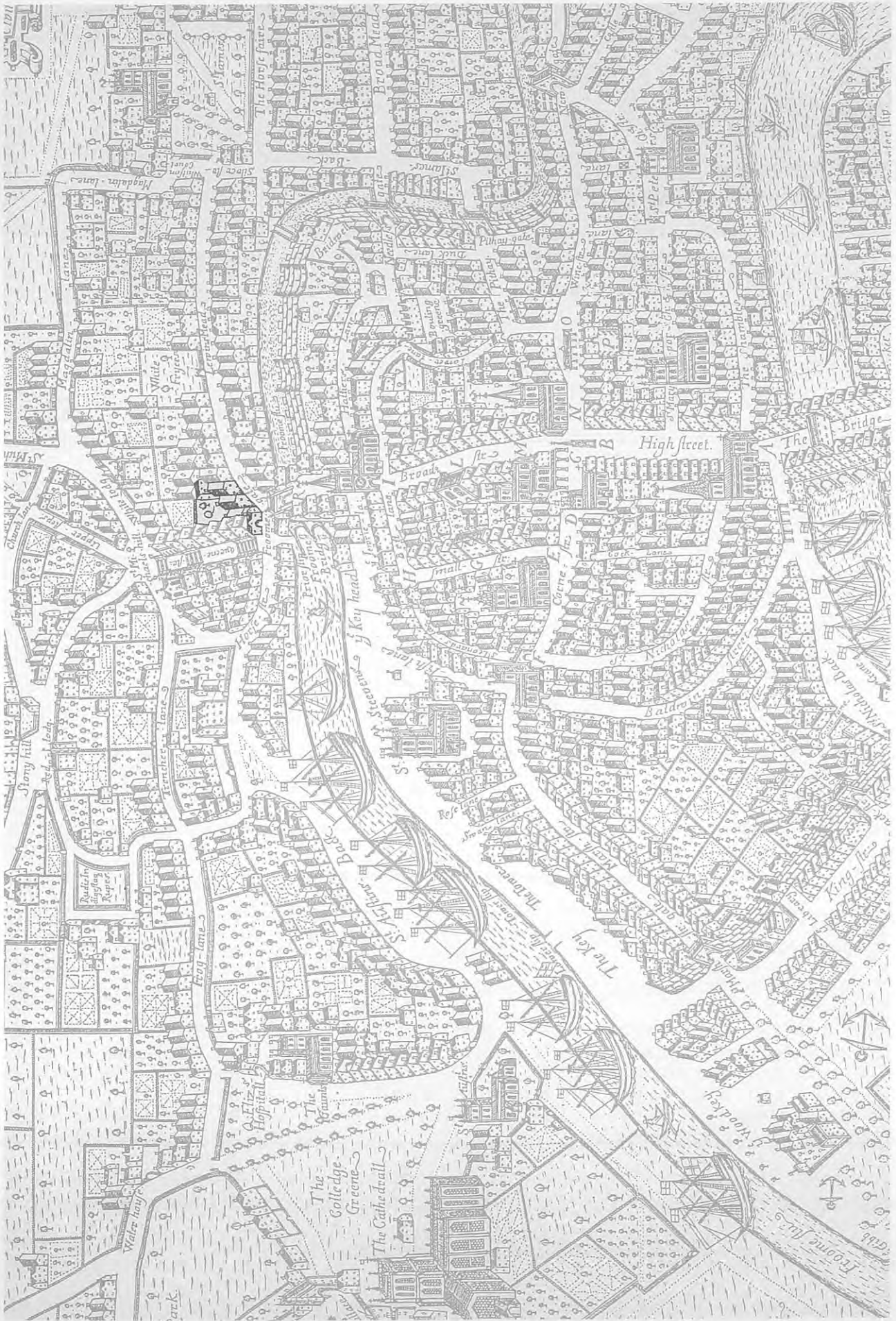
Plate 2   St Bartholomew's (Site in bold) and northern Bristol as depicted in James Millerd's plan of Bristol, 1673

Table 6: Principal monastic houses, hospitals and almshouses in medieval Bristol

Information collated from: Clay, 1909; Dawson, 1981; Graham, 1907; Knowles & Hadcock, 1971; Latimer, 1901; Leighton, 1913; Lobel & Carus-Wilson, 1975; Maclean, 1883; Nasmith, 1778; Paul, 1912; Ross, 1959; Sabin, 1956; Sampson, 1909; Scott Holmes, 1911; Taylor, 1893–6; Williams, 1988. Their positions, if known, are shown by the code in Fig 2. For detailed discussion see Chapter 10.

		Date founded	Founder/Principal Benefactor
Monastic Houses			
M1	St James's Priory (Benedictine)	c 1137	Robert, Earl of Gloucester
M2	St Augustine's Abbey	c 1140–2	Robert Fitzharding, Lord Berkeley
M3	St Mary Magdalene's Nunnery	c 1170–3	Eva, wife of Robert Fitzharding
M4	Dominican Friary (Blackfriars)	c 1227–8	Maurice de Gaunt (or de Berkeley)
M5	Franciscan Friary (Greyfriars)	c 1230 (relocated pre 1250)	
M6	Carmelite Friary (Whitefriars)	1256–67	Lord Edward (later King Edward I)
M7	Friars of the Sack	c 1266	
M8	Augustinian Friary	1313	Simon de Montacute
Hospitals			
H1	St Lawrence (leper)	pre 1199	John, Earl of Mortain (later King John)
H2	St John the Baptist	pre 1200 ?	Maurice de Berkeley ?/King John ?/John Farceyn ?
H3	St Katherine, Bedminster	pre 1220 ?	Robert de Berkeley ?
H4	St Mary Magdalene (leper)	1219 ?	Thomas de Berkeley ?
H5	St Mark (or Gaunt's)	c 1216–30	Maurice de Gaunt (or de Berkeley)/ Robert de Gournay
H6	St Bartholomew	c 1231–4	Sir John de la Warre
H7	Holy Trinity	1395	John Barstaple
Almshouses			
A1	All Saints'	mid-13th cent. ?	Stephen Gnowsale ?
A2	Burton's	1292 (date spurious; late 14th cent. ?)	Simon Burton ?
		c 1424 re-endowed ?	John Burton ?
A3	Spicer's	early 14th cent. ?	John Spicer ?
A4	Canynges's	c 1442	William Canynges
A5	Richard Forster's	pre 1471	Richard Forster
A6	Spencer's	c 1478 ?	William Spencer/ William Canynges
A7	John Foster's	c 1484–92	John Foster/ John Easterfield
A8	Strange's (or St John's)	c 1490	Robert Strange
A9	Fullers'	15th cent.	Guild of Fullers
A10	Weavers'	15th cent. ?	Guild of Weavers
A11	Magdalens's	pre 16th cent.	Robert Magdalens

maintained an independent spirit before succumbing to the inevitable, and the low hill which gave the parish its name, and on which the church had been built, came to lie outside the new wall (Lobel & Carus-Wilson, 1975, 7; Price, 1979b).

The realignment of the Frome must have had a direct effect on the development of sites which lay alongside it. Part of the new circuit of defences ran directly alongside the south bank of the Frome, where a new entrance to the town, the Frome Gate, was built at the crossing point on Frome Bridge. On the more spacious land to the north of the river an enclave of religious houses developed during the 12th and 13th centuries. Among these new establishments was St Bartholomew's Hospital, which was sited on a narrow space adjacent to, and a little to the west of, Frome Bridge. Few details are known of the early medieval ownership of this area of Bristol, but it has been pointed out that St Bartholomew's, originally in the ownership of the de la Warre family, was sandwiched between lands belonging to the Berkeleys, the Crown, and to the Earls of Gloucester – the latter estate being presented in the 12th century to Tewkesbury Abbey. Exactly when and how these lands were originally parcelled out remains uncertain (Neale, pers comm).

A summary of the principal monastic houses and details of their foundations, as far as they are known, is given in Table 6 and their positions in Fig 2. The Benedictine priory of St James was a daughter house of Tewkesbury Abbey, and a gift of stone for St Mary's Chapel there was provided by Robert, Earl of Gloucester, from the construction of Bristol Castle in 1137–47 (Graham, 1907, 74; Patterson, 1973, 200). On part of the Berkeley lands were sited the abbey of St Augustine, the nunnery of St Mary Magdalene, and St Mark's (or Gaunt's) Hospital. On the Crown land was established the Carmelite friary (Whitefriars). It should be noted that the position of that friary shown on Millerd's map of 1673 (Pl 2) is incorrect, as that was where Greyfriars had stood.

The Franciscan friary (Greyfriars) was relocated before c 1250 from an unknown place (probably within the town walls) to the street called Lewins Mead, adjacent to St Bartholomew's Hospital. The site of the friary was partially investigated in 1973 and again in 1989 (Ponsford, 1975; Boore, 1989; Boore, 1990). Both the date of its foundation and its new location (possibly on land in the possession of St James's Priory) seem to have been directly related to the digging of the new river channel. The straightening of the course of the Frome probably improved the flow of water, particularly at high tide, and the addition of a metre or so of make-up taken from the excavation debris enabled the friars to occupy a well-drained site. Similar benefits would presumably have been enjoyed by the occupants of St Bartholomew's Hospital, who seem also to have had access to the supply of fresh water piped down by the friars from the hill to the north.

The other hospitals of the 12th and 13th centuries were established, as was usual, on the periphery of the town, but the later almshouses tended to be closer to the centre. The significance of their locations is considered in some detail in Chapter 10. It should be noted that St Katherine's lay just outside the southern limits of the parish of Redcliffe, but so closely was it associated with the town that it is included in this work.

The de la Warre family

As it is known that St Bartholomew's Hospital was founded by Sir John de la Warre, from which it is inferred that the Norman hall (building 1A – Chapter 4) was built and occupied by his ancestors, it is appropriate to review the early history of the family. It should be noted that in the 12th and 13th centuries the name used was la Warre (sometimes la Werre and other minor variants) but with the passage of time this changed to de la Warre; which style is mostly adopted throughout this work, according to the usual convention. The following summarizes what little is known (see Table 7). Regrettably, by far the greatest part of this infor-

mation comprises casual references, from which only an outline sketch can be drawn; nevertheless, it is obvious that the de la Warres were among the most prominent citizens in the early affairs of Bristol.

There was more than one family bearing the name in England during the 12th and 13th centuries (see especially entries in the various Curia Regis Rolls of the period) but whether they were related has not been determined. For present purposes, great care has been taken to distinguish those involved in Bristol from those elsewhere but, given the obscure nature of most of the sources of information, it is possible that errors have crept in. Furthermore, before the mid 13th century the relationships between even certain of the Bristol de la Warres are not known with certainty. Ross (1959, 51) has shown that by about 1240 there were at least two branches of the family living in the area, complicating the issue yet further and, given the rather conservative range of christian names used, it is not yet possible to distinguish them all. For example, John de la Warre II (see below) was stated to be the son of Jordan de la Warre II, but he was contemporary with another John living in Bristol in the mid 13th century who was recorded as the son of a Herbert de la Warre (Ross, 1959, 91). In this account, the principle of simplicity in assigning kinship is adhered to, taking a rigorous view of all the evidence; however, it is all but certain that anyone conducting further specialist research will find it necessary to modify the outline pedigree shown in Table 7.

The origins of the de la Warres living in the Bristol area are obscure. It has been postulated, with some justification, that they were directly related to the powerful and wealthy Fitzhardings (later styling themselves Berkeley) of Gloucestershire. This assertion rests not only on their manifest importance but also on their inclusion as witnesses to key charters, particularly those relating to Fitzharding affairs, and their possession of land immediately adjacent to (and, in the case of that at Billeswick near St Mark's Hospital, probably presented to them by) the Berkeleys. In c 1230 one of the family, David de la Warre II, held a house in Bristol which had formerly been that of Robert Fitzharding, the most important of the Berkeleys in the 12th century (Patterson, 1973, *passim*; Patterson, 1989, 116; Ross, 1959, 2 & 70).

Robert Fitzharding was essentially a local figure, although he did manage to establish a reasonably elevated place in Angevin society. The most significant turn of fortune in his affairs was his support for the Empress Matilda in her power struggle with King Stephen. Matilda's son Henry Plantagenet (later King Henry II) had spent some part of his youth from 1142–4 in Bristol, apparently living with Fitzharding. In the 1150s this led to Henry richly rewarding him with charters granting him the Berkeley estate, from which later generations took their name (Poole, 1986, 161 & 244; Patterson,

Table 7: Outline pedigree (partly conjectural) of the de la Warre family

Robert Fitzharding — Jordan Fitzharding - - - ? - - -

Robert de Were — Matilda

Maurice de Gaunt

Jordan de la Warre I   David de la Warre I

John de la Warre I   Gilbert de la Warre

Benedicta m Warin ...   James

Jordan II m Emma ...   Peter   David II m Agnes ...

John II m Olimpia de Fokinton   John III

Roger I m Clarice de Tregoz

John IV m Joan de Grelle

John V m Margaret de Holand

Roger II m¹ Elizabeth de Welle   m² Elizabeth ...

John VI m¹ Elizabeth ...   Thomas
m² Elizabeth de Neville

m³ Alianore de Moubray

Joan m Sir Thomes de West

Reginald

1989, 109–15). The authenticity of these, and other Berkeley charters, has been contested, but a recent study by Patterson (1991, 117–37) has concluded that they should be accepted as genuine until better grounds for impugning them are advanced. This grant added enormously to the wealth of the man who had already been of sufficient substance to found St Augustine's Abbey.

More important for the present argument, in the charter of January/May 1153 there is reference to what were probably Robert's nephews Jordan and David (although the wording is ambiguous). It seems to have been this source which led Ellis to hypothesize that, as de la Warres named Jordan and David are known, Robert's younger brother Jordan Fitzharding was the ancestor of the de la Warre family (Maclean, 1883, 20–3; Patterson, 1991, 117 & 127). The relationship remains unproven. Although Smythe stated that Jordan Fitzharding died without issue, this is now known to be untrue as at least one daughter (Matilda) is noted in the cartulary of St Mark's Hospital (Ross, 1959, 70). It is probably significant that in c 1213–16 Matilda presented land to Margam Abbey in South Wales, with which the de la Warres were also later associated (see below). Whether or not Fitzharding had other offspring is unknown, but it is not impossible that he was the progenitor of the de la Warres.

An alternative possible relationship seems not to have been pointed out elsewhere. The early name '(de) la Warre' probably means 'the warrior' (Reaney & Wilson, 1991, 477). One of the sons of Robert Fitzharding was Robert de Were, the name apparently being taken from the estate at Weare, near Axbridge and Cheddar in Somerset (Maclean, 1883, 20; Ross, 1959, xxviii). Robert was the father of Maurice de Gaunt, the founder of St Mark's Hospital. The similarity of names could be merely coincidental, but it might be that they derived from the same source and that the 'warrior' aspect was a later conceit, particularly in view of the variant spelling la Werre. If so, exactly how the de la Warres were related to Robert Fitzharding and Robert de Were remains unknown. It might, or might not, be significant that a Robert de la Wera (sic) of Bristol was a witness to one of the Earldom of Gloucester charters, which unfortunately cannot yet be dated more precisely than to 1147–83 (Patterson, 1973, 98–9). A Herbert (de) la Warre seems to have been sheriff of Somerset in 1168–9 and was probably one of the Bristol family's kinsmen, but he was living too early to have been the person of that name noted before. He might have been the Herbert who was stated in another charter, again dated only imprecisely to 1148–83, to have held a garden in Bristol, beyond the Frome next to the road below Billeswick on the north (Pipe Rolls, 1168–9, 6; Patterson, 1973, 41–2).

With the possible exceptions of the Robert and Herbert referred to above, the first-known specific reference to anyone in the Bristol region actually called de la Warre was the witnessing by Jordan de la Warre I of three charters dated to c 1150–66, and another less narrowly dated to c 1150–83. He was also a witness to the charter of c 1164–70 wherein Robert Fitzharding confirmed the liberties of the citizens living on his land south of the Avon (Patterson, 1973, 35, 54, 124 & 163; Bickley, 1900, vol 1, 23; Cronne, 1946, 33). Another charter loosely dated to 1148–83 refers to (presumably) him holding land in Bristol beyond the Frome on the upper part of the road to Billeswick – see Fig 2 (Patterson, 1973, 41–2). What would seem to be this same Jordan and his brother David I, possibly the nephews of Robert Fitzharding referred to previously, are known to have been alive in 1172, when they were paid by the king's treasury for the hire of their ship which carried equipment and provisions to Ireland. This was part of the expedition of conquest led by Henry II. It is known that Henry had landed at Waterford in October 1171, and that the materials required in field engineering, including portable wooden seige-towers, were shipped from Bristol. From this it is clear that the de la Warre family was already wealthy and involved in maritime commerce (Pipe Rolls, 1172, 32; Pipe Rolls, 1185–6, xxvi–xxvii; Poole, 1986, 303–11). Why the de la Warres were selected for this important task is uncertain. It could have been that some influence still attached to Robert Fitzharding, who had died only recently, but obviously they must have been capable of supplying what was required: Henry II was much too shrewd to have allowed sentiment to stand in the way of his ambition.

Jordan I was still alive in 1176–7, and possibly as late as c 1183 – see above (Pipe Rolls, 1176–7, 23). No record of his death has been found. The fate of David I is also unknown. He was almost certainly the person who was in 1229/30 named as having been the grandfather of Benedicta de la Warre, who was involved in a dispute with the Abbot of St Augustine, Bristol, over property in Rowberrow, Somerset. At least a portion of that estate eventually came to St Bartholomew's Hospital as part of its original endowment (see Chapter 5, p 58). It is probably significant that a Jordan de la Warre (this must have been Jordan II) rather than David was called as a witness, suggesting that David I had died and therefore could not have been that person who is distinguished as David II (Cur Reg Rolls, 1227–30, 343 & 452; Cur Reg, 1230–2, 76).

It is likely that John de la Warre I, who was the grandfather of the founder of St Bartholomew's Hospital, was the son of David I. This is because the Benedicta who was called the granddaughter of David was in c 1235–6 stated to have been the daughter of a John de la Warre (BRO: Typescript Calendar of Deeds of Church of St John Baptist, Bristol, No 1). Given the caveats expressed towards the beginning of this section, the simplest explanation to fit all the known facts is that the family line which led to the foundation of St Bartholomew's, and whose successors were to assume the title of Baron de la Warre, continued via David I rather

than Jordan I. It would also explain why John was not a party to the 1150s Berkeley charter. The Gilbert also referred to in 1185–6 might have been his brother (Pipe Rolls, 1185–6, 200).

The first reference to John de la Warre I so far found is in 1187–8, when the king spent money on repairs to John's ship, which seems to have been confiscated for an unstated reason (Pipe Rolls, 1187–8, 14–15). Given the passage of ownership, it must have been this John to whom Count John of Mortain (the future king, then Earl of Gloucester) granted at some time around 1189–99 the lands in Rowberrow already referred to (Patterson, 1973, 106). As a measure of his local importance, he farmed Bristol in the years around 1200–1 (Cronne, 1946, 45), and he continued in the maritime trade practised by his father and uncle. Thus, in 1205 King John issued a writ whereby the bailiffs of Bristol, Cornwall, Devon, Somerset, and Wales were commanded to hand over to William de Marisco and John la Werra (sic) all workmen and sailors in their bailiwicks fit to serve the king. Large sums were spent on building ships for the king's ill-fated expeditionary force to recover the lands in France which had been lost (Pipe Rolls, 1205, xii–xv & 133; Poole, 1986, 441–2). To have played such a central role, John de la Warre I must have been a man of some standing.

It is known that during, or shortly after, 1189 he had been granted the estate of Wickwar in Gloucestershire, and at around the same time the manor of Brislington, just south of Bristol, but references to his property in Bristol itself between 1199 and 1212 are too vague to be of much significance. No definite reference has been found to the land on which St Bartholomew's was later founded (Atkyns, 1712, 816; Rudder, 1779, 819; Patterson, 1973, 106). Wickwar became the main seat of the family in the West Country, although a small portion of both this and the Brislington estate eventually came down to St Bartholomew's. John de la Warre I died in 1212 and his estate passed to the eldest son Jordan II (Pipe Rolls, 1212, 144).

Apparently this younger Jordan was a somewhat rebellious man, who was often involved in trouble with both King John and Henry III, but he was careful enough always to make his peace. It might have been this aspect of his nature which caused him to get heavily in debt to Josepin the Jew of Bristol, from which difficulties he had to be rescued by the king. Despite that, he remained a prominent man in local affairs: he was granted the hereditary rent of the lucrative custody of the weights and measures in Bristol, and in 1230 was one of those appointed to make the assize of arms in Gloucestershire. At some time he married a lady named Emma, but her lineage is unknown. Jordan II died in 1231, leaving as heir his under-age son John II (Atkyns, 1712, 816; Rudder, 1779, 819; CCR, 1227–31, 400, 547 & 555–8; C Inq Misc, 1219–1307, no 492; C Chart Rolls, 1226–57, 45; CPR, 1216–25, 401; C Inq Misc, 1219–1307, no 492; Gibbs, 1916, 140).

The brothers of Jordan II (it is not certain in which order they were born) were also prominent citizens. In c 1216, Peter de la Warre had granted to Margam Abbey land which he held in Bristol near St Augustine's Abbey. It might have been his son, John III, who was later made Abbot of Margam, eventually becoming Bishop of Llandaff. Peter also acted as one of the guardians of the king's treasure at Bristol (Ross, 1959, 69–70; Cronne, 1946, 75). David II seems to have occupied the post of constable of Bristol Castle in 1230 and married someone named Agnes (Sharp, 1982, 81 & 89; Veale, 1931, 189). James served several times as Mayor of Bristol between c 1235 and c 1248 (Ross, 1959, 282; Cronne, 1946, 45). Their probable sister, Benedicta, in addition to the Rowberrow estate referred to previously, owned land between Frome Bridge and the town wall, which she sold in c 1235–6 (BRO: Typescript Calendar of St John's Deeds, No 1).

John de la Warre II, son of Jordan II, is of particular interest as it was he who founded St Bartholomew's Hospital. This is dealt with more fully in Chapter 5 (p 78). He was a minor when his father died, but the hereditary rent from the custody of weights and measures was held for him until his coming of age. Before 1238 he married Olimpia, the daughter of Sir Hugh de Fokinton, by which he gained a considerable estate in Sussex. He was constable of Bristol Castle in 1265, to which post he might have been appointed by Simon de Montfort, as he had been an active supporter of the latter's rebellion. He seems to have died c 1277–8 (CCR, 1227–31, 558; C Inq Misc, 1219–1377, nos 681, 857–9 & 866; Cur Reg, 1237–42, 110; Sharp, 1982, 82 & 89; Gibbs, 1916, 139–40).

John II was succeeded by his son Roger I. He it was who drew up in 1291/2 the crucial document which states the involvement of the de la Warres in St Bartholomew's Hospital (see Chapter 5, p 58). In 1276 he made a judicious marriage to Clarice, daughter of Sir John Tregoz of Herefordshire, by which his estate was greatly enlarged; he saw active military service with the king in Wales and Gascony, and was created the first Lord de la Warre in 1300. He was appointed envoy to the Court of Rome in 1304 and died in 1320 (Atkyns, 1712, 816; Rudder, 1779, 819; Gibbs, 1916, 140–1).

The family history is not pursued beyond this point except to note the following.

Roger's successors continued to make advantageous marriages, by which they gained possession of lands in, among other places, Manchester and Lincolnshire. Several of them served more or less honourably in the wars in Scotland and France: for example, John V was with the Prince of Wales at Crecy, and at Poitiers he was one of the party who captured the French king (Rudder, 1779, 819; Gibbs, 1916, 147–9).

Thomas, the son of Roger II, had received dispensation from Pope Urban V to be ordained a priest. His elder brother John VI had died childless in 1398, whereby he succeeded to the title, but true to

his calling Thomas was also without issue on his death in 1427. By this circumstance the inheritance passed via his sister Joan to her son Reginald West, and the direct blood line was lost (Cal Pap Petitions, 1342–1419, 456; Atkyns, 1712, 817; Gibbs, 1916, 150–2; Rudder, 1779, 819).

The Lord de la Warre who made over the former St Bartholomew's Hospital to Robert Thorne for the establishment of Bristol Grammar school was Sir Thomas West, great grandson of Reginald, by which time the family had moved their principal seat to Wherwell, Hampshire. After his death, the inheritance followed a collateral line and in 1609/10 the current Lord de la Warre, another Thomas, emigrated to America to become Governor of the new colony of Virginia. It was after him that Delaware, the first state of the American Union, was named (Atkyns, 1712, 817; Rudder, 1779, 819; Gibbs, 1916, 152–6; Hill, 1951, 1)

Sources of building materials in medieval Bristol

The building materials used at St Bartholomew's and elsewhere in medieval Bristol were nearly all derived from local sources. Bristol is close to a variety of stone, principal among these being Brandon Hill Grit, a hard reddish quartzitic sandstone which was used widely in medieval buildings, but it cannot be dressed easily. The stone outcrops at the rear of the St Bartholomew's site, and before the area was developed it must have left scree-like deposits nearby, ready for use in rubble walls.

Pennant Sandstone (hereafter referred to simply as Pennant) was also used increasingly during the Middle Ages and was to be found in the Frome and Avon valleys within 3–4 km of the town, from which sources it could easily be transported by water. This stone was used when ready sources of Brandon Hill Grit had been made inaccessible by the prolifera-

tion of overlying buildings. Pennant is more easily quarried and cut than Brandon Hill Grit. There was some use of the Carboniferous Limestones which outcrop in the Avon Gorge at Clifton and on the nearby Clifton and Durdham Downs, a little to the north and north-west of the town.

The principal freestone used in the medieval period was Dundry stone (named after a hill to the south of Bristol). This is an oolitic limestone characterized by its content of small ammonite fossils. The use of Caen stone, although often mentioned in descriptive accounts, was actually quite rare in the city.

Mortars were probably made from a mixture of local Triassic sands and the lime derived from the stone found on Durdham Downs. Many mortars used in Bristol before about 1750 have a characteristic red or pink colour imparted by the sand.

Floors were also sometimes of Pennant (or clay tile in ecclesiastical contexts) but frequent use was made of mortar spreads and clay without stone. Roofs were commonly covered with Pennant and trimmed with glazed ridge-tiles, mostly made in the suburb of Redcliffe south of the Avon (Dawson & Ponsford, forthcoming). Some early roofs would also have been covered in thatch or shingles. From the later medieval period onwards, slate from North Devon or Cornwall was sometimes used (eg Barton 1964, fig 73).

Timber would have been available from Kingswood Forest to the east of the town but, as that was a royal forest, it is likely that most citizens would have had to buy it, unless they were fortunate enough to receive gifts of timber from the king. There are several records of such donations, for example to the Franciscan friars and other monastic orders. It is likely that the woodland which must have surrounded the town was used up quite early on in its development, besides which it would have largely been in private hands and therefore would have had to be purchased.

3   Period 1

Pre-hospital occupation – Waterfront activity (12th century)

Documentary Evidence

No contemporary references specific to the site are known. The strategic location immediately alongside the Frome is interesting and has been referred to in Chapter 2 (p 13).

The name of the street Lewins Mead, on which St Bartholomew's Hospital later came to stand, means 'the meadow of Lewin', suggestive of early water meadows alongside the river which were gradually built on. Similar names were given elsewhere in Bristol: for example Broadmead, Irishmead, Temple Meads. Both the date when the street was first laid out and the identity of Lewin are uncertain. The theories usually recited by local historians are either that he was Leofwine Godwinson, brother of King Harold and of Sweyn, who was involved in Bristol in the mid 11th century, or that he was Lewin son of Aelfric, who might have held property locally in the 12th century; but the cited sources are not convincing. The latter might have been confounded with a Lewin the Chamberlain, who was a witness in the mid 12th century to several charters of the earldom of Gloucester, and a certain Lewin Larus was also prominent (Nicholls & Taylor, 1881, I, 48; Little, 1954, 32; Seyer, 1821, I, 498; Patterson, 1973, 35, 55 & 82). Whether any of the foregoing actually owned land in the immediate area is unknown.

In the mid 14th century, reference was made to a plot of land belonging to St Bartholomew's Hospital which was called Lowynesmede (see Chapter 6, p 87). Whether this was the conjectural Lewin's original meadow, after which the street was named, or whether the plot was named after the street, is also outside present knowledge.

Excavated Structures

The dating of structures from this period is not precise, as current understanding of the pottery of the 12th century does not allow fine differentiation to be made. Although it could be demonstrated by stratigraphy that the structures predated those of Period 2A, no specific cut-off point for the transition between Period 1 and Period 2A can be given.

A summary plan of the excavated structures is given in Fig 3.

Owing to their extreme depth, access to the earliest structures was considerably restricted and they were found only in test trenches designed specifical-ly to investigate any such occupation directly over the natural blue-grey alluvial clay. Those trenches established that the clay undulated across the site at c 6.0–6.8m OD. The lowest levels were towards the south, in Area D; the highest were in Area A, and gradually sloped downwards towards the north, in Area K.

Area E (Early bank of River Frome: Figs 4 & 5)

What was thought to be almost certainly the early bank of the River Frome before its diversion in the 1240s (see p 16) was located in this test trench and its profile is shown in the section (Fig 5). It may be seen that there was a series of layers in the natural clay which contained various mixtures of organic debris. This was doubtless an accumulation of deposits which would be expected on the banks of a tidal river. There was a sharp fall-off in the level of natural clay at c 6.75m OD, which is interpreted as the latest actual edge of the river before its rechannelling. Insufficient excavation space was available to locate any occupation structures which might have lain immediately alongside.

Area A (Earliest occupation features: Context Group A1; Figs 6 & 7)

The natural clay sloped down towards the eastern part of the trench, where P61 extended into the section. The full width of the pit could not be determined but a test trench 0.7m wide was excavated through it to determine its depth. The feature trended downwards to the east in stages, reaching a depth of 5.14m OD and still descending as it entered the baulk. P61 had certainly held water at some time: within its fill were layers of red, grey, and black clays containing quantities of organic debris, among which were many twigs aligned north–south, as if deposited by slow-moving water. Of these layers, only contexts SM–SO (Fig 7) were definitely part of the fill, SP–SQ possibly having been deposited by the river. Clean, natural alluvial clay (context SR) was found immediately below these last.

On the west edge of P61 were Gy14 and P59. Gy14 ran north-east/south-west and was approximately 0.35m in depth, with sides shallower on the west than on the east. Although Gy14 appeared to cut the fill of P61, it is more likely that P61 was

Figure 3   Summary plan of structures of Period 1

backfilled against the large water-worn boulders bedded in the gully. These stones might represent the foundation for a wall which could have marked the west boundary of P61. At the north end of the gully were the remains of a tree root in its growing position, identified as English oak. It is thought that P59 and Gy14 were part of the same structure, although the pit seemed to cut the gully. Both continued under the baulks, so the full plan was not recovered. The pit had vertical sides 0.4m deep and was filled with Pennant slabs laid flat in red-brown clay.

West of these features, three more pits were cut into the natural clay. P55 was some 0.65m deep and was filled with black, peaty material mixed with natural blue clay. Although it disappeared into the baulk, it resembled P59 in shape and had a similar alignment, suggesting a direct relationship. South of P55 was P58, of which only part of the north edge was accessible. P60 lay within P58 and measured 0.3m by 0.4m, with almost vertical sides 0.1m deep. It is thought that P60 was a posthole set in whatever structure P58 had contained. Both pits were filled with red sand and clay containing some organic material, which contrasted with the darker fills of the other pits.

Area G (Earliest occupation features: Context Group G1; Figs 3, 12 & 16)

The extreme depth of clean natural clay in the angle of W83 and W66, below 4.65m OD (Figs 12 & 16) suggests that this might have been a continuation of P61 from Area A, but even if this was the case no certain edge could be found because of the limitations of the test trench (see Chapter 4, p 37).

Area D (Earliest occupation features: Context Groups D1–6; Figs 3 & 11)

At the north end of the area, which was the only part available for investigation, two layers of disturbed natural clay 0.15m deep had been deposited over the natural alluvium (Context Group D1). Overlying them were several layers of red-brown clayey soil with stones, 0.45m deep and containing 12th-century potsherds (Context Group D2). These were in turn cut by the rectangular P105, which was 0.08m deep. The pit was filled with similar reddish soil but was more organic (Context Group D3). Sealing P105 was another series of deposits 0.2m deep, which were more organic and also contained pottery of the early 12th century (Context Group D4).

Cutting this sequence was P97 (Context Group D5) which had retained the stub of its timber post. The pit measured 0.65m square and was 0.45m deep with vertical sides. The post itself was 0.2m square with rounded corners, and it had been set on a flat stone. Associated with the post-pit was a series of circular stakeholes (SH26–30) running east–west. They were all about 0.05m across and 0.1m deep.

Over P97 were further accumulated layers of mixed organic debris and red-brown, clay soils mixed with wood and charcoal (Context Group D6).

Area K (Earliest feature: Context Group K1; Fig 3)

Only one possible occupation feature from this period was found cutting the natural clay. Gy48 ran west–east across the width of test trench K2. Its northern edge was not located, but it measured at least 0.9m wide, with a dish-shaped profile, and was 0.3m deep. The gully was filled with gravel at the bottom, 0.2m in depth, overlain by an orange-brown silt with organic material. No pottery sherds were recorded from these deposits, so their date is uncertain, but they were probably part of the make-up sequence Context Group K1 (see Chapter 5, Period 3B, p 71).

Discussion

The recovery of several potsherds which date from the late Saxon period, possibly as early as the 10th century, suggests that there had been some occupation of the site from that time. Given the situation alongside the Frome Bridge this is not surprising: there might have been a ferry crossing before Frome Bridge was built. However, no structures from that period were found. The biological contents of the earliest deposits (see Chapter 9) convey an impression of the local environment: a mixture of open woodland and marsh, with damp-loving insects and the pasturing of grazing animals. This is what would be expected in a relatively shaded spot alongside a tidal river, and is broadly similar to the findings on the medieval Avon bank at Redcliffe (Jones & Watson, 1987).

Because the pottery of the period is not yet well understood, whether or not the excavated features were all contemporary is uncertain, but a highly speculative scenario can be put forward. Furthest away from the river, the stakeholes in Area D probably represent the line of a 12th-century fence or hurdle, with the post providing the necessary structural support. This is likely to have served to contain livestock grazing on the watermeadows. There is no evidence to show whether Gy48, in Area K, was man made or of natural origin. If man made, it might be interpreted as a property boundary; if natural, it could equally well have been erosion caused by water running off the rising ground. P55, in Area A, might have served as a makeshift latrine pit: the remains of coprophagous flies and beetles were found in its fill (see Chapter 9, p 163).

As noted in Chapter 2 (p 16), the pre-1240s course of the Frome is uncertain (Fig 2). A chroni-
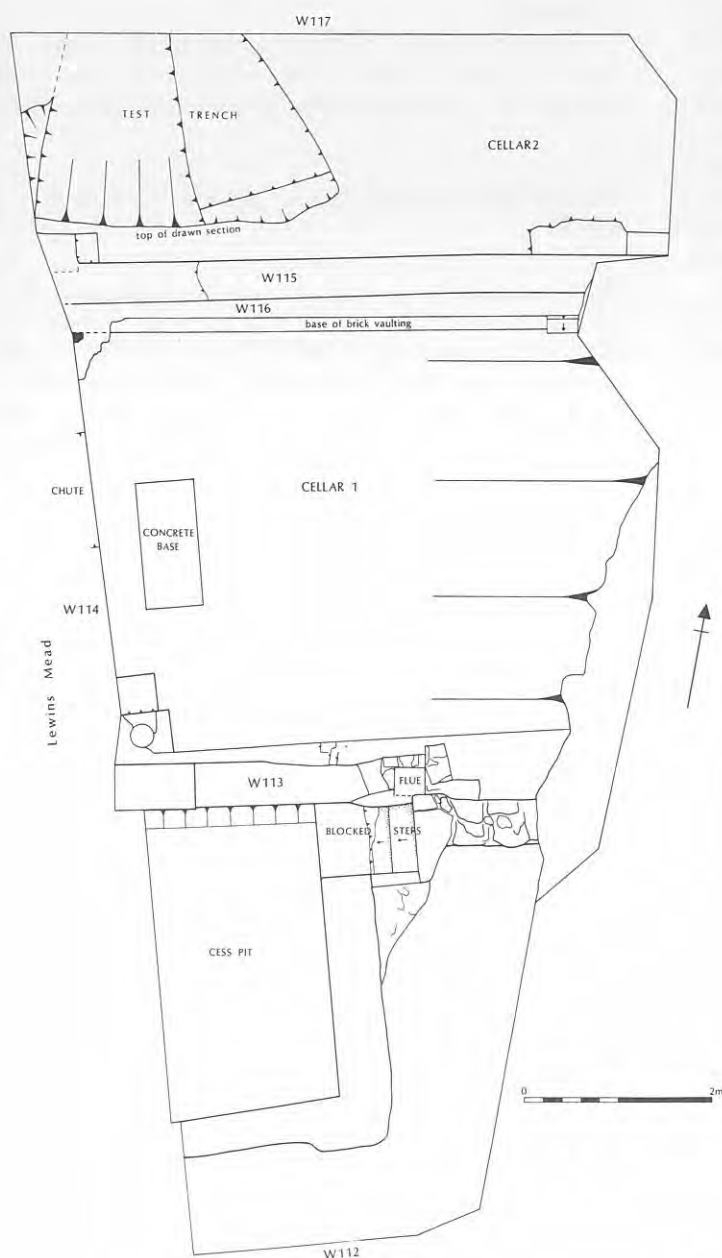
Figure 4 Area E: plan of test trench and post-medieval features

cler of the deeds of King Stephen described Bristol in c 1138 '. . . the city, narrowing like a tongue and extending a long way, with two rivers washing its sides and uniting in one broad stream lower down where the land ends. There is also a strong and vigorous tide flooding in from the sea night and day; on both sides of the city it drives back the current of the rivers to produce a wide and deep expanse of water, and while making a harbour quite suitable and perfectly safe for a thousand ships it hems in the entire circuit of the city so closely that the whole of it seems either swimming in the water or standing on the banks . . .' (Potter, 1955, 37–8). This seems to point clearly to the Frome having hugged the peninsula downstream of Frome Bridge until it

reached the Avon near Bristol Bridge; as claimed by Sherborne (1971) who argued from different evidence, but allowance must be made for descriptive licence. By 'lower down where the land ends' the chronicler presumably meant the end of the raised peninsula, but it could be interpreted as describing the end of the marsh, well down from Bristol Bridge – although conventional history denies this.

From the geophysical viewpoint, although for much of the time both rivers were flowing in reverse direction because of the tides, the general trend was still by definition downstream, so it would be expected that the mouth of the Frome would gradually have shifted southwards, being relatively unhindered by the mud of the marsh. In the ab-

Figure 5   Area E: section – south side of test trench
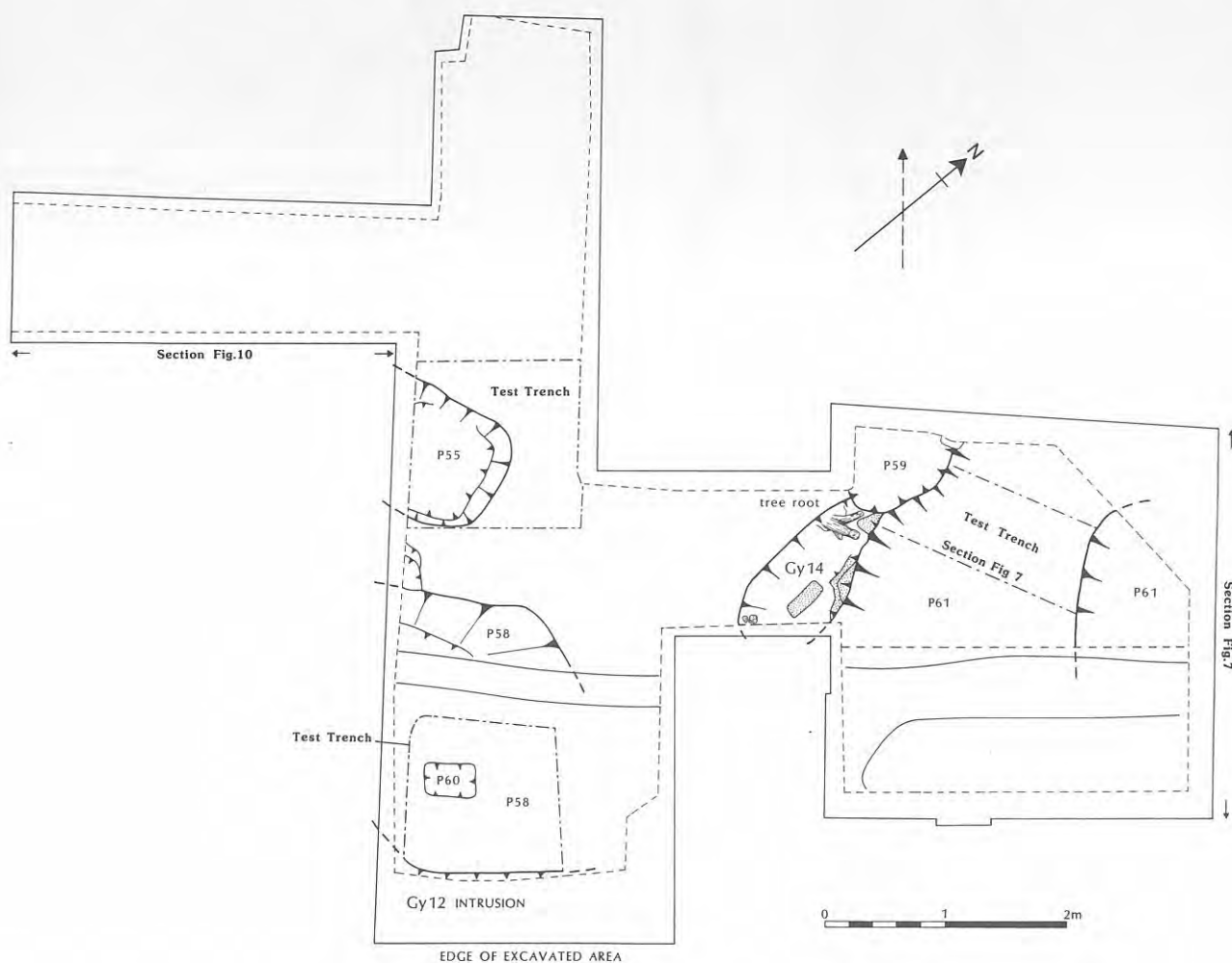
Figure 6   Area A: plan of features of Period 1 (pits and gullies)

sence of an expert study such pronouncements must be treated with great caution. Yet, despite several observations of deep excavations for recent redevelopments along this hypothetical line hugging the sandstone knoll, particularly near the supposed confluence with the Avon, no convincing sign of an earlier Frome channel has ever been observed. John Bryant (pers comm) reports that in 1985 he distinguished a substantial quantity of brown clay alongside the natural blue-grey alluvium in a service trench excavated on the southern edge of Crow Lane, some 50m north of the Avon end of the Marsh Wall (see Fig 2 & Pl 2). He is rightly cautious in not exaggerating the significance of the finding, given that the area available for investigation was small. It might just possibly have been the edge of an

infilled river channel, and it was close to the 'traditional' course shown in Fig 2; but it might equally well have been something wholly different. The precise route of the lower Frome still remains unproven.

Upstream of Frome Bridge, the course is just as uncertain. If the interpretation of what seems to have been the river bank in Area E is correct (and the date of its infilling during Period 3A supports this view) it implies that the Frome had run on a more circular course to the north-west of the town, which matches more closely that of the natural cliff behind the site, where it would have been deflected by the outcrop of hard Brandon Hill Grit on which the present Christmas Steps lie. Although Stephen's chronicler stated that the river hemmed
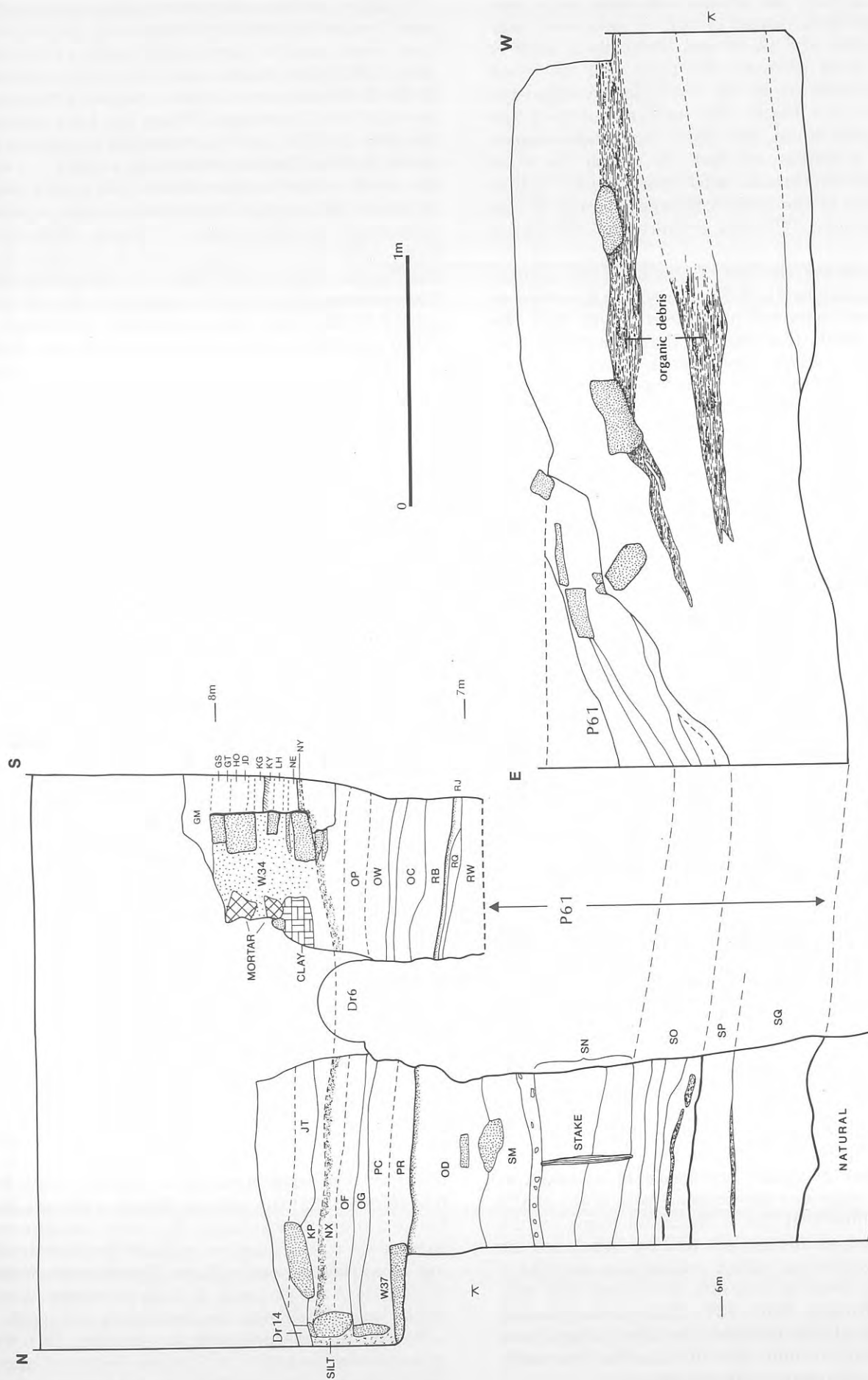
Figure 7   Area A: east & south sections – east end of trench

the town closely, the Frome was then some way from the earliest (inner) circuit of town wall near Frome Bridge and there was obviously a shelf of low-lying land between the town and the river before its enclosure by the 13th-century extension of the town (see Fig 2). The more roundabout line now proposed is not, therefore, completely counter to other evidence: in fact, it seems to draw together all the threads much more neatly, including the plan of the stretch between Frome Bridge and St Stephen's Church produced by Sherborne (1971).

In this context, the line of Lewins Mead is interesting, because north of Frome Bridge it curved to the east but remained at some distance from the later river bank. It is possible that this reflects the earlier course of that stretch of the river. The date when Lewins Mead first came into use as a thoroughfare is unknown. Another interesting feature is the boundary between the parishes of St James and St Michael. This runs through the 18th-century Lewins Mead Meeting House, dividing the street into western and eastern halves. However, the 1883 Ordnance Survey plan shows a curious kink in the boundary line as it passes through, and south of, the Meeting House land (see Fig 35). This doubtless originated in the early topography of the area, perhaps some trivial feature such as a hedge or line of trees, but it could be argued that the kink is a distant echo of the early course of that stretch of the Frome. Boundaries on opposite banks of the pre-diversion river need not have lined up, but when the original channel was backfilled the staggered borders would have had to be run together.

Another uncertainty is the extent to which the Frome was used for shipping before its realignment. The present flow of water is slight, little more than would be found in a stream; but in the medieval period the situation was completely different, for the river was tidal and during high water could accommodate vessels of moderate size. Just how big 'moderate' might have been is also unknown, but it seems reasonable to suppose that vessels without tall masts would have been able to pass under the bridge immediately downstream. According to Neale (pers comm) it was navigable for some way upstream until as late as the 16th century; but the river bed might have been lowered when it was realigned, so this does not prove that the same facility could have been enjoyed in the 12th century. Nevertheless, Stephen's chronicler (quoted above) stated that when the tides ran there was a wide and deep expanse of water, and he could be taken to mean that this was the case on both sides of the town. His 'harbour for a thousand ships', while probably exaggerated, might well have included the Frome. A surviving record relates that in 1221 a servant fell from a boat into the Frome and was drowned (Watson, 1902, 137). This proves not only that a part of the pre-diversion river course was certainly used in some way, but also that the water was sufficiently deep to drown someone.

It might well have been worthwhile constructing some system for berthing these vessels, especially if they were used to carry such goods as building stone and timber, close to one of the main entrances to the developing town. Again, Stephen's chronicler provides useful evidence. When the king besieged the town in 1138, he was counselled to dam up the rivers, both to flood the town and so that '. . . with the mouth of the harbour blocked the enemy might no longer get supplies from rowing-boats, in which they chiefly put their trust . . .' (Potter, 1955, 44). A ferry could also have been sited on this stretch of the Frome. Seen in this light, it is significant that the earliest activity on the excavated site, as suggested by the finds, was associated with boats. A small quantity of iron nails and roves was found which might have come from boat building, or from rotting or broken-up vessels. Whetstones from this period would have been used to sharpen tools (see Chapter 9).

The average height of the natural alluvial clay ties in reasonably well with data for high tides suggested by Jones & Watson (1987, 139) and by Jones (1991, 19) as referred to in Chapter 1 (p 2). It would seem that the site must have been prone to flooding, but perhaps that was accepted at the time as a fact of life and might have spurred on demands for the 13th-century redevelopment. This is borne out by observations concerning quay structures on the Avon bank at Redcliffe (Jones & Watson, 1987, 139–40 & 157–60).

The question of the relative heights of natural clay in Areas A and E must be addressed. Some 17m landward from the presumed river bank located in Area E, the bottom of P61 at the trench edge was at least 1.6m below the level of the top of the bank, and going even deeper than that. Unless effectively dammed, it would have filled with water during any moderately high tide. In the later Period 2B, over this backfilled pit was built a slipway which is interpreted as providing access directly to the river, but the distances and levels involved show that this must have been via an inlet or creek. It is logical to assume therefore that P61 was the edge of an earlier, and larger, part of the same system. This would also account for the alignment of the twigs which seem to have drifted on slow-moving water. It might be that the failure to locate uncontaminated natural clay at the deepest level in the north-east corner of Area G was because the creek had run through there before being backfilled. Whether the creek was natural or man made is unknown. The suggested plan is shown in Fig 3, but it is stressed that the plotting of such a feature is at the very limit of speculation. However, the observed subsidence in the massive walls of the later building 1A at the east end of Area G gives some degree of support to the proposal, as such movement would not be unexpected over the necessarily soft infill.

If such an interpretation is accepted, P61 was probably the head of a tiny harbour/boatyard alongside the Frome Bridge. P59 and Gy14 seem to have

comprised a riverside structure bordering the creek, but their nature is entirely unknown. It is possible that P58 was linked with Gy14 to form a corner of a wharf. P60 might have been a mooring or fence post.

Finally, if such a creek actually did exist, then the earliest route of Lewins Mead must have either bridged it, gone round it to the north or to the east, or have been laid out after the creek went out of use. The latter seems more likely.

4 Period 2

Pre-hospital occupation – Construction of Norman hall (building 1A) and associated features (c 1175–c 1234)

In Chapter 3 (p 25) it was explained that no specific date for the transition between Periods 1 and 2 can be given. This is because the present state of knowledge of pottery (the only dating method realistically available) does not permit fine distinction. Period 2 is itself loosely subdivided on the basis of stratigraphy into two parts, but once again the evidence would not always support a clear separation of the two. Period 2A (c 1175+) includes the construction of a major building (Bg 1A) in Area D/G and associated structures in Area A; which should be taken to mean as having occurred in the years around 1175, with the possibility (even probability) that it extended for an, as yet, undetermined number of years into the earlier part of Period 2B. Period 2B itself (c 1180–c 1234) refers to the subsequent occupation of the site in the years leading up to the foundation of the hospital in c 1232–4. Despite this acknowledged uncertainty, the provisional distinction does help in understanding the development of the site more readily.

Documentary evidence

No direct documentary evidence for the early history of the site, before the hospital was established, is known. According to William Worcestre, writing c 1480, the hospital had originally been a priory of Augustinian regular canons (Nasmith, 1778, 208 & 252; Dallaway, 1834, 88 & 143; Neale, forthcoming). He was writing some 250 years after the event and there is no supporting documentation to corroborate his statements. Nevertheless, it is just possible that he had access to information long since lost, so his statement should not be dismissed completely out of hand, particularly in the light of a more recent realization that close links between hospitals and priories, especially Augustinian, were not at all uncommon (Gilchrist, 1995). Worcestre was right, after all, about the foundation of the hospital by the de la Warres, which has only been corroborated within the last 40 years (see Chapter 5, p 53). Some 100 years before Worcestre's time, St Bartholomew's was recorded as living under what seems to have been a monastic rule. Which of the various rules they followed is uncertain but it is reasonable to suppose that it might have been that of the Augustinian Order or some suitably modified variation (see Chapter 10, p 216). If so, the confusion in Worcestre's day, when the hospital served at least partly as a refuge for retired mariners who were not required to live according to a religious rule, is understandable.

The role of the de la Warres in establishing the hospital implies that they owned, or had rights to, the site before that time. Brief accounts of the family and the division of medieval ownership of that part of Bristol are given in Chapter 2. It has been discovered that the family held some plots of land to the west of the Frome in the 12th century. Thus in a significant charter, which regrettably cannot yet be dated any more accurately than to c 1148–83, Earl William of Gloucester granted to St Augustine's Abbey certain burgage tenures in Bristol which included those of Jordan Warra (sic) in the upper part of that road which led to St Augustine's (see Fig 2) and a garden of Herbert Warra (sic) which lay next to the road below Billeswick in the north (Patterson, 1973, 41–2). As ever in such documents, until more evidence is produced it cannot be determined with any degree of precision how such lands related to the land on which the future hospital and its precursors came to lie; but they seem to have been a little to the south of it, closer to the rising ground on which St Mark's Hospital was founded (see Chapter 10, p 204).

Excavated and standing structures

A summary plan of the excavated structures is given in Fig 8.

Period 2A (c 1175+)

Area A (Construction of pavement: Context Group A2; Figs 9 & 10)

P61 was backfilled, partly by natural silting and partly by deliberate human action (see Chapter 3, p 25) and over both this fill and the surrounding bedding clay in the eastern half of the trench was deposited a layer of medium/large Pennant stones (context RV) in order to raise the ground level. F15 was laid over both this make-up and the other features of Period 1. The spread was composed of more medium/large Pennant slabs, laid flat on grey-brown clay mixed with organic material. It was levelled at 7.15–7.3m OD, but at the east end of the trench it sloped more steeply into P61 and changed to a water-worn gravel spread which went into the baulk.

To the west, only the bedding clays (RX) had survived. In the southern part of the area the stone spread was cut by P49, which had been filled with a black peat and sandy clay containing occasional stones. Above, this in turn became the shallow-sided P53 which continued east and west. It had the
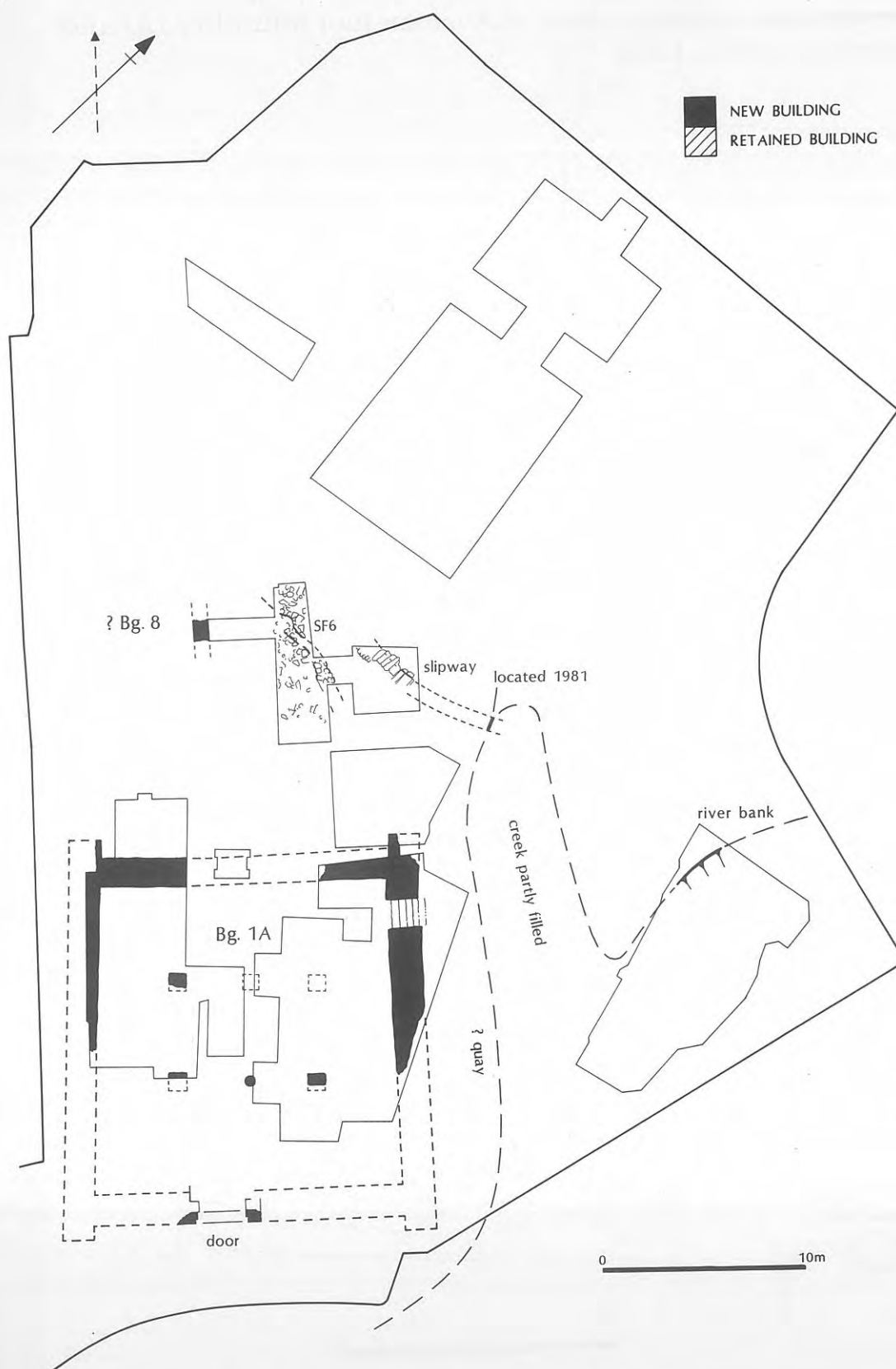
Figure 8   Summary plan of structures of Periods 2A and 2B

NOT EXCAVATED

F15

RX

F15

RV (under)

gravel

Dr6

Dr6

NOT EXCAVATED

P53

RS (under)

P49

Gy 12

0   1   2m

Figure 9   Area A: plan of structures of Period 2A (pavement)

E

W

DV
EK

EO
FJ

GR

HD

P.25

MD

ND

OH

OH

PM

PJ

QB

F.13
SF6

QM

QP

RK

F.15

RC

RX

W.122

GZ F8

EN

FL

HT

F11
MG

JW

Dr 10

MJ

MO

MN

MQ

SF4

NR

W.5

Dr 1

PE

OD/OE

QB

Gy10
QF

QR

QX

QM

RC

8m

7m

0   1m
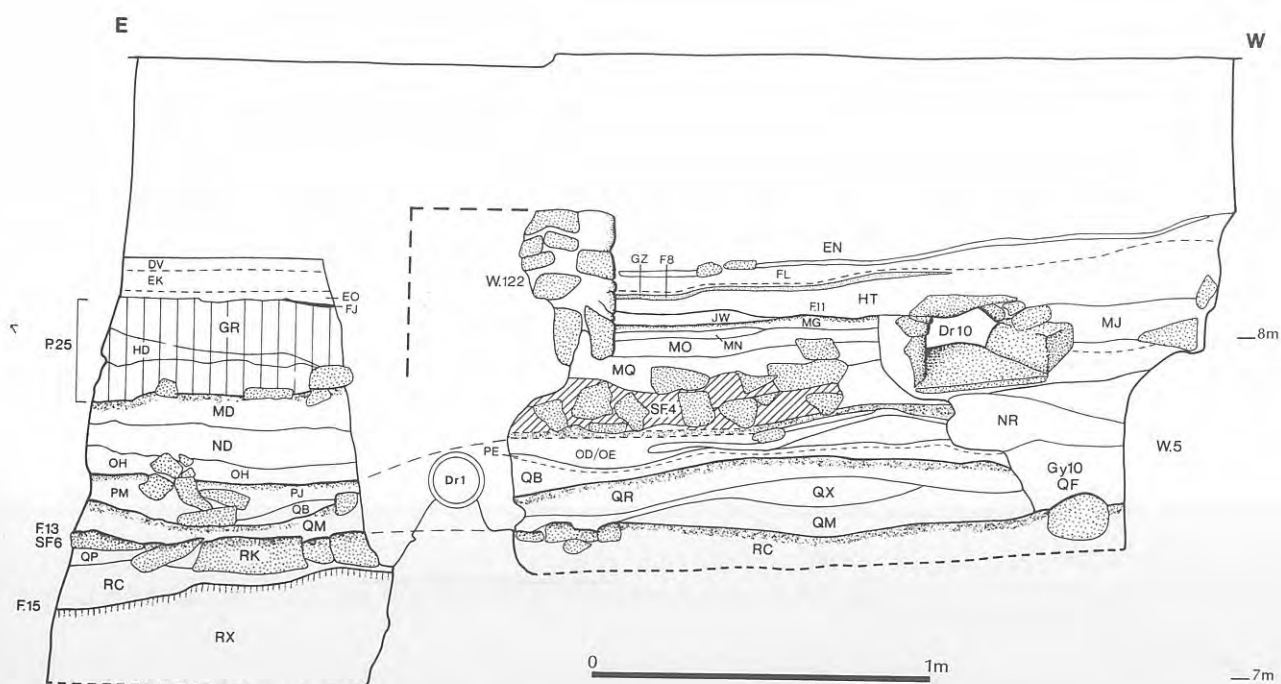
Figure 10   Area A: south section – west end of trench

same fill as P49. Both pits were possibly part of a stone-robbing process.

Areas D/F/G/H (Construction of building 1A: Context Groups G1, D7–8; Figs 11–18, 21 & 26; Pls 3–8 & 13)

As explained before, in these areas little distinction could be made between Period 2A and the commencement of Period 2B. The foundations and substantial parts of the superstructure of an important Norman building (Bg 1A) were found. The building is described commencing with the external walls,

followed by the internal structures. It was aligned approximately south-west/north-east, but for ease of description north-west is regarded as site north. It measured approximately $17\,m \times 17\,m$ externally but it was not quite square, being some 1m wider at the south end according to extrapolations made.

NB: For technical reasons on site, principally to do with safety, no conventional straight section could be cut in test trench 5, which examined the deepest parts of the north-east corner of the building (Fig 11). The section shown in Fig 12 was of necessity a composite of the S-shaped baulk extending between W83 on the north and the doorway in the east wall (W62/66).
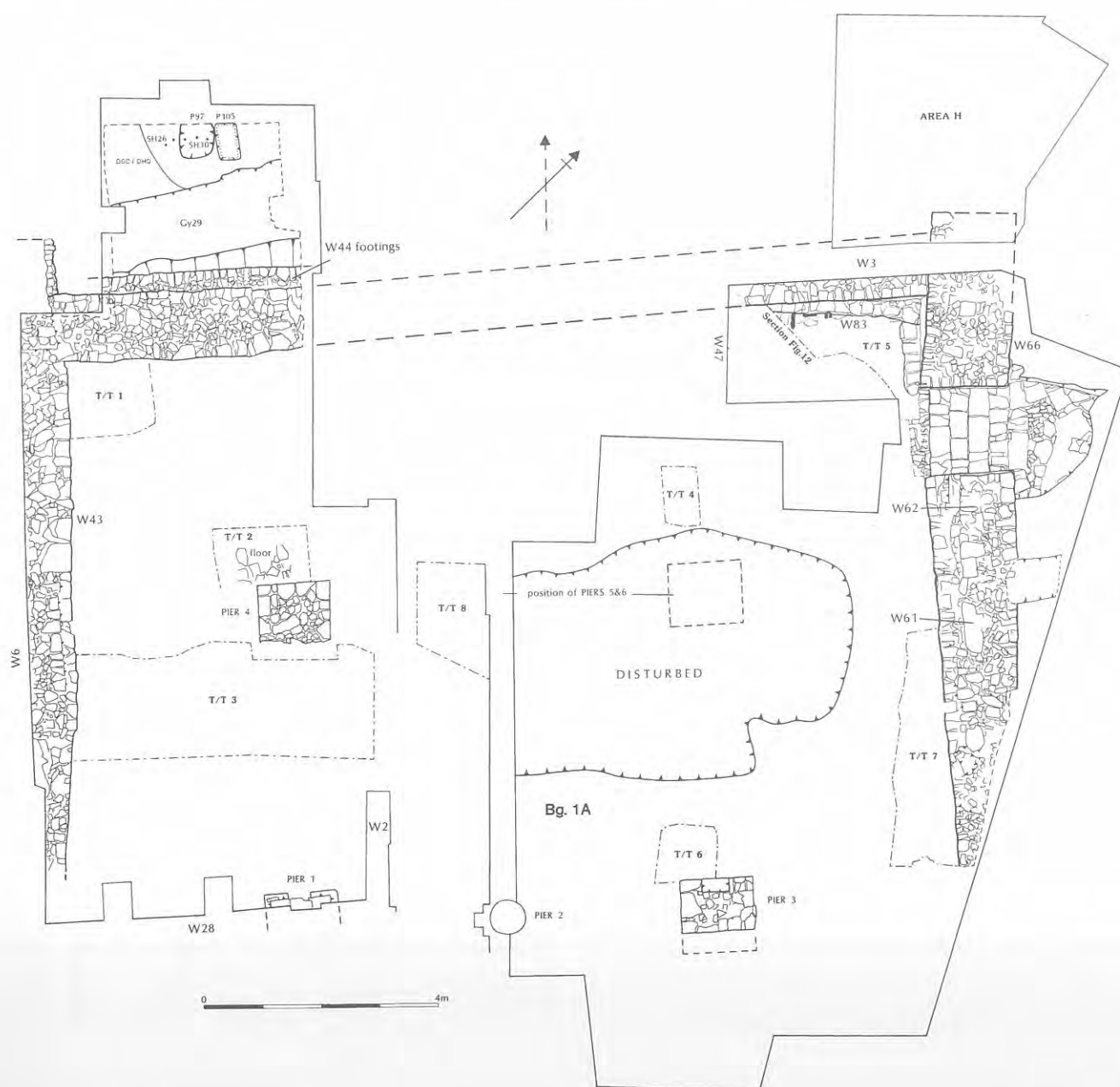
Figure 11 Area D/G/H: plan of building 1A
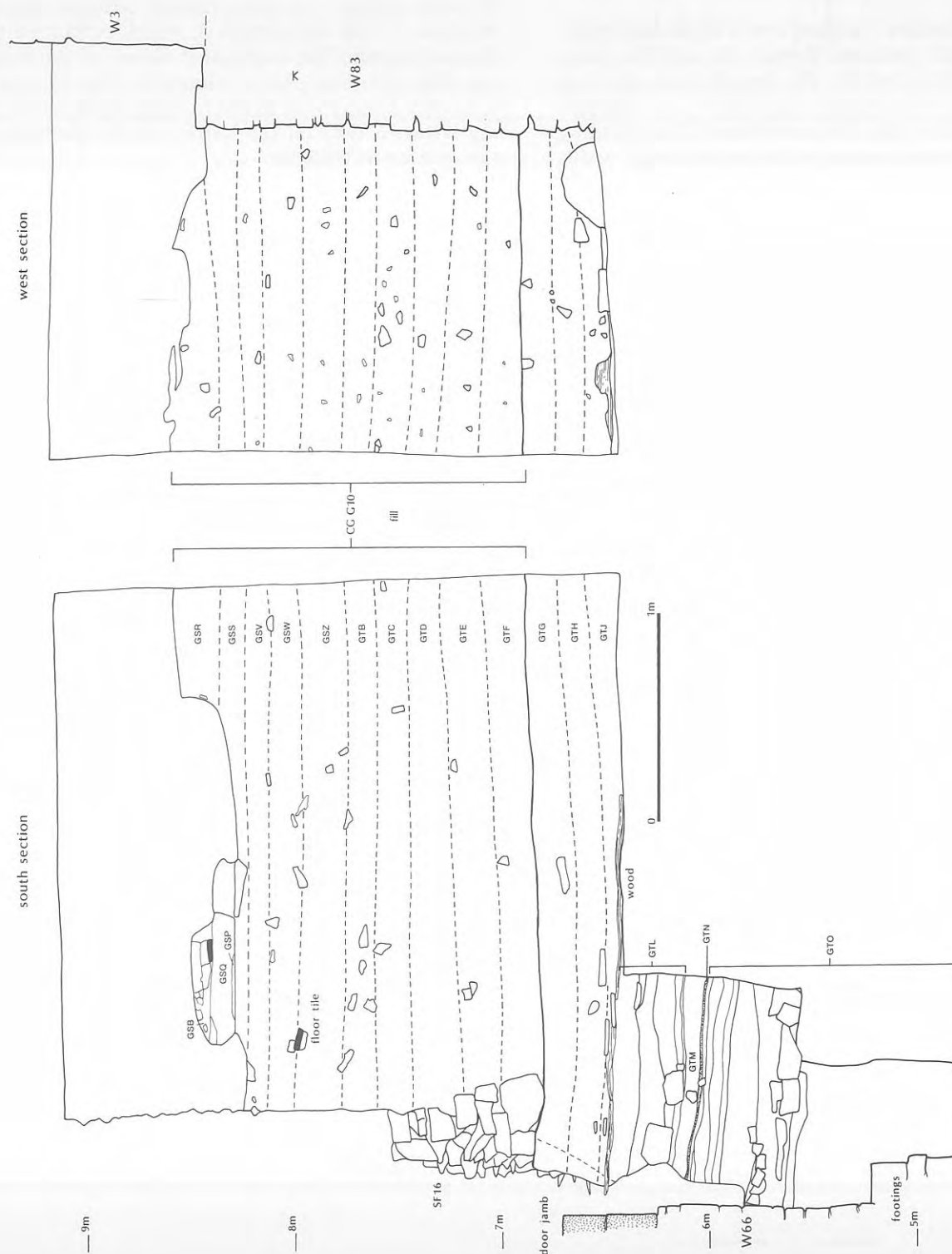
Figure 12   Area G: south & west sections – test trench 5
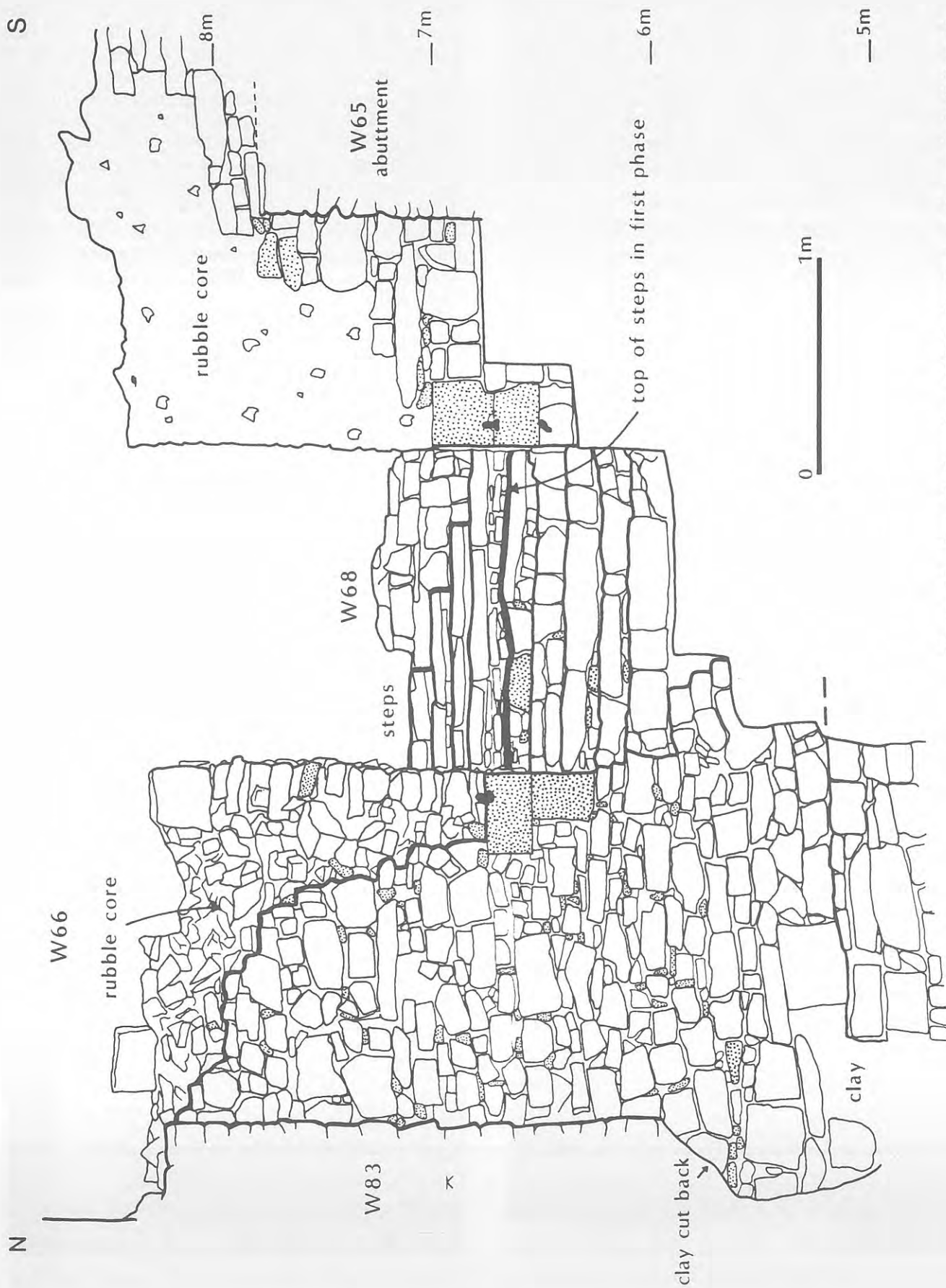
Figure 13 Area G: elevation of W66, doorway, and steps in building 1A

The first part of the building to be constructed seems to have been the east wall in Area G, recorded as W66 and W61/62 (Fig 11). The return at the north-east corner (W83) was butted against W66, so presumably built afterwards. The two parts of the east wall were separated by a substantial doorway and steps which led into a cellar or undercroft (Pl 3). It was noted that the walls were not accurately aligned on either side of the door, showing that the opening was an integral and focal part of the building phase.

W66 was founded on natural clay mixed with organic debris, but its bottom was not located, even though test trench 5 was excavated alongside it to a depth of 4.65m OD, and a probe showed the presence of stone down to 4.3m OD. Against the footings of the wall was a deep layer of natural clay mixed with light brown streaks, fragments of shell, lime, wood, oolitic limestone, and some large pieces of Brandon Hill Grit (Context Group G1; Fig 12). A spit of this layer 1.3m thick was excavated, but it was unsafe to dig any deeper. For reasons of safety and restricted access, it was not possible to excavate to such depth on the east side of the wall or any part of W61/2, so the nature of the footings there is unknown. The extreme depth of clean natural clay in this corner suggests that it might have been a continuation of P61 (see Chapter 3, Area A, p 25) in

which case the builders must have raised ground level there. The bottom course of the footings of W66 was below 5m OD, above which the wall narrowed in two stages by 0.3m (Fig 16). W66 had survived to a height of 8.3m OD and W61/62 to 8.45m OD, above which both had been dismantled during a major rebuilding programme (see Chapter 6, p 90). Both were 1.4m thick and built mainly of Brandon Hill Grit with a little Pennant, oolite, and carboniferous limestone. A red-brown sandy mortar, which became more clayey with increasing depth, had been used to bond the stone. There had been considerable movement of the walls, which tilted east towards the river. W66 leaned by four degrees from vertical, W62 by six degrees (Figs 14, 15 & 16).

A projection north of W66 was found in Area H (Fig 11) which seemed to be a buttress, but it was not possible to carry out a deep excavation at this point in order to confirm the interpretation. A similar feature was found at the north-west corner of the building after the main excavation had been completed (see below). The southernmost part of W61 was below the modern street, and not available for investigation.

Below the doorway, the footings (SF42; Context Group G1) extended west from the wall face by at least 0.25m and were likely to have been a direct

Plate 3   Area G: Building 1A. Doorway and two periods of steps to undercroft, looking east

Plate 4   Area D: Building 1A. West end of building looking south, with south arcade at rear and walls of 18th-century south-west range at sides

S

N

19th century industrial housing

20m

20m

north aisle of hall

18m

freestone
arch

16m

south aisle of hall

east wall of 18th century range

end of medieval building

14m

demolished 1977

statue of
Virgin
and Child

13th century porch

12th century
doorway

wall of 17th century building

17 HOST STREET

W44

12m

10m

0   5m

Figure 21 Porch, south-west and part of north-west ranges: east elevation on west side of passageway – surveyed in 1976
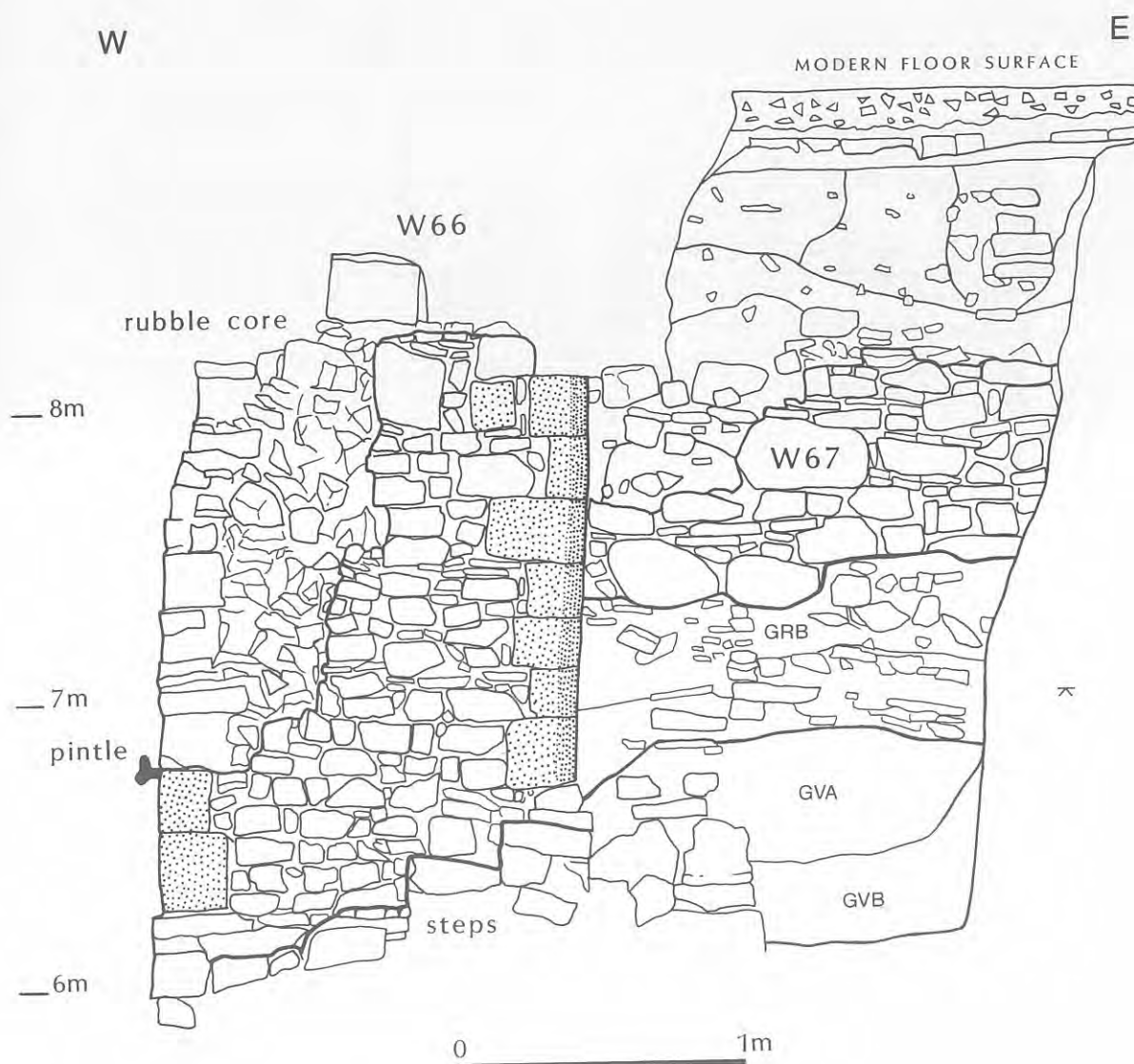
Figure 14　Area G: elevation through north side of doorway in building 1A

continuation of the line from W66, but this was covered by the baulk of the trench. Thickening below the door was probably required to provide extra support at a structurally weak point. The stones used in its construction were generally larger than those in other parts of the wall. The doorway was 1.45 m wide, with jambs of oolite which had been chamfered on their external corners and bonded with white lime mortar (Figs 11–16; Pl 3). A flight of five steps, each comprising several worn slabs of Brandon Hill Grit, led down westwards into the building. The stones were bonded in a light-brown organic soil on the north and a light brown/red clay to the south, but why there should have been such a distinction was not obvious. The bottom step was recessed into the west face of the wall by 0.18 m and was levelled at 6.12 m OD, which indicates the floor level inside the building. Below this were more stones, but these seemed too uneven to have been a step and more likely served as the footings already referred to. From the top step to

the top of the freestone jambs measured 1.7 m. As there was no sign of springing at this level, and assuming the arch to have been round, the top of the door would have been at least *c* 2.4 m in height. The lower pintles of the door hinges were found on both inner jambs.

The north wall of the building was represented by W83/44, which spanned Areas G and D (Figs 11 & 16). The bottom of W83 was founded on what was probably the backfill to an extension of P61 found in Area A. Its depth varied between 5.4 m OD or lower, rising to 5.7 m OD immediately alongside W66: much higher than the east wall, the footings of which it overlay. There was no evidence of a foundation trench. The footings of W83 were 0.15–0.25 m wider than the wall, increasing to 0.45 m at the junction with W66, probably for greater stability. At one point some preserved horizontal timbers were found, suggesting that the wall was partly supported by a wooden raft or piles. This would make sense if the wall had been built over the backfilled P61,
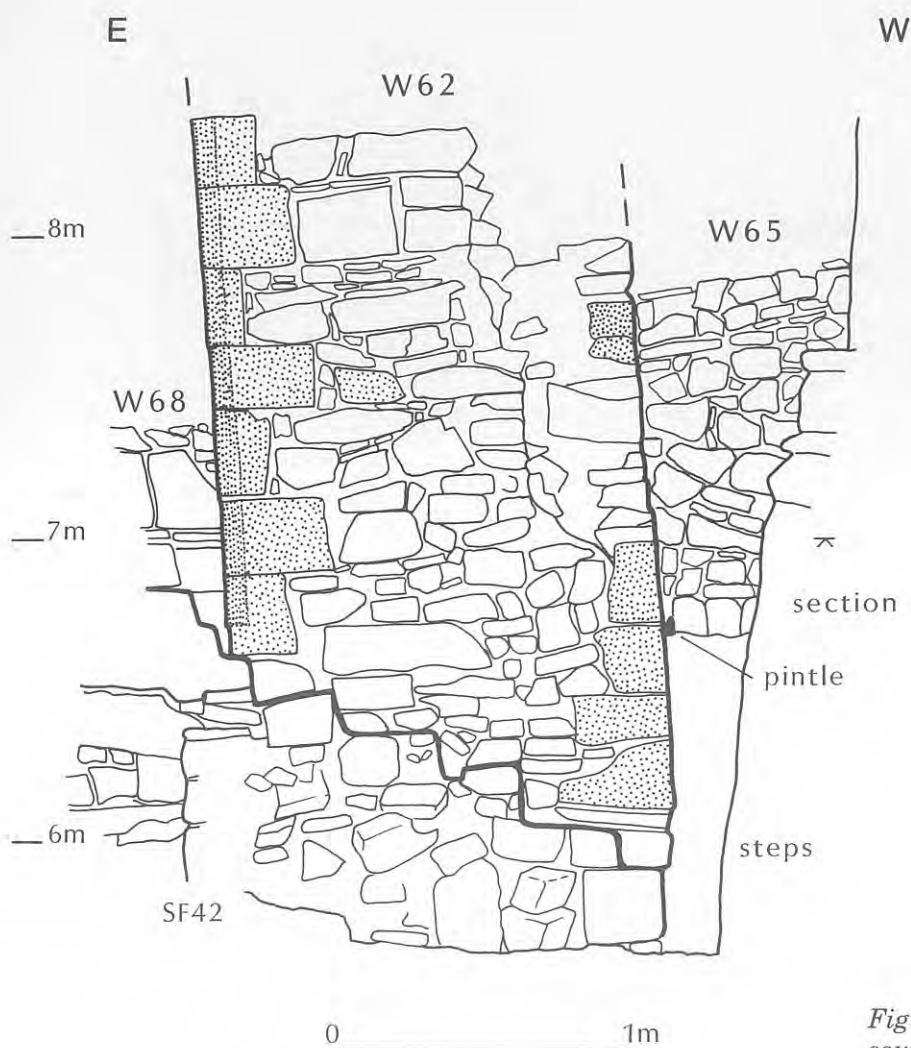
Figure 15   Area G: elevation through south side of doorway in building 1A

but no other timbers were found by probing. Above its foundations W83 was 1.2m thick and of the same construction as W66/62/61. W83 abutted W66 at all levels and its stones leant with the obvious batter in W66. Other than that, it was virtually perpendicular and survived to the same height as the east wall.

Although W83 was built after W66 it is almost certain that the two were designed and constructed as one integral structure. It would have been necessary to erect W66 first to act as a revetment against the river. It is not known whether there was a buttress as an eastern continuation of W83.

In Area D, W83 continued as W44. A small test trench (Area F) dug through the intervening passageway to link the two principal areas did not actually prove this, as it was too dangerous to excavate to sufficient depth. A thick medieval wall was indeed found, but it was substantially robbed and conditions were too dangerous to excavate more than superficially. Nevertheless, the continuity is almost certain. On the north side of the wall in Area D, a foundation trench (Gy29) was found (Fig 11; Pl 4). It had been cut into the natural clay, through the contexts associated with the earlier fence line.

The bottom of the trench was at 5.4m OD, which was further checked by auguring for 0.4m below that depth. This showed that the wall was founded on a layer of fist-sized pieces of Brandon Hill Grit rather than on the wooden piles which might have been used further east. The foundation trench varied between 1.3m and 2.1m in width, being wider towards the east. There were three tiers of wall footings, which together increased its thickness by 1.15m to secure maximum stability on the clay, but the tilt of the wall partially obscures this in plan. The main body of the wall leaned north by five degrees from vertical. Above the footings, W44 was 1.2m thick and of the same construction as its continuation to the east (W83). The bottom of the foundation trench to the wall (Gy29) was filled with a hard core of shattered Brandon Hill Grit up to the level of the lowest tier of footings. Above this were mixed layers of natural blue-grey and red clays with inclusions of lime, wood, and stones which reached to the top of the upper footings (Context Group D7). The south side of W44 could be excavated in test trench 1 only to a depth of 6.65m OD, below which further work would have been unsafe. There was no evidence for footings on that side,
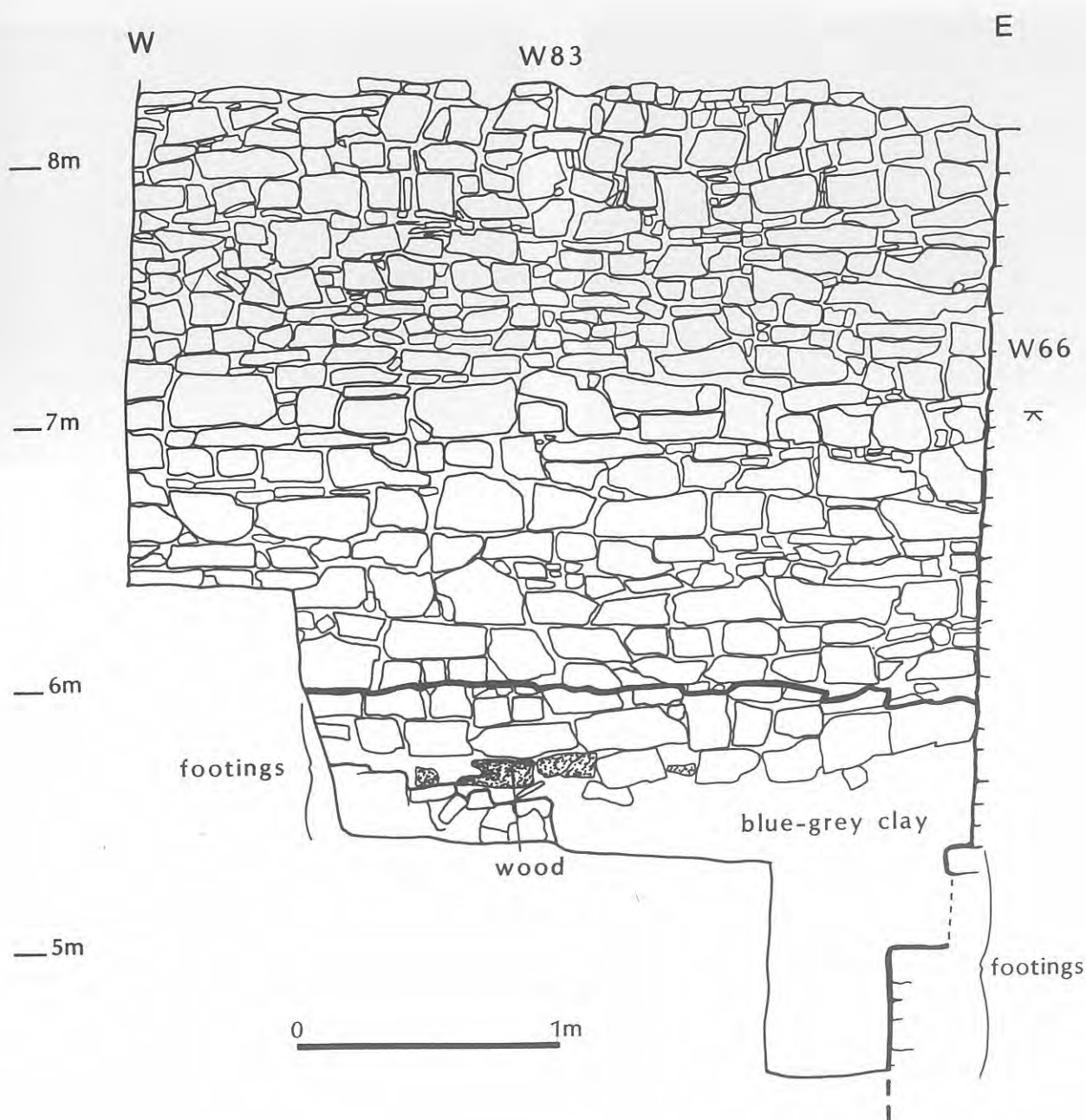
Figure 16   Area G: elevation of W66/83 and foundations

even though the level was below that of the offsets on the north.

It was noted that the north wall was not straight, but trended towards the north near the midpoint. This was checked by careful surveying during excavation. The reason is unknown, but was probably related to the rather poor footing obtained on the clay. The misalignment of the east wall of the building has already been noted above. Whether the building had moved on its original foundations could not be tested by deep excavation.

After the excavation had been completed, just prior to the redevelopment programme of the 1980s, there was a limited opportunity to examine the west end of W44 more thoroughly. This work was supervised by John Bryant. It was found that there was a northward continuation for 0.9m; it appeared to have been a buttress like that found on the north-east corner of the building. An attempt was made to locate any similar buttress lying at right angles to the west, but the excavation proved too dangerous so the question has not been resolved (but see note in the discussion of Period 3B – Chapter 5, p 82).

The other two walls making up the building were less thoroughly examined. The west wall was W43, which was bonded with W44 and of the same construction (Pl 4). Test trench 1 revealed no footings or additional structural detail, nor was the base of the wall reached. Its thickness was undetermined because the west side of W43 (rebuilt in the 18th century as W6) was not excavated in depth for safe-

Plate 6 Building 1A: Western capital outside south doorway to 12th-century hall

Plate 5 Building 1A: Inside of porch, showing south doorway to 12th-century hall and 13th-century arcade

Plate 7 Building 1A: Eastern capital outside south doorway to 12th-century hall

ty reasons. Evidence for the position and construction of the south wall of the building was found by examining the cellars below the shops in Host Street and the surviving doorway in the south porch (Fig 1). How much of the south wall was demolished for later rebuilding is less certain than for the other walls. The survival of what seems to have been the original main entrance to the building suggests that at least the walling immediately on either side might also be original.

The south wall is pierced at its midpoint by a doorway which now forms the inner part of the south porch (see Fig 21; Pls 5–7). The entry is some 2.08 m wide; the surviving bases suggest a floor height at approximately 8.9 m OD, which presumably ran more or less level with the ground outside. It is now elliptical headed (or three centred) with the maximum height of the underside of the arch some 2.6 m above floor level at about 11.5 m OD. However, it is likely that the arch was originally semicircular as the top of the western jamb has spread by about two degrees from the vertical. If that is the case, the original doorway would have

been about 0.3 m higher and reached some 2.9 m from floor to top, and it implies further that the south wall above the arch had been rebuilt later on.

The surviving mouldings commence as a slight hawk's-bill label with fillet and probably foliate stop which is obscured in the side wall. The arch moulding is quite simple, the main moulding being a large roll which emanates from the abacus. The capital is chamfered with a lightly incised line on its vertical face. Such lines are also seen in the arch. The western capital retains a fine fragment of decoration consisting of voluted leaves with their upper parts ending as bunches of fruit. The eastern capital is also quite fine and has two bunches of three stems rising to simple trilobed leaves. At the south-west corner, there seems to have been a larger plantain leaf, which is now broken off. In elevation, the circular shaft ends with a rolled water-holding hollow
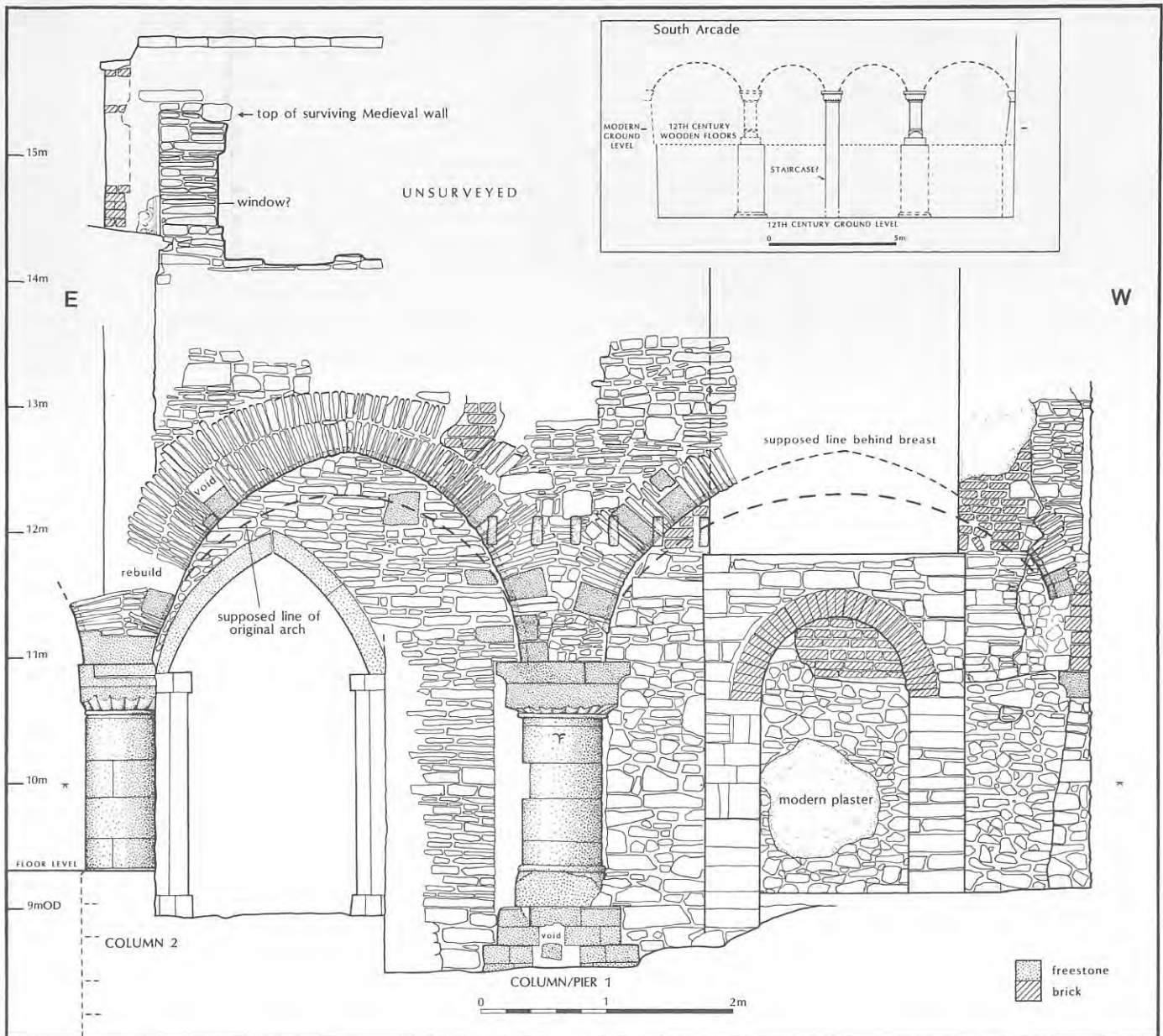
Figure 17 Area D/G: elevation of Norman arcade in building 1A and later features of south wall of south-west range (inset is hypothetical reconstruction of 12th-century original)

and rests upon a vertical capital which is chamfered out to a lower base. The soffit rests on its own similar base. Internally, the doorway is plain and the edge has a simple chamfer and run-out stop.

The main building was originally divided by two arcades running its full length, between which the three aisles were each about 4m wide, but the lines were not laid accurately parallel (Figs 11 & 17). The numbers assigned to the columns and their supporting piers correspond. Those in the south arcade were numbered 1–3 commencing from the west, and those in the north arcade 4–6 going in the same direction. Each arcade comprised four bays. The east and west bays were about 4m wide and the two central bays each about 3.5m wide. Remains of three piers (nos 1, 3 & 4) which supported columns were found, along with indications of a fourth (no 5)

which had been rebuilt in a later period. Pier 1 supported a column which is still standing. The central column of the south arcade (column 2, also standing) was of different construction and no supporting pier was found. The sixth pier and the other three responds had been completely robbed. The original arches are also missing, having been removed during a later rebuild. Their original form is unknown, but it is presumed that they were similar in character to the doorway, and therefore round headed.

Column 1 and its supporting pier were found at the south end of Area D on removal of the rendering overlying a later wall which had obscured it. It was built using an oolitic limestone, probably Dundry stone, and was bonded in white lime mortar. The construction was founded on a two-stage pier, but it
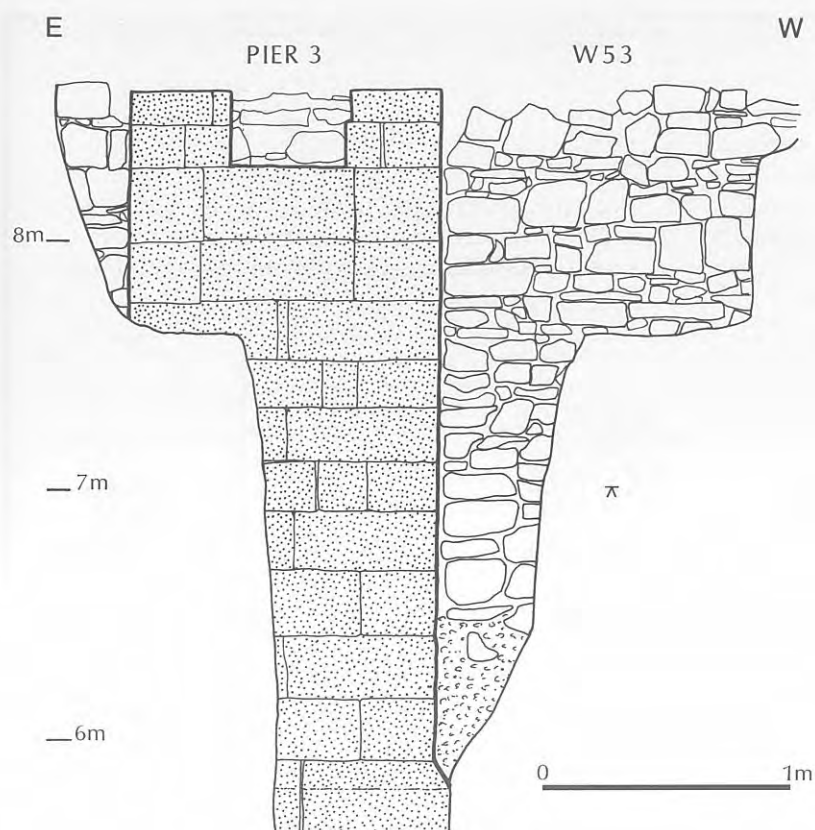
Figure 18   Area G: north elevation of pier 3 in building 1A

Plate 8   Area D: Building 1A. North face of pier base of column 3, bracing wall W53, and undercroft backfill

Plate 9   Area A: Remains of slipway wooden deck and supporting walls

was not possible to excavate that to any depth for safety reasons. What could be examined was 1.24 m square to a height of 8.75 m OD; above this were two courses totalling 0.3 m high which were only 1 m square. Whether the pier had a rubble core, as found in pier 3, is unknown. This plinth in turn supported a pedestal consisting of a single block of freestone. It was 0.64 m wide and carved as a square going into a round, above which was the shaft proper. The shaft consisted of 4 round drums, each 0.58 m in diameter, surmounted with a square, but damaged, capital of scalloped cushion type, 0.93 m across. The abacus of the capital was at 11.00 m OD.

Column 2 had also survived to the height of its abacus, although its east side had been burnt and damaged by later use of the wall in which it had become enveloped (W1). At some time it had been cut back so as to be nearly flush with that wall. Because of its depth, the bottom of the column was not reached in the test trench dug specifically to explore it, but it was below 6.08 m OD. No supporting pier similar to that in column 1 was found, and it is not known how the column was bedded. Otherwise, its construction was similar to that of column 1, and its shaft of round drums had the same diameter. Set on the shaft was a square capital of the same type and decoration with its abacus at 10.94 m OD. This column had been observed in 1934, as shown in a contemporary photograph which was not published until after the excavation (Winstone, 1986, no 43).

In Area G, column 3 had been removed but its supporting pier survived (Fig 18; Pl 8). Its construction probably represents that of all the piers. It was built as a core of Brandon Hill Grit and Pennant, bonded in a red sandy mortar and faced with dressed blocks of oolite mortared with white lime. The bottom of the pier was found at 5.64 m OD, resting on a hardcore of fist-sized Brandon Hill stones and gravel. The structure had originally been square, but the south face had been removed during later redevelopment. The basal course was 1.34 m wide, 0.18 m high, and met the main body of the base with a 60-degree chamfer. The top of this pier was at 8.57 m OD. This was 0.18 m below the top of column 1, suggesting that one course had been robbed.

In Area D the pier of column 4 separated the north and central aisles. Its original structure seems to have been the same as that used for piers 1 and 3 but it had been extensively rebuilt on its south side (see Fig 26; Pl 13). The lower portion of the base was 1.26 m square but it was slightly skewed to the north-east. The bottom was 0.1–0.2 m higher than pier 3. It had the same chamfered plinth and was also set on a foundation of Brandon Hill Grit and clay (Context Group D8).

The site of pier 5 had been robbed, but a test trench, of necessity shallow for safety reasons, suggested that the original column 5 had been set on a similar square pier (see Chapter 6, p 93). The site of pier 6 was extensively robbed during the 18th or

19th century for the construction of a cellar and was inaccessible for deep excavation.

What was possibly a substantial fragment of the capital of one of the demolished columns was found during the 1980s redevelopment (see Chapter 9, no 335, but also comments in Chapter 5, p 61). It had been partly recarved for later reuse.

Immediately on the north side of pier 4, and directly associated with it over the same hard core, a series of flat Pennant sandstone slabs was found in test trench 2 at 5.86 m OD (Context Group D8). This was almost certainly a fragment of the original floor of the hall.

Areas E & K

No features which were definitely from Period 2A were found in any of the other trenches excavated.

Period 2B (c 1180–c 1234)

Area A (Construction of pavement and slipway: Context Groups A3–5; Figs 7, 10 & 19; Pls 9 & 10)

As explained at the beginning of this chapter, the dating of structures from this sub-period is uncertain, but all the evidence points to somewhere in the last quarter of the 12th century. Nevertheless, account has to be taken of the intervening years before the foundation of St Bartholomew's Hospital (see Chapter 5) for which reason the terminal date of Period 2B is given as c 1234.

F13 was another area of stone paving which covered F15 (Fig 19). In places, it was laid on a black/grey soil with a high organic content, including fragments of wood (context RC). F13 was of the same construction as F15 and was one course thick, which raised the ground level there to around 7.2–7.4 m OD. Built along with this floor was stone feature 6 (SF6): a fragmentary curving wall as part of its southern margin, of which only two courses had survived. It was constructed using water-worn stones which might have been robbed from the south part of F15, bonded in alluvial clay.

Associated with SF6, running approximately parallel with it, was a wooden platform or slipway (Pl 9). It gave a radiocarbon date of cal AD895–1215 (at 95% confidence; HAR-2273; 990±70BP. See Chapter 9). Whether or not it was exactly contemporary with the stone feature is uncertain. The supporting walls (W38 & W39) had been laid on a layer of organic, dark-brown soil mixed with clay (Context Group A4: contexts RQ & RW). These walls were almost parallel, 0.4 to 0.5 m apart, each being 0.15 m high and built using Brandon Hill Grit bonded in red clay. From about 7.2 m OD, they sloped down towards the river at approximately 25 degrees north-west/south-east, and supported several short planks and billets of oak which formed the deck.
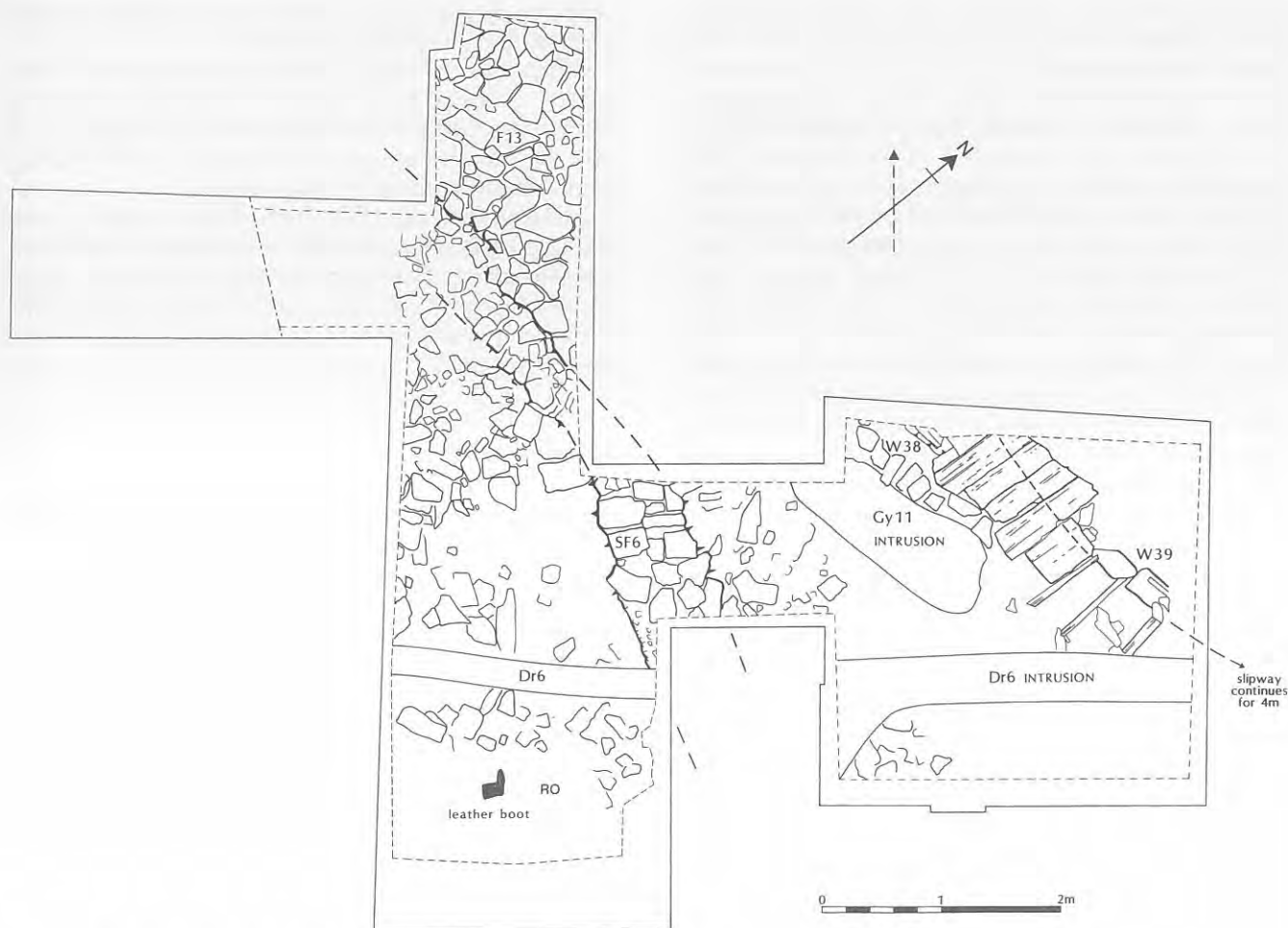
Figure 19 Area A: plan of structures of Period 2B (slipway)

The timbers had been preserved in the waterlogged conditions. Neither end of the deck was found, but it did not reach the north extension of the trench and it might have terminated at F13. Its continuation was located 3–4m to the south-east by workmen during the 1980s redevelopment of the site.

South-west of SF6, F13 continued over F15 and P49, but much of it was stone free and consisted of a deposit of grey alluvial clay mixed with much organic material to a depth of 0.1–0.2m (Context Group A3). Further layers of similar material had accumulated over both F13 and the slipway (Context Group A5).

Area K (Raising of ground level: Context Groups K1–2)

No structures dating from this period were observed in the northern part of the site. However, the lowest levels of a thick make-up deposit (Context Group K1 and context LAF in CG K2) might come from that period as they contained only early pottery (see Chapter 5, Period 3B, p 71). They could have come from the large-scale disturbances which

would have been inevitable during the construction of building 1A, but this is uncertain.

Areas D/F/G/H & E

No structures which could definitely be assigned to this period were found in any of the other areas excavated.

Discussion

Taking first the structures found in Area A, the postulated creek described in Chapter 3 (p 32) had become at least partly filled in. Some of the newly available area was paved, which might have been a later phase of the riverside activity also described in Chapter 3. The pavement was extremely fragmentary and might have been either patching of what had earlier been trampled meadowland, or it could have been something more substantial which was robbed later on. It is also possible that it was associated with the construction of the large building 1A to the south, providing preliminary hard-standing for the unloading of necessary materials.

Plate 10   Area A: Child's leather boot

There is no evidence to decide either way, except that because a replacement floor (F13) seems to have been deliberately laid over it to serve the building site it is more logical to suppose that it predated the building. Nevertheless, it is obvious that the new building must have taken some time to complete, so upgrading of the construction facilities as the project progressed would not be surprising.

The whole area was probably prone to flooding, especially during high tides when the river was already swollen by heavy rain, and it had become covered with silt-like material which might have been deposited by the tide or might have been deliberately put down to raise ground level. Given that the make-up for the replacement floor and its surrounding area were some 1.5 m higher than the floor level within the new building, tidal action alone seems less likely, and it was more probably dumped there when the alluvial clay was dug out to form a building platform. It was in one of these contexts that a fragment of a limestone lamp and a discarded child's boot were found (see Chapter 9, nos 223 & 325; Pl 10). If the lowest deposits found further north in Area K really do come from this period, it would make sense as part of a general programme to raise ground level.

The wooden slipway was originally called a jetty in the site records, but this term has been replaced as it bears connotations of upright piers which thrust out into the water, for which there was no evidence. The term slipway is used only in accordance with the Oxford English Dictionary definition as 'a sloping way leading down into the water' and should not be taken to imply any more than that. It cannot be dated precisely, for reasons set out at the beginning of this chapter, but it might be that it was laid in order to ease the delivery of materials as construction work on building 1A progressed. From its alignment, it seems to have been directly associated with SF6, which might have been a boundary wall where small unloading facilities could have been positioned. It is not known whether a similar structure was set up on the north side of the slipway. Nor is it known how far the slipway extended to the east, although it presumably reached river water at some point. The river bank found in Area E lay some 17 m to the east, but was higher than the located end of the slip. If the platform sloped downwards at 25 degrees for the whole of its length, then only some 2 m east of the trench it would have reached the level of mean high tide (c 6.4–6.7 m OD) as estimated by Jones & Watson (1987, 139–41) and by Jones (1991, 19). But the slipway is known to have run beyond that point. Moreover, to be fully useful it must have dipped at least a little below the high-tide line so that access could be provided at, or near, low water. Its course showed a slight curve which would have put its junction with the river somewhat to the north of the bank found in Area E.

Although it cannot be proven, the most likely explanation is that the earlier creek had been only partially filled in and the slipway stopped at its headwaters. Such an arrangement could also have furnished a private quayside to accompany the new hall. This is all highly speculative. The foregoing does not exclude the possibility that the slipway postdated the completion of building 1A, but the evidence is not sufficiently precise to allow certainty. The plant remains which were found confirm the continuing disturbed nature of the ground (see Chapter 9).

Turning to building 1A, the backfill to the foundation trench of its north wall contained pottery dating to the last quarter of the 12th century, which provides the date of its construction. This is consistent with the surviving architecture (Bond, 1905, 413, 439 & 447–8). It is now acknowledged that the later date originally assigned by Ponsford on the basis of his Bristol pottery type series, as reported in Price (1979a) was incorrect because the diagnostic Ham Green ware has since been demonstrated to occur much earlier than had been supposed (Ponsford, 1991, 101). Also found in the trench were some hazelnut shells, which it is tempting to suppose might have been discarded by the labourers.

On its completion, the building was an aisled hall with an undercroft. It was not exactly square, as the north wall was not straight and the end walls were not parallel. This was not unusual for the period: see, for example, ground plans of the Jew's House and the Jew's Court at Lincoln (Wood, 1974, 41–3). Similarly, the arcades were not perfectly aligned. The original undercroft floor level in the building is indicated by the fragment found in the north aisle alongside pier 4, the bottoms of the piers, the bottom step in the doorway, and the footings of W83. This must have been uneven, but generally around 5.7–6.0 m OD. There is no evidence to prove wheth-

er or not the whole was originally floored with Pennant flags. If it was, most of it must have been robbed later on.

From about the mid-12th century, stone undercrofts were the norm in first-floor halls, although timber floors were sometimes employed; for example at Christchurch Castle and Richmond Castle (Wood, 1965, 16–34; Wood, 1974, 32, 53 & 80). It is evident from the fact that there was no sign of stone vaulting in any part of the St Bartholomew's building that the first floor must have been one of suspended timbers. It is probable that there would have been an offset course in the external walls to take the joists of a substantial structure. No offsets were actually observed, but they would probably have been removed during demolition for the 14th century rebuild (see Chapter 6, p 90). Such a floor could have been further supported by the piers, where there was an offset at the top of each lower stage. The level of the floor of the south door ties in with this interpretation. The headroom for the lower floor would have been some 2.9m, quite adequate (if somewhat claustrophobic) for use as a store room.

Access from the undercroft to the first floor was presumably gained by a staircase. It is suggested that, as column 2 did not have the usual square supporting pier, it served as the post of a wooden newel stair. This need not necessarily have left any trace in the stonework itself if it was attached to the floor, and it must be remembered that only a small portion of the lower part of the column was exposed for investigation. Additional convenient access might have been gained by the construction of a stairway near the east door, but there was no evidence for that. If that doorway was approximately 2.4m high, as estimated, it would not have risen above the level of the timber floor.

No evidence for any undercroft window was found. This need not be seen as contradicting the interpretation because no extensive area of outer wall was available for examination. If there were indeed windows in the undercroft, these would have been below ground level. If there were none, the room could have been lit entirely artificially, which would be acceptable for a store room. The stone lamp (Chapter 9, no 223) might have been one of those which served this function.

Nor was there a trace of a fireplace, but any which might have existed could easily have been located between excavated trenches. A hearth was found in the undercroft of a similar building excavated in Tower Lane, Bristol, which is discussed later in this chapter. It is possible that there was a fireplace or hearth at St Bartholomew's as some floor deposits certainly contained quantities of charcoal. However, the use of a wooden first floor, if that was indeed the case, suggests that the undercroft might not have been heated and supports the interpretation that it served as a store.

The doorway in the east wall of the undercroft might have led to a quay. The presence of the steps shows that it was necessary to retain the level of the external ground to at least about 7m OD (and possibly above that, as it was about 0.4m higher at the top of the slipway and nearly 2m higher outside the south porch) in order to keep water out of the undercroft; internal floors were some 0.5m below estimated mean high tide for the medieval period (see above).

The extant inner door to the southern porch is probably contemporary with the original building. The elliptical (or three-centred) arch, sometimes called the basket-handle type, might be illusory and spreading of the upper part of the jamb could have caused the arch to drop. Bond (1905, 262) states that there was probably no such thing as an original elliptical arch; those which are preserved are more likely to be round-headed examples which have sagged. Perhaps the insertion during the Period 4A reconstruction of a staircase immediately alongside it caused this to happen (see Chapter 6, p 95). The mouldings in its capitals are similar to examples elsewhere which date to the late 12th century. The other features, such as the orders, simple mouldings, and bases, are also likely to be of this period. Internally there is only a simple chamfer to the inner angle. The outer porch probably dates from the later modifications made when the hospital was founded, but it is just possible that it was earlier in origin. Such bases as are found under the vertical capital are also thought to date to the late 12th century (Bond, 1905, 449).

The height of the building is unknown because of demolition for a major rebuild in the 14th century. Given the estimates of the floor level and the heights of the original arches, the total reach from undercroft floor to arch apex would have been some 6.4–6.7m. How much further it extended above the arcade is uncertain. The roof construction is of some relevance to a discussion of function since that for a hall would be rather different from that used in a church, which would normally have a clerestory, whereas no evidence has been found for the use of the clerestory in aisled halls (Wood, 1965, 38n). Whatever the actual details of this particular structure, there would have been large trusses at each bay, crossing from one outer wall to the other and supported by substantial aisle arcades, as in the example at Oakham (Smith, 1955, 76–94). It might have been roofed in shingles, although slate (possibly Cornish) was noted in the bottom of its foundation trench.

The alignment of the building is of some interest. Unlike the other excavated ranges, with the exception of building 8, it appears to have been related to the cliff edge rather than to the river. This would have been the most economical use of the restricted space, but from the defensive point of view it would have been extremely vulnerable. Moreover, it seems to have resulted in rapid subsidence at the east end. This was probably exacerbated by the ground plan employed: the wide span of the roof might have encouraged racking of the timberwork so that stress

at the feet of the rafters could have pushed the walls outwards.

The whereabouts of kitchens and other appurtenances to serve the hall are unknown, but the possibility that building 8 was in existence at this date must be considered. Although the foundations were cut into the natural clay, suggesting an early date, this could not be proven by excavation because of the limited area available. For this reason it is queried on Fig 8.

The remains of building 1A are among the best-preserved Norman structures in Bristol. Only one complete Norman building survives in the city: the Chapter House of St Augustine's Abbey (now Bristol Cathedral) and one of the finest Norman buildings in the country. This survives intact although there has been some restoration (Paul, 1912). The churches of All Saints and St James contain the aisle arcades of 12th-century naves (Dawson, 1981, 17 & 19). No domestic fragments retaining architectural detail now survive anywhere else in Bristol. The building known as Colston's House, the east arcade of which stood in the Law Library in Small Street, was destroyed in the 1960s (Wood, 1965, 38; Wood, 1974, 25).

The presence of an undercroft invites comparison with other buildings of that type which are usually found in towns. King John's House and the Norman House in Cuckoo Lane, Southampton, are of similar shape. As Faulkner (1975, 89) notes of the latter, if the remains are of a single structure the house is by far the largest house of its period known in the country, at 32.3m long by 17.4m wide. It is worth noting that the usual size was much smaller: for example the Music House at Norwich measures internally 15.8m by 5.6m, and the Jew's House at Lincoln is 10m by 4.5m (Wood, 1965, 14 & 32; Wood, 1974, 63). At c 17m square externally (c 14.5m internally) building 1A is as wide as any surviving town house in the country. By chance, the size of what was probably the largest Norman domestic building in Bristol is known. The hall of Bristol Castle was measured by William Worcestre in c 1480, although parts of his description are unfortunately obscure. He recorded that it was 36 yards long by 18 yards wide (32.5m × 16.2m) with rafters 32 feet (9.6m) in length. There was also another building linked to the hall on its left-hand (probably west) side which functioned as the king's chambers and was recorded as a two-storeyed building 17 yards long by 9 yards wide (15.3m × 8.1m) (Nasmith, 1778, 269–71; Dallaway, 1834, 155–7; Neale, forthcoming; Ponsford, 1980).

It would appear, therefore, that building 1A was half the size of the king's great castle hall but about twice the size of the king's chambers. These measurements must have some significance, if only to suggest a uniformity of units of measurement. The largest town house in Southampton might have been the same size as the king's hall in Bristol. It is likely that, at that time, size had little to do with tenement widths, since those might not yet have been established, especially outside the town walls where there was no defined layout and where space was at less of a premium.

Three other Norman buildings have recently been excavated in Bristol and may be compared with building 1A. The first consisted of a large undercroft, of unknown length but about 10m wide internally, attached to the town wall in Dolphin Street (Ponsford, personal observation). The remains of an undercroft window with jamb and cill splays were also found. There are reasons for thinking that this might have been the so-called school for the conversion of the Jews, founded by Robert Fitzharding and Robert, Earl of Gloucester (Adler, 1931, 124–6; Neale, pers comm). The massive scale of the walls, almost 2m thick (the east wall was the refaced town wall, the west added later) are typical of 12th-century masonry in the town.

Another important first-floor hall was excavated in Tower Lane in 1979 (Boore, 1984). The walls were up to 1.6m thick and the main room measured 18m by 9m, although the east end was constructed obliquely to accommodate the existing lane and/or cliff face. The west end would have faced Broad Street. An entrance down at least two steps, built in oolitic limestone, was found at the east end. It has been suggested that the building might have been associated with Robert Fitzharding or one of his peers.

At Cyder House Passage, Broad Street, another 12th-century building was excavated in 1990 (Nenk, Margeson & Hurley, 1991, 132). It was aligned north–south rather than east–west. At the north end, the gable had been incorporated into the boundary between St John's and Christchurch parishes. This wall was also a long-standing tenement boundary, on the north side of which was the Tower Lane hall. The building measured approximately 14m by 7m externally and 12m by 5.5m internally, although its length had been doubled at an early date. It had at least one undercroft window in its gable end, resembling that in the Dolphin Street building.

It is seen that building 1A at St Bartholomew's is the largest known of those town houses with undercrofts occupied or built by the leading Norman landowners of Bristol. It was also probably one of the latest, perhaps because there was no space left inside the town walls, even at such a comparatively early date.

Norman halls are classified as being of three main types: the first-floor hall, the aisled hall on ground level, and the non-aisled ground floor (Wood, 1974, 68). Where the St Bartholomew's building 1A contrasts with most other halls, for example the superb example at Boothby Pagnall, is in combining the aisled ground plan with the first-floor hall. Other examples are noted at Burton Agnes Old Hall in Yorkshire, which has only two aisles, and Moyses Hall, Bury St Edmund's (Wood, 1965, 19; Wood, 1974, 49–56). However, in those houses the first floor is not divided into aisles,

whereas at St Bartholomew's the aisles extended from the undercroft above the timber floor into the first-floor hall.

That building 1A was an aisled hall raises the interesting matter of the social status of the original occupant. Such halls seem to have been the preserve of the more important lay or ecclesiastical nobility, including the king, whose palaces (Winchester, Clarendon, Bristol) were invariably wide and had to be aisled in order to support the roof (Colvin, 1963, I, 44, fig 3; Wood, 1965, 36, fig 12). No evidence was found either to confirm or to refute William Worcestre's statement that the St Bartholomew's site had formerly been a priory of canons. It is thought to be much more likely that this was a domestic rather than an ecclesiastical building, whatever its subsequent use in later centuries. This begs the question whether the building was a manorial hall or a merchant's house with undercroft storage. The latter seems the most probable, given the location of the building on the Frome, near a major highway and a ferry or bridging point opposite St John's Gate, which was the main northern entrance to the city in the 12th century. The front door of the hall gave easy access onto the south, and its elaborate style proclaimed the wealth of its occupants. The river frontage was probably reserved for the commercial activities of an important merchant.

As to the founder and occupant of the building, the documentary evidence points to either Jordan de la Warre I or his brother David I, perhaps as a joint venture: David's probable son John I might equally well have been responsible (see Chapter 2, p 22) and a possible involvement of Herbert de la Warre cannot be ruled out: but how the latter related to this branch of the family is not clear. Unfortunately, the evidence gained so far is too thin to enable a firm conclusion to be made. The status of the family was entirely fitting, but how they first acquired the ground on which to build is a matter of conjecture.

The land to the east had been owned by the earls of Gloucester and was eventually presented to Tewkesbury Abbey; to the west was Billeswick, which belonged mainly to the Fitzhardings (or Berkeleys, as they later called themselves). The future St Bartholomew's Hospital lay on ground crammed between those massive estates and might well have been part of one of them originally. The earldom of Gloucester charter cited at the beginning of this chapter might also be significant but, if so, how the legal title was resolved with St Augustine's Abbey in the 12th century has yet to be explained. If the de la Warres were indeed related to the Fitzhardings, as has been postulated, then they might have received the land from them, but in the absence of any corroborating documents this remains an entirely provisional explanation.

The extent of the original property is likewise uncertain, but it is reasonable to suppose that it was more or less the same as that which was donated to the hospital. Most probably, it went up to the boundary between the parishes of St Michael and St James, as it was noted in later documents that there was more hospital land to the north of the excavation site, adjoining Greyfriars (see Chapter 6, p 87 & Fig 35) and post-medieval records describe the so-called 'Bartholomew Land' as extending that far.

Of particular interest is the newly discovered evidence that the de la Warres were involved in maritime commerce. Direct access to a private quayside by the tidal river would have been apt for such an important family, and it would be pleasant to think that the supposed stylus (Chapter 9, no 297) had been used for keeping an account of goods, and that the shoe (no 325) had been lost in the mud by a child helping its family to make a living on the waterfront. The chronicler of the deeds of King Stephen (see Chapter 3, p 28) described Bristol as having a large harbour, and the scale, doubtless somewhat inflated by that writer, suggests that it might have extended to the Frome (Potter, 1955, 37–8). In 1221 it was noted that, following ancient custom, many persons had made quays upon the river (whether the Avon or the Frome was not stated) and this was seen as advantageous to the town (Watson, 1902, 147). Perhaps the de la Warres had been a party to establishing that custom. Although it is not likely that ocean-going ships could have navigated the River Frome, unless possibly at the highest tides, lighters could easily have done so and it is known that rowing-boats were relied on heavily during the 12th century for ferrying goods (see Chapter 3, p 32). Perhaps the pavement and wooden slipway continued to be used after completion of the hall for the delivery of such cargoes, and it would have been an appropriate means of landing goods by small river craft, but it need not have been the sole facility. Such an arrangement would have provided a convenient link between the hall and any dock sited either further down the Frome or on the Avon below Bristol Bridge. It is even possible that the construction of the hall resulted directly from profits made by the de la Warres from the use of their ships during the Irish expedition.

Virtually no evidence was recovered which gives any indication of what happened to the site in the years between the completion of the de la Warres' hall and its conversion to St Bartholomew's Hospital in c 1232–4. It is assumed that the hall continued to be used by the de la Warres without any major changes in its structure; at least, none which were detectable at foundation level, but it is admitted that only a tiny portion of those foundations could be excavated. Likewise, no firm date can be given for when the slipway went out of use but, even if it survived that long, it must have been covered over when the Frome was diverted in the 1240s.

5 Period 3

Foundation and early occupation of the hospital (c 1234–c 1340)

Period 3 is subdivided into:
Period 3A (c 1234–c 1280)
Period 3B (c 1280–c 1320)
Period 3C (c 1320–c 1340)

Documentary evidence

Documentary evidence for the hospital is relatively slight, probably because much of it was deliberately destroyed in the 16th century (see Chapter 7, p 126). No cartulary is known to have survived and most of the references which have been assembled provide only tantalizing glimpses. There are a few notable exceptions however, the most important of which are those presented by the Earl of Ducie to Gloucestershire Record Office and published by Holmes (1955). Whether or not other papers lie undiscovered remains to be seen: one of the published Ducie papers refers to what must be the original foundation charter of Sir John de la Warre.

Foundation

Precisely when the hospital was founded is open to question. Clay (1909, 291) states that it was before 1207, but provides no source for this assertion. It is possible that she was misled by the boy poet Thomas Chatterton, who in his whimsical writings had provided an imaginary foundation date of 1205 (Barrett, 1789, 428). This is extremely unlikely however, as she spent most of her life in Bristol (her father was the rector of St Michael's Church, in which parish St Bartholomew's lay) so she would have been well aware of Chatterton's unreliability and known the site of the hospital well (Orme & Webster, 1995, 8). But why else she should have chosen 1207 remains a mystery. It does seem rather a precise date, but no supporting evidence has been discovered.

More directly useful is a document dated 9 January 1324/5, in which John de Hulle, then Master of St Bartholomew's (see Table 8) says that the hospital had been founded by Sir John de la Warre, father of Sir Roger de la Warre, although precisely when is not stated (Holmes, 1955, 184–6). Details of the de la Warre family are given in Chapter 2. Sir John de la Warre II was a minor when his father died in August/September 1231 and would have been in no position to undertake the establishment of such an institution, so the date of foundation must have been later. However, in September/October 1234 a dispute over property involved Brother Gilbert, described as Master of St Bartholomew's Hospital, Bristol (Cur Reg, 1233–7, 277–8 & 283). A foundation date of between 1232 and early 1234 is implied by this evidence. A charter in the St Mark's Cartulary lends further support by showing that St Bartholomew's was in existence by c 1245, and others in the same compilation refer to it in the 1250s (Ross, 1959, 86, 203–4 & 283).

Table 8: Administrators and staff of St Bartholomew's Hospital, Bristol

NB: The dates given are those taken or inferred from individual documents and do not necessarily indicate the time of either the assumption or the relinquishment of the office, unless stated.

1234	Brother Gilbert	Origins unknown. Probably first master of St Bartholomew's. 1234 cited in dispute involving property. (Cur Reg, 1233–7, 277–8 & 283; Ross, 1959, 86).
c 1234–c 1256	Brother Geoffrey	Origins unknown. c 1230–45 called both Master & Prior of Hospital in St Mark's Cartulary, but early date unreliable. 1255–6 witness to document, but date not necessarily secure (Ross, 1959, 86, 203–4 & 283).
1268	William	Origins unknown. Called Master of Hospital in that year (Veale, 1933, 191).
1275	?	Commission made to confirm election of master; name not stated (Willis Bund, 1902, 76–8).

Table 8: (cont.)

1287	?	Current master (name not stated) murdered by Reginald de Horsefeld, chaplain, & William le Clerke, both dwelling in St James's Priory; circumstances not stated (Fuller, 1899, 178).
1291/2	William of Axebridge (Somerset)	Noted in document whereby Roger de la Warre reasserted rights of de la Warre family concerning St Bartholomew's and paid outstanding debt of his father, the founder (Holmes, 1955, 181).
1313	Adam de Cumpton	1303, probably the man of that name ordained acolyte at ceremony held at Greyfriars church, Bristol (Willis Bund, 1929, 32). 1313 ordained a religious (ie someone bound to monastic vows) to title of St Bartholomew's (Wilson, 1927, 139). Probably one of the brethren, but seems to have taken upon himself without authority the role of Master (see Master Walter, 1319/20).
1318/9	John de Reddynge	A Bristolian; 24 March 1318, already a deacon, ordained presbyter to title of St Bartholomew's (Pearce, 1930, 57 & 266). Probably one of the brethren.
1319/20	Master Walter	29 August 1319, letter from Bishop of Worcester referred to interference by laymen in affairs of St Bartholomew's & that Master Walter, rector of St Peter, had been appointed temporarily as warden; Brother Adam de G. (probably Adam de Cumpton, qv) had behaved as if he were master. 27 February 1319/20, then vicar of St Nicholas (sic) Walter appointed as temporary Warden by bishop (Pearce, 1930, 36–7 & 48).
1322–9	Brother John de Hulle	There were at least two people bearing that name at the time, but individual circumstances suggest the following. March 1309/10 probably acting as rector of Whittington parish church (Gloucs), had been granted 2 years leave of absence for study; noted that he was not to be ordained within one year (Wilson, 1927, 87, 90 & 94). 10 December 1311, as rector of Wytynton to receive benefice of Westbury (near Bristol). 6 March 1311/12 ordained deacon (Wilson, 1927, 131 & 153). 1319/20, noted as prebendary of Aust at Westbury College. 22 September 1322, recorded as Master of St Bartholomew's Hospital; still there 9 January 1324/5. 1 January 1325/6, letter from fraternity to Lord John de la Warre that Brother John del Hulle had been chosen as master & asked de la Warre to accept him. 1329, resigned mastership (Graham, 1907,118; Pearce, 1930, 27 & 238; Holmes, 1955, 180–7; Haines, 1979, 144). 1338/9, possibly the person of that name listed as one of the brethren of Abbey of St Peter, Gloucester, but this less certain (Willis Bund, 1897, 281).
1324–6	Walter of Stowe St Edward's (ie Stow-on-the-Wold, Gloucestershire)	1313, possibly the Walter de Stowell (sic) ordained sub-deacon to title of St Mark's Hospital, Bristol (Wilson, 1927, 142). 22 September 1324, ordained deacon to title of St Bartholomew's. Presumably one of the brethren. 23 March 1324/5, ordained presbyter to same title (Pearce, 1930, 172 & 180).
1328	William Brid	24 September, ordained priest to title of hospital (Haines, 1979, 12). Presumably one of the brethren.
1329	Robert de Merston	1309, probably the Robert de Merston Moysy (see John de Mershton) ordained as acolyte; 22 December 1319, ordained as sub-deacon to title of St John, Lechlade (Wilson, 1927, 105; Pearce, 1930, 65). 1 September 1329, presented as Master of St Bartholomew's to Bishop of Worcester by Lord de la Warre; 29 November following, appointment confirmed by bishop (Graham, 1907, 118; Haines, 1979, 144). April 1343, mandate issued by Pope Clement VI to Archbishop of Canterbury to inform him whether Robert de Merston, priest, was unjustly despoiled of rectory of Hospital of St Wulstan, Worcester, and if so to restore it to him, removing Peter Francisci (C Pap Letters, 1342–62, 70).

Table 8: (cont.)

1329–30	Robert de Wyk	17 June 1329, ordained sub-deacon to title of St Bartholomew's; 23 December following, ordained deacon to same title; 1 December 1330, ordained priest to same title (Haines, 1979, 14, 26 & 37). Presumably one of the brethren.
1331	Brother John de Mershton Meisi (ie Marston Meysey, Wiltshire)	Probably connected in some way to Robert de Merston, qv. January 1310, possibly the person of that name from St David's diocese who was granted dispensation by Pope Clement V to be ordained and hold a benefice (C Pap Letters, 1305–42, 65). July 1312, possibly the person summoned by Vice Chancellor of Oxford to answer for a default, but defended by various bishops (Wilson, 1927, 46). 14 October 1331, commended by Bishop of Worcester as Master of St Bartholomew's. In c 1332 living in Redcliffe Church (Bristol), threatened with excommunication for having surrendered his religious habit to take on other work (Scott Holmes, 1896, 131; Graham, 1907, 118; Haines, 1979, 68 & 180). 1349, possibly the same person of that name, described as cleric and master of arts, instituted to church of St Swithin, Worcester (Willis Bund, 1897, 227).
1334	William Williams of Marston Meysey	19 March 1338, probably the William Willy (sic) of Marston ordained acolyte (Haines, 1979, 1). 24 September 1334, ordained as priest to title of master, consecrator (?) & of sisters (sic) at St Bartholomew's (Haines, 1996, 90)
1334	William William (or Wilhem) of Welneford (ie Welford, probably in Warwickshire)	5 June 1322, ordained sub-deacon to title of pension of 4 marks; 18 December that year, ordained deacon to title of St Bartholomew Gloucester (Pearce, 1930, 125 & 144). 15 May 1334, a deacon, letters dimissory issued for him for the priesthood. 24 September that year, ordained priest to title of St Bartholomew Bristol (Haines, 1996, 11 & 90).
1337	John de Wydecombe (ie Witcombe, Gloucester, which was owned by the Archbishop of York)	5 April, from York diocese, ordained sub-deacon to title of prior (sic) & convent of St Bartholomew Bristol (Haines, 1996, 158). Probably one of the brethren. 13 August 1347, probably the John Widecombe, priest, who seems to have been at Tewkesbury Abbey. 31 January 1349, a priest, he was appointed rector of the church of SS Philip & Jacob, Bristol; 16 July following, he was replaced: no reason stated, but he had probably died (Haines, 1966, 162, 398 & 419).
1340	Eleanor	Pre 28 June, Prioress of St Bartholomew's after brethren had left (Graham, 1907, 118; Haines, 1966, 68).
1343/4	Adam ate Halle	5 March, commission by Bishop of Worcester to Prior (sic) of St Bartholomew's & others, instructing them to admit Master Adam ate Halle, deacon, to vicarage of Painswick (Gloucs) if an enquiry finds on his behalf; his patron was the Prior of Llanthony (Haines, 1966, 105 & 378). It is not certain, but probable, that he was one of the brethren of St Bartholomew's.
1363	Elizabeth Batte	Made Prioress of St Bartholomew's (Graham, 1907, 118).
1368	Joanna Joye	Prioress of St Bartholomew's (Graham, 1907, 118).
1369	Matilda Coveley	Prioress of St Bartholomew's (Graham, 1907, 118).
1385–98	Joan Maryon	1385, one of the sisters of St Bartholomew's, she was left a legacy. In the same year is a reference in another will made to the prioress & sisters. Joan Maryon still there in 1398, when another legacy made to her (Wadley, 1886, 15 & 57).
c 1386?	William	1386/7, former rector of St Michael's (Bristol) held mastership of St Bartholomew's by episcopal authority & succeeded by John Marchford (Marett, 1972, 54).

Table 8: (cont.)

c 1386	John Marchford	Noted in January 1386/7 as having been Master of St Bartholomew's, but had died previous Michaelmas (Marett, 1972, 54).
1387–9	William Badesford (or Batsford)	16 April 1384, exchange of positions between William Batesford, vicar of Purley (Salisbury diocese) and Adam Wrokwardyn, vicar of Tytherington (near seat of de la Warres at Wickwar, Gloucestershire). 28 December 1386, presented by Lord de la Warre to Bishop of Worcester because St Bartholomew's lacked ruler; following January mastership stated vacant by death of John Marchford; probably for confirmation of Badesford, whose position ratified following 10 December. Pre 12 June 1389, resigned mastership (Graham, 1907, 118; Marett, 1972, 41, 54–5 & 71).
1389	Agnes Stanley	One of the sisters of St Bartholomew's; 17 May sheriffs of London & Middlesex ordered to set her free, although she had been arrested by king's writ because of grievance between her & Badesford; seems that grievance inflicted by Badesford, but nature not stated (CCR, 1385–9, 679). Perhaps this incident led to Badesford's resignation.
1389–1403	John Dauntre	12 June 1389, appointed Master of St Bartholomew's; 26 February 1403/4 exchanged positions with John Prentys, rector of Winterbourne Bradston (Gloucs). 7 May 1404, exchanged positions with Walter Fitzpers, rector of Acle, Norwich (Graham, 1907, 118; Marett, 1972, 71; Smith, 1976, 124–5).
1393–1404	John Thomas	In several wills referred to as chaplain at the hospital (Wadley, 1886, 43, 57 & 70). He was probably one of the brethren.
1404–12	John Prentys	18 February 1403/4, as clerk and rector of Castleford, Yorkshire, exchanged positions with Master John Botyler, rector of Winterbourne Bradston; 26 February next, exchanged with John Dauntre to become Master of St Bartholomew's. 1412 resigned mastership (Graham, 1907, 119; Smith, 1976, 124).
1412–38/9	John Arundel	Took over from John Prentys. In March 1438/9 described as rector of Huntspill (Somerset), of noble birth; dispensation granted by Pope Eugenius IV to hold also wardenship of Chapel Royal of Windsor and canonries with prebends of Staynton (in Wilton Abbey) Eldon Minor (in Auckland) & Alford (Wells); then still Master of St Bartholomew's (Graham, 1907, 119; C Pap Letters, 1431–47, 68).
1457–63	John White	Master of St Bartholomew's in 1457; resigned 1463 (Graham, 1907, 119).
1463	William Attingham	Took over from John White (Graham, 1907, 119).
1480	Thomas Mark	Resigned mastership (Graham, 1907, 119).
1480	John Langrissh	Took over from Thomas Mark (Graham, 1907, 119).
1488–90	James Butler	Master of St Bartholomew's in 1488. 1490, disagreement between Henry Wynfeld, Thomas Botiller & James Botiller concerning right & title of hospital. Awarded that Wynfeld deliver to Bishop of Worcester, for cancellation, title whereby he pretended mastership & revoke in favour of James, who would pay Wynfeld (Graham, 1907, 119; BRO 01206(1)).
1511	Humphrey Saville	Noted as master (Graham, 1907, 119).
c 1524–32	George Croft	Last master of hospital before Grammar School founded; in 1532 referred to in Letter Patent of Henry VIII as chaplain (Graham, 1907, 119).

Plate 11 *St Bartholomew's inventory of 1303 (Reproduced by kind permission of Lord Ducie & Gloucestershire County Record Office: Accession No D340a / T143)*

Endowment and other income

In addition to the St Bartholomew's site, which included a garden, Sir John endowed the hospital with ground in Bristol held by Matilda, widow of a goldsmith, and its annual rent of 8s 4d; a croft at Clifton against the Jews' cemetery (ie near the present Brandon Hill, about 0.7 km west of the site); half a farndel of land at Horfield (now a northern suburb of Bristol); a messuage with a croft and a wood at Voxholes (location uncertain); a virgate of land at Brislington (now a south-eastern suburb of Bristol) and half a farndel of land at Rowberrow, in Somerset (Holmes, 1955, 184–5). A farndel, or fardel, of land was equal to a quarter-virgate, ie about seven acres or three hectares (Latham, 1965, 188). Another document referred to 100 marks of silver, in return for which two chaplains were to chant for ever for the souls of the de la Warres, but this was not immediately forthcoming and payment was delayed until 1291/2 (Holmes, 1955, 181).

The original endowment, which was rather small, was later supplemented by gifts of land from other merchants, and several early documents refer to property deals carried out by the masters of the hospital. At some time before 1243, Master Geoffrey was able to dispose of six acres of land in Earthcott, Gloucestershire, which eventually came to St Mark's Hospital (Ross, 1959, 203). St Bartholomew's had also obtained from a Robert de Kerdyff property in nearby Frogmore Street (Fig 2; called Frog Lane in Pl 2) which they exchanged in 1252/3 for land on the south side of Blackfriars (Ross, 1959, 59). From 1268 onwards they were supposed to receive, via St Mark's Hospital, 6d every quarter year (Ross, 1959, 98). In 1291/2 there was reference to the lands which they held of Roger de la Warre in Wickwar, the seat of the family in Gloucestershire (Holmes, 1955, 181).

In 1303 the hospital was recorded as receiving rent from properties in Wickwar, Stanley Winterbourne (Wiltshire), Brislington, and from various places in Bristol itself including Baldwin Street, Market, Corn Street, and Grace Lane. The land in Horfield was referred to, but no mention was made of Rowberrow or any of the other properties. A chalice was pledged for half a mark and was in the keeping of the almoner of St Augustine's. The hospital register showed that it received a total rent for the year of £12 9s 10½d, of which 13 shillings were pledged and 29s 8½d withheld, so that they received an annual income of £10 7s 2d, together with 10 shillings in silver and half a pound of pepper (Holmes, 1955, 184). In 1307 the commissaries of the Bishop of Worcester noted that the hospital did not pay their proxies on account of their poverty (Willis Bund, 1897, 120).

The tallage of Bristol taken in 1312 shows that, by then, they had acquired the rights to the rent of 6s 8d per year from a shop on Bristol Bridge, and 5 shillings from 2 shops in the Market (Fuller, 1894, 225 & 269). The locations of other properties in Bristol which generated revenue for the hospital are not specified in the tallage.

Administration

The administration of the hospital was the charge of the master, occasionally in the early days referred to as the prior, who was assisted by a staff of brethren and sisters (see Table 8). The master was elected by the staff and presented to Lord de la Warre for approval, but the final appointment had to be made by the Bishop of Worcester. As part of the original agreement, two chaplains had to be maintained at the house to pray for ever for the souls of the de la Warres, but in 1325 their number was increased to three (Holmes, 1955, 185–6; Marett, 1972, 54–5; Willis Bund, 1902, 76).

Like many other hospitals, St Bartholomew's was a semi-monastic institution. In the late 14th century it was stated that the persons lived there under a Rule, but what this was is not specified; nor is it known whether it was adopted from the beginning or introduced later on (Marett, 1972, 54–5).

By the early 14th century, problems with administration were beginning to surface and there were charges of interference by laymen (see Adam de Cumpton & Master Walter, Table 8). The death of Sir Roger de la Warre (see Chapter 2, p 23) seems to have complicated matters further and was probably the reason for an inspection of the hospital by the bishop's clerks while they were in the area in 1320. As a stop gap, a temporary warden was appointed by the bishop, who felt it necessary to instruct the brethren and sisters to obey him (Pearce, 1930, 27 & 48). Eventually a full-time successor, John de Hulle, was elected, who seems to have made some impact, but his immediate successors were less enduring. Not long after the threat of excommunication of John de Mershton in c 1332, there was an uncertain interlude before the running of the hospital was taken over by women. This seems to have happened before May 1336, when the bishop's officials visited the sisters (men were not mentioned, although one was installed as a member of staff the following year) and made corrections there (Graham, 1907, 118; Haines, 1996, 281 & 340). The first-known prioress (named Eleanor, but unfortunately her surname is omitted) was in charge by 1340. The subsequent history of the hospital management is dealt with in Chapter 6.

Buildings and contents

By far the most important document in this respect is the inventory taken in 1303 (Holmes, 1955, 181–4; see also Pl 11). For the hospital it lists:

In the hall: 3 tables with trestles, 3 basins with 3 copper ewers, 1 damaged basin.

In the pantry: 7 table-cloths, 4 towels, 1 damaged silver-footed cup, 2 cups bound and footed with silver (pledged for 8s to Robert of Tewkesbury and John le Cluere), 1 old chest for storing and keeping the aforesaid.

In the guest house: 1 damaged bench cover, 2 feather beds with 1 woollen mattress, 2 quilts, 1 woollen coverlet, 5 hangings, 12 sheets, 4 pillows, 4 linen bolsters, 3 bolster-covers embroidered with silk, 1 box for storing the said cloths.

In the kitchen: 1 big leaden oven, 1 small leaden oven for meat, 3 copper cauldrons (each of which contains 14 gallons but one has been in pawn at the house of Wm. Adrian for half a mark for 10 years), 3 copper cauldrons which hold in all 10 gallons, 2 copper cauldrons which hold in all 3 gallons, 3 brazen pans with feet which hold 5 gallons, 1 knife, 1 andiron, 1 trivet, 1 stone mortar with a pestle, 1 gridiron, 2 iron graters, 1 axe, 1 bucket to carry water.

In the cellar: 2 great barrels, 1 cask for ale, 2 old broken barrels, 2 great vats, 4 tubs, 1 box for storing flour.

In the larder: 1 tub for salt, 1 tub for storing meat, 5 quarters of beef, 6 small salted hogs.

In the bakehouse: 2 vats for boulting, 2 troughs for making dough, 1 handmill for grinding malt.

In the granary: 1 iron-bound bushel, 1 wooden winnowing-fan for fanning, 1 quarter of barley, 1½ quarters of beans.

All gates throughout the whole house secured with locks and keys.

An inventory of the estates at Horfield and Wickwar is also detailed, but as this is not directly relevant to the site and is published elsewhere, it is not repeated here (Holmes, 1955, 182–3).

No other buildings, such as the chapel, dormitories or master's accommodation, are mentioned. However, a deed of 1340 refers to land on Lewins Mead adjacent to the burial ground and the old dormitory used by the women when the men were still present (Graham, 1907, 118; Haines, 1966, 68). This implies that there must also have been a separate dormitory for the men. A later will of 1454 refers to land of the hospital adjacent to the Franciscan Friary (see Chapter 6, p 88) and it is likely to have been that portion of the hospital land on which the women's dormitory and burial ground were sited (see Fig 35). This might also have been the site of the garden referred to in the original endowment. A deed in the St Mark's Cartulary dated 1335 refers to a tenement in Lewins Mead adjacent to one belonging to St Bartholomew's and extending back from the street to St Bartholomew's land (Ross, 1959, 88). Although it is not certain exactly where this lay, it is also likely to have been sited near, or adjacent to, the burial ground and was perhaps an earlier title to the same land mentioned in 1454.

Finally, a drawing made in 1820 (see Pl 23) shows a range, standing along the western margin of the excavated site, which contains windows in 14th-century style. If they were original and *in situ* (but this is unproven) it shows that a substantial building of that date, and possibly earlier, had stood there.

Excavated and standing structures

Summary plans of the excavated structures from each period are given in Figs 20, 23 & 33.

Period 3A (c 1234–c 1280)

Areas D/F/G/H (Modifications to building 1A: Context Groups G2–4; Figs 11, 12 & 21; Pls 1, 5 & 12)

This period was not represented in Area D, but some changes were made in Area G.

In the first redevelopment of the Norman hall, this period was characterized by the deposition of make-up to raise the floor level overall by about 0.3 m. In summary, this consisted of assorted mixes of gravel (mostly Mercian Mudstone) organic detritus, and clays of various colours (Context Groups G2–4, G9). In the angle of W83 and W66 a spread of burnt wood was observed. In the north aisle, on this varied make-up were set Pennant flags (F28; Context Group G3) among which was a substantial sherd of roof tile. These flags had been robbed in all but a small part of the angle between W66 and W83, and in test trench 4. It is likely that many of the flags from the original floor had been reused when the level was raised. Elsewhere, the floor was patched with bright-red sand or crushed oolite and slate, but most of what was excavated had been robbed without patching.

It was probably during Period 3A that the south porch was built as an extension to the existing doorway, but precise connections are difficult to make in the absence of any excavation evidence (Fig 21; Pls 1, 5 & 12). Architectural evidence cannot demonstrate that it was earlier than *c* 1220 (Gomme, Jenner & Little, 1979). It might have been an improvement made by the de la Warres before the hospital was founded, but such expenditure at a time of financial crisis for the family seems less likely (see Chapter 2, p 23). The outer door is of similar dimensions to the earlier inner one. The stone used throughout the porch is an oolitic limestone. The outer arch is two centred and consists of deeply cut roll-mouldings, some with fillets, and a flat soffit; the rolled label forms one of the two orders externally and the hood mould is also roll moulded. The shafts have been missing for some time, possibly since the 18th century, and have been replaced with freestone jambs with wide

NEW BUILDING
RETAINED BUILDING

? Bg. 8

Bg. 7

LEWINS MEAD

Bg. 1A

porch

0   10m

Host Street
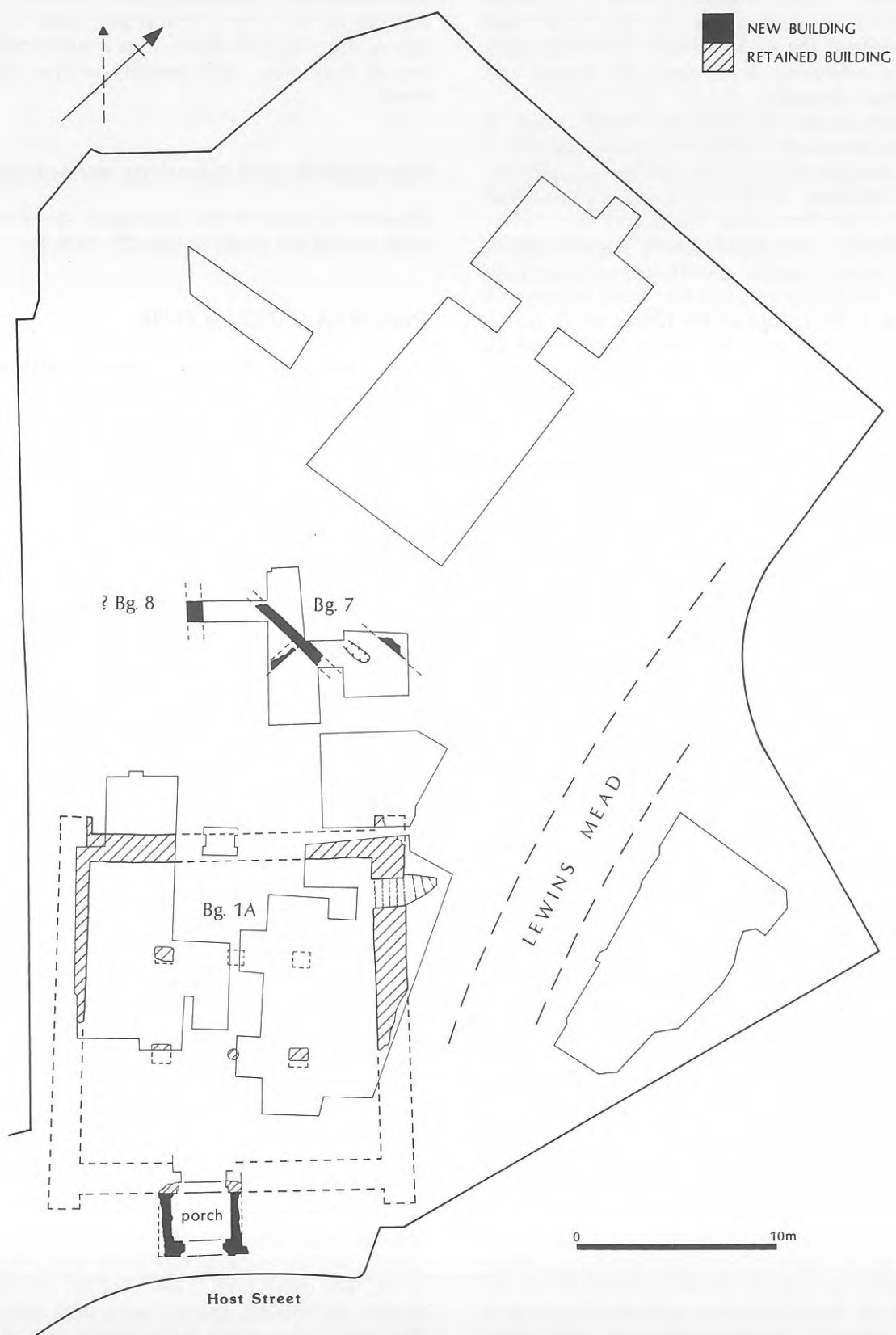
Figure 20   Summary plan of structures of Period 3A

Plate 12   Building 1A: Eastern capital inside 13th-century porch outer doorway

chamfers below the roll-moulded capital. Internally, the shaft has been truncated at the base and merges with the lower portion of the jamb. The label stops and capitals carry some well carved, flowing foliate decoration in 13th-century style which is badly damaged at the soffits and better preserved on the east than on the west. The tops of the internal chamfers have small inverted-leaf decorations. The freestone blocks are set very poorly and do not key properly. It is possible that the arch has dropped since its construction, perhaps when the room above it was built but, even if this was the case, it is uncertain by how far it had been lowered.

Between the outer and inner doorways, on the west side of the porch, is a blind arcade of two trefoil-headed arches. They are set on a round column and have two responds with roll-moulded capitals and bases supported by a stone bench. This commences out of the rear face of the outer arch into which it is set in a cavetto, and with which it is probably contemporary. The label consists of a roll running into a hawk's bill with foliate stops which are chamfered below. The southern stop resembles that on the outer doorway.

Other modifications to the building seem to have been made during a later phase. However, if (and a very big 'if') the capital found during the 1980s redevelopment actually did come from one of the piers of building 1A (Chapter 9, no 335; see also Chapter 4, p 47) then its replacement must have been a major piece of work, as the arcade would have had to be at least shored up, even if not partly demolished, when the block was taken out. Its recarving is apparently in mid/late-13th century style, which would fit in with Period 3A. But it would be unwise to make too much of this, as the circumstances of its recovery in the 1980s are unknown; it is far from certain that it did indeed originally come from Bg 1A, and if it was remounted there it must be explained why it was only partially recarved. It is unlikely that the problem will ever be resolved.

Area E (Infill of River Frome: Context Group E1–2; Fig 5)

Above the natural blue clay was a sequence of fills consisting of clay soils, gravel, and wood fragments (Context Group E1: Fig 5, contexts ECV–ECN). The topmost layer which seems to have been part of this series was ECM (Context Group E2): a mixture of brown soil, charcoal, small stones, and a patch of yellow clay.

The profile of the deposits shows that they could have been either deposited naturally by the river or dumped from the bank as backfill. Their nature, which was not the usual alluvial type, supports the latter explanation.

Area A (Infill of waterfront structures; construction of building 7: Context Group A6; Figs 7, 10 & 22)

The site of the slipway and courtyard complex was soon occupied by the first of a series of buildings.

Building 7 consisted of the fragmentary walls W35 and W36. W35 was built over SF6, but was straight rather than curved. It was composed of large Pennant slabs, up to two courses high, bonded in red and black clays. W36 was of the same construction and formed an angle with W35 on its south-west side, dividing the building into two rooms. The west edge of W36 and the immediate junction with W35 had not survived. There was no sign of any construction trench for the walls, nor were there any clearly defined floors within the building. In the western room was a grey/black peaty deposit (context QB) which extended to the western baulk of the trench (Fig 10). In the eastern room, the equivalent deposit was a mixture of red and orange clays with a high organic content. It is probable that the walls, being non-mortared and rather simply constructed, served as the foundations for part of a timber-framed building of at least two rooms.

Outside building 7 the deposits were similar, consisting of spreads of grey or red-brown clays, again with a high organic content and with traces of a stone pavement (Fig 7, contexts QA & RB, & Fig 22). In the extreme north-east corner of the trench was found the face of a short stretch of W37. That wall was built using Brandon Hill stone, surviving one course high, with the surrounding and earlier clay deposit on which it rested (context QD) serving as its bonding material. It was parallel to W35 and might have formed the wall of a drain. This wall also lacked a construction trench.

Between W35 and W37, Gy11 was cut into the make-up deposits. The gully was filled with a gravelly, dark-brown soil. Within context RB at the south were found the waterlogged remains of decayed planks and some tree roots which had probably grown down from later deposits (see Chapter 9).

Area K

No features from this period were observed.

Period 3B (c 1280–c 1320)

Areas D/F/G/H (Further modifications to building 1A: Context Groups G5–9 & D9–13; Figs 12–14, 18, 24–7 & 40; Pls 4, 8 & 13)

Some years after its construction, building 1A began to lean in the direction of the river (see Chapter 4, p 40). In an attempt to counteract this process, bracing walls were inserted between the pier bases and the end walls. Those new walls were all similar, being formed of Brandon Hill Grit with occasional lumps of oolitic limestone, bonded in a red sandy mortar. In addition to strengthening the building, the floor levels were raised further, probably not only to improve the stability of the building but also to combat flooding. This is corroborated by the roughness of the lowest courses of the bracing walls. It is thought that all these deposits were laid as part of one overall building programme.

Supporting the north arcade, W65 abutted the west face of W62/61 but had been robbed further west. The bottom of the wall was not located because of its depth, but presumably was founded on the floor laid in Period 3A; it survived to about the same height as the tops of the piers and was 0.6m thick. In test trench 8, between piers 4 and 5 were found the top courses of W59. It was of the same construction as W65. Between the west wall (W43) and pier 4 was W58, examined in test trench 2. That wall was generally the same as those further east. On its north face it was built over the same hardcore as the pier and was founded at the same level as the basal chamfer. There, the bottom courses were irregular and built with several large blocks of roughly dressed Brandon Hill Grit, but above them was a properly dressed face some 0.3m higher than the earlier floor level. It is thought that the bottom courses were not meant to be seen and were covered by fill. It was noted that the south face of W58, in the central aisle, was built partly on layers of different-coloured clays (Context Group D10: Fig 26, context DMZ) on which had been laid a bed of red gritty mortar. On that side, construction of the wall proper commenced some 0.4m above the north face and it also had a dressed face from approximately 0.4m higher than its equivalent on the north side.

In the south arcade, between the east wall and pier 3, W48 abutted W61 and formed one structure with part of the pier (Figs 24 & 25). The pier and that part of the arcade had evidently become unstable or had collapsed, and the pier had been rebuilt on its south side with W48 abutting. About 0.4m of its width had been removed from the south face of the pier and was rebuilt using the same materials as the bracing wall: Brandon Hill Grit, Pennant, and rough freestone lumps bonded in red sandy mortar. W48 overlay the basal chamfer of pier 3. It had uneven footings 0.4m thick on its south side, but there were none on the north. The bottom of the wall on the north side was at the same level as the bottom of the pier base and was founded on the same hardcore. The lowest courses on the north side of W48 were rough and probably not meant to be seen, but the face was properly dressed from about the same level as the wall infilling the north arcade.

W53 was the continuation of the line of W48 between piers 2 and 3 (Fig 18; Pl 8). Like W48, it was built at the level of the chamfer on pier base 3. The bottom courses were also rough and properly dressed only from above the same level as the
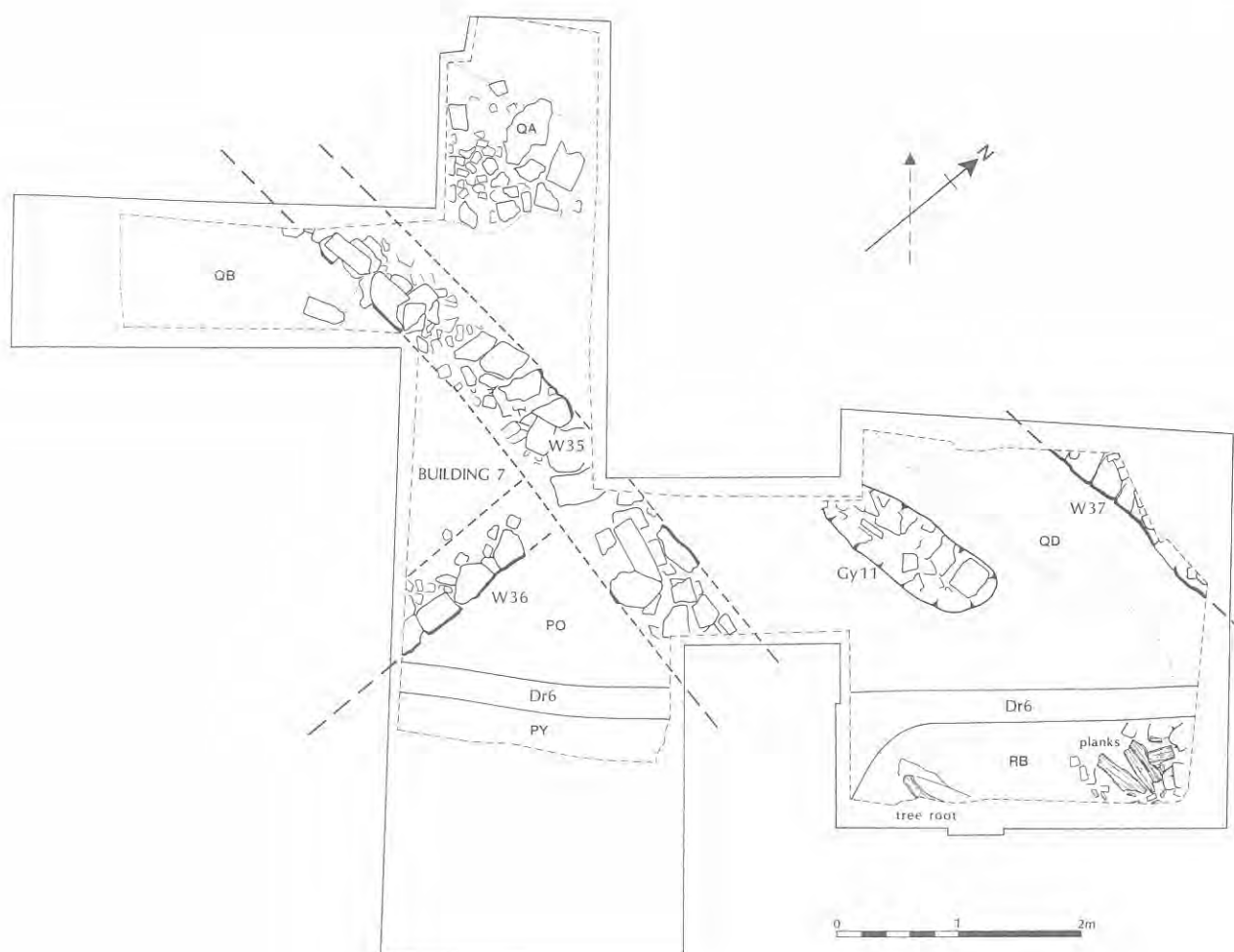
Figure 22   Area A: plan of features of Period 3A (building 7)

earlier floor. The wall was of the same construction as W48 but it was not possible to investigate in detail its relationship with the south side of W48 and column 3. The wall had been robbed where it approached column 2. It was thicker than W48, possibly because of the greater instability of column 2, which did not rest on such a substantial pier base.

The further raising of the floor level, already noted, was implied by the construction of the bracing walls. In test trench 2 the sequence Context Group D9 was recovered against the wall and pier. Clays which contained varying degrees of organic detritus (Fig 40, contexts DLO–DLL) were laid over the original Pennant floor and the chamfered base of pier 4. Test trench 1 in the same area could not be excavated to a sufficient depth to follow this sequence. In test trenches 4 and 5 were the sequences Context Groups G7 and G5 respectively: similar variations on contaminated alluvial clay and sand with inclusions of stones and wood (Fig 12, contexts GTL–GTG). A fragment of a possible Pennant-flagged floor (F28) was found in test trench 4, but insufficient could be recovered to be certain. The ground level was also raised over the steps in the east doorway. The excavated sequence was Context

Group G6. Some black organic clay (context GRN) was covered by a deposit of brown gritty soil with a lot of crushed Pennant (context GRM) which extended west into the north aisle. A last layer of darker brown, gritty clay soil was laid to the level of the top step. Outside the building were some layers of dark clay and stones which had probably accumulated during the use of the first set of steps (Fig 14, contexts GVA & GVB).

Unfortunately, much of the central aisle had been disturbed in the 18th or 19th century, but some original deposits survived. Test trench 7 revealed the sequence Context Group G8, a similar make-up of various clays, gravel, and sand. Above this series the east wall (W48) had a properly dressed face. Applied to the face of W61 were the fragmentary remnants of a coating of grey clay, 0.04–0.05 m thick, which commenced upwards from within Context Group G8 at about the level of the floor of Period 3A. This is not shown on the elevation of the wall as it was too ephemeral to be recorded in detail. It was found throughout the test trench, but not on W48. It is probable that this was damp-proofing against river water, applied before the gravelly grey-clay make-up was deposited. From the top of this clay, although there was a slight gap,

NEW BUILDING
RETAINED BUILDING

Bg. 3

←window

well

courtyard

Bg. 2A

Bg. 8

path

Bg. 1A

LEWINS MEAD

0   10m

Host Street
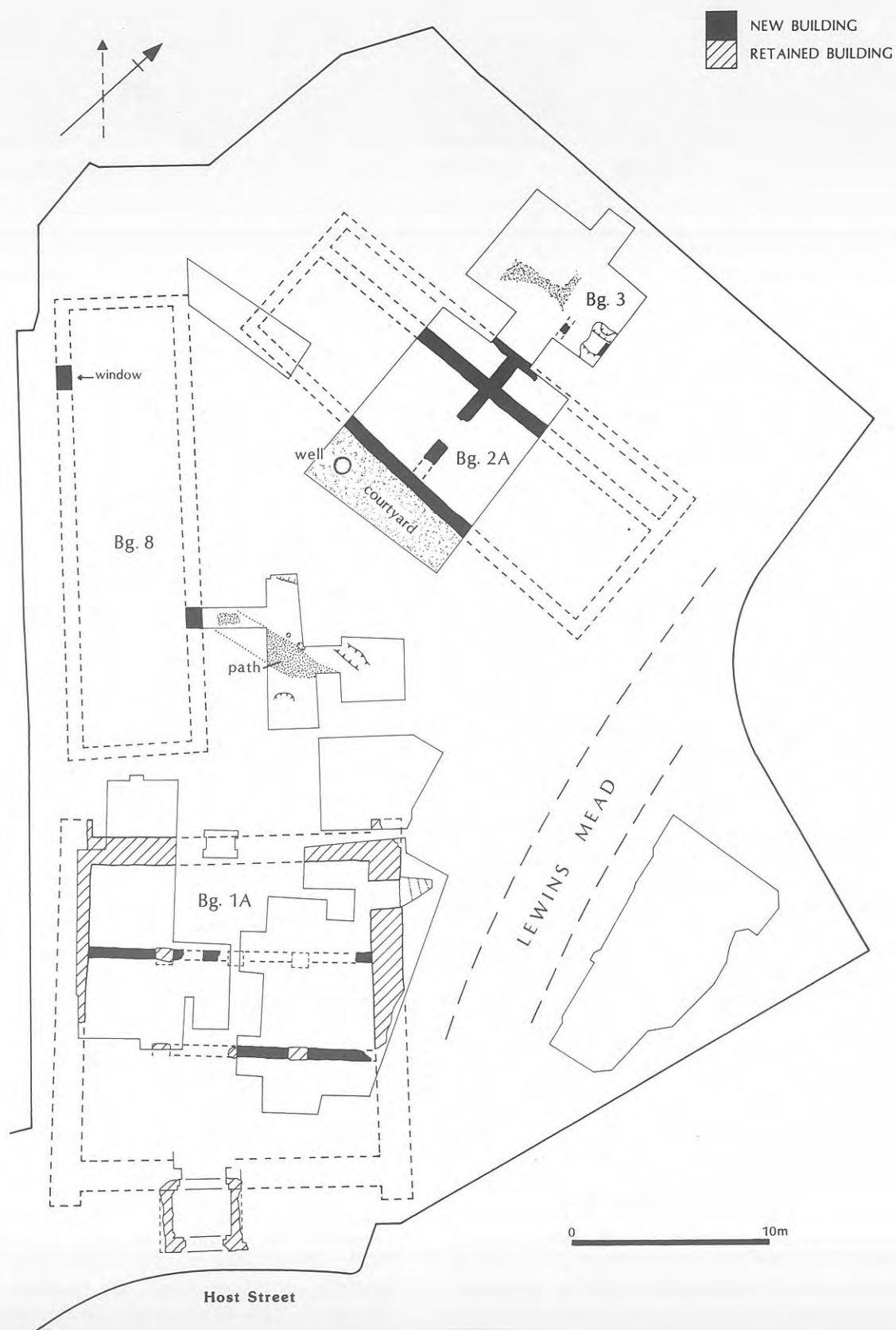
Figure 23   Summary plan of structures of Period 3B

Figure 24   Area D/G/H: plan of bracing of walls and new steps in building 1A

W61 was plastered to its top surviving course (Fig 27). The plaster was white and patchy, and some 0.01–0.02m thick. It extended north to W65 and onto the face of that wall but, like the clay, not onto W48. Nor did the plaster extend beyond W65 on W61 into the north aisle. The plaster suggests that there was a floor in the central area below this level, post-dating the insertion of bracing walls W65 and W48. No actual laid floor was identified, but if it existed it probably lay within Context Group G8.

In test trench 6 were make-up deposits similar to those elsewhere (Context Group G9). The hardness of the topmost layer suggested that it had been a trampled floor, which corresponded in level to the dressing of the wall face. In the western part of the

central aisle, in test trench 3 was found the same general kind of material (Context Group D10) on which was laid a Pennant flagstone floor (Fig 24, F46). Like its eastern counterpart in the centre aisle, the west wall of the building (W43) was partly plastered, which indicates that there was a floor at or below this level, presumably F46 itself.

The small space available for the excavation of the south aisle revealed little as it had been extensively robbed during the post-medieval period for the construction of a cellar.

The evidence suggests that throughout the building the undercroft floor was raised by up to about 1m, but this varied, with an uneven surface which might have been partly paved but was mostly
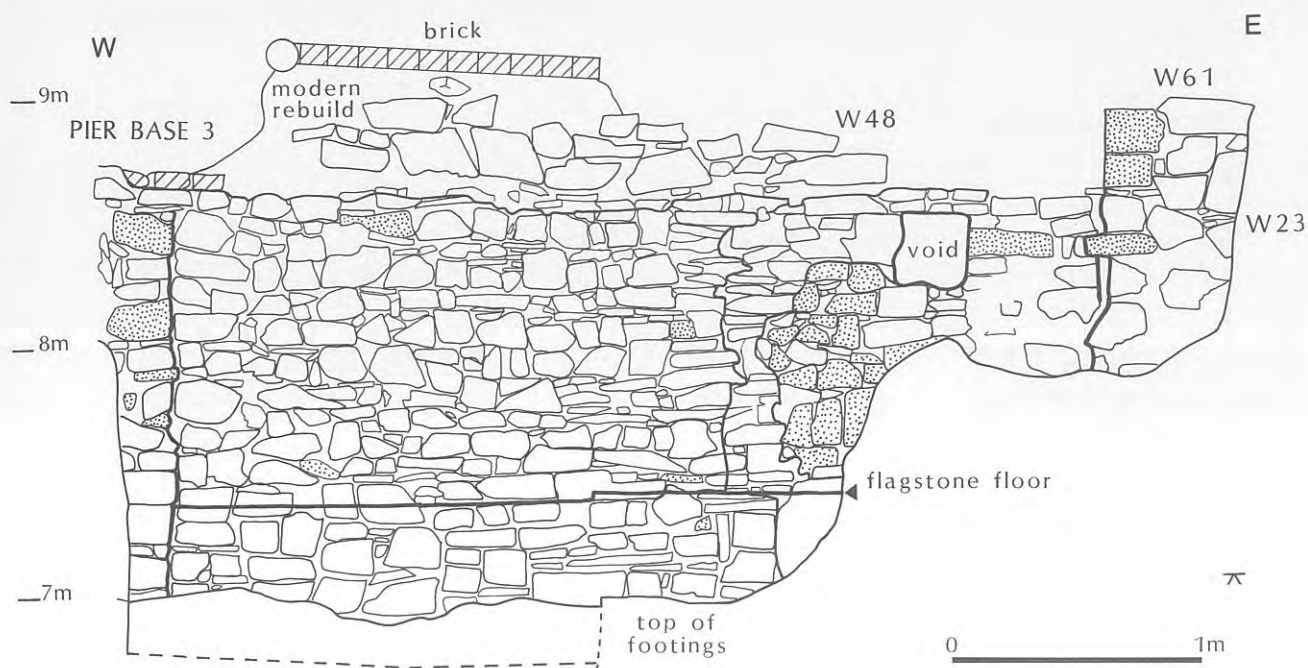
Figure 25   Area G: south elevation of W48, W61 and pier 3 – south aisle of building 1A

Plate 13   Area D: South face of pier base to column 4, showing rebuild, bracing wall W58, and undercroft backfill

Figure 26   Area D: south elevation of pier 4 and W58; west elevation of pier and adjacent section – test trench 3 in building 1A
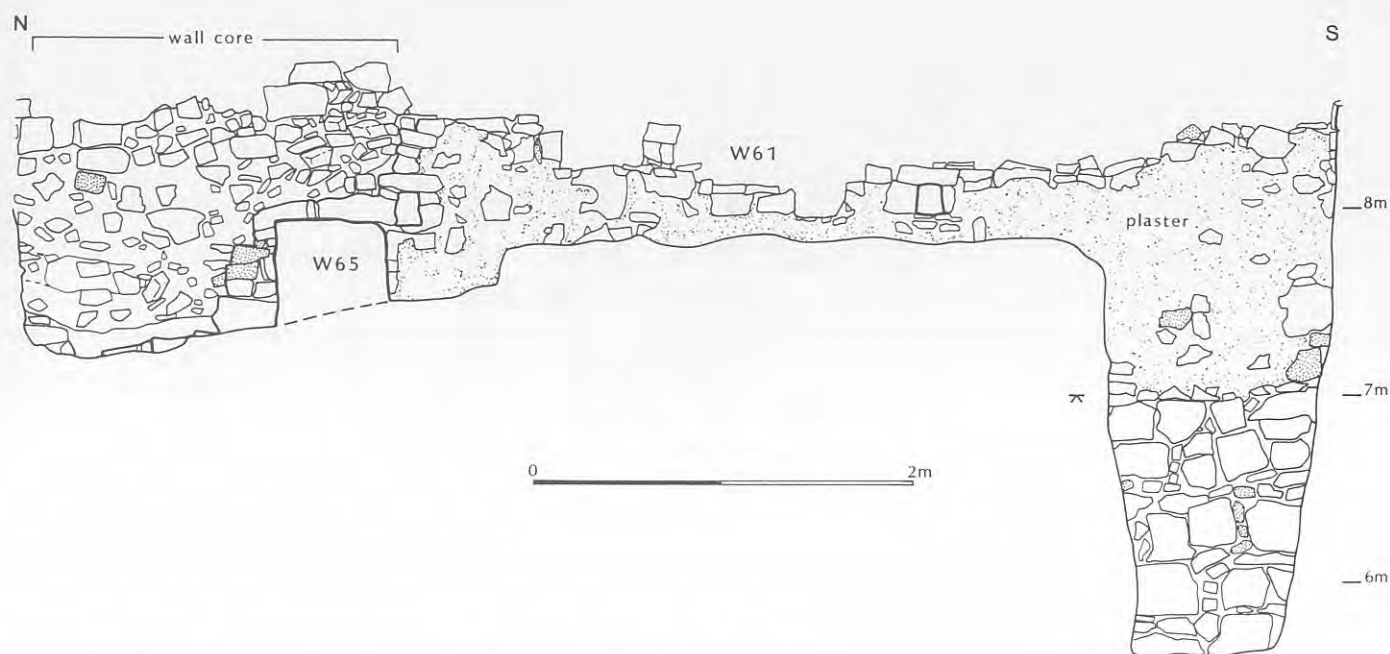
Figure 27   Area G: west elevation of W61 – east end of building 1A

Plate 14   Area A: Remains of wooden door

rammed gravelly clay/mortar. It is also likely that the process of raising the level took place in several stages.

After the burial of the original steps in the north aisle, a new set was constructed using Pennant slabs, much the same as the earlier version (Figs 13
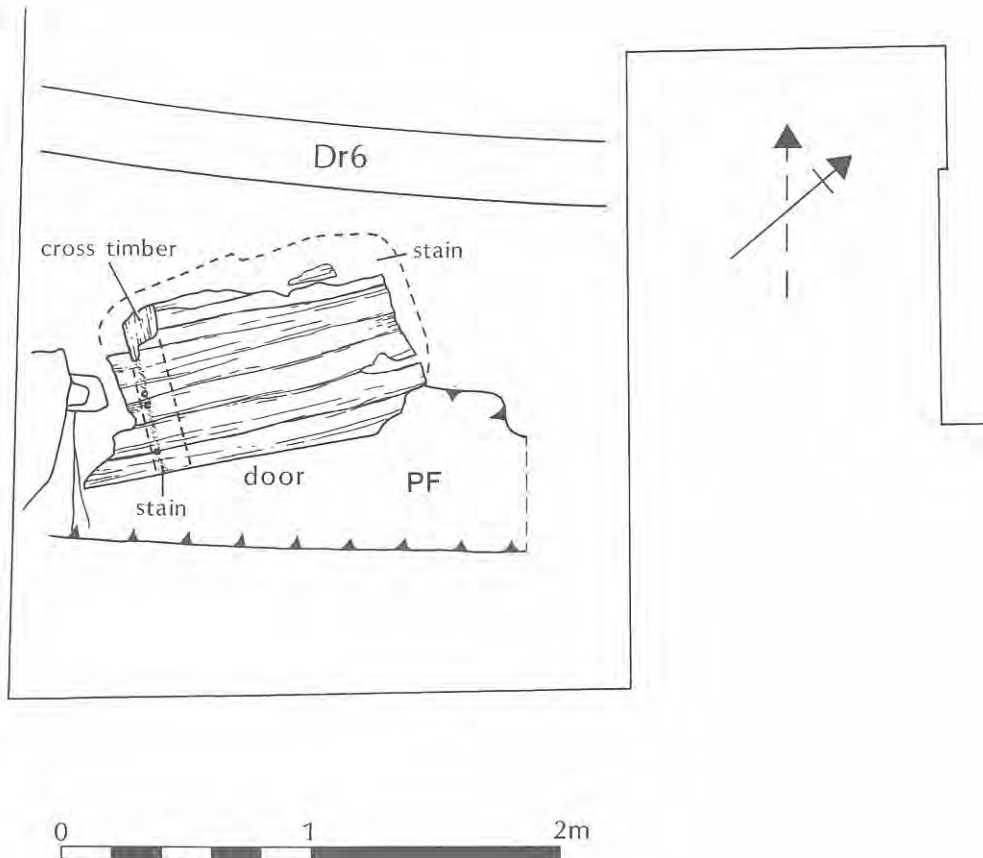
Figure 28   Area A (detail): plan of wooden door

& 24). They curved as they climbed to the north-east and were defined on the south by W68, which followed the same curve. Four steps were available for excavation within the confined trench. They were noticeably less worn than their earlier counterparts and, if the topmost found was actually the top of the flight, it suggested a contemporary ground level outside the building of around 7.2 m OD.

Area A (Construction of building 8 and path: Context Groups A7–9; Figs 7, 10, 28 & 29; Pls 14, 15 & 23)

Building 7 was demolished and its site levelled at approximately 7.5–7.6 m OD. The debris was princi-pally red and brown sandy clays mixed with stones and of a variable organic content. Among these deposits were quantities of grey-blue and greenish river clays (Context Group A7: Fig 7, context PR; Fig 10, contexts OD/OE, PJ & PM). The layers were distinguished by differences in colour and texture, and some were originally called pits, but these were later considered to be merely variations in the make-up. Within this debris were found the re-mains of an oak door which gave a radiocarbon date of cal AD1050–1285 at 95% confidence; HAR-2272,

800±60BP (Fig 28; Pl 14. See also Chapter 9, sec-tion xiii). It consisted of five or six planks and there were traces of a cross-piece with a nail surviving as a soil mark towards the west. For some time after-wards the area was not built on, and material very similar to the rubble from the demolished building accumulated (Context Group A8; Fig 10, context OH).

Building 8, the west range, seems to have be-longed to this period, although it is just possible that it had existed in some form from as early as Period 2 (see Chapter 4, p 51). Unfortunately, as the only part available for excavation was a small stretch of its east wall (W5) there is little direct evidence for either its date or its original size. W5 was laid on natural clay but without an obvious foundation trench having been cut to that depth. The wall was built with Brandon Hill Grit bonded in a red sandy mortar, much the same as other medieval walls in the hospital. The thickness of its walls, details from a drawing made in 1820, and the extent of the medieval mortar found on selective stripping of wall plaster, suggest the probable shape of the medieval building. The fragmentary remains of the freestone cill and jambs of a medie-val window found high up in the west wall towards the north end show that it almost certainly com-prised two storeys (Fig 23; Pl 23).
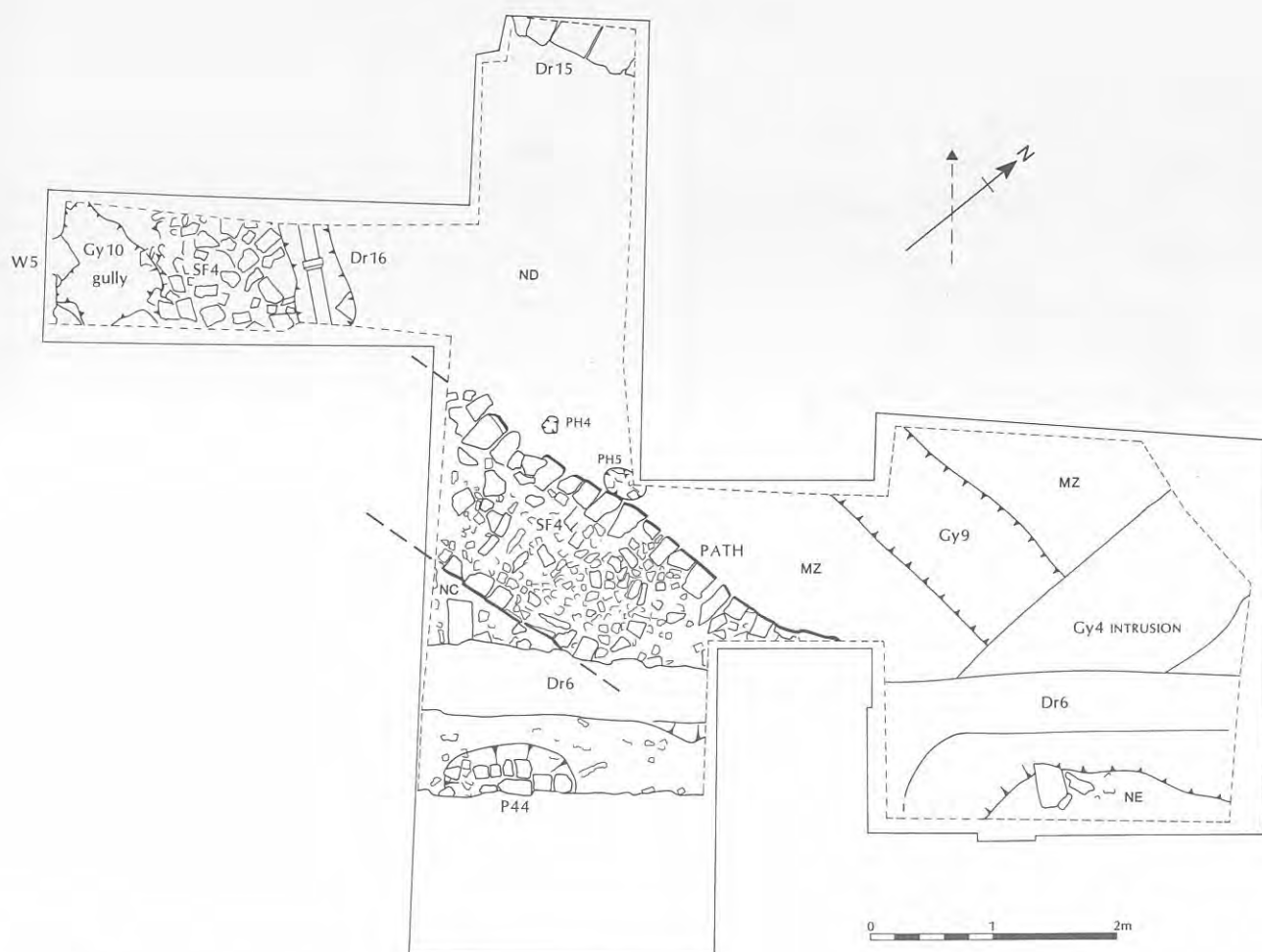
Figure 29   Area A: plan of structures of Period 3B (pathway)

Later, a well-made path (SF4) was laid on the raised ground where building 7 had formerly stood (Context Group A9: Figs 10 & 29; Pl 15). It was constructed using small Pennant blocks (some of which were reused roof slates) laid slightly pitched to give a cobbled effect. The small gaps between the stones were filled with crushed oolitic limestone and the path was edged with pieces of Brandon Hill Grit set in a red clay. The path was approximately 1.3m wide and was almost level, rising slightly towards the west where it also seemed to turn a little to the north, but it had been disturbed there. Its course was similar to that of the demolished W35 of Period 3A.

On each side of the path was laid a reddish-brown clay soil containing organic material which resembled garden soil (Context Group A9: Fig 10, context ND). One small patch of crushed limestone within these deposits survived alongside the path. On the north side of the path were PH4 and PH5, which were 0.6m apart. PH4 was almost square, 0.25m across with vertical sides 0.15m deep, and its post had been supported by two flat packing stones. PH5 was circular, 0.35m across with vertical sides 0.2m

deep. Neither feature retained traces of its post and both had been filled with stony, medium-brown clay.

North of, and parallel to, the path was Gy9. Its regularity and shallowness suggest that the gully might have held a feature such as a stone slab for a bench, or it might have been a precisely cut flower bed. Its fill was similar to the surrounding soil but had more sand and charcoal flecks. South of the path, the only feature found was the partially robbed P44. Originally it might have been oval and it was dish-shaped in profile. Its fill, a red silt with some large stones and bright-red/pink mortar, suggests that it might have been a worn area which was deliberately levelled.

At the north end of the trench, Dr15 was found inserted through the make-up layers. The drain consisted of a stone-walled channel, 0.1m wide and 0.2m deep, having a base and capping stones of Pennant slabs, its side walls built with blocks of Brandon Hill Grit. Its base sloped down steeply from the west. Both the path and the drain seem to have served the same building to the west (presumably building 8).

Plate 15   Area A: Pathway (stone feature SF4) and postholes PH4 and PH5, looking east

Area K (Construction of building 2A, courtyard, well and building 3: Context Groups K1–9; Figs 30–4 & 44)

The lowest occupation evidence was investigated in several test trenches which revealed a series of deposits up to a metre thick, which must have been laid over the whole of Area K to provide a building platform. This comprised layers of red-brown sand and clay mixed with stones, organic debris, and lumps of blue-grey and pink clays (Context Groups K1–5: Fig 31, contexts LAF & KZZ). The top of the platform was levelled at 7.3–7.5 m OD. There might have been two phases of make-up, as Context Groups K1–2 contained pottery dating to the last quarter of the 12th century and could have been laid down during Period 2B, but this is uncertain (see Chapter 4, p 48). Most of the platform was covered by building 2A (Fig 30). Its outline construction is described first, followed by details of internal structures, the remains found outside the building both to the south (nearest Area A) and then those to the north.

Building 2A was defined on the south by W107 and on the north by W123, giving an internal width of 6.5 m, but the building seemed to narrow towards the west – if extrapolations of the surveyed walls are reliable. The east–west length could not be determined, but if it followed the lines of the later rebuild it would probably have been *c* 22m (see Chapter 6, building 2B, p 99).

Although the bottom of W107 was not found, it was below the level of natural clay and probing

Plate 16   Area K: Building 2A. Room 5K, looking north. In the foreground is part of the courtyard; room 5Ka is in the background; the central dividing wall, connecting doorway, and part of room 4K are to the left
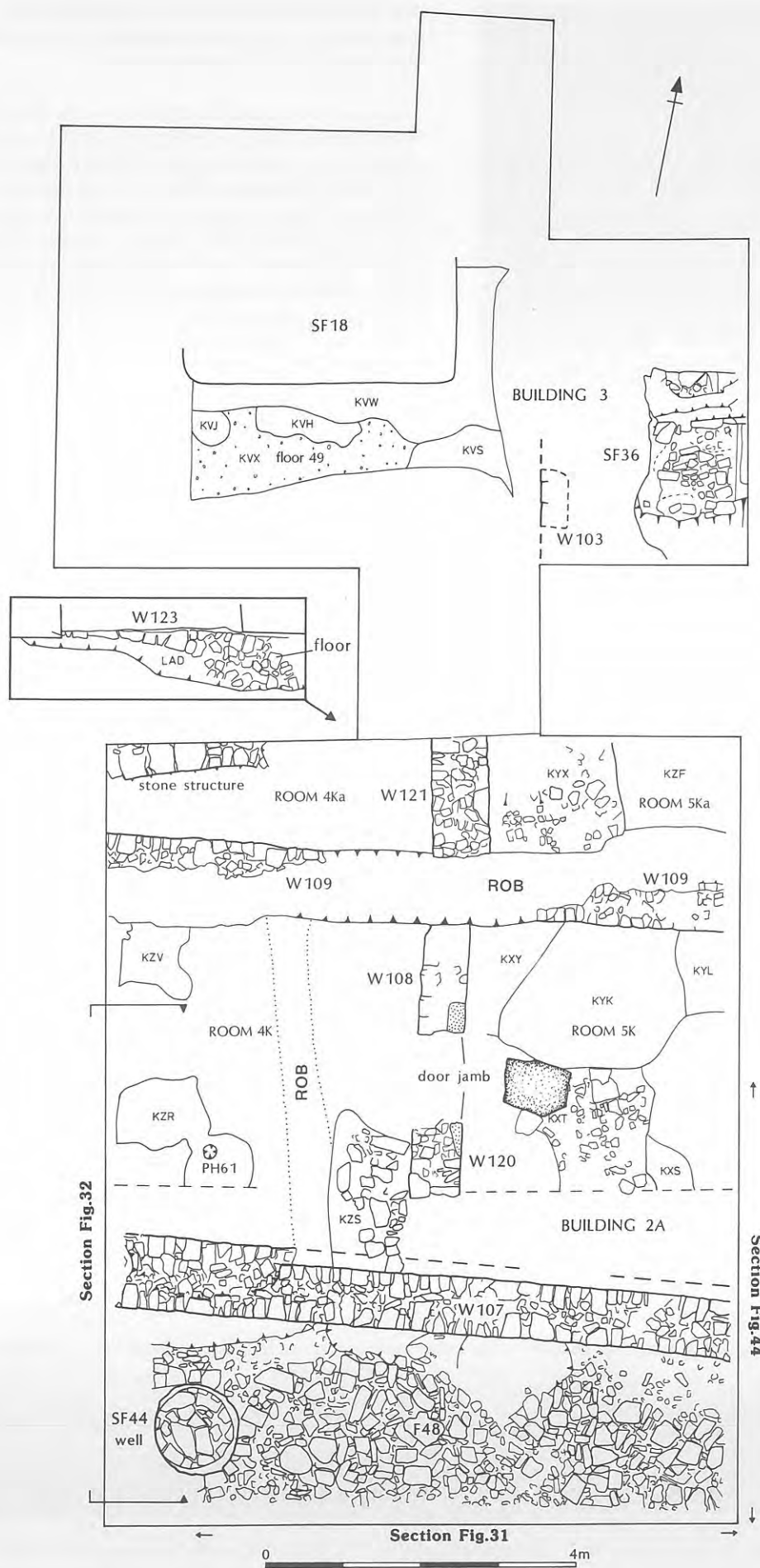
Figure 30   Area K: plan of buildings 2A and 3, courtyard, and well
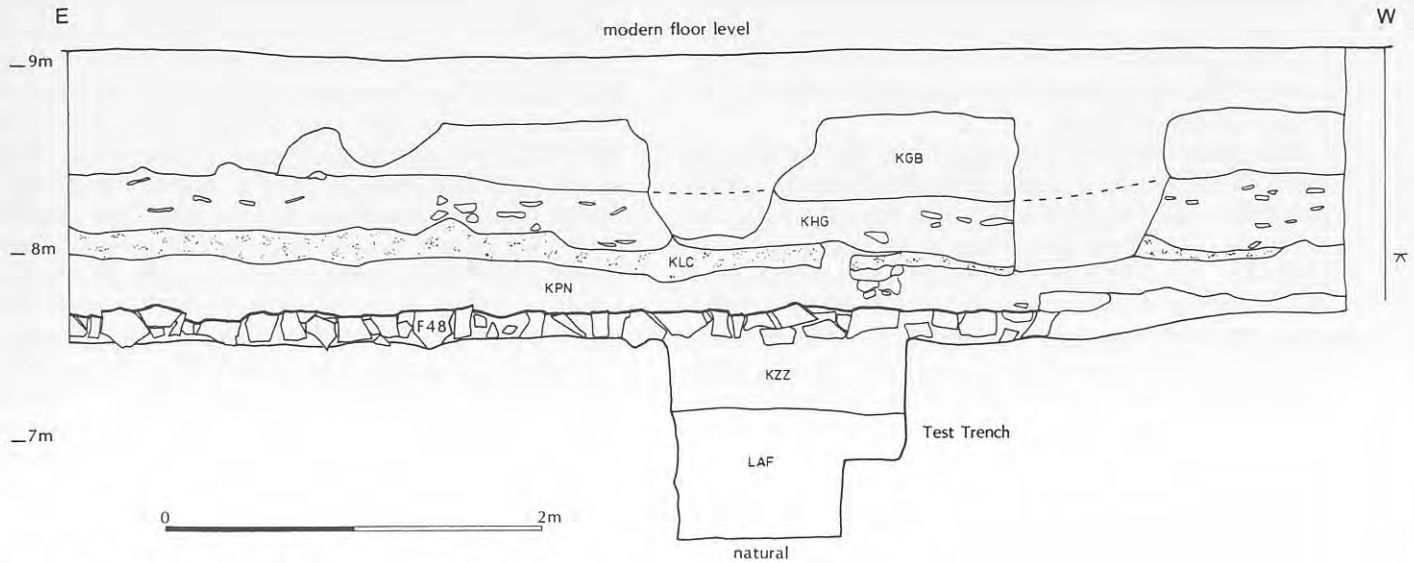
Figure 31   Area K: south section across trench
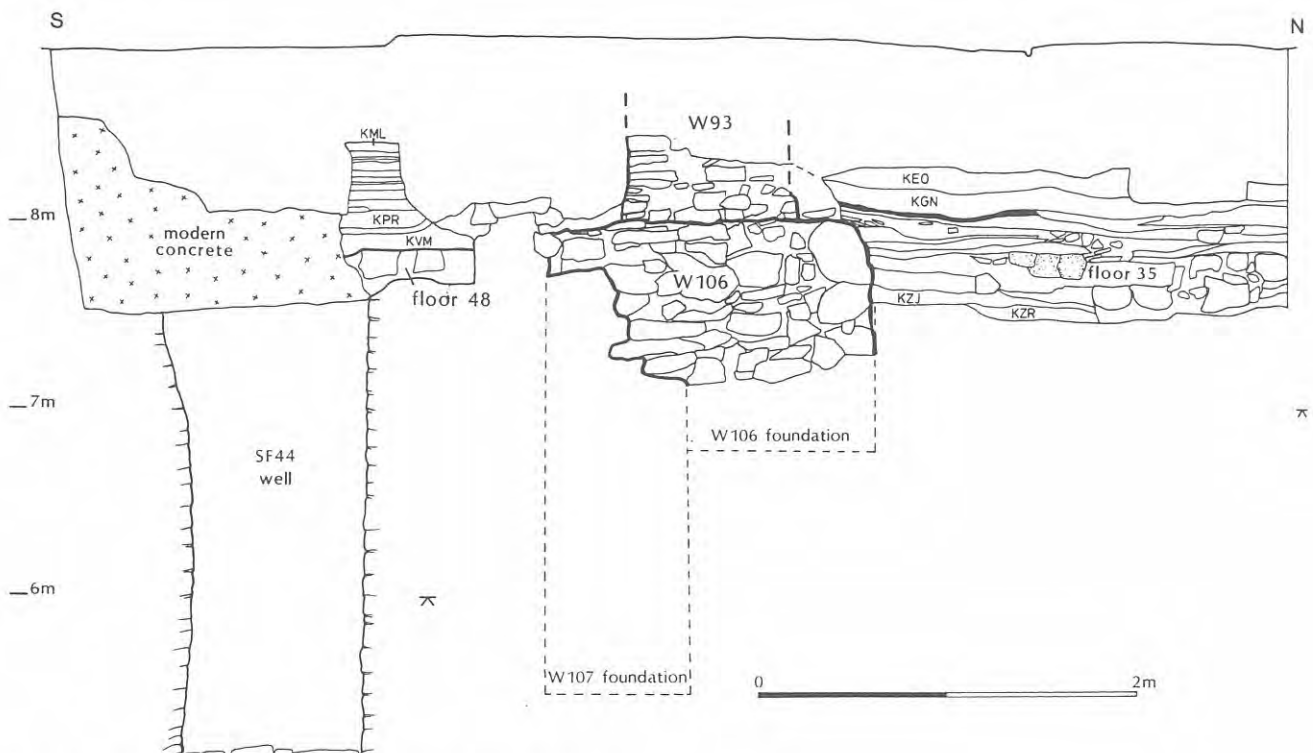
Figure 32   Area K: west section – south end of trench

showed that it continued below 5.8m OD. No construction trench was seen during the removal of the platform material, but conditions were not favourable for observing fine detail. At foundation level it was some 0.85–0.9m thick; it had footings only on its north side and narrowed to 0.7m above. The wall was constructed using Brandon Hill Grit and was bonded in a red-brown sandy mortar flecked with lime. W123 survived only at the level of its footings, and those were less substantial than their equivalent in W107: the remainder of the wall had been

robbed. Neither the bottom nor any construction trench for this wall were found, but it had a definite south face and many of the Brandon Hill Grit stones had been bonded in the same red-brown sandy mortar. Some stones were set in dark-grey alluvial clay, with occasional gaps between them. The width of W123 could not be established because the north face lay under the north baulk, but it must have exceeded 0.55m and was probably the same as the south wall. The width of the footings was estimated as 0.2m more than the wall proper.

There was no evidence for door openings in either of these walls. The bottom floor levels were about 0.4m below the surviving courses of W107, which shows that no entrances had existed within the length of wall exposed.

The range was divided into room 4K (west) and room 5K (east) by a badly disturbed, north–south partition wall (W120/W108/W11) through which a doorway connected the rooms. The partition wall complex was of similar construction to the external walls, except that the mortar used contained more clay. The wall was laid directly on the rubble platform and had no foundation trench. W120 extended north from W107 and overlay the footings of the latter. Although robbed, W120 is thought to have abutted W107 as there was no sign of bonding in the north face of the external wall. W120 was 0.65m wide and survived to two or three courses high. At its north-east corner was a squared oolite block which must have been the lowest course of dressing for the doorway, but its counterpart on the north-west corner had been robbed. There were no foundations in the doorway, which was 0.9m wide. W108 and W121 formed the north end of the wall. Both southern corners of W108 were faced with squared oolite blocks as the northern door-jambs. W121 survived to four or five courses high. At its north end it overlay the supposed footings of wall W123, which is the same relationship as that noted above between W107 and W120. Robbing at this point had destroyed any further details.

Rooms 4K and 5K were further subdivided by W109, which ran west to east across the whole width of the trench parallel to W107 (Fig 30). Its structure was the same as the main partition wall, but any direct relationship between them had been removed by robbing for later drains. W109 provided two smaller rooms (4Ka and 5Ka) which were both at least 1.3m wide but of unknown length.

Room 4K

The relationships between the stratified deposits and the surrounding walls had been considerably disturbed by the later rebuilding of the range as building 2B (see Chapter 6, p 97). That reconstruction had removed a width of about 1m of deposits alongside W107 and much of the north-west corner of the room. Two recent pipe trenches, one following the line of W109 and another running north–south, added to the problem.

The lowest floor levels (Context Group K6) were laid directly on the building platform. The bottom layer towards the west was a thin patch of black organic soil about 1.5m across. As it contained charcoal it is interpreted as an area where refuse was burnt during the building work. Above this, covering a larger area, was a spread of off-white/buff mortar, up to 0.05m thick (Fig 32, context KZR). This was the first proper floor deposit. To the east, in the angle formed by W107 and W120, the lowest

floor was represented by six large Pennant flagstones, each up to 0.4m across, and a number of smaller cobbles laid directly on the platform (context KZS). The floor also overlay the footings of W107, as shown when a portion of a later wall (W94/95) was removed. Between the large flagstones and the cobbles was a brown sandy clay mixed with red sandstone lumps. The floor extended as far as the south jamb of the doorway, but there it had been robbed. It is thought that it extended further west than the surviving area and might originally have overlain the mortar spread.

Cutting the mortar floor was PH61. The posthole was circular, 0.2m across, with almost vertical sides 0.08m deep. No packing stones had survived and the hole was filled with black organic soil. No other postholes were found. As PH61 was relatively shallow, its post would probably not have supported a heavy structure. The early obliteration of PH61 (see Period 3C) suggests that it might have been a part of a short-lived structure, perhaps one erected during the construction of the building.

Room 4Ka

The centre of this room had also been robbed by a later drain which had severed the relationship between its east and west sides. Moreover, shortage of time did not permit more detailed investigation than is reported here. The most prominent feature lay in the north-west corner of the room and consisted of a linear stone structure built of Brandon Hill Grit bonded in a red sandy clay (Fig 30). Its base was not located and its top was some 0.2m higher than the surrounding floor level. The structure had a distinct south face but this was not parallel to W109. At its west edge, where it disappeared beneath the baulk, it was up to 0.5m wide north–south, and there it was only 0.7m north of W109. Its east edge had been robbed but its east–west measurement was at least 1.9m. Its function is unknown. If it was a wall it was not aligned with any other. It might have supported something heavy, but its position in such a small room makes this unlikely. It might have been a stair base.

Built against the south face of the stone feature, and extending to W109, was a stone floor resembling that in room 4K and at a similar level. Only a part of it could be examined during excavation, but where it had been robbed near the west baulk it was shown to have been laid directly on the building platform.

Room 5K

A layer 0.05m thick of red-brown gritty sand with some organic material had been laid directly on the platform. This was the lowest context of the sequence (Context Group K7) in that room. A similar

deposit, but more clayey and with some patches of khaki clay, had been laid over this in the south part of the room. Overlying all this was a hard, compact fine gravel, 0.05 m thick. Some patches contained variable quantities of flecks of white mortar (Fig 30, contexts KXY, KYL & KXS). Over these again, in the non-robbed southern part of the room, was a poorly laid Pennant flagstone floor (context KXT) similar to that in room 4K and at about the same level. It is likely that the stone flags had originally covered the whole room.

Room 5Ka

No flagstones were found, but the top of the general make-up had been levelled and traces of lime mortar had been mixed into this surface, as in other rooms (Context Group K8: Fig 30, context KYX). The eastern part of the room was covered with more ashy material but was otherwise similar layer (context KZF). Both these deposits overlay the footings of W123.

Occupation south of building 2A

A stone pavement (F48) was laid directly on the same platform as that used for the construction of building 2A (Context Group K5: Figs 30–2 & 44). Most of the stones were Pennant and many were water worn. Some appeared to have been worn and polished by foot traffic. Against W107 the floor level was between 7.65 m OD to the east and 7.85 m OD to the west, but as it extended southwards, in the direction of Area A, the level sloped down to 7.5 m OD. No contemporary equivalent was found in that other area.

At the west end of the trench was a well, SF44, which was built at the same time as the floor (Figs 30 & 32). The well was circular and lined with a double wall of stones, mostly Brandon Hill Grit, between which was a grey-black clay with a high organic content. Its internal diameter at the top was approximately 1 m, narrowing further down, and it was 2.4 m deep. Its base was also lined with Pennant slabs. There was no sign of there having been any protective wall or cover attachment around the rim.

Occupation north of building 2A

Any direct relationships between building 2A and structures to the north of the range had been badly disturbed by later robbing. This difficulty was exacerbated by the requirement to leave in place baulks to support modern roof piers, so that only a small corridor connected that part of the trench to the main area of excavation. Association has been assumed on the basis of dating by pottery and the relative heights of any structures.

Building 3 seems to have been sited immediately adjacent to building 2A (Fig 30). Lying directly on the same building platform were the fragmentary remains of W103. The wall was part of the sequence Context Group K9. It was built in Brandon Hill Grit bonded with a soft, orange-brown, sandy lime mortar. It measured 0.4–0.5 m wide and 0.7 m of its length had survived, aligned north–south. There was no sign of a foundation trench. The wall probably represents the scant remains of a back room leading off room 5Ka, with its interior to the east, where over the platform was a thin spread of decayed organic debris on which was laid SF36 (Fig 30). This comprised a floor of Pennant flagstones, mostly rectangular, set on an east–west axis, between which was the same organic material. It was 0.1–0.15 m thick and its surface was at c 7.7 m OD. It might have been set against the east face of W103, but the relationship had been lost in robbing. Lying on the surface of the floor was a spread of charcoal-rich organic debris. This implies that the stone feature, or an extension of it, served as a hearth. The extent of the ashy debris suggests that the fire was on a large scale.

West of building 3, occupying the western half of the trench as a strip up to 1.2 m wide and at least 2.6 m long, was F49. The floor comprised many small angular pieces of Brandon Hill Grit set in an off-white lime mortar mixed with orange-brown clay (Context Group K9, context KVX). The tops of these stones were quite worn, probably by foot traffic. However, the floor did not reach W103 but changed to a layer of crushed Pennant sandstone in a similar red-orange clay (context KVW). This deposit was either weathered and decayed material or a patch. Directly over this spread was a layer containing some relatively large lumps of charcoal mixed with finer ashy debris (context KVS). This is likely to have been the trampled remains of ashes thrown out from the fire within the building. Similar burnt material was spread over F49 as contexts KVJ (a small patch of grey ash and charcoal near the west section) and KVH, which was a limited patch of charcoal and brown clay containing much crushed oyster shell.

Area E (Occupation over backfill of River Frome: Context Groups E3–5; Fig 5)

Over the presumed backfill to the earlier river course were further layers of a redder clayey soil (Context Group E3: Fig 5, context ECJ). Above this was a thin black layer with large and medium stones in it which resembled paving (Context Group E4: Fig 5, context ECH; SF43). Probably contemporary with SF43, to the north-west, was a red gritty layer (Context Group E3, context ECG). Over SF43 was the sequence Context Group E5 (Fig 5, contexts ECD–ECA) which consisted of successive deposits of clay, black soil, browner soils and clays. Little can be said of this.

NEW BUILDING
RETAINED BUILDING

Bg. 4

door

Bg 5

←window

Bg. 2A

Bg. 8

path

Bg. 1A

LEWINS MEAD

0   10m

Host Street
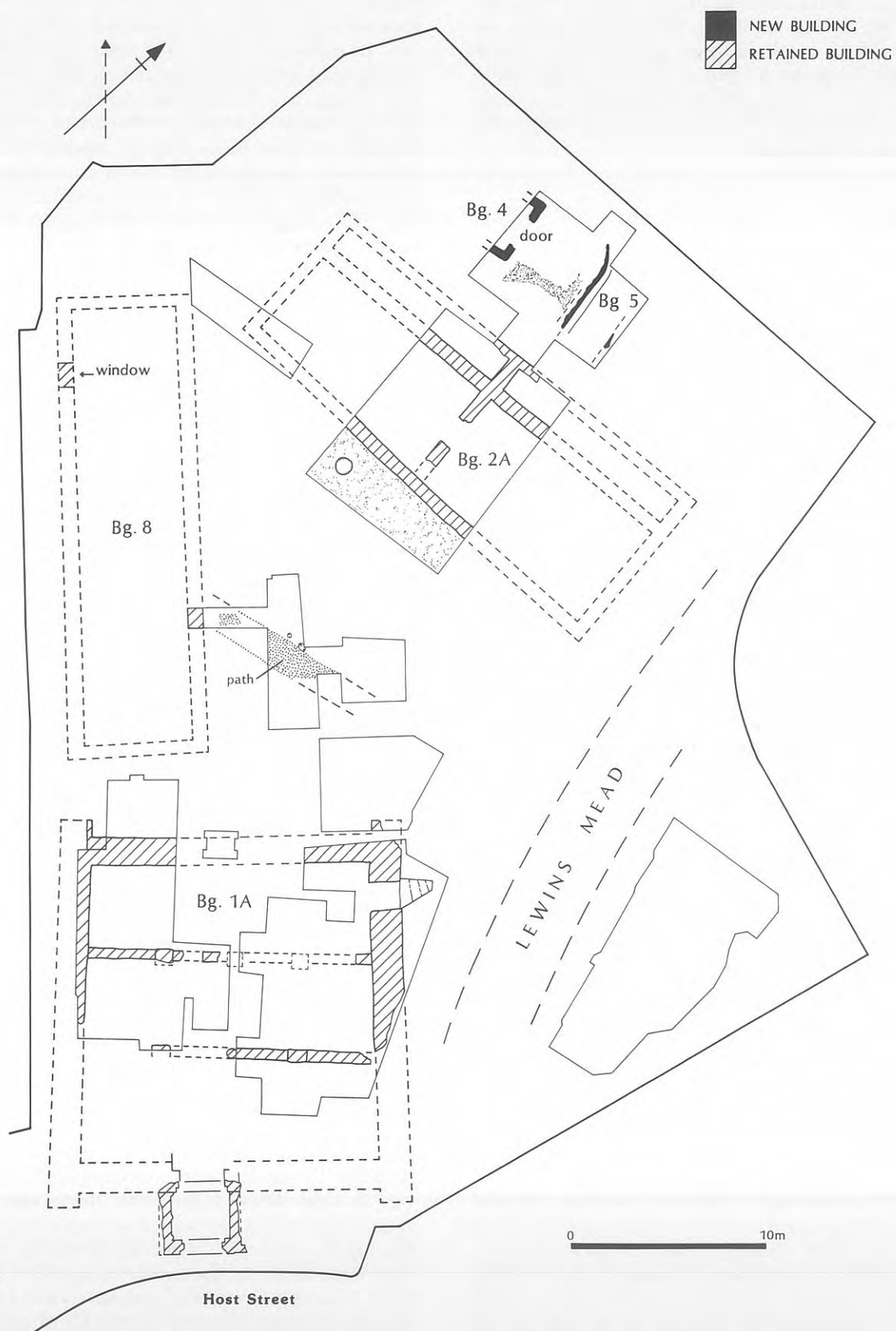
Figure 33   Summary plan of structures of Period 3C

Period 3C (c 1320–c 1340)

Features from this period were not distinguished in either the Area D/G complex or in Areas A or E.

Area K (Modifications to building 2A; construction of buildings 4 & 5: Context Groups K10–17; Figs 30–4, 42 & 44; Pl 16)

Most of the relationships between the final occupation deposits of the building were destroyed by robbing during a later rebuild. There were such floor deposits in each room but, as the only means of relating these was by correlating the pottery evidence (which itself is slight) all of the subsequent occupation is described in room order.

Room 4K

The first sequence covering the mortar floor and PH61 was Context Group K10. The lowest layer was a spread of organic brown loam which contained many stones. The main occupation layer, spread over much of the room, was a black, oily material (Fig 32, context KZJ) which might have been the residue of something like rotted rushes or food debris. Although there were some small patches of red and brown clay with sand and stones, the next principal layer was a spread of crushed Pennant with some small slabs amongst it. This occupied almost the whole room (except where robbed) and was a replacement floor.

Over this floor was another sequence of accumulated debris (Context Group K15) composed of various patchings of sand, clay, and stones. Sandwiched between these were further spreads of black organic deposits. Covering this patched floor was possibly a partial replacement stone floor, F50. It comprised a layer of flat Pennants and cobbles, but had been extensively robbed. However, it is possible that this was actually the base of a later drain which had been cut into the earlier floors. A patch of black silty material over it supports this interpretation.

In the north-east corner of the room were shallow, dish-shaped pits (P180 & P183) up to 2m across and 0.15m deep. They probably represented areas of wear, patched with a gravel fill. On this were laid two flat Pennant slabs, each 0.3–0.4m across. Over some of the floor was deposited a further light accumulation of material, including black and grey ash, which was highly organic, containing a lot of charcoal mixed with red and orange clay.

Above this, the layers were associated with the demolition of the building. There was no means of distinguishing disturbed floor deposits from demolition debris, so this sequence is treated as one in Chapter 6.

Room 4Ka

Occupation deposits in this room were quite simple (Context Group K11). Above the original stone floor was a little debris from later occupation. A layer of khaki clay with some small stones in it, 0.25m deep, was laid between W109 and the stone base. A small patch of this was found in the east part of the room but, as it was over an area where the stone floor had been robbed, it might have been a later redeposit.

Cutting the clay in the west part of the room was a gully, 0.6m wide and 0.1m deep. It lay against, and parallel to, W109 and might have been a drain slot. It did not continue into the eastern part of the room. If it was a drain it might have turned north along the line of a later stone drain leading out through the north wall (Fig 42, Dr51). The gully was backfilled with the general debris of red-brown clay, small stones, and some organic matter. This material could also have been a demolition deposit similar to that in room 4K, but no clear distinction could be made.

Room 5K

The first sequence of later occupation layers (Context Group K12: Fig 44, context KXK) was similar to that in room 4K: a varied mix of sand, clay, and stones with, sandwiched between them, patches of black organic material. A large flat Pennant stone, some 0.8m across and 0.1m thick, was positioned a little east of the doorway between W108 and W120 (Fig 30; Pl 16). Its location and level suggests that it was associated with the door, perhaps as part of a small flight of steps down into room 4K. This is uncertain, but between the stone and the doorway was a shallow depression which might have been where other steps had been robbed.

Over all these layers, occupying nearly the whole room, was the uppermost deposit associated with Period 3C: a dark-brown and black, crumbly, soil-like material with some off-white lime flecks, and a high proportion of organic debris (Context Group K16). This is interpreted as an accumulation of rotted vegetable matter, such as rushes.

Room 5Ka

As in room 4Ka, there was little make-up on the early floor level, suggesting that the room had a restricted use. There were some patches of red and brown stony clays with buff mortar flecks (Context Group K13) and a small patch of hard, mid-brown and white mortar. These might also have belonged to earlier phases of floor laying, but it was not possible to distinguish them.
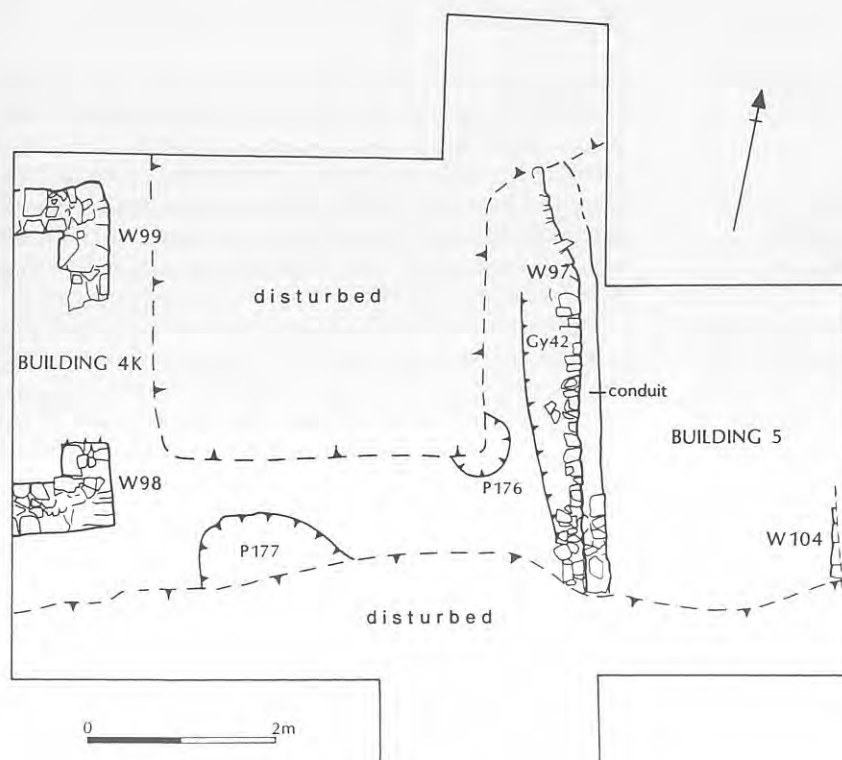
Figure 34   Area K (detail): plan of buildings 4 and 5

Occupation south of building 2A

No occupation deposits from Period 3C were found, so the pavement seems to have been kept clean for as long as the range stood. This was important near the well, which would not have been allowed to become foul.

Occupation north of building 2A

Building 3 was demolished (Fig 34). The debris was a mixture of red-brown sand, fragments of Brandon Hill Grit, Pennant and oolitic limestone, with some charcoal (Context Group K14). These spreads covered the area except where disturbed by later features.

Building 4 (distinguish from room 4K in building 2A) was erected at the west end of the trench. Only the end of the stone building was available for excavation, represented by W98 and W99. Both these walls were of the same construction: mostly Brandon Hill Grit set in a very soft, red-brown, sandy lime mortar. Neither had an obvious foundation trench and they were laid directly on the earlier demolition rubble. They had survived up to three courses in height and were each some 0.5m wide. Between the two walls was a doorway about 1.5m wide, defined by roughly faced jambs on W98, although the equivalent on W99 was disturbed. The internal width of the building was 2.6m, its length undetermined. There was no indication of a floor.

Building 5 was constructed in the east part of the trench, on the site of building 3 (Fig 34) but it was very poorly preserved (Context Group K17). Gy42 was the foundation trench for W97, which ran north–south, cutting the demolition rubble. The gully was 0.4m deep and its backfill was similar to the rubble, but much more stony. W97 was built with Brandon Hill Grit stones set in dark-brown and reddish-pink clays, with some orange-brown lime mortar. The wall was badly disturbed, especially on its west face, which meant that its thickness could not be measured accurately, but it was at least 0.25m. A length was recorded running from the north section towards building 2A, but later robbing had destroyed the stretch nearest the range. Parallel to W97 was W104, which was preserved as a 1m stretch, most of it lying under the east baulk. It was of similar construction to W97, but the bonding material contained less clay. The two walls were 2.3m apart and there was no evidence for any floor structure, but overlying the footings of W104 were narrow bands of orange-brown soils with mortar flecks.

Immediately alongside the east face of W97 was a stone-built channel 0.1–0.2m wide and 0.1m deep (Fig 34). No capping stones had survived. It flowed from north to south. Its narrowness strongly suggested that it was a fresh-water conduit rather than a drain.

Discussion

Period 3A (c 1234–c 1280)

Why John de la Warre II founded the hospital is unknown. Although there is no reason to doubt that

religious piety was the most significant factor, with the generosity of his uncle Peter towards Margam Abbey some fifteen years before and the more recent establishment of St Mark's serving as examples, both the sketchy contemporary documents and the excavated evidence suggest that the situation was not quite as simple as that (see Chapter 2, p 23 & Chapter 10, p 200). The hall on the Frome must already have shown signs of subsidence which would have been expensive to remedy, and it would inevitably deteriorate with time. Despite their importance, certain members of the family had become embroiled in considerable financial difficulties: one of them was John de la Warre's recently deceased father, who had appealed to the crown. Just how effective would have been the protection of the inconsistent King Henry III in aiding the affairs of the under-age heir of a West Country merchant is questionable; particularly after Henry's new advisor Peter des Roches began actively encouraging him to ignore the advice of his magnates. John de la Warre's role in the Montfort Rebellion some 30 years later shows that he then bore no great love for his sovereign, and the sentiments might have been returned. Also, proposals for diverting the Frome might already have begun to be aired, as such an enormous project would have taken a lot of preparatory planning, and it would have been obvious that the scheme could have serious consequences for a large, unstable building immediately alongside the river. Given their role in both local and national affairs, the elder de la Warres would probably have been attuned to the situation, and it could be that they recommended John and his mother to cut their losses while at the same time gaining credit before God and increasing their standing in the community. Their financial difficulties would also explain why the endowment was small, and why the 100 marks of silver promised by John were not paid up until 60 years later.

Little direct evidence is available about either the staff or inmates of the new hospital but, as Table 8 shows, some details are beginning to be accumulated. As noted, the house was for both sexes and was run by a master assisted by the brethren and sisters, with two chaplains praying for the founder's family. The number of staff is unknown. A late 14th-century reference states that the hospital was then under a rule, ie living a lifestyle subject to the disciplines of one of the religious orders. Which of those is uncertain but, given its relatively relaxed rigour, that of the Augustinian Order was probably followed, possibly modified to meet particular needs (see Chapter 10, p 216). It is not known whether the rule was followed from the first occupation of the hospital or whether it was introduced later on.

Although the information is vague, it seems that in the early years, up to about the end of the 13th century, the masters were for the most part fairly stable and tended to remain at their post. It would be fascinating to have details about the master who was murdered in 1287, but this need not be a reflec-

tion on his competence. Obviously, managing a new institution on a shoestring budget would have been difficult enough but when, in the mid 13th century, the area was in turmoil because of the huge developments in the town this would have been doubly so. Ross (1959, xviii–xx) has commented on the quality of the masters at the nearby St Mark's Hospital, although the evidence presented in Chapter 10 (p 226) suggests that he took an optimistic attitude. Insufficient is known of their counterparts at St Bartholomew's, but there is no reason to suppose that they were at all inferior. From the earliest days of the first master, Brother Gilbert, they were prepared to stand up for the rights of the hospital and were involved in property transactions which (presumably) went a little way to alleviate the dire financial situation.

The almspeople were drawn from the poor men and women of the local community. How they were selected for St Bartholomew's rather than one of the other Bristol hospitals, and how many were accommodated at any one time, are both unknown. Naturally, the poor would have tended to suffer from malnutrition and were likely to have had an ailing constitution, especially if they were elderly, but other than that there is no direct evidence to show that they were unusually ill, in the sense of needing special treatment for disease. Two references cited in Chapter 6 (p 88) which show that sick and handicapped paupers were residing there in the late 14th century, do not prove that such unfortunates were housed there before then, although it is reasonable to suppose that there must have been some. No meaningful numbers of human bones were recovered from this phase of the hospital's existence, so there is still no proof. Certainly, no artefacts were recovered from any period which could be thought of as intrinsically medical. No modification has been made to the original picture of St Bartholomew's functioning essentially as an almshouse, caring for a mixed population which included a proportion of elderly and infirm people, and providing accommodation for occasional passing travellers.

Despite Clay's assertion, the documentary evidence for the foundation of St Bartholomew's seems to point with reasonable precision to c 1232–4. However, the evidence from excavation is that only a limited amount of building took place in the first years, with an apparent hiatus until around 1250. Several stratified sherds of Bristol wheel-thrown jugs found in the floor of the hall (building 1A) are unlikely to be earlier than that date, according to Ponsford's type series, and similar evidence applies over much of the remainder of the site. This probably reflects the perilous financial state of the fledgling hospital. Also, it was probably difficult to hire labour when so many people must have been engaged on the massive Frome diversion project during the 1240s and the associated expansion of the town walls. Besides which, any sensible person would think it prudent to wait until the true

KEY
a Women's Dormitory
b Granary
c Bakehouse
d Latrines
e Kitchen, Refectory
  (Men's Dormitory)
f Guest House/
  Master's Lodgings

Franciscan Friary
Burial Ground

St.Bartholomew's
Burial Ground

CLIFF EDGE

St.James' Parish

garden

Lewins Mead

PARISH BOUNDARY

a

b

d

c

St.Michael's Parish

boundary wall

e

courtyard

f

path   gate

steps

Chapel

Infirmary

River Frome

Steep Street

FROME BRIDGE

porch

0   25m

Figure 35   Conjectural outline plan of St Bartholomew's Hospital in the early 14th century

effect of that scheme on the immediate locality had been seen in practice before embarking on any large-scale reconstruction work. Obviously, some investment must have been made to accommodate the first inmates and staff, but any essential modifications such as the erection of partitions in building 1A would not have been detectable by excavation because the old hall was demolished and rebuilt in the 14th century.

A fine new porch was added to building 1A, possibly to celebrate the opening of the new house. As explained on p 59, it is less likely to have been built by the de la Warres before the hospital was founded. The arcading between the outer and inner doors is similar in type to many found in monastic locations. It is reminiscent of the more elaborate example which also survives in the Elder Lady Chapel of the former St Augustine's Abbey and which was built in the 1220s (Gomme, Jenner & Little, 1979). The porch could have been used by the inmates to seek alms from passing travellers. How its construction was funded is not known.

On a more practical note, there were continuing problems with flooding, for which reason the floor in the Norman hall was raised a little. Although this would have had no effect on occasional floods pouring down the east steps, it might have been marginally beneficial in alleviating the worst of the effects of water seeping horizontally from the river.

This building might have been the church or chapel from the earliest days of the hospital, but there is no actual proof. It is possible that the staff and almsfolk made their religious observances in some convenient nearby church but, if so, allowance had to be made for the requirements of the monastic rule: assuming that such a rule was imposed at this stage, which is not certain. Equally, there is no proof that there was ever an infirmary, but if so it would probably have been located in that building (Fig 35). The usual pattern in English hospitals was for the east end of a sufficiently large building to serve as the chapel, with the infirmary being located at its west end, where the sick could witness mass at the high altar (see the discussion of functions and organization in Chapter 10, p 218). It is likely that, at first, the building fulfilled a variety of needs: chapel, dormitory, infirmary, storeroom, and so on, but no details can be given. It would have been a simple matter to partition between or across the arcades, which would have been essential if the sexes were to be segregated at all times, as the moral code of the time required. The religious nature of the hospital at the time is suggested by the fragment of a statue which was broken up later and found in the demolition debris of building 1A, but this does not necessarily prove that it came from that building (Chapter 9, no 332). The undercroft might have included some tiling among the Pennant and mortar floors, and there is some evidence that the roof had been at least partially re-covered with glazed ridge tiles (Chapter 9, nos 196 & 198–201).

Arrangements must have been made for the women to sleep apart from the men, all the more important for those who were not sick and thus more able to consort together. In 1340 there was reference to the old dormitory where the women used to sleep (see Chapter 6, p 87). When this was built is yet another unknown as it almost certainly lay outside the excavated area on the other side of the present Johnny Ball Lane (formerly called Bartholomew Lane). It could well be that the lane marks the position of its nearside wall and was established when the building went out of use (Fig 35). That the dormitory was called old in 1340 suggests that it belonged to the earlier period of hospital occupation: it is even possible that it had originally been built by the de la Warres before then, as a complement to building 1A.

Outside the main building, the only construction work within the limits of the excavation site seems to have been the erection of building 7. The slipway leading to the creek had gone out of use and the creek itself was filled in, certainly by the time that the Frome was diverted and perhaps before then. Building 7 was constructed on the site. Only one wall of this building had survived, but enough to suggest that it was a two-roomed, timber structure built on a shallow stone foundation. It was the first of a series of buildings put up in the yard, all aligned more or less at right angles to the river and Lewins Mead rather than parallel to the main hall. What function building 7 served is uncertain, but as it was demolished during Period 3B, at about the same time that a major new range which provided kitchen/refectory facilities was built, it might have been a small-scale, temporary version of that later development. Other facilities might have been provided in building 8, but it is doubtful whether that building was in existence during Period 3A.

Provision must also have been made for burying the dead. A burial ground was actually mentioned in 1340 and the evidence suggests that this lay some distance from the main building, in what had formerly been the de la Warres' garden towards the site of the later Greyfriars. This would have been on the far side of the women's dormitory (Fig 35). When the St Bartholomew's site was redeveloped in the early 1980s, no sign of the burial ground was found south of Johnny Ball Lane, despite extensive removal of earth for the construction of an underground car park. This confirms that it must have lain north of the lane.

The area of land available on that north side was substantial and one plot, itself called Lowynesmede, seems not to have been used for burial as it was leased off separately in the 14th century (see Chapter 6, p 87). As likely as not, some form of cultivation/pasturage was also encouraged as a means of supplementing a meagre income. If so, this must have been conducted on a small scale or it would not have been profitable for the land to be disposed of by a later prioress. The recovery from among the demolition rubble of building 1B of an

artificial egg, used to encourage hens to lay, lends support to this idea (Chapter 9, no 225). The evidence from the waste animal bones indicates a diet in which the predominant form of meat was of reasonably good quality produced from young sheep/goat and cattle, with some from young pigs, and poultry including chicken and goose. There was also evidence that brawn was prepared from sheep's heads, which is known to be highly nutritious and good for invalids.

Period 3B (c 1280–c 1320)

The hospital could not have continued for long in such poverty. If nothing else, money had to be found at least to prop up the buildings which were still just about standing. It might be no coincidence that it was at this time, in 1292, that the 100 marks which had been pledged for the foundation were finally paid by the de la Warres. Perhaps pressure had been applied by the new master, William of Axbridge. Only a few years later, in the inventory of 1303, it was noted that various items had been pawned, and at about the same time the house was exempt from paying (or at least did not pay) their proxies to the Bishop of Worcester. This, together with the modest acquisition of further revenue since the 1230s, and possibly with the assistance of some unrecorded legacy, meant that sufficient could be found to make essential repairs and construct new facilities.

Any discussion of the hospital during this period is dominated by the surviving inventory taken in 1303. No reason why the inventory was taken is given on the manuscript, nor is it signed. It is, however, indented at the top, which suggests that it was a second part to a fuller version which might have supplied more details but is now missing. Interestingly, it was retained by the de la Warres (the descendant of the line, the Earl of Ducie, was the holder until the 1950s) which probably means that it was commissioned by that family. Perhaps it served to check on how their money was being spent, although no valuation of property is given. It could not have been merely a list of valuable possessions as it included broken barrels and other damaged property. The inventory lists the various parts of the hospital as: hall, pantry, guest house, kitchen, cellar, larder, bakehouse, and granary. Little of this can be fitted with the layout of the Period 3A hospital as currently understood, and substantial development must have taken place some time in the later 13th century, where there is a good degree of correlation if the interpretation given is correct.

It is strange that no chapel, infirmary, master's lodgings, or dormitories were included. The reason is not entirely obvious. As mentioned in the discussion of Period 3A and in Chapter 10 (p 220) it could be that religious observances were paid elsewhere, so there might have been no pressing need for a chapel. There is no decisive evidence one way or the other as to whether an infirmary had actually existed before the later 14th century. However, both functions could easily have been housed in the old Norman building 1A. Whether the hall listed in the inventory meant an infirmary, a refectory, or a more general place where hospital affairs could be conducted, is not clear; but the provision of tables suggests a room where a number of people customarily sat together. Table 8 shows that at least one master (John de Mershton) was living outside the hospital, and it is possible that others chose not to live there. When the inventory was taken, the mastership was in a state of turmoil and any special provision might have been temporarily usurped. But there must have been somewhere for the almspeople to sleep. It could be that any bedding was considered too worthless to be included, despite the listing of other trivia. Alternatively, Lord de la Warre might have exempted these parts of the hospital for reasons which cannot now be understood, perhaps to do with the original endowment. This is an unresolved problem.

It is not realistic to expect a detailed sequence of events to be given for a site which had to be dug in restricted trenches. Nevertheless, the following description seems to be a fairly accurate picture of what was accomplished during this critical stage of the hospital's development. It should be noted that much of this work was undone in the mid 14th century, when the hospital was just as impoverished and redevelopment would not have been contemplated unless it was essential. The more likely explanation is that the standard of workmanship during Period 3B was shoddy and proved insufficient to meet the needs of the hospital. Perhaps too much reliance had been placed on the efforts of cheap unskilled labour, although there is no direct evidence to support this assertion. Alternatively, it is possible that the actual dates of construction were somewhat earlier than the pottery evidence suggests, allowing further time for decay to take its toll. The matter is another unresolved difficulty.

The ground north of the main hall was the scene of much activity, which the presence of Saintonge overall green and polychrome wares dates to around 1280. Building 7 was demolished and the site might have been left open. It was probably at about this time that building 8 was erected, but it could have been a reconstruction of an earlier range. The evidence of the mortar in its upper stages, and the possibility that windows shown in the 1820 sketch (Pl 23) were genuine, make it almost certain that this was a two-storeyed building. There was no indication that it had a direct connection with building 1A; indeed, the discovery of a buttress on the north-west corner of the latter strongly suggests that the two were wholly separate. This interpretation implies that, whatever might have been its function later on, building 8 did not serve as an infirmary hall.

Leading from building 8, over the site of the former building 7, was a well-laid path, the quality

of which implies an important function for that range. At the point where it met building 8, the path was some 0.9m below the courtyard level shown in 1820 (see Pl 23). This means that the doorways shown in that drawing must have been raised if, as seems likely, the path had led to either of them five centuries earlier. Judging by the rather cramped proportions of the lower floor as illustrated, this would be a reasonable interpretation. By projection, the path would have led directly from the street outside, suggesting that it passed through a courtyard garden to connect the main gate of the hospital with something such as the master's or male staff accommodation and the guest house. A guest house is recorded in the inventory, which also shows that some attempt had been made to make at least that part of the hospital reasonably pleasant, with its better-quality bedding and wall hangings. From the list, it would appear that two travellers (perhaps even more) could be accommodated at any one time with reasonable comfort. There is no reference to corrodians having lived there.

A new building (Bg 2A) was constructed to the north-east. There is no direct proof, but it was almost certainly a domestic range incorporating the kitchen and refectory/hall, as this seems to have been the function of its replacement in later years. Moreover, some ash and organic remains were found in deposits dating from the end of the building's existence. Probably the hall was to the east (room 5K) with the small room on its north margin being the pantry; the kitchen would have been to the west (room 4K) with the larder on its north side. If it was a two-storeyed building, dormitories could have been provided upstairs. The stone structure in room 4Ka might have been a stair base, lending some support to this suggestion. The glazed ridge tile with decorative ball finial found amongst the demolition rubble within the well probably came from this building (Chapter 8, no 197). It was interesting that there was no evidence for any entrance way near the centre of the range, implying that access was gained via doors placed more towards the end of each wing. If so, this could have been part of the arrangement for segregating the men and women during mealtimes; but even more importantly so if there was indeed a dormitory upstairs.

No hearths or the leaden ovens mentioned in the inventory were found in building 2A, but there had been considerable disturbance and only the central portion of the range was available for excavation. The cauldrons would seem to have been large and excessive in number for the preparation of food, and might have been used additionally for laundering. Such vessels would have required adequate drains to dispose of waste water. These were certainly present in a later period, but disturbances could easily have obliterated those of Period 3B. The stone mortar (Chapter 11, no 224) was probably used to grind herbs for culinary use. One such was

listed in the inventory, but the excavated example might date from a later period.

The hall has already been mentioned. That there were three trestle tables, each with a basin and ewer, implies that people sat down there and washed their hands – if the translation from the Latin is accurate. This tallies with the interpretation that it was the refectory, as three of everything would seem excessive for a small infirmary. If so, the most logical place for it would have been in the new building 2A. The number of tables gives a hint (no more than that) of the number of inhabitants. Even at the smallest table, four persons could sit, suggesting a minimum of twelve; but no benches or other form of seating arrangement are listed. It they were more like the usual modern form, about eight or twelve persons per table would be reasonable, giving a total population of around thirty, which would make more sense in view of the scale of the new buildings. This might have included the staff and guests, but does not take into account any sick who were confined to their beds. Of course, the tables could have been much larger than that, they need not always have been fully occupied, and they might have been set up in different parts of the hall, especially if the men and women were kept apart in the customary manner. Moreover, the estimation assumes that everyone ate together in a communal manner. Despite these obvious objections, it is the only evidence so far available for assessing how many people were actually accommodated at the hospital and should not be dismissed out of hand.

There was very little animal bone from the floors of this building, suggesting either commendable cleanliness or a meagre diet. The latter is disproved, perhaps, by the quarters of beef and salted hogs included in the inventory. Quarters would have produced large leg bones and these would probably have been disposed of straight away. The mention of table cloths and towels suggests that the hospital tried, within its modest means, to keep meals as civilized as possible. The fragment of statue found in rubble excavated from over one of its demolished walls could have come from this range (Chapter 9, no 333) which might be taken as evidence to support the interpretation that the eastern wing served the more formal hall function. It would have been in keeping with the practice of the time if religious lessons were read out while meals were taken.

An external cobbled pavement was laid in the roughly triangular courtyard/garden to the south of the range. Into this, a well was set outside the west room. No direct evidence for any other water-supply to the hospital at this time was found, strengthening the argument for the use of the adjacent building. However, the well was rather shallow and without an adequate protective wall at the rim would have been subject to contamination by floodwater, even if it was closed by a wooden cover, so it might have been used only to provide for washing or

boiling rather than for consumption. This is an uncertain area, and medieval stomachs must have been stronger than those of people today, so value judgements must be treated with caution. What arrangements were made for drinking water, and indeed for any type of water before the well was constructed, are uncertain. The great barrels stored in the cellar, according to the inventory, were probably water butts. Rainwater might have been collected at some suitable run-off point below the hill behind the hospital. Alternatively, supplies could have been brought in from wells cut into the rock inside the town walls.

The other essential sanitary facility, the latrines, also lay outside the available limits of the excavation. This is a matter for particular regret as so much information might have been recovered. Logically, they would have been put close to the street so as to minimize the length of the outfall to the river; assuming that it was drained rather than dug out at intervals. There is no evidence at St Bartholomew's, but a common practice was to divert water from the kitchen area to flush away the detritus and excreta in a common sewer. Moreover, to keep the courtyard relatively free of unpleasant smells (which were thought to be capable of transmitting diseases) the latrines would most likely have been sited behind building 2A, which would also have been a more convenient location in relation to the dormitories. As ever, there would almost certainly have been separate facilities for men and for women.

The fragmentary building 3, which lay close to or adjoining the east half of building 2A on its north side, was possibly the bakehouse. This was suggested by the quantities of charcoal on its floor, which implied fires on a significant scale. There was no evidence for any internal structure, but it might have housed a conventional waist-high bread oven. The listing in the inventory of facilities for both making dough and for grinding malt imply that the building also served as a brewery, for which the barley in the granary could have been used, the brewing being carried out in one of the kitchen cauldrons. It would have been logical to site the granary close to the bakehouse, behind the main domestic range. No such building was found which certainly dated to this period, but building 4 (Period 3C) might be earlier than the pottery suggests: there is a certain leeway and the time difference is small. Moreover, the form of the building is of the right type for such a purpose.

The cellar mentioned in the inventory was probably the undercroft of building 1A. Of course, a cellar need not necessarily be below ground but, given the limited use to which such a basement floor could be put, the interpretation is reasonable. It would have been a most unsuitable place to store flour, which must easily have gone mouldy in the damp conditions, but the inventory lists only a box for storing flour, the barley and beans being kept in the granary. Perhaps those cellar items were merely lumber.

Security was given some prominence as the whole house was secured with locks and keys. Doubtless the staff and almspeople wished to hold on to what little they possessed. It is likely that the boundary on Lewins Mead was protected by a wall, with the main gate being at the end of the path leading from building 8. Another concern was to keep the sexes apart, and this might have been more easily done by actually locking doors immediately after people had passed through. Perhaps significantly, several keys and an iron padlock-case of about this date were found (see introduction to Chapter 9).

Most of the finds recovered are typical of many medieval sites, and the jugs, cooking pots etc are exactly what would be expected. Of interest is the sherd of Saintonge jug (Chapter 8, no 81) which bears an inscribed letter A. Although not too much importance should be attached to this, it is just possible that the mark depicted some particular liquid measure or identified the vessel's contents, perhaps some routinely prescribed medicine.

In terms of administration, the early 14th century was a particularly difficult one for St Bartholomew's. As can be seen from Table 8, there were numerous disputes about the way in which the hospital should be run. Certainly, much had been done to improve the facilities way beyond what had been provided by the original endowment, but there must have been continual arguments between the masters, brethren, and sisters as to the best way to go forward. Seen in this light, the bad feeling caused by the interference of people such as Adam de Cumpton need not necessarily have been justifiable: it could be that he was an activist who wanted to get things done but met with continual opposition from more conservative elements. If he was indeed the person ordained at the nearby Greyfriars in the same year that the inventory was taken, it could be that he was a local man who was doing his level best to help out his less fortunate fellow townspeople. Of course, it is entirely possible that the opposite was true, and that Adam was a self-seeking opportunist, which would appear to have been more typical of the times and so the more probable interpretation of events. Overall, the impression formed from the sketchy record is that there had been a decline in the quality of staff from around 1300 onwards. The theme is developed in Chapter 10 (p 226).

By this stage, some time around the first quarter of the 14th century, the tilting of building 1A in the direction of the river must have become a major problem which had to be dealt with before it become too dangerous to be habitable. Pier 3 had partially collapsed and had to be rebuilt. What effect this had on the south aisle is unknown, but the arcade probably needed temporary support while repairs took place. An oolitic limestone capital of Norman date was inverted and recarved in Early English style, probably to grace this column (see Chapter 9, no 335). It could not be proven that the capital had been one of those from the same building, but it is

not unlikely. However, this period is a little late for such an architectural style, indicating that some of the essential repairs at least had taken place before Period 3B.

In an attempt to improve stability, bracing walls were inserted in the arcades and the undercroft floor levels were raised yet further. The poor alignment of these walls suggests that they were built while the upper wooden floor was still in place, and it is unlikely that they rose any higher to fill the arcades to the tops of their arches. This argument is strengthened by the observation that in Period 4A, when the building was partially demolished, the inserted walls were retained but their top courses were covered by debris used to backfill the undercroft (see Chapter 6, p 93). This is not complete proof, but several of the columns were left *in situ* and the builders must have been confident that they would stand without bracing, even if the pier foundations would not. It could not be proven whether direct access between the aisles was retained in the undercroft when these walls were put up. The presence of floor surfaces and, more telling, the plaster on certain of the walls, shows that the undercroft was still in use, probably as a store. That some of the walls were not plastered suggests different functions for those parts of the building. The raising of the floors by up to 1m would have reduced the available head room. It could be that this was considered acceptable if it served as a cellar. Alternatively, and perhaps less likely in view of the expenditure and difficulties entailed, the upper timber floor could have been raised. Similarly, if the estimate of the height of the east doorway given in Chapter 4 (p 50) is correct, it would have been most inconvenient as an entrance unless the arch was raised. That new steps were added during this period proves that the door continued in use. The replacement of the arch with a new one in pointed style might not have been considered a particularly difficult task.

A coin of 1302–10 associated with floor 46 provides dating evidence for the bracing of building 1A. From the same context came a parchment pricker (Chapter 9, no 322). It might be that the discarded door found in rubble in Area A had come from the old hall.

Period 3C: c 1320–c 1340

The arguments over administration referred to in Period 3B continued to rumble on. Sir Roger de la Warre I had died in 1320, which probably complicated matters further, and his heir John IV found it necessary to restate his rights in appointing the master, subject to the agreement of the Bishop of Worcester. At the time, the de la Warres were probably more concerned about their engagement in the various wars being fought by the Crown, and in enlarging their estates by advantageous marriages, but they were reluctant to relinquish all involve-

ment in the hospital. Whether or not John de la Warre knew what was going on, at least one of the masters at this time, John de Mershton, seems to have been downright irresponsible. It is probably no coincidence that shortly after the threat of his excommunication the organization went through a period of uncertainty.

His successor, called William Williams and appointed in 1334, came from the same village in Wiltshire (see Table 8) and there was probably some connection between them; but whether as blood relatives or merely neighbours is not known in the absence of any alternative surname for John de Mershton. Williams's duties at the hospital are a little unclear from the tentative translation of the Latin provided by the editor of the bishop's register which contains the record. He was ordained to the title 'master, consecrator (?) and sisters', which might be simply a mistake in the original for something such as master and consecrator of sisters. This suggests that there was already a dichotomy between the brethren and sisters, so that by 1 May 1336 the bishop's officials referred only to the sisters in reporting on their visitation. On the same day that Williams was made master, another priest, by coincidence called William William (other records confirm the names, or minor variations which are not significant) came down from St Bartholomew's Hospital in Gloucester to take up a title as one of the brethren. No details survive of the manner in which William Williams supervised the women, or how the second William related to them, but it must have been a fraught time as the situation led before 1340 to the hospital's affairs being taken over by the sisters, who were thenceforward governed by a prioress. What happened to Williams the master is not stated. This is further discussed in Chapters 6 & 10 (pp 115 & 206).

In the two decades or so of Period 3C (given the limits in the accuracy of dating evidence) substantial changes seem to have been made in only the northern part of the site. According to the pottery evidence, the domestic range (building 2A) continued to be used until c 1350. Its replacement is described under Period 4A. To the rear of the kitchen were other domestic buildings. Insufficient animal bone was recovered to give a clear picture of diet, but such as there was came from young animals. There is no reason to suppose that the almsfolk fared any differently from those of the preceding periods.

North of that range, building 4 seems to have been a store, along the lines of a shed or barn, built in timber on shallow stone foundations. As noted in the discussion of Period 3B, it is possible that it was earlier than suggested and might have been the granary referred to in the inventory. Building 5 replaced building 3. However, the bakehouse function of the old building would have been essential and must have continued elsewhere, most likely in the kitchen of building 2A. Building 5 was probably a conduit house, built to improve the supply of fresh

drinking water to the hospital, as it enclosed a channel which could have contained a water pipe. Such covered access points were common in Bristol. Perhaps a tiny stream ran off the hill to the north, to be tapped by the hospital, but it is more likely that at some stage St Bartholomew's was linked to a feather from the Greyfriars pipe. This is known to have carried fresh water from the hill down to the friary, and from there along Lewins Mead, past the hospital, over the Frome Bridge into the town itself. The date of construction of that conduit is uncertain, but the friars were granted the spring which served as their source some time during the reign of Edward I (1272–1307) so it could have been available to the hospital by Period 3C (Weare, 1893, 47).

Such a facility would have been a major improvement on anything which the hospital had experienced before. Whether or not the well in the courtyard went out of use immediately, or was left open for emergencies, could not be determined.

Finally, the reference made in the St Mark's Cartulary in 1335 to the tenement of the hospital and adjoining properties strongly suggests that by then some building development had begun to take place on the St Bartholomew's land to the north of the excavation site, probably near the burial ground. This might well have been a forerunner of the development of the site of the women's dormitory discussed in Chapter 6 (p 116).

6   Period 4

Reconstruction and later occupation of the hospital (*c* 1340–*c* 1532)

Period 4 is subdivided into:

Period 4A (*c* 1340–*c* 1400)
Period 4B (*c* 1400–*c* 1532)

Documentary Evidence

Administration

Table 8 (pp 53–6) lists all the members of the hospital staff known at present. It was noted in Chapter 5 (p 58) that some time between *c* 1334 and 1336 the brethren largely (but not entirely) disappeared from the hospital, which was subsequently run by the female staff under a prioress. It is not stated in the original registers whether this change affected the male inmates, but it was alleged in 1387 that both men and women and sisters stayed there, who were accustomed to share their worldly goods (Marett, 1972, 54–5).

There were several visitations by the bishop or his representatives during the 1330s and 1340s, perhaps to assess how successfully the hospital was being run. In 1336 the sisters were required to correct unspecified shortcomings in their affairs (Haines, 1996, 281 & 340). In 1349 a mandate was issued that the hospital should prepare itself for such an inspection, but no adverse comments seem to have been recorded and the women remained in charge for a further 40 years, the last known reference to the prioress and sisters being made in 1385 (Graham, 1907, 118; Haines, 1966, xxxvii; Willis Bund, 1897, 241 & 274; Wadley, 1886, 15). However, in 1373 a mandate had been issued for yet another inspection, which might have been at the instigation of male interested parties, although the reason is not given in the record (Willis Bund, 1897, 311).

In 1387 the bishop ordered an enquiry into a vacancy at the hospital with a view to deciding the future administration: whether it should be ruled by seculars or regulars, by men or women; who the true patron was, and the size of the annual endowment. The jury stated that St Bartholomew's had been governed by masters who had been secular clerks, and that for the last 40 or 50 years they had been men; which was not true, but it does imply that the prioresses had lost control some time a little before, or during, the previous year (see Table 8). It was also recorded that the house lived according to a rule, probably that of the Augustinian Order or some suitably adapted version of it, as explained further in Chapters 4 and 10 (pp 34 & 216). The right of the Lord de la Warre to present a secular priest as master was re-established and men took over once more when William Badesford was appointed master (Marett, 1972, 54–5). An incident involving one of the sisters, Agnes Stanley, suggests that they were not on the best of terms with their new master (Table 8). The women tried to reassert their claim to administration in 1412, but a jury appointed to decide the issue declared that the hospital should be run by men who were secular priests and declared that 'it had always been ruled by men' (Graham, 1907, 118). There was obviously continuing disagreement, as in 1427 the de la Warres felt it necessary to reassert their rights to the advowson (CFR, 1422–30,182–3). The men remained in control of the hospital until it closed in the 16th century.

Financial situation

The poverty of the hospital in the early 14th century has been referred to in Chapter 5 (p 58). When the women took over, one of the first things done by Prioress Eleanor in 1340 was to obtain permission from the Bishop of Worcester, following his visitation to St Bartholomew's, to lease for rent for a period of 60 years a plot of land and the nearby old dormitory in which the sisters used to dwell when the brethren still lived there. The plot, which was itself named Lowynesmede, lay near the burial ground of the hospital on the street called Lewins Mead and measured 80 ft (24 m) by 12 ft (3.6 m). The new tenant, J Fysshwer (sic) was allowed to build appropriately on these sites to the profit and advantage of the hospital and was to pay an annual rent of five shillings (Haines, 1966, 68). Not only does this valuable note indicate the approximate positions of the women's dormitory and the burial ground (see Fig 35) but it also suggests that the financial position was difficult and that extra revenue had to be raised, perhaps for urgent building works. Whether or not this transaction also affected the burial ground itself is not stated. No record has so far been found which states what happened when the 60-year term of the lease expired.

In 1386, the income of the hospital was said to be 30 marks (£20) worth of cultivated lands and rents

(Marett, 1972, 54–5). This was nearly half as much again as it had been in 1303 (see Chapter 5, p 58) but whether because of inflation of rents or by the acquisition of extra property is unknown. Other legacies made by wealthy citizens added some measure of help during the late 14th and 15th centuries. Most such bequests seem to have concerned money or allowances of bread, but in 1404 the will of Thomas Gilemyn specified a brass pot (Bickley, 1900, I, 224; Wadley, 1886, *passim*; Weaver, 1901, 183). This is discussed in more detail in Chapter 10 (p 209). Nevertheless, it seems that the financial situation was still dire and the buildings were allowed to fall into disrepair. In 1412, the jury which had been asked to assess the value of the property replied that it was unable to do so because of its very severe dilapidation (Graham, 1907, 118). In the early 16th century Leland appears to have described the church (*fanum*) of St Bartholomew's as in ruins, but the reference is confused (Hearne, 1769, 92; Toulmin Smith, 1910, 89).

Inmates

Two documents of the late 14th century provide extremely scarce evidence that St Bartholomew's actually housed the sick, other than those also resident who inevitably fell ill from time to time, especially if they were elderly. In 1389, Edmund Blanket's chantry provided for the distribution of five shillings in money to the blind and lame paupers lying in their beds there (Bickley, 1900, I, 224). A little later, in 1395 the will of a William Cary left a small legacy to the sick poor at St Bartholomew's (Wadley, 1886, 46).

In 1445, a fraternity for twelve poor mariners was established at St Bartholomew's, under the licence of the master of the hospital. The mariners were poor, aged or sick, unable to continue their lives at sea, but who had made a subscription to the fraternity for at least the last seven years. On acceptance, they had to surrender for the general use of the community all their personal property except bedding and clothes, and they were required to pray for the welfare and prosperity of the king, mayor and corporation, merchants, mariners at sea, and all christian souls. Finances were provided by taxing all ships which used the port, according to an agreed formula which exacted stringent penalties on all defaulters. On acceptance on Lady Day, any mariner who had been a shipmaster for seven years was to receive 12d per week, but only 8d if for less than the qualifying period. The seamen were known as the Fraternity of St Clement and had their own priest. Within the hospital they had a chapel dedicated to their saint, who was one of the patron saints of sailors. Presumably, this chapel was within the church, but this is not stated. The shipmasters and mariners of the port elected two wardens annually from among the fraternity to look after temporal welfare, and advised the mayor of their choice. Those of the Bristol sea-going community who did not contribute to the fraternity, or otherwise infringed the mariners' code of conduct, were fined to the benefit of the fraternity (Bickley, 1900, II, 186–92).

In 1458, the will of a Stephen Forster referred to the poor and infirm lying in the hospital; and in 1473 John Shipward left two torches for the use of the mariners' fraternity, proving that it was then still in existence (Weaver, 1901, 183; Wadley, 1886, 159). In 1493 the Corporation of Bristol granted land in the Marsh (see Fig 2) to thirteen merchants and thirteen mariners for the construction of a new Chapel of St Clement, which probably supplanted the St Bartholomew's accommodation. An almshouse was erected there as well, but precisely when is uncertain and it might have been much later (McGrath, 1952, 66 & 96).

Buildings and developments

A little more information concerning the layout of the hospital is available.

Writing in *c* 1480, William Worcestre made a number of references to the church (*ecclesia*) which he said was opposite Frome Gate, near the corner of Stypestrete (or Steep Street, the present-day Christmas Steps) and Horstrete (ie Host Street) at the south end of the hospital precinct. This in itself should not be taken too literally, as the medieval use of such terms was imprecise. Thus Worcestre often used the word church when describing hospitals generally, and he also reported St Bartholomew's variously as a *domus dei* and a college. More importantly, Worcestre also stated that the church was eighteen yards (*c* 16m) or 32 steps long, but does not make it clear whether this was an internal or an external measurement. He made no reference to any chancel or similar eastward extension into Lewins Mead (Nasmith, 1778, *passim* & 263; Dallaway, 1834, *passim* & 151; Neale, forthcoming).

In 1454, the will of William Pownham referred to the rent paid by William and Anne Noble on a lease for 30 years of a tenement with four shops adjoining, situated in Lewins Mead on its north side, between the cemetery of the Friars Minor on the east and shops belonging to the master of St Bartholomew's on the west, extending from the street back to lands of the said master (Veale, 1951, 104). This was part of the same development of land on or near the burial ground. The same will also referred to Pownham's property, occupied by a Thomas Dygon, at the southern end of Stypestrete on its east side, adjacent to the garden of the master of the hospital. The exact position is uncertain, but there was possi-

NEW BUILDING
RETAINED BUILDING

Bg. 6

tank

oven

partition

window

Bg. 8

Bg. 2B

water pipe

stone feature

Bg 9

L E W I N S   M E A D

kitchen

Bg. 1B

partition

partition

BURIALS

stair

0   10m

Host Street
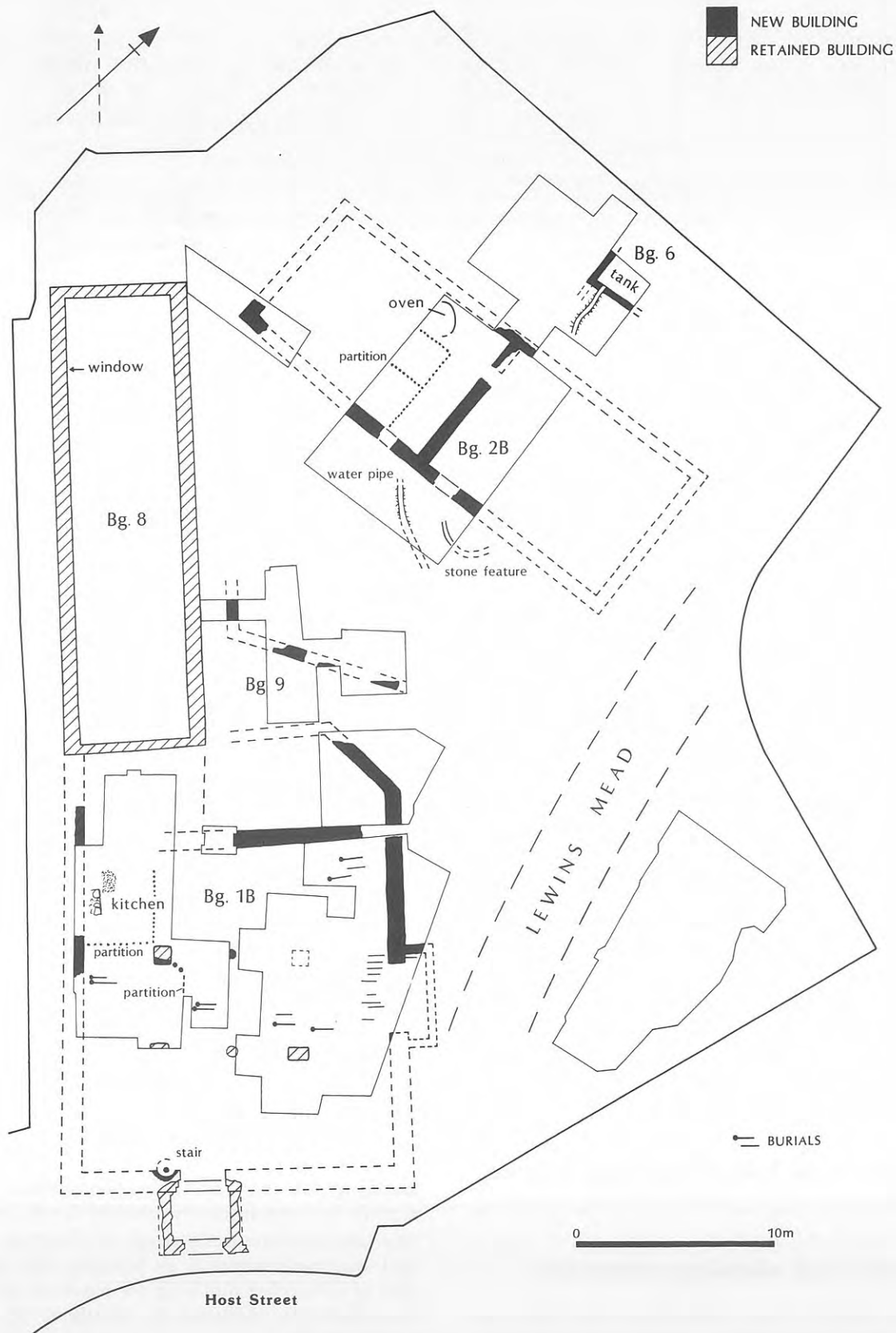
Figure 36   Summary plan of structures of Period 4A
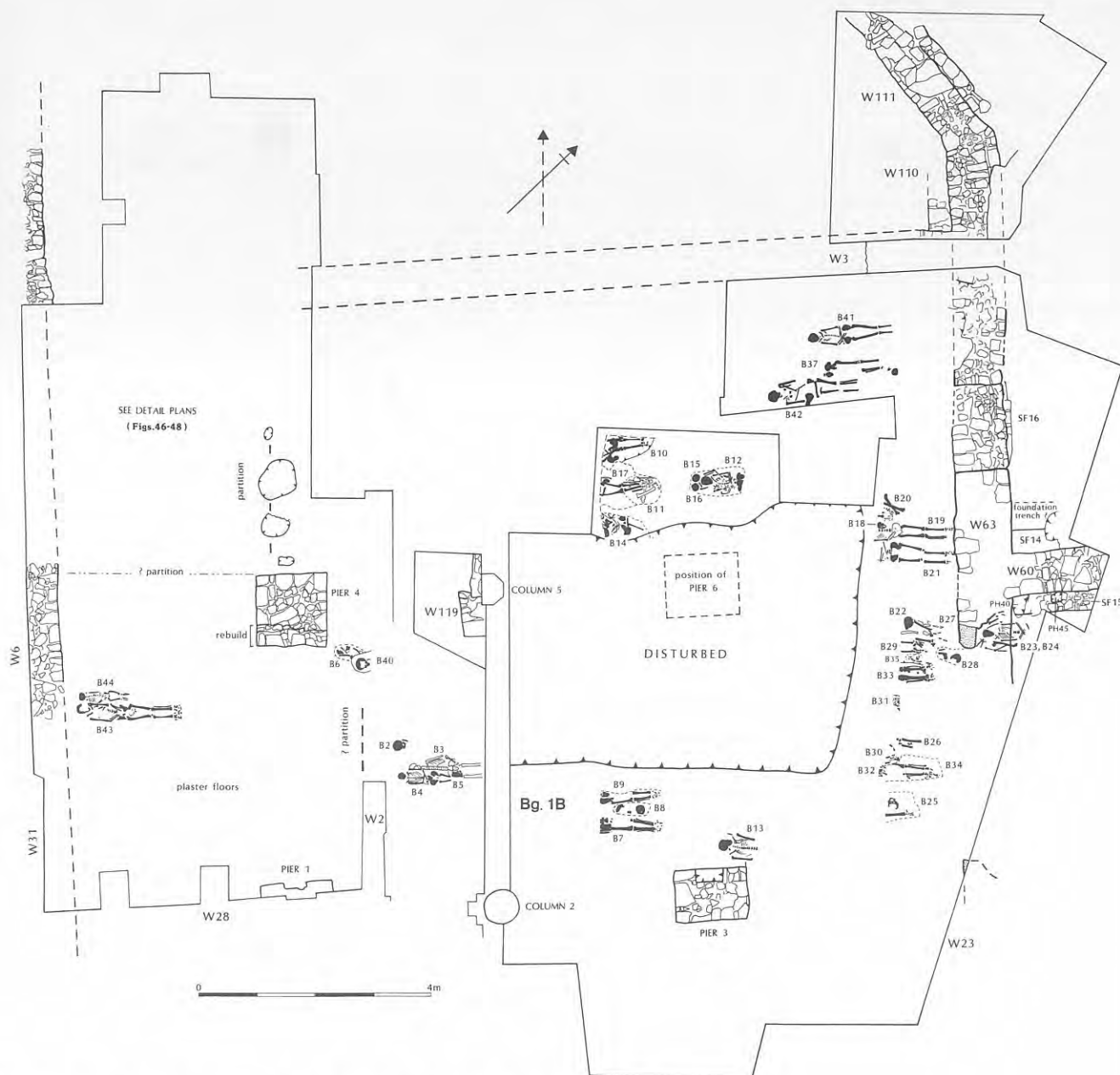
Figure 37   Area D/G/H: plan of building 1B and human burials

bly just enough room to accommodate a small open space alongside the church.

In 1501, a merchant named John Fuyster referred to his dwellinghouse and gardens in 'the bertilmews' (Wadley, 1886, 173). Exactly where this lay is uncertain, but it might have been part of the development of the hospital land north of Johnny Ball Lane.

Excavated and standing structures

Summary plans of the excavated structures are given in Figs 36 & 50. For convenience, most features of the intermediate Period 4A–B are included in Fig 36.

Period 4A (c 1340–c 1400)

Area D/F/G/H (Demolition of building 1A; construction of building 1B: Context Groups D11–13, D16, G10–21; Figs 12, 17, 26, 37–40 & 49; Pls 4, 8, 13 & 17)

Building 1A was partially demolished, approximately to contemporary ground level, leaving *in situ* the structures described in Chapters 4 and 5, and was reconstructed as building 1B. As in the case of the earlier building, the external structure is described first, followed by details of the internal modifications.

All the external walls were rebuilt on the partly demolished walls, but were narrower. In Area G,

S   N

SF16

—8m   W66

W62

W67

W60
—7m

steps

site of W68

SF42

—6m
0   1m
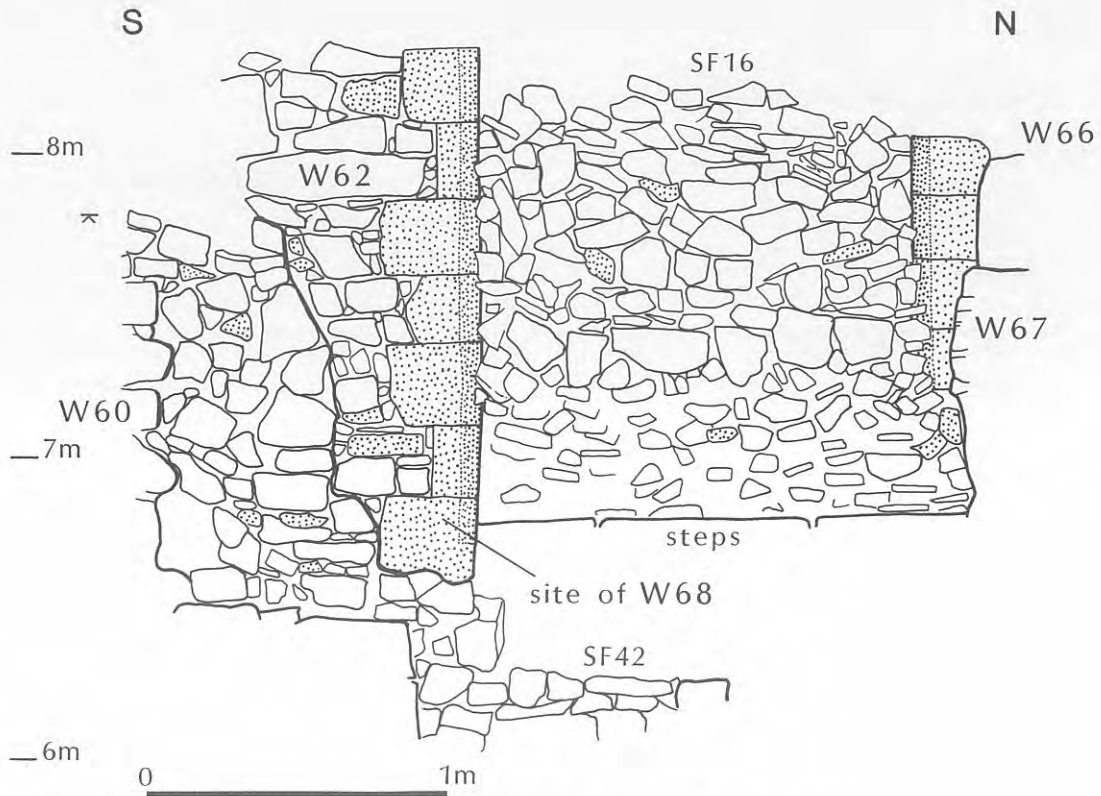
Figure 38   Area G: east elevation of blocked doorway in building 1B

Plate 17   Area G/D: Building 1A/1B as seen in 1995. Centre and north aisles, looking south-west, with standing columns 1, 2 and 5, top of pier 3, and position of pier 6
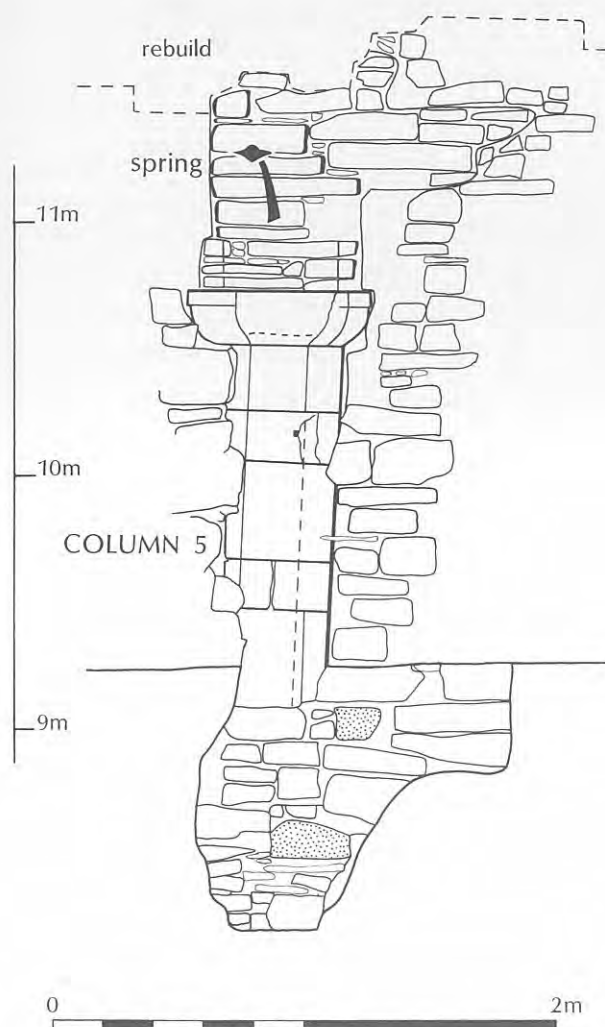
Figure 39 Area G: east elevation of column 5 in building 1B

the new north wall (W3) was 0.5 m narrower than the earlier W83, tending to be even narrower towards its east end. It was set back about 0.38 m from the former south face and 0.14 m from the former north face, giving a new thickness of 0.65 m (Fig 37). It was of similar construction to the original wall, but the mortar was pinker and harder. It has survived in places to around 2 m above medieval floor level, above which point it had been largely rebuilt when it was incorporated into the rear wall of the 18th-century range. As reported in Chapter 4 (p 42) a medieval wall was discovered in Area F midway between Areas G and D. It seemed much too thick to have been part of the Period 4A rebuild but, as it was substantially robbed and the scope for excavation was limited for safety reasons, its direct relationship could not be determined. Further west, in Area D there was no trace of rebuilding over the demolished W44.

At the west end of the building, W43 was also rebuilt, its southern part being W31, and was set back from the old face by 0.25 m, to become 0.75 m
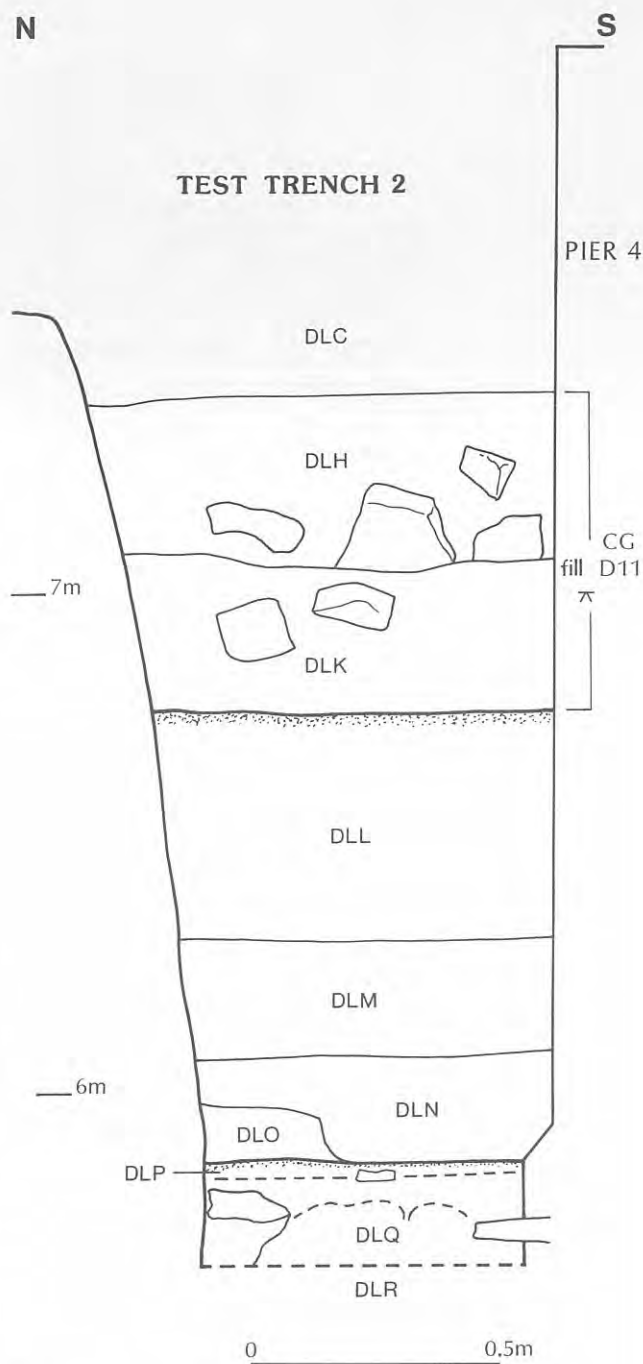
Figure 40 Area D: east section – test trench 2

thick, increasing towards the south to probably about 0.9 m. The western respond of the south arcade survived and, assuming that its entire body stood proud of the wall, showed that at that point the main face of the wall had been set back even further, giving a narrower stretch some 0.5 m thick. There, the new W31 had survived to a height of c 12 m OD. This wall had also been substantially rebuilt more recently, but the main structure was essentially the same as W3.

As had been the case for the early period, more recent buildings had obscured the direct evidence

for any rebuild of the south external wall. It might have been during this phase that the inner doorway was remodelled from semicircular to elliptical headed, implying that at least that part of the wall above the arch was rebuilt (see Chapter 4, p 44).

The reconstruction of the east wall was more complex and made all the more difficult to excavate because of the extensive damage caused by services laid in the 1930s. The earlier doorway was blocked by SF16 (Figs 37–8) which consisted of a mixture of large and small stones bonded in a yellowish-brown clay. On its east side, the face was rough and approximately flush with the face of the partially demolished walls. To the west, the stone feature protruded 1.3 m from the wall face, probably to give added strength at a weak point but just possibly to support a large monument which might have been placed over it. There was no surviving evidence for a rebuilt wall on top of either the demolished W66 or the door blocking, but there was extensive later robbing in that part of the trench and it is reasonable to presume that it had all been taken out. W63 was the rebuilt version of W61/62. It was of the same construction as the earlier walls, but the mortar was whiter. The new wall was set back from the original west face by 0.5 m but was flush with the old east face, giving a width of 0.9 m.

W63 was extended to the east as W60. The latter appears to have been the north wall of a chancel or similar structure. For convenience, in the remainder of this report it is called the chancel. Unfortunately, the structure was at the eastern boundary of the excavation so it was not possible to pursue the corresponding south and east walls, which lay under the street. W60 was constructed in the same materials as the other rebuilt walls. It was not aligned directly on the projected line of the north arcade, being about 0.4 m further south, but it had been thickened by the addition of a rough wall (SF14) with its north face on the projected line of the bracing wall (W65). If the south wall lay on more-or-less symmetrical lines, the chancel would have been approximately 4.4 m wide. Where W63 joined W60, it continued south for up to 0.75 m. The shape of the stub, with signs of a chamfer, strongly suggests that it was the base of an arch. A patch of mixed stones, including pieces of freestone, found at the site of the junction of the earlier W61/W48, might have been the foundation of the south jamb of the same arch. If it was symmetrical, the arch would have been approximately 3 m wide. Several human burials were found overlying the demolished earlier wall, showing that there was undoubtedly a gap in the new wall corresponding to the position of such an arch (Fig 37).

Turning to the internal structures of building 1B, there was some evidence for the continuing collapse of the arcades, despite the insertion of bracing walls during Period 3B. In the north arcade, the south-

west corner of pier 4 was completely replaced, but with Brandon Hill Grit and Pennant rather than freestone, bonded in light brown lime mortar (Fig 26; Pl 13). The bottom of the rebuilt portion was just below the flagstone floor F46, into which an apparent foundation trench for the rebuild had been cut; which demonstrates that it postdated the use of the floor. The finish of the work was very rough and only partly rendered with mortar, suggesting that it was not meant to be visible. The reconstruction of this pier base, which could not have supported a column in its dilapidated state, shows that much, if not the whole, of the north arcade had been demolished and that the demolition deposits were all part of the same rebuilding programme. There is no evidence to show whether or not the original column had been re-erected.

Column 5 was erected at this stage (Figs 37 & 39). Excavation was limited by the instability of later walls, but the west side of the top of a base 1.3 m wide (W119) was found which was slightly askew and had a roughly finished top. It is presumed to have been square originally and to have been the remnant of the base which supported the earlier column, but this is uncertain. The top course of the pier base overlay the top of W59 (the bracing wall between piers 4 and 5) showing that both it and the column were part of the later reconstruction programme rather than belonging to the previous period. The column itself was revealed incorporated within W1 and is still standing, now freed from its enveloping modern superstructure (Pl 17). Its foundation consisted of Brandon Hill Grit bonded in orange-pink and buff mortar, but above this it was constructed in green Pennant of good quality, bonded in red sandy mortar. In section it is octagonal, 0.43 m across the flats, but much of its west face had been cut back at some time to make it flush with a later wall. Set on the column is a plain, octagonal cushion capital, 0.74 m across, with its abacus at 10.73 m OD (only about 0.25 m below those of the other surviving capitals). Some remains of an arch springing to the east were found, consisting of three courses of Pennant set in a red mortar. The stonework of the arch was 0.62 m thick and its edges were chamfered in a manner similar to the surviving arches of the south arcade. It seems likely that all the arcade walls were contemporary.

A substantial portion of the south arcade has survived (Fig 17; Pl 4). There is no evidence that either column 1 or 2 had collapsed, although the pier base of column 3 had certainly done so (at least partially) before W48/53 had been inserted (see Chapter 5, Period 3B, p 62). It was not possible to excavate close to the pier base for column 1, so precisely what work had been undertaken within the bays on either side is unknown.

The west respond of the south arcade is also still standing. It had been built along with the

replacement west wall W31, using Brandon Hill Grit bonded in a pinkish-red mortar and has a slight vertical batter. It seems to have been built on top of the demolished W43. A plain oolite capital was set with its top at 10.9m OD. Above this, some fragments of arch remain, bridging the bay to column 1, although there has been some later rebuilding. The arch is composed mostly of Pennant, but it has some oolitic limestone set in a pinkish-red mortar. Its apex was hidden behind an 18th-century chimney breast which had to be left in place, but the top of the arch is probably at *c* 12.6m OD, similar to that in the bay between columns 1 and 2. Although much had been removed, the arch appears to have been four centred. This might have been necessary because an earlier respond incorporated in W43 had been removed and the replacement respond was set back with the west wall (W31) making the span of the bay wider than that between columns 1 and 2. Its edge is chamfered, as in the north arcade.

Almost the entire arch over the bay between columns 1 and 2 survives and is of the same construction as that to the west. This arch is two centred, with its top at 12.67m OD, about 3.8m above the medieval plastered floors discussed later. The arch comprises two relieving arches, one above the other, presumably for extra strength. Its edge is also chamfered. East of column 2, only the spring of the arch has survived, but it is of the same construction as the rest. At this point the wall of the arcade is 0.72m thick and chamfered.

Above the arches, the medieval wall, built mostly in Pennant with some Brandon Hill Grit, has survived to at least 15.4m OD, although some parts had been pierced and rebuilt later. There are traces of a possible window light over the bay between columns 1 and 2, with its cill at approximately 14.2m OD, but the extensive rebuilding during later occupation makes this interpretation uncertain.

It seems likely that it was during the reconstruction of the upper parts of the building that the former undercroft was filled in, and the floor level raised to about the same height as the tops of the demolished walls, ie *c* 8.3–8.6m OD (Pls 4, 8 & 13). This would have been the most prudent course of action. As might be expected, the fill was relatively featureless and consisted of various combinations of suitable debris. As far as possible these were distinguished during excavation, but their description is condensed here.

In the north aisle, close to W83/66, a thick layer of demolition debris (Context Group G10) was excavated as spits of essentially the same material: a reddish-brown, clayey sand with many stones both large and small (Fig 12). In a depression to the east were three medieval floor tiles, laid on a pink mortar (context GSP). This seems to have been a rare survival of flooring at the east end of the building.

Although at a lower level than the upper limits of both Context Group G10 and W83, it is likely that the floor was uneven, so this need not disprove the interpretation. If they were part of a more extensive pavement, however, that was short lived as the tiles were covered during the same period by a layer of stones (context GSQ). A post-medieval drain (context GSB) had caused extensive disturbance, which made detailed interpretation hazardous.

A little to the south-west in the same aisle, above the flagged floor (F27) in test trench 4, the same general material (Context Group G11) was used as the backfill. On its top surface, a large patch of yellowish-white and buff mortar containing many Pennant fragments was probably the residue left over from the mixing of mortar, as more debris was deposited directly over it. It is possible that there were two phases of backfilling, with a temporary floor (including the tiles) having been laid. Placed on the later make-up was an insubstantial wall (W56) which might have served as the base of a timber partition. It comprised six medium-sized stones of Brandon Hill Grit set in a dark brown sandy clay and ran north–south across the centre of the trench (not illustrated). It might have served as a temporary structure such as a storage shed for building materials. East of the wall were layers of dark brown clayey sands mixed with mortar and small stones (Context Group G12). To the west of the wall was a similar fill (Gy13).

Near the west end of the north aisle, in test trench 2, similar variations of red and orange-brown sand and clay with stones were excavated (Context Group D11; Fig 40). The top layer (context DLC) covered the whole of the excavated area (including test trenches 1 and 2) to the same level as elsewhere. Above DLC was the possible floor level (Context Group D11, context DKY) which consisted of six Pennant roof slates laid flat, covering an area approximately 1m square. If this did indeed represent the floor, it was only fragmentary. Over and around this were small patches of brown and red clays, some with a high organic content and varying amounts of stone. Covering these last deposits was F26, similar to the main fill, but more orange than red, and compacted. Although termed a floor because it was trampled and level, there is no proof that it actually served as such; but when the east section was cut back to follow this sequence it was found to continue as a layer of small flat Pennants, apparently laid as a pavement.

In the central aisle, at the east end near the chancel, it was not possible to excavate to any great depth because of the proximity of standing buildings. At 8.2m OD was a possible pavement, consisting of six fairly flat stones of Brandon Hill Grit in a red sandy mortar mixed with yellowish mortar flecks (Context Group G14). However, it is more likely to have been a foundation for some

substantial structure because it was not as high as the surviving remnants of W61. The relationship of this stonework to W60 was uncertain, but it appeared to be later than the wall. Over this, SF15 abutted the south face of W60 and thickened the wall by 0.35 m (Fig 37). It was built in small and medium stones of Brandon Hill Grit, bonded in a mid brown, sandy mortar. Over the remainder of Context Group G14, and over the demolished W61 and part of the bracing wall W48, more hardcore had been laid as Context Group G15: characteristic mixes of stones in red-brown sand and clay. This strongly suggests that the earlier bracing walls between the columns did not completely fill the gaps between the columns up to the height of the arches at this stage and had probably been built only to floor level (see Chapter 5, p 62).

Cutting these deposits, and directly over SF15 alongside the south face of W60, were two postholes (Fig 37). PH40 (Context Group G21) was set in a larger postpit (P113) which measured 0.35 m by 0.3 m and 0.35 m deep. It was filled with dark brown ashy soil and packing stones: the posthole itself was 0.2 m square and 0.3 m deep. PH45 was 0.4 m east of PH40 and similar in appearance. The postholes were contemporary and appeared to have contained large posts suitable for supporting a wooden screen or wainscot.

In the south-east corner of the centre aisle, immediately west of the demolished W61, in test trench 7 over Context Group G8 and covering the plaster on W61, was a similar make-up sequence of red and brown clay and sand with stones, rising to the top of the trench (Context Group G16). Although there were many irregularities above this, all the fill was similar (Context Group G17). Further west in the centre aisle, in test trench 6, above Context Group G9 the same backfilled debris as elsewhere was Context Group G18. Again, there were many variations, especially towards the top. Two possible postholes are thought to have been broken stakes among the rubble (PH24 and PH25). The top of the fill was at the same level as the upper course of pier base 3. Near the west end of the same aisle, in test trench 3 over F46, the equivalent filling was Context Group D12. It was noted that towards the bottom there was more grey clay than elsewhere. The rest of the centre aisle was unavailable for excavation and much of it had been disturbed during the 18th or 19th century for the construction of a cellar.

Similarly, little was revealed in the limited space available for study of the south aisle as this had also been extensively robbed. However, during the 1980s redevelopment the fragmentary remains of a stone newel post and steps were found adjacent to the inner door of the south porch (Fig 36). Regrettably, conditions at the time made detailed recording impossible, but that which is still visible has been re-examined more recently. The newel consists of freestone drums some 0.2 m in diameter; the spiral stairway survives as five freestone steps partially let into the south wall of the building, the newel being about 1 m to the west of the west jamb of the door. Their original width is unknown as they have been cut back to stubs some 0.2 m across. The topmost part of the stair observed reached only 1.5 m above medieval floor level, but it seems almost certain that originally it extended to an upper floor. Later reconstruction of that wall on its south face, inside the present no 17 Host Street, had obscured any sign of it there and it is unknown how far back it had extended. The thickened walls which still survive there might be a remnant of the staircase. The restricted access meant that the staircase could not be dated accurately, nor its relationship with the surrounding structures ascertained with certainty, but the distinct impression formed was that it belonged to Period 4A and was an integral part of building 1B when it was constructed. There must have been a serious risk of weakening the adjacent arch. Perhaps that was what led to its unusual form and the spreading of the jamb (see Chapter 4, p 44). The foregoing observations were made by John Bryant.

After the excavation had been completed and the backfill to Area D consolidated prior to redevelopment, a shallow test trench was cut in the extreme north-west corner of the area to determine whether the building had extended to the north in the direction of building 8. Although conditions did not permit the investigation to be detailed, W43 was found to extend over the buttress of the earlier building for at least 2 m north of W44, and must have led even further beyond that as its end was not found. It was noted before that there was no trace of a rebuild over the demolished W44, which strongly suggests that there was an opening from that part of the north aisle connecting directly with the room to the north. The width of the opening is unknown. Whether that room extended into building 8 could not be proven, owing to the limitations of the space available for excavation and the almost total removal of features when a septic tank was inserted there in the late 19th century. Just a fragment survived of a floor of red mortar mixed with red-brown clay. The latter was higher than the level of the demolished W44, but contemporary floors in the north aisle, including those subsequently described in Period 4A–B, were lower than it, so some provision must have been made to prevent people tripping over the shallow step. No evidence for any such provision was found. The foregoing was also reported by John Bryant.

Returning to the main excavation: in Area H, north of the north aisle at its east end, the continuation of W66 was found extending beyond the probable buttress from the earlier phase (see Chapter 4, p 40). Although extremely poor light conditions,

caused by the necessity of digging within a standing building, made it difficult to distinguish relationships, W110 and W111 seem to have been bonded and formed a dog-leg attached to W3 (Fig 37). They were of similar construction to the other rebuilt walls. W111 did not extend into Area A, so it must have turned somewhere, probably under the line of the north wall of the 18th-century range. The line of its western return is unknown, but it might have joined the south wall of building 8 to form a fairly large, parallel hall – perhaps even taking in the north extension of the aisle described in the previous paragraph. Unfortunately, the far eastern end of W3, where it would have met W66, had been robbed in the 18th century and again when a door was inserted in the 1930s. This obliterated any evidence which might have demonstrated whether or not that supposed hall had a direct connection with the main building towards the chancel end.

Only a very small area outside building 1B to the east could be examined: that in the angle of the east wall (W63) and the north wall of the supposed chancel (W60). The site of the upper flight of steps was covered with a floor-like series of mixed brown and red clay soils with fragments of Pennant, mortar

and plaster, freestone, and slate (Context Group G19). These were in turn cut by a series of layers containing blue, green or yellow clay, other clay soils, oolite fragments, slate, Pennant, and carbonized wood, which formed the foundation trench for W60. The north face of W60 was further thickened by SF14, which was of the same construction as the equivalent stone feature (SF15) on its south face. Above SF14 was demolition rubble similar to that used inside the building: grey, red, and brown clay soils, stones, and ash (Context Group G20). The south face of SF14 bore the remains of white plaster, probably predating this use of the stones. Its function is uncertain but it might have formed the foundation for the posts which later rested upon it.

Area A (Construction of building 9 and corridor: Context Groups A10–11; Figs 7, 10 & 41)

The whole area was raised above the path (SF4) and associated features to a new level of 7.8–7.9 m OD. The make-up resembled that of earlier phases, consisting mainly of red-brown sandy clay mixed with small stones, but some layers were packed
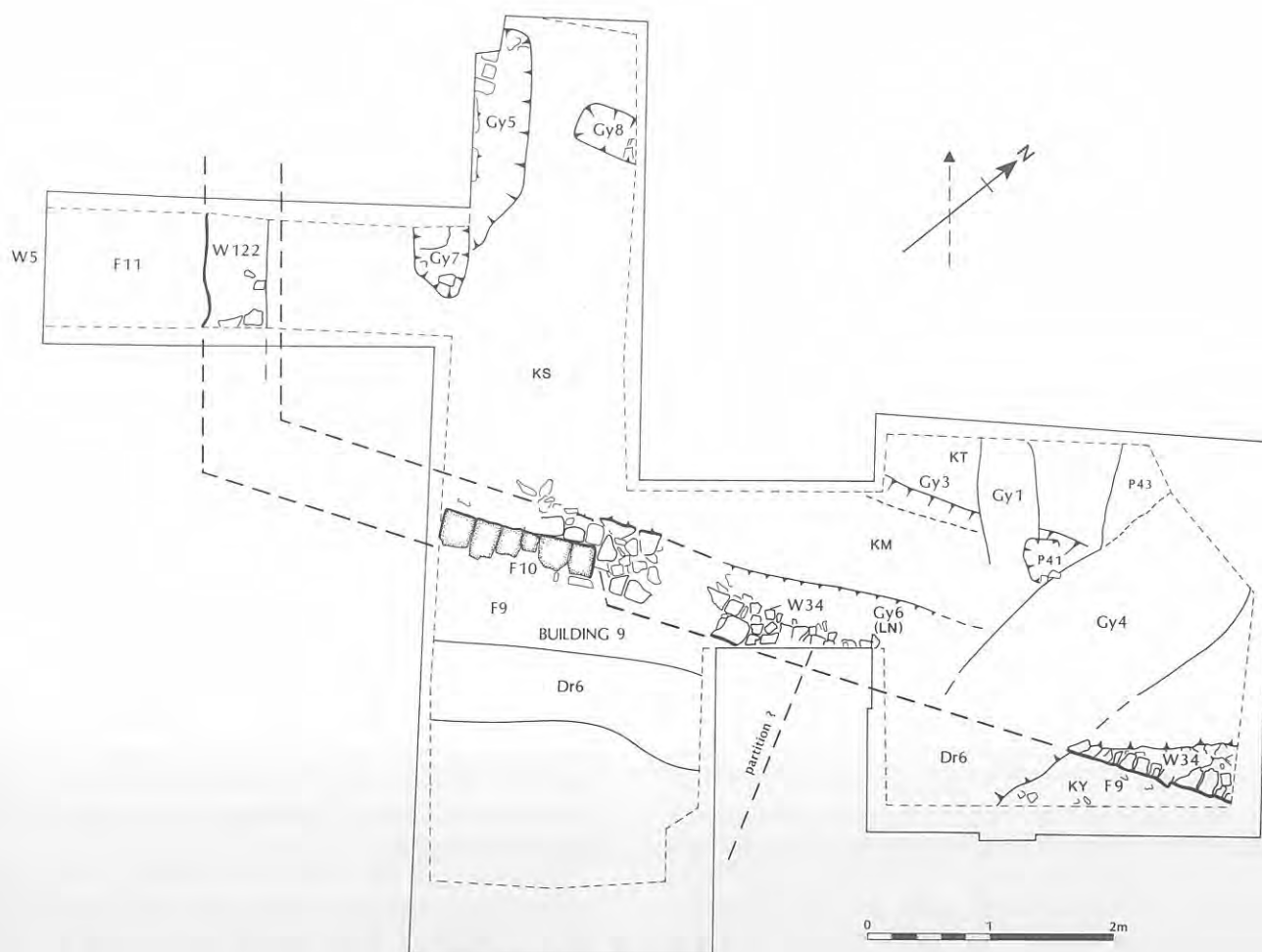
Figure 41   Area A: plan of structures of Period 4A (building 9)

with crushed Pennant and others included quite large pieces of Brandon Hill Grit (Context Group A10: Fig 10, context MQ). Certain contexts which were excavated as small pits are not thought to have structural significance, but rather represent temporary hollows and variations in the fill.

Building 9 was erected on this platform, but only a small part of one wall (W34) was found. It had a foundation trench (Gy6) on its north side (Figs 7 & 41). The wall followed the former path approximately but was aligned more closely on a true east–west axis. It was some 0.7m wide, survived to a height of four courses in part, and was built in Brandon Hill Grit bonded in a red clayey mortar. The interior of the new building lay to the south. At the west end, F9 (Context Group A11) consisted of a creamy-brown mortar mixed with fine gravel (Fig 7). Here, W34 narrowed by 0.15m to form a recess at least 1.1m long, but its west end was lost under the baulk. Within this recess was laid F10: six re-used Pennant roof slates set in a line. As there was no sign of soot or ash on this floor the recess was probably not a hearth. It might have been the bottom of a window, but was rather low. South of W34, at the east end of the excavated trench, the floor (also called F9 during excavation) was a red-brown sand mixed with flecks of white plaster, laid as a foundation to context KY: a layer of bright-red sand mixed with plaster (Fig 7, context LH). The difference between the floors suggests that there had been a partition coming off W34 somewhere near the baulk.

When a baulk left to support a modern drain was cleaned, another medieval wall (W122) was found running parallel to building 8 (Figs 10 & 41). Only its west face remained but originally it was probably about 0.6m thick. It was built in Brandon Hill Grit bonded with a red, sandy clay mortar, similar in construction to W34. West of W122 the rubble supporting the floor consisted of crushed Pennant in a cream, white and orange mortar (contexts MO & MQ). Over this was F11, a pale green crushed Pennant in green and red sand (context MG). The latter, which was only 0.03m thick, might have been a later make-up with context MN as the original floor. These deposits were at the same height as F9, suggesting that they were contemporary and from different rooms in the same building. W122 can be shown stratigraphically to be contemporary with W34. It seems likely that W122 was the side wall of a corridor adjacent to W5, 1.25m wide, and linked in some way with the west end of building 9.

North of W34, outside the building, the overall make-up consisted of varying deposits of red clay mixed with much Pennant and some white plaster flecks (a continuation of Context Group A11). Although differentiated during excavation, Context Groups G3, G5, G7, and G8 were more probably minor differences in the same make-up.

Area K/M (Demolition of building 2A; construction of building 2B, new water supply, and building 6: Context Groups K18–25; Figs 32 & 42–5; Pls 18 & 21)

All the walls of building 2A were demolished to ground level and the debris was roughly levelled. The rubble consisted of an assorted mix of stones, red and brown sands with some clay, mortar, and charcoal flecks, the latter perhaps derived from burning scrap timber (Context Group K18). The debris was concentrated principally in the area of the former rooms 5K and 5Ka, and there was little in the former room 4K/4Ka area. This might have been the result of differential demolition on either side of W108/120. South of W107, the well had been filled with the same material, which had become rather oily, probably because of the decomposition of timber and other organic detritus (Context Group K18). Over the former yard, the deposit was similar (Context Group K18: Fig 32, context KVM). To the north of the demolished building, there was little evidence for such demolition rubble and there was continuity between the earlier and later phases. The top of this levelled platform was between about 7.6m and 7.8m OD.

The replacement (building 2B) for the old range was laid out on a plan similar to that which it had superseded, but it was on a slightly different alignment (Figs 32, 42–4).

The south wall consisted of W93/94/95, with W106 as the foundation for W93. Two doorways in the wall, which gave access to the building, separated its two wings. The whole of the wall complex was built using Brandon Hill Grit bonded in an orange-brown sandy mortar. W106 lay partly over the west end of the demolished W107. There was no sign of a construction trench in any of the surrounding rubble. It was roughly built, approximately 1.6m thick, terminating in an uneven but definite east face. Built directly on top of it was W93, which was the external wall proper and 0.9m thick. At its south-east corner was a chamfered block of oolitic limestone which formed part of a doorway 1.2m wide. Set in the block was an iron pintle (see Pl 21). There were no steps in the doorway. W94 was the eastward continuation of the same wall. It too had chamfered blocks at its south-east corner incorporating an iron pintle. Any south-western counterparts were missing, but the distance between the doorways seems to have been about 2m. The eastern doorway was also 1.2m wide and had two steps leading down into the building, the total fall being 0.3m. East of the second doorway was W95, which extended into the baulk. Neither W94 nor W95 had the widened foundation supplied for W93. There was a narrow construction trench (Gy43) along the east part of W94 and the north side of W95. The gully was 0.15m deep and filled with red and grey
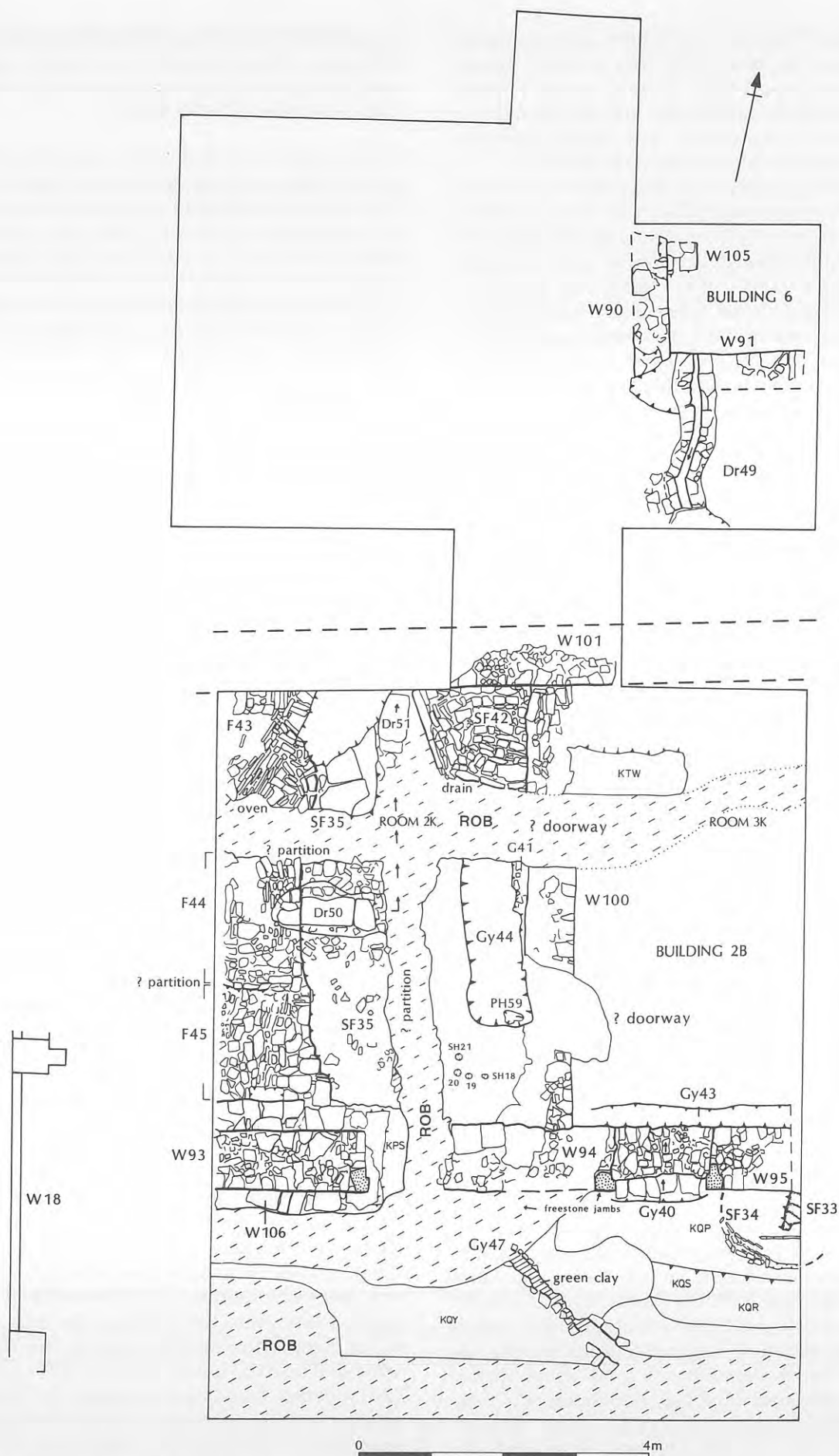
Figure 42   Area K: plan of buildings 2B and 6
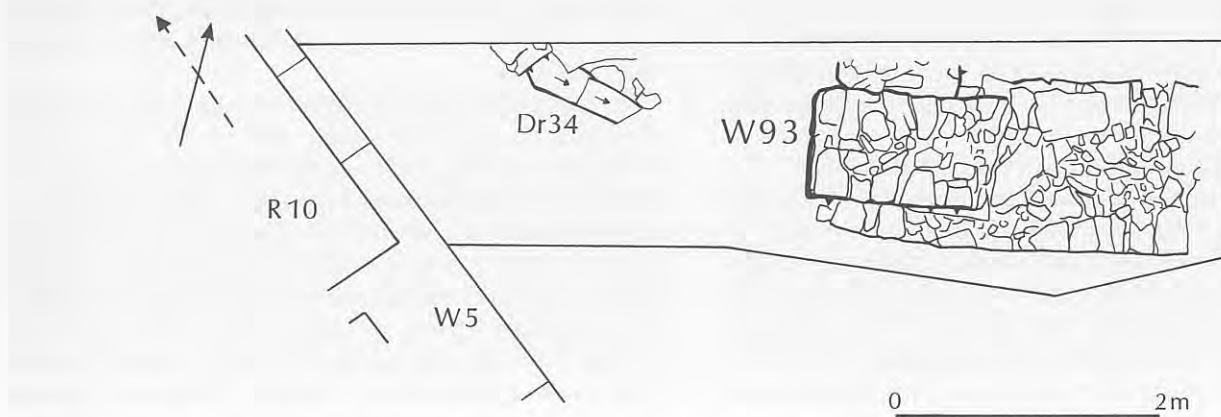
Figure 43   Area M: plan of W93 (building 2B continued west from Area K)
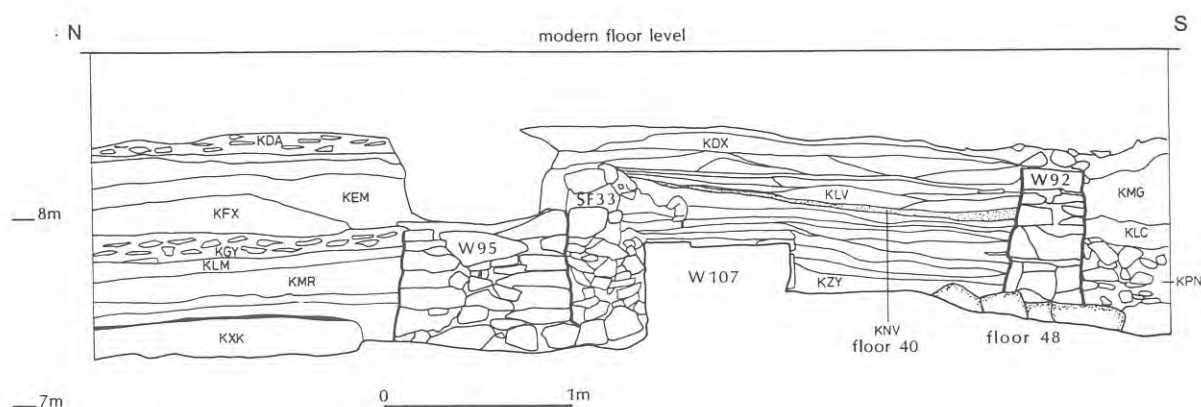
Figure 44   Area K: east section – south end of trench

clay containing many small pieces of charcoal (Context Group K19). There was no sign of a construction trench on the south side of any of the walls. The south-west corner of building 2B was found in a test trench (Area M) some 11 m to the west. Its construction was the same as that of the rest of the south wall complex. The massive spoil tip which had accumulated during excavation, and which could not be moved elsewhere, prevented more extensive investigation of the end of the building.

What survived of the north wall of the range (W101) was of the same construction as those to the south, but it had been robbed and little was available for investigation. It formed part of the north baulk of the excavated area. No construction trench was observed. The width of W101 is not certain as it had been disturbed by a later drain to the north, but it was at least 0.8 m. The wall extended the full width of the trench without a break and no doorways were identified. On the evidence of the limited stretch available and the alignment of internal walls, the range seems to have narrowed towards the west.

The building was bisected by W100, which extended from W101 to W94 and abutted both external walls. The wall (which was much disturbed by modern drains) seems to have been laid directly on the demolition debris. It was built with Brandon Hill Grit bonded by a mid-brown, clayey mortar. There were two gaps which might have been doorways, but this is conjecture.

Room 2K was the room west of W100, room 3K that to the east.

Room 2K

Within the doorway between W93 and W94, laid partly on the demolition debris and partly on the east end of W106, there was a deposit of rubble similar to that below. This was a mixture of brown and red clay soils, with some rotted green Pennant and organic residue (Context Group K20). There was no evidence for any stone steps leading into room 2K from outside.

A variety of material was used to lay the earliest floors over the demolition rubble, the lowest of which were at about the same height as the top of the foundation wall (W106) of which the uppermost

course might, or might not, have been visible in the new room. Unfortunately, trenches cut to accommodate later drains had destroyed many of the details of the relationships of the floors even within one room and, for the purposes of recording and description, divided the room into quadrants (Fig 42).

In the north-west quadrant was F43 (Context Group K20). This complex floor was built by setting Pennant slabs on edge and aligning them generally on a north-east/south-west axis, but changing the pattern to north/south where it met W101. The surface of F43 was stained with soot, but a crescent-shaped edge formed a border to the burnt area. There was no evidence for a stone structure marking the edge of the floor and it is possible that a metal oven had been sited there.

In the south-west quadrant, F43 continued to the south as F44 (Context Group K20). It was similar in construction to F43 but the cobbles were Carboniferous Limestone rather than Pennant. They were of similar size to the Pennants in the northern floor, but occasionally thicker, and were mostly aligned north–south. At the southern boundary of F44 there was a shallow step down (c 0.02m) where the floor continued to the south as F45. The junction might have represented the position of a partition in the room. F45 was of the same construction as F44 and the cobbles were on the same alignment, except that where they met were a few cobbles laid east–west. The boundary to the south end of F45 was W106, showing that the footings of the wall formed part of the floor.

All these floors were bounded on the east by SF35, which extended the full width of the room from W101 to W106. The stone feature was a floor of Pennant slabs, some measuring up to 0.6m across, but others were smaller. Although the border between SF35 and the floors to the west was not straight, the flags might have represented the line of another partition, perhaps acting as a hallway or antechamber. There was no evidence of postholes or bases on these stones, but it is possible that the foundation would have been a simple cill-beam. SF35 was robbed on its east side.

In the northern part of the south-west quadrant was Dr50 (Context Group K22) which seems to have been built at the same time as F44 and SF35, and into which it was set. The drain had a Pennant floor, side walls, and capstones; it was 0.25m wide internally and 0.15m deep. It drained from the west. There was a definite edge 0.6m from the west section, which suggests that water either flowed into it from a downpipe sited against the supposed partition between F44 and SF35, or was poured in from sinks or containers. This, together with the possible oven site to the north, suggests that the west part of the room served as a kitchen. There were some fragments of food bones (see Chapter 9) in the drain silt (Context Group K22). The main

drain into which it led had been robbed but it probably ran into a north-running drain going through W101 as D51.

In the north-east quadrant of room 2K was F42 (Context Group K20) which was of the same construction as the other stone floors but composed mostly of Carboniferous Limestone. The alignment of the stones at the western boundary of the floor showed that it was a definite construction rather than a later rob and the edge stones formed the side of a drainage system as part of Dr51. No side wall survived to the west because of later robbing. At its north end, where it ran through W101, the drain was 0.25m wide internally and 0.4m deep. From the facing stones on the south side of F42 it was evident that a drain had run into Dr51 from the east and also through the possible door in W100 leading from room 3K, but any direct evidence had been removed.

The south-east quadrant was quite different in character from the rest of the room. There was no evidence that there had ever been a stone floor. Cutting into the demolition debris close to W100 was Gy44 (Context Group K21) which was up to 0.25m deep with shallow sides. Along the face of W100 it deepened as Gy41. This was around 0.15m deep and had steep sides. As the system of gullies did not extend the whole length of W100 it is unlikely that it was a foundation trench for the wall, but it might have been associated in some way with its construction. Gy41 might have been a timber slot. The backfill to the gullies was a mid brown and khaki clay mixture which became very stony at the top, suggesting a deliberate construction rather than mere casual backfill. The larger gully might have served as a foundation for some structure within the room.

At the south end of Gy44, and cutting it, was the oval PH59 (Context Group K21). This posthole lay immediately alongside W100 and measured 0.25m deep. It had no packing stones but its post must have been quite substantial. Its position makes it unlikely that there had been a door in W100 at this point.

Near PH59, also set in the demolition rubble, was a sequence of stakeholes: SH18–21 (Context Group K21). Each was circular and approximately 0.08–0.1m across. SH18 and SH20 were 0.8m deep; SH19 and SH21 0.15m deep. They were all filled with dark-brown clayey soil. The stakes formed an angle and it is presumed that they were directly associated with PH59 and the gullies.

Room 3K

Room 3K was quite different in character from room 2K (Fig 42). Throughout its existence the flooring
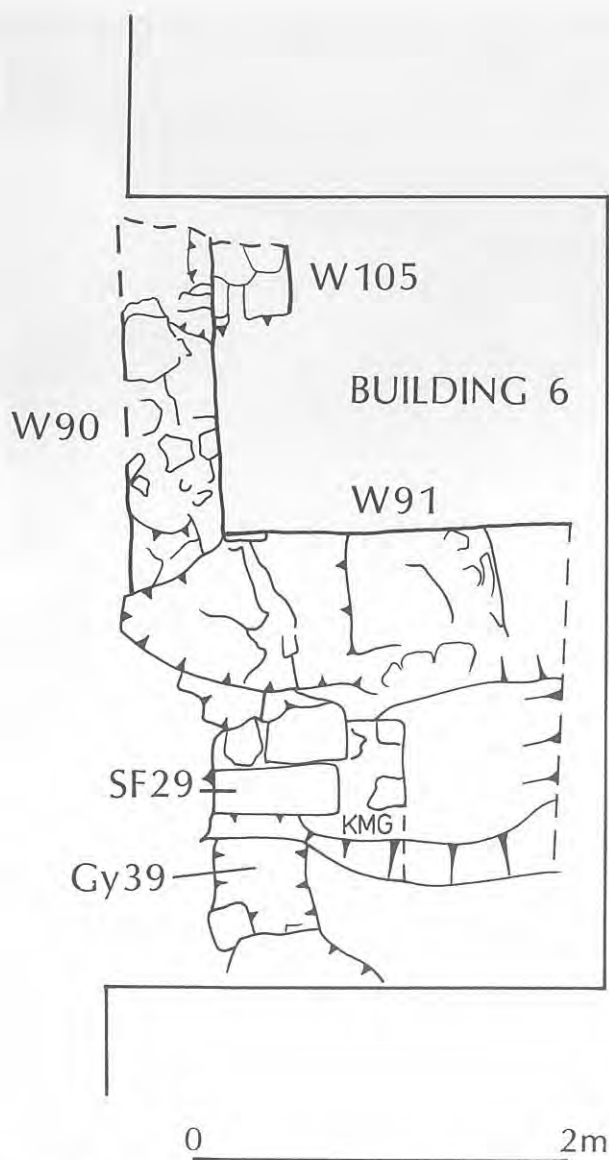
Figure 45   Area K (detail): plan of building 6

was less substantial than that in the west room, to such a degree that it was difficult to distinguish between the demolition debris and the lowest floors. Given these problems, the earliest floor seems to have been a spread of many flat Pennant slabs (some of them reused roof slates) laid in haphazard fashion on a dark brown soil (Context Group K23). This floor covered the whole of the room south of a rob-trench for a later drain (which was probably also the line of the drain which might have run into Dr51 in room 2K). North of the rob-trench, the earliest deposits were different again, suggesting that there had been a partition somewhere on that line. The nearest equivalent to the floor south of the trench was a deposit of buff-green ashy sand (probably rotted Pennant) with some small stones, dark-brown soil, and much charcoal (Context Group K23).

Occupation south of building 2B

The whole of the area, including that over the top of W106 (alongside W93) was made up with more of the same demolition material (Context Group K24). This had apparently served as a floor after trampling. Let into the rubble was Gy47. The gully measured only some 0.2m wide and 0.1m deep and was filled with bright-green clay. It ran downhill from the north. For reasons set out in the discussion section of this chapter, it is likely that Gy47 had originally contained a lead pipe to supply fresh water from a feather running off the Greyfriars supply. Towards its north end, any pipe would have passed through room 2K, exiting via the door between W93 and W94. Unfortunately, its probable line was also that of a later rob-trench, so any continuation was lost.

Directly abutting the south face of W95, just outside the door into the range, was SF34. A line of three concentric bands of small Pennant slabs was set on edge, in what would have been an approximately semi-circular gully if it continued in the same manner under the baulk. The area which it enclosed was approximately 0.9m across from north to south, which suggests that alongside W95 the feature had been about 1.8m long. The setting might have been decorative, for example a flower bed, or perhaps to hold something such as a water butt. The khaki clay (context KQO) found within it, and the sand and clean clay which lay beneath, together with the lack of obvious soil, make it less likely that it was part of a garden. It is also possible that it marked the site of a monument: fragments of a freestone statue were found in this trench (see Chapter 9, no 333). SF33 consisted of a few stones set in mortar and soil which were towards the centre of the larger SF34 and supported whatever was set there (Fig 45).

The fragmentary remains of a drain (Dr34) were found immediately west of the building in Area M (Fig 43). Its date could not be proven as so little stratification had survived, but it seemed to belong to this period. It drained from the north-west, which suggests that there had been a building there, perhaps the northern part of building 8.

Occupation north of building 2B

The new building 6 comprised two walls, W90 and W91 (Context Group K25) constructed in the eastern half of the area, partly over the remains of building 5 (Figs 42 & 45). W90 survived to a height of 1.3m and was built with small, medium, and large stones of both Brandon Hill Grit and Pennant, bonded in a medium-hard, red sandy mortar which contained some large flecks of lime. The east face had been rendered with a crumbly, pinkish-white

Plate 18   Area K: Conduit, D49, leading from building 6 to building 2B, looking south

mortar which contained flecks of charcoal. Over-lying and packing the demolished east face of W97, adjacent to W90, was a thick and deep layer of red clay (Fig 42). W91 was built at right angles to W90 and was of the same construction. The mortared face of W91 abutted that of W90 which shows that W91 was slightly later in date. On removal of its capstones, W105, at the north-west corner of the building, was found to be too small to have func-tioned as a drain and was almost certainly a con-duit. This suggests that building 6 served as a water tank, and the red clay against W90 probably served as waterproofing. There was no obvious floor to the structure. Leading from the north face of W91 as far as the south baulk of the trench (and probably into room 3K of the main range) was Dr49, which was built in its construction trench Gy39. The surviving stretch of drain was about 2.2m long and 0.4m wide on the outside. It was capped by a number of large Pennants. The north part of the drain had been rebuilt in a soft, cream-buff mortar, confined to the width of W91 and cutting it. The removal of the cap-stones showed that the drain was irregular, about 0.1m wide and 0.1m deep (Pl 18). There was a shallow raised lip where the drain was let into the north face of W91. This

suggests that it served as an overflow from the tank and was perhaps the principal inlet to that part of the domestic range.

It should be noted that the date of the construc-tion of this system could not be established with certainty: the features were extremely complex and very disturbed. It is possible that it was part of a later redevelopment, but it might equally well have been the northern section of the water-delivery sys-tem found south of the range.

It is not known how long building 4 (the supposed granary to the west) survived, but there is reason to think that its demolition was quite late (see Period 4B).

Area E (Occupation over backfill of River Frome: Context Groups E6–7: Figs 4 & 5)

Over the occupation deposits set on the backfill of the River Frome during Period 3B, was Dr52 (Con-text Group E6). The drain ran north-west/south-east and was of the capped type with side walls (not on plan). To the south of the drain was Context Group 7: contexts EBS (Fig 5) and EBZ, which are

thought to have been associated with its construction. Dr52 had become filled with a reddish deposit towards its base, over which was a wet, dark brown soil containing some mortar (Context Group E7). Some of the base slabs were doubled up and set in a brown soil matrix. It might have served the hospital, but could equally well have drained a dwelling on the opposite side of the street. North of the drain was another make-up sequence (Context Group E6) of red-brown soil with flecks of charcoal and white mortar, over which was a redder, gritty soil with red clay.

Period 4A–B (c 1400)

The precise dating of these transitional features is uncertain, owing to insufficient data, and they might have belonged to either Period 4A or 4B. They are, therefore, described in this section under the general date of *c* 1400. It is clear that the human burials must have taken place over a number of decades, as they were often positioned one above another, but unfortunately no evidence was recovered which allowed their dating to be determined more accurately.

Area D/F/G/H (Later occupation of building 1B: Context Groups D14–19, G22; Figs 37 & 46–9; Pls 19 & 20)

The west end of the north aisle seems to have been used for a time as a separate room, eventually serving a domestic function, and was probably partitioned off for that purpose (Figs 46–8; Pl 19). Evidence presented in Period 4A shows that it almost certainly linked directly with a room to the north, possibly extending as far as building 8. At its southern edge, the line of the bracing wall W58 had been disturbed by the much later W40, thereby obscuring earlier evidence of any physical separation from the centre aisle. To the east, no sign of a partition was noted in the earlier deposits but any such division might have lain further east.

Cutting F26 were several shallow pits (Context Group D16) filled with and covered by a brownish-red clay and sand with some yellowish-brown clay, stones, flecks of white mortar, and organic material. The layer was 0.2m deep and probably the make-up for another floor level. Immediately alongside the west end wall was a thin strip of organic, black-brown humic soil (possibly decayed wood) over which was a spread of yellowish-brown clay about
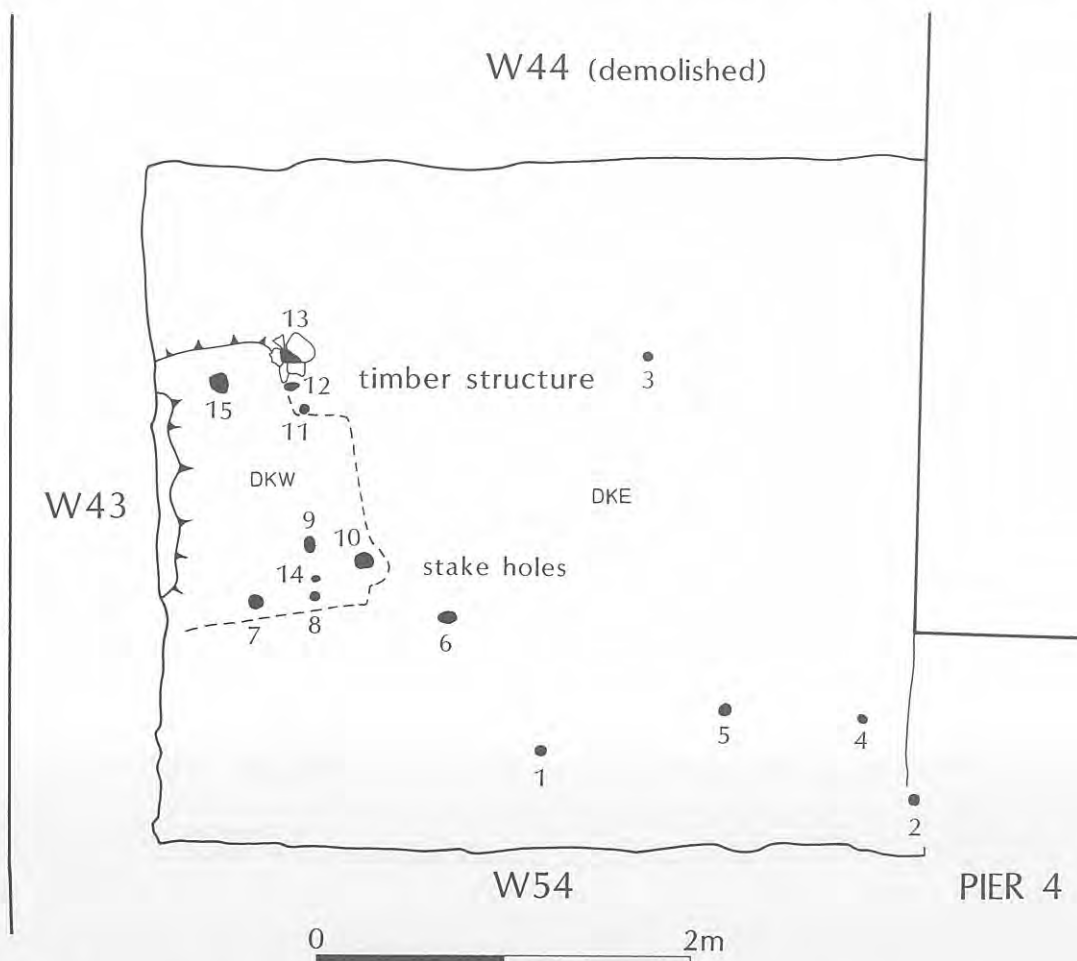
Figure 46   Area D (detail): plan of timber structure and stake holes – west end of north aisle in
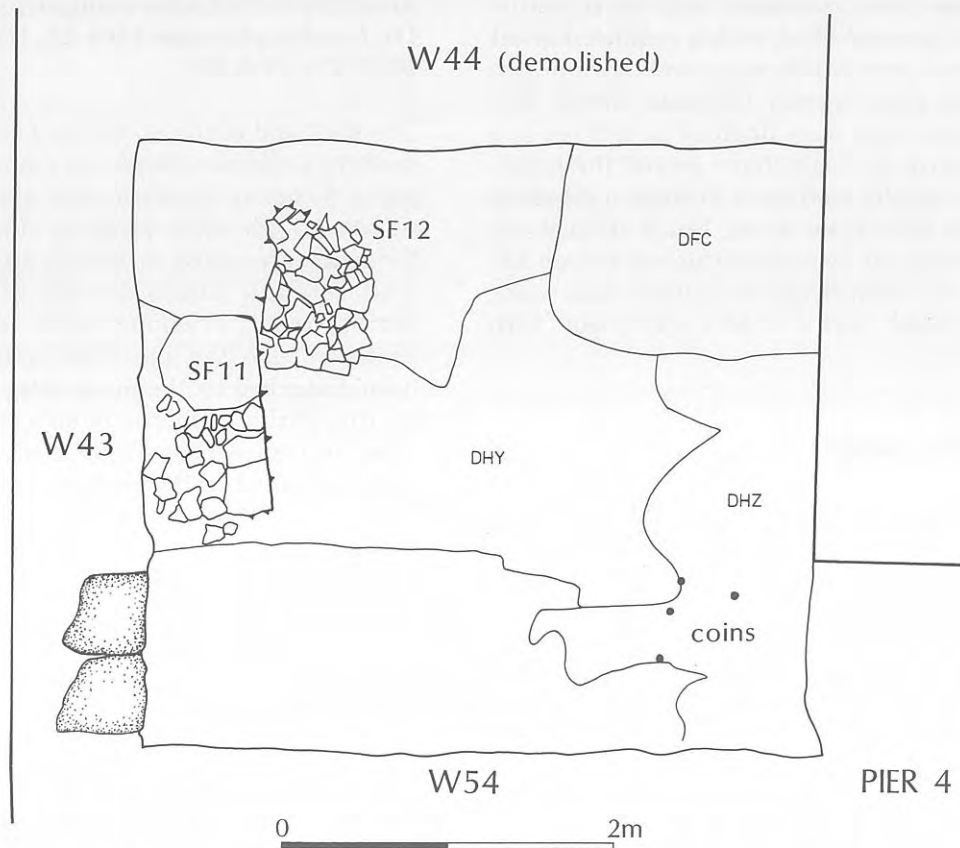
Figure 47   Area D (detail): plan of stone features – west end of north aisle in building 1B
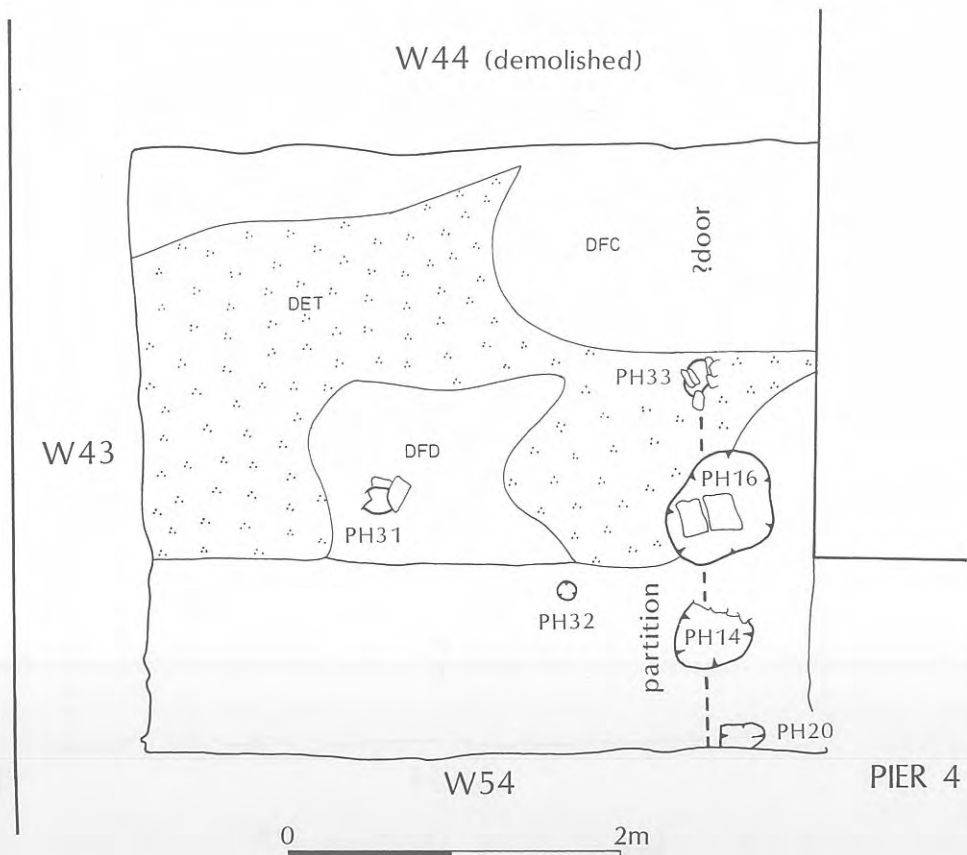
Figure 48   Area D (detail): plan of postholes – west end of north aisle in building 1B

Plate 19   Area D: Building 1B. Kitchen area at west end of north aisle, stone features SF11 and SF12, looking west

0.03 m deep. Over both these, as a patch approximately 1.5 m by 1 m, was a light brown, gritty lime mortar about 0.05 m deep (context DJW) cut into which was a series of stakeholes (SH7–15) defining a rectangular area (Fig 46). The circular stakeholes were mostly some 0.05 m across and about 0.2 m deep. SH13 had packing stones at its top. SH10 was larger than the others (0.08 m in diameter) and set a little to the east of the eastern line. Some holes were void, but others were filled with organic remains. This showed that some of the stakes were removed, some were cut off and their stumps left *in situ*, and the feature was covered over immediately. The function of this structure is uncertain, but it probably supported a timber framework, perhaps associated with a monument or bench.

Probably contemporary with these were stakeholes 1–6. SH1, SH4, and SH5 were in a rough line east of the feature and a little to the south of its southern margin. They were of the same size and had the same fills as SH7–15. Their function is even more uncertain than that of the other series. They might have been a short partition or screen, as they could not have supported much weight. SH6 was midway between SH1 and SH10 and might have been simply a broken-off peg. SH3 was found further north and had no obvious function.

After the demolition of the supposed timber structure there was a general accumulation of material over the whole area. This comprised spreads of black organic material with a lot of charcoal (Context Group D17: Fig 47, contexts DHY & DHZ). Within this context group, in context DHZ were found three silver coins of the 13th century (see Chapter 9, coins nos 8–10). Mixed with this charcoal was brown sandy clay with stones and white mortar flecks, interpreted as demolition material (Context Group D17). Set over the site of the former wooden structure was SF11. This comprised a floor of flat Pennant slabs and Brandon Hill Grit alongside the end wall. It is unlikely that SF11 was a hearth as there was no trace of burnt material associated with it, and it was probably too insubstantial to have served as a stair-base. It seems most likely that it was a replacement in stone of the earlier timber structures, perhaps serving as a base for a monument or bench.

At this same level, 0.35 m south of SF11, two Pennant slabs were set in W43. These had a total width of about 1 m wide and were embedded up to 0.45 m within the wall. They had a different appearance from the rest of the wall structure and were certainly an architectural feature. They probably served as a base for a monument, wall fitting, or

Plate 20   Area D: Building 1B. Burials 43 and 44 in west end of centre aisle, looking west

bench. Their precise date could not be determined and it is possible they were set in the wall before it was demolished and rebuilt.

On its east side, directly alongside SF11 and probably built immediately after it, was SF12 (Context Group D17; Fig 47; Pl 19). This consisted of a pavement of small Pennant slabs which included reused roof slates. The structure had been disturbed on its north side and might originally have been larger, but an area approximately 1m by 1.6m survived. It was lower than some parts of SF11, but it was thought to cut the other feature. It was covered with black soot and seems to have been associated with, or been part of, a hearth. Many of the recovered pottery sherds had been burnt. Around these stone features were further accumulations of debris, brown or reddish mortar, and clay floor patching. Most of these layers consisted of crushed charcoal with many fish bones (unfortunately only fragments not unidentifiable to species) and quantities of ash (Context Group D18) strongly indicative of a domestic function for the room. In context DHJ was found another silver coin, dated to the early 14th century, which might once have been associated with the three below (see Chapter 9, coin no 11).

This domestic function for the corner of building 1B was probably related to the range to the north (Area K). Its use as a kitchen did not last long as the layers above contained material of a quite different character. Over both stone features and the whole area was a succession of mortar patches and a variety of red and brown sands, clays with inclusions of stones, mortar, and lime (Context Group D19). The principal layer, context DET, covered most of the area at about 8.6–8.7m OD. Parts of SF11 still showed through this debris and the stone feature seems to have been incorporated into the later floor.

Cutting context DET was a north–south aligned row of postholes which would have held a timber partition some 3.2m to the east of the end wall (Fig 48). PH33 was approximately circular, 0.2m across and 0.2m deep, lying 1.5m south of W44. Between the rebuild of that wall and the posthole there was probably enough space for a door to the rest of the aisle. PH16 was set in a larger pit, 0.5m across with packing stones on the bottom, the posthole itself being 0.15m across and 0.2m deep. PH14 was square, 0.3m deep, with packing stones at the bottom and 0.3m deep. PH20 was also set in a larger postpit, the posthole itself being square, 0.25m across and 0.2m deep. This last lay immediately alongside W58. All the postholes were filled with red and brown sand and clay with some mortar, stones and black ash. Contemporary with these were two more postholes: PH31 and PH32. PH31 lay 1.7m west of PH16, was 0.15m across and 0.2m deep, and had Pennant packing stones on its north side. PH32 was closer to the line of the others, 0.2m across and 0.2m deep. The fill of each posthole, a dark brown-black clay soil, was similar. They might have served to help support a ceiling or gallery structure.

In the centre aisle of building 1B, south of this domestic area, was a sequence of thin, much-worn mortar spreads of various colours: buff, white, pinkish-white and black (Context Group D15; not illustrated). These were probably the remnants of a floor. When the surviving stub of the demolished W2 was removed to investigate this further, a break in the continuity of some layers at the east end of the area was found. This suggests that there was some form of screen or partition, but the evidence was slight, and if it actually existed it must have been unsubstantial (Fig 37). There were traces of a shallow gully, 0.3m wide, filled with red clayey soil, flecks of blue clay, charcoal and mortar. There also appeared to be a change in the character of the plaster flooring in the tiny area available immediately to the east, suggesting that there was some form of short-lived screen there also. These were the latest medieval layers recorded in the area.

The remainder of the building (at least, that part which was available for excavation) seems to have
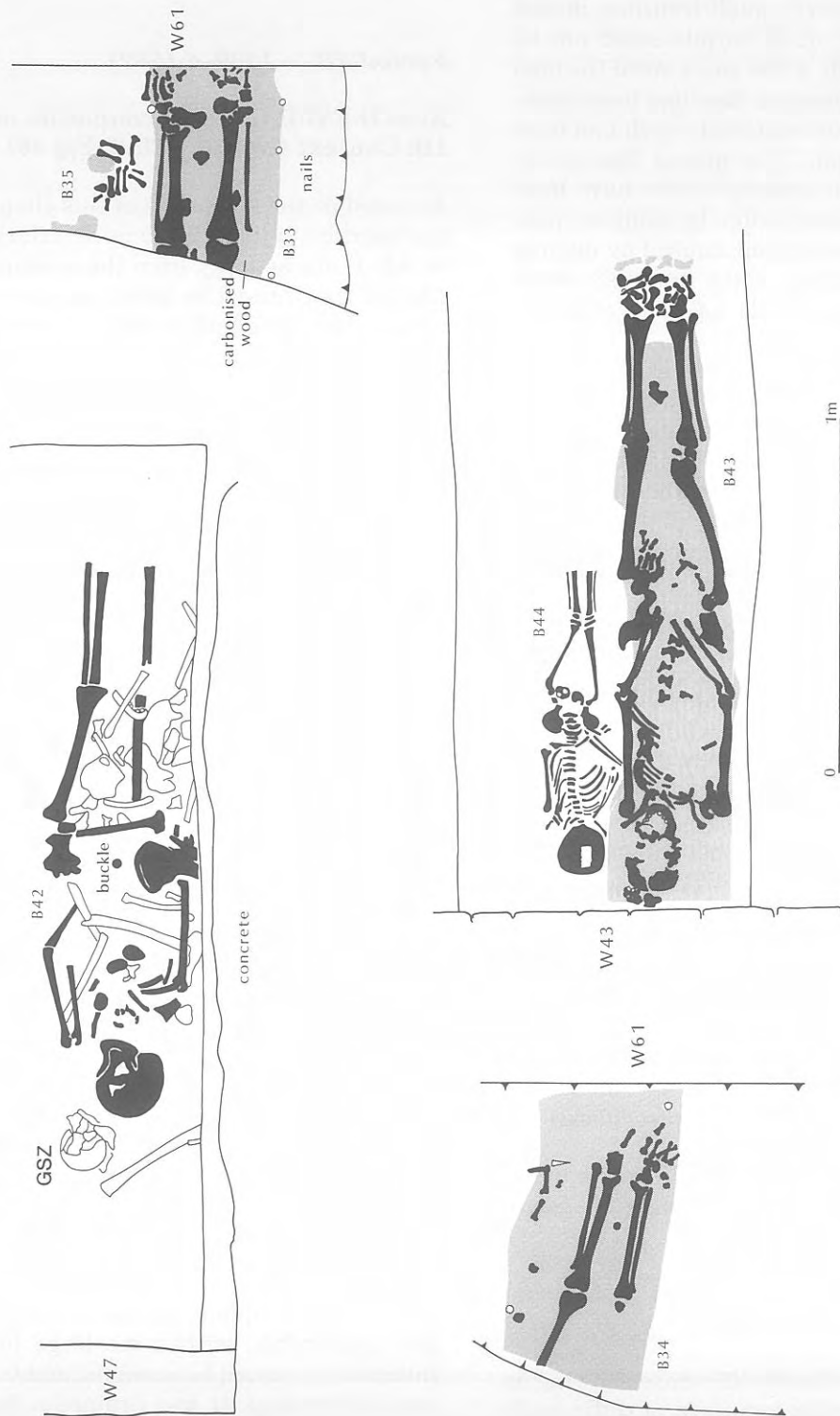
Figure 49   Area D / G: plans of selected human burials in building 1B

been devoted to religious use as it accommodated a number of human burials (Context Groups D14, G22) within the backfill to the undercroft. Unfortunately, there was considerable later disturbance at those levels which, combined with the necessity of undertaking investigation in small trenches, meant that a complete profile of all burials could not be obtained (Fig 37). In only a few cases were the cuts for the graves obvious because they had been backfilled with the same mixed material which had been taken out for the burial. This means that grave backfill and surrounding general layers have been assumed to be of the same period. In addition, poor light in the course of excavation, caused by digging within a standing building which had only small windows for illumination, made soil differentiation difficult.

The human burials, of which there were 45 numbered individuals or small groups of miscellaneous disarticulated bones, were all at a depth of 7.9–8.2m OD (8.3–8.4m OD in the chancel) showing that they had probably all been interred from about the same level at an approximately constant depth of about 0.5m. Some were fairly complete, others were recovered only as fragments. The least disturbed were B43 and B44, which were laid in a single grave (Fig 49; Pl 20). All burials seem to have been laid on the same axis as that of the building. Over what time span the interments took place has not been determined with any certainty, but it is likely that many of them belong to Period 4B. A report on the human bone is given in Chapter 11. Stratigraphical relationships did not add materially to their understanding and are not reported here, but they are available for consultation in the site archive (see p 8). Evidence for graves, coffins, and grave goods was:

North aisle, east:
B42 Bronze buckle and part of leather belt found in pelvic region (Fig 49; Chapter 9, no 241).
North aisle, west:
B11 Set in a shallow (0.35m) grave backfilled with darker brown debris.
B12 Set in a shallow grave, backfilled with darker brown material than surrounding fill. Some coffin nails found.
Chancel:
BX, B24 & B23 All apparently set in a single grave (P118) partly over W61.
Centre aisle, east:
B33 Laid on a well-defined coffin-base showing as a dark stain and with a pattern of coffin nails (Fig 49) and set in a shallow grave (P128) 1m wide by 0.25m deep.
B34 Fragmentary remains of a coffin below burial (Fig 49). Set in a shallow grave, (P126) 0.6m wide and 0.15m deep. B32 & B30 apparently in same grave.

Centre aisle, west:
B43 & B44 Two almost complete skeletons. Dark staining from coffin; both set in a grave (Gy21) against W43, 2m by 0.6m wide; 0.9m deep (Fig 49; Pl 20).

Period 4B (c 1400–c 1532)

Area D/F/G/H (Latest occupation of building 1B: Context Groups D20–2; Fig 48)

As noted at the beginning of this chapter, probably a proportion of those findings described under Period 4A–B are actually from the later part of Period 4A, but they cannot be dated accurately. Definitely assigned to Period 4B is the post-domestic occupation of the west end of the north and centre aisles.

From this level, the area west of the partition was made up with light-brown mortars mixed with red and brown clays, sand, and stones (Context Group D20). In the centre aisle, east of W2 the equivalent material was Context Group D22, and in the burial area west of W2 it was Context Group D21. The top of this material was levelled at 8.7m OD, only some 0.3m below modern ground level. This was the last floor level of building 1B to survive.

Within the later wall surrounding column 1 were found two fragments of worked freestone, one of which was possibly part of a window head, and both bore red paint (Chapter 9, no 329). These have been assigned to the 15th century, but there is no proof that they came from the church rather than one of the other ranges.

Area A (Construction of drainage system and building 10: Context Group A12; Figs 7, 10 & 51)

W122 was retained, but building 9 was demolished and the ground level was raised by some 0.1m. The material used had the appearance of raked demolition debris and consisted mostly of red-brown clay with sand, stones, and lime flecks, in which were browner, more humic, patches (Context Group A12; Figs 7 & 51).

To the east, these mixed deposits were cut by the construction trench for Dr14. The drain had a base of Pennant flags, side walls of Brandon Hill Grit, and Pennant capping stones. Its mortar was dark grey and gritty, with some large lumps of lime. Internally it varied between 0.2 and 0.4m wide, and was 0.25m deep. It had drained a building to the south and ran at a slope of about eight degrees from horizontal. The drain would have served building 1B, probably its northward extension in Area H, and its size indicates that it acted as the main drain for the range, perhaps carrying rainwater away from the roof. Covering the top of the drain was the

NEW BUILDING
RETAINED BUILDING

hearth

Bg. 2B

Bg. 8

Bg. 10

drain

LEWINS MEAD

Bg. 1B

0   10m

Host Street
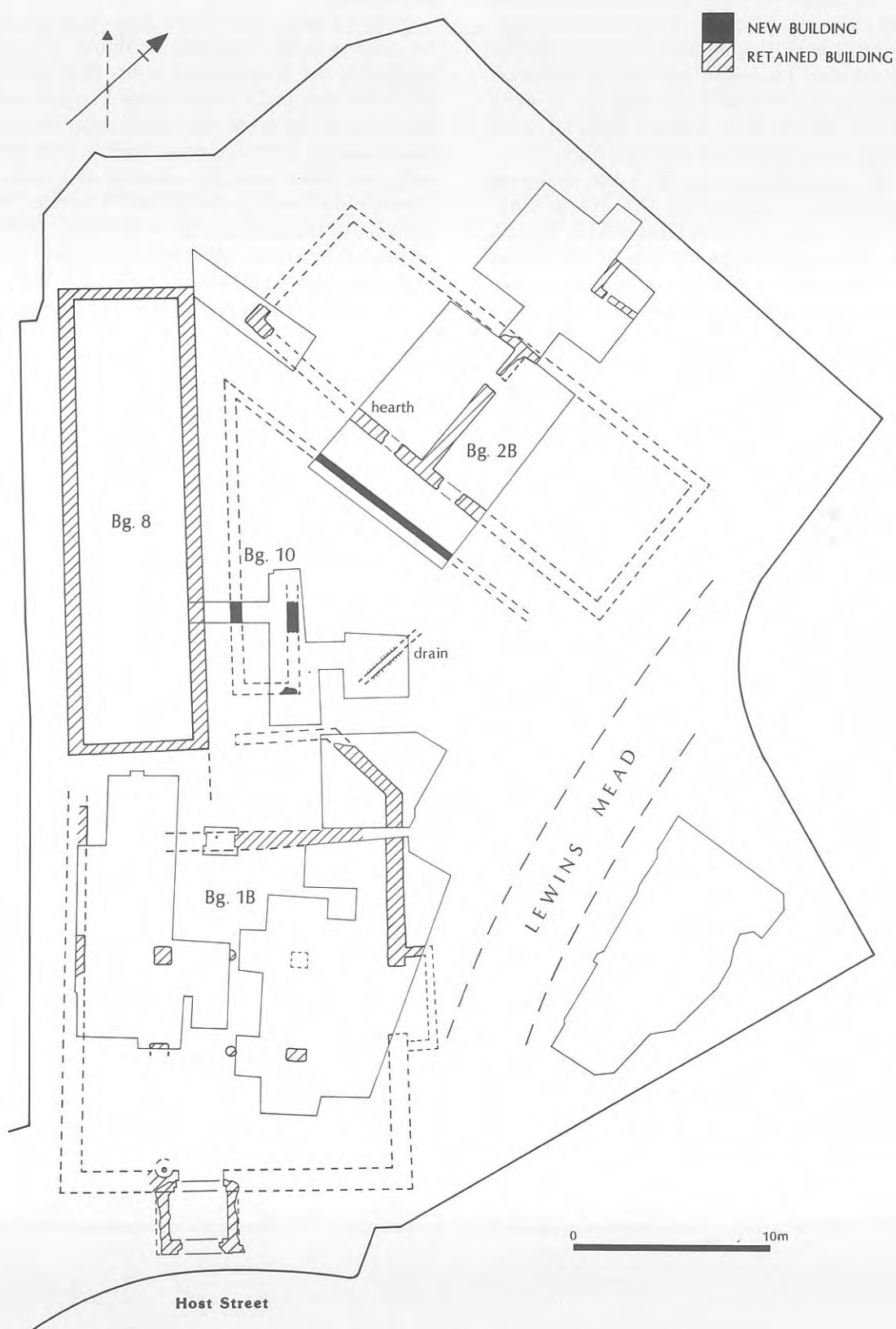
Figure 50   Summary plan of structures of Period 4B

same demolition debris, raked over as in the adjacent area.

In the western part of the trench, W5 continued to represent the main east wall of a range (building 8) occupying the west margin of the hospital precinct. It was built with Brandon Hill Grit bonded in a red sandy mortar. Its width was not determined but it was likely to have been as wide as, or even wider than, the rebuilt wall over it. Parallel to it, W122 survived to at least a few courses high.

Between W5 and W122, over F11 the make-up was more gravelly, but apart from that it was similar to that to the east (Context Group A12: Fig 10, context JW). The foundation trench for Dr10 cut both context JW and F11. The drain led from building 8, passing through W5, heading south-east at a gradient of about eight degrees. It was constructed entirely of Pennant bonded in a pink lime mortar and was 0.5m wide by 0.2m deep. It had been blocked by a green-brown silty fill. The backfill to the foundation trench of Dr10 was a variable mixture of red and brown sand and clay, with many stones and small lumps of lime (Context Group A12; layers HJ & MT). These were the same as the make-up series to the east. To the east of W122 was a series of make-up layers, or perhaps debris from

the rob of a drain (Context Group A12; layers GR & HD). The fill consisted mainly of stones with white and pink mortar flecks, and some orange and brown clayey soil.

Further east, over these general make-up layers another possible building (building 10) was represented by the fragmentary walls W29 and W33 (Fig 51). W29 consisted of one large Pennant slab and a few smaller ones about 1.1m further south, aligned north–south. Only a single, mortar-free, course was left; the west face, the rest of the wall, and its presumed extension to the south having been completely destroyed, but the wall seems to have been at least 0.5m thick. W33 was also about 0.5m thick and might have formed an angle with W29, running westwards from its north end, but this could not be proven as a space between them had been robbed. Its structure was as W29. It had two apparent faces but only a few stones had survived. The south end of building 10 might have been represented by SF3, which was 2.8m south of W29, cutting the earlier F9, and of construction to W29 and W33: a Pennant slab and a few pieces of Brandon Hill Grit with a bonding mortar set in an oval pit on an east–west axis. Its width could not be measured because the south face had been robbed. That robbing might
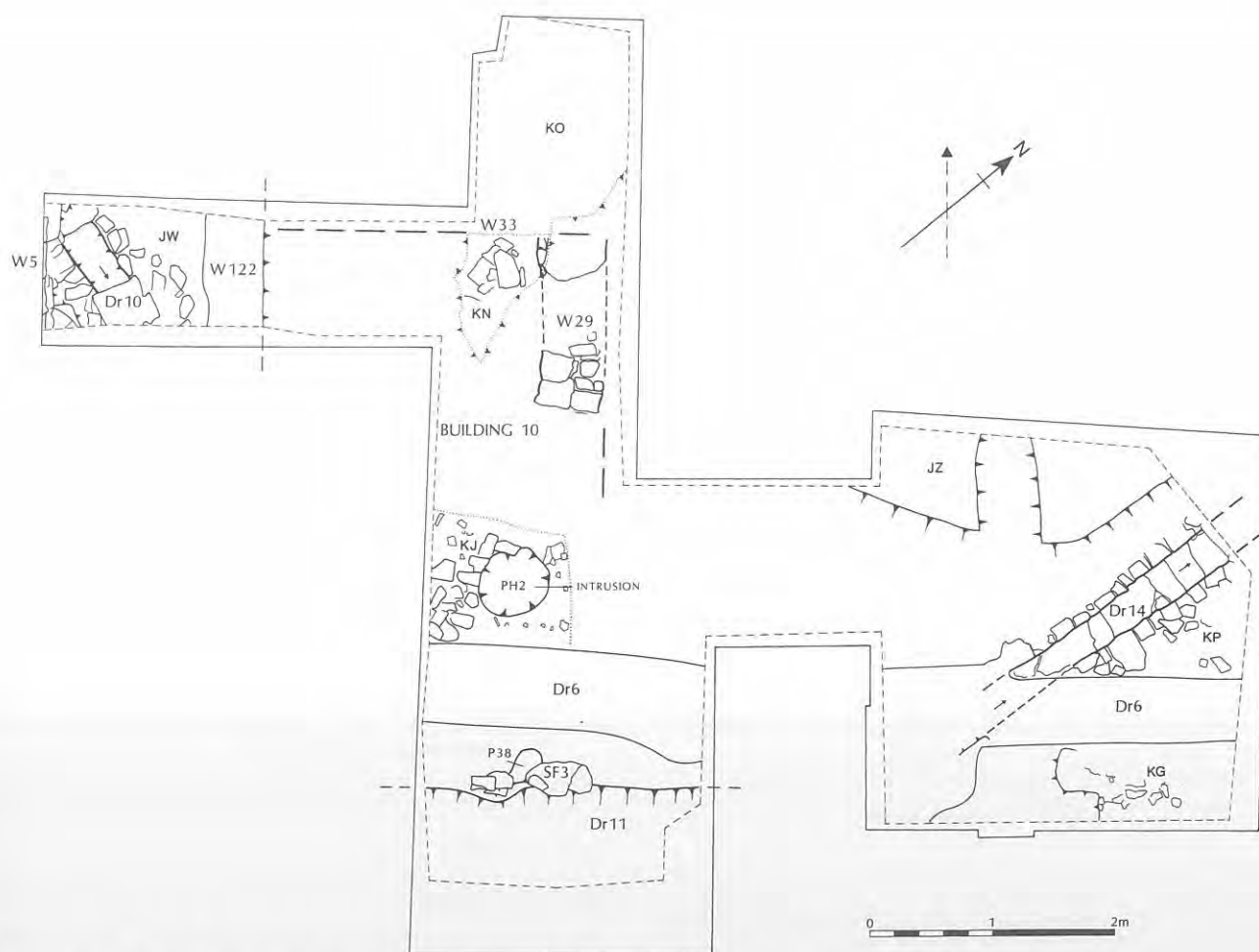
Figure 51 Area A: plan of structures of Period 4B (building 10 and drains)
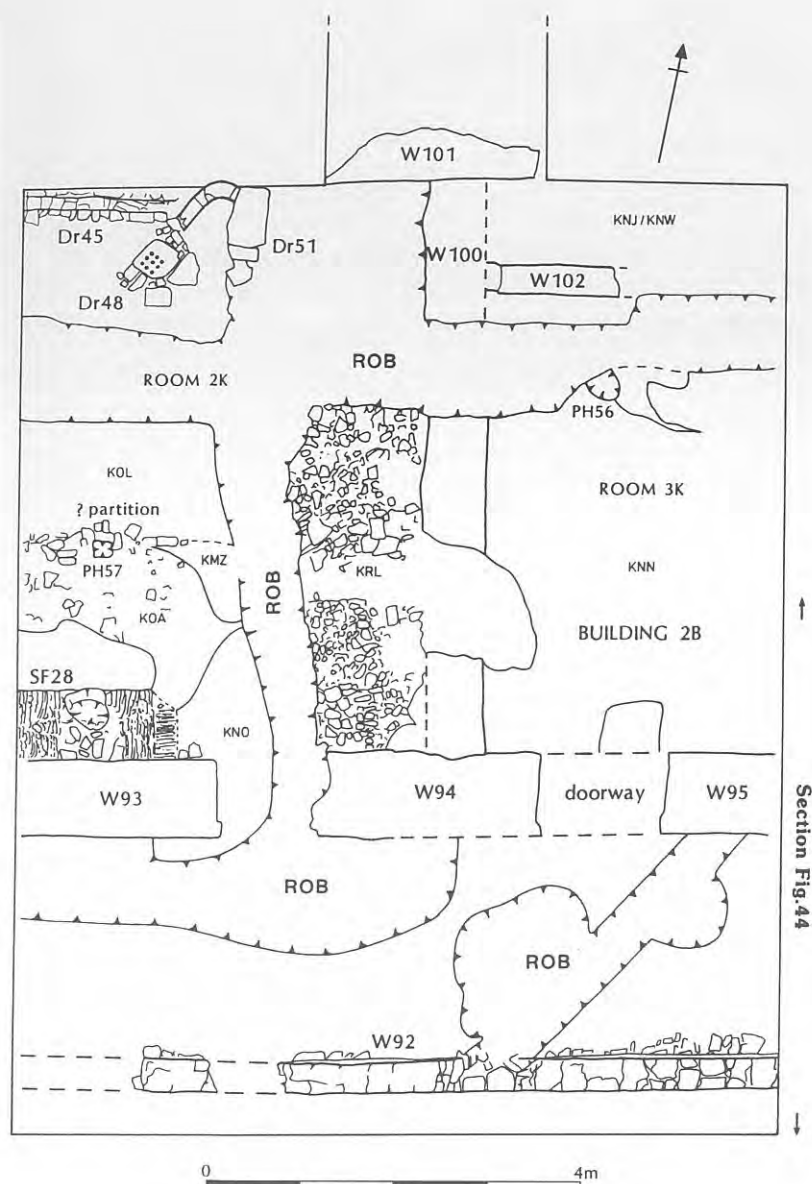
Figure 52   Area K (detail): plan of modification to kitchen in building 2B and corridor in courtyard

account for the demolition debris over it. Building 10 might have incorporated W122 at its western side (Figs 50 & 51). It seems likely from the shallowness and slightness of these structures that building 10 was a timber structure on a stone foundation.

Area K (Later occupation of building 2B; construction of corridor walk; demolition of building 4: Context Groups K26–37; Figs 31–2, 42–5 & 52–3; Pl 21).

Later disturbances, caused by robbing of stone features, made direct relationships between subsequent occupation of the different rooms impossible to determine. Each room is described in turn, up to the last layers before the demolition of the range.

Room 2K

As in Period 4A, the room was divided into quadrants by later robbing for the construction of service trenches.

In the south-west quadrant, on the earlier stone floors was an accumulation of what seemed to be kitchen waste. This was mostly an irregular deposit of highly organic, clay-like material, with a high content of charcoal and some layers containing fragments of food bones. Interspersed with these deposits were some inorganic clays and sands, perhaps put down to patch the floor, while usefully covering up the doubtless malodorous waste (Context Group K26).

On this general debris, immediately against W93 and set back 0.4m from the door jamb, was SF28 (Fig 52). It consisted of many small Pennants,

Plate 21   Area K: Building 2B. Doorway to room 2K, stone feature SF32, and edge of hearth (SF28)

including reused roof slates, laid on edge slightly off vertical and aligned north–south. On the east edge of the feature the Pennants were set at right angles to the rest of the hearth. It extended north of the wall by 0.6 m and was at least 1.7 m long, but its west end was lost under the baulk. The new floor level was at 8.00–8.06 m OD. The whole of the feature was stained black with soot and there is little doubt that it had been a hearth (Pl 21).

North and east of the hearth, over the earlier kitchen debris and going into the doorway area, the floor was made up with a series of red and brown sandy clays, with varying proportions of stones and some lime-mortar flecks (Context Group K26: Fig 52, context KNO). Spreading about 1.6 m north of the hearth, over this trampled floor deposit was another accumulation of organic kitchen debris (Context Group K27, context KOA).

The north edge of this debris was quite straight and ran parallel to the south wall. At the junction was PH57. This was approximately 0.2 m square and 0.3 m deep. There were no packing stones under its fill. Although there were no other postholes, the suggestion that it represented the line of a partition on the south edge of the earlier Dr50 was strengthened by the presence of some small flat Pennants

laid on the earlier levels, forming an approximately straight line with the post. Any partition would probably have been founded on a cill-beam. North of this line, over the earlier make-up was a hard compact spread of organic material (context KOL) contrasting with deposits to the south, which further strengthens the argument for a partition having been sited there.

In the north-west quadrant, context KOL was not seen, but let into the make-up was the Dr45/48 complex. Dr45 was immediately alongside the north wall of the range, running from west to east. It had an internal width of 0.15 m and was 0.1 m deep. Its base and capstones were Pennant, the side walls were Brandon Hill Grit, all bonded in a soft pink mortar. It would have been a main drain exiting from the western part of room 3K and emptying into Dr48. Dr48 commenced at floor level as a slab of reused freestone into which had been drilled nine holes (see Chapter 8, no 334). This functioned as a well-made soakaway. The drain itself was of the same construction as Dr45 but was 0.3 m deep. Dr45 and Dr48 emptied into the earlier Dr51, where there was a drop of 0.1 m, and finally ran out of the building through the north wall. It is possible that Dr48 had replaced Dr50, which had lain
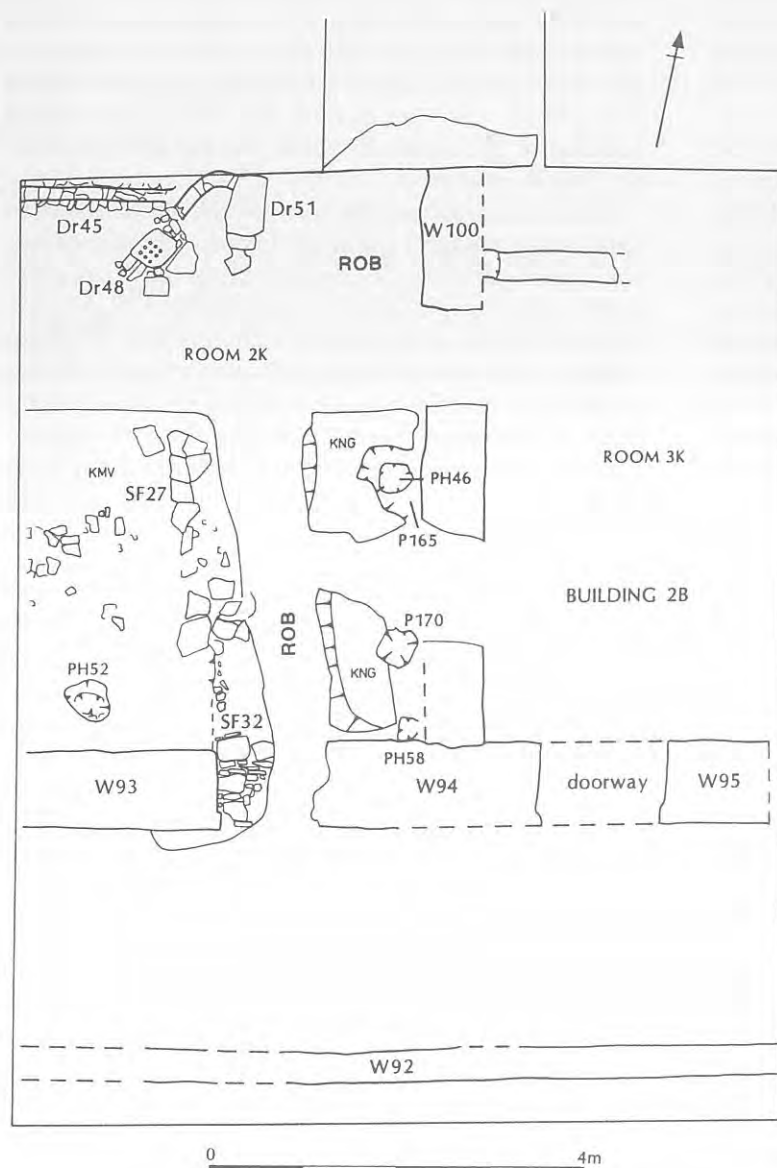
Figure 53   Area K (detail): plan of further modifications to building 2B

further south (Fig 42). The quality of construction of the new drainage complex strongly suggests that this was a kitchen area associated with the hearth to the south.

In the south-east quadrant, over the earlier stakehole complex a similar make-up of stones in sand and clay had been laid (Context Group K26: Fig 52, context KRL). This was possibly a floor, as the surface stones were approximately flat, but it was quite different in character both from the earlier well-laid floors to the west and north, and from the rubble around the hearth. There was no trace of any continuation of the timber partition which is supposed to have run east–west across the room. Unfortunately, later robbing made the direct relationship between these sequences uncertain. The floors continued in use until the early 15th century, when they were covered with more of the same mixture of sand, clay, and stone (Context Group

K27). Over this were set floors which were rather more fragmentary.

Within the doorway was the floor SF32 (Context Group K28; Fig 53). This stone feature was a mixture of Pennant slabs, laid on their sides, and some quite large Brandon Hill Grit cobbles up to 0.3 m across (Pl 21). It lay against the door-jamb on the west but had been robbed towards W94. Its height meant that the wooden door supported by the earlier iron pintle could not have been in use. SF27 (Context Group K28) formed another floor level which consisted of a series of flat Pennant slabs, substantially robbed. It was probably part of the same floor as SF32. The rest of the floor in the room was of the rammed, sandy-clay type (Context Group K28).

Lying alongside W100 were three postholes: PH58, PH48, and PH46. PH58 was approximately square, 0.3 m across and 0.3 m deep, and was set in

the angle with W94. PH48 was set in a postpit lined with six small packing stones in its dark-brown, crumbly soil backfill (P170). The posthole itself was rectangular, 0.3m by 0.2m, and 0.5m deep with sloping sides. Its backfill was as that for the pit. PH46 also seems to have been set in a postpit lined with packing stones (P165). PH46 itself was approximately circular, 0.3m across and 0.45m deep. Probably associated with this series was another posthole, PH52, found near W93, 1.5m west of the doorway. It was also set in a postpit and was circular, 0.4m across and 0.35m deep. It was cut into the former hearth. The function of the posts is uncertain. They were of substantial size and might have been associated with some upper-floor structure. The hearth, SF28, was probably made redundant for that reason. It is presumed that the drainage system to the north continued in use during this later period.

The final phase of occupation required another raising of the floor level. This consisted of a spread of brown sand, lime, and clay with many stones, especially Cornish slate, and some charcoal, up to 0.2m deep (Context Group K29). Set on this, and covering most of the west part of room 2K, was a layer of crushed freestone (Fig 32, context KGN) up to 0.1m in depth, which formed a clean and distinctive floor level (F35). Its lack of contamination suggests that it was not in use for very long, although it had been worn away in the area near the doorway, where it continued outside the range.

Room 3K

As had been the case from the earliest levels, structures in room 3K were simpler than those in the room to the west. There was also less later disturbance, the only robbing of consequence being a drain trench which was cut east–west along the line of the supposed doorway in W100 (Fig 52). Relationships were, therefore, easier to determine.

Towards the north part of the room, 0.85m south of W101 and parallel to it, was W102. This wall was built in fairly small (0.1–0.15m across) Brandon Hill Grit stones, bonded with a soft, pinkish-orange lime mortar. It abutted the east face of W100, from which it extended east for 1.5m, where had been robbed, but there was no evidence that it had originally been much longer than that. It had survived to four courses high and was 0.3m wide. There was no foundation trench. W102 seems to have formed a small cupboard (possibly the pantry) at the north end of the room, similar to that in the earlier room 5Ka.

On the earlier floor was laid an off-white, crumbly mortar floor, 0.01–0.02m deep (Context Group K30, context KOQ). It was rather patchy but it

must originally have covered the whole of the southern part of the room. This replacement did not extend into the cupboard area, where the first replacement was a layer of trampled red and brown clay mixed with stones and ash. There were some patches of the same off-white mortar (Fig 52, context KNW over KNJ).

Over the replacement floor of the main room to the south, another group of layers was deposited, the usual mixture of organic material with clay, sand, and stones (Context Group K30). F39 (Fig 52, context KNN) was similar to the earlier off-white version, but more cream-buff, with flecks of red sandstone. The floor was rather patchy but covered most of the room, except towards the east section where it had either been worn away or had not been laid. Cutting this floor was PH56, only a part of which had survived as it was on the edge of the later drain rob. The posthole appears to have been circular, 0.3m across and 0.15m deep. It was packed with three small Pennant slabs on its south side and a square Pennant at the bottom. As it seemed to be in line with the probable east end of W102, it might have been associated with it. The posthole was also aligned with the probable doorway in W100 leading to room 2K and might have formed part of some short-lived entrance structure.

Covering virtually the whole of the main room, over the posthole and all other deposits, was the same clay/sand/stone debris as below (Context Group K31; Fig 44, context KMR). Over this in turn was an overall make-up consisting mostly of fragments of Pennant and slate in the same rubble mix (Context Group K31, context KLH). This appears to have come mainly from a demolished roof. It also extended over the lower step in the doorway to the south. Laid on this material was F38, another mortar floor of hard, white and pink, lime mortar into which was trodden some black ash and charcoal (Context Group K31, context KKQ). It covered approximately the north half of the room as far as W102. It did not occur in the south part towards the doorway or north of the projected line of W102.

This floor was replaced by F37 (Context Group K32) and F36 (Context Group K33). These appeared as two layers, but so similar were they that they were almost certainly laid down as part of one building operation. Each consisted of many broken Pennant roof tiles and crushed slates, laid approximately flat in six or seven layers, mixed with much charcoal and a mix of red-brown clay and sand. The complex extended from W94/5 up to W102, but towards W100, in an arc up to 1.5m across, the deposit was not present. The Pennant floor sloped down to a layer of the usual red and brown clay mix.

None of the last floors had extended north of W102. Here, the floor was merely a trample of the same red-brown clay, mixed with some lime and charcoal (Context Group K32, context KMS;

Context Group K33, context KJX). This clearly demonstrates that this part of the room had a different function from the main chamber to the south. It was not possible to determine whether layers above these floors were actual floor deposits or the debris from demolition.

Occupation south of building 2B

The principal modification in this area was that W92 was built parallel to, and 2.3 m south of, W93–5 (Figs 44 & 52–3). The wall extended the full width of the trench except at the far west section, where it had been disturbed by modern concrete. There was only slight evidence in plan of a foundation trench, but at the east section this was not obvious. There was a course of footings on the north only, which increased the thickness of the wall by up to 0.2 m, although again these were not obvious in the section. The wall proper was 0.35 m thick, and survived up to four or five courses above the footings. It was built in medium-sized Brandon Hill Grit, bonded in a soft, pinkish-buff lime mortar. It had a distinct lean to the south.

The space between this wall and the range was clearly a corridor or cloister walk. Numerous layers made up the walk and these consisted mainly of limited spreads of material with many smaller patches: a gradual accumulation of variations of red and brown clays, sands and mortars with varying contents of lime, stones, and organic material (Context Group K35). Over these was one definite floor structure, F40 (Fig 44). This was an overall spread of crushed oolitic limestone and buff mortar, 0.15 m deep at approximately 8.0 m OD (Context Group K36). It was a continuation of an identical deposit (F35) in room 2K, but there was no equivalent in room 3K.

Within the corridor, over F40 there was a further accumulation of the same debris as below (Context Group K37). The top of this layer (context KGS) was at about 8.35 m OD, but it was not possible to be certain where the division lay between floor deposits and general debris from the demolition of the building.

In the narrow strip (only 0.3 m wide) available between W92 and the south baulk of the trench, over the demolition debris, was a general make-up of brown and black soil, with some oolitic limestone fragments, and flecks of mortar (Context Group K36; Figs 31 & 44, contexts KLC & KPN). The whole was some 0.6 m deep.

Occupation north of building 2B

There was little evidence for any substantial depth of demolition debris in the west part of the area.

Building 4 had been demolished and covered with a layer of dark brown soil, with some crushed Pennant, and off-white plaster. This rubble dated to the post-medieval period, so the demolition of the outhouse could have been quite late.

To the east, layers of dark brown and brown soil with small stones (Context Group K34) cut by the later septic tank SF18, were possibly the latest medieval layers, although the presence of a sherd of a 16th-century Donyatt storage jar should be noted. It is likely that the water had ceased to flow via Dr49 in building 6, and that either another conduit had been built or the tank had become disused by the 16th century.

Area E (Latest medieval occupation features: Context Group E8)

Over the drain (Dr52) and its surroundings were further similar make-up layers (Context Group E8: Fig 5, contexts EBF, EBN & EBR). The top levels of this sequence resembled floors, but no datable finds were recovered from them and they might have been post medieval. They were not part of the hospital.

Discussion

Period 4A (c 1340–c 1400)

As discussed in Chapter 5 (p 84) the first few decades of the 14th century had been an unsettled time for the hospital, with frequent disputes over administration. This culminated some time before 1336 in the men being largely excluded and the hospital being run by the sisters under a prioress. No details of the circumstances by which this came about have been discovered, and the recently published bishop's register which covers the period 1334–7 says very little. When William Williams was appointed master in 1334, specific reference was made to the sisters, but not to the brethren (Table 8). Similarly, the visitation of 1336 mentioned only the sisters, at which time 'corrections' were to be made. Whether this meant that relations between the female and male staffs had to be harmonized, or whether the women were behaving improperly in some way, is not stated. Nevertheless, it is known that as late as 1337 another male member of staff, John de Wydecombe, was appointed, which must mean that the brethren were not all required to leave the house straight away.

In this connection, the reference to Adam ate Halle in 1343/4 (Table 8) is particularly interesting. First, the commission from the Bishop of Worcester refers to the prior of St Bartholomew's rather than

the prioress. This might have been an oversight or it might have been reluctance on the part of the authorities to admit in writing to the reality that the women were in full charge. Second, the reason for the mention of St Bartholomew's at all is obscure unless Adam had been a member of the brethren. If so, this raises the matter of what accommodation was provided for him and Wydecombe. They might have stayed on in the hospital, perhaps sleeping in the same accommodation as the inmates or in some reserved chamber, or they might have been required to live outside. Neither the reason for a full enquiry about ate Halle taking up the vicarage of Painswick, nor why the bishop should have felt it necessary to instruct all parties to admit him if that enquiry proved favourable, are stated in the sources, but this perhaps reflects the delicate situation at the hospital. Nor is it known how long Wydecombe stayed on at St Bartholomew's, but he might have gone up to Tewkesbury Abbey before 1347 and he had certainly left by 1349, when he was appointed rector of the Bristol parish church of SS Philip and Jacob.

Whether or not the male inmates were forced out is also unknown, but it would have been uncharitable to blame them for the excesses of their masters. The reference to the former dormitory arrangements, when the men were there, need not be taken too literally as meaning that all the men had left by this time. It is possible that, for a time, only poor women were admitted, but this is yet another conundrum for which there is currently no definite answer. If male almsfolk were still in residence, some form of separate accommodation must have been provided for them.

Despite claims to the contrary made by a jury of investigators, the prioresses seem to have remained in charge for about 50 years. Although the documentary evidence is meagre, the impression formed is that for the hospital this was a period of relative stability and renewal, despite the terrible things going on in the world at large, not least the Black Death. The de la Warres were more often than not away at the wars in France, or were otherwise engaged in extending their own estates by making judicious marriages. Although they obviously remained keen to ensure that the family interests were being looked after, it is likely that St Bartholomew's would have been fairly low in their order of priorities. The first prioress, Eleanor, seems to have been astute at generating revenue to keep the hospital going, and it might have been under her direction that plans were advanced for its wholesale reconstruction. The lease of the women's dormitory and adjacent land would have earned much-needed capital and the surviving wills show that the more wealthy citizens were prepared to assist with legacies to a limited extent. The hospital is known to have owned at least one tenement in Lewins Mead in 1335, which probably lay near the old dormitory and burial ground (see Chapter 5, pp 59 & 86) and this might have been the inspiration for more extensive development of the hospital lands there.

The dating evidence for this major reconstruction programme is not precise. The pottery suggests that it took place some time in the later 14th century, which accords with the probable rate of degradation of those buildings which had been erected or modified as recently as the late 13th/early 14th century. On the other hand, the hospital was described as severely dilapidated in 1412, which is difficult to understand if much of it had been completely rebuilt towards the end of the 14th century. Of course, the description might have been made for political reasons, to denigrate the effectiveness of the women's rule when they made yet another attempt to reassert their right to take charge. Further, the dilapidation might have referred to the hospital's furniture and other facilities rather than the buildings themselves. Moreover, the quality of the latest building work might have been poor, as has been postulated for that of Period 3 (see Chapter 5, p 82). Bristol was devastated by the Black Death, perhaps more than most towns, and again by visitations of the plague in succeeding decades (see Chapter 10, p 228). Despite an influx of labourers from the countryside, these were unskilled and numbers of competent craftsmen would have been difficult to come by in the 1350s to 1360s. Although the later 14th century saw a remarkable burst of activity in the renewal of the fabric of most parish churches, St Bartholomew's would have had to compete for the services of master builders (Boucher, 1938). This depended ultimately on money, which is known to have been in short supply, made all the more difficult by the huge increase in labour charges which many people demanded. Perhaps too much reliance was placed on the amateurish incomers, with the result that the new hospital accommodation did not stand up well. Finally, given the scale of the renewal, the work doubtless proceeded over quite a long period, so it would not be correct to think of it as having been undertaken at one particular time in the 14th century. It is probably no coincidence that the adjacent Greyfriars monastery was also expanded and rebuilt at about the same time (Ponsford, 1975).

The sequence in which the buildings were demolished and rebuilt cannot be proven. However, building 1A is known to have been in a parlous state which required urgent attention. That it was ultimately demolished suggests that the earlier remedial action had not been sufficient to correct its continuing subsidence, in which case it would have remained hazardous. That being so, the most sensible course of action would have been to start there and leave until later the other (more recent)

buildings, perhaps when more funds were available. The building was demolished to ground level, but whether or not this included all the columns in the arcade is uncertain. The arches, and by implication the walls above them, were certainly new constructions, as too seems to have been the west respond of the south arcade. Even so, much of the expensive freestone was salvaged for reuse in building 1B, but for the rebuild of column 5 the much cheaper Pennant was used. This reflects the need for economy. It is likely that much of the other stone was also retained to avoid unnecessary expense, but that which was unsuitable was thrown in as part of the undercroft backfill.

Details of the upper structure, other than that which still survives, are scant. It is clear that one of the aims was to lighten the building by making the walls thinner than previously, so that it would be less prone to subsidence on the alluvial clay. The other benefit was that this would make further savings on costs. The possible window above the south arcade might indicate that there was a clerestory on that side at least. However, Bristol churches nearly always had full-height gabled aisles without clerestories, so the same style is likely to have been employed for the hospital church. The observation during the 1980s redevelopment of fragments of a newel post and steps on the west side of the west jamb of the inner door of the south porch implies that there was an upper storey to the south aisle. The south arcade wall still stands to over 4.5 m above the medieval floor level and would have been sufficiently high to have formed one side of an upper room. Such an arrangement at All Saints, St Mary-le-Port, and St Stephen's provided priests' accommodation (Watts & Rahtz, 1985, 130 & microfiche MF 10.12). It follows that there might have been both staff and/or inmates' accommodation on the upper floors of the aisles of St Bartholomew's. With the loss of the women's dormitory, this could have provided somewhere for the remaining men to sleep. It is possible that it served as some form of infirmary, with the window providing a view of the altar in the nave; but it would have been extremely difficult for aged or otherwise infirm people to get up the stairs, and given the narrow passage available it would have been equally difficult to carry them. As it now seems almost certain that alternative infirmary accommodation was available on the ground floor, it is less likely that it was used to house the sick.

It is from this period that the south range was definitely used as the hospital church, whatever might have been its function earlier. Doubtless the economic necessity of reusing the earlier foundations was the reason for it not being realigned more closely on an east–west axis. An extension in the form of a chancel was added at the east end, but this must have been of modest length or it would have obstructed traffic passing through Lewins Mead. Burial of the dead commenced within the new building, including the eastern extension.

It was noted in the description of the excavation that there was difficulty in dating the human burials accurately, for which reason none of them can be assigned with confidence to either Period 4A or 4B. The form of coffin nails is shown by nos 283–6 (Chapter 8) but only B42 contained grave goods (the belt and buckle – no 241). The confines of the excavation and the massive disturbance in the centre aisle meant that only a small proportion of the interments was recovered. Miscellaneous human bones found in the courtyard during earlier periods are thought to have been brought in with other make-up when the ground was raised and do not indicate the position of the burial ground, which had almost certainly lain near that of the neighbouring Franciscan friary (Fig 35).

Details of the skeletons recovered from the church are given in Chapter 9: here it is sufficient to note the following. There was no particular pattern to the burials, although there were more towards the east end of the church and there were none at all in the partitioned area at the west end of the north aisle. The sexes were represented in approximately equal numbers. Although there were some young people, including at least two children, most were elderly. The diseases with which they were afflicted are those associated with the elderly, especially degeneration of the joints, possibly a leg ulcer on one individual, and maybe a bedsore on another. Many showed evidence of healed broken bones, and one person had an unhealed fracture just above the left ankle which might have been the cause of death. None of them was a leper. As would be expected, oral hygiene was poor, leading to various dental problems, but there is some evidence that rudimentary cleaning with a wooden toothpick had been practised by at least one person. Because burial 24 lay in the chancel she might have been one of the prioresses, but there was no burial which could obviously be distinguished as one of the brethren or sisters rather than an inmate.

The evidence from these skeletons is in agreement with the document referring at the time to the lame being housed there, but supports the view that St Bartholomew's was principally an almshouse which included some infirmary facilities to care for a limited number of infirm and elderly people.

Continuing with the description of the church itself, the newly raised floors seem for the most part to have been plain mortar spreads, but there was some evidence that tiles were employed on a limited basis. Also, an attempt seems to have been made to decorate the church by the use of wainscotting, especially in the chancel area, and the building was partially divided by wooden screens, suggesting that it served multiple functions.

In particular, an area seems to have been set aside, and perhaps even screened off, in the west end of the north aisle, probably some time around 1400. It would have been a simple matter to erect partitions between the arcade columns. The precise sequence of events could not be determined with accuracy. Within the room there was a timber framework which might have supported a monument or a bench. A niche in the west wall might have contained another monument or bench. Subsequently, the timber structure was demolished and replaced with stone. At no time were any human burials made in this part of the church. Evidence has been produced that this end of the aisle connected directly with a room to the north, perhaps extending as far as building 8. Such a right-angled arrangement was one of the standard ways of laying out an infirmary, with direct access to the chapel or church (see Chapter 10, p 218). Given this facility, and the sheer inhumanity of burying the dead directly under the beds where the sick were lying, which would anyway be contrary to medieval notions of hygiene, it is unlikely that the supposed infirmary extended any further into building 1B than the partitioned screen.

Admittedly, the presence of a screen would have prevented the sick from witnessing mass at the high altar, but this was an intrinsic problem with the right-angled infirmary arrangement anyway. Moreover, the partition seems to have been only a temporary structure. If this part of the aisle was indeed set aside for the sick, it could account for the presence of the small hoard of old silver coins found in the floor deposits. Perhaps one of the inmates had managed to acquire some small nest-egg savings and deliberately hid them, but died without anyone else realizing what had happened. It must be remembered that not all inmates of hospitals were necessarily poor; indeed certain of them housed comparatively affluent people in return for a fee – a system of corrodies discussed further in Chapter 10 (p 212).

The deposits on the floor of this room had a high organic content, perhaps decayed rushes or timber, among which was a lot of charcoal and animal bone. The bone seems to have come from the preparation of food rather than actual served pieces. The material suggests that it is more likely that at the time, again probably in the late 14th century, the room acted as a temporary kitchen. At this stage it was certainly completely partitioned off both to the east and to the south, as there was no contamination of the surrounding floors by the copious kitchen waste found in that area. A little later, a stone hearth was constructed, and there were many fish bones (unfortunately not identifiable to species) on the floor. The earlier stone structure must have been covered in some manner which prevented soot getting on it. The provision of a kitchen there could have been a

stop-gap measure while the domestic range (building 2B) was in the course of construction. Alternatively, it might have served for a short time as a place to cater specifically for the invalids in the adjoining infirmary. The poorer cuts of meat were the norm, mainly from young sheep/goat and beef at first, but with a tendency for older animals to be slaughtered later on in this period, so that mutton was eaten rather than lamb. Brawn became less common but goose and chicken remained popular, if beginning to decline in quantity, and even the occasional pheasant was obtained.

Fragmentary evidence was also found for a short screen running part of the way a little to the east of the line between columns 1 and 4, near the west end of the central aisle. This suggests that much of the west end of the church was temporarily partitioned off. Whether those partitions in both north and centre aisles were exactly contemporary could not be demonstrated owing to disturbance of the stratification between them. There is no evidence to suggest that this, or the other scanty trace of a temporary screen further east in the north aisle, was part of a wider series of cubicles dividing up the aisles for the sick to lie in. In fact, so slight was the evidence, which did not include any postholes apart from that in the north-west corner, that it might be doubted whether they were actually screens at all, but rather some less tangible division.

Another extension of the building was made at the north-east, into Area H. The wall was angled, perhaps to accommodate the path which is presumed to have led to the main hospital entrance on Lewins Mead. The substantial drain which led from this extension into Area A was probably the main catchment for rainwater falling onto the roof. Assuming they are genuine (which could not be proven – see Chapter 7, p 129) the windows shown in the corner of the courtyard in the 1820 drawing (Pl 23) probably represent part of that building, strongly suggesting that it joined the south end of building 8, and it might well have been linked in some fashion with the supposed infirmary there. The drawing also indicates that it was at least two storeys high, possibly even three, and that there was a door leading into the corridor in the courtyard which was remodelled later on. Such an arrangement would have established the line which was eventually to become the main passageway into the later school courtyard (see Chapter 7, p 122). This could also account for the rebuilt wall in Area F being so fragmentary. Because of more recent demolition, it could not be proven whether the room joined the north aisle of the church at the east end near the altar, but such was another of the standard plans for infirmaries and one of the methods of segregating men and women (see Chapter 10, p 218).

To the north, building 2A was demolished and reconstructed as building 2B. Assuming that the wings were more or less symmetrical on each side of the dividing wall, it would have been some 22m long, which would have taken it almost up to the street outside. As far as the limited excavation could determine, the new building was constructed on lines similar to that which it had replaced, with a door leading into each wing from the courtyard. The evidence from the finds was that it was roofed with slate (see Chapter 8, roof furniture, p 157).

In the west room (R2K) further sub-division was achieved by the use of wooden partitions, part of which was probably an entrance passage serving the kitchen/scullery which seems to have been sited there. The floors in that room were well made, incorporating an excellent drainage system and (probably) an oven to the north. Fragments of food bones were found in the drain silt, suggesting that kitchen waste was washed into it. A chunk of a stone mortar was recovered, which was probably used to grind herbs and the like for cooking, but it seems more reasonable to suppose that it came from an earlier period (Chapter 9, no 224). To the east, room 3K was provided with a cupboard but otherwise contained no identifiable structures. Because of this and its clean ash-free floor, this room is interpreted as the refectory or hall, with the cupboard serving as the pantry for the storage of serving materials and related items. The pottery found in the floor debris corroborates this interpretation. Among this was a green-glazed, locally made potsherd which has been interpreted as either an inkstand or a cruet, and might date to this period (Chapter 8, no 150).

No evidence was found for any staircase, so the building might have been single storeyed, but it is more likely that the stairs were elsewhere. In Period 4B, substantial timber posts in room 2K might have supported an upper floor. The earlier range seems to have had two floors, with the upper rooms possibly serving as the men's dormitory, and it is not likely that its replacement was substantially smaller; although if it was built by the women they might have considered the upper floor superfluous and not worth the expense.

The domestic nature of the north range is further confirmed by the provision on its north side of a new conduit house with cistern (building 6) which replaced the earlier version in the demolished building 5. The presence of a raised lip at the margin of the cistern suggests that it acted rather like a settling tank, and the narrowness of the outflow shows that it was not expected that it would become clogged. This system was almost certainly supplied via the Greyfriars pipe (see Chapter 5, p 86). To the south of the range, a channel filled with characteristic bright-green clay is evidence for at least a short length of lead pipe having led away from the

kitchen and into the courtyard. Identical clay was observed associated with a lead water-pipe at Greyfriars (Ponsford, 1975, 19). Thus a constant supply would have been readily available to meet all needs, which might have been piped to a tap in the kitchen and possibly in the courtyard. This is further discussed in Chapter 10 (p 222).

In the courtyard, between the church and the domestic block, a walkway (probably covered) was established alongside its western margin. This might have been part of the system for ensuring the segregation of the sexes. Apparently directly associated with this was building 9, a somewhat lightweight structure with at least two rooms and one possible ground-level window. It is interesting that it was aligned with the northern domestic range rather than the almost adjacent church. It would have been irregular in shape if the north extension of the church formed its south wall, which is likely as no alternative was found. The purpose of the building has not been determined, nor is it known whether others were put up nearby.

The commencement of burials within the church suggests that at about the same time that Prioress Eleanor leased for rent the women's dormitory and adjacent ground the cemetery itself was also involved in some way. The low number of burials indicates that not only the church was used: even with a small population of inmates and staff, there must have been considerably more deaths over nearly 200 years than those for which bones were found, even if only a small proportion of them was recovered. How long the cemetery remained in use is unknown, but with the leasing off of adjacent land in 1340 it might be that it became more economical to restrict burial there and put the land to alternative use, hence the need to find room in the church. The statement made in 1335 that there were tenements nearby indicates that at least some of the land had begun to be developed for alternative use by then, and financial advantage might have been gained by allowing the process to continue.

In about 1386 the former male administration was re-established. The circumstances are not known in detail, but if the treatment of Agnes Stanley (Table 8) is any guide it would seem that the whole affair was somewhat acrimonious. Judging by the available evidence, downright lies were told about how the hospital had been run during the previous 50 years. In fairness, allowance must be made for the scarcity of contemporary documents. It could be that a good case (even by modern standards) was made for the return to male rule. How much had actually been accomplished during the female administration is uncertain, owing to the imprecise dating of the finds and other sources of information. It is possible that part of the programme of regeneration had been instigated by oth-

ers rather than the prioresses. Nevertheless, an impartial judgement would weigh in favour of those years as having been ones in which substantial improvements were made.

Period 4B (c 1400–c 1532)

The return to male administration does not seem to have led to much progress being made, for the new masters allowed the hospital to become severely dilapidated within a very few years. This spurred the women to make another (unsuccessful) attempt at resuming control. Their restiveness might in some way have been connected with the appointment of the nobleman John Arundel, as he held a plurality of benefices and might not have been thought of by the staff as the most appropriate person for the post (see Table 8). No new building work was carried out on any large scale and the hospital seems to have gone into a slow decline until its closure in the 16th century. On a more practical note, no evidence has been found which indicates where each of the sexes was accommodated. Perhaps at that time the upper room over the south aisle of the church became even more essential.

Some attempt at revival was made when the sailors' home was established there in 1445. Because the ordinances for the foundation of this Fraternity of St Clement state that its accommodation was subject to the licence of the hospital master, it is clear that the retired mariners lived in a reserved part of the hospital, alongside the other inmates, and did not take over the hospital entirely. This evidence is reinforced by the continuing authority of the de la Warres until the closure of the hospital in c 1532 (see Chapter 7, p 125). Provision must also have been made for the mariners' warden and his deputy, who, because they were appointed by the local seafaring community rather than the de la Warres, cannot have been the same as the hospital authorities.

In contrast to the lifestyle of the other inmates, there was no requirement in the ordinances for the sailors to observe a religious life according to a rule, other than to pray for the souls of certain people, for which the fraternity had their own chapel. That might have been set up inside the church itself. Perhaps the screened-off room at the west end of the north aisle and the supposed infirmary area served that function. It is known that each St Clement's Eve (23 November) the mayor, sheriff, and corporation heard mass in the chapel, which must have been sufficiently large to accommodate them as well as the twelve mariners (Ricart, 1872, 80). Alternatively, the room might have been used as a separate dwelling space for some of the sailors; certainly, its use for food preparation was short lived,

as the floor deposits immediately above were quite different in character, and comparatively clean. Definite traces of a partition with a probable doorway were found along its eastern side, so it must have been reconstructed on a smaller scale.

At this time, the church might well have incorporated at least some patterned tiles in its floor, and fragments of its painted glazing were recovered (Chapter 8, Groups 6 & 7; Chapter 9, nos 214–15).

Security continued to be a feature of hospital life. A copper-alloy catch-plate and several iron keys were recovered. Possibly some of them were used to protect the inmates' private lockers. This would be in keeping with the personal privacy for which seagoing folk are well known, but the ordinances of the fraternity required them to surrender their possessions. Perhaps this was not rigorously pursued, or perhaps the emphasis on locking things away reflects some degree of imbalance or rivalry between mariners and landlubber inmates. The Portuguese coin (Chapter 9, no 27) could well have been a keepsake gathered by one of the sailors on his travels.

The presence of a drain leading from building 8 suggests that the range accommodated a washing or toilet area. Probably to enhance the claustral atmosphere, a narrow passage or walkway was constructed south of building 2B in the 15th century, linking with that alongside building 8 which had been installed earlier. In the courtyard, building 9 was demolished and replaced by building 10, another light, probably timber-framed building which was constructed alongside the cloister walk. Its function is unknown.

The occupation of building 2B extended until well into the 16th century. A hearth was added to room 2K and a partition to the north. North of this partition was the second drain complex which exited from the building to the north. Timber posts against the wall might have supported an upper floor, although as noted previously there was no trace of a stair base, so it was more likely to have been simply substantial wainscoting. The roof was at least partly re-covered with Malvernian tiles (Chapter 8). In room 3K, probably the refectory/hall, the floor levels were raised and were mainly of the mortar type, which stayed comparatively clean. The cupboard in the northern part of the room was retained. In the east wing were found large numbers of sherds of Malvernian wares, dating to the 15th/16th century, and many more sherds were dumped in the cloister walk. Although they are thought to be a cheap rural product, Malvernian wares were common in Bristol during this period. Their frequency in this building, far more than elsewhere on site, shows that domestic activity was a feature of the range, and that room 3K was used to serve rather than to cook food. The animal bones showed a tendency for poultry to be used much less frequently, but the number of bones of all species recovered was too small to

enable really meaningful statements to be made. The water tank to the north (building 6) appears to have continued in use.

Although the mariners were still resident at the hospital in 1473, as shown by John Shipward's will, it is likely that they quit soon after the construction of the new Chapel of St Clement's on land in the Marsh during the 1490s. They were certainly not referred to when St Bartholomew's closed as a hospital in c 1532. It was then taken over to accommodate the new Bristol Grammar School. The subsequent history of the site is discussed in Chapter 7.

7 Period 5

Closure of the hospital and post-medieval reoccupation (c 1532–1995)

This chapter summarizes what is known of the closure of the hospital in the 16th century, when Bristol Grammar School was founded, and the subsequent reoccupation of the site to the present day. From that period many buildings are still standing. Excavated evidence is only slight, mainly because the foundations of the surviving buildings could not be investigated in detail, but also because of the proximity of the later features to modern ground level, with the inevitable massive disturbance.

Excavated structures

A summary plan of the excavated structures and of the buildings surviving until 1976 is given in Fig 54.

Area D/G (Final occupation and demolition of building 1B: Context Groups D23–4; Pl 22)

In the west end of the north aisle, cut through the earlier mortar make-up (Context Group D20 – see Chapter 6, p 108) was W40, which had a shallow foundation trench (Context Group D23). This wall also overlay W58 and pier base 4. It was composed of green Pennant set in a cream, slightly pink mortar, and was 0.8m thick. The west end overlay the demolished W43. Because the wall overlay pier base 4, that part of the arcade at least must have been demolished before the wall was built. To the south, a layer 0.05–0.1m deep of red-brown, sandy humic soil containing white and pink mortar flecks (Context Group D24, context DDA) is thought to be later than W40 because the wall was clearly revealed only after the removal of that layer. This suggests a short lifespan for W40.

The wall must have been constructed to partition the site of the centre aisle from the north aisle. Because it survives to the present time, column 5 must have been left *in situ*, but how much of the rest of the north arcade survived, if any, is unknown. It was also necessary to retain the western half of the south arcade, which still serves as the back wall to the tenement fronting Host Street. When the demolition of the redundant arcading took place could not be determined with accuracy, but some time in the late 16th/early 17th century seems likely. It is possible that the outer arch of the porch was rebuilt at the same time, as the blocks of the arch are extremely ill fitting and are unlikely to be in their original positions. There is no proof, but its depressed profile seems unsuited to its surroundings and the arch might well have been lowered when the upper room was constructed.

Over context DDA was deposited a loose brown-orange layer with patches of ashy soil, covered by a green-brown crumbly soil with mortar flecks, which partly overlay the demolished W40 (Context Group D24). This formed the make-up for SF14 (CG D24) – a neatly laid, cobbled floor with a wooden partition running north from a cut made in pier base 1 (Pl 22).

The make-up for the cobbles contained a sherd of Tudor Green pottery, suggesting a date no earlier than the 15th century for the pavement. It seems to have been laid out after the construction of W40, and certainly before W2 was built along the west side of the passageway leading from the porch. From the buff mortar used to bond the stones came a Bristol farthing of 1662. This might have become trodden in later, but it is more likely that the pavement dates from the late 17th century. It is not known whether the pavement was internal or external, or even whether the whole roof of the church had been removed at the time. Such cobbling would, however, be expected to form external surfacing, and it is likely to have been an open courtyard, which interpretation is supported by documentary evidence presented below. This implies that most of the church at least (other than those fragments which survive to the present day) had been demolished by then, which ties in with documents showing that houses had been built alongside Lewins Mead. This was probably when the passageway leading from Host Street into the school was first laid out.

Only recent material was excavated above the cobbles, including flagstones set in concrete, some fragmentary timbers, and drains. At the north end of the area, a large septic tank (SF7) of 19th-century date, had destroyed much of the upper part of the stratification.

In Area G there was large-scale disturbance of the medieval floors and burials. From these deposits came quantities of pottery and clay pipes, the latter all dating to the 18th century. South of W48 and W53, and east of W50, were recent cellars.

Area A (Demolition of building 10: Context Group A13; Figs 7 & 10)

W122, which was parallel to W5, survived to the height of at least a few courses. Building 10 was

NEW BUILDING
RETAINED BUILDING

North-West
Range

Master's House

←fireplace

door

door

floor

W85

courtyard

Q.E.H 1818 school building

Middle Range

Q.E.H 1818 school building

South-West Range

W40

cobbling

partition

Erected 1934

L E W I N S   M E A D

C 17th terrace

shop

Great
Door

shop

0   10m

Host Street
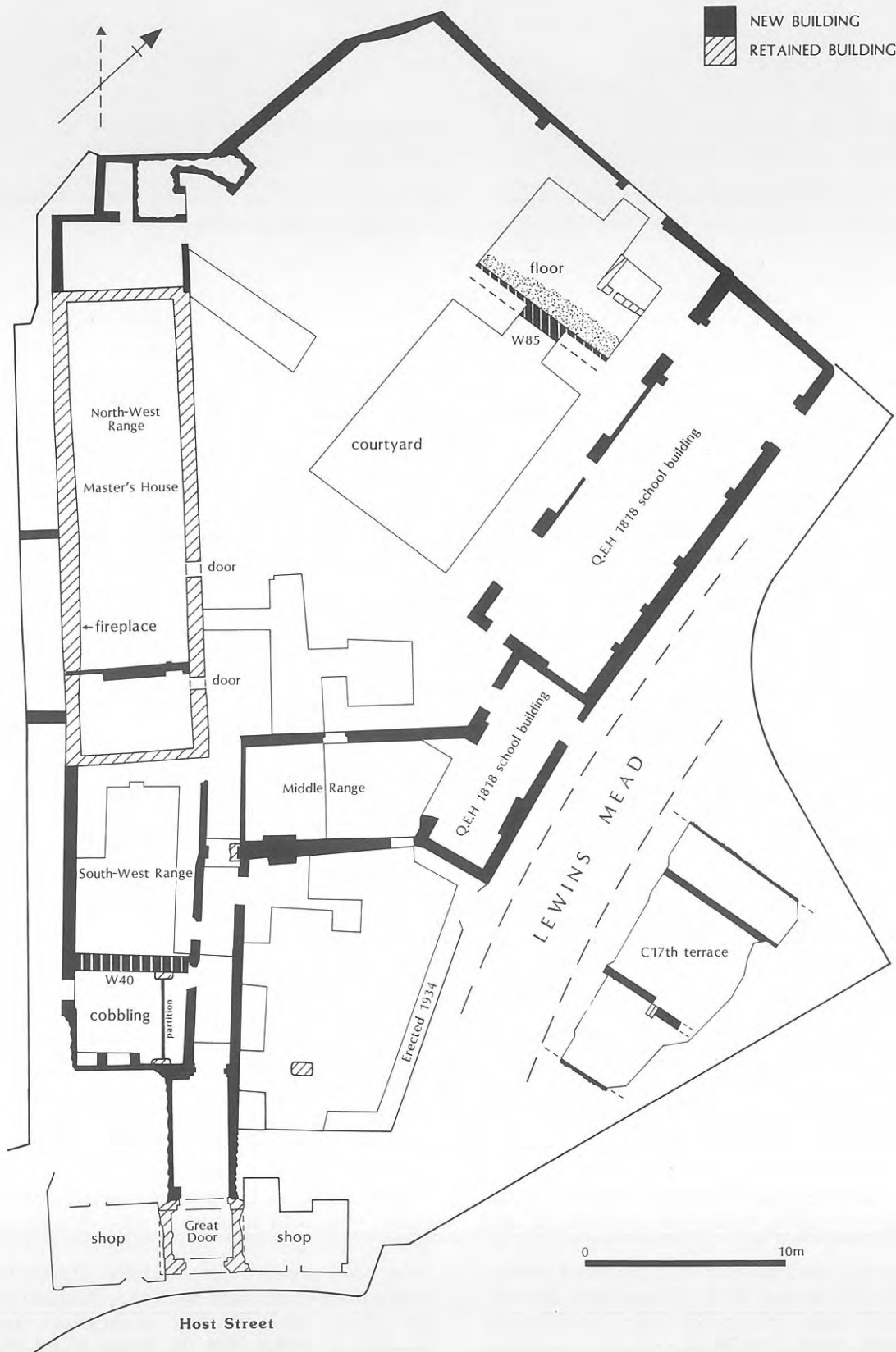
Figure 54   Summary plan of structures of Period 5
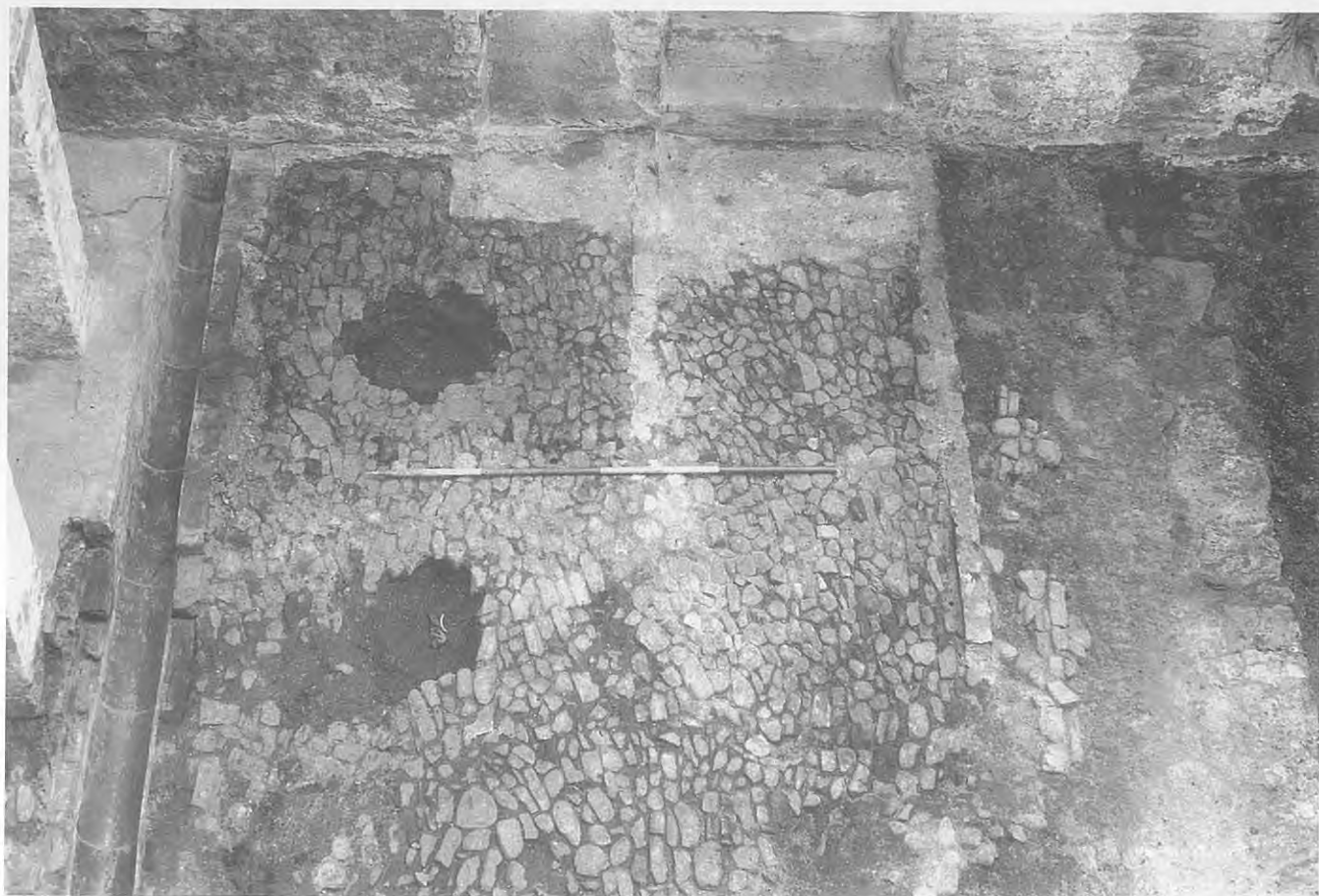
Plate 22   Area D: Cobbled courtyard after partial demolition of building 1B, looking south

demolished. The latest pottery in the demolition debris was a single sherd of 16th-century Donyatt ware. This suggests that building 10 was demolished shortly after the Grammar School opened. The layers excavated over the demolished building were similar to the demolition debris encountered in Period 4B. They consisted of red-brown clay and sand, mixed with stones, lime, and organic debris at a height of about 7.95–8.15 m OD (Context Group A13: Fig 10, context EK). At the same level, in the south-west part of the trench, was a spread of bright-red/orange, gritty clay, 0.01 m thick, over which was an equally thin spread of yellow-brown, gritty mortar (CG A13). Over the whole area, further make-up was deposited to approximately 8.10–8.25 m OD, shown in section only (Context Group A13: Fig 7, contexts GM, GS & GT; Fig 10, context HT). Within these deposits, between W5 and W122 over HT, was a reddish rubbly soil (context HR) on which was laid F8. The floor was 0.01–0.04 m thick: an off-white and pink mortar with charcoal flecks. F8 replaced the earlier F11. Above this the sequence of thin make-up spreads was: red clay and small Pennants (context GZ) over which was a thin patch of stony, creamy-brown mortar (context GW)

covered by a red clay and soil mix with white mortar flecks (context FL) and finally a red-brown soil with yellow clay patches, and pink mortar flecks (context EN). There was no indication that paving had been laid on these layers. They were probably short-lived repairs or resurfacing of F8 in the claustral walk or corridor. W5 continued in use until the kitchen range (building 2B) was demolished. Its vertical facing began at the level of context EN (Fig 10), suggesting that it had possibly been wholly or partially rebuilt then. This is far from certain, and it is more likely that the alterations were made when new ground-floor windows were inserted because of the need to raise the old internal floor level to that outside. W122 was probably demolished at that time. Unfortunately, there were no finds in context EN, so the date is uncertain.

Above context EN and associated layers, the deposits consisted mainly of pits, drains, and other service features of a late post-medieval or modern date. They are not reported here. The surface of the modern concrete laid over the Pennant paving of the school yard, at which excavations began, was levelled at 8.75 m OD. No trace was found of the pump shown in the drawing of 1820 (Pl 23).

Area K (Demolition of building 2B and later occupation: Context Groups K38–40; Figs 30–2 & 44–5)

The whole of building 2B was demolished and the rubble raked over. This rubble consisted of fragments of oolitic limestone, Pennant, and slate, mixed with red-brown clay and sand, patches of charcoal, organic debris, and plaster (Context Group K38: Fig 31, context KGB; Fig 32, context KEO; Fig 44, contexts KFX & KEM). Drains 45/48 were blocked with stones bonded in a fairly hard, off-white lime mortar, but the main drain (Dr51) remained open.

Although the pottery in the demolition deposits need be no later than the 15th century, it is likely that building 2B survived for at least as long as the hospital continued to care for the surviving inmates (ie until perhaps the 1550s) and probably later. This would be more consistent with the evidence as a whole. In the courtyard to the south of the former range were deposits of late demolition debris similar to those elsewhere (Context Groups K39–40: Fig 44, contexts KDA & KMG).

Cut into the demolition debris of building 2B was the Pennant wall W85, which was bonded in a pink lime mortar, typical of post-medieval buildings in Bristol (Fig 54). It might have been the south wall of a range extending north to Johnny Ball Lane. To the north of, and possibly associated with, the wall was F34. The floor consisted of buff mortar and red soil (Context Group K39). The floor overlay Gy36, which seemed to have been a trench for the inspection of W85 rather than its foundation, as it did not continue to the base of the wall.

The building represented by W85 was demolished to make way for an 18th or 19th-century drain system. This was possibly part of a flood-reduction scheme. One of those drains (Dr37) which ran south through the wall on its east side might have been earlier, and associated with F34 and W85, but this could not be proven.

In the north part of the area, overlying the east face of the demolished W103, was a layer of red-brown, clayey soil, with many stones and lumps of red-orange clay (Context Group K39). To the south of W91 were two stone steps (Fig 45, SF29) which descended to the south. They were bonded in a soft, red-brown mortar with flecks of lime, and were probably associated with W91 at a later date, although any direct relationship had been destroyed by robbing. The finds in the backfill of the water tank suggest that it went out of use in the 18th century. Further west, a major disturbance was a 19th-century stone cess-pit (SF18), which had destroyed much of the stratigraphy in that part of the trench (Fig 30).

Closure of the hospital and occupation by Bristol Grammar School (c 1532–1767)

On 31 January 1531/2 the Bristol merchant venturer Robert Thorne entered into a contract with Lord de la Warre which provided for the transfer of the hospital and its property to the trustees Robert Thorne, his brother Nicholas Thorne, and a clerk named John Gooderiche. Robert promised to ordain a convenient school house on the hospital or some part of its lands, to provide a schoolmaster and usher with a convenient wage to come out of the rent of the lands, and to make provision for praying for the souls of the de la Warres (Hill, 1951, 7–8). By this agreement Bristol Grammar School was established. Letters Patent from Henry VIII the following March granted royal assent (Hill, 1951, 1).

The circumstances surrounding the closure of the hospital are obscure. It is likely that by the early 16th century the de la Warres had lost interest in it and were reluctant to pour more money into what seems to have been a ruin. The chance to offload the burden when Robert Thorne took his initiative was probably seen as too good an opportunity to miss, and little time was lost in making the transfer. Whether de la Warre actually paid up the unspecified sum stated in Thorne's will to have been owed to the school (see below) is another unknown.

As to the inmates of the former hospital, the provision in the agreement was that those almsfolk already living there were to remain for the rest of their lives and receive five pence per week each. The former priest of the hospital was maintained until the school was established, although how long the inmates were actually allowed to remain there, and when the last of them died, are unknown. In 1548 huge portions of the lands of the dissolved religious houses and chantries in Bristol were purchased by Sir Miles Partridge, but an exclusion was placed on 3s 4d from the Chepe Chantry in the 'Hospital of St Bartholomew', which suggests that it still retained some of its original function until that date, although it is unlikely to have accepted new inmates (CPR, 1548, 112; Hill, 1951, 7–8).

The early history of Bristol Grammar School has been dealt with in some detail elsewhere (Hill, 1951; Sampson, 1912) and is not repeated here, except to summarize the essential facts.

Sadly, Robert Thorne died in the summer of 1532, aged only 40 (Hill, 1951, 11). His will, drawn up on 17 May that year, bequeathed among numerous legacies £300 'and more that my lorde Dalaware Ouethe as by his Obligacion Apperethe' towards the making up of the free school of St Bartholomew's, and £25 to Thomas Moffett, master in the Grammar

Schoole in Bristol (Veale, 1951, 125; Wadley; 1886, 180).

It seems that the school was not an entirely new establishment, having existed elsewhere in another form perhaps as early as 1513 (Vanes, 1982, 7). The Mayors' Audits of 1532–3 record 'a tenement over Frome Gate, which the Scolemaster of the gramer hath rente free for the techyng of Chyldryn' (BRO Mayor's Audit, 1532, 15–16; *ibid*, 1533, 141). Doubtless, the school was transferred from cramped conditions to the more spacious, if dilapidated, St Bartholomew's (Hill, 1951, 10). However, there seems to have been considerable delay, because the accounts of 1536 also refer to the same tenement over Frome Gate as being for the tuition of children, and it was not until 1540 that the property was listed as 'sometime the scole house' (BRO Mayor's Audit, 1536, 85; *ibid*, 1540, 169; Hill, 1951, 10). The delay might have been caused by administrative difficulties following Robert Thorne's death, and it is likely that a considerable amount of work had to be undertaken to return the estate to a habitable condition. Moffett quit the mastership of the school in *c* 1542, but he seems to have retained a pension (Hill, 1951, 10 & 243; BRO Mayor's Audit, 1543, 181).

The second trustee, Nicholas Thorne, died in 1546. He made bequests to the school, particularly for buildings' maintenance and the establishment of a library, and it is clear that some religious function had continued because he left money for the garnishing of altars, vestments and altar cloths, as well as for glazing the church (Hill, 1951, 13–14; Wadley, 1886, 184). From this it is clear that some of the medieval buildings continued to be used by the Grammar School for some time, certainly the church. The most likely arrangement was that the schooling and associated works took place in the north-west range, building 8. This survives, albeit in considerably altered form, to the present day. The church might have been used for worship by both the school and the surviving almsfolk. Those inmates were probably housed in the kitchen range, building 2B. The cooking and dining facilities might have been shared by all until the last of the almsfolk died. When the hospital function ceased, building 2B was probably demolished to open the courtyard.

As a trustee, it was Nicholas's duty to convey the lands and property of St Bartholomew's to the Corporation of Bristol. Although he made provision in his will for this to happen, his failure to do so in good time before his death was to cost the school much. A large part of the endowment was lost because his son Nicholas (Robert's nephew) was involved in a series of fraudulent deals over the property. Many documents relating to the lands were destroyed by the younger Nicholas to cover his tracks. After the death of Nicholas II in 1591, his daughter Alice Pykes continued to dispose of the estate in the same scandalous manner. Finally, what remained was passed to the Corporation in 1621 (Hill 1951, 15–19; Latimer 1908, 41–4).

Of interest is the inventory of the school taken in March 1657/8 and published by Neale (1982, 254–7). This notes the following rooms: the hall and buttery; the wainscoted parlour and its buttery; the kitchen and a new kitchen and the room above; the study and an adjoining room; the school (presumably the school room where the actual teaching was conducted); the library; the cellar (which according to a later entry was rebuilt in 1672); the room next to the stair head near the school; the garden with its arbour and stone benches, in which a summer house was later built in 1675. A document written *c* 1666 refers to the back kitchen, where the master was to provide a fire (Hill, 1951, 25). A fireplace found at the south end or the north-west range would appear to be of 16th-century date, and might have been that in the master's private rooms.

This information for the 17th century is supplemented by additional material gleaned from the so-called Bargain Books which contain copies of many of the property transactions undertaken by the Bristol Corporation (BRO 04335 (5–16) & 04338 (1–14)). A thorough investigation of these and the rate books of St Michael's parish (also kept at Bristol Record Office) was undertaken for another purpose (see Chapter 8, clay tobacco pipes) but the detailed information gained has a wider application. These sources show that the porch was commonly referred to as the Great Door leading to the Free School; obviously by then the main entrance to the school, over which by 1649 had been built two rooms and garrets. In 1649 there had been one tenement on the west side of the great door, which had been leased to a brewer. This is now the fish and chip restaurant, no 17 Host Street (Figs 1 & 54; Pl 1). Behind this were rooms of the school, but what they were is not specified. On the east side of the great door were two tenements, now combined as the newsagent's shop, no 19 Host Street. Behind these tenements was a cellar, possibly that which still survives under the newsagent's but more likely within what was originally the south aisle of the church.

Until the 1981–4 redevelopment of the site, outside and to the left of the porch was a decapitated statue of the Virgin and Child, thought by Pevsner to be worthy of the craftsmen of the west front of Wells Cathedral (Pevsner, 1958, 438; Gomme, Jenner & Little, 1979, 23). Whether or not it was an original feature of the hospital is unknown, but this is unlikely. Writing in *c* 1480, William Worcestre did not refer to it in his descriptions of the hospital, but he did mention such a statue set in the garden wall of the nearby Carmelite friary and it is possible that it had been brought from there after the Dissolution (Nasmith, 1778, 186; Dallaway, 1834, 55; Neale, forthcoming). If so, it must have been carved after the establishment of the friary in *c* 1256–67, unless it had been a gift to the friars from an earlier benefactor. The statue had been mutilated at some time by removing the heads. It is now set on a plinth inside the porch. It is much begrimed with

soot, which makes it extremely difficult to photograph, and no resources were available to enable useful scale drawings of it to be made.

The Bargain Books also show that the whole of the street frontage on Lewins Mead, from Host Street right up to Johnny Ball Lane, was taken up by houses. Exactly when they were built is uncertain, but they were certainly there by 1650, so the church must have been demolished by then. The abuttals by which the tenements were described refer to them backing onto the school entry or, further north, to the school courtyard. One property in 1678 extended back to the school privy, which must therefore have been located on the east side of the yard, probably somewhere alongside R15–16 on the 1976 plan (Figs 1 & 54). By 1671, and probably well before then, houses had also been built along the south side of Johnny Ball Lane, and it is clear that the courtyard extended that far to the north, where it abutted them at their rears.

From the foregoing, it may be seen that the buildings of potential use by the school were quite limited in number, and must have been restricted to the west end of the site of the demolished (or partly demolished) church, and the west range: ie R4–10 on the 1976 ground plan (Figs 1 & 54) and that much of the space was occupied by the courtyard/garden. This corroborates the illustration of the area shown on James Millerd's map of Bristol drawn in 1673 (Pl 2, indicated there by letter Q). It is further borne out by a poem written in 1737 by Alexander Catcott, the master of the school at the time (Hill, 1951, 50). According to him, the great door led to a dismal passageway which in turn opened out on the garden, with its ancient elm and other trees. The classroom was described briefly: 'The doors unfold, and on each side disclose/ Long classes, rising in three equal rows . . .', these being presided over by the master and his assistant. This was probably in the north-west range.

Deterioration of the buildings continued to be a pressing problem and substantial repairs were necessary in 1757. A committee appointed by the Corporation reported that, even after the repair work had been done, it was still recommended that the entire premises be demolished and rebuilt. This was undertaken during 1758–62 and cost the considerable sum of £2000 although, for reasons given below, it seems that the rebuild was not total (Hill, 1951, 41–2). At the same time the garden was dug up and a new playground provided (Latimer, 1908, 374).

From 1765 comes a description of a survey of the school with suggestions for increasing functional space (BRO 1765: Bundle 5, no 11). It states that above the 'school' (presumably the classroom) at the lower end was a study measuring 15ft 3ins (4.6m) long by 11ft 4ins (3.4m). A very good dining room could be made by taking down a lath-and-plaster partition and running the small parlour into the passage, giving a space 24ft 6ins (7.4m) by 16ft 6ins (5m) which would be sufficient to accommodate 50

boys dining at a double table. The whole house would hold 21 beds. There was an usher's house with a kitchen and parlour on the ground floor, two bedrooms on the first floor, and two more on the second floor, which in all would hold eighteen beds. The master's house had on the ground floor a kitchen, a parlour measuring 16ft 6ins (5m) by 17ft (5.1m) and another measuring 16ft 2ins (4.9m) by 12ft 2ins (3.7m) which were connected by a passageway. On the first floor was a servant's room with a closet, three bedrooms and another large closet. In the attic were four bedrooms and a large closet.

The actual location of the surveyed buildings is uncertain. The north-west range (Fig 1, R7–9; Fig 54) has an internal width of 5m, and could have been either the master's house or the school room. As it is shown with only two storeys in 1820 it is more likely to have functioned as the latter (Pl 23). It would also have been long enough (at over 20m) to accommodate all the desired functions.

The 1765 report implies that, despite the enormous expenditure only a few years before, the accommodation was still not satisfactory. This anomaly is alluded to by Sampson, but it is clear that there was a great deal of political lobbying on the part of the resident headmaster Charles Lee, who had married the mayor's daughter (Sampson, 1912, 121; Hill, 1951, 53–9). Exactly what had been undertaken earlier is uncertain, but it is presumed that both western ranges and the middle range (R4–9 & R19) were all part of the rebuilding programme. Substantial parts of these have survived to the present day and were surveyed in 1976, to be described here.

The elevation of the wall standing on the west side of the passageway (Fig 1, R2, R3 & R6; Fig 54) is shown in Fig 21. North of the medieval porch it continues as the east wall of the adjacent shop, which has some simple post-medieval timber studding towards the top. The lathwork of the plastered ceiling appears to be of similar date, but it is probably mostly (if not completely) a much later copy of the original.

Crossing the passage at right angles, the inner arch is 18th century and was built along with the south end of the south-west range, on the line of the south arcade of the medieval church (Fig 17). It was constructed in freestone and has a plain, two-centred arch and plain, squared capitals. The eastern jamb abuts the Norman column 2, the capital of which was cut back. The space above was filled with Pennant and Brandon Hill Grit, bonded in grey mortar and rendered in a black and grey mortar. Above column 2, there are shallow recesses for floor-joists, probably contemporary with the 18th-century phase and with those in the west wall. Similar stonework filled the medieval arch to the west, although the mortar was a pale buff colour. This was the south wall of the south-west range. In it was an infilled area of bricks which might once have been a window. Abutting this was a large

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stone-built cupboard or niche, with a brick arch and some reused freestone. As it had a fireplace at first-floor level (not recorded in detail as it was inaccessible during the survey) the stonework had formed the foundation for a chimney-breast.

Resuming the description of the northward continuation of the west wall of the passageway, between the south wall and the north door, the elevation (Fig 21) includes the remains of the east wall of the south-west range, partly demolished to allow the excavation of Area D. The two doorways appear to have been simplified 18th-century versions of the north doorway and had double-ogee mouldings. During reconstruction work in the 1980s, on the second floor, above the northern doorway, was found a relieving arch over a freestone arch with a simple chamfer. The opening had been filled with breeze-blocks. Because of its plain treatment, this is likely to be another 18th-century doorway or window. Above the lower doorway was a squared, two-light window in freestone. The surviving 18th-century sash window had a freestone panel above, with two quatrefoil openings, repeating the style above the north doorway in the drawing of 1820 (Pl 23).

The east face of the west wall (W6) of the same range is illustrated in Fig 55. This shows the mock-Gothic nature of the design, which probably echoed the windows seen above the doorway to the courtyard in the 1820 drawing. Unfortunately, this building was badly damaged by a bomb during World War II. The wall was some 0.65m thick and composed of Pennant with a great deal of reused freestone set in a white mortar. Some medieval work in a pink mortar with a few blocks of reused freestone survived at the south end. Much of the wall was obscured with plaster and rendering and only a few sample areas of the individual stonework are illustrated.

The building had three storeys with four surviving mullioned and transomed windows of four, six, and eight lights, each with plain chamfers and labels in freestone (probably Bath stone). The destroyed windows can be readily reconstructed with either four or six lights. It is significant that the space below some of the stone relieving arches on the ground floor is filled with brick, which system was not used on any scale in Bristol until after 1700. The first-floor windows are provided with stone infill. Internally, the sides of the windows are
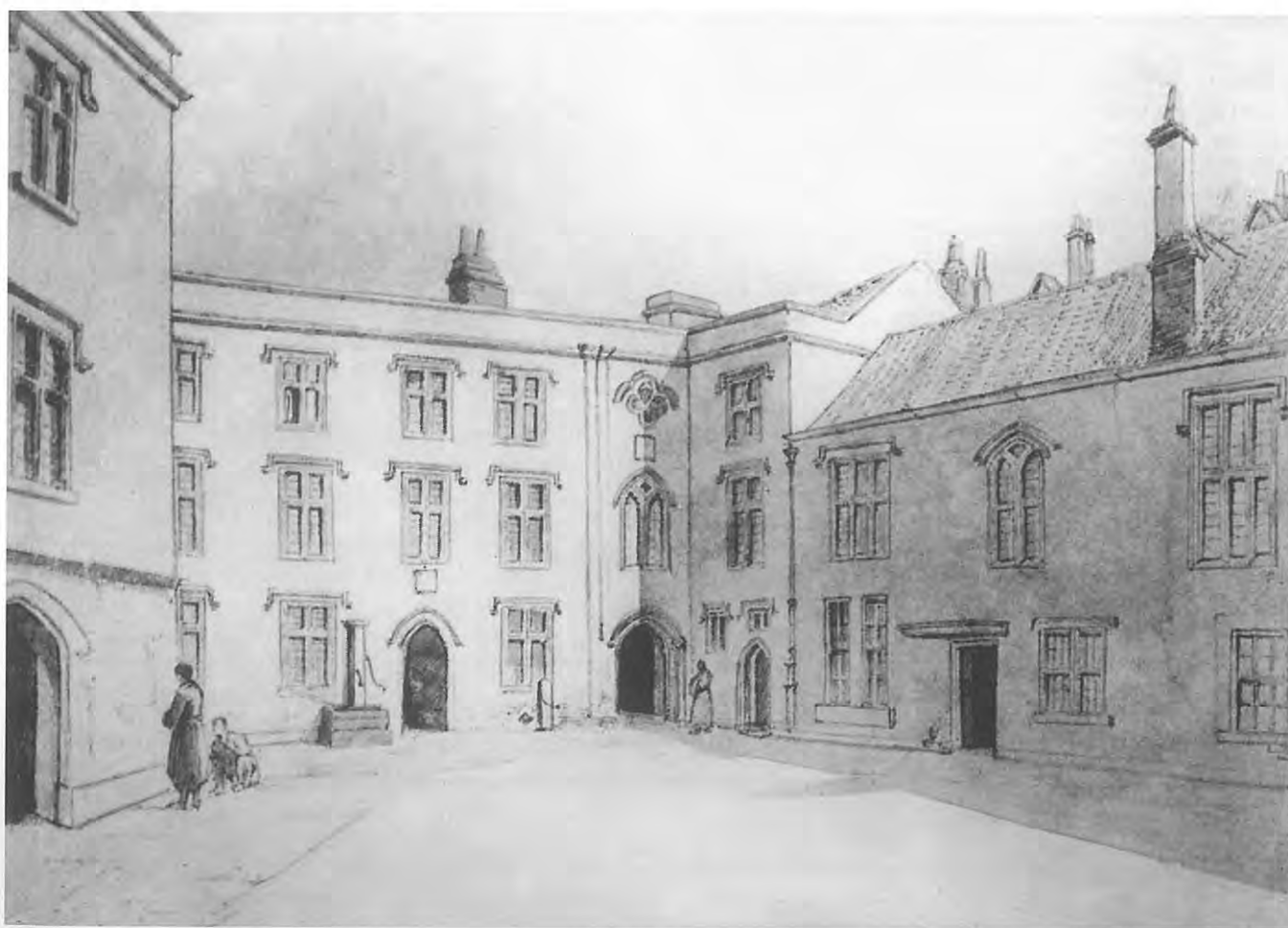
Plate 23   General view of courtyard in 1820, looking south-west to 18th-century Grammar School development. North-west range (building 8) to right; middle range in centre; part of 1818 QEH range on left (Reproduced by kind permission of City of Bristol Museum & Art Gallery: Braikenridge Collection)

splayed, those on the ground floor more so. The surviving timber lintels were in varying states of decay, and the cills had once supported timber for seats. The positions of the floors can be reconstructed from the blocked beam-slots in the wall, some 5m apart, upon which the joists would have been laid with planking above. Ceiling height would have been about 3m at the ground floor, and some 2.6m at the first floor. The roof would have commenced at the top of the surviving wall.

Two doorways, one blocked, survived on the ground floor, the southern one with a timber lintel and frame, and relieving arch above. That had originally been a window opening, the southern end of which had been blocked with Pennant and freestone in a grey/white mortar. The other had lost its case. The surviving plain door, with its glazing, was probably inserted in the 19th century. The blocked window might have been positioned asymmetrically to take into account the projection of the adjacent building (on Christmas Steps) which, during survey, came as far as the door, but might once have stopped at the window. The surviving fragment of medieval wall (W31) would have formed the outer wall of the shop which fronted on Host Street. That the building might have been further subdivided is shown by the blocked beam-slots at a lower level in the medieval wall. These indicate a slightly lower ceiling at that point.

Of interest are the six single-light, trefoil-headed windows, which are not equidistant between the squared windows. Their apparent lack of relationship with the other windows, and obvious symmetry, suggests that they were deliberately placed to give a feeling of antiquity to the wall. It was proposed during the recording work that the two upper windows might have been reused medieval blocks, because of their degree of erosion and the internal shortness of their heads. They are also simpler in section, with a rebated chamfer internally to take squared window bars for glazing. If they are original, they now have brick relieving arches and are not in situ. No conclusion has been reached on their date of construction. The middle two windows have more-pronounced cusps, an additional internal rebate, a cavetto label, and round-sectioned glazing bars which appeared decorative rather than functional. The lowest windows are narrower, with chamfered cills and jambs and no label. These windows share some of the jamb-stones of the adjacent windows and are therefore 18th century. Whereas each pair is different, it is clear that they formed part of the same scheme. Much of the fabric of this wall was retained in the 1980s redevelopment.

The school building represented by the north-west range (Fig 1, R7–9; Fig 54) corresponding approximately to the medieval building 8 (Chapter 5, p 69) was substantially rebuilt in the mid 19th century, but it is depicted in the drawing of 1820 (Pl 23). The drawing shows that it was obviously a modified medieval range, although how much of it was then actually medieval work remaining in situ

is uncertain. During survey work, selective stripping of rendering demonstrated that the rear wall is even now substantially medieval, yet the front had been almost entirely removed, leaving no trace of any of the features shown in the drawing. What is clear is that when the courtyard ground was raised during the 15th and 16th centuries, the floor inside the old building 8 would have become inconveniently low (a difference of some 0.8–0.9m) and any windows on the ground floor would have started to become obscured. It would have been necessary to raise both the floor and windows, which probably explains both the rather cramped appearance of the lower storey in the drawing and the difference in architectural style from the windows above. It seems unlikely that anyone would replace both sets of windows in completely different styles, even if a mock air of antiquity was desired, which implies that the apparently earlier upper ones are genuine, whereas those on the ground floor are later. How much later is still questionable. Perhaps that part of the range was a late-medieval (16th century?) insertion and its style inspired the architect to copy it for the rest of the 18th-century buildings.

The range on the south side of the courtyard is termed the middle range (Fig 1, R19; Figs 54 & 56; Pls 23–5). It consisted of the medieval and later remains of W3 on the south and a new wall on the north which cut through all but the most recent layers. Like W6 in the south-west range, the courtyard side was constructed in the mock-Gothic style. A square east wall might never have been built because of the site's topography but the rest was incorporated in the Foster scheme of 1818 (see below) as 'Present Building' on his plan. At the west end, the building abutted the through-passage, with an upper storey extending to the north-east corner of the south-west range.

The elevation shows three storeys with cross-windows and two doors on the first and second floors. In the 1820 drawing the sites of the doors were occupied by windows and those on the ground floor had labels. The door to the far right, which is the north door to the passage, might be of 16th-century date as it is more elaborate, technically more accomplished, and larger than the others. It is probably in its original position, but it just might have been moved there when the 18th-century range was built. The reasoning given above for accepting, with reservation, that the medieval windows shown in the 1820 drawing on building 8 are original applies also to those at the west end of the middle range above the doorway. Unfortunately, that section had been totally demolished well before the survey commenced, probably during the 1940s, so this could not be tested. If genuine, it would most likely have been the last fragment of the long room attached on the north side of the north aisle of the church in the late 14th century (see Chapter 6, p 96). Even so, it must have been substantially modified during the 18th century, by which time the rest of the wall had been demolished and
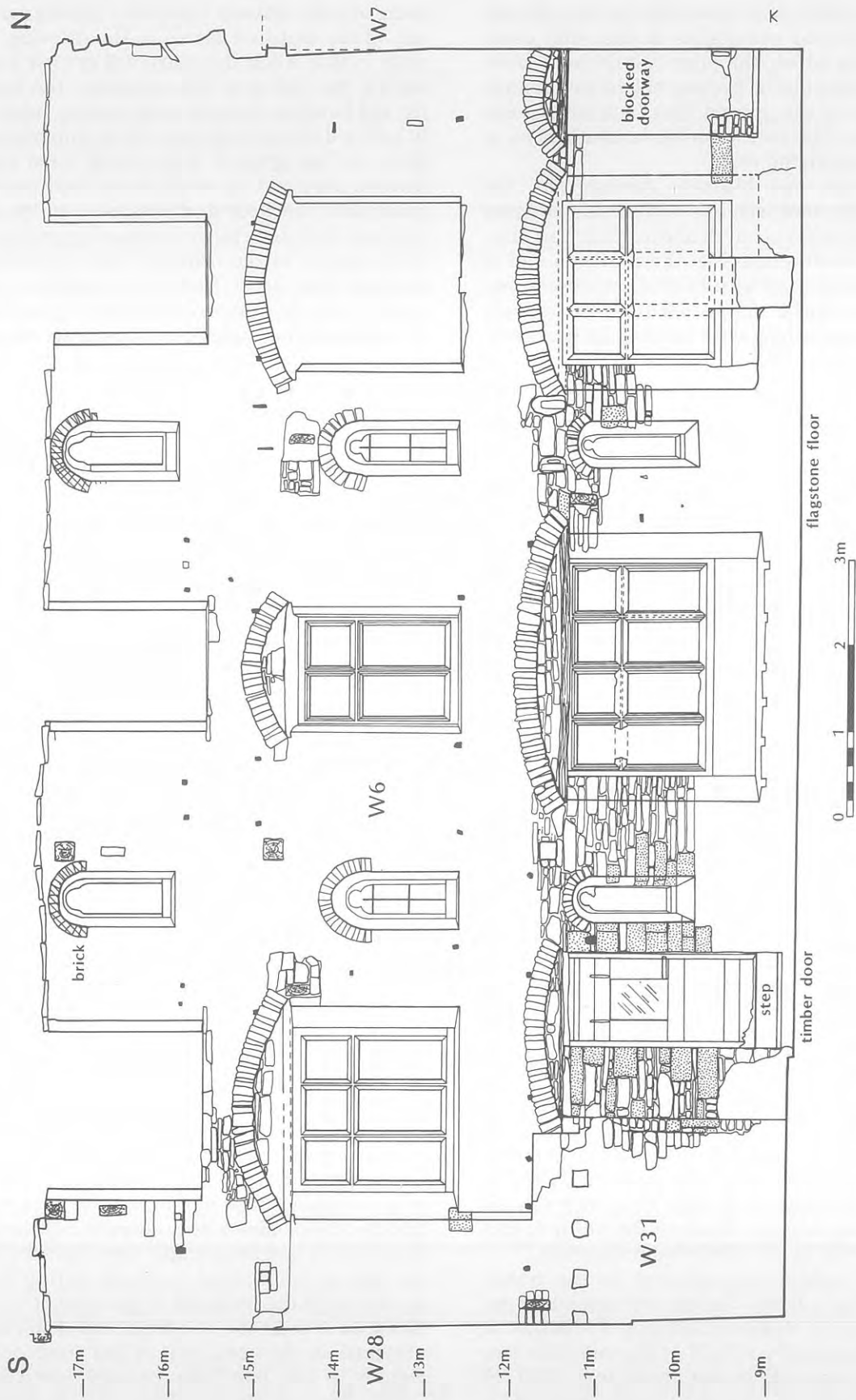
Figure 55   Area D: internal (east) elevation of west wall of south-west range (W6) – surveyed in 1977

Figure 56   Area A: external (north) elevation of middle range – surveyed in 1977

replaced for the construction of the middle range. The site of the pump, which is obvious on the drawing, can be seen on the 1976 elevation (Fig 56) as a patch of grey mortar to the left of the central doorway. A quatrefoil feature, probably an air-vent, near ground level to the right of the door and under a window, is also likely to be contemporary with the rest of the frontage. When surveyed, the range had a render of hard pink mortar, incised to resemble ashlar: only a sample of this is shown on the drawing.

Queen Elizabeth's Hospital School (1767–1847)

Despite the many alterations made in the 1750s, the buildings were still considered to be inadequate for the number of students and the status of the master and his family, and in 1767 the school was moved to a site in Unity Street, next to the former St Mark's Hospital, or Lord Mayor's Chapel. The previous occupants of this site, Queen Elizabeth's Hospital School (locally referred to as QEH) were in turn transferred to St Bartholomew's. Although the exchange was carried out in 1767, it was not sanctioned by Parliament until 1769 (Bowen, 1971, 44; Hill, 1951, 44).

Documentation from the period of the QEH occupation of the buildings gives some insight into the daily lives of the boys and furnishes some details of repairs and other works. These included the fitting of a new library, the insertion of a marble chimney in the master's room and the installation of gas lighting in the staircase, as well as the occasional whitewashing of the premises. Further details are described in Bowen's account of the school (Bowen, 1971, *passim*).

In 1817 a scheme was drawn up by the architect James Foster for other improvements (BRO 00479

Plate 24   General view of courtyard in 1977, looking south over corrugated roof to partly ruinous middle range; 1850s model dwellings range on right; modified 1818 range on left

(5, p28); Pl 25). The school governors purchased the properties fronting Lewins Mead and demolished them. The area was a notorious slum. In 1818, Foster's east range was built on that site: R15–16 on the 1976 survey (Figs 1 & 54). This imitated the earlier mock-Gothic style of the previous Grammar School reconstruction. One corner is shown to the left on the 1820 drawing (Pl 23).

By 1842, however, it was considered that St Bartholomew's was unsuitable and unhealthy, and that a new school was needed. In 1847 the Queen Elizabeth's Hospital School moved to the premises which it now occupies on Brandon Hill (Latimer, 1887, 274; Bowen, 1971, 74–5).

Poor Law housing (*c* 1856–81)

After the QEH departed in 1847, the premises were occupied by various businesses, including a cooper. Early in 1856 they were taken over by Bristol Municipal Charities from the Bristol Corporation and partially rebuilt as an 'establishment of model dwellings' to house the industrial classes (Latimer, 1887, 274). An unpublished ground plan drawn up in 1855 shows the buildings which were to be adapted for this use (Bristol Municipal Charities Archive, Bundle 91). This is an interesting case of a return to

the function which had been planned for the original hospital more than 600 years earlier.

The north-west range was refurbished as a three-storeyed building, which made a very dark dwelling because of the cliff to the west. Selective stripping of wall rendering in 1978 showed that, as part of this reconstruction, the front wall of the earlier medieval range had been almost entirely removed. The sash windows built in imitation of Georgian style, and the four-panelled doors, are clearly of 19th-century date (right-hand side of Fig 21; Pls 24–6). Perhaps the most interesting visible feature was the addition of the external balconies, floored with North Welsh slate and railed in iron. Only part of the full elevation has been included here; the rest is with the site archive.

Unfortunately, the Poor Law housing scheme failed because of its lack of profitability. The precise date of closure is unknown, but it was some time between 1861 and 1881 (Pryce, 1861, 174; Latimer, 1887, 274–5). Exactly what 'profitable' constituted in the late 19th century is uncertain. As already noted, Lewins Mead was one of the most desolate slum areas in Bristol and, by the standards of the time, the rife drunkenness and relaxed attitude to sexual morality were unacceptable to society. Perhaps the scheme had failed because the new intake of the hopelessly poor were unable, or unwilling, to
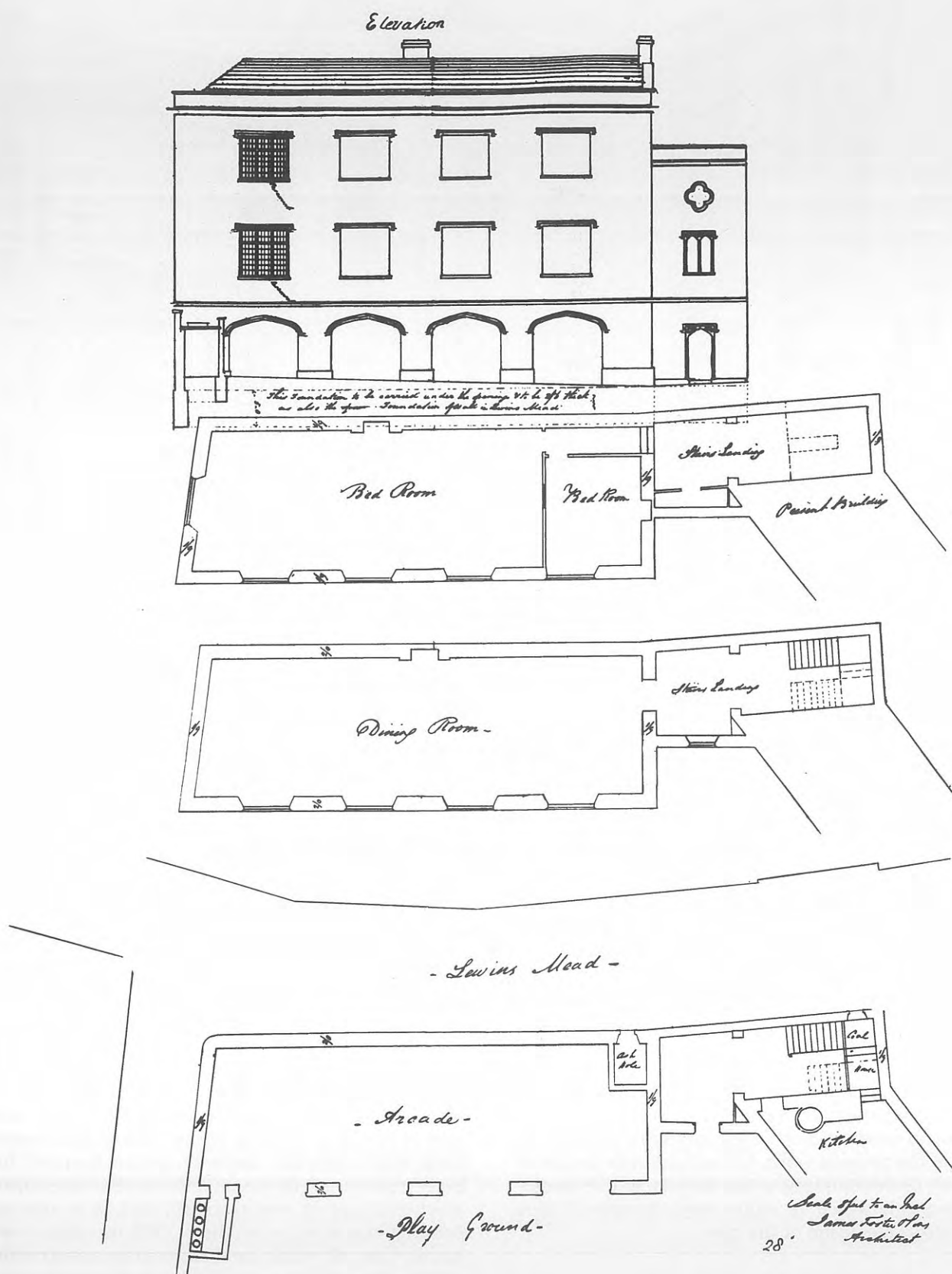
Plate 25 Foster's elevation and plans for 1818 east range of QEH School

Plate 26   General view of courtyard in 1995, showing same aspect as Pl 23 after 1980s redevelopment

satisfy their sponsors that they were capable of sustaining an economically viable output. Alternatively, the new inhabitants might have been reluctant to reform what would have been perceived as their anti-social conduct. Such arguments are outside the scope of the present work, but are perhaps germane to a full understanding of the history of the medieval hospital, which in some ways paralleled this later accommodation of the poor.

Industrial occupation (*c* 1881–1976)

By 1881 the site was converted into a boot and shoe factory (Nicholls & Taylor, 1881, II, 120; Latimer,

1887, 275). The local trades directories of the period make no reference to the premises, but this is not unusual as the compilers were rather selective as to what they included (Wright, 1876–1902). The minutes of the 1901 meeting of the Clifton Antiquarian Club state that the doorway to the hospital had been 'renovated' by its members after sustaining much damage in recent years, and in a note appending the minutes of their 1902 meeting it was feared that all would be destroyed on construction of the new railway route which was proposed to run through that part of the town (Proceedings of Clifton Antiquarian Club, 5, 185 & 192). Happily, the development threat did not come to fruition and by 1903 Burleigh Press had taken over the site

(Wright, 1903). Substantial reconstruction of the southern half of the Narrow Lewins Mead frontage took place in 1934 (Fig 54). Burleigh remained at the site until 1976, just prior to the commencement of the survey undertaken in anticipation of the excavation.

Redevelopment and occupation (1981–95)

After the archaeological excavation was completed, the whole site was redeveloped in 1981–4. As much as possible of the surviving structure was preserved. All medieval features above ground are still *in situ*. The Pennant column in the north arcade of the church now stands free of its enshrouding walls (Pl 17). A passageway has been left to provide access to both the standing south arcade and the back alley between the cliff and the south-west range. When the 1934 Burleigh Press building (Fig 54) was demolished, the site of the east end of the church was left open. The tops of the surviving medieval walls and piers were repointed and may be seen at present-day ground level.

The shell of the ruined south-west range was filled in, retaining the west wall and as much as possible of the east wall alongside the post-medieval passageway. The north-west range was refurbished, but for reasons of safety the deteriorated 19th-century balcony had to be replaced by a replica, and some of the windows were replaced by cross windows resembling those in the 1820 drawing (Pls 23 & 26).

The middle range was likewise returned to its 1820 appearance, and the courtyard was landscaped. Unfortunately, a crack had opened along the whole length of the 1818 east range, making it unstable, so it had to be demolished. The replacement building erected on the site echoes features from the ground floor of the earlier structure. It also encloses the courtyard on the north, alongside Johnny Ball Lane, and conveys some impression of how the medieval hospital might have appeared. For this new building, the line of Narrow Lewins Mead was obliterated.

The site is currently used for office accommodation and, by a curious twist of fate considering its ancient history, has recently been occupied by the National Health Service Training Division and the Institute of Health and Care Development.

8 Ceramic finds

Pottery by Michael Ponsford (Figs 57–62)

Introduction

The pottery material was first identified by comparing it with the existing type series for Bristol (see below) and recorded as sherd counts on pro forma sheets. This is a satisfactory method where, as in this case, the material is very fragmentary, is a limited sample, and it is neither possible to reconstruct large numbers of vessels nor practical to assess MNIs. This approach was also used for the material from 94–102 Temple Street, which was the site of Spicer's Almshouse (Ponsford, 1988).

The Bristol Pottery Type (BPT) series has been partially described in several works (eg Ponsford & Price, 1979a & 1979b; Good & Russett, 1987; Ponsford, 1987; Ponsford 1988; Ponsford, 1991) but the complete version, which contains 366 types, has yet to be published. Most types have already been defined in the quoted references, but in this report any new information about type fabrics is included in the descriptions given. Only the material represented by contexts in the site matrices is included; most of the 18th/19th-century material from St Bartholomew's has not yet been studied.

A total of 6385 sherds was identified: 2257 (35.35%) from Area A; 1163 (18.21%) from Area D; 690 (10.81%) from Area G; 2126 (33.3%) from Area K; 149 (2.33%) from Area E. The number of sherds of each type recovered is summarized in Table 9.

The number of types per area was fairly consistent for the period c 1100–c 1600. It is not known what proportion of the whole assemblage is represented because the later material has not been quantified. The data are discussed in terms of dating, the occurrence of wares, imports, particular evidence for function, economic significance, and any other role which pottery might have played on a hospital site. The chronology of the material is discussed in terms of excavated areas.

The Bristol Pottery Types

BPT 1 Cook-pots in a lightweight, corky fabric with characteristic clubbed or upright rims. The laminated fabric is hard, grey, with limestone (fossiliferous biomicrite with possible bryozoans) opaques or iron oxides (>0.33mm), distinctively smoothed and rounded quartz (>0.6mm), rare quartzite and chert. The clay matrix has no visible inclusions (Gerrard, 1987). This fabric was common at Site D, Bristol Castle, where it is thought to be of 10th-century date on the grounds of its association with pottery

Table 9: Number of sherds of each pottery type present

Type		Type		Type	
S	1	117	4	239	10
1	2	118	1971	251	3
2	9	118?	2	252	188
3	6	118L	7	254	41
4	1	120	16	255	4
5	5	121	24	266	3
6	110	123	4	268	3
9	16	125	46	269	1
17	2	126	44	274	6
18	103	127	2	280	5
18C	26	127L	2	282	11
18/24	9	128	2	285	2
20	1	134	2	286	3
26	196	137	2	287	2
27	847	139	2	302	1
32	484	143	13	303	2
39	34	153	1	309	1
40	23	155	8	333	4
46	396	156	368	336	7
67	2	157	13	343	11
85	51	160	105	354B	1
96	1	176	3	359	2
100	5	182	20	363	9
107B	3	191	2	364	1
112	2	192	155	365	29
114	282	197	347	366	27
116	11	232	2		

Total: 6385

similar to that found in a dated Dublin waterfront (Ponsford, 1980).

BPT 2 Cook-pots in a grey, hand-built fabric with obvious wiping and everted rims. The inclusions are limestone (packed biomicrite, >50% allochems), including echinoids, bivalves >1mm long, some cracking around larger inclusions, rare rounded quartz (0.2mm). The matrix contains rare, angular limestone and mica. Date as BPT 1, but from a different source (Gerrard, 1987).

BPT 3 Similar to BPT 2 but contains more quartz than calcareous inclusions. There is normally a little pitting. Common at Bristol Castle Site D. Date as BPTs 1 & 2.

BPT 4 Cook-pots in hard fabric with many tiny micaceous flecks. 11th–12th century (Ponsford, 1980).

BPT 5 Cook-pots in fabric similar to BPT 4; micaceous with buff and grey surfaces, and scattered quartz grains up to 2mm. Rims tall and infolded with finger-nailing on exterior. Rare, but occurred in motte ditch of Bristol Castle, and therefore closely dated c 1080–1120 (Ponsford, 1980).

BPT 6 Formerly BPT AA. Typical coarse pottery from the motte ditch of Bristol Castle, now thought to have been infilled by c 1120 because of the absence of Ham Green wares. Fabric very similar to BPT 114 but coarser; the forms are simpler, generally undecorated, and commonly have an infolded rim

(Ponsford & Price, 1979a). The ware has recently been characterized as Chepstow Fabric Ke (Vince, 1991).

BPT 9 Formerly BPT AC. Similar to BPT 6 but has frequent calcareous inclusions, probably derived from a carboniferous limestone source. Characterized at Chepstow as Fabric Kc (Vince, 1991).

BPT 17 Cook-pots in a south-east Wiltshire fabric, as BPT 18C; strongly everted rims with thumbing and rim glaze.

BPT 18/84 Limestone/shell-gritted wares made on the Cotswolds. The same as Gloucester TF 44 (Vince, 1979). Type 84 is wheel thrown; type 84B is the jug form.

BPT 18C South-east Wiltshire tripod pitchers with frequent quartz inclusions (Watts & Rahtz, 1985, figs 80 & 85–9).

BPT 20 Large cook-pots or jars in a heavily limestone-tempered fabric. The inclusions are of biomicritic limestone, with prismatic bivalve shells, ooids, sub-rounded, clear and milky quartz, iron oxides, rare chert. The matrix contains angular quartz dust (Gerrard, 1987).

BPT 26 Ham Green 'A' jugs. Fabric described in Vince (1988). But see also Ponsford (1991, 101), where dated by dendrochronology to beginning c 1120.

BPT 27 Ham Green 'B' jugs, but including the 'A/B' wares (Vince, 1988; Ponsford, 1991) where dated 1175 onwards.

BPT 32 Ham Green cook-pots. Fabric described by Vince (1988, 258).

BPT 39 Saintonge polychrome jugs (Platt & Coleman-Smith, 1975). c 1280–1320.

BPT 40 Saintonge metallic (or bright) green jugs. Date and source as BPT 39.

BPT 46 'Micaceous' cook-pot ware. The same as Bath 'A' or Cheddar 'J' ware. Very common in Bristol, often more so than Ham Green ware. Fabric described by Vince (1988, 164). 12th–13th century.

BPT 67 'Reversed' Redcliffe ware, in which the body is fired red and the decoration is off-white. Known by a few wasters from the kiln site located on Redcliffe Hill, Bristol (Ponsford & Price, 1979b; Dawson & Ponsford, forthcoming).

BPT 85 Redcliffe-ware cook-pots, late 13th–15th century (Ponsford & Price, 1979b; Dawson & Ponsford, forthcoming).

BPT 96 Wanstrow post-medieval wares (Ellison & Pearson, 1981, 215; Good, 1987, *passim*).

BPT 100 Yellow slipwares with combed, feathered, and other, brown-slip decoration. Generally of Bristol manufacture with rare Staffordshire examples (Barton, 1961; Price, 1979e).

BPT 107B Tin-glazed North Italian wares. Late medieval or post medieval.

BPT 112 Devon gravel-tempered ware. Ubiquitous coarseware described with a type-series in Allan (1984, 148–9). Appears in Bristol by mid 17th century (Good, 1987, 38).

BPT 114 Similar to BPT 32 but contains larger, infrequent quartz inclusions and some calcareous ones. Fabric described by Vince (1988, 158).

BPT 116 Specialized wheel-thrown cooking or chemical vessels and jugs in a distinctive light, grey-white, sandy fabric; rough, creamy surfaces with spots of clear glaze. Important feature is a deeply sagging base (Ponsford, 1980, Site D, where dated 12th century). Possible French import.

BPT 117 Redcliffe conical or baluster jugs in creamy fabric and distinctive, flecked 'French' glaze. One group from Bristol Castle is clearly a 'repeat order' and each vessel is incised with a broad arrow suggesting government issue (Ponsford, 1980, Site F). c 1320–50.

BPT 118 Redcliffe-ware jugs, c 1250–1500. Jugs post 1350 are termed late (L) (Ponsford & Price, 1979b, 23–4; Dawson & Ponsford, forthcoming).

BPT 120 Redcliffe-ware jugs in smooth, white fabric; yellowish glazes and brown strip (or slip) decoration.

BPT 121 Jugs and pitchers in sandy, rough, grey fabric with sparse glazes, and combed and hatched decoration (Ponsford, 1980, Site F). Possibly made near Thornbury, Avon, where it is a common ware (Ponsford, personal observation).

BPT 123 As BPT 118 but softer, pink fabric, and green glaze with yellowish patches.

BPT 125 Internally reduced version of BPT 118.

BPT 126 As BPT 123 but harder.

BPT 127 Redcliffe-ware bowls. BPT 127L is assigned to post 1350.

BPT 128 Internally (or partly) glazed, straight-sided vessels in Redcliffe fabrics.

BPT 134 Glazed version of BPT 46, usually the jug form.

BPT 137 Coarse, sandy fabric with greyish-red or off-white surfaces; glazes similar to Ham Green but with finer grits; combed decoration (Ponsford, 1980).

BPT 139 Similar to the gritty BPT 138 (not described here) but stone grits much larger; very sandy, light red or grey internally (Ponsford, 1980). c 1250–1350.

BPT 143 As BPT 118 but corky with pitting.

BPT 153 Complex rouletted ware, probably from Gloucester/Worcester or Monnow valley.

BPT 155 Saintonge sgraffito ware; fabric as BPT 39 & 156.

BPT 156 Saintonge overall green-glazed jugs. c 1250–1350.

BPT 157 As BPT 156 but full of quartz inclusions. Probably earlier than BPT 156.

BPT 160 As BPT 156 but unglazed, splash glazed or bib glazed. Mostly later than BPT 156. c 1350–1500.

BPT 176 Hand-built cooking pots and lamps in a heavily quartz-tempered fabric with a few calcareous inclusions. The quartz is often rounded and coloured. The surfaces are smoothed, the rims simple. The fabric compares to fabric CC at Cheddar (Rahtz, 1979).

BPT 182 'Tudor Green' ware as defined by Holling (Hurst, 1964; Holling 1977; Brears, 1971, 24). c 1420–1500.

BPT 191 Stamford ware, usually developed.

BPT 192 Imported jugs as described by Ponsford (1983) and probably from an unidentified French source.

BPT 197 Malvern Chase wares as defined by Vince (1977).

BPT 232 Saintonge chafing dishes. 16th–17th century.

BPT 239 Normandy green-glazed wares. These arrived in Bristol by 1150 (Ponsford, 1991, table 1).

BPT 251 Cook-pots in a black/grey fabric with numerous, large quartz and flint grits up to 3mm, and a few coloured quartz fragments. Generally non-calcareous. Rare but distinctive type. Date as BPT 1–3.

BPT 252 Miscellaneous unidentified medieval wares.

BPT 254 Redcliffe pink, sandy wares. These are of later medieval date (post 1300) and are of a definable type because of the distinctive fabric (Dawson & Ponsford, forthcoming).

BPT 255 Donyatt medieval wares (Coleman-Smith & Pearson, 1988).

BPT 266 Falfield 16th-century wares, mostly cups (Fowler & Bennett, 1974).

BPT 268 Donyatt large, handled storage jars and cisterns, the latter with slip decoration on the shoulder; brown and green glazes. A standardized and distinctive form (Coleman-Smith & Pearson, 1988, fig 129; Good, 1987, figs 28 & 34, fabric 5).

BPT 269 Wanstrow (east Somerset) iron-glazed cups (Good, 1987, fabric 7, fig 36).

BPT 274 Wanstrow (formerly Donyatt) flared cups; usually glazed green, black or brown.

BPT 280 Coarsewares of Nether Stowey type. It is the commonest ware in the late 16th/17th century in Bristol (cf Good, 1987, fabric 5 – but that type also includes Donyatt wares which can be distinguished by form and manufacture, if not fabric).

BPT 282 Merida-type ware (Hurst, 1977, 96–8; Hurst *et al*, 1986, 69).

BPT 285 Miscellaneous, unidentified post-medieval red wares, mostly from the Somerset kilns.

BPT 286 Frechen Rhenish (pre Bellarmine) stoneware.

BPT 287 Raeren stoneware.

BPT 302 Large micaceous vessels in a light-grey fabric with frequent grog; grey core; thick light-brown glaze.

BPT 303 Pale-grey, sandy wares; some black inclusions; thin, dark-grey external slip; external yellow-green glaze flecked with darker green, band of four grooves. Similar to Bristol medieval wares but probably from the Midlands.

BPT 309 Cook-pots, spouted jars and rare bowls in a grey fabric with buff or grey surfaces, occasionally oxidized with rounded quartz inclusions (0.7–1.7 mm), limestone, calcite, sandstone, and chert of the same size range, plus some clay pellets. Decoration confined to wheel stamps, chevrons, grooves or slashes and diamond rouletting (fabric 'C' in Vince, 1985). 11th century.

BPT 333 Seville tin-glazed wares (Hurst *et al*, 1986, 53).

BPT 336 Miscellaneous 18th/20th-century coarsewares.

BPT 343 Normandy gritty wares.

BPT 354B Yellow slipwares of tankard, cup, and bowl form but with overall iron-rich mottled glaze (otherwise 'tiger ware'). Usually Bristol. 18th century.

BPT 359 'Crucible' fabric. A rather sandy material used in metal-working. Medieval.

BPT 363 Fine, well-made jugs in what appears to be a Redcliffe fabric but with significant small, red quartz and other grits. The decoration is similar to Redcliffe's best products. Can be pink or light red, as well as off white or pale grey. Resembles Brill wares.

BPT 364 Medieval Rouen-type wares.

BPT 365 Miscellaneous Saxon-type wares.

BPT 366 Miscellaneous non-ascribed French glazed wares.

BPT S Antonine samian (Roman).

Chronology of the excavated material.

Area A

The earliest context groups (CG A1–4) consistently contained wares which date from the 11th to late 12th/early 13th centuries. These included a scattering of late Saxon sherds and a few of Normandy gritted wares which are rarely found in Bristol. Context Group A1 was mostly mid 12th century, but contexts SO–SQ contained sherds of Ham Green B jugs, which puts them in the latter part of that century. The assemblages resembled the 12th-century groups from Dundas Wharf, Bristol (Ponsford, 1991). Ham Green wares were in the majority at this period (BPT 26, 27, 32 & 114 made up 517 of a total of 680 sherds: 76.02%). Many of the BPT 27s were of the transitional type (Ponsford, 1991). The early groups also included sherds of the imported BPT 192 (south-western French) which was more common on this site (146 sherds) than any other in Bristol. A sherd of possible BPT 118 from context RL (CG A3) was very small and might also have been an import.

The appearance of two sherds of Redcliffe-ware jugs (BPT 118) in CG A6 (context PR) suggests a date of 1250+, whereas Saintonge imports occurred from CG A8. BPT 118 was still less common than Ham Green jugs at the time when sherds of BPT 125, 126 & 254 arrived in CG A9, which suggests a date around 1300 as it is unlikely that by that date residual Ham Green material would outweigh Redcliffe. Only seven sherds of all four types were identified out of 121. In Bristol, Ham Green had a substantial residual presence throughout the medieval period, and even later. The group also included a sherd of metallic, green-glazed Saintonge jug (BPT 40). Overall green Saintonge sherds appeared in CG A10. A sherd of Saintonge polychrome was found in CG A11 (context MQ).

CG A12 included a late French import (BPT 160). This, together with the increase in BPT 118, suggests a date of 1350+. A couple of sherds of Malvernian ware, not certainly identified to earlier than the end of the 14th century in Bristol, could extend the date into the early 15th century. Single sherds of Donyatt 16th-century wares in CG A11 & A13 are probably intrusive as they are up to 200 years later than the other finds in those groups.

Area D

The contents of CG D2–5 included a variety of late Saxon and early Norman wares, including a single sherd of Stamford ware which (while rare) is occasionally found in Bristol (Good, 1987, 36). This suggests a range of 10th/early 12th centuries, ie pre Ham Green wares. The later sherds (BPT 6, 9 & 18C) compare with the assemblages found in the motte ditch of Bristol Castle, which are now dated to c 1120 in view of the new evidence found at Dundas Wharf (Ponsford, 1980; Ponsford, 1991).

Sherds of Ham Green wares appeared in CG D6–7 and BPT 118 in CG D9, which provides a date of 1250+. It is noteworthy that there was little Ham Green ware in any of the deposits, which suggests a hiatus in the occupation sequence between c 1175 (CG D7) and c 1250. In contrast, BPT 118 was common from CG D9 onwards and accounted for half of the total assemblage from Area D. In CG D10 was a sherd of metallic, or bright green, Saintonge jug and (as in CG D11) two sherds of Saintonge sgraffito. CG D11 also had several sherds of overall green Saintonge jugs and two more sherds of sgraffito.

CG D12 contained a sherd of BPT 67, a type found at Redcliff in contexts of c 1325–50. Of interest in that assemblage are some substantial remnants of two Saintonge jugs bearing post-firing marks (nos 79 & 81). Somewhat similar incised marks on the bases of Tuscan, Venetian, and Derutan vessels of the 15th/early 16th century have been noted and might represent some form of liquid measure (Carosi et al, 1988; Price, forthcoming, no 232) but there is no evidence that those on the examples from St. Bartholomew's should be so interpreted.

There was little increase in the number of types after this period, suggesting another hiatus in the use and deposition of sherds. CG D16–20 were from the short-lived occupation of the west end of the north aisle. CG D16 included a sherd of later Saintonge jug, which puts the group later in the 14th century. This dating is corroborated by the small hoard of coins found in CG D17–18 (see Chapter 9). In these contexts, Saintonge overall green wares (50 sherds) were second in occurrence only to BPT 118 (347 sherds). CG D18 had two 16th-century sherds which were probably intrusive. Only one sherd of Malvernian ware was recorded for the whole area, alongside a Falfield sherd which, compared with area K, further suggests an early end to domestic occupation in this area (CG D21). The few post-medieval sherds, all of small size, might again have been simply intrusive. The occupation in the north aisle did not appear to have lasted long and there was a large quantity of the diagnostic BPT 118 (62.41%) in those contexts.

Area G

There was little pottery from this area (690 sherds) most of it coming from redeposited layers. Of this, 358 sherds (51.88%) were of BPT 118. The pottery commenced with sherds in CG G1 which belong to the end of the 12th century. A few Saintonge imports occurred in CG G5. CG G6–12 had material dating to the early 1300s. From a floor in CG G9 came a large part of a Minety-type cook-pot (no 103). Only in CG G18 were there sherds which might date to the 15th century (BPT 197) and in CG G22 a single sherd of Tudor Green should be of that date. All the other groups were clearly no later than the 14th century.

Of some interest was the fragment of probable North Italian jug, which was found in the filling of the undercroft (CG 11), with other sherds in CG G18 & G22 (no 105). This is not dated accurately because of its singularity but is indicated by the few other sherds, which suggest some time in the mid/ late 14th century. A single sherd of narrow rod handle (12mm at widest) in a pink, slightly sandy, fabric with darker inclusions and bright green glaze was thought to be Tudor Green Ware (context GFA). J Pearce of the Museum of London Archaeology Service (who kindly inspected the sherd) is unconvinced, suggesting that it might be a sherd of either Border Ware, which would be the first found in Bristol, or an import. Notwithstanding the size of the handle, the sherd could be a fragment of BPT 192, or of the rarer Bristol fabrics, including BPT 363. A relatively narrow handle is known for BPT 192 (Ponsford, 1983). Certainly, there is no irrefutable reason to put the date of the building of the hospital chapel to later than the 14th century. Perhaps of more significance was the occupation over the filled north aisle in the north-west (Area D) which postdated the filling and rebuild and was almost certainly confined to the end of the 14th century, as confirmed by the numismatic evidence.

Area K

The pottery sequence began in the late 12th century with a group of what are probably redeposited sherds in the building debris for Bg 2A (CG K2) but by Period 3B (CG K4) there was 14th-century material. Saintonge imports were present from CG K3 onwards, but absent from CG K5–7. A sherd of polychrome and an unglazed French jug sherd suggest that CG K8 dated to the mid 14th century. That French vessels were in use and not introduced as sherds from outside is shown by CG K9, where there were several sherds from a floor deposit (context KZF).

In CG K15, a sherd of Wanstrow-type cup was probably intrusive. Bristol Redcliffe wares were increasing during the 14th century, down to CG K26 (129 sherds out of 213), after which they fell away.

They were superseded almost entirely by Malvernian wares which came in from CG K28 onwards, although there was a single sherd of Malvernian ware in the demolition deposit (Period 4A, CG K18). This last might have been intrusive since there were no further sherds until CG K28. In CG K28, a folded handle of Wanstrow/Donyatt type cannot be earlier than the 16th century and was intrusive. In CG K32, two further sherds of Falfield cups in F37 and F36 were significantly one above the other and presumably part of the same disturbance, possibly associated with an adjacent posthole and undetected in excavation. In CG K34, contexts KKB and KPM contained large amounts of only 14th-century pottery (including imports) and could be earlier, although they were allocated to this context group: they were the first medieval contexts excavated in that area and were otherwise not associated. BPT 118 accounted for 116 sherds: 52.49%.

Nearly all the Malvernian sherds were found in the hall/kitchen contexts (CG K28–33; 200 out of 333 sherds – 60.06%) and were comparable to the forms found at 94–102 Temple Street, which is thought to have been Spicer's Almshouse (Ponsford, 1988). Most of this came from room 3K, which is likely to have been the hall, from the adjacent courtyard, and from demolition rubble which had clearly contaminated the upper occupation deposits (CG K31–3, K36–8). The forms consisted mainly of jars, but there were also some jugs and pancheons, with the occasional skillet and cistern.

The latest groups (CG K36–38) contained later sherds, including 18th-century wares. This is thought to have been caused by disturbance of these deposits in the 18th century rather than that they date to that period. The sequence probably ended in the 1530s–40s with German stonewares, a sherd of Saintonge chafing dish, and Falfield cups: ie when the hospital was converted for use as the Bristol Grammar School. There was a lack of later Malvernian wares from these deposits.

A sherd of Wanstrow vessel of the second half of the 16th century, associated with SF29, belonged to the Grammar School phase of occupation.

Area E

The material from this area was all of the 12th–14th centuries, but no deposit need be earlier than the later 13th century. The contexts were dated by Redcliffe wares and Saintonge overall green wares, a sherd of which occurred in CG E1. The latest sherd was one of an unglazed Saintonge jug (BPT 160) which is thought to date to the mid 14th century onwards (CG E9). A sherd of Redcliffe ware in CG E6 was similar to the waste from Redcliffe Hill and therefore dated to c 1325–50. This assemblage is entirely appropriate if the river was straightened, before being systematically infilled and reclaimed during and after the 1240s.

Area A: Number of pottery sherds studied by type (BPT) and Context Group.

BPT → / CG ↓	2	3	5	6	9	18	26	27	32	46	114	251	252	343	365	366	1	18C	139	192	118?	18/84	239	118	137	143	176	4	156	359	40	125	126	254	363	39	84	120	123	157	268	S	85	121	160	197	127	269	Total
A1	5	1	1	11	7	2	32	9	12	2	24	1	1	1		1																																	112
A2	1	2	1	15	4	7	18	9	29	2	73	1	1	1	2	1	1	1	2	3																													171
A3	1			3		1	38	89	76	39	83			1				1		12	1																												344
A4						1	4	9	12	10	3		10	1	1					2																												53
A5				5		8	30	91	72	60	19	1	3	3	3	2		1		14		1	6																										319
A6		2				2	22	63	36	52	11		2					1		13			1	2																									209
A7				2		8	12	51	47	20	13		2	4	1	2		1		38				2	1	1	1																						204
A8		1				1	7	51	43	37	11		5	1	5					49				4		2	1	1	3	1	1																		220
A9	1					4	4	50	16	7	12		7							7		1		14		2	1		3			1			2														121
A10						6	4	51	12	9	4		2		2					3				14	1	3			3			2	1		2	1	1	2	1	2	1			2			2		119
A11						7	32	32	8	3	1		8		1					1		4		28		5			3			4	2	1				1		2		1	1	2	2	2		1	103
A12	1				1	8	4	27		36	4		9							4				49	64	2			10	14							2												179
A13								6		1	2			4					1																												2		103
	9	6	2	36	12	55	175	538	363	278	260	3	54	11	18	6	1	5	2	146	1	6	7	163	2	13	2	1	36	1	1	9	3	4	3	2	3	3	1	2	1	1	2	2	3	2	2	1	2257

S = Antonine samian

Area D: Number of pottery sherds studied by type (BPT) and Context Group.

BPT / CG	5	6	9	359	365	18C	116	191	17	18	1	26	27	32	114	252	46	?118	84	118	126	156	254	40	120	155	239	363	85	121	157	255	366	20	67	192	302	39	160	268	303	364	118L	197	266	282	Total
D2	2	14	1	1	5																																										23
D3		2																																													2
D4		31				2	1	1																																							35
D5		3				2			1	1																																					7
D6	1	18			1	5	1		1	2	1	2	1	3	2	4																															42
D7										5		1	11	20	2	2		1																													42
D9		1											2	3					2	13	1																										22
D10												5	3	2			5		2	31	13	1																									62
D11						1				2			23	2		3	4		6	62		16				2	1	1	2	3	1	1	1														135
D12						1				3			13		1	3	1		4	104	1	22		1	1			1	1			1		1	1	1	1										162
D13										1		1	5						1	5																											13
D14						1						1					5		1			1	1																								10
D16													6	2			1		5	17	1	3							2				1					1	2								41
D17													2	3			15		11	110		13							6		4	1	1					1		2							166
D18										5				2		5	5		8	81		16	11		2				1				1					1	1		1	1					141
D19													2	1		2	1		3	28		4			1								1					1	1		1						46
D20													6	1	1	2	3		5	111	1	17		1	1				3				1					1	7				2				163
D21																				4																								1	1	1	14
D22												1	6	1		1	1		1	19	1	4							1										1								37
	3	69	1	1	6	12	2	1	2	19	1	11	80	43	6	22	40	1	49	585	17	97	16	3	4	5	1	2	16	3	5	3	6	1	1	1	1	5	12	2	2	1	2	1	1	1	1163

Area E: Number of pottery sherds studied by type (BPT) and Context Group.

BPT / CG	26	27	118	125	156	192	46	84	85	121	239	120	252	160	Total
E1	1	1	10	1	1										14
E2						1									1
E3			24				2	2	1	1	1				31
E4			4						1				12		17
E5	1	1	24	1	3			1				2			32
E6			8		1										9
E7		4	29	1	4			4							42
E8		1	1												2
E9														1	1
	1	7	100	3	9	1	2	7	2	1	1	2	12	1	149

Area G: Number of pottery sherds studied by type (BPT) and Context Group.

BPT	27	114	18	26	46	85	118	125	156	252	363	32	84	126	39	123	40	157	176	6	107B	117	192	155	182	254	368	120	121	282	160	197	18C	365	Total
CG																																			
G1	2	1																																	3
G2			5																																5
G5	9		1	1	3	1	22	3	4	1	1																								46
G6							3			1		1	1	1																					7
G7		1			1		9		2	1	1		1		1	1																			17
G9				1			3	1	1			1	4																						9
G10	4		2		1		12		4	8							3	1	1																38
G11	2						16		8	3		1	3		1		1			1	1	1	2												41
G12							1																												—
G13	2						13		3	1			1	1				1						1	1	1	1								24
G15					2		12		3	1		3	1		2												1	1							21
G16	3		1		2	1	15	2	3	8		1	1	1	3	2	2											1							29
G17	5			1	2	7	60	7	7	12			3	6	6		1				1			1		1	4		1	2					107
G18	5		1				156		30	5			9	3			1	1								1	1				5	2			255
G19					1		8			1			6																1				1	1	26
G20	1				2		6		1																										11
G22	2					2	20	2	12	2		1	4	1							1		1		1	1									50
	35	2	10	3	14	11	356	15	78	44	2	8	34	13	13	3	8	3	1	1	3	1	3	2	2	4	7	2	2	2	5	2	1	1	690

Area K: Number of pottery sherds studied by type (BPT) and Context Group.

CG	9	26	27	46	252	114	118	125	156	18	18C	32	39	84	85	116	192	365	366	6	153	157	239	309	160	118L	117	121	155	363	191	274	126	134	197	120	128	40	127L	182	254	282	333	255	100	287	232	266	67	285	286	336	96	112	268	280	354B	Total
K2	2	1	9	2	1	1																																																					15
K3		1	5	1	2	1	7	1	2																																																	20
K4	15	15	53	27	7	6	10	1	2	10	3	33	1	10	1	3	4	1	2	1																																					190
K5	1		22				6			2		4		2	1						1																																					32
K6			5		3							4		2						3																																					16
K7		9	4	3		1	5			1		9		1					1			1		1																																		37
K8			3		1		1					4	1		1							1			1																																	11
K9	1		2	1			6		1			2		4																																												25
K10	1		2				2													1																																						6
K11	2		7	2			3							1								1				1	1		1	2																												22
K12	2				2		6	2		1		3													3		1	1						2																								24
K13	2		13			5		2							1																			2	1																							21
K14	1		10	8			28	2		2		2	1	4	1	1									3							1																										71
K15			4	1	1	1	15	3							1																	1																										42
K16								2																																																		3
K17						5	9	2							2										5					1				2	1																							20
K18	4		22	2	2		79	10	4	3	3	10		4	2	2		2	2						2		1					3	2		1																						164
K19							3			1	1						1																																									8
K20			3		4		61		9						1	9									4							1																										86
K21				1			18		7							7									2											2																						31
K22	1						2								1										2																																	5
K23			2				19	2		2				5	2										2			2																														34
K24				1			13	1	5					2											3			5																														23
K26	6	1	6		1		135	3	15				3	14	1		1		1						14		1	2					1			2		1	1	2	7	3	1		1													219
K27							25	1	2				1	4	1														1				2		3	3				1		1																38
K28	2		2		1		21	2	1					2		1												1							3		2			1	4		1	1													38
K29							11	2	2					3																		1			3																							24
K30	2		2	1			11	2	2					3											2						1	2			26					3					1						2						24
K31							15	4	4					9																					70	1																						64
K32								1																	3	3									102			10							1				1								79
K33			3				4		2																1								2										1			1			1								111
K34	3		3		5		116	4	2	2			5	21	3	3									26	2	1		2				2							4	4		1										2				221
K35	1	1					15	15	3	2				3	3																	1			39									1							2	2	1			30
K36																									1							1			39				6	6											1				54
K37							5			2																						1			63					1																50
K38	3		4	3	5		113	7						1		14					1				15	2	2				1	1	3				3		1	3	2	2	1		3		2	2			3	4	1	2	1		267
Total	3	33	188	62	58	14	771	123	29	19	8	73	14	107	20	5	9	4	1	9	4	3	1	1	84	5	3	6	6	1	1	6	3	2	348	5	2	11	2	18	17	8	4	1	5	2	2	2	1	2	3	7	1	2	1	5	1	2126

Discussion

The pottery assemblage for this site is, in general, representative of Bristol sites as a whole. Notable was the lack of pits (a Bristol phenomenon) and the relative paucity of ceramic material. This seems to have been due to the use of one part of the site as a cellar and a chapel, another as a yard with frequent rebuilding, and the kitchen having been kept relatively well swept. There were, however, some significant and well-stratified deposits, as represented in the site matrices, and aspects which were specific to St Bartholomew's.

In Area A were large quantities of 12th to mid-13th century wares, notably Ham Green. BPT 118 was common only from CG 10–11 onwards. In Areas D and G there were very few Ham Green sherds, and in Area K they were common only in CG 4, which was redeposited fill. The early wares were, therefore, confined to an area where there was no building early on and where there was a continuous sequence of riverside, merchant's hall, and hospital deposits. It seems likely that similar deposits were dug out of the hall to make the undercroft. In Area K little of these early deposits was excavated but there was also no substantial development until the 14th century.

A common ware in Area A was BPT 192, already noted as a probable 12th-century import (Ponsford 1983 & 1991). There was more of this material at this site than at any other in Bristol. There were also a few rare sherds of Normandy gritty wares in the same context groups (CG 1–8). These imports were, therefore, associated with the early use of the merchant's hall, and disappeared after the ground level was raised for the construction of buildings 2A and 8. The largest number of sherds appeared in this dump. The decrease in imported sherd numbers would seem to correspond with a change in use from an aristocrat's building to a hospital c 1230. It is also of interest to note that all but one sherd of BPT 192 in Area K came from what is thought to have been the same dump (CG K4). The ware was virtually absent from the rest of the site.

The arrival of sherds of Bristol wheel-thrown jugs (BPT 118) is also of significance as these vessels were the commonest ware on the site: 1975 sherds (30.93%) out of 6385. The type is conventionally thought to have commenced c 1250, or perhaps a little earlier, and to be broadly contemporary with the first Saintonge green-glazed imports. In competition with Ham Green for much of the 13th century, it predominated by 1300. This was seen in Area A in Groups A10–13, in which Ham Green ware declined to six sherds as Redcliffe products increased to 64. The other areas had less early material and this effect can not be measured in the same way.

The Saintonge imports are still the dating medium for the 13th and 14th centuries. In particular, the appearance of polychrome vessels (BPT 39, 40 and 155) which occurred either side of 1300 is significant. They first occurred in A9, D10, G7, and K4. The overall green wares are earlier in every area. The polychrome types, while rare, were found in the floors of building 2A and there is reason to believe they were in use on site. There were 368 sherds (5.76%) of Saintonge overall green jugs, which were certainly in constant use and second numerically only to Bristol Redcliffe wares in some contexts.

Other imports were rare, but sherds of North Italian, Spanish (Merida-type and Valencian wares) and German stonewares appeared in the 14th and 15th centuries. Always looked for are sherds of Tudor Green, which are the only reliable measure of true 15th-century deposits because of the conservative appearance of Bristol wares after 1350. These are thought to have arrived in about 1420. Most of the few sherds present were from building 2B. Of two possible sherds in Area G, one has now been discounted (see above; CG G13) and there were none from Areas A and D.

Another important 15th-century product was Malvernian ware (BPT 197). Although the ware probably arrived initially at the end of the 14th century, it is likely that most of it was marketed during the early 15th and continued to be common until the end of the 16th (Ponsford 1988, 125). A major difficulty is the internal dating of this material, although a tentative sequence can be proposed (Ponsford 1988) and late 15th and late 16th-century wares were present at Narrow Quay (Good 1987, figs 7 and 32). Late wares, particularly jars, have an iron-rich wash. These do not appear to have been present at St Bartholomew's, which suggests a closing date for their use of the mid-16th century.

While they are thought to have been a cheap rural product, and consequently to have pushed out Bristol wares, Malvernian wares are common on all sites of this period in the town, and not just at almshouses such as Spicer's or at hospitals. This very frequency is important at this site because there was only one sherd from Area D (and that thought to have been intrusive), two in Areas A and G, and over 300 from building 2B – including the upper, disturbed deposits. This shows very effectively that 15th-century domestic activity was confined to the kitchen/hall building and that one room (3K) was used to serve rather than to cook food.

This assessment of chronological indicators overlaps with the matter of function as seen through the ceramic assemblage. Area A included the imported jugs which are surely evidence of trade with Northern France and another French area yet to be determined. Whether the trade was carried on from here or nearby cannot be demonstrated. The wares were otherwise standard jug and cook-pot assemblages. The yard buildings were all sheds or subsidiary structures.

The undercroft of Areas D and G was probably used for storage during the first hundred years and there was nothing distinctive about the pottery

from the floor-levels, which were kept relatively clean. Most of the pottery came from fill. The inventory of 1303 talks of barrels and other organic containers, which is what would be expected. In Area K it was not until the arrival of Malvernian wares that some variety came into the groups, including imports. There can be little doubt that building 2A/B was used as a hall/kitchen.

It was hoped that the pottery would reflect the hospital function and, by way of demonstrating this, perhaps consist of low-status wares. The documentary evidence, however, records that the inhabitants consisted of a master (or prioress), brethren and sisters, as well as the sick and destitute and, probably, passing travellers. There is, therefore, no reason why the overall assemblage should have been of poor quality. It is the case that, if anything, the material is as representative as any other assemblage in Bristol and includes some fine local wares as well as imports. Pottery was often of low status in that it is rarely mentioned in inventories. Even imports, which are rare outside ports, found their way onto the site, often in floor deposits, showing that they were probably used in the hospital, if only in the master's lodging. It is, however, unlikely that the master was indulging in Continental trade in order to acquire wine jugs, but that these were freely available in the town for the use of the populace at large. The large number of overall green Saintonge sherds is positive evidence for this. In contrast, the Spanish and Italian maiolica occurred in dumped deposits which might have come from outside the site. The ceramic profile for most Bristol sites indicates that a handful of late medieval southern European sherds are to be expected.

As to pottery which might be exclusively hospital ware in the medical sense, such as that claimed for St Nicholas, Fife, there is nothing to differentiate such material from other Bristol assemblages (Gilchrist 1992, 109–10). Certainly the proportion of jugs to cooking pots was similarly high at St Bartholomew's, but this is a feature of all 14th to 15th-century assemblages in Bristol and elsewhere, with the increase in the use of metal cauldrons. The extent to which cauldrons were used is graphically shown by the six listed in the inventory of 1303 (see Chapter 5). Any deposits of soot, as that described for the Fife hospital, is also common on all sites. The only way forward would be to analyse residues on pottery, which has not been done for St Bartholomew's but is recommended.

Catalogue

Sherds thought to be residual but of intrinsic interest are indicated by #.

Area A (Figs 57–9)

Context Group A1

1 Body sherd of a jug with flat cordon and cross-hatch combing, 3–5 tooth. Context SF. BPT 26.
2 Flared rim sherd of a jug with handle root which has stabbed impressions at the fixing point. Context SH. BPT 26 (possibly Pill).
3 Strap-handle sherd of a jug with single wavy lines on either side of a faint central rib. Context SH. BPT 26.
4 Rim of a large jar or bowl. The decoration consists of a rim-groove and wavy combing with cross-combing on the exterior and two-tooth wavy combing on the interior. Context SH. BPT 309.
5 Rim sherd of a glazed jug, decorated with rouletting on the outside edge. Typical of the type. Context SN. BPT 26.
6 Rim sherd of a cook-pot with four-tooth wavy combing on interior. Context SO. BPT 114.
7 Rim sherd of a glazed jug. Context SP. BPT 26.
8 Rouletted handle and body sherd of a glazed jug. The rod handle is very rare in Ham Green ware. Body decoration consists of combing. Context SP. BPT 26.

Context Group A2

9 Body sherd of a glazed jug with continuous triple stabs. Typical of the 'DO' group (Ponsford, 1991, fig 4b, 4). Context RM. BPT 27.
10 Rim of cook-pot with internal concavity and unusually upright. 12th-century form and fabric. Context RM. BPT 46.
11 Base sherd of glazed jug with external rouletting. Context RP. BPT 26.
12 Shoulder sherd of a glazed jug with ledging and combed arcs below. Context RP. BPT 26.
13 Rim of glazed jug with rouletted decoration. Context RV. BPT 26.
14 Rim sherd of a glazed jug with combing at top and single-line cross-hatch below. Single-line decoration is standard 'B' but the rim-form and fabric are standard 'A'. Context RV. BPT 26.
15 Thick strap handle sherd of a glazed jug with central stabbing. Context RV. BPT 26.
16 Large body sherd of a glazed jug with combed arc decoration. Context RV. BPT 26.
17 Sherd of a glazed jug with combing on rim and cordon at neck. Context RX. BPT 26.
18 Handle sherd of a glazed jug with two wavy lines as 3. Context RX. BPT 26.
19 Inverted rim sherd of a bowl with external wavy combing. Context RX. BPT 114.

Context Group A3

20 Rim and bridge spout sherd of a jug with diamond rouletting on the edge of the collar. The diameter is 90 mm, some 20 mm less than usual (cf no 5). Context RC. BPT 26.
21 Rim and bridge spout of a glazed jug. Decoration consists of applied pads at the neck but there is not enough to suggest a design. Also has a narrow neck. Context RC. BPT 26.
22 Foot of a tripod pitcher. Context RC. BPT 26.
23 Fragment of a sagging base of a glazed jug with trace of comb-stabbed decoration. Context RC. BPT 26.
24 Large body sherd of a large jug with vertical rouletted bands alternating with elongated dimples. Context RC. BPT 26.
25 Body sherd of a glazed jug with comb-stabbing separated by vertical strips. The stabs are more precise and the vessel more crisply made than the sherds described below. Context RC. BPT 26.
26 Body sherd of a glazed jug with triple stabs made with blunt implement. Context RC. BPT 27.
27 Body sherd of a glazed jug with quadruple stabs made with blunt implement. Context RC. BPT 27.
28 Rim sherd of a cook-pot with bead inside and out. Context RC. BPT 32.
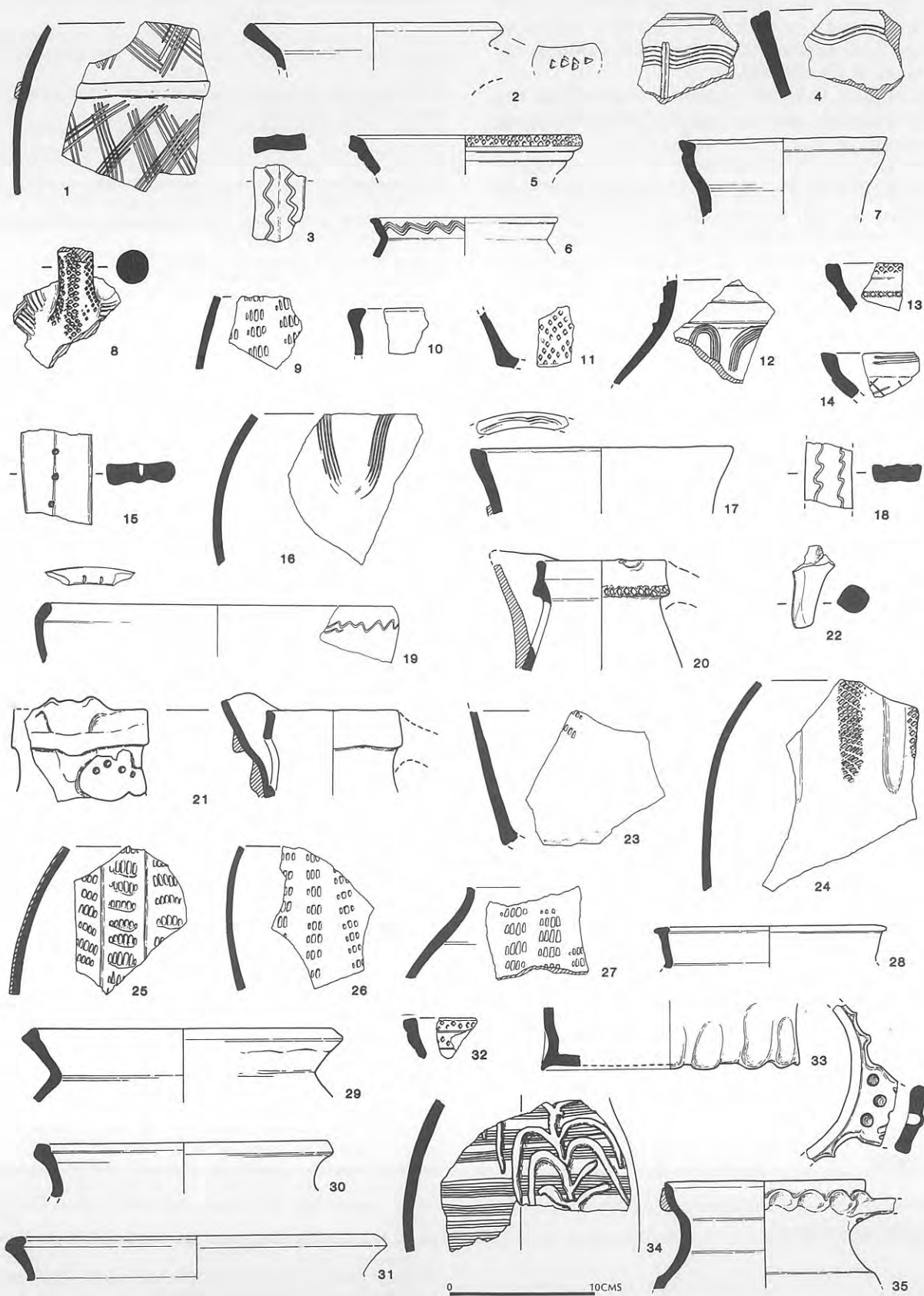
Figure 57   Medieval pottery – Area A

29 Rim sherd of a cook-pot with poorly finished exterior to rim. Coarse fabric. Context RC. BPT 46.

30 Rim sherd of a cook-pot, slight internal bead. Context RC. BPT 46.

31 Rim sherd of a cook-pot with infolding. Coarse fabric. Context RC. BPT 46.

32 Rim sherd of a glazed jug with external rouletting. Context RK. BPT 26.

33 Base sherds of a glazed jug with downward thumbed edge typical of 'DO'. Context RK. BPT 27.

34 Body sherd of a glazed jug with combed decoration overlain by applied 'tree' decoration. The fabric is 'A' rather than 'B' and this vessel is certainly in the type 6 class of highly decorated jugs (Ponsford, 1991, 98). Context RL. BPT 27.

35 Sherd of rim and handle root of a glazed jug. The rim has an external thumbed band and the handle has three well made stabs with the commencement of central stabbing. The shoulder is ledged. Context RQ. BPT 26.

Context Group A5

36 Body sherd of a jug with comb-stabbing between vertical cordons. Context QM. BPT 26.

37 Sherd of a glazed jug with multiple 'deer-hoof' impressions. Typical of 'DO'. Context QP. BPT 27.

38 Base sherd of a glazed jug with frill. Context QX. BPT 27.

39 Body sherd of a glazed jug with horizontal combing and applied-strip 'octopus' decoration. The eyes are stabs and the 'nose' modelled. Context QY. BPT 27.

40 Sherd of the rim of a cook-pot with internal concavity. Chalky fabric. Context QY. BPT 46.

41 Rim sherd of a glazed jug with internal bead and external thumbed strip. Context RD. BPT 26.

42 Body sherd of a jug with applied wavy strips. Context RO. BPT 27.

43 Squared rim sherd of a cook-pot with internal and external wavy combing. Context RO. BPT 114.

Context Group A6

44 Rim sherd of a cook-pot. Context QA. BPT 46.

45 Rim of a cook-pot with internal concavity. Context QB. BPT 46.

46 Base sherd of a glazed jug with frill. Context QJ. BPT 27.

47 Base of a glazed jug with frilling. Context QH. BPT 27.

Context Group A7

48 Rim and handle sherd of a pitcher with slashed and interrupted combed decoration on the latter. Internally there are five shallow fixing stabs. Context OX. BPT 18.

49 Rim sherd of a cook-pot with slight internal concavity. Coarse fabric. Context OY. BPT 46.

50 Sherds of a flat base of a glazed jug with two grooves above. Fabric has frequent lumps of haematite. Other sherds of the type have already been published in Ponsford (1983) from Context Groups A3 (RL), A4 (RJ), A5 (QP, QZ, RD), A6 (PN, PW, QB), and (OX, PJ, PR). Contexts OZ and PH. BPT 192.

51 Rim of a cook-pot with squared rim. Context PB. BPT 46.

52 Rim and shoulder sherds of a cook-pot with squared rim. Context PE. BPT 46.

53 Rim and shoulder sherds of a cook-pot with squarish rim. Context PE. BPT 46.

54 Rim and shoulder sherds of a cook-pot with rounded external edge. Context PE. BPT 46.

55 Rim sherd of a cook-pot with poorly finished exterior. Context PE. BPT 46.

56 Rim sherd of a cook-pot. Context PE. BPT 46.

57 Soot-stained base sherds of a cook-pot as nos 50–2. Context PE. BPT 46.

58 Handle and body sherd of a glazed jug. The handle is decorated with central and side stabbing, and the body with double 'deer-hoof' stabs. Context PR. BPT 27.

59 Rim sherd of a cook-pot with slight internal concavity. Context PR. BPT 46.

60 Flat base of a jug with rouletting. Context PR. BPT 192.

61 Body sherds of a glazed and decorated jug. The ledges are decorated with bands of rouletting with some grooving or combing below. Overlying this background is an applied spiral, itself rouletted. The vessel has been turned, possibly on a wheel, as can be seen from internal marks. Context PX. BPT 26.

62 & 63 Rim sherds of cook-pots. Context PX. BPT 46.

Context Group A8

64 Rim, shoulder and bridge spout sherds of a glazed jug. The neck is carefully moulded and the shoulder ledged. Context OH. BPT 26.

65 Stabbed handle of a glazed jug. The deep stabs have been made with a tapering rectangular-sectioned tool. Context OH. BPT 27.

66 Sherd from a strap handle of a glazed jug. It is decorated with central stabs and herring-bone slashing overlain with a curving applied strip, itself slashed. Context OH. BPT 27.

Context Group A11

67 Tubular spout from a glazed jug with applied tears, overfired glaze. Aquamanile? Context KM. BPT 118.

Context Group A12

68 Stamp-decorated sherd from a glazed jug. The stamp consists of a central ring with three stabs within and lines radiating from it. Context JZ. BPT 118. Late 13th/early 14th century. #

Area D (Fig 59)

Context Group D4

69 Body sherd of a cook-pot decorated with wavy combing in steep arcs, unusual for the type. Context DHQ. BPT 6.

Context Group D7

70 Body sherd of a glazed ?cook-pot with horizontal wavy combing. Context DER. BPT 18.

Context Group D9

71 Rim and bearded bridge spout sherd from a glazed jug. Rim-faces are placed on either side of the spout with ring-and-dot eyes and slashed 'beaks', and there is a vertical contrast scale strip below each face. There is also a pad in the form of a bramble berry. Context DLM. Small Find 931. BPT 118.

Context Group D10

72 Rim sherd of a cook-pot. Context DMY. BPT 46.

73 Body sherd of fine glazed jug with arcs and stab decoration. Context DLC/DMX and also KWE (CG K4). BPT 363.
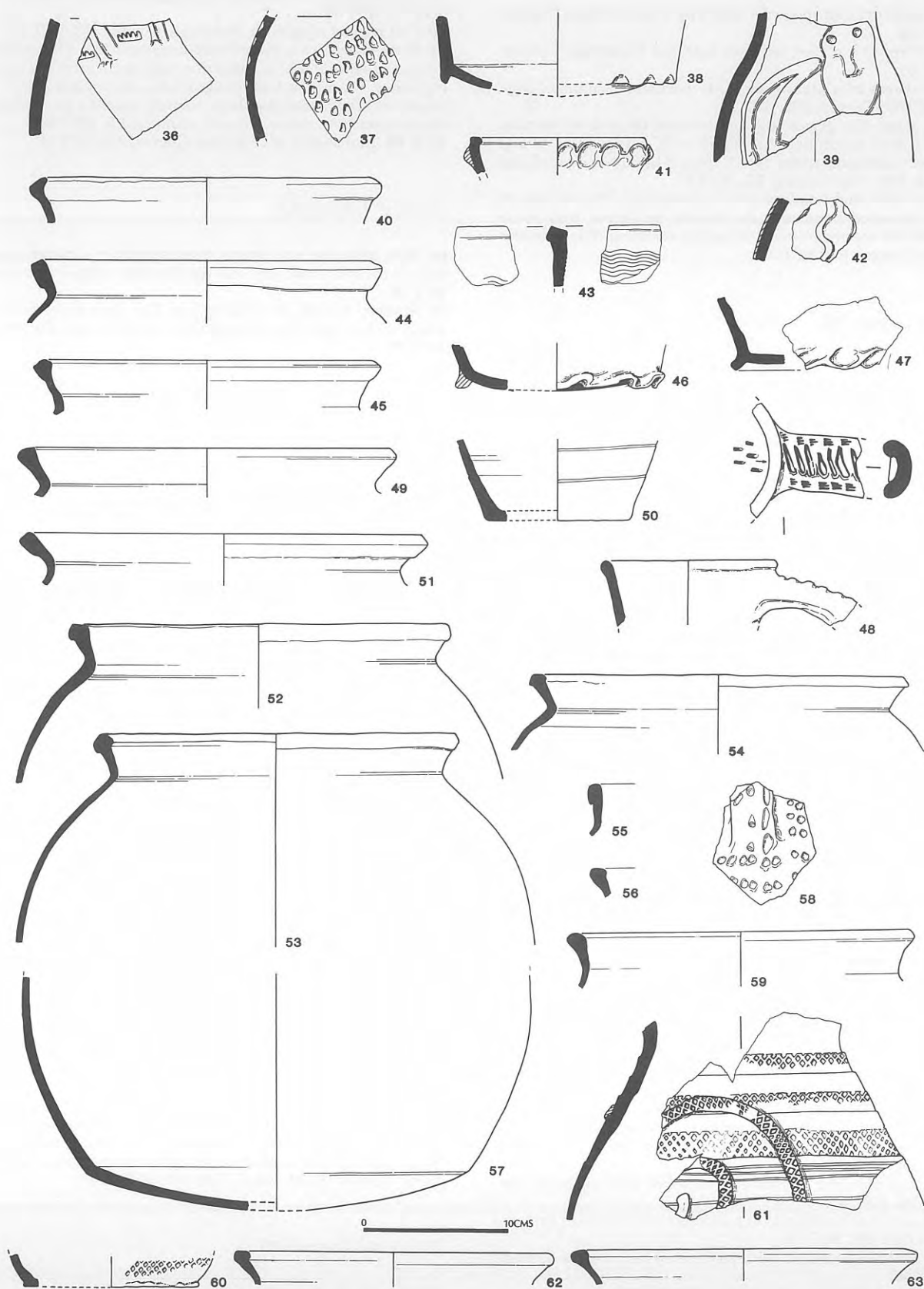
Figure 58 Medieval pottery – Area A
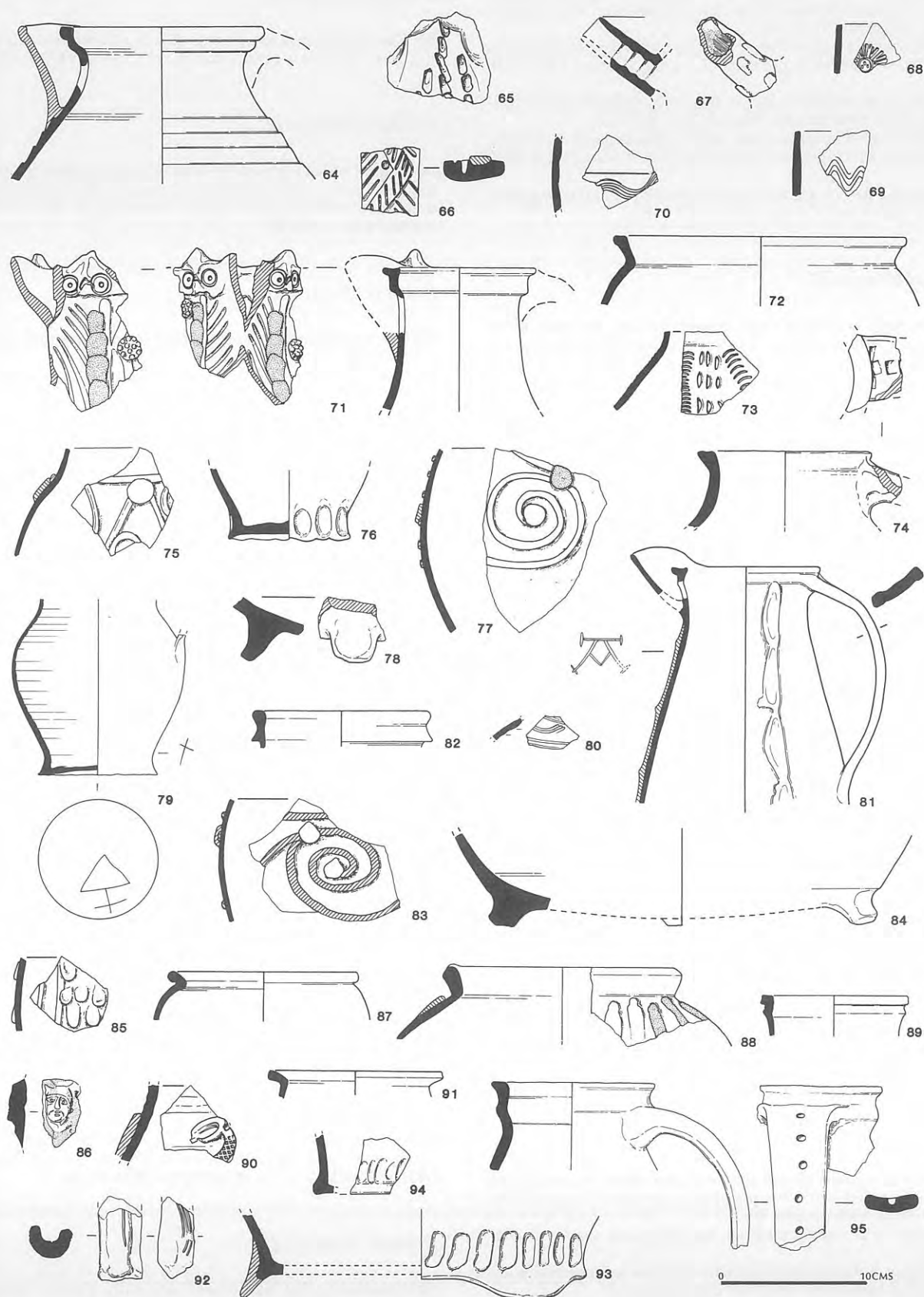
Figure 59   Medieval pottery – Areas A, D and G

Context Group D11

74 Rim and strap handle sherd of a glazed jug. The handle has wedge-shaped stabs and three fixing slashes on the interior. Context DKR/DLC. BPT 121.
75 Body sherd of a glazed jug with strip and pad applied decoration, typical of Redcliffe products of *c* 1300. Context DKT. BPT 118.
76 Base of an overfired glazed jug with unusual downward-thumbed frill. Soot stained. Context DLA. BPT 118.
77 Body sherd of a glazed jug with applied spiral and pads, similar to no 75. Upper pad is in darker clay. Context DLA. BPT 118.
78 Base and foot of a glazed vessel, possibly a skillet but here recorded under jugs. Context DLC. BPT 118.

Context Group D12

79 Base, body and handle root of a glazed jug. the glaze stops 20–30mm above the base. Two incised post-firing marks are apparent, the one on the side perhaps not significant. That on the base consists of a triangle with a cross. Context DMR. BPT 40.
80 Sherd of a glazed jug decorated with a three-tooth comb. Context DMS. BPT 156.
81 Top half of a glazed jug with parrot-beak spout and strap handle, and decoration of vertical thumbed strips. To the left of the spout a Gothic 'A' has been incised through the glaze, presumably by the owner (Platt & Coleman-Smith, 1975, no 998). Context DMT. BPT 156.
82 Collared rim sherd of a glazed jug (Ponsford, 1983, fig 12.5, 2). Context DMT. BPT 192. 12th century. #

Context Group D17

83 Body sherds of a glazed jug decorated with an applied spiral strip in orange-firing clay and two pads in the body clay. Context DGF. BPT 118. Pre 1350. #
84 Base and foot of a glazed tripod pitcher. Context DGF. BPT 121. Pre 1350? #
85 Body sherd of a glazed jug decorated with applied scales and vertical strips. Context DHY. BPT 118.
86 Face-mask from a Saintonge polychrome jug in clear glaze surrounded by metallic green. Context DHZ. BPT 39.

Context Group D18

87 Rim and shoulder sherds of a cook-pot. Context DHH. BPT 85.
88 Rim and shoulder sherds of a vessel of cook-pot form with traces of a spout. The pinkish fabric is full of quartz and mica plates. The glaze is yellow-brown and the decoration consists of vertical slip strips in sections of coloured clay and body clay. Context DHH. Related to BPT 364? #.
89 Rim sherd of a glazed jug. Context DHN. BPT 156.

Context Group D20

90 Sherd of a green-glazed jug with decoration of an applied 'claw' with rouletting over a grooved background. Context DDM. BPT 27. 12th–13th century. #
91 Rim sherd of a small cook-pot, internal glaze. Context DDM. BPT 85.
92 Sherd of a dished strap handle with combed decoration on outside. Context DDM. BPT 114. 12th century. #
93 Base of a large glazed jug with expanded feet and downward-thumbed frill decoration. Context DEQ. BPT 118.
94 Base of a glazed jug with frill running into a squared base. Context DEQ. BPT 118. 1325–50. #

Area G (Figs 59–60)

Context Group G1

95 Rim, frilled base and handle sherds of a good-quality glazed jug. The handle has central stab marks. Context GTO. BPT 27.

Context Group G2

96 Body sherd of a glazed jug with shoulder ledging and applied hand. This is a clear example of the use of anthropomorphic decoration on Ham Green 'A' jugs. Context GTS. BPT 26. Probably late 12th century. #

Context Group G5

97 Rim and shoulder sherds of small internally glazed cook-pot. Context GTJ. BPT 85.
98 Rim and strap handle sherd of an internally glazed jug. Context GTJ. BPT 118.
99 Rim and bearded bridge spout of a glazed jug decorated with neck pads. Context GTJ. BPT 118.
100 Base sherd of a glazed jug. The edge decoration consists of overlapping slightly thumbed impressions modelled into frilling. Context GTJ. BPT 118.
101 Standard rim, bearded bridge spout, handle and body sherds of a decorated baluster jug. The strap handle has central slashed decoration with a row of fixing slashes at top and bottom. The decoration consists of applied strips and spirals with self-coloured and contrasting pads. Context GTK. BPT 118.

Context Group G6

102 Handle sherd of a large bowl or pan with slashed decoration and handle fixing. Context GVA. BPT 84.

Context Group G9

103 Majority of a cook-pot with everted double rim. Traces of rim-glaze. Context GOM. BPT 84.

Context Group G10

104 Rim and parrot-beak spout sherd of glazed jug with beginnings of vertical thumbed strip under spout. Context GTE. BPT 157.

Context Group G11

105 Rim, body and base of a Faenza-type jug. The tin glaze is replaced internally and externally towards the base by clear glaze. The front of the vessel is decorated in a cross-hatched brown paint enclosing blue spots on a green ground. Contexts GFQ; also GHK (CG18), GGC (CG22). BPT 107B.

Context Group G15

106 Sherds of a flat dish, glazed internally. Context GKZ. BPT 128.

BLUE
BROWN
GREEN

BROWN

BROWN

BROWN

BROWN

0   10CMS
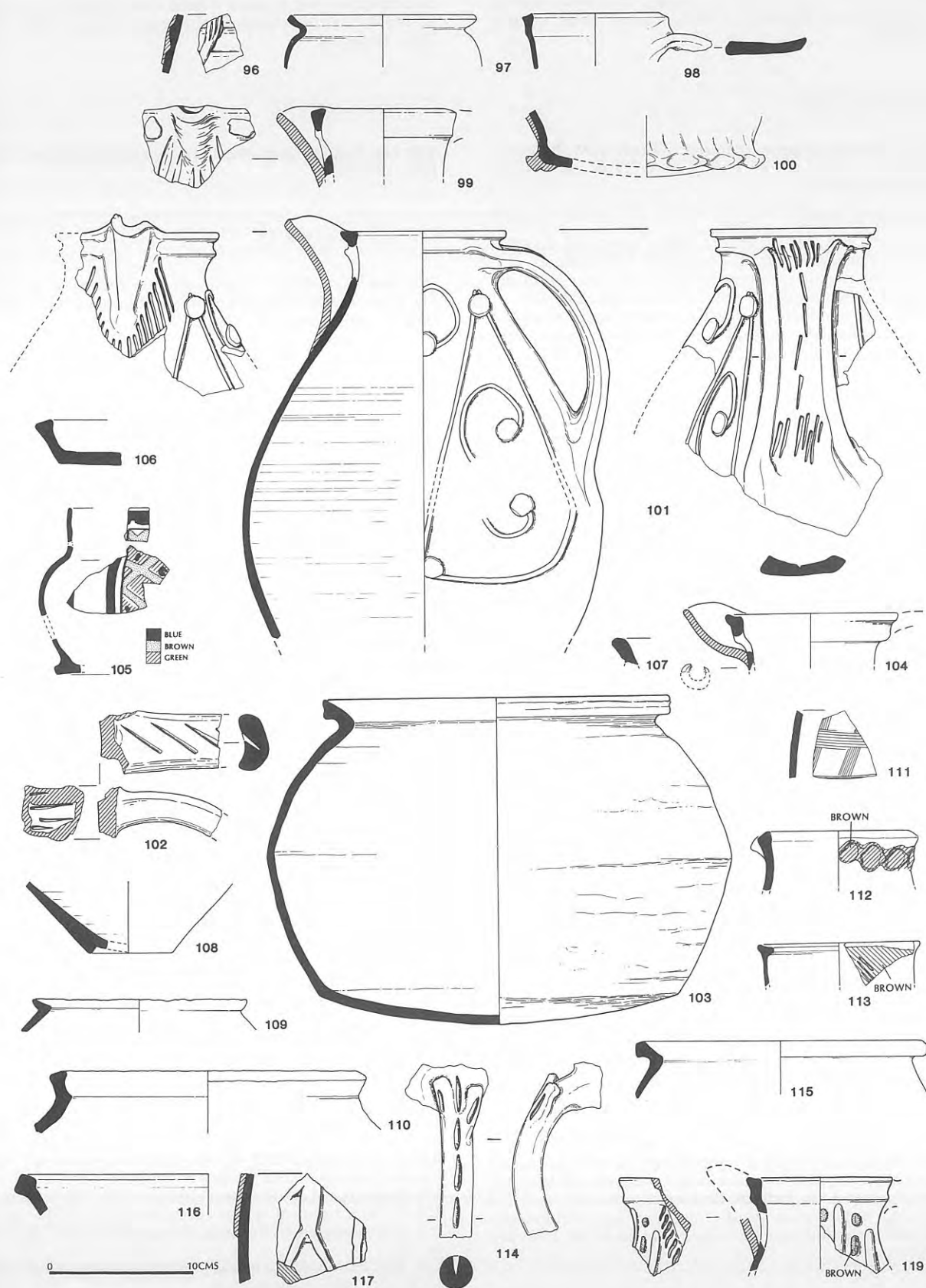
Figure 60   Medieval pottery – Areas G and K

Context Group G17

107 Small rim sherd, probably of a jar. Context GHP. BPT 282.
108 Base sherd of a bowl with a foot-ring. The fabric contains scattered quartz grits as well as frequent mica plates. Context GHP. BPT 282.

Context Group G18

109 Rim sherd of a cook-pot, unglazed. Context GEW. BPT 85.
110 Sherd of a cook-pot with overall green glaze and lid-seat. Context GKW. BPT 85.
111 Body sherd of a sparsely glazed vessel; unusual for the type. Context GKW. BPT 134.
112 Rim sherd of a glazed jug with pulled spout and thumbed neck-band in contrasting clay. Context GLR. BPT 118L. #
113 Rim sherd of a jug with brown paint under clear glaze and decoration of lines incised into paint. Context GLR. BPT 155.
114 Rod handle sherds of a glazed jug, unusual for the type. The decoration consists of two 'ears' in North French style, both slashed, and central slashing. Context GOB. BPT 118.

Context Group G22

115 Rim sherd of a cook-pot; unglazed. Context GFZ. BPT 85.

Area K (Figs 60–2)

Context Group K2

116 Squared rim of a cook-pot. Context KZZ. BPT 46.

Context Group K3

117 Body sherd of a glazed jug decorated with a stick-man. Context KZV. BPT 26. Late 12th century. #
118 Rim and shoulder sherds from a cook-pot; internal concavity. Context KZV. BPT 46. (Not illustrated).
119 Rim sherd of a glazed jug of good quality. The bridge spout would have been bearded and there are vertical, self-coloured strips alternating with elongated blobs in contrasting clay. Context KZX. BPT 118. Late 13th/early 14th century.

Context Group K4

120 Base sherds of a glazed jug with crimped basal edges made by pressing a narrow rod against the edge. Context KWE. BPT 118.
121 Rim and shoulder sherds of a glazed jug with pulled spout and shoulder ledges. Context KXE. BPT 26. 12th century. #
122 Handle sherd of a glazed jug with triple roll section. Context KXE. BPT 26. 12th century. #
123 Rim and shoulder sherd of a cook-pot. Context KXE. BPT 46.
124 Squared rim sherd of a cook-pot. Context KXE. BPT 46.
125 Rim and shoulder sherd of a glazed jug with oblique, rounded impressions on edge of collar and horizontal combing on shoulder. Context KYM. BPT 26. 12th century. #
126 Rim and pulled-spout sherd of a glazed jug, with inverse ledging and rouletting on outer edge. Context KYM. BPT 26. 12th century. #

Context Group K5

127 Rim and tubular spout of a glazed tripod pitcher with supporting strip at top of spout. A hole, a few millimetres across, has been bored in the left side of the spout. Context KZH. BPT 18. 12th century. #

Context Group K6

128 Rim and shoulder sherd of a rim-glazed cook-pot. Context KZR. BPT 84.

Context Group K12

129 Handle sherd of a double-roll form from a sparsely glazed jug, decorated with finger-pressing at the edges. Context KWC. BPT 18. 12th century. #

Context Group K14

130 Rim sherd of a glazed cook-pot, glazed externally and over the rim. Context KTC. BPT 85.

Context Group K15

131 Rim and shoulder sherd of a glazed jug with thumbed neck-band and rouletted strip on the shoulder. Although this vessel lacks the ledging of 'A' wares, the rim form and fabric are 'A' rather than 'B'. Context KWQ. BPT 26/27. Late 12th/13th century. #

Context Group K17

132 Rim and handle sherd of a glazed jug. The handle has a row of slashes at the junction with the rim and there is a thumbed strip in contrasting clay around the neck. Context KSE. BPT 118.

Context Group K18

133 Rim and shoulder sherd of an oxidized cook-pot with rim thumbed on internal edge and top, and 4/5-tooth wavy combing in bands on the body. Context KVG. BPT 32. 12th–13th century. #
134 Base sherd of a glazed jug with continuous, wide, downward-thumbed frill. Context KZM. BPT 118.

Context Group K21

135 Rim, bridge spout, shoulder, and strap handle sherds of a jug in a yellowish glaze. The vessel is decorated in blobs on the neck and an applied thick slip band on the shoulder, with similar repeated arcs or related designs on the body. Context KTX. BPT 118. Style typical of the second quarter of the 14th century.
136 Standard rim and bridge spout sherd of a glazed jug with a row of applied pads on the neck. Context KTX. BPT 118. Date as no 135.
137 Rim of a partially glazed jug with internal bevel. Context KTX. BPT 160. *c* 1350 onwards.
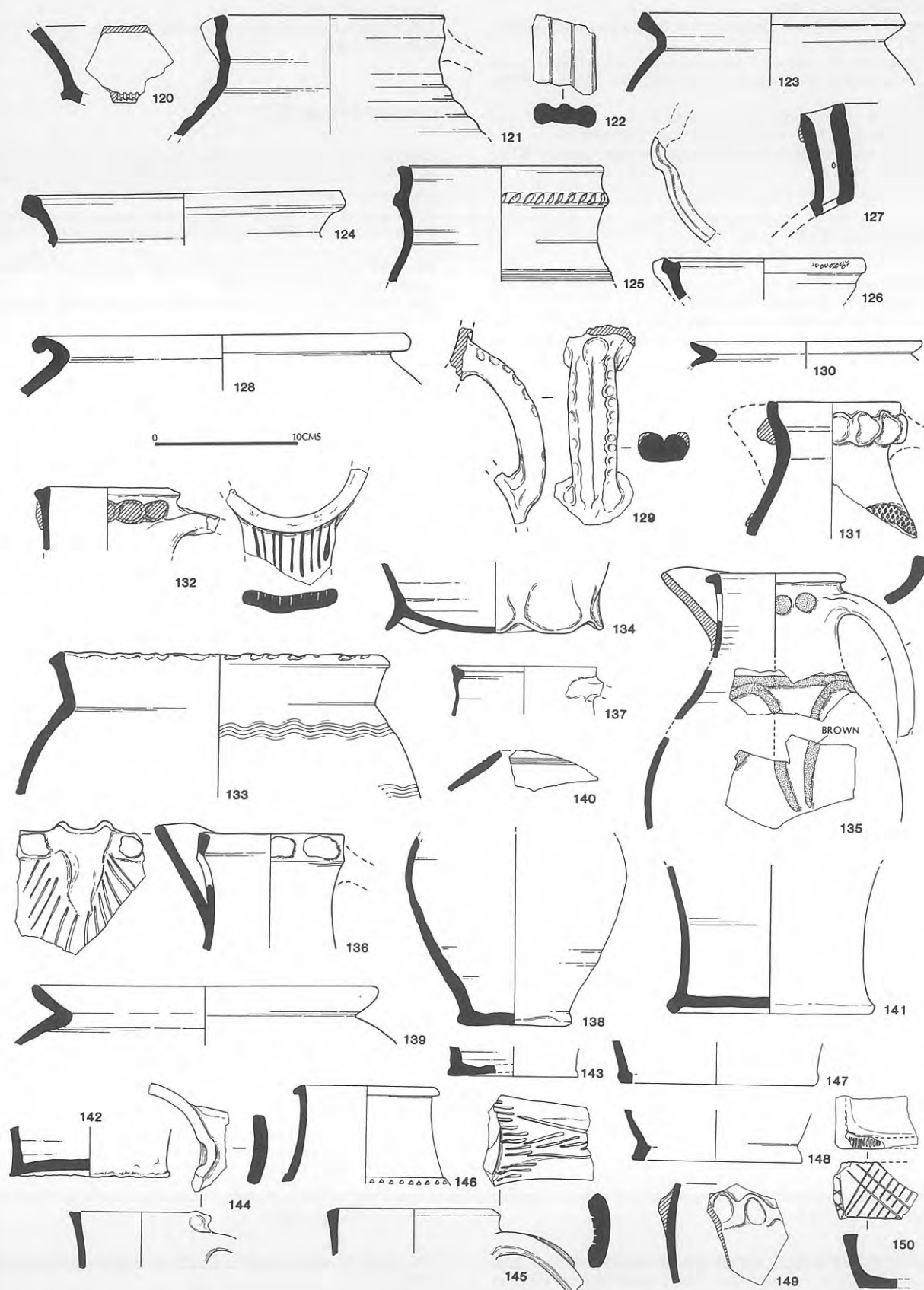
Figure 61   Medieval pottery – Area K

Context Group K26

138 Base and body sherds of a costrel in a coarse fabric. Contexts KOO/KNH. BPT 282.
139 Rim of a bowl; green-flecked glaze inside and out. Context KOR. BPT 85.
140 Body sherd of a costrel (?) in a quartzy, mica-flecked ware with double-groove decoration on the shoulder. Context KOR. BPT 282.
141 Base and body sherds of a jug with all-over glaze, splayed and rounded edge. Context KPK. BPT 118. 1325–50. #
142 Slightly splayed base sherd of a glazed jug. Context KPK. BPT 118.

Context Group K26

143 Slightly splayed base of a jar, internally glazed and soot stained externally. Context KRL. BPT 85.
144 Rim and strap handle sherd of a late, partially glazed jug with a pulled spout above the handle: probably a production-line error. Context KRL. BPT 118L.
145 Simple rim and strap handle sherd of a jug, glazed light yellow/green with standard Redcliffe-type, slashed handle-decoration. Context KRL. BPT 118. *c* 1325–50. #
146 Rim and shoulder sherd of a glazed jug with the top of triangular rouletting on the shoulder. Context KRL. BPT 118.
147 Base with rounded edge from a jug glazed inside and out. Context KRL. BPT 118.
148 Slightly splayed base sherd of a glazed jug. The interior has an off-white surface. Context KRL. BPT 118.
149 Body sherd from a glazed jug with thumbed girth-band, typical of the period from 1350. Context KRL. BPT 118L.
150 Sherd of a compartment of a green-glazed inkstand or cruet in Redcliffe ware. The decoration consists of incised cross-hatching on the outside and continuous finger-nailing on the rim top. A similar and more complete example came from Peter Street in Bristol, and another is known from Cirencester. Context KRL. BPT 118. 14th century? #

Context Group K28

151 Simple rim and strap handle sherd of a glazed jug with internal soot-staining. Context KEQ. BPT 118.
152 Rim sherd of jug, unglazed (Ponsford, 1988, nos 53 & 54). Context KEQ. BPT 118L.

Context Group K29

153 Base sherds of a tripod cistern with single spigot-hole; spots of glaze inside and out. Context KGV. BPT 197.
154 Base sherd of a jar or jug with spots of glaze. Context KGV. BPT 197.

Context Group K30

155 Simple rim and trace of pulled spout, probably of a conical jug. Paralleled at Bristol Castle, Site D. Context KOC. BPT 117. First half of the 14th century. #

Context Group K31

156 Base sherd of a large vessel, glazed inside and out, with downward thumbing running into wide, rounded feet. Context KMR. BPT 118. The decoration suggests the second quarter of the 14th century. #

Context Group K32

157 Rim sherd of a small pancheon; mediocre internal glaze. Context KJN. BPT 197.
158 Rounded rim of a jar; some iron rich slip or glaze. Context KJN. BPT 197.

Context Group K33

159 Rim and shoulder sherds of a large jar with light-brown glaze on the inside of the rim. Decoration consists of impressed dimples on the neck, as no 177. Context KGY. BPT 197.
160 Clubbed rim of a jar with internal pale-brown rim glaze (for rim see Ponsford, 1988, no 136). Soot stained. Context KGY. BPT 197.
161 Clubbed rim of a large jar with internal pale-brown rim glaze. Context KGY. BPT 197.
162 Simple base of a large vessel with internal brown glaze. Context KGY. BPT 197.

Context Group K34

163 Rim sherd of a dish of mature Valencian lustreware. The brownish lustre decoration consists of two bands within which are running intersecting arcs, outlined with two narrow bands on either side. The back is decorated with more lines which run round the interior. Context KKB. BPT 83.
164 Everted rim sherd of a cook-pot with rim glaze. Context KKB. BPT 84.
165 Rim sherd of a sparsely glazed jug, with pulled spout and applied neck-band. Context KKB. BPT 84B.
166 Rim and parrot-beak spout of a small, sparsely glazed jug. Context KKB. BPT 160.
167 Body sherd of an unglazed Pegau with thumbed strip decoration. Context KKB. BPT 160.
168 Base sherd, probably of a small costrel. Context KKB. BPT 282.
169 Rim of a polychrome jug; traces of green glaze/paint. Context KPM. BPT 39. Late 13th/early 14th century. #
170 Rim and fragmentary face-mask of a polychrome jug; clear glaze; face outlined in a brown line. Perforation from top to bottom. Context KPM. BPT 39. Late 13th/early 14th century. #
171 Collared rim of a metallic-green glazed jug. Context KPM. BPT 40. Late 13th/early 14th century. #
172 Grooved body-sherd of a reversed Redcliffe-ware jug. Context KPM. BPT 67. 1325–50. #
173 Rim of a later medieval Saintonge jug, with internal bevel; unglazed. Context KPM. BPT 160.

Context Group K35

174 Rim sherd of an internally glazed jar. Context KPO. BPT 85. 14th century? #

Context Group K36

175 Clubbed rim of a large pancheon. (Ponsford, 1988, no 162). Context KEM, another rim from KLC. BPT 197.

Context Group K37

176 Clubbed rim-sherd of a small jar; unglazed. Context KGM. BPT 197.
177 Rim and shoulder sherd of a large jar, with brown rim glaze which runs down the interior. Decoration consists of large dimples at the neck, and a band of three grooves at the shoulder (Ponsford, 1988, no 173). Context KGQ. BPT 197.
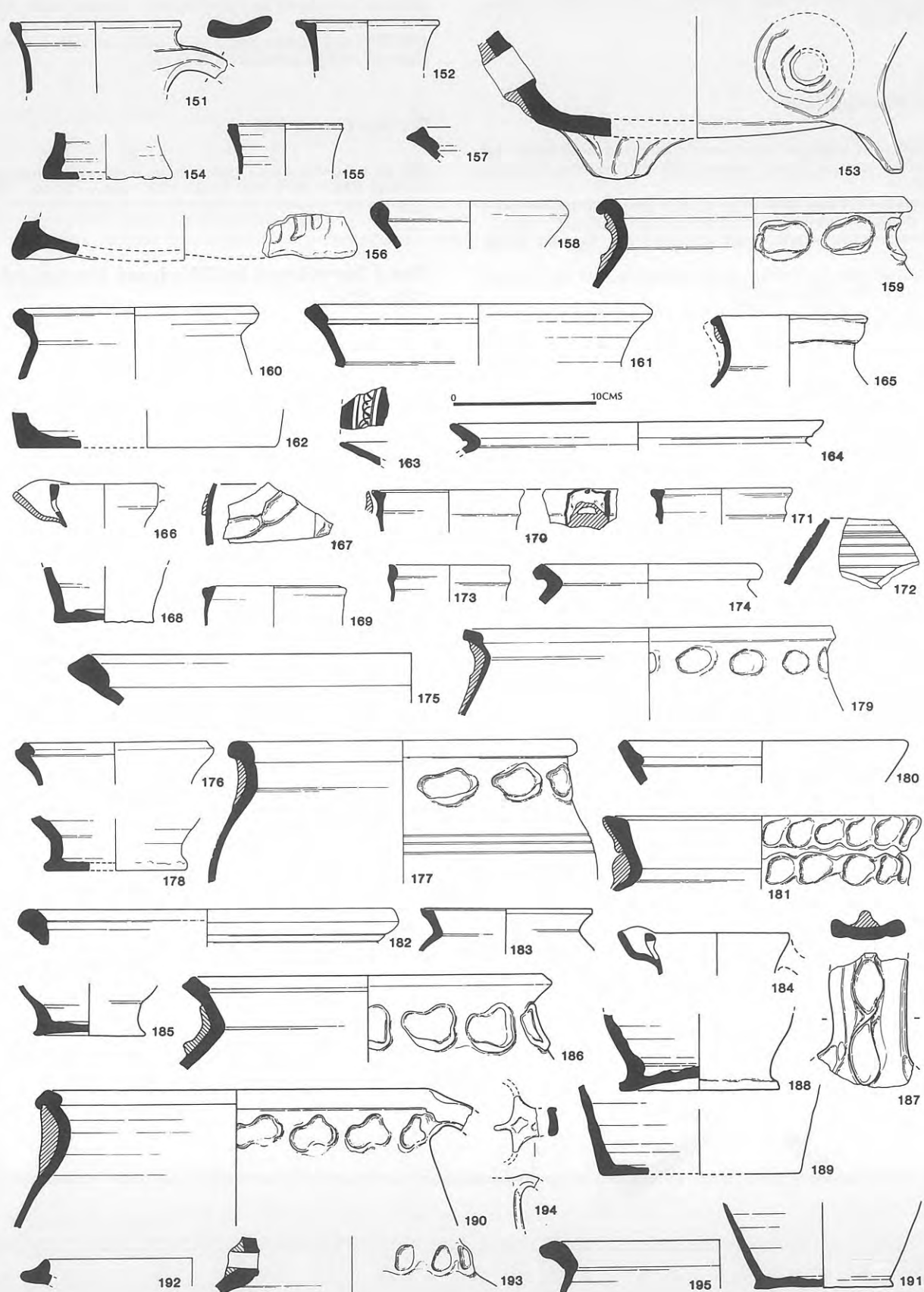
Figure 62   Medieval and post-medieval pottery – Area K

178 Base of a jug with flecks of green glaze externally. Context KGQ. BPT 197.
179 Clubbed rim sherd of a large jar; internal, light-brown rim glaze. Context KHA. BPT 197.
180 Flanged rim of a small pancheon; internal glaze. Context KJF. BPT 197.

Context Group K38

181 Rim of a large jar with double thumbed neck-band and dark-green external glaze. Context KDB. BPT 96. Mid–late 16th century.
182 Folded-over rim sherd from a large jar or steep-sided bowl with internal yellowish-green glaze. Context KDB. BPT 197.
183 Everted rim sherd of an unglazed jar. Context KEM. BPT 160.
184 Rim and parrot-beak spout of a patchily glazed jug. Context KEM. BPT 160. 15th century. #
185 Base of a small jug with internal green-flecked glaze. Context KEM. BPT 197.
186 Clubbed rim of a large jar, with dimpled pads on the neck and internal rim glaze. Context KEM. BPT 197.
187 Sherd of a wide strap handle from a glazed jug, with central thumb-pressed strip. Context KET. BPT 118. 14th century. #
188 Base sherd of a jug or jar with central kick and patchy internal glaze. Context KET. BPT 197.
189 Unglazed base sherd. Context KET. BPT 197.
190 Rim, shoulder, and handle sherds of a large jar, with dimpled pads on the shoulder, and glaze on the inside of the rim and in patches on the outside. Context KFA. BPT 197.
191 Base sherds of an unglazed jug. Context KFW. BPT 160. 15th century. #

192 Rim of a small pancheon or bowl; patchy glaze (see Ponsford, 1988, nos 142 & 147 for rim). Context KGK. BPT 197. Late 16th/early 17th century.
193 Shoulder sherd of a large jar; some internal glaze; thick, thumbed neck-band, and pouring hole. Context KGR. BPT 112. 17th century.
194 Rim and handle sherd of a lobed cup with green-flecked glaze all over. Context KNH. BPT 182.

Context Group K39

195 Rim sherd of a bowl; green glazed internally; standard form. Context KMG. BPT 196. Later 16th century (Good, 1987, no 120).

Roof furniture by Michael Ponsford (Fig 63)

Introduction

The glazed crested tile was typed using the series published for 94–102 Temple Street, which was in turn linked to the Redcliffe Hill series (Williams & Ponsford, 1988; Dawson & Ponsford, forthcoming). The Redcliffe material included waster types 1–3, but types 4 & 5 were not certainly made at Redcliffe. On current evidence, the flat tiles (type 6) seem to have been exclusive to Temple Street. Type
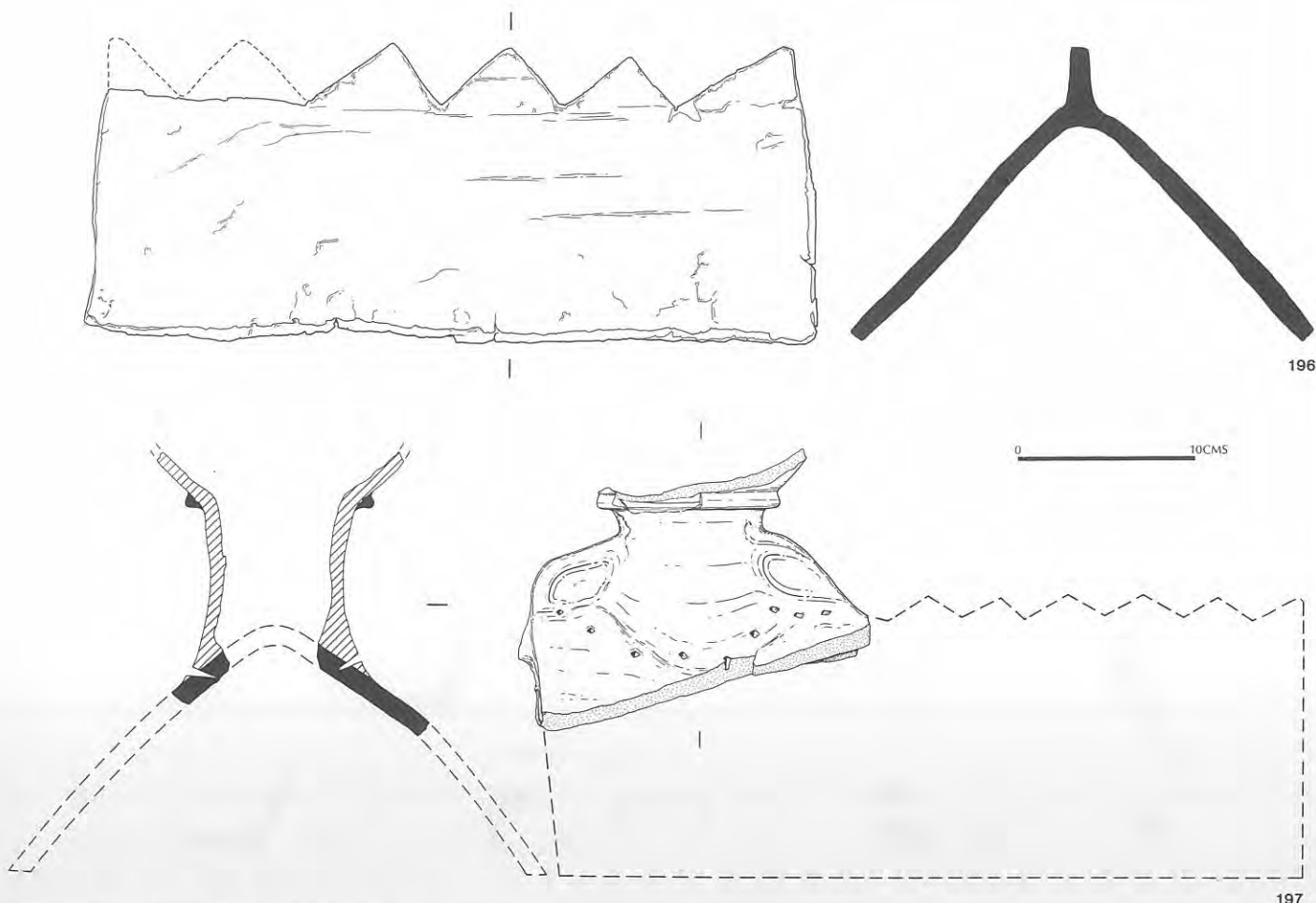
Figure 63   Medieval roof furniture

7 is Malvernian, and at St Bartholomew's Hospital occurred only in the later periods of occupation in Area K. A type recognized for the first time at that site was made in a sparsely glazed, coarse red fabric (type 8).

The types were identified by Hilary Thompson. They were:

Type 1 Typical Bristol fabric characterized by inclusions of large lumps of non-homogenized clay. Crest cut with knife stabs (Williams & Ponsford 1988, 4, fig 24). 14th century.

Type 2 Similar to type 1 but with dark inclusions of Coal-Measure shale, including fragments up to several millimetres in length. 14th century.

Type 3 Tiles in Redcliffe jug fabric (BPT 123/6). 14th century.

Type 4 Tiles in fabric having a dark-grey core, with frequent white quartz inclusions. A pointed tool was normally used to make the crests. This fabric was also used for the manufacture of louvres. Possibly late 13th/14th century.

Types 5 & 6 Not represented.

Type 7 Tiles in Malvernian fabric (Vince, 1977, 274). 15th–16th century.

Type 8 Tiles in red, quartz-tempered fabric.

Discussion

In Area A there was very little tile of any kind, which corroborates the proposed light construction of the buildings in that area (buildings 7, 9 & 10). If provided with Pennant-tile roofs, these would have tended to have had crests. It would not have been unusual for such buildings to have had wooden shingles: as many as 23,000 shingles were used to roof the king's hall and kitchens at Bristol Castle in the 1240s (CCR, 1242–7, 25 & 93). The foundation trench of St Bartholomew's W44 contained fragments of Delabole-type slate, which is also a lighter material than Pennant as it splits into thinner slabs. This type of slate seems to have been used in the hospital until the 16th century, particularly on the roof of Bg 2B. The earliest occurrence of tile was in context groups A6 & A7, but the fragments were very small.

In Areas D & G, the earliest tile was in CG G5 and consisted of fragments of type 2. This fabric is thought to be 14th century in date. It appeared in small quantities in the flooring deposits of the undercroft alongside a small quantity of type 1. There did not appear to have been any tile associated directly with the first phase of building of the hall. There need not, therefore, have been a Pennant roof on that building. It is thought that crested tiles were not made until after 1250: there are no tile wasters known from Ham Green. The fragments in the floor might have come from another building. The use of shingles on the roof of building 1A would not be unlikely.

It is probable that the new building (Bg 1B) of Period 4A (c 1340–c 1400) had a Pennant and crested-tile roof, because tile was plentiful from the demolition phase onwards. It occurred in both known Redcliffe fabrics, some of it decorated with applied strips.

Area K is of some interest because, there also, roof tile was not used until later building phases. It appeared first in the demolition deposit of building 2A. In the infill of the well was a large fragment of ball finial, in Bristol Redcliffe jug fabric, attached to a tile of type 1 (no 197).

In the later deposits there was much evidence for the use on the roof of the new kitchen of Malvernian tiles alongside Redcliffe types and fabric type 8. As might be expected, this found its way mainly into the demolition deposits. There does not appear to have been Malvernian tile in other areas, suggesting that they were unavailable for the construction of the chapel and the first kitchen, and that the Bristol pottery industry was starting to decline when building 2B was erected. It is also likely that old crested ridge-tiles of Bristol manufacture were reused where possible, to minimize expenditure.

Fragments of louvre were also found on the site (Area D: CG D10 & D17) which fits the crested-tile profile. Another fragment came from Area E. These are also thought to have been made at Redcliffe, usually in type 4. Some fragments cannot be distinguished from crests.

Catalogue (Fig 63)

196 Almost-complete ridge tile in fabric 1; pale yellow glaze. Unusually for this type, there are no slashes at the base of the crest. Context Group G6, context GRK. Period 3B (c 1280–c 1320).

197 Glazed, crested ridge tile with remains of ball finial. The ball was thrown in jug clay (BPT 118) whereas the rest of the tile is in a coarse version of the jug fabric, probably representing tile fabric 2. The base of the finial was stabbed with a square-sectioned, pointed tool (probably a nail). The neck of the finial is supported by two 'ears'. Found in courtyard well: SF44 (Context Group K18, context KZM). Period 4A (c 1340–c 1400).

Floor tiles by Bruce Williams (Fig 64)

Introduction

A total of 25, largely incomplete, floor tiles was recovered. Of these, four were found *in situ* in Area G. The tiles are divided into nine groups on the basis of decoration and/or method of manufacture, size, and date, and are further subdivided by fabric into six broad groups. Several of the patterns used on the tiles are so worn as to be unrecognizable; others are typical of Bristol and the surrounding region. One tile, a fragment from Area G, is a product of the Seville region of Spain and dates from the second quarter of the 16th century. Bristol is particularly rich in tiles from Spain, so this is not an unusual or rare occurrence. As might be expected, most of the tiles, including unstratified examples, came from Area G, the east end of the hospital church.

Only those tiles which bear a recognizable design are illustrated.

158

Fabric Groups

For classification, the sherds were viewed through a × 10 binocular microscope.

Fabric 1 Fabric: hard, orange, with a grey core. Inclusions in a matrix containing abundant crushed quartz: most common was rounded, clear and coloured quartz; moderate amounts of red iron ore; rare fragments of quartzite.
Fabric 2 Fabric: medium-hard, orange/brown. Inclusions: moderate amounts of rounded quartz.
Fabric 3 Fabric: fine, moderately hard, orange. Inclusions in a matrix containing abundant, very fine, quartz sand: rare fragments of grog or soft, iron products.
Fabric 4 Fabric: very hard, orange, with a grey core. Inclusions: abundant rounded and sub-rounded quartz; rare fragments of iron ore and small dark grits.
Fabric 5 Fabric: medium-hard, pink/buff. Inclusions: rare fragments of rounded quartz and pink grog.
Fabric 6 Fabric: medium-soft, orange. Inclusions: moderate amounts of rounded quartz and rocks (possibly Malvernian) up to 13mm across; rare fragments of sandstone up to 6mm across, and quartzite up to 7mm across.

Catalogue (Fig 64)

Group 1 (late 13th century)

Tile fragments in Fabric 4, 21–23mm thick, characterized by their olive-green glaze; keyed with small scoops from their backs. The designs are well executed, their impressions having been stamped into the quarry to a depth of 1mm.

Both examples have parallels from sites in Bristol or the Severn Valley, where the same stamps were used to create their designs (Good & Fettes, 1992, 36). Another example of Design 2 (no 199), in the City of Bristol Museum and Art Gallery (Accession No: BRSMG G.323) is described in the Accessions Register as having come from Malvern.

198 Context Group G10, context GTD.
199 Context Group G1, context GTO.
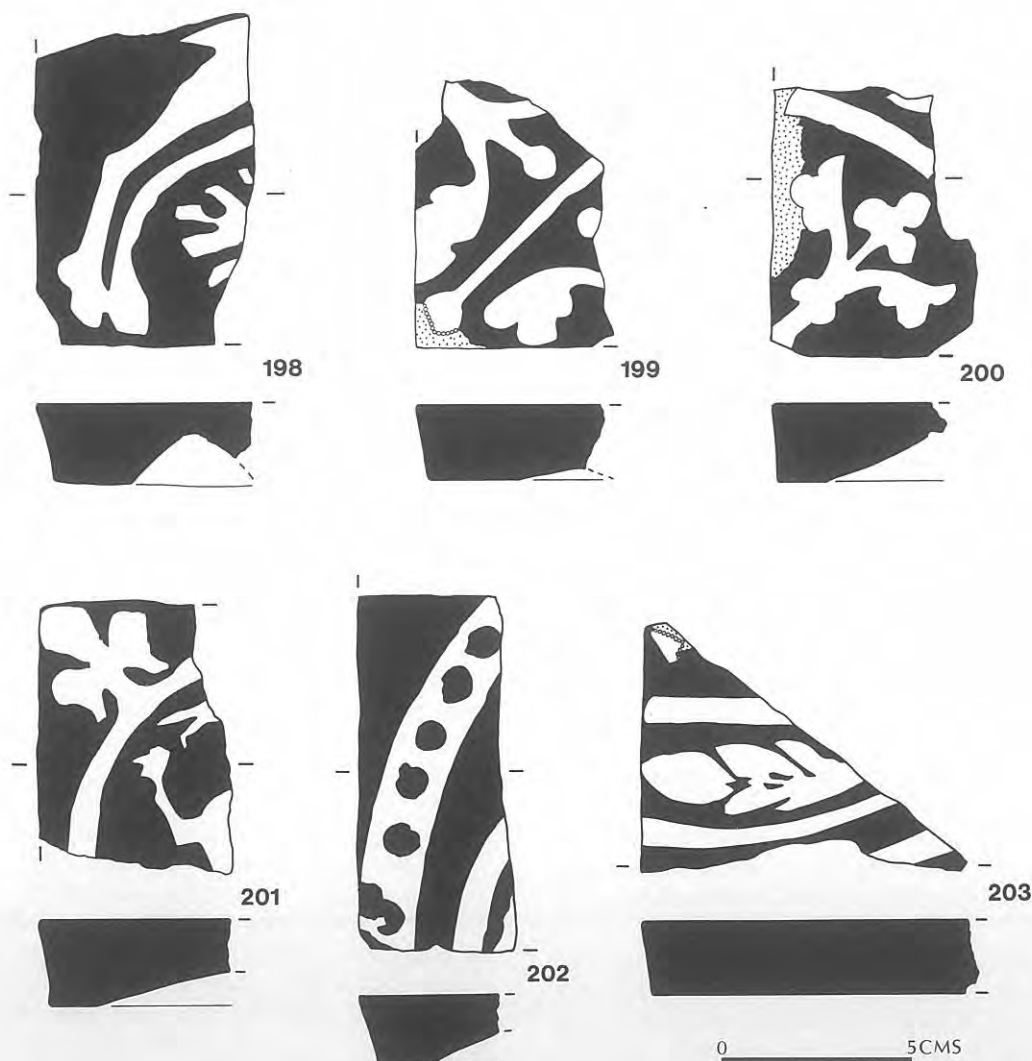
Figure 64   Medieval floor tiles

Group 2 (late 13th century)

Tile fragments in Fabric 3, 19–21mm thick. Designs stamped into their surface to a depth of 0.05mm. Glaze honey brown; backs of tiles keyed with large, shallow scoops.

200 Context Group (Recent), context GH.
201 Context Group G10, context GTC.

Group 3 (early 14th century)

This group is represented by five tiles in Fabric 1. They vary in depth from 19–25mm; at least two are keyed with small scoops. Two of the tiles are rectangular, being one-third of a complete tile. One of these is glazed green, whereas the other has an overall coating of slip with a transparent lead glaze.

The three fragments of tiles with decoration are unimpressive. Two are unrecognizable, but the third (no 202) is part of a four-tile pattern comprising an outer band with dotted decoration. The central design contained within the four tiles would have been four conjoined semi-circles with eight addorsed swans (or something similar) radiating from the centre.

202 Context Group (Recent)

Other examples came from: Context Group (Recent), context GB; Context Group G15, context GKE; Context Group G10, context GTC; Context Group G5, context GTJ; Context Group G2, context GTQ (bottom step of east door).

Group 4 (14th century)

Single tile fragment in Fabric 1, 25mm thick, characterized by the type of key, which was stabbed into the back of the tile with a sharp instrument to within 3mm of its upper surface. This type of keying is not usual in Bristol, where scooping is more common. The only other locally produced tiles with this type of key are in a Bristol pottery fabric (as BPT 118) and have been recognized from at least four archaeological sites in the city (Williams, personal observation). Those are quite different, however, in being large and thick, with designs which are scratched into their surfaces. This example was found outside the hospital precinct.

Not illustrated. Context Group E3, context ECJ.

Group 5 (14th century)

Seven tiles in Fabric 2, 23–8mm thick, 110–15mm square. None of the tiles is decorated. They are all glazed in lead over a wash of slip. Three of the tiles were found *in situ* in the eastern end of the north aisle of the church (context GSP) in the cut section of the trench (see Chapter 6, Period 4A).

Not illustrated. Examples came from: Context Group (Recent), context GRG; Context Group (Post Medieval), context GSN; Context Group G10, context GSP.

Group 6 (14th–15th century)

Represented by a single tile in Fabric 1, 29mm thick. Surface of tile very worn and design unrecognizable. It was part of a multiple, possibly sixteen-tile, design.

Not illustrated. Context Group (Recent), context GB.

Group 7 (15th century)

Two fragments in Fabric 1, each 20–4mm thick. One of the tiles (no 203) is decorated with a slip-over-impression floral design which is part of a multiple-tile pattern. The other, a small triangle cut and then broken from a larger tile, has an overall slip which is glazed.

203 Examples came from: Context Group (Recent), context HV; Context Group (Recent), context DCV.

Group 8 (date uncertain)

Tile in Fabric 6, 47mm thick; very large, probably square, in excess of 185mm across. No decoration or glaze. The bottom edges are rounded off.

Not illustrated. Context Group (Recent), context GGZ.

Group 9 (16th century)

One tile in Fabric 5, 21mm thick. Spanish, from the Seville region, with a geometric pattern decorated in the arista technique. Identical tiles are to be found in the Poyntz chantry chapel at the Lord Mayor's Chapel, Bristol (Williams, 1995, 336).

Not illustrated. Context Group (Recent), context GB.

Clay tobacco pipes by Reg Jackson & Roger Price (Fig 65)

Introduction

The post-medieval finds from St Bartholomew's Hospital were not included in the final report as

they did not add any substance to the understanding of either the medieval hospital or its subsequent reoccupation by Bristol Grammar School and the later QEH School. However, an exception was made of certain of the clay tobacco pipes which were probably made on, or near, the site.

Throughout the 17th to 19th centuries Bristol was one of the leading centres for the production and export of pipes in England, and Lewins Mead (the street in which St Bartholomew's Hospital lies) was the most important area for their manufacture during much of that period. The first-known Bristol pipemaker, Miles Casey, who died in 1617, probably lived at the east end of the street on its north side. The local industry has been the subject of concentrated study for some years (in particular see Jackson & Price, 1974; Price, Jackson & Jackson, 1979; Walker, 1977) and this work continues.

Following earlier studies of the most obvious sources of information, a systematic examination by Price & Jackson of the documents held at the Bristol Record Office and Bristol Public Library, including property deeds (especially those in the Bargain Books of the Bristol Corporation) tax assessments, parish rate books and registers, and local newspapers, has enabled a paper plan (ie a running sequence which is not necessarily specific about the exact geographical position) of the pipemakers' workshops/dwellings in Lewins Mead to be established. Some of those were situated on the St Bartholomew's land. They cannot be pinned down with total accuracy, but were located along the street frontage, on Area G of the excavation and the land adjacent to Area K which was rebuilt for the 1818 QEH development. The former hospital land north of Johnny Ball Lane, extending as far as the Lewins Mead Meeting House, seems to have been particularly favoured by the trade, but this is outside the scope of the present study. The division of the street into two halves, St Michael's parish to the west and St James's to the east (see Fig 35) is a useful pointer for non-specific documentary references. The parish boundary runs through the middle of the Meeting House.

The following list shows the pipemakers known to have lived/worked on the excavation site. It is drawn from the so-far unpublished studies of Price & Jackson. Dates given are those in which specific reference was made, but they do not necessarily imply that the pipemaker was not living there either before or after. The probable part of the site which the tenement occupied is indicated. As the research project is still ongoing, the list is not exhaustive. For further details of each maker and their products, see the references cited above.

Thomas Poyte I	1650–7	(probably near Host St/ Area G)
Edward Battle ?	1668	(location uncertain)
Philip Edwards I	1669/70	(probably near Johnny Ball Lane/ Area K)
Francis Edwards	1700–16	(near Host St/ Area G)

Francis Lewis ?	1715–20	(probably near Johnny Ball Lane/ Area K)
Thomas Watts	1716	(premises formerly of Francis Edwards)
Edward Reed	1729	(probably near Host St/ Area G)
Richard Bourne	1739–51	(premises formerly of Thomas Watts)

During excavation, some pipe-kiln waste was found in Area G (contexts GAB, GAD, GAM, GAS, GAZ, GBA, GBE, GJH & GQM) and in one context (AE) of Area A. These comprised small fragments of muffle kiln and overfired, or otherwise spoiled, stems and bowls. Unfired pipe clay was also recovered from context GQM. No actual kiln structure, or the site of a kiln, was observed and the small waste tips were not necessarily *in situ* as the upper levels of stratification in the area were grossly disturbed.

Of particular interest are two examples of pipes with a copper-alloy wire through the stem. These came from contexts CF (Small Find 51) and GDG (Small Find 697). The bowl from CF (no 209) is marked 'AR', for Alice Russell (qv) and dates to the early 18th century. The fragmentary bowl from context GDG (not illustrated) dates to the late 17th century on typological grounds. It must be assumed that the wires were introduced into the pipes during manufacture to create the stem-bore. This wire would normally have been removed from the pipes after moulding but, for reasons unknown, in these cases the pipes were obviously fired with the wires in place. No other example of this type of kiln waster is known to the authors and quite how they managed to reach the firing process before being rejected is difficult to imagine.

Within context GQM were wasters of pipes which bore heels (typical of the late 17th century) alongside some bearing spurs (mostly of types assigned to the early 18th century). Given the uncertainties of the time of deposition of the material, the significance of this observation should not be overstated.

In this report, only pipes which are certainly (or might be) 'wasters' are described and illustrated: a report on the remaining material has been filed in the site archive (see p 8).

No attempt has been made to date the pipes by stem-bore analysis. A large number of stems is required from such a study to be significant, and insufficient material was available from St Bartholomew's. Moreover, doubts have been expressed for some time about the validity of stem-bore dating (eg Noel Hume, 1982, 128). Only approximate dates for the pipes are given (eg late 17th century). This is due to the fairly long working lives of the identifiable pipemakers and the now generally accepted problem of the length of time which an individual pipe mould could remain in use. This became obvious during a study of the surviving wills of Bristol pipemakers (Oswald, 1985, 5; Price, Jackson & Jackson, 1979).

Catalogue (Fig 65)

The pipes are classified in alphabetical order according to the maker's mark.

I ABBOTT

204 Fragment of waste bowl, context GQM. Made by James Abbott: free 1651; living in St James's parish from *c* 1689; 1690 moved to St Peter's when he married his second wife, the widow of the pipemaker Edward Randall, and took over the business; still living in St Peter's until his death in 1715–18, when his third wife continued his business.
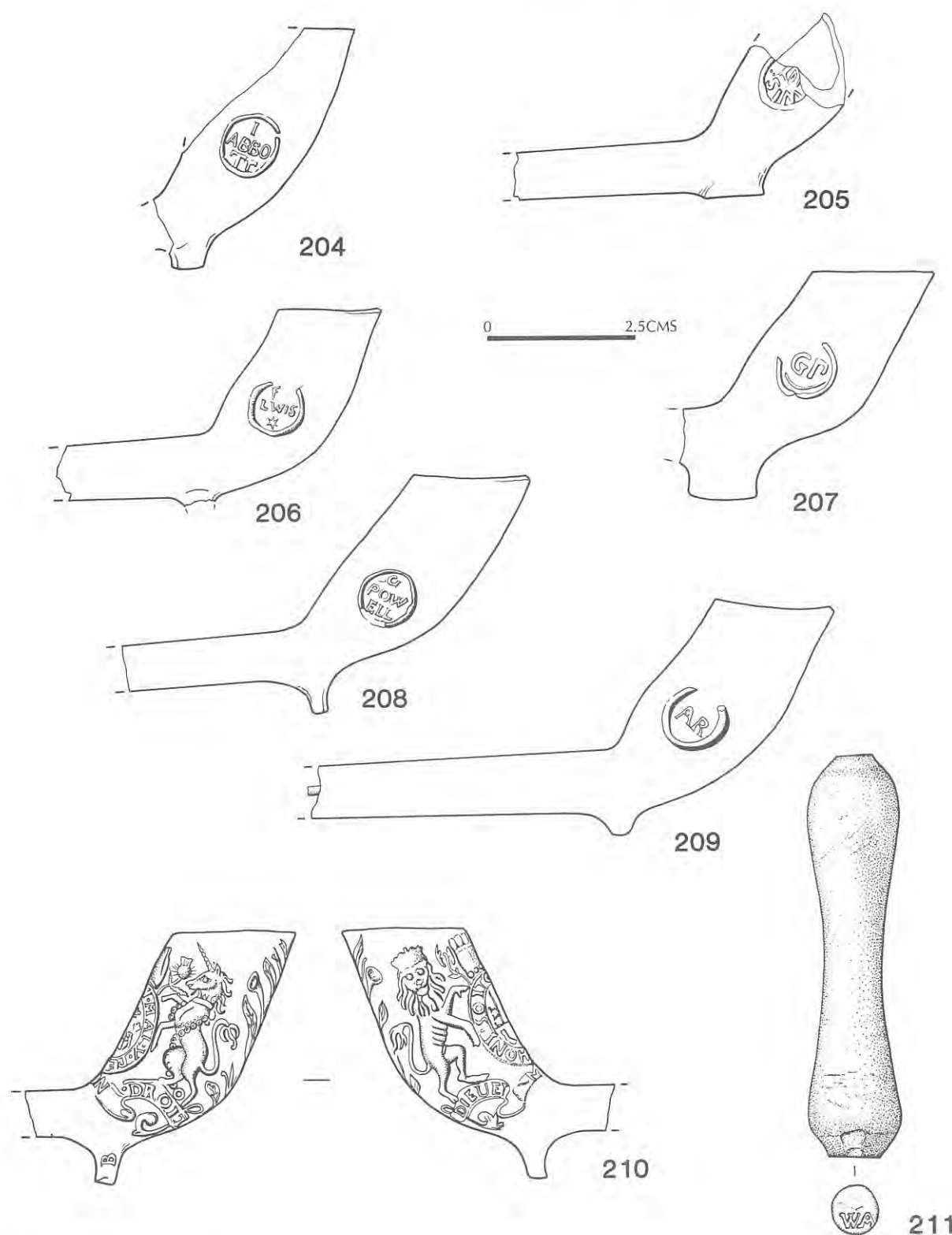
Figure 65   Clay tobacco pipes and other objects of pipe clay

Why the waste products of his kiln should turn up at the St Bartholomew's site is unknown: no connection has been established. The simple answer would be that the waste was debris brought in from outside as make-up; alternatively, someone could have been firing Abbott's pipes on his behalf, but this is less likely.

F LEWIS

205 & 206 One bowl (no 205) with heel (not obvious waster but in waste context GQM). Not definitely by Francis Lewis. Other bowl (no 206) with spur broken off (definite waster) from context GJH. Made by Francis Lewis: free 1691; c 1702–15 living in St James's parish, in earliest years certainly in Lewins Mead but later also in Broadmead; c 1715–20 probably the Francis Lewis living at the St Bartholomew's site, but no occupation given; probably died 1729/30.

G POWELL

207 & 208 One example (no 207) from context GBE (not definite waste). Second example (probable waste, poorly fired) from context GQM. Made by George Powell: free 1704/5; c 1715–34 living in St Michael's, of which from c 1721–9 in premises opposite St Bartholomew's in Lewins Mead; 1737 recorded as working for William Nicholas, a pipemaker with premises adjacent to the Meeting House in Lewins Mead. This implies that the examples of his products were made before then and that his business had failed. He was described as poor in the 1722 rate book.

AR

209 One example (Small Find 51) from Area A, context CF; not otherwise noted for pipe waste; copper wire retained in stem. Made by Alice Russell: daughter of pipemaker William Williams I, who had premises between Johnny Ball Lane and Meeting House in the mid 17th century; married Francis Russell I, pipemaker, setting up business probably at father's old premises; when Francis died in 1724 took over his business; died 1732.

The waster was probably carried into the St Bartholomew's site along with general debris.

Royal Coat of Arms

210 Six examples from contexts AE, GAP & GBA (all bowls appear to be kiln-damaged wasters). The pipes bear a moulded decoration comprising a circular coat of arms on the rear of the bowl with a crown above. This is supported on either side by a lion and a unicorn. Around the arms is the motto 'HONI SOIT QUI MAL Y PENSE'; beneath, on a flash, is the motto 'DIEU ET/MON/DROIT'. The arms are those of Queen Anne (1702–14) (Noel Hume, 1970, 142; Atkinson & Oswald, 1980, 363). The initial 'B' occurs in relief on one side of the spur. Maker unknown.

Wig curler140

211 One pipe-clay wig curler came from context GAX (Small Find 827). It is 66mm in length and has a thin centre (10mm diameter) with bulbous ends (16mm diameter). The initials 'WA' occur incuse on each end of the curler. These are known from wig curlers found in London, Rochester, and Liverpool, but the identity of the maker is unknown (Le Cheminant, 1982, 352). This example is probably 18th century in date.

9   Other finds

Introduction by Les Good

The objects classed as small finds are grouped first by material and second by function, as far as their identifications permit. Many of the 1388 objects recorded (including large pieces of carved stone) came from post-medieval or unstratified contexts and these are not illustrated except where of intrinsic interest. Most of those which are listed came from stratified context groups within the excavated areas.

As a matter of policy, a trainee conservator (Susan Dawson) was employed to carry out first-aid conservation of the artefacts on site. Although no soil pH was measured at St Bartholomew's Hospital, it is known that the local soils tended to be calcareous, or somewhat brackish because of their proximity to a tidal river. In general, preservation of artefacts is quite good in most Bristol soils. The copper alloy from St Bartholomew's was in good condition, and required little conservation apart from removal of encrustation and storage in an appropriate environment. The iron was not badly corroded on excavation, but it was not stored in conditions suitable for minimizing fragmentation, contrary to the original intention. Most of the illustrated metalwork has been drawn from x-ray plates prepared by Martin Read, Regional Conservator, English Heritage.

The bone objects were well preserved, although few in number. Organic material survived quite commonly from fairly high levels in the stratification, but wood fragments were not usually worth retaining as they were merely unworked scraps. A list of identified wood samples is deposited in the site archive (p 8). The slipway and door from Area A (Chapters 4 & 5) were not retained because of their poor condition, but they were drawn, photographed, and sampled for radiocarbon dating (see Radiocarbon dating of wood samples in this chapter). The leather fragments remained in good condition after conservation, in common with most leatherwork found in Bristol, for example that from Narrow Quay (Good, 1987, 110–20).

Rather fewer architectural fragments were found than might perhaps be expected, but much stonework of quality is still standing. Of note are the two fragments of statuary. The glass was also limited in quantity, but a high proportion of that recovered was in poor condition and too fragmented for description. As reported on pp170–1, the coins and tokens offer a typical profile for a Bristol site but the presence of a small hoard of the late 14th century is noteworthy.

The range of material in the catalogue is not regarded as exceptional and is no more specific to the functioning of a hospital than any other religious site. The chalk egg (no 225) might have been used in poultry husbandry; a mortar fragment (no 224) could have been used to grind herbs, but this was more likely to have been for cooking than for the preparation of medicines. The coffin nails (nos 283–6) are typical of such sites.

The earliest datable activity at the St Bartholomew's site was that associated with boats and consisted of the 12th-century (or earlier) roves and nails of Period 1 (nos 277–80). The work probably ceased when the postulated creek (P61) was infilled during Period 2, and the hard standing and slipway complex constructed over it (see Chapter 4).

Among the articles of dress, notable is the survival of leather shoes, the best preserved (no 325) being an almost complete child's boot of the late 12th century. Other objects which might have been worn by the inmates include copper-alloy buckles (nos 238–41), pins (nos 236–7), rings (nos 244–5) and buttons (nos 251–2 & 327). Buckle no 238 had a gilt frame. Certainly worn by an inmate was the belt with buckle and plate found with the body of an elderly male (B42). Buttons are rare in medieval contexts in Bristol and it is possible that these were used in hospital clothing for ease of fastening by elderly or otherwise infirm inmates. Other buttons from post-medieval contexts might also have been residue of an earlier date.

Security was a feature of the 1303 inventory (see Chapter 5) and the copper-alloy and iron keys (nos 249, possibly 250 from a post-medieval context, 288–9, and possibly 290), a catch plate (no 271) and an iron padlock-case (no 301) are all relevant.

The iron buckle (no 308) and fragment of horseshoe (no 310) suggest the presence of horses. Other day-to-day activities are illustrated by the weaving implements (nos 316–7), spindle whorls (nos 226–7) and copper-alloy pins with twisted heads (nos 232–5). The latter are thought to have been used in woolcards and are common in the Temple area, which was the centre of the medieval and early post-medieval cloth industry in Bristol. They are also relatively late in date and suggest that the retired sailors who are known to have been accommodated at St Bartholomew's from 1445 onwards might have been employed in this activity. More domestic functions are indicated by knives (no 318), whetstones (nos 216–21), the earliest three of which might have been used to sharpen tools for the construction of building 1A, a lamp rim (no 223) and a fragment of mortar (no 224) from the area of the kitchen/hall,

one of which was mentioned in the inventory of 1303. The two fragments of vessel glass (nos 212–13) might not have been used on site, but this is uncertain.

Leisure activities are represented by the bone flute, parchment pricker, and tuning peg (nos 321–3) but all came from dump deposits and might have been brought in with the spoil rather than actually used by the hospital inmates.

The continuing religious nature of the institution is emphasized by the two fragments of statuary (nos 332–3). These had been broken up, probably by iconoclasts during the Reformation or later centuries. The window glass and floor tiles also reflect this religious aspect of hospital life (nos 214–15).

The post-medieval objects are included principally for their intrinsic interest. These include the chimney pieces (nos 330–1) which date to the Grammar School period; a spur (no 276); a seal matrix fragment (no 275) and part of a portable sundial (no 274). Education at one of the schools is represented by a slate pencil and an inscribed slate of the 18th or 19th centuries (nos 229–30). The thimbles, while common, are all of 18th or 19th century date and might have been used in the schools but more probably by women living in the later Poor Law housing (nos 261–4).

Other objects, including the coins, bones, and plant/insect remains, are discussed within their particular sections.

Glass by Les Good (Fig 66)

There was very little early glass from the site and even less which was stratified. The only fragment of a medieval vessel was part of the foot of a goblet from Period 4A (no 212). A relatively unusual find from a Period 5 context in the same area was part of
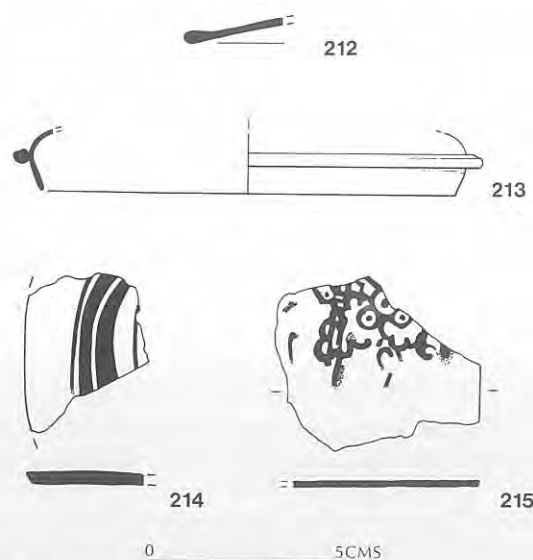
the rim of a lid (no 213). A similarly shaped rim from a larger lid, Small Find 148 (see site archive) was retrieved from a late context in Area A, and a handle from the same area might have come from the same lid (also in the site archive). Because it was recovered from redeposited layers, the vessel glass does not necessarily represent that used on site.

Only a few fragments of window glass were also recovered, two of which (nos 214–15) had parts of geometric patterns painted on the surface. Several sherds were incapable of description or illustration. The dearth of such glass is unexpected, but as the hospital was not destroyed during the Dissolution it is possible that windows were removed carefully when the church was finally demolished, and they might even have been reused. In his will of 1546, Nicholas Thorne left money for reglazing the church (see Chapter 7, p 126).

The later material consisted mainly of 19th-century apothecary bottles and dark green bottle glass, and is not illustrated.

212 Foot fragment of goblet in green decayed glass with heavy, blue-white weathering. Small Find 850. Period 4A. CG G18, context GKG. 15th century.
213 Rim fragment of lid in light-green glass with dark brown, patchy, white weathering. Small Find 1095. Period 5. CG K38, context KGG. 15th–16th century.
214 Fragment of green window-glass with geometric decoration in brown, painted on surface. Small Find 894. Period 4A. CG G17, context GNS. 14th–15th century.
215 Fragment of green window-glass with geometric decoration in yellow-green and brown, painted on surface. Small Find 1150. CG (Post medieval), context GSM. 14th–15th century.

Stone by Les Good (Figs 67 & 68)

The whetstones are typical of the range found in Bristol, including some made of Pennant Sandstone and Norwegian Schist (the latter already on site by the 12th century: no 217). Similar hones and a fragment of limestone lamp comparable to no 223 were found at Mary-le-Port Street in central Bristol (Watts & Rahtz, 1985, 141 & ST 38). Mortars are found regularly on Bristol sites, but not in large numbers. They are usually in Pennant Sandstone but Purbeck Marble ones are also known (Burchill et al, 1987, fig 22, 3; Watts & Rahtz, 1985, ST 37).

According to the inventory of 1303, a mortar was then in use in the kitchen at St Bartholomew's, which is where no 224 was found. The chalk egg is of interest as such objects were commonly used to encourage chickens to lay. There was a large number of chicken bones at the west end of the north aisle of the church during Period 4A, and it is likely that chickens were kept on site. The spindle-whorls are of a common type found on most sites in Bristol and further afield (Watts & Rahtz, 1985, 143; Burchill et al, 1987).

Many of the identifications of the stone are by Roger Clark of the Geology Section, City of Bristol Museum, to whom the author is grateful.

Figure 66 Objects of glass

216 217 218 219 220 221 222 223
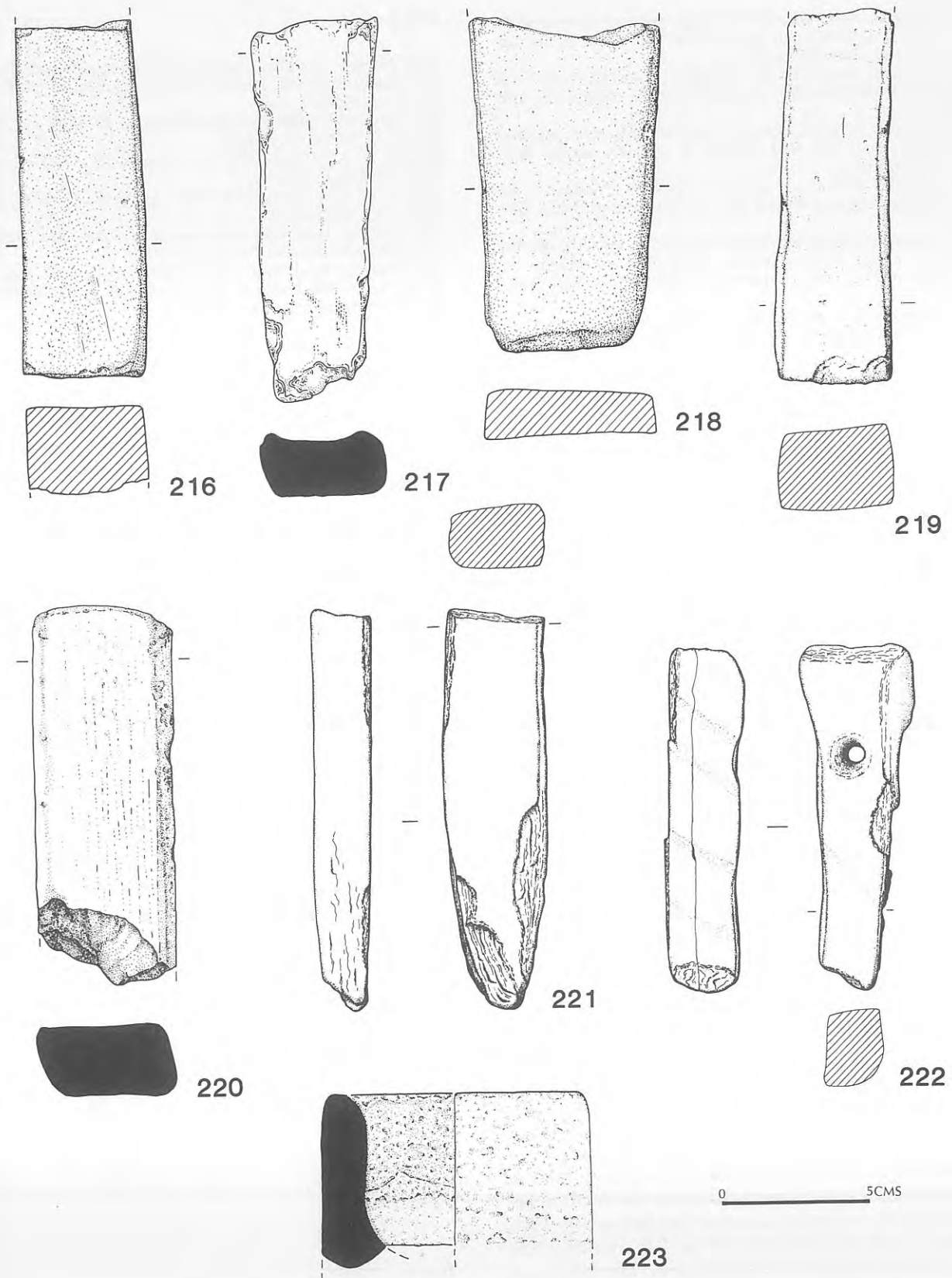
Figure 67   Objects of stone

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Whetstones

216 Fragment, highly polished on three sides. Pennant Sandstone. Small Find 291. Period 2B. CG A5, context QR. 12th century.
217 Fragment, very smooth on three sides. Monominerallic schist from a Scandinavian source. Small Find 335. Period 2B. CG A5, context QO. 12th century.
218 Fragment, smooth on two opposite flat surfaces. Pennant Sandstone. Small Find 323. Period 2B. CG A3, context RN. 12th century.
219 Fragment, polished smooth on all four long sides. Pennant Sandstone. Small Find 929. Period 3B. CG D9, context DLL. 13th–14th century.
220 Fragment, smooth on all four long sides. Pennant Sandstone. Small Find 668. Period 4B. CG D20, context DEQ. 14th century.
221 Fragment, smooth on all four long sides, tapering slightly towards one end. Monominerallic schist from a Scandinavian source. Small Find 1089. Period 4B. CG K38, context KFC. ?14th century
222 Fragment, hole pierced near one end; fairly smooth on all four long sides but particularly on one of non-pierced sides. Monominerallic schist from a Scandinavian source. Small Find 1079. CG (Post medieval), context KDK. Post medieval.

Other objects of stone

223 Fragment of lamp rim, soot stained internally. Probably Middle Jurassic limestone (possibly Doulting or Bath stone). Small Find 495. Period 2B. CG A5, context RO. 12th century.
224 Fragment of mortar rim with rib extending downwards from a short rectangular lug. Tool-marked all over; slightly worn internally towards the bottom. Pennant Sandstone. Small Find 1277. Period 4A. CG K21, context KTX. 14th century.
225 Egg. Chalk or soft limestone. Small Find 933. Period 4A. CG D11, context DLO. 14th century.
226 Spindle-whorl, decorated with lightly incised horizontal lines. Lias limestone. Small Find 927. Period 3B. CG D9, context DLL. ?15th century.
227 Spindle-whorl, undecorated. Very fine-grained, probably ceramic. Small Find 847. Period 4B. CG D17, context DGW. ?15th century.
228 Fragment of worked oolitic limestone, possibly originally cylindrical, with approximately central drilled hole. Small Find 1163. Period 4B. CG K28, context KLW. ?15th century.
229 Fragment of worked oolitic limestone with linear tool marks. Small Find 1204. Period 4B. CG D14, context DML (burial 40). 14th century.
230 Fragment of slate pencil. Small Find 436. CG (Post medieval), context DBX. Post medieval.
231 Fragment of slate, incised with letters A B. Small Find 71. CG (Post medieval), context DG. Post medieval.

Copper alloy by Les Good (Fig 69)

Pins with twisted wire heads are a common find in Bristol and are thought to have been used in carding combs from the 16th century. They are notoriously difficult to date because they are capable of slipping down through stratified layers into medieval contexts. It is uncertain whether the technology was available for their manufacture before the 16th century. Among the buckles, no 241 (found with burial 42) is notable for its plainness. The keys (nos 249–50) and catch plate (no 271) might have been used in lockers belonging to the inmates (information from G Egan, MOLAS). Medieval buttons are rare on Bristol sites, but two from St Bartholomew's

appear to be of that period. The thimbles are all of 18th or 19th-century date.

Pins

232 Twisted wire head; one of five similar pins from this context. Small Find 860. Period 4B. CG G22, context GLK (burial 24). 15th–16th century.
233 As no 232. Small Find 890. Period 4B. CG G22, context GLZ (burial X). 15th–16th century.
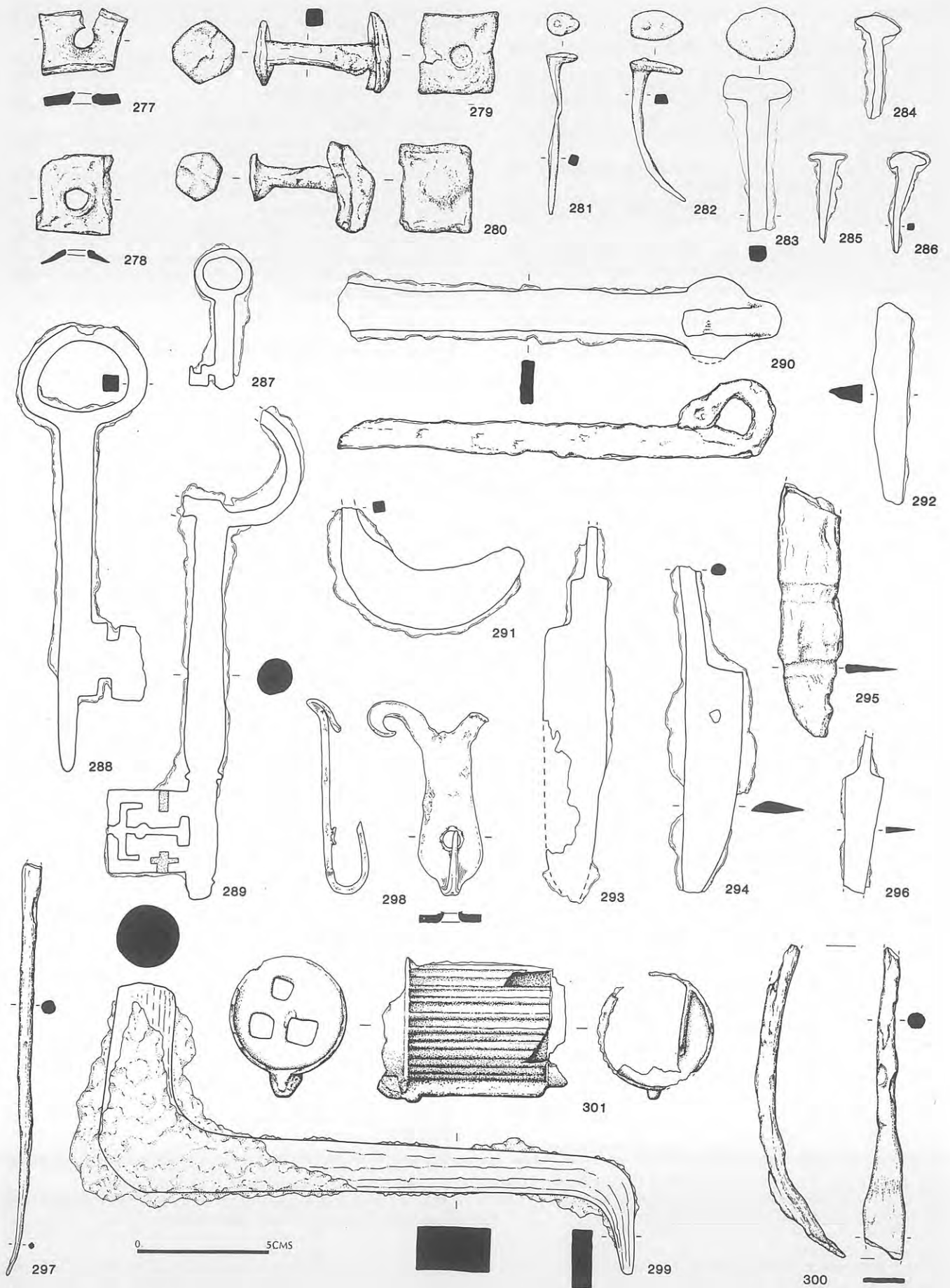**234** As no 232. Small Find 1174. Period 4B. CG K31, context KLH. 15th–16th century.
235 As no 232. Small Find 1167. Period 4B. CG K37, context KLO. 15th–16th century.
236 Globular head with lead core. Small Find 1132. Period 4B. CG K32, context KJN. 15th–16th century.
237 Globular head. Small Find 1269. Period 5. CG D20, layer DDN. ?14th–15th century. Another example from CG (Post medieval), context MAA. ?Post medieval.

Buckles

238 Copper with gilt frame and plate, iron pin. Plate secured by single rivet. Similar to some 14th-century examples from Winchester (Hinton, 1990, 517–19, fig 131). Small Find 1248. Period 4A. CG K20, context KSA. 14th century.
239 Fragment; surviving part has a bar with what would originally have been a revolving cylinder around it; now corroded together. Similar to an example from Exeter (Goodall, 1984, 339–40, fig 190 no 86). Small Find 741. Period 4B. CG D18, context DHH. Late 14th century.
240 Plain annular frame with elliptical cross- section. Pin decorated with raised ribbing. Similar example found at Winchester dated to the late 14th/mid 15th century (Hinton, 1990, 524, no 1245). Small Find 1176. Period 4B. CG K30, context KNN. 14th–15th century.
241 Belt buckle and buckle-plate with part of leather belt still attached. Square buckle with central pin-bar and iron pin. Plate made from folded sheet, secured by two iron rivets. Small Find 1172. Period 4B. CG G22, context GTA (burial 42). Late 14th–15th century.
242 Shoe buckle; slightly curved rectangular frame with iron central pin-bar; securing buckle has the letters 'CT' cast in sunken relief on back. Small Find 1258. CG (Post medieval), context EAA. Post medieval.
243 Shoe buckle; simply decorated; curved, sub-rectangular frame with holes for central pin-bar. Small Find 689. CG (Post medieval), context GDY. Post medieval.

Rings

244 Plain with circular cross-section. Small Find 991. Period 4A. CG G10, context GQW. 14th century.
245 Plain with circular cross-section. Small Find 197. Period 4B. CG A12, context KF. 14th–15th century.
246 Plain with elliptical cross-section. Small Find 1063. Period 5. CG K38, context KEM. c 1425–50?
247 Wire loop formed by twisting ends together; now broken. Small Find 1105. Period 4B. CG K37, context KGT. 15th–16th century.
248 Finger ring with raised circular setting, holding stone of blue glass. Small Find 162. CG (Post medieval), context GV. Post medieval.

Keys

249 Pointed stem extending beyond the bit and circular bow. Small Find 201. Period 4A. CG G10, context LD. 14th century.
250 Hollow stem and circular bow. Small Find 562. CG (Post medieval), context DDV. Post medieval.
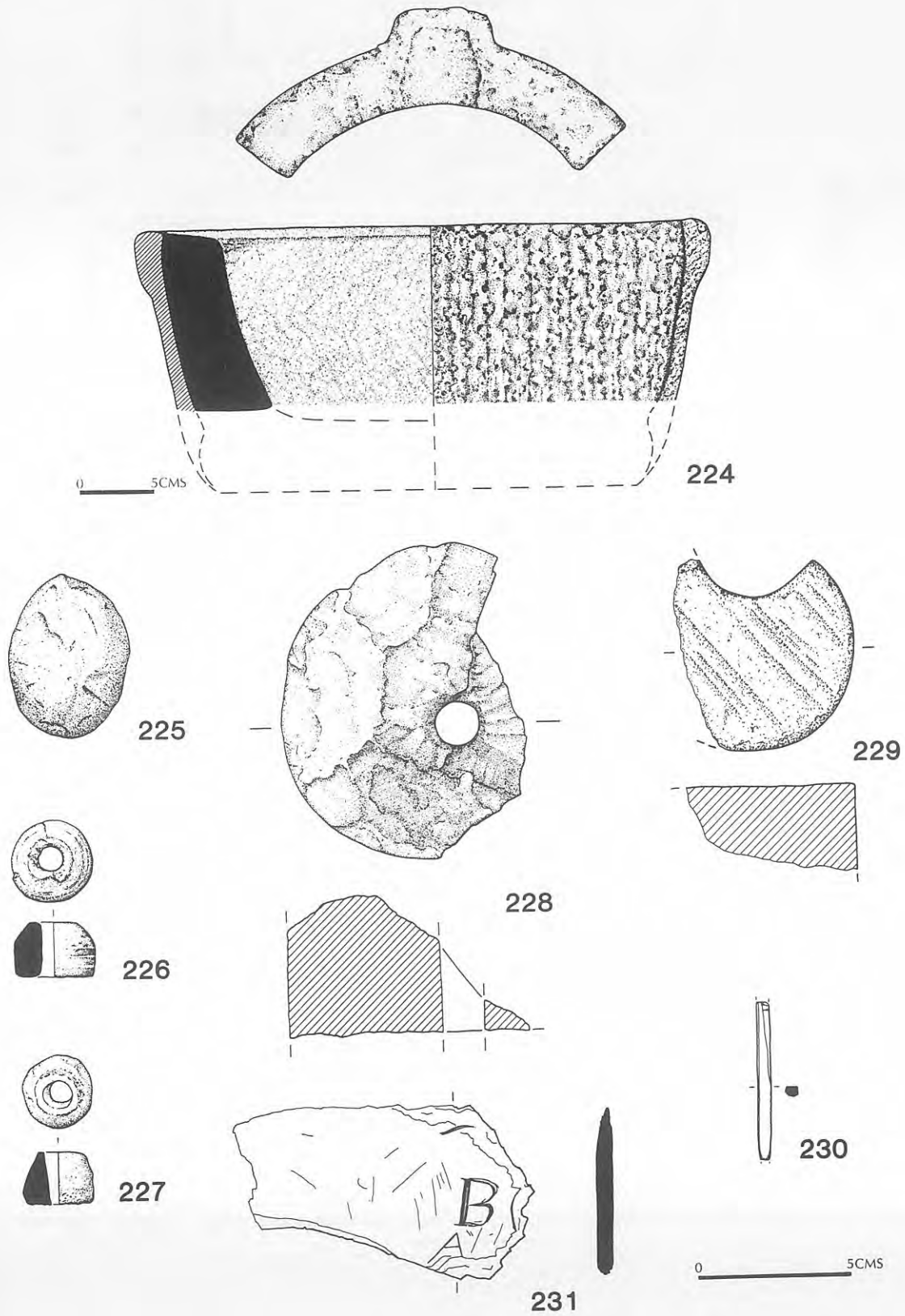
Figure 68 Objects of stone
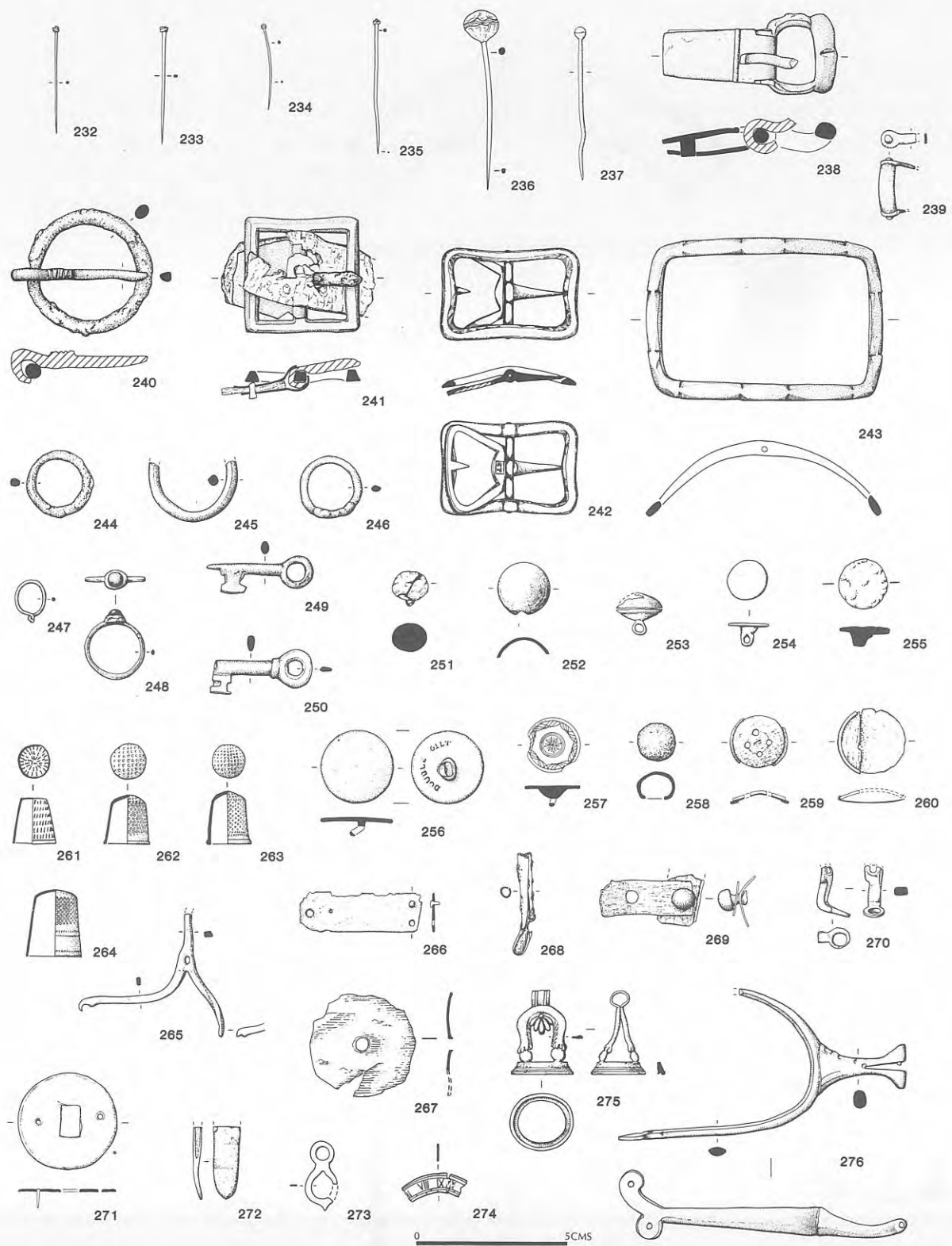
Figure 69   Objects of copper alloy

Buttons

251 Looped shank. Small Find 731. Period 4B. CG D19, context DGO. Late 14th century.
252 ?Half of copper-alloy spheroidal button, as no 253. Small Find 741. Period 4B. CG D18, context DHH. 15th–16th century.
253 Spheroidal, made from two domed discs joined together; looped shank. Small Find 305. CG (Post medieval), context DAC. Post medieval.
254 Gun metal; plain thin disc, looped shank. Small Find 18. CG (Post medieval), context AV. Post medieval.
255 Gun metal; plain thin disc, probably looped shank. Heavily corroded. Small Find 5. CG (Post medieval), context AG. Post medieval.
256 Yellow metal, plated on rear. Flat disc with plain upper surface, inscribed 'DOUBLE GILT' on back; looped shank; bent. Small Find 1273. CG (Post medieval), context EAA. Post medieval.
257 Thin disc with intricate incised decoration of central, encircled, floriate design surrounded by interlaced pattern around edge; looped shank. Small Find 586. CG (Post medieval), context GAN. Post medieval.
258 Hollow knob, possibly a button with shank missing. Small Find 564. CG (Post medieval), context GAN. Post medieval.
259 Part of button made from two slightly domed discs (one of gilt copper alloy, one of bone) joined together. Bone half has four holes for attachment. Small Find 551. CG (Post medieval), context GAQ. Post medieval.
260 Part of button made from two slightly domed discs (one of copper alloy, one of bone) joined together. Small Find 576. CG (Post medieval), context GBB. Post medieval.

Thimbles

261 Flat dome and body appear to have been made separately from flat sheets, then joined. Indentations elongated, in a series of horizontal bands around the body; spiral pattern on the dome. Small Find 177. CG (Post medieval), context JE. Post medieval.
262 Cast. Uniform pattern of closely spaced, circular indentations around the body; larger, diamond-shaped indentations on the dome, also in a uniform pattern. Small Find 574. CG (Post medieval), context GBB. Post medieval.
263 Very similar to no 262, but slightly larger. Small Find 1145. CG (Post medieval), context GRV. 19th century.
264 Dome and the body made separately from flat sheets, then joined. Pattern of indentations on dome not visible because of corrosion; top half of the body has a uniform pattern of closely spaced, circular indentations. Single line of circular indentations, with line of closely spaced, angled, elongated indentations alongside, runs around middle of the body; similar pair of lines runs around the bottom. Small Find 1142. CG (Post medieval), context GRV. 19th century.

Other objects of copper alloy

265 Mount. Bifurcated strip with attachment hole at the fork. The two longer arms are curved (one bent out of shape) and end in (broken) attachment holes, or possibly hooks. Small Find 871. Period 4B. CG D16, layer DKE. CG D16. 14th century.
266 Plate with iron rivets. Small Find 741. Period 4B. CG D18, context DHH. Late 14th century.
267 Disc with central hole. Small Find 648. Period 4B. CG D19, context DEV. 14th century.
268 Tubular tag, slightly tapered. Small Find 673. Period 4B. CG D20, context DFC. 14th century.
269 Two strips joined by a rivet with a large globular head; additional rivet holes in one of the strips. Small Find 193. Period 4B. CG A12, context KB. 14th–15th century.
270 Fitting with right-angled bend near one end; fairly large hole at the end near the bend; broken at the other end across another hole. There is the beginning of a bend at this position, which might have been the cause of, or a result of, the break. Small Find 119. Period 4B. CG K37, context KHX. 15th–16th century.

271 Catch plate. Circular with rectangular central hole and two holes with copper-alloy tacks. Small Find 1171. Period 4B. CG K31, context KMR. 15th–16th century.
272 Strap end. Split-end type, but with no sign of rivets. Traces of ?leather still *in situ*. Small Find 591. CG (Post medieval), context DDT. Post medieval.
273 Fitting roughly in form of a figure of eight. Small Find 25. CG (Post medieval), context AQ. Post medieval.
274 Part of face of a portable sundial. Small Find 157. CG (Post medieval), context GG. Post medieval.
275 Gilded ?handle from seal matrix. Highly decorated, with loop at top for suspension. Small Find 518. CG (Post medieval), context GAQ. Post medieval.
276 Brass rowel spur (rowel missing). Straight arms with angled terminals as an elongated figure eight. Short, slightly curved shank with rowel-box commencing approximately halfway along. Small Find 891. CG (Post medieval), context GAM. Probably 19th century.

Iron by Les Good (Figs 70 & 71)

Large numbers of iron nails were found, but many have now fragmented owing to poor storage conditions. Only those with an obvious function or unusual form are illustrated in this report.

The roves and nails were found on the river bank from Period 1 onwards, and presumably came from boats being built, repaired, or broken up on the bank. The coffin nails were usually of the non-headed type (nos 284–6). The smallest key (no 287) might have belonged with the copper-alloy ones, but the larger examples, and the padlock key, barrel padlock, and hasp (nos 290, 301 & 303) recall the emphasis on locks and keys in the 1303 inventory (see Chapter 5). The iron stylus (no 297) was from a pre-building phase and could have come from elsewhere. Another possible stylus (no 302) was from the kitchen area of building 2A. No 291 might have been a small pruning hook. The buckles (nos 307–8) might have come from horse harness and are associated with the fragment of horse-shoe and the possible stirrups (no 300).

Nails and roves

277 Rectangular rove. Small Find 787. Period 1. CG D2, context DJA. Early 12th century.
278 Square rove. Small Find 446. Period 1. CG A1, context SP. Late 12th century.
279 Roughly square-headed iron bolt with large square rove attached. Small Find 284. Period 2B. CG A5, context QM. 12th–13th century.
280 Nail with rectangular rove attached. Small Find 632. CG (Post medieval), context DES. Post medieval. Similar examples of nails and roves were found in Period 1 (CG A1, context SH) and Period 2B (CG A3, context RC).
281 Nail with unusual oval head; square shank attached at broad end of oval. Small Find 394. Period 2A. CG A2, context RS. Late 12th century.
282 Nail with unusual head in the shape of a pointed oval; shank square and attached at the broad end. Small Find 735. Period 2A. CG D7, context DGD. Late 12th century.
283 One of two coffin nails. Small Find 453. Period 4B. CG D14, context DCZ (burial 4). 15th–16th century.
284 One of four coffin nails. Small Find 796. Period 4B. CG G22, context GHC (burial 12). 15th–16th century.
285 One of ten coffin nails. Small Find 814. Period 4B. CG G22, context GHL (burial 13). 15th–16th century.
286 Coffin nail. Small Find 1219. Period 4B. CG G22, context GSY (burial 41). 15th–16th century.

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Figure 70   Objects of iron
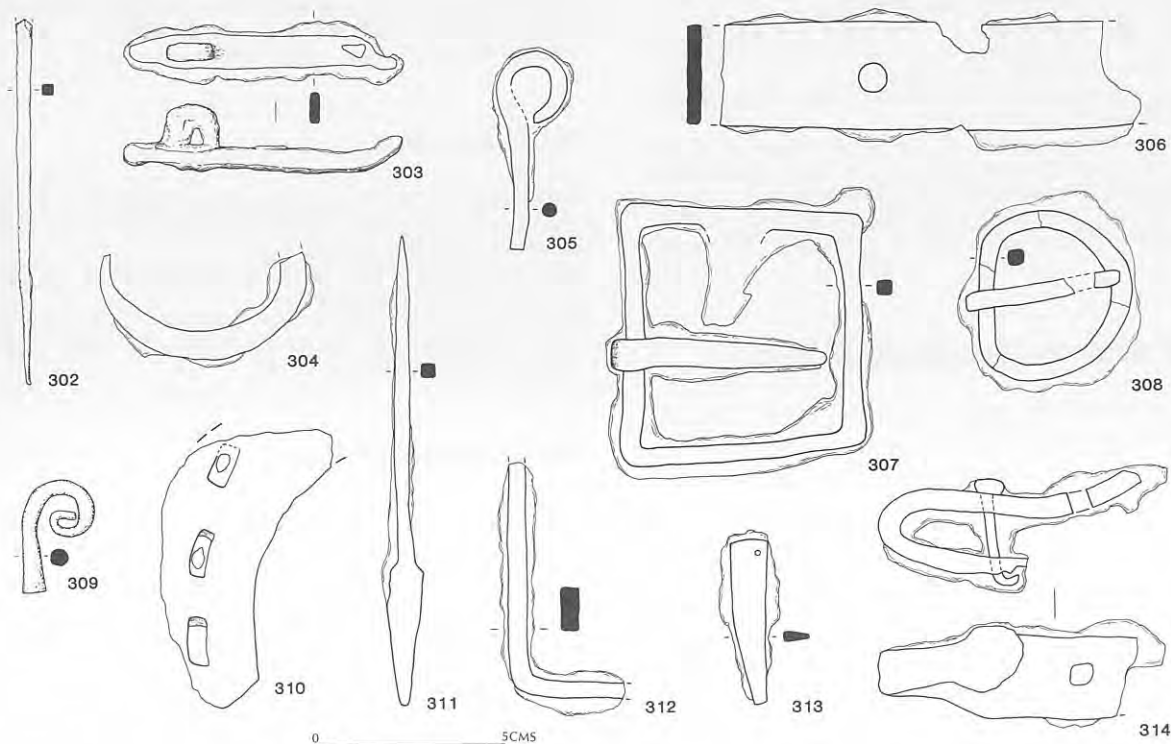
Figure 71 Objects of iron

Keys

287 Bow almost circular; hollow stem and possibly channelled bit. Small Find 678. Period 4B. CG D20, context FDD. 15th–16th century.
288 Bow D-shaped; shank extending beyond the bit and tapering; bit not quite symmetrical. Small Find 597. Period 4B. CG D20, context DEQ. 15th–16th century.
289. Bow kidney-shaped; shank circular with ridge just before the symmetrical bit. Small Find 89. CG (Post medieval), context DG. Post medieval.
290 ?Padlock key with bit missing; wide stem with scrolled terminal. Small Find
590 CG (Post medieval), context DDT. Post medieval (?16th century).

Blades

291 Crescent-shaped object, flat in cross-section, possibly a blade. Narrows and thickens at one end, probably to a handle. Small Find 1336. Period 3B. CG K7, context KYK. 13th–14th century.
292 ?Knife fragment; blade and tang both triangular in cross-section. Small Find 1165. Period 4B. CG K34, context KKB. ?15th–16th century.
293 Knife with circular cross-sectioned tang and bolster. Small Find 199. Period 4B. CG A12, context KF. 15th–16th century.
294 Most of one arm of a pair of shears. Small Find 1083. Period 4B. CG K38, context KEP. ?15th–16th century.
295 Blade, probably from a pair of shears. Small Find 590. CG (Post medieval), context DDT. Post medieval (?16th century).
296 Knife blade. Small Find 534. CG (Post medieval), context DDO. Post medieval (?16th century).

Other objects of iron

297 Stylus, broken at flattened end. Small Find 444. Period 1. CG A1, context SP. Late 12th century.
298 Flat plate with hook on one end; decoratively forked at opposite end. Single nail (or rivet) hole near hook end. Small Find 358. Period 1. CG A1, context SB. Late 12th century.
299 Pintle from doorway through W66. Shank rectangular in cross-section with down-turned end; guide-arm in cross-section. Small Find 1352. Period 2A. CG G1, context GQV. 12th–13th century.
300 Curved object; circular cross-section, widening and flattening out at one end. Both ends broken. Possibly a stirrup fragment. Small Find 309. Period 2B. CG A3, context RC. 12th–13th century. (Other similar fragments found in same context: Small Find 324).
301 Barrel padlock-case, externally ridged. One end plate has three bolt holes; key-hole end plate damaged. Small Find 276. Period 3B. CG A7, context PP. 13th–14th century.
302 Pointed end of large iron pin; possibly a stylus/needle; square cross-section. Small Find 1317. Period 3B. CG K4, context KYG. ?13th–14th century.
303 Stapled hasp; broken at loop end attachment to hinge. Small Find 885. Period 4A. CG D11, context DKT. 14th century.
304 Part of iron hook. Small Find 757. Period 4A. CG G17, context GHP. ?14th century.
305 Object, circular in cross-section, looped at one end. Small Find 739. Period 4A. CG G18, context GFS. ?14th century.
306 Bar with holes for rivets or bolts; now fragmented. Small Find 1253. Period 4A. CG K18, context KSW. ?14th century.
307 Square buckle with remains of central bar; pin attached to one end of frame. Small Find 1223. Period 4A. CG K24, context KQY. 14th century.
308 Buckle with D-shaped frame; pin attached; now fragmented. Small Find 782. Period 4B. CG D17, context DJM. ?15th century.
309 Hooked object, possibly a handle. Small Find 857. Period 4B. CG D18, context DKE. ?15th century.

310 Horseshoe fragment with three nail holes. Small Find 678. Period 4B. CG D20, context DFD. ?15th century.
311 Shaft with flattened flange narrowing to a point at one end; other end broken. Shaft appears twisted. Small Find 198. Period 4B. G A12, context KF. 15th–16th century.
312 Bar bent at a right angle. Small Find 1165. Period 4B. CG K34, context KKB. ?15th–16th century.
313 Part of flat object, tapering at one end. X-radiograph shows what might be a small hole near one corner. Small Find 1153. Period 4B. CG K37, context KJV. ?15th–16th century.
314 Plate, narrow at one end where folded over and rivetted. Small Find 1130. CG (Post medieval), context KHE. Post medieval.

Worked bone by Les Good (Fig 72)

As all these artefacts were recovered from dumped deposits of debris they might not have been used by the inmates of St Bartholomew's, but this remains uncertain.

Weaving tools

315 Implement sharpened to a point at one end, flat at the other (broken). Probably a weaving tool. Small Find 997. Period 4A. CG G10, context GQW. 14th century.
316 Implement with circular eye (unworn); shaft oval, splayed out and flatter at the head end, trimmed to a point at the opposite end. Compare with examples from Winchester (Keene, 1990, 232–3). Small Find 733. Period 4B. CG D19, context DGM. 15th–16th century.

317 Head end of implement with circular eye (unworn); shaft oval, splaying out and trimmed flat at one end. Compare with examples from Winchester (Keene, 1990, 232–3). Small Find 196. CG (Post medieval), context JV. Post medieval.

Knife Handles

318 Remains of iron tang and one bone scale; traces of copper-alloy band at shoulder. Small Find 1076. Period 4B. CG K38, context KFC. ?15th–16th century.
319 Iron tang with bone scales. Small Find 83. CG (post medieval), context DG. Post medieval.
320 Circular cross-section with decorative knob at end; iron band round shoulder. Small Find 1024. CG (Post medieval), context KBW. Post medieval.

Other objects of bone

321 Part of flute pipe made from goose bone; one end broken off across one of the three holes. Small Find 222. Period 4A. CG A10, context MT. 14th century.
322 Part of turned bone parchment-pricker; shaft decorated with incised rings; head spherical. Compare with examples from Winchester dated to the 16th century (Biddle & Brown, 1990, 743, fig 211, no 2287) and from Southampton dated to 1250–1300 (Harvey, 1975, 271, fig 247, no 1928). Small Find 1151. Period 4A. CG G10, context GSV. 14th–15th century.
323 Object with knife-trimmed, cylindrical shaft and one squared end. The opposite end is cut and has a slight groove across it, hollowed from both sides. The tool marks suggest that this might have been a hole in a tuning peg of slightly greater length than Lawson type A (Lawson, 1990, 712–13). Such an
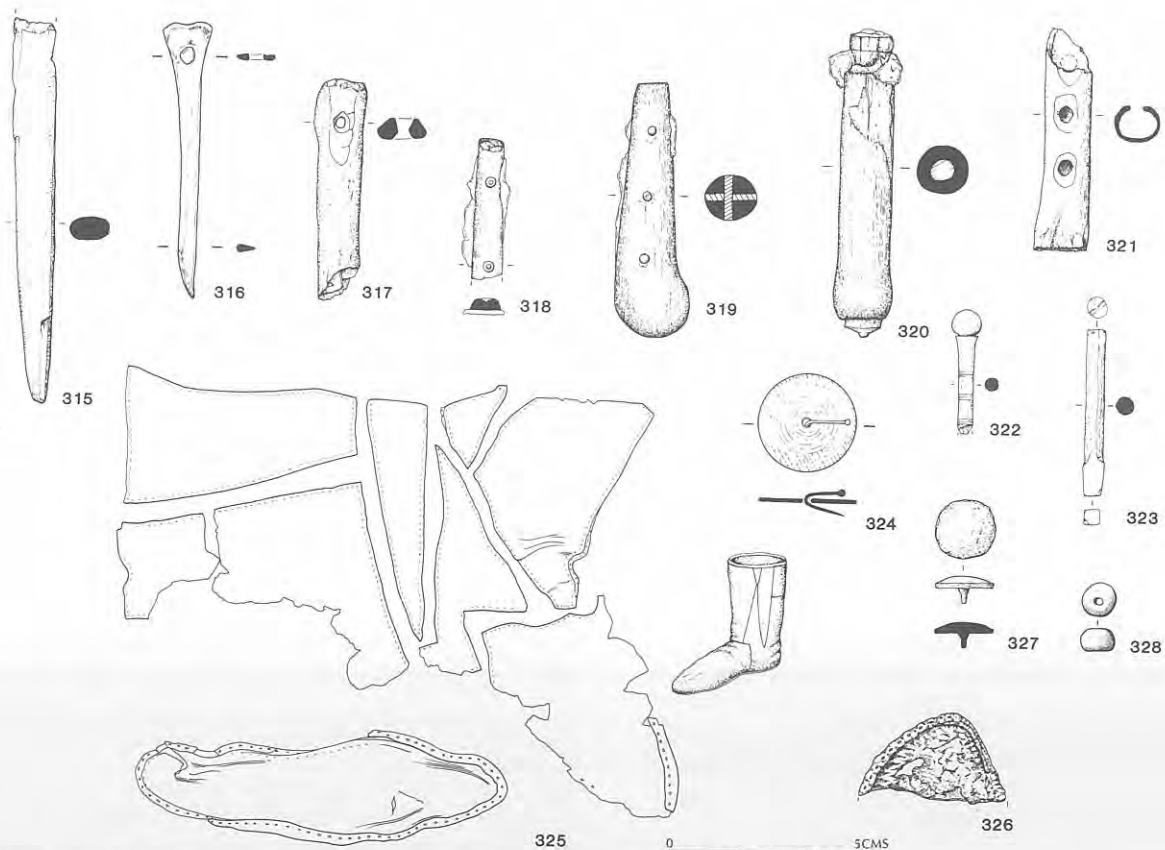
Figure 72   Objects of worked bone, leather, pewter, and jet

object might have been broken and re-cut, but found to be too short and discarded. Small Find 135. Period 5. CG A13, context FK. 15th–16th century.

324 Disc with central hole; bent copper-alloy, round-headed pin (now fragmented) passing through hole. Small Find 610. CG (Post medieval), context GBB. Post medieval.

Leather by Les Good (Fig 72)

Most fragments found were merely scraps, but two identifiable pieces were recovered.

325 Almost complete leather boot of turnshoe construction. The upper was made from six (or possibly seven) parts joined together by butted seams of edge/flesh stitch-holes with a stitch length of 2–3mm. A row of generally grain/flesh stitch holes, mostly 3–4mm apart, around the top of the boot show where a top band (missing) was attached. The lasting margin survives only over a short length at the toe end of the vamp. The sole is shaped for a right foot and has an edge/flesh lasting seam with a stitch-length of 4–5mm. It was separated from the upper by a rand, most of which survives. The boot is approximately a modern child size 10 or 11 in its conserved state and would originally have been about a child size 12 or 13 (allowing about 10% for shrinkage in the ground and during conservation). It is of a simple pull-on type, without any means of fastening, and the top would have been above the ankle. Small Find 297. Period 2B. CG A5, context RO (Pl 10). Late 12th century.

326 Fragment, probably the cut toe-end of a turnshoe sole. Edge-flesh lasting seam, stitch-length c 5mm. Hole worn right through by usage. Small Find 669. Period 2A. CG D2, context DER. Late 12th century.

Other materials by Les Good (Fig 72)

327 Pewter button; plain domed circle; shank broken. Small Find 526. Period 4A. CG D13, context DDP. 13th–14th century.
328 Jet bead. Small Find 592. Period 4B. CG D20, context DEQ. 14th–15th century.

Architectural stonework by John Bryant (Fig 73)

Most of the stonework consists of squared and plain blocks from the doorways of building 2B and a full report is available in the site archive (p 8). It is all probably of the local Dundry oolitic limestone. Some was found embedded within later walls, which was not unusual, as discovered for example during the restoration of St Mark's (Barker, 1892, 131–3).
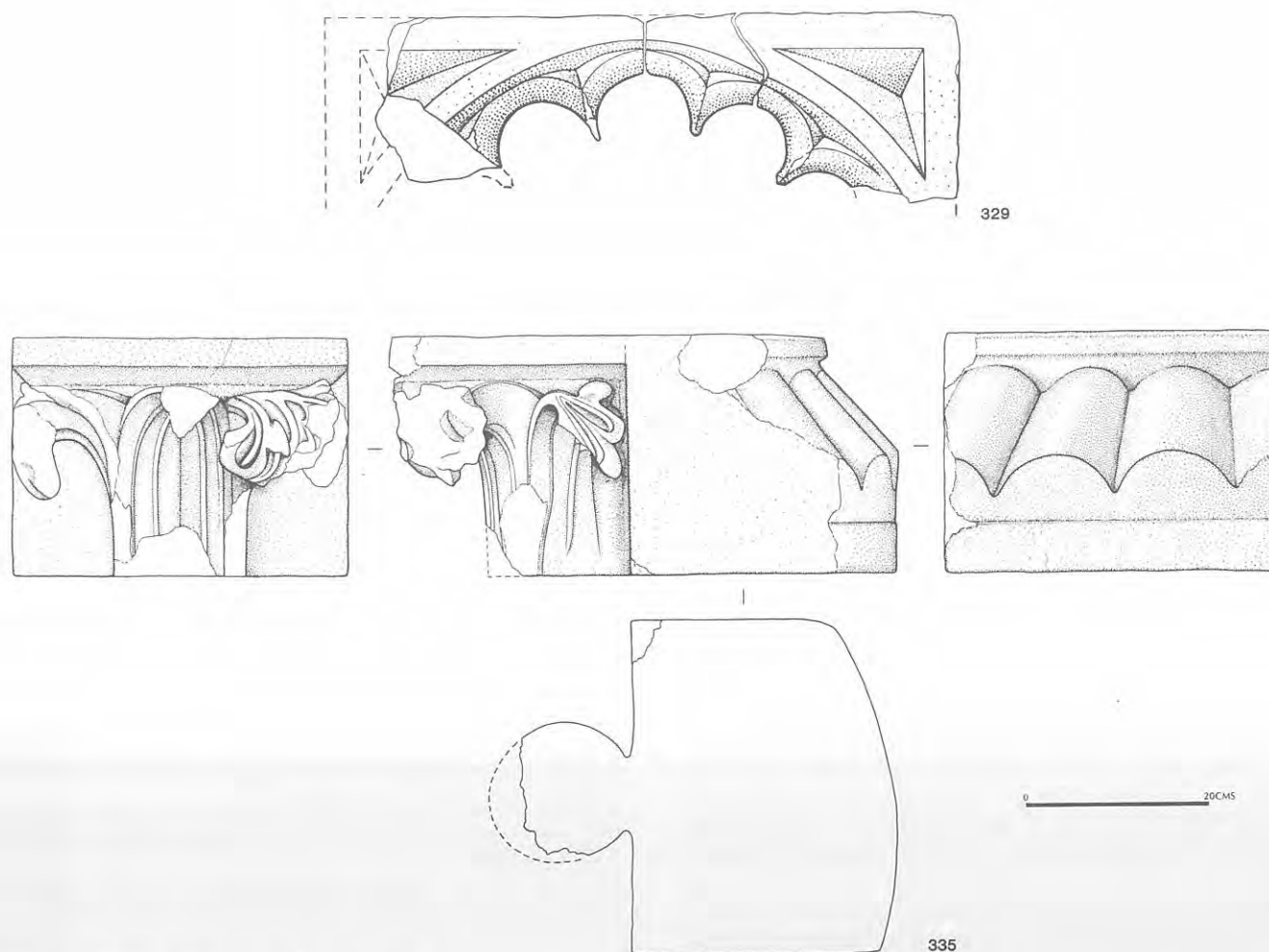
Figure 73   Architectural stonework

Window heads

329 Head reconstructed from several pieces. All are fragments of cinquefoil lights in squared heads, with hollow chamfers and chamfer cusps. The spandrels and cusp rears are hollowed. Small Finds 1369, 1370 & 1373–5. Context: from blocking around column 1, Wall 28. 15th century.

Chimney pieces

330 Fragment of lintel with the ends missing. Ovolo and hollow chamfer mouldings, with painted decoration of flowing black lines on a white or cream base applied to the ovolo only. One panel within the lines is painted red. Similar moulding and decoration to no 331. Part of a blocked surviving fireplace in W9 (R8) and used in its infill. Small Find 1367. Late 16th or 17th century (not illustrated).
331 Right-hand end of lintel, broken off roughly in line with inside edges of jamb. Similar to no 330, with same mouldings and decorations. Small Find 1384 (not illustrated).

Carved figures

332 Fragment of carved figure with draped skirts or robes. Found in demolition rubble over W66 (east end of the hall/church). CG G10, context GQX. ?13th century (not illustrated).
333 Base of statue in low relief; draped skirts or robes, painted brown, with hint of red below brown in places. Bottom of carving angled upwards towards front. Found with fragment of plaster repair (painted). Small Find 1091. CG (Medieval). Found in discarded material excavated in the south-east corner of Area K above W107, and probably from the demolition of an earlier building. ?13th–14th century (not illustrated).

Miscellaneous

334 Rectangular block; only one long side surviving, with a rounded edge. Nine holes, each 25mm diameter, cut through block in square pattern. Last used to seal vertical end of D48 in building 2B and holes might date from re-use. Small Find 1357. Period 4B. CG K27, context KLG. ?15th–16th century (not illustrated).
335 Capital with Romanesque scallops on one side; inverted & recarved on the other side to form an Early English capital. The decoration of the latter consists of formalized, stiff-leaf foliage separated by a plantain leaf. This block might have been used first in the arcade of the original building 1A, but that cannot be proven. The diameter would have been approximately 840mm and similar to the surviving capitals on columns 1 and 2. The recarving probably took place in the mid/late 13th century. Found during the 1980s redevelopment programme, but no further details are available. Owned by Bristol Municipal Charities.

Coins and tokens by David Dawson

In total, 28 coins were identified. The sequence is not atypical of Bristol sites, except for the absence of lead jettons. None of the coins is illustrated.

The presence of two Roman coins (nos 7 & 23) does not indicate occupation of the site in the 3rd/4th centuries as they were probably brought in from outside, and there were no other Roman finds. A settlement of that period was excavated on the site of the adjacent Franciscan friary (Ponsford, 1975).

The three longcross cut-pennies of Henry III (nos 8–10) appear to be a small hoard. The 14th century is well represented by Edwardian pennies and halfpennies (nos 4, 6, 11, 12 & 24), all except no 4 being associated with excavated contexts of that period. Three of those were minted in London, and no 24 in Berwick, but the origin of no 4 cannot be identified.

The occurrence of late-medieval coins and jettons from elsewhere in Europe is a common feature of assemblages from excavations in Bristol. At St Bartholomew's were found four Nuremberg jettons, all variants of the common rose/orb type (nos 5, 25–6 & 28) and a billon real de 10 reais brancos of Joao I of Portugal (no 27). Portugal was a major trading partner of the city and no less than 17 coins of his reign are recorded among the 51 Portuguese pieces from the Floating Harbour (Du Quesne-Bird, 1970). It is possible that the example from St Bartholomew's was a keepsake belonging to one of the mariners who lived at the hospital from 1445 onwards.

The post-medieval coins are commonplace small change (nos 1, 14–19, 21–2) and include a Bristol farthing of 1662 (no 13).

Catalogue

Area A

Post medieval

1 Charles II, copper farthing, 1679. Small Find 708. Context AA.
2 Corroded copper flan, two-thirds missing. Small Find 8. Context AN.
3 Copper flan, oval 17–15mm, apparently plain. Context JE.
4 Halfpenny, longcross type, 14th–15th century. Small Find 182. Context JE.
5 Nuremberg jetton, rose/orb type with crown i.m., 26mm: obv NEB/rev BONE (cf Mitchener, 1988, 1248), early 16th century. Small Find 181. Context JE.

Area D

Period 3B: CG D10

6 Edward I–II, penny, probably class X(e)(1302–10), of London. Small Find 1232. Context DMV.

Period 4A: CG D14

7 Claudius II Gothicus (268–70), antoninianus, ANNONA AUG, (RIC 139). Small Find 893. Context DLC.

Period 4A: CG D17

8 Henry III, cut halfpenny, longcross class 3c (1248–50): rev NW – H/ME. Small Find 756/1. Context DHZ.
9 Henry III, cut farthing, longcross class 4 or 5 (1250–72): rev NIC (probably Nicole of Canterbury or London). Small Find 756/2. Context DHZ.
10 Henry III, cut farthing, longcross type (1247–72), clipped almost to the inner annular. Small Find 756/3. Context DHZ.

Period 4A: CG D18

11 Edward II, penny, class XV(a) of London. Small Find 736. Context DHJ.

Period 4A, CG D20

12 Edward III ?, halfpenny of London; too worn to type. Small Find 624. Context DEN.

Post medieval

13 Bristol farthing, 1662. Small Find 374. Context DBE.
14 Worn copper flan, possibly halfpenny of George II. Small Find 386/1. Context DAM.
15 George II, halfpenny, date worn. Small Find 386/2. Context DAM.

Area E

Post medieval

16 George III, halfpenny, first issue, 1774. Small Find 1260. Context EAA.

Area G

Post medieval

17 Napoleon III, ten centimes, 1853. Small Find 502. Context GAG.
18 George III, halfpenny, first issue 1770; worn. Small Find 585. Context GAN.
19 George V, penny, 1916. Small Find 588. Context GAX.
20 Plain bronze flan, ?post medieval, 24mm. Small Find 826. Context GAX.
21 George III, halfpenny, first issue, 1773. Small Find 634. Context GBB.
22 George III, halfpenny, first issue (1770–5); very worn. Small Find 575. Context GBB.

Area K

Period 1

23 Roman AE 3, Constantinian URBS ROMA type (330–5), TRP of Trier. Small Find 1327. Context: Area K spoil.

Period 4B: CG K30

24 Edward I, penny, Berwick class II(a) (1297–8). Small Find 1184. Context KOC.

Period 5: CG K38

25 Nuremberg jetton, rose/orb type by Hans Krauwinckel II (fl.1586–1635), 21mm: rev GOTES SEGEN M .... REICH (cf Mitchener, 1988, 1553). One third of flan missing. Small Find 1041. Context KDK.

Post medieval

27 Joao I of Portugal, 1385–1433, real de 10 reais brancos, mint mark L. Small Find 1026. Context KAC.
28 Nuremberg jetton, rose/orb type with i.m. crown, 26mm. (early 16th century): obv ONOB/rev OBEBO (cf Mitchener, 1988, 1268). Small Find 996. Context KBA.

Human bone by Gillian Stroud

The human skeletal remains found during excavations at St Bartholomew's Hospital, Bristol, consisted of both discrete inhumations and disarticulated bone recovered from various contexts on the site. On the whole, bone preservation was good, with very little surface damage from chemical or root action, although there was considerable fragmentation of some skeletons.

The burials were examined in the laboratory for details of sex, age, and stature, for dental and skeletal anomalies, and pathology. Both metrical and non-metrical data were recorded where possible, although the small number of individuals present did not warrant much analysis of these data. The details of sex, age, and stature given below relate only to discrete inhumations, whereas the discussions of developmental anomalies, dental and skeletal pathology include some specimens from the disarticulated material.

Records of the burials, by individual, are kept in the original site archive, together with a detailed account of the methodology used. Lists of miscellaneous disarticulated bone, not all of which was examined by the author, are also kept in the archive.

Number of individuals

A total of 45 burials had been recorded archaeologically. On examination, a number of these were found not to contain an articulated burial but rather to consist of disarticulated bone, so reducing the number of discrete inhumations to 30. Only six of these were more than two-thirds complete. A brief summary of the inhumations is listed in Table 10.

The bone from the remaining (disarticulated) burials, together with other miscellaneous bone from the site, recorded in Bristol and therefore not examined by the author, represented a minimum number of sixteen adults and five subadults. Given the incompleteness and disturbed state of the majority of the articulated skeletons however, it could not be demonstrated from the bones themselves that the miscellaneous material derived from any additional adult inhumations, although several probably did. The disarticulated subadult bone represented additionally an infant, a child about two years old, and a child of six–seven years of age. The final minimum number of individuals from the site was therefore 26 adults and 7 subadults.

Table 10: Human burials: summary of discrete inhumations

Burial No	Sex	Age	Stature
1	M	25–35	?
2	F	45+	?
3	M	45+	1.75m
4	?	14–16	?
7	M	45+	1.64m
9	F	35–45	1.56m
10	F?	Adult	1.51m
12	F	45+	?
13	M	25–35	1.76m
15/16	?	4–5	?
17	?	Adult	?
19	M	45+	1.65m
20	M?	Adult	?
21	F?	Adult	1.56m
24	F	45+	1.58m
25	M?	Adult	1.73m
26	?	10–15	?
27	F?	Adult	?
29	M?	Adult	1.58m
30	M?	16–18	?
31	F?	Adult	?
32	F?	Adult	?
33	?	Adult	?
34	F?	Adult	?
35	?	Adult	?
40	M	45+	?
41	F?	45+	1.58m
42	M	45+	1.70m
43	M	45+	1.75m
44	?	6–7	?

Sex

Assessment of sex was attempted for the adult skeletons only, due to the unreliability of sexing criteria for subadults. Both pelvic and cranial morphology were considered when sexing adults, with greater weight given to the former. Owing to the incompleteness of many of the skeletons, sexing in some cases was based on one or two bone measurements only and recorded as possibly male (male?) or possibly female (female?). The results were:

Sex	Number
Male	8
Male?	4
Female	4
Female?	7
Adult unsexed	3
Subadult unsexed	4

Very little can be said about these results owing to the low numbers involved. However, it is worth noting that the number of both sexes was virtually equal, especially in view of the history of the hospital with its expulsion of men for nearly 50 years in the 14th century (although this probably applied to the administrators rather than the inmates) and its use as accommodation for twelve poor mariners and their priest after 1445 (see Chapter 6).

Age

Age at death for subadult skeletons can be estimated with reasonable accuracy, using the state of eruption of the teeth and of the epiphyseal fusion (Ubelaker, 1978; Gray's Anatomy, 1980). However, estimates are considerably less reliable for adults. In this group the fragmentary nature of many of the skeletons meant that almost half the adults could not have an age assigned to them. Where preservation permitted, dental attrition (Brothwell, 1981) and the appearance of the pubic symphysis (Meindl *et al*, 1985) were given preference in estimating age at death for adults. The results of age estimates are shown below, divided into ten-year groupings (apart from the first five years of life):

Age at Death	Number
0–5	1
5–15	3
15–25	1
25–35	2
35–45	1
45+	10
Adult	12

Although the very low number of ageable adults may be biasing the results to some degree, the distribution of ages at death shown above contrasts with many skeletal groups, in that there were very few children and the majority of ageable adults were over 45 years old at death.

The presence in the disarticulated material of numerous arthritic bones and of jaws with severely worn teeth, reinforced the general impression of a group of older rather than younger individuals. Indeed, several of those aged over 45 were probably very considerably older; for example B12, B19, and B24 all suffered from severe degenerative disease to an extent generally seen today in people well into their 50s and 60s.

Stature

Estimation of stature (Trotter & Gleser, 1952 & 1958) was possible for six females and eight males. Average female height was 1.56m (5ft 1in) with a range from 1.51m (4ft 11in) to 1.58m (5ft 2in) and average male height was 1.71m (5ft 7in) ranging from 1.64m (5ft 4in) to 1.76m (5ft 9in). Although

numbers are small, the average heights accord well with others from this area and period, for example an average of 1.57m for females and 1.71m for males from Taunton (Rogers, 1979) and of 1.58m for females and 1.71m for males from Exeter (Stroud, unpublished).

Dentition

The permanent dentition of eleven individuals and the deciduous teeth of two children were available for examination. Not all were complete. There was postmortem loss of 34 permanent teeth (10% of the total possible number of teeth, based on observable alveolar sites) and eight deciduous teeth. A total of 178 permanent teeth was present (78 maxillary, 100 mandibular) with only 20 deciduous teeth. Owing to the small sample involved, dental pathology has not been analysed by sex. In addition, seven virtually complete maxillae and four complete mandibles were present in the disarticulated burials. Not surprisingly, postmortem loss of teeth was much higher from this material (46.1% or 76 teeth lost) and only a further 54 permanent teeth could be examined.

Caries

Ten of the eleven adults had at least one tooth affected by caries, one having as many as seventeen carious teeth. The eleventh individual, whose dentition was unfortunately not quite complete, appeared to have lost all his teeth antemortem. Carious lesions were recorded in 50 of the 178 permanent teeth (28.1%) and 2 deciduous teeth (both from the same child) with molars and premolars more frequently affected than anterior teeth. Three teeth contained two separate carious cavities.

The adult rate is high for the medieval period. Although it is possible that the small sample is biasing the result, a more important factor could be the high percentage of old individuals, the prevalence of caries increasing with age (Moore & Corbett, 1973). If the teeth are examined by age group, the caries frequency for individuals of less than 35 years (n=3) is 11.3%, much more in keeping with other reported rates for the period, whereas for those over 45 years (n=8) it is 40%. A high rate of caries is present in the teeth from the disarticulated burials, where 12 teeth from the total of 54 were carious (22.2%).

The location of the cavities was recorded where possible. Moore & Corbett (1973, 148) had noted that for the older age groups in the medieval period, as well as for earlier periods, the greatest number of cavities occurred 'close to the cemento-enamel junction on the interstitial surfaces'. This was certainly the case at St Bartholomew's Hospital, where the location of cavities was:

Site of carious activity	Number
Mesial/distal cemento-enamel junction	26 (57.8%)
Mesial/distal contact point	9 (20%)
Occlusal	5 (11.1%)
Buccal	3 (6.7%)
Root	2 (4.4%)

In twenty cases the cavity was too large to permit identification of the original site of the caries initiation.

Abscesses

Four individuals, all over the age of 45, had suffered from a total of nineteen dental abscesses or cysts, occurring within the alveolar bone at the root apex. The majority were associated with carious teeth, the consequent pulp infection spreading down into the bone, although in two cases considerable attrition had probably enabled bacteria to invade the pulp tissue. In three cases, small sinuses were visible at the buccal surface of the alveolar bone, through which the abscesses had discharged. In B24, small localized areas of very finely pitted bone were present near the site of discharge of a maxillary and a mandibular abscess, laid down in response to the infection. A further three abscesses were present in two maxillae from the disarticulated jaws. One of these appeared to have perforated the floor of the left maxillary sinus.

Antemortem tooth loss

Eight of the eleven adults had each lost several teeth antemortem, one possibly having been edentulous, as mentioned above. In total, 31.8% of teeth had been lost prior to death, with the molars most likely to be missing. As with caries, the high rate of antemortem loss is probably due to the relatively advanced age at death of this particular group. Only 7.7% of teeth had been lost antemortem by those individuals younger than 35 (n=3) compared to 41.2% lost antemortem in the over-45s (n=8).

Calculus and periodontal disease

Dental calculus, which is the result of mineral deposition in plaque adhering to inadequately cleaned teeth, was present to some degree in all those individuals with teeth, including the subadults. Calculus can act as a tissue irritant, leading to inflammation of the gums which, if chronic, can involve deeper tissues and lead to periodontitis, with the bone itself being affected by the disease. In seven individuals slight to moderate amounts of calculus were recorded on some teeth where the deposits had possibly been below the level of the gums, suggestive of gingival pathology.

The probable presence or absence of periodontal disease was noted, where chronic gingivitis had progressed to involve the alveolar bone. This was recorded as present if, in addition to bone loss around the tooth roots, there was further evidence such as infra-bony pocket formation. Of the eight individuals who could be examined, five (all over the age of 45) were found to have bony changes around the teeth suggestive of periodontal disease. The three apparently unaffected individuals consisted of the two subadults and an adult aged 25–35, reflecting present day findings whereby the prevalence and severity of periodontal destruction increases with age (Manson, 1980).

Malocclusion and hypodontia

The jaws were examined for congenitally absent teeth and for impacted and rotated teeth. In present-day Europe, the tooth most likely to be congenitally absent is the third molar, with a frequency of up to 25–30% in some populations. It was difficult to assess the true frequency of absence of third molars in the St Bartholomew's Hospital material, given the high rate of antemortem molar loss and the fact that routine x-rays of the jaws were not taken. However, one or more third molars were possibly congenitally absent in five individuals from the articulated and disarticulated burials, ie in 29.4% of those examined. No teeth other than third molars were thought to be affected.

A palatally impacted right canine was noted in one of the disarticulated maxillae (B28) with the tip of the crown just visible behind the right lateral incisor. The maxillary canines are the second most frequently impacted teeth today, the third molar being most commonly affected.

Three individuals had rotation of one or more teeth from the normal position in the mouth. Most were premolars and were only mildly rotated. However in one case a mandibular canine appeared to be rotated by approximately 90 degrees. Crowding of the anterior teeth was present in the mandible of one individual.

Enamel hypoplasia

Enamel hypoplasia is a deficiency in enamel thickness, usually visible on a tooth crown as a line of pits, which forms as the result of a period of stress such as disease or nutritional deficiency during the development of the tooth. Eight individuals had evidence of hypoplasia on one or more teeth. Four of these had only one or two lines visible, sometimes quite well marked, whereas the remainder had up to four lines on some anterior teeth, indicating that they had suffered at least four periods of stress between the ages of a few months and six–seven years.

Miscellaneous

Two teeth from the disarticulated maxilla of B28 had what appeared to be abrasion cavities present. The teeth involved were the left second premolar and first molar. Highly polished concave cavities were visible at the distal cemento-enamel junction of each tooth. These did not appear to be artefacts of postmortem damage. The only other left maxillary tooth present was the third molar, which appeared normal, and there were no signs of similar lesions on any of the teeth in the right maxilla, all of which were present apart from the third molar. These cavities would be consistent with the use of an implement such as a wooden toothpick by a right-handed person (Craig, pers comm) but their presence on only two teeth does not permit any firm conclusions as to their cause.

Developmental/congenital anomalies

A few examples of minor developmental anomalies were found. The most frequent of these were extra-sutural bones of the skull, with one or more occurring in the lambdoid suture of eleven individuals (68% of those examined). In two of these cases (B2 and B28) the lambdoid ossicles were very numerous, with additional ossicles in the coronal suture of B28 and in the sagittal suture and more unusually the squamo-parietal sutures of B2. Whereas the presence of one or two sutural bones, especially lambdoidal, is a frequent finding and of no clinical significance, multiple ossicles have been associated with rapid cranial expansion, although causal relationships are not known at present (Gray's Anatomy, 1980).

In twenty skulls examined, two cases of metopism were present, where the suture between the two halves of the frontal bone persists into adulthood. This frequency of 10% is normal for present-day European populations (Shapiro, 1981). Bilateral os acromiale, persistence of the acromial epiphysis into adulthood, was present in B41, and an os trigonum, a separate ossicle at the posterior tubercle of the talus, was recorded in three individuals. Some sort of spinal anomaly is usually present in at least 20% of modern populations (Berry, 1975) but the absence of any vertebral anomalies at St Bartholomew's Hospital undoubtedly reflects the fragmentary condition of the spinal column, since only two adults had complete sets of vertebrae.

Skeletal pathology

Trauma

The term trauma is used here to describe all forms of injury to the bone, whether deliberate or accidental. In the St Bartholomew's Hospital material, seven individuals showed evidence of trauma, consisting in all cases of healed fractures.

B1 and B2 had probable depression fractures of the skull. Small, round indentations, 10 mm and 13 mm in diameter respectively, were clearly visible in the outer table, and in the case of B2 a corresponding bulge could be seen internally. B12 had an incompletely healed fracture of the shaft of the fifth proximal hand phalanx, with some angulation and shortening of the bone. Such a fracture was probably caused by a direct blow. There was a healed fracture of the right fifth metatarsal in B20. A considerable amount of irregular callus was present on the shaft, and some angulation had occurred. An x-ray indicated that the fracture was spiral, and therefore caused by an indirect force such as twisting the body when the toes are fixed (for example if the toe of a shoe is caught in a narrow opening) which applies torque to the foot. Exostoses at the site of attachment of the anterior inferior tibio-fibular ligament on the right fibula, and at the peroneal trochlea on the right calcaneum, of this individual are possibly the result of ligamentous tears occurring during the same traumatic incident.

B24, a female aged over 45, had suffered compression fractures of two lumber vertebrae, together with multiple rib fractures. The ribs were fragmented and incomplete, but evidence of fractures was found on eleven fragments, with possibly two others also having been fractured. A difference in the texture of the callus between the fractures suggested that some had occurred relatively recently, whereas others appeared well healed and remodelled. A couple of right ribs could be reconstructed to the extent that two fractures were seen on each rib, although these were not necessarily the result of the same traumatic event. It is probable that the vertebral and rib fractures were related to the diminished bone mass which occurs with senile osteoporosis.

Two fractures of the fibula were found in the disarticulated B11 and B14. In the former, a left fibula appeared to have been fractured just above the distal end shortly before death, since healing was incomplete. In B14, a right fibula had a well-healed fracture of the upper shaft.

Neoplasia

The only evidence of neoplastic disease from this site was the presence in four individuals of 'button' osteomata on the outer table of the cranial vault. An osteoma is a benign bone tumour visible as a dense smooth lump of bone, generally on the frontal and/or parietal bones of the skull. Osteomata are fairly commonly recorded in archaeological material, and the St Bartholomew's Hospital cases followed the usual pattern, all occurring on either the frontal or the parietals, with two cases consisting of a solitary osteoma (B2 and B12), one case with two (B3) and one with multiple osteomata (B14).

Infection

No sign was found on the skeletons of bone reaction which could be attributed with any certainty to a specific infectious disease such as leprosy or tuberculosis. However, in four individuals, bones were present showing changes which probably occurred in response to non-specific infections. In B24, localized areas of finely pitted reactive bone were visible on the buccal surface of the right maxilla and the right mandible. Both were close to sinuses from dental abscesses, and probably reflect the spread of infection and inflammations from these to the outer surface of the jaws.

The sacrum of B19 had an area of irregular new bone posteriorly at the level of the fourth and fifth sacral vertebrae. This individual had inflammatory periosteal new bone on both tibiae, fibulae and several metatarsals (see below) and it may be that the changes to the sacrum and the lower legs had a common cause. Alternative possibilities include new bone laid down in response to infection and inflammation from a bedsore (Morse, 1978) or as a result of a chronic pilonidal sinus (Manchester, pers comm).

The right temporomandibular joint of B2 showed severe degenerative changes to the temporal component of the joint. The right mandible had suffered some postmortem damage, but there appeared nonetheless to have been antemortem destruction of the superior part of the condyle. On the lateral surface of the condylar process, and extending down onto the ramus, was a layer of subperiosteal new bone and it was therefore thought possible that some sort of infection had been present in this joint.

A disarticulated cranium found with B25 had changes to the right temporal bone suggestive of chronic middle-ear infection. Unfortunately, the petromastoid part of the ear bone was missing. Since this normally survives well, it is possible that it had been affected by the pathological process and so weakened; however this is speculation and only those lesions present on the squamous part of the temporal could be recorded. These consisted mainly of an oval cavitating lesion visible externally above the mandibular fossa, surrounded and partially covered by a thin raised shell of bone, with some new bone apparently deposited on the anterior wall of the external auditory meatus.

Deficiency disease

Cribra orbitalia were present in five individuals, two of which were subadult. This is visible as areas of pitting in the roofs of the orbits, and is thought to develop in cases of chronic anaemia in childhood. If this is so, its presence in two adults (both female) aged over 45 years, suggests that in some cases the deficiency in iron was never made up.

Pitting similar in appearance to that in the orbital roofs was present in the outer table of the skull in

B4. It was confined to areas on the parietals and occipital bone near the lambdoid suture, and may also indicate iron deficiency anaemia.

Joint disease

The majority of the adult skeletons examined showed some evidence of degenerative joint disease (DJD or osteoarthritis). Of the six individuals for whom no degenerative changes were noted, five consisted of less than a quarter of the skeleton. In two cases, individuals had a joint affected by slight marginal lipping of the articular surfaces only, and although this might represent an early stage of the disease, such an association is at present uncertain (Rogers, Watts & Dieppe, 1981).

The remaining sixteen individuals had one or more joints with changes more definitely assignable to DJD; these included altered bony contours and irregularities of the articular surface, cyst formation and, in severe cases, eburnation or polishing where loss of cartilage had led to movement of bone on bone. Osteoarthritis was traditionally viewed as a 'wear and tear' condition, but the aetiology now appears to be more complex, with different factors being involved for different joints or groups of joints. However, one factor which is clearly associated with osteoarthritis is age, consequently its presence in the majority of adults from St Bartholomew's Hospital is not surprising. The disease is often polyarticular and, of the nine individuals with approximately half the skeleton present, seven showed changes to more than one joint, and five individuals had five or more joints affected (B3, B12, B19, B41, and B43).

Despite the fragmented and incomplete nature of the vertebrae, the apophyseal joints of the spine were found to be the most frequent site of degenerative changes, often severe, occurring in seven of the eight individuals examinable. The facet between the atlas and the odontoid process of the axis was affected in four cases, two of these being severe, with eburnation of the articular surfaces. The hand was the next most common site of the disease: of the eight individuals with sufficient hand-bones present, six had been afflicted. This follows the pattern seen today, whereby the spine and the hands are very commonly affected by osteoarthritis. The first metacarpo-phalangeal joint was often involved, and in three cases good recovery of the small bones of the fingers permitted changes to be recorded at the proximal and distal interphalangeal joints, two of these having eburnation of some facets.

Five skulls from articulated burials and two from disarticulated material showed clear evidence of degenerative disease of the temporomandibular joint. The high number affected (seven of fifteen examined) probably reflects both the advance age of the individuals from St Bartholomew's Hospital and the state of their dentition. Today, osteoarthritis seldom affects the temporomandibular joint much before the fifth decade and may be associated with misuse of the joint due to malocclusion (Blackwood, 1963). Certainly, those affected from St Bartholomew's were all aged over 45 and had either lost a considerable number of their teeth antemortem or showed very uneven wear patterns, although B42 (an edentulous individual) had no obvious degenerative changes to the temporomandibular joint surfaces.

Osteoarthritis of the clavicles was present in five individuals. Changes were generally bilateral (where both could be examined) consisting mainly of considerable coarse pitting of the sternal and acromial ends. One case was found of eburnation of the acromioclavicular facet, with a further example among the disarticulated bones.

Changes to the shoulder joints were present in three individuals, bilaterally in two of these, but none was severe. However, severe osteoarthritis was present in a disarticulated right and left humerus from B11, their size and muscle markings suggesting that they came from the same individual. Both had exuberant, new bone-growth around the head, with areas of eburnation on the articular surface. There were no cases of osteoarthritis of the elbow from the articulated burials, but a radius from the disarticulated B28 had marked lipping of the head together with an area of eburnation. The elbow is similarly found to be affected only rarely in present-day populations (Dieppe, 1986).

The wrist bones were affected in two articulated individuals: B19 and B41. The former had bilateral eburnation of five carpals and the base of the first metacarpal. In addition, a trapezium and triquetral with eburnated facets for the first metacarpal and pisiform respectively, were recovered from the disarticulated B11.

Six individuals had some degenerative changes at the hip joints, mostly bilateral but only slightly or moderately affected. Two severe cases, with gross pitting and eburnation of the acetabulum, were found in the disarticulated material. The knee was involved in three cases, all bilateral although not to the same degree. In B10 both knees were slightly affected; in B41 the left side showed slight changes whereas the right distal femur had an area of grooving and eburnation laterally; in B43 both distal femora were eburnated. A further case of eburnation of the distal femur was present among the disarticulated bone from B22. The three latter cases all clearly involved the patellofemoral facets rather than the articulation with the tibia.

The ankle is rarely affected by osteoarthritis, and only two cases out of 14 examined were present at St Bartholomew's Hospital, both with slight changes bilaterally to the joint between the cuboid and the third cuneiform. By contrast, there were four individuals (from eleven observable) with degenerative changes to the head of the first metatarsal. All had areas of eburnation, three apparently with the sesamoids and one with the proximal row phalanx.

Finally, B17 had marginal lipping of four distal-row toe phalanges, one of which was eburnated.

Spinal osteophytes, or marginal lipping of the vertebral bodies, were present to some degree on one or more vertebrae of all the adults over 35 which had some of their spine present. These bony growths probably developed in response to degenerative changes in the invertebral disc; further evidence for disc degeneration was found in seven individuals, with areas of pitting and porosity on the superior and/or inferior surface of several vertebral bodies. These were most common and most severe in the cervical spine.

Joint changes which were probably of different origin were present in B7. Multiple small, deep erosions were visible at the margins of the heads of one metacarpal and four metatarsals, and three middle-hand phalanges had shallow, erosive lesions on either side of the distal articular surface. In all cases, the articular surfaces themselves appeared normal. These changes are perhaps suggestive of a different type of arthritis, possibly one of the sero-negative arthropathies. These are sometimes associated with periosteal new bone on the lower legs, as was the case with B7.

Miscellaneous

Signs of periosteal reaction, in the form of new bone laid down on the surface of a bone (often the tibiae and/or fibulae) are a relatively frequent finding in skeletal groups. The periosteum will produce new bone in response to repeated trauma, infection, certain cancers or vascular disturbances, and in skeletal material the cause of such new bone cannot usually be specified. Seven of eighteen observable individuals had evidence of subperiosteal new bone affecting the lower legs. In B34 and B42, the changes were slight, affecting the tibiae only. In B25, only the affected right lower leg was present, so bilaterality could not be established. However, in B7, B9, and B19, both right and left tibiae and fibulae were affected, with involvement of the metatarsals also in the latter. New bone on the shaft of a metatarsal was present in B31; the spread may have been more extensive, but only the incomplete and damaged feet were recovered. In none of these cases could cause be ascertained. However, in the disarticulated bone from B14, a right tibia was present which showed a localized build-up of bone on the lower shaft typical of that produced in response to a chronic leg ulcer (Ortner & Putschar, 1985).

Schmorl's nodes were present in two individuals: B12 and B19. These depressions occur as the result of the prolapse of intervertebral disc material into the vertebral body, usually the middle and lower thoracic and the upper lumbar. In B12, four vertebrae were affected, from the tenth thoracic to the first lumbar. In B19, the spine was incomplete and fragmented, so nodes might well have been present in more vertebrae than the two mid-thoracic examples recorded.

As mentioned above, various features of B24 suggest that this individual might have suffered from senile osteoporosis. This disease is rare before the fifth decade and is more frequent in women than in men. The amount of bone mass is reduced by at least 30%, due to an imbalance between bone resorption and bone formation. The lightweight bones of B24, together with the vertebral compression fractures and rib fractures, would be typical of osteoporosis. In addition, the parietal bones of the skull showed symmetrical thinning due to diminishment of the diploe, with a thickness of as little as 1.5mm in places. Again, such bilateral parietal atrophy is thought by many to be related to senile osteoporosis (Ortner & Putschar, 1985).

Summary

The examination of the burials from St Bartholomew's Hospital, Bristol, has produced a picture of a group of relatively old men and women, with few children and young adults present. This age distribution was reflected in the state of their teeth, with a high frequency of dental decay and antemortem tooth loss. Developmental anomalies of the teeth and bones were present in frequencies to be expected in any normal population, and average stature was similar to other groups of the same area and period. None of the skeletons showed signs of disease that would give credence to original suggestions that the hospital was a leper house, nor are they at odds with the view that it was essentially an almshouse (Price, 1979a, 7). The effect of age on the sample was seen again in the high number of joints affected by degenerative diseases and in the possible presence of other less-common disorders such as senile osteoporosis, a possible leg ulcer and maybe even a bedsore.

Acknowledgements

Animal bone by Gerry Barber

Introduction

About 8000 mammal, bird, and fish bones were recovered during excavation in 1977–8. The site was a very complex one, with nearly 2000 different contexts. It was decided, therefore, to concentrate on those groups which might answer specific archaeological questions posed by the site. Which species were exploited for food, and in what relative amounts? What evidence could be gained for diet

during the earliest periods of occupation? Could the functions of different rooms be demonstrated? There was some documentary evidence in the 1303 inventory for the diet of those living in the hospital (see p 59) and it was hoped that the recovered animal bones would amplify this.

Only well-dated contexts which dealt with the hospital (not the later school) were examined, and bones from contexts which had been disturbed, or which had few bones in them, were discarded before analysis. As a result, approximately one third of the material was analysed. The bones studied came from 232 contexts, ranging in nature from a sealed well and drains to floor surfaces and a courtyard. The excavated material was in fair condition. Owing to the sheer quantity of spoil removed in a relatively short time it was impractical to sieve any of the deposits, so not all the smallest bones would have been recovered and this must bias the subsequent analysis.

Methods

The 3957 bones chosen for analysis were cleaned and sorted. Of these, 2669 (67.5%) were identifiable to species; 338 were identified as ribs from large mammals, and 207 as medium-mammal ribs. Vertebrae can be difficult to assign to species, so these too have often been noted as large mammal or medium mammal. For each bone, the following were noted where possible: species, body part, side (left or right), age, sex, pathology, marks of use (burning, gnawing, cut marks etc) and, if adult and complete, measurements were taken according to the standards and landmarks laid down by Dreisch (1976). There were not enough measurements to make statistically valid statements within each group of contexts studied and, due to lack of space, the full list of measurements is not published in this report: but it is available in the site archive (see p 8) or on request from the author.

Ageing

Assigning an age to animal bones can be a problem. There are two main ways in which a reasonably accurate age may be obtained, the first being the fusion of the epiphyses of the long bones. All long bones had the state of fusion of their proximal and distal ends (where present) recorded, and this has been compared to known fusion-ages of animals (Silver, 1969). One problem with this method is that different breeds fuse their bones at different ages, so an average or range of ages is sometimes given in this report.

The second method of ageing is by tooth eruption and tooth-wear patterns. Tooth-eruption dates and grades of wear after Grant (1982) for cows, and after Payne (1973) for sheep and goats, have been used.

Sexing

It is very difficult to sex animal bones. The best part of the body to use is the pelvis, which in the material here is usually broken, so the relevant parts are missing. Sexual dimorphism (the differences in size between the male and female of a species) is the other way of identifying the sex, but unfortunately there were not enough complete examples of any one bone to make the study statistically valid.

Butchery

Cut marks are sometimes visible on bones and, where present, these have been mentioned, with relevant comments on jointing or the use of the meat or offal.

Pathology

Where a bone showed some form of pathology it was photographed, x-rayed, and described. It is not always possible to arrive at a definite diagnosis, but the probable diagnosis and a list of differentials are given where possible.

Minimum number of individuals (MNI)

The calculation of the minimum number of individuals (MNI) can be extremely difficult on urban sites. Instead, the phrase 'from at least x different animals' is used. The identified bones were checked to see if any could be paired, but none were found. The number of animals present has been calculated by assuming that each context excavated does not contain material from any other one, but it must be remembered that this might not always be the case. A high number of different animals can mean that joints were bought, rather than whole animals being slaughtered, or it might mean that the material is very mixed.

Contexts of the same date in defined areas, for example a room, have been grouped together for analysis in an attempt to increase the strength of the sample. This must be offset by the fact that amalgamating contexts can lead to some loss of information for specific parts of the site. The problem has been minimized by looking at the groups both individually and as part of the whole.

It must always be borne in mind that the majority of any animal bone excavated is only a fragment of the original assemblage of bones present on the site (remembering that the meat was probably bought in as joints) and a biased one at that. Certain bones often preserve better than others, for example the bones of the feet as opposed to the spongy proximal epiphyses of the femur and humerus (Payne, 1975). When the types of bones present

for each animal are discussed, this problem is addressed further.

Species present

The species identified from the site were:

Sheep	Ovis aries
Goat	Capra hircus
Cow	Bos taurus
Pig	Sus domesticus
Fallow deer	Dama dama
Rabbit	Oryctolagus cuniculus
Hare	Lepus europaeus
Cat	Felis catus
Dog	Canis familiaris
Chicken	Gallus gallus
Goose	Anser anser
Pheasant	Phasianus colchicus
Crow/rook	Corvus sp.

The relative frequencies of each of these in each of the main contexts are shown in Table 11. Sheep/goat bones were the most common species present, followed by cow, then chicken, pig, goose, and rabbit, with very few bones from deer, hare, cat, or dog. None of the contexts showed any major discrepancies in terms of relative species distribution. It should be noted that a number of bones were from a post-medieval context and are therefore omitted from the summary table.

Sheep/goat

Sheep and goat bones are difficult to separate in most cases, and those which have been identified here (using the criteria of Boessneck, 1967) are listed as either sheep or goat. All the other bones are listed as sheep/goat. For statistical purposes, all these categories have been put together. A total of 760 fragments of bone was identified, making sheep/goat the most common animal present in the material, of which 35 bones were positively identified as sheep and six as goat. The body parts most frequently identified from sheep/goat were the skull (including mandible), vertebrae, and feet. These parts are traditionally the waste material from food production.

Judging by the mandibles and teeth present, the bones seemed to be from older animals, all with the third molar erupted and in wear (Table 12). Most of these were worn, even very worn, making them yet older. The exception to this was in the earliest contexts, from c 1150–c 1250, which were from animals with the second and third molars still erupting, or even younger. The long bones also indicated older animals, 18 of 21 tibiae being fused (over 18 months). Most of the femurs were unfused, giving an age of under 36–42 months, so the average age of death for these animals was between 18 and 36 months. This is roughly comparable with other urban sites of the same date in south-west England, such as Exeter (Maltby, 1979).

There were cut marks on many of the bones, especially the vertebrae, humeri, and pelvis. Seven of the sheep skulls (from contexts mainly in the earlier phases, c 1175–c 1280) had been cut in half cranio-caudally, presumably to remove the brain to make brawn (a popular food for invalids). Few bones showed any evidence of gnawing by animals, which is unusual as food remains were often chewed. This could be due to the nature of the site: in a hospital there might have been few dogs in and around the building. It was not possible to work out the exact method of cooking the various joints of meat, but three copper cauldrons were mentioned in the inventory of 1303, which might have been used for boiling or stewing meat. None of the sheep/goat bones showed any pathology.

Cow

A total of 476 fragments of bone was identified as cow. Although there were fewer cattle bones than sheep bones in this assemblage, if the overall meat-weight per animal is taken into account then cow was as important a food animal as sheep/goat. As with the sheep/goat bones, the most abundant body parts represented were the skull and mandible, vertebrae, and feet, but there were relatively fewer bones which would have had the better-quality meat, ie femur and humerus. Many of these bones bore cut marks at the muscle insertions. Most of the vertebrae, especially the cervical, were chopped in half.

Most of the bones were not fused at the epiphyses; for example, the olecranon of the ulna, which fuses at about 42 months. The state of tooth eruption also agreed with an average age of under 30 months, as none of the mandibles and maxillae examined had completed adult dentition.

As there were so few bones from any one part of the body, it was not possible to separate the sexes, or to determine any size changes with time. Those bones which were available for measurement were within the size range of other sites of the same period; for example the width of the distal metacarpal ranged from 44.9 mm to 64.3 mm.

None of the bones was burnt, and only two bore any signs of gnawing by animals. Two bones showed some abnormality. One, a distal metacarpal, had eburnation on its lateral part, with some slight osteophyte on the edges of the articular surface. These bony changes suggest a diagnosis of osteoarthritis, but the exact cause of this is unknown. The other bone was a proximal phalanx with osteophyte at the entheses insertions. There were no other joint-surface changes except for a small patch of eburnation on the distal palmar surface. The osteophyte at the entheses insertions has been called ring bone (Baker & Brothwell, 1980)

and is attributed to traction injuries, but this theory has never been proven.

Pig

A total of 123 fragments of bone was identified as pig. The most obvious comment to make about these bones is that they were all from sub-adult animals. The range of unfused bones implied a fairly constant average age of death, through all periods, of 12–24 months. Most sites of this date show similar patterns of culling. The relative amount of pig to sheep/goat was roughly the same across all contexts. There were slightly more from the earlier periods, and less in the well backfill, but as the numbers involved were so small this might have been mere chance. The relative part representation was more even for the pigs than for the other species (Figs 74–6). It cannot be stated precisely why this was, but perhaps because young pigs have relatively small bones, before cooking they would need less chopping than the larger animals.

None of the bones showed any sign of burning, and only one was gnawed by animals.

Deer

Only three fragments from fallow deer were identified in this sample, one from contexts dated to the 13th century, and two from the 14th century. This is quite some time after their supposed introduction in the late 12th century (Rackham, 1986). It may seem an unusually small amount, but Grant (1976) states that deer bones are rare, or even absent, on urban sites in this part of the country during the Middle Ages.

Rabbit and Hare

Six bones from rabbit and two bones from hare were identified in contexts dated from the 13th century onwards. Rabbits were a Norman introduction (Rackham, 1986) so their appearance after this date is not unusual. All the bones were from adult animals, but as some of the bones are very small they might not all have been recovered. Nevertheless, they do not seem to have formed a major part of the diet. These bones were found concentrated in Period 3A (c 1234–80) but not exclusively so, which was probably because this context was one of the biggest in terms of bones produced.

Cat

Two bones were identified as cat, which came from two animals. The bones were of adult individuals.

Dog

Two bones were identified as dog, coming from two animals. The bones, like those of the cats, were of adults.

Bird

A total of 239 bird bones was identified to species. The most common of these was chicken, made up of 128 adult bones and 23 from young birds. The bones of the younger chickens were concentrated mainly in the 14th-century contexts in the west end of the north aisle of the church. The bones themselves were found in those contexts containing the largest overall numbers of such material, for reasons mentioned before.

Goose bones were the next most common (85 pieces), distributed in much the same way as the chickens. One bone came from a pheasant (also from the same 14th-century context). Pheasant was distinguished from chicken using the criteria of Cohen & Serjeantson (1986). All the bird bones were found concentrated in the rooms of building 2A in Area K, all 13th to 14th century, and in the west end of the north aisle of building 1B in Area D, from 14th to 15th century contexts. Two bones identified as crow or rook were found, which would not be unusual in a large assemblage of refuse such as that from Period 3A.

One bone, a coracoid from a chicken, had an erosion on its surface (about one third of the bone in length) which deformed the distal articulation, with osteophyte around the edges. No periosteal reaction or evidence of callus formation following a fracture could be seen. It cannot be said what the exact cause of this pathology was, but some form of trauma should be a differential diagnosis.

As bird bones are smaller and more fragile than most mammal bones, and given the fact that the spoil from the site could not be sieved, the relative number of individuals actually present was probably higher. Despite this bias, it can still be seen that chicken and goose, at least, were a fairly important element of the diet.

Fish

The scarcity of fish bones on this site might well be due to the fact that the samples were hand retrieved and no sieving was done, for reasons of practicality at the time of excavation. All the fragments present were spines and small fragments of vertebrae, and were not identifiable to species.

Contexts

The contexts studied were of three types: distinct rooms in buildings (ie building 2B in Area K); the

Table 11: Animal Bone: Species Distribution in Major Contexts

Context	Period 1	Period 2	Period 3A	Period 3B	Periods 3B/C Room 4K	Periods 3B/C Room 5K	Period 4A Building 1B	Period 4A Well	Period 4A Room 2K	Period 4B Room 2K	Period 4B Room 2K	Period 4B Room 3K	Period 4B Courtyard	Total
Date	c 1150–1175	c 1175–1234	c 1234–1280	c 1280–1340	c 1280–1340	c 1280–c 1340	c 1340–1400	c 1340–1400	c 1340–1400	c 1400–1532	c 1400–1532	c 1400–1532	c 1400–1532	
Sheep/goat	59	41	246	6	5	5	127	32	15	2	56	25	5	624
Cow	11	11	134	4	4	3	55	33	7	6	40	24	3	335
Pig	5	3	22	1	2	3	15	4	5		11	3	3	77
Rabbit			3				1					1	1	6
Deer								1			2			3
Hare			2											2
Rat								1			1			2
Dog								1			1			2
Hen	3		57				29				19	8		116
Goose		3	26		3	3	12	4			13	10		74
Pheasant											1			1
Other bird			2											2
Total	78	58	492	11	14	14	239	76	27	8	144	71	12	1244

Table 12: Animal Bone: Ages of Sheep/Goat Mandibles

Context Date	DP4 present	M1 erupted	M2 erupting	M2 erupted	M3 erupting	M3 unworn (Payne grade E)	M3 worn (Payne grade F/G)	M3 very worn (Payne grade H/I)
Period 1 c 1150–c 1175	1		3		1			
Period 2 c 1175–c 1234							1	3
Period 3A c 1234–c 1280	1		2		3		3	4
Period 3B c 1280–c 1320	1							1
Room 5K c 1280–c 1320						11	1	
Well c 1340–c 1400						1	2	
Room 2K c 1340–c 1400	1					1		
Room 3K c 1400–c 1532	1				4		2	
Courtyard c 1400–c 1532							1	
Period 4B c 1400–c 1532							1	

west end of the north aisle of the church (ie building 1B in Area D); the courtyard between those buildings. Because this site was so complex the results have been set out by period according to the final site classification. Each context has also been discussed separately.

Period 1: *c* 1150–75

This material came from alongside the postulated creek, on the site of what would later become the hospital courtyard. In these contexts were found 165 fragments, 90 of which were either ribs or were unidentifiable. Of the remaining 78, the majority were sheep/goat, being largely the waste parts (skull and lower limbs). All the vertebrae had unfused proximal and distal epiphyses, and three had been chopped in half. One of the bones had been burnt. Four of the skull fragments had been chopped in half, and the mandibles and maxillae present had the teeth of younger animals (the second molar just erupting in three out of six cases).

Eleven fragments of cattle from at least four individuals were identified (from four contexts). Again, these bones were from the skull, vertebra and feet, with one fragment each from the femur and tibia. The bones were largely unfused, and so came from younger animals.

Five fragments of pig were identified from three contexts (a minimum of four animals). Three ulnae, and one each of radius and metapodial, were present, all unfused and from young animals.

Period 2: *c* 1175–*c* 1234

This material came from deposits excavated over those in Period 1, alongside the partly backfilled creek. A total of 160 fragments of bone was analysed from two contexts, of which 58 were identifiable. The most common species in this phase was sheep/goat, with 41 fragments (at least three animals). The fragments present are largely ribs, radii, vertebrae, scapulae (all the waste material) and ulnae (unfused, so from animals aged up to 36 months). One of the skulls had been cut in half, but the other bones showed little evidence of cut marks, and no fragments were burnt.

Eleven fragments from cattle were analysed (minimum of two animals) mostly parts from the feet, vertebrae, and skull; although there were two fragments of humerus, a bone which provides better quality meat. One of the vertebrae had been cut along the cranial-caudal axis to produce a T-boned effect. One calcaneum displayed a cut mark.

Three bones from pigs were identified: two ulnae and one cervical vertebra. All the bones were unfused and from young animals.

Period 3A: *c* 1234–*c* 1280

This material came from the hospital courtyard, over that from the two earlier periods. It was the largest group, with 246 identifiable fragments of sheep/goat bones (including five definitely identified as goat) from at least 39 individuals, 134 of cow (26 individuals) and ·22 of pig. One fragment each of fallow deer and human (a tibia from a new-born infant) was also present.

The sheep/goat bones present contained a higher proportion of those which produce meat of better quality than the skull, rib, or vertebra fragments in the previous contexts; ie thirteen fragments of humerus, seven of femur, and sixteen of tibia – even taking into account the fact that there were more bone fragments in this phase (Fig 74). These pieces seemed to come from younger animals: nine out of ten humeri were unfused distally, and ten out of thirteen metapodials were unfused, giving an age of under ten months. Few bones had cut marks on them and one metapodial had been gnawed by an animal.

The bone fragments identified as cattle also had a higher proportion of femur and humerus fragments. Most of the bones had cut marks on them, especially the pelvises, and all were from younger animals.

The 22 fragments of pig bones were from young animals, and were largely from feet and lower limbs. None of the bones displayed cut marks.

Two fragments were identified as belonging to the rook family.

This context also had the largest number of bird bones present: 57 chicken and 26 goose bones. None of the bones had any cut marks on them.

Period 3B: *c* 1280–*c* 1320

Some of the material examined came from deposits in the courtyard, over those from the earlier periods. A total of 21 fragments of bone was analysed from six contexts, six of which were from sheep/goat (at least four individuals), four from cattle (at least three individuals) and one from pig. As there were so few bones, it was not possible to draw any conclusions from this part of the assemblage except that it was probably food-production waste.

Periods 3B & 3C: *c* 1280–*c* 1340

Other material from Period 3B, in addition to that from later occupation, came from what seems to have served as the principal domestic range of the hospital: building 2A (see Chapter 5). Room 4K was the western room, rooms 5K and 5Ka were to the east.
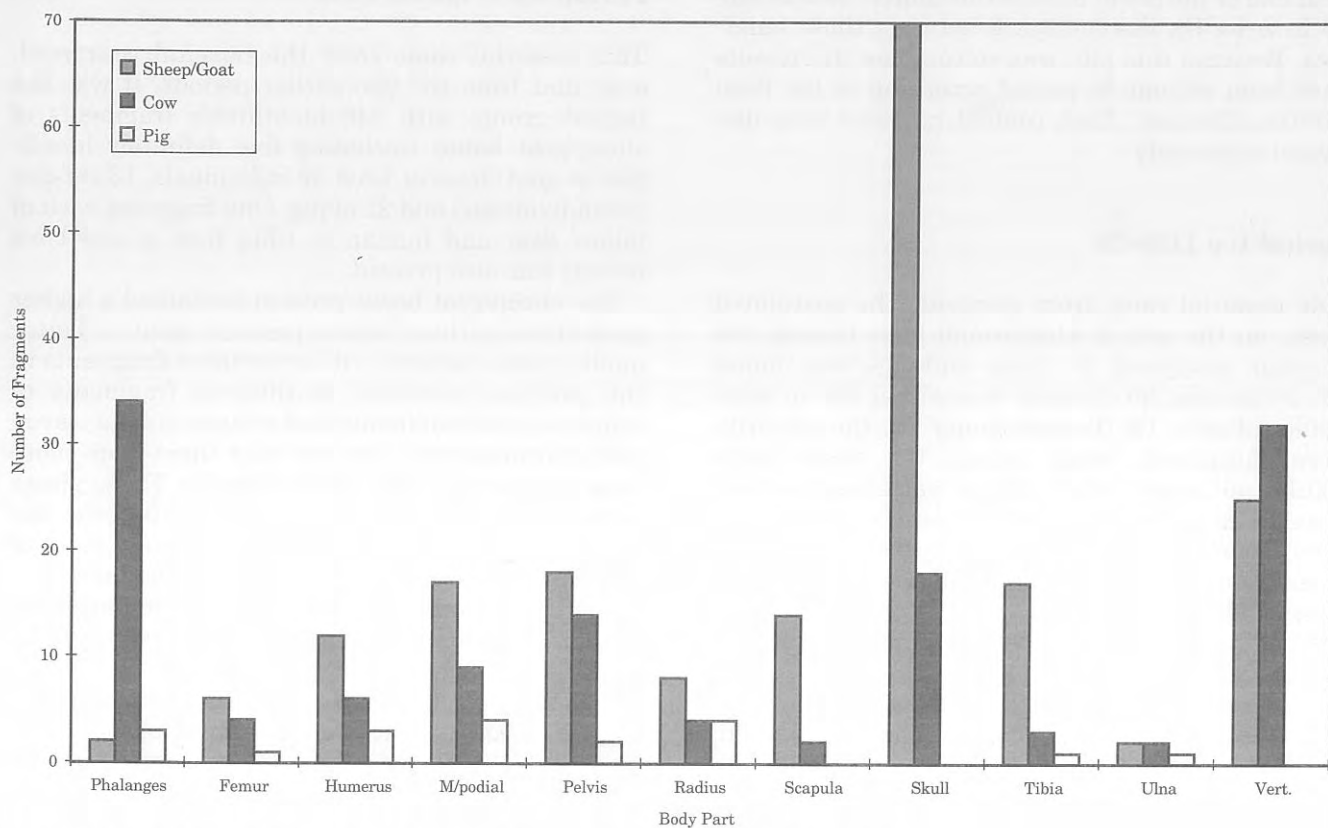
Figure 74 Animal Bone – Part Representation Phase 3A (c 1234–c 1280)
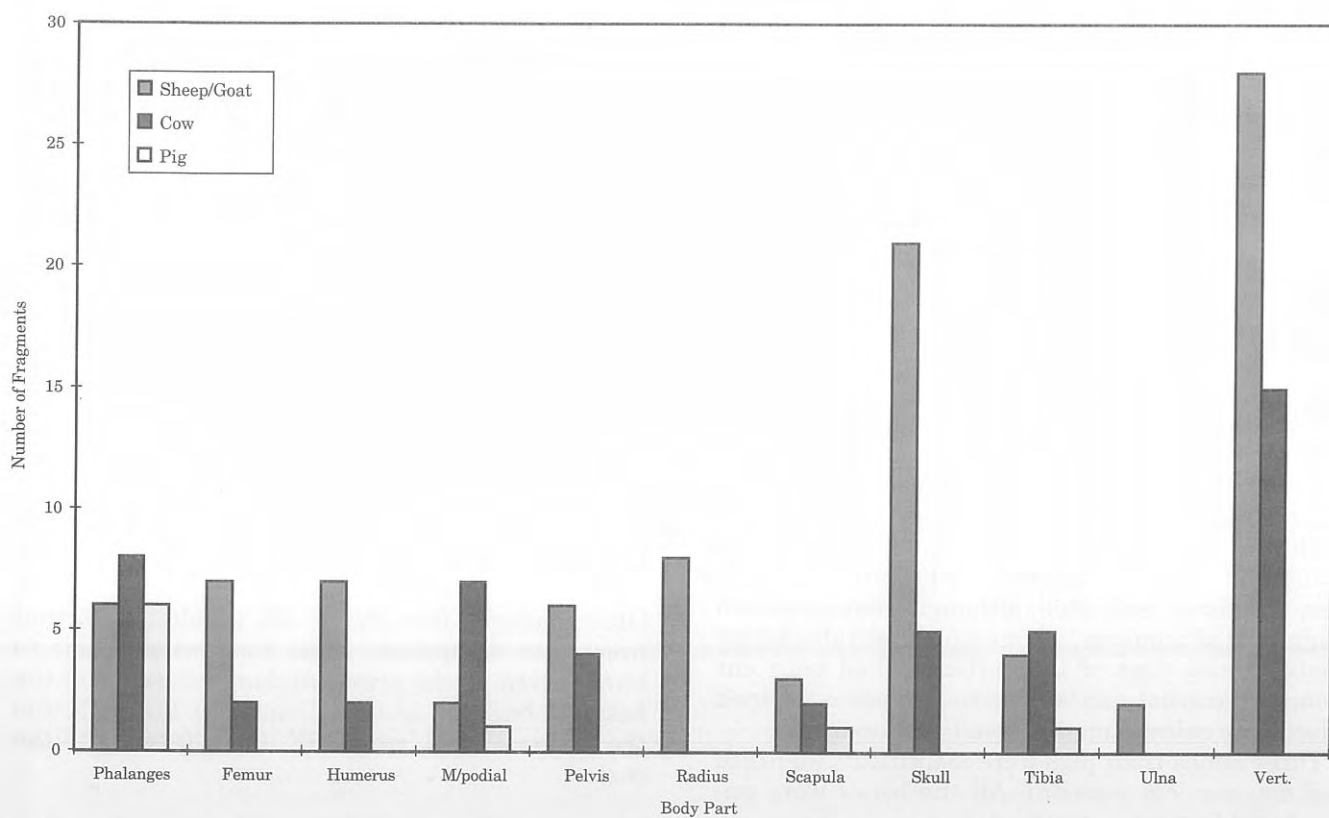
Figure 75 Animal Bone – Part Representation Building 1B Floor Surface (c 1340–c 1400)

Room 4K

Two fragments came from the two contexts dated as the lowest level of the building (*c* 1280–*c* 1320) and 74 from 17 contexts from Period 3C (*c* 1320–40). Of these, only fourteen were identifiable: two from pig (one from a younger animal), four from cattle (two skull and two foot fragments), five from sheep/goat, and three from goose. With such a small quantity of bone little can be said, apart from the fact that this material was most likely to have been food-production waste.

Rooms 5K and 5Ka

Room 5Ka had 29 fragments of bone, 20 of which were unidentifiable, all from one context. The majority of the remainder of fragments (five) were of cattle (skull and feet fragments only) and sheep/goat. A mandible from a sheep/goat had an erupted third molar which was well worn, making it over 36 months. One pig bone was present, a radius fragment.

The earlier phase of occupation of room 5K contained more bone fragments (116 from 9 contexts) but few were identifiable. Five were from sheep/goat, one of these being a mandible with the third molar erupting, and one from a young animal which also displayed cut marks. Three identified pieces were cattle bones from the skull, scapula, and an unfused metapodial (age under 30 months). Three bones from young pigs, one with a cut mark, were also identified in these contexts. The later phase of the same room had only six bones present (three cattle, two sheep/goat, and one pig). All fragments were from the skull, scapula, ribs, and feet. None of the bones had any features which could be used for ageing, except the pig, the bone of which was a distally unfused metacarpal (age under 24 months).

Period 4A: *c* 1340–*c* 1400

Building 1B

Part of the material examined came from the surface of the floor at the west end of the north aisle of the church (building 1B in Area D). From this area 682 bones were analysed. Of these, 239 (35%) were identifiable and 81 (11.8%) were ribs. The most common animal present was sheep/goat (53% of identifiable bones), then cow (23%) and pig (6%). Forty one bird bones (29 chicken and 12 goose) were identified. One fragment of human bone, a proximal phalanx of the foot, was also found, but it is noteworthy that there was no evidence of any interments in that part of the church.

Sheep/goat. A total of 127 fragments of bone from 28 contexts was studied, giving at least 29 individuals. One bone was identified as an adult goat, and

the rest as sheep/goat. The most common parts present were from the ribs, skull, and vertebrae (57%), which are often the waste or lower-quality meat areas (Fig 75). Bones from the better upper-leg areas were 14%. There were cut marks on most of the vertebrae, the cervical ones being chopped completely in half in four cases. Most of the bones were from young animals; for example five out of seven ulnae were unfused at the olecranon, giving an age of under 30 months.

Cow. Fifty five pieces of bone from sixteen contexts came from a minimum of seventeen cows. The majority of fragments present also came from the skull, feet, and vertebrae (63%). The bones seemed to have come from slightly older animals, four out of five of the tibia being fused proximally or distally, giving an age of over 24–48 months. One skull fragment and one humerus fragment were from much younger animals. Most of the pelvises examined (75%) displayed cut marks and half of the vertebrae had been chopped in two.

Pig. Fifteen fragments of bone from six contexts came from at least six individuals. Most of the bones were of the trotters, with only one fragment from a longbone. All these bones came from immature animals; for example, two calcanea were unfused, so those animals were under 24 months old when killed. One of these calcanea also had a cut mark on it.

To summarize: the few identifiable bones from this area came mainly from sheep/goat and cow. Although there were more sheep/goat bones than cow, the amount of meat which each species would have provided would have been about equal. The bones themselves were more likely to have been waste from food preparation rather than actual served joints.

Well

Other material from this period which was examined came from the backfill to the well in the courtyard immediately south of the domestic range (building 2A) which had become disused when the range was demolished to make way for its replacement (see Chapter 6). From this backfill, 144 pieces of bone were recovered. Of the 115 bones identifiable, 40 were from large and medium ribs, and 11 from unidentifiable vertebrae. The most common species present was cow (33 fragments from at least three animals), then sheep/goat (32 fragments from at least two animals). Pig was present with four fragments (at least one individual). One piece each from deer and dog was present.

Sheep/goat. This assemblage was made up largely of fragments from the skull and the flat bones (ie pelvis and scapula). Three bones were identified

from the criteria of Boessneck (1969) as definitely sheep. The animals from this area were older than those from the floor surface of the church aisle mentioned above, as the mandibles had completely erupted dentition and the third molar was worn, giving an age of at least about 36–48 months.

Cow. The 33 pieces of bone came from the skull, pelvis, and scapula. This was probably the waste from food preparation, as 93% of the bones studied had cut marks on them. One fragment of scapula was burnt. The ages of these animals (determined from the mandibles) was mostly young (under six months) but one had an erupted third molar, which would make it over 24 months.

Pig. Three out of four pieces of the pig bone identified had cut marks and the only bone which could be aged was from an animal aged under 24 months.

Bird. Four fragments of goose bone were found in this context.

To conclude: this backfilled well seems to have contained predominantly waste from food production. The sheep/goats all seemed to be older animals.

Building 2B – Room 2K

This was the western room of the new building, lying over the site of the former room 4K. There was good evidence from the excavated structures that this room had functioned as a kitchen. Material from this room came from both the floor surface and from the drain serving it. From the floor context there were 133 fragments of bone, of which 40 were ribs. Only 27 pieces (20%) were identifiable: fifteen as sheep/goat, seven as cow, and five as pig.

Sheep/goat. Fifteen pieces of bone from at least nine individuals were identified from eight contexts. The parts present were mostly from skull, vertebrae, and feet, with two fragments of femur. Of the bones, 46% bore cut marks. There was not enough evidence to attempt any age assessment.

Cow. Seven fragments of cow skeleton came from a minimum of four animals. Of these, five showed cut marks, and the one femur present was unfused proximally, giving an age of under 42 months.

To conclude: the earliest phase of room 2K had little evidence to work from. From the state of fragmentation of the material, this deposit would seem to have come from a trampled floor.
From the drain context, 23 pieces of mammal bone were examined, with 15 being identifiable. There were four pieces of sheep/goat (at least two animals) from the skull, scapula, vertebrae, and lower limb. The skull fragment had an erupting third molar, giving an approximate age of 18–48

months. The three pig bones (from at least two individuals) were all from young animals, and consisted only of skull and feet fragments. Two cow fragments, one femur and one mandible, were from animals under 42 months. One had a cut mark on it. The other identifiable bones were rib fragments. It is unusual that there were no bones from fish or birds in this deposit, as they are often found washed down drains. This might have been because the deposit as a whole was very small, and it was not sieved.

Building 2B – Room 3K

This was the room to the east of R2K. From the structures excavated, no specific function for this room could be identified. It might have served as a refectory adjoining the kitchen. The remains found in room 3K at the earliest level were very scanty. Eight fragments of ribs and scapula from sheep/goat, and unidentifiable fragments, were the only pieces present, except for eleven skull fragments of cow (femur, pelvis, feet, skull, and vertebrae) found in one context. It is not possible to determine whether they were from the same animal, as they were such small fragments and could not even be aged.

Period 4B: *c* 1400–*c* 1532

Building 2B – Room 2K

The evidence from structures excavated was that this room continued to serve as the kitchen right up to the time when the hospital closed (see Chapter 6). There were 292 fragments of bone recovered, comprising the later fill of room 2K, of which 117 (40%) were unidentifiable and 87 (29.7%) were rib and vertebrae fragments (Table 11; Fig 76). A tooth from a dog was also found in this layer.

Sheep/goat. The bones identified as sheep/goat numbered 56 from eleven contexts (at least eleven individuals). Almost all were from the skull, feet, and vertebrae. Many of the vertebrae had cut marks (nine of the thirteen lumbar vertebrae were chopped in half). There were not enough indicative bones to provide any ages.

Cow. Forty pieces of cow bone were identified from eleven contexts, indicating at least fourteen different animals. Again, these fragments were mostly from the head, vertebrae, and feet. Those bones which could be aged were from younger animals (6–18 months, based on tooth eruption and wear). Seven bones had cut marks on them.

Pig. Eleven bones from pigs were identified in this area. They were in eight contexts and were from at least nine individuals. As before, all the bones

which could be aged were from young animals. Only one bone showed any evidence of cut marks.

A few fragments from other species were of no significance.

To conclude: the contexts studied from room 2K were fill containing few fragments of domestic waste from cooking preparations. This suggests that if it did serve as the main kitchen, then it must have been kept reasonably clean. There was little information on the ages of the sheep/goat, and the pig and cow bones come from younger animals.

Building 2B – Room 3K

As for the earlier occupation of this room, there was little excavated evidence to determine a precise function during the later stages of occupation. It might have continued as a refectory. There were 123 fragments of bone from four contexts in this deposit. Of these, 53% were identifiable. The most common animal was cow (Table 11). In this layer there was also a fragment of human parietal (skull) bone.

Cow.   Twenty four fragments from four contexts came from a minimum of three animals. The majority of fragments (88%) were from the skull, vertebrae, and feet. They were probably waste from food preparation.

Sheep/goat.   Twenty five fragments from three contexts came from a minimum of three individuals. Seventeen fragments were from skulls, and those which had teeth were all aged over 18–48 months, so they were quite old. The only femur present was covered with cut marks. All the vertebrae were also cut.

Pig.   Three fragments of pig bone from two contexts were identified, indicating that at least two animals were present. All the bones were from young animals; none had cut marks.

Birds.   There were eight fragments of chicken, and ten of goose.

To summarize: the material from this floor was probably rubbish. It might well have been redeposited, as a piece of human bone (which was obviously intrusive) was found in this context.
Additional material came from a replacement floor in the same room, laid somewhat later during the same period of occupation. Thirty nine fragments from six contexts were produced for analysis. Of these, 26 were either unidentifiable, or were rib or vertebrae fragments. Of the remaining twelve, seven were sheep/goat fragments, three were pig, and two were cow. All the pieces were of skull, radius, or foot. As there are so few identifiable bones in this context, nothing of note can be reported about this assemblage.

Courtyard

This was the later phase of occupation of the courtyard immediately south of building 2B. The deposits produced 79 fragments of bone from two contexts, most of which were rib and vertebrae, or were unidentifiable (Table 11). Three pieces of cow femur, and fragments of pelvis, radius, tibia, and phalanx, all had cut marks on them. One appeared to have been gnawed by an animal. Three fragments of pig foot were present, but it was not possible to determine from the fragments whether they were from the same animal. One bone of the five identified sheep/goat fragments was a mandible with a worn third molar, and another was a radius from a younger animal (unfused distally, giving an approximate age of under 36 months).

Discussion

Before any statements are made concerning this material it is important to note the limitations of the sample. As it was only a portion of the total excavated material (with all the inherent biases which that contains) it was not possible to calculate total amounts of meat consumed on the site over time, or to extrapolate numbers of animals brought into the site per year or per phase. Many of the phases studied contained only very few bones so that statistical analysis of the material was not realistic, therefore the conclusions drawn from those areas must be made with care.
A brief summary of the general nature and state of the deposits is given by period, followed by a discussion of some more specific points.

Periods 1–3A: c 1150–c 1280

Most of the material seems to have been domestic waste, but in the last period the relative proportions of bones present indicated that food of slightly higher quality was being prepared.

Period 3B: c 1280–c 1320

The bones of this period from the earliest occupation of the domestic range were particularly scarce, containing only those from cattle, pig, and sheep/goat. With such little material it would be unwise to draw any conclusions. The range of animals eaten agreed with the documentary evidence for this time, which lists beef and salted hogs as being present in the larder (see Chapter 5).
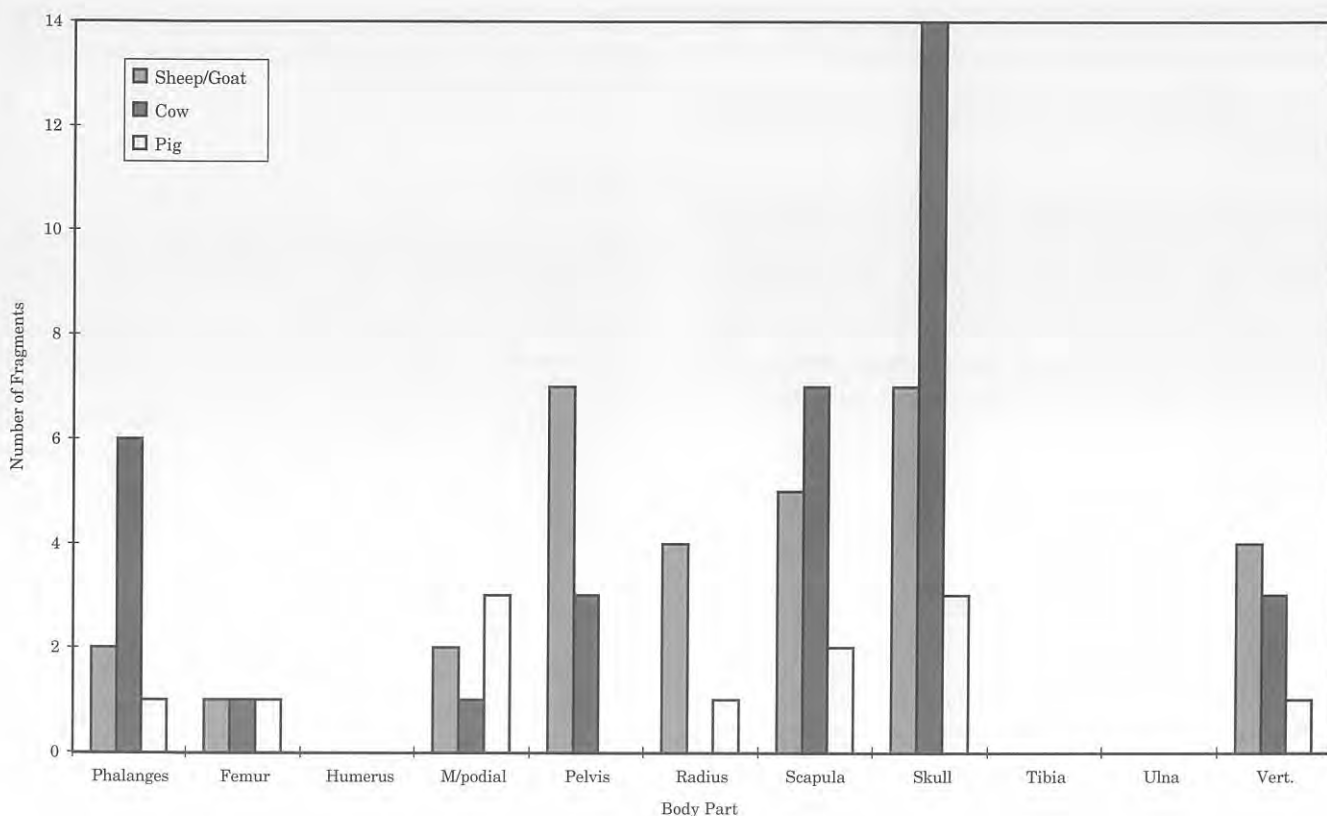
Figure 76   Animal Bone – Part Representation Room 2K (c 1400–c 1532)

Period 4A: *c* 1340–*c* 1400

The material from this period seems to have been largely waste from food production. The sheep/goat bones found in these contexts were from animals which were young (average age under 30 months) compared with those from the other periods.

Period 4B: *c* 1400–*c* 1532

Again, the material from these contexts was domestic waste, with a large proportion of skull fragments and many bones bearing cut marks.

Despite the problems of small sample-size and the apparent homogeneity of the deposits over time, there were differences in the material which can be commented on with some certainty. Across the site different areas of usage become apparent. The large numbers of bones from contexts in the west end of the north aisle of the church, and from room 2K in the supposed domestic range, corroborate the suggestion that they were the main areas of food-refuse dumping, perhaps even the kitchens themselves, or adjacent to them.

The age at death of the various species differed, and in the case of the sheep/goats also differed over time. Most of the bones identified were from older adults, putting the sheep/goat meat into the mutton category, the exception to this being the earliest (14th-century?) church-aisle contexts (average age under 30 months).

Cow-bone fragments came largely from animals aged between 12 and 36 months, and the pig bones were all from young animals (12–24 months). There was a mix of adult and young chickens, and adult geese and pheasant. The bones of the rabbits and the hare were also from adult animals. The mix and state of fragmentation of the material leads to the conclusion that this material was all waste from normal cooking activities. The variation in the body parts represented showed that the cheaper parts of the body were used more frequently, even when allowance is made for the observation that foot bones and teeth survive longer than long bones (Payne, 1975). In this period there was some evidence to suggest that, for a time, meat of higher quality was prepared on a more regular basis. The animals present in this sample which were not eaten, such as cat and dog, were from older individuals.

Bird bones were present all through the periods studied, but there seemed to have been a general reduction in the relative amount present over time (even taking into account the fact that this group might have suffered more than most from recovery biases).

The most likely method of cooking the animals was boiling or stewing, as it is the most economical way of using meat, and the documentary evidence corroborates this. The cut marks on the bones were at the muscle insertions, indicating that the larger bones (ie pelvis, scapula) had the meat filleted from them before use. Many of the thoracic and lumbar vertebra had been split down the dorso-ventral axis

to form T-bones. Maltby (1979) states that this was uncommon before the post-medieval period, but does not state the source of this claim. It is obvious that this practice occurred at St Bartholomew's Hospital before then, but exactly to what extent cannot be stated. Seven sheep heads had been cut in half, presumably to remove brawn, a common food for invalids. This seems to have been more popular in the earlier phases, suggesting a change in butchery techniques after about the 14th century, although it must be remembered that the later sample was very small.

Measurements of many of the bones were taken, but owing to the small numbers involved it was not possible to produce any results on any one species.

Conclusions

It is difficult to give conclusions for the whole site when the groups of bones studied were so small and disparate. The main reason for this is that only a selection of the material recovered could be submitted for analysis. This was an entirely valid approach, as time and money restraints indicated that only a portion of the whole could be examined, and the samples were chosen for their archaeological significance, not necessarily for their archaeozoological quality. Any future work on this assemblage might attempt to rectify this shortcoming.

One method might have been to pool more of the data to give greater numbers, which would give stronger data. This was not done for two reasons. Firstly, the sample as a whole is small, so that even taking all the contexts together would provide only just over 600 sheep/goats, 300 cows and nearly 80 pig fragments; which is not a great deal on which to base an interpretation covering a period of five centuries. Secondly, the main aim of this study was to look at small-scale differences between rooms, and across time, so any further pooling of the data would lose the few results which were actually obtained.

In the results section the relative importance of each species has been discussed. Some suggestions have been given as to how the meat was cooked and in which parts of the site the meat might have been prepared. The ages of culling of the animals have been discussed, and the differences (or lack of them) between rooms and phases of occupation commented on. There is no information to suggest anything other than that this was an assemblage of domestic food waste and it would seem, from those bones studied, that this was the typical range of species and relative body parts found on medieval and post-medieval sites in this part of England.

Acknowledgements

I would like to thank Dale Serjeantson and Simon Davies for their helpful comments and advice on this report. Any interpretations or misinterpretations are, of course, due entirely to the author.

Radiocarbon dating of wood samples

Two samples of wood were submitted for radiocarbon dating in 1978. The work was carried out by R T Otlet at AERE Harwell. The results are:

HAR-2272   800±60 BP   1σ: 1180–1270 cal AD
                         2σ: 1050–1285 cal AD

This sample was a fragment of oak from a wooden door: context QS, Context Group A7.

HAR-2273   990±70 BP.   1σ: 985–1155 cal AD
                         2σ: 895–1215 cal AD

This sample was a fragment of oak from the slipway: context QQ, Context Group A4.

The results have been calibrated using the method of Stuiver & Reimer (1986) and the data published by Pearson & Stuiver (1986).

Plant and insect remains by Julie Jones

An environmental study of selected deposits from the site was carried out by Mark Heath in 1977, but he was unable to write up the results in detail before he left the University of Bristol later that year. The processing methods employed are outlined in his archive notes (see p 8) but it suffices here to mention that the samples were sieved to 300μ. Although Heath left no detailed record of the original sample sizes, it is known that in no case did they exceed a few litres. He examined thirteen samples (two of which produced no plant or insect remains) and Table 13 lists the species identified by him. The mosses and ferns were identified by G Buck and the insects by M Chisholm, both of Bristol University. The results of their analyses have been synthesized by the author. The nomenclature and habitats of plants are based on Clapham, Tutin & Moore (1989). The nomenclature of the insect remains is taken from the original study, so some of the names given here might not be those in current usage.

The site of the hospital lies in a narrow space between the north banks of the River Frome and a steeply rising cliff of Brandon Hill Grit, close to Frome Bridge, which was probably first constructed during the late Saxon period (see p 16). The samples examined related to the early history of the site, prior to its use as a hospital. The earliest deposits possibly reflect the natural environment around the banks of the Frome and human activity during the 12th century.

Those earliest deposits (context SP: see Chapter 3) were taken from the alluvial clays on the banks of the River Frome, or more accurately the postulated creek adjoining the river, near Frome Bridge.

Their contents give an impression of the natural environment: open woodland or scrub, with hazel (*Corylus avellana*), elder (*Sambucus nigra*), sloe (*Prunus spinosa*), dog rose (*Rosa canina*), blackberry (*Rubus fruticosus*), and herbaceous plants such as woody nightshade (*Solanum dulcamara*). Mosses were also present, notably *Hyclomium splendens*, a species typical of acid woodland and heath, and *Dicranella heteromalla*, which occurs on acid and humus-rich soils in woodlands. Acid heathlands or fens are preferred by heath dog-violet (*Viola canina*). Some species of *Asplenium* can also occur in shaded hedgebanks. Damp conditions are indicated by water pepper (*Polygonum hydropiper*) and bur-marigold (*Bidens* sp.), both typical of wet meadows which hold standing water in winter. Redshank (*Polygonum persicaria*) is another plant which prefers damp places such as ditch-banks, whereas knotgrass (*Polygonum aviculare*) will grow in both wet and dry soils. The latter is, however, most typically a species of disturbed ground, a habitat also preferred by sow-thistle (*Sonchus* sp.) and fat hen (*Chenopodium album*).

Most of the identified insect remains came from these same early deposits. Damp conditions are indicated by the aquatic beetle *Helophorus* c.f. *aquaticus* and the larvae of the fly *Stratiomyid*, a species which lays its eggs on plants near, or in, water. Puparia of a number of other species of flies, and the elytra of the beetle *Aphodius*, which are commonly found in animal dung, suggest that the surrounding land was associated with cattle or horses. The ground close to the river might have been a water meadow, used for grazing animals, with areas of scrub or open woodland nearby.

Several pits had been cut into the river bank (see Fig 3) and are thought to have been linked to early riverside structures such as moorings or fence posts. Context SE was the fill of one of those pits and is described as black peaty material mixed with natural blue clay. Species such as blackberry, sloe, and elder (which are associated with hedgebanks and scrub) were again present, with the addition of crab apple (*Malus sylvestris*) and plum (*Prunus domesticus*). Whereas these might continue to reflect the local environment, they are typical species of cess deposits and might have been plants collected in the vicinity for consumption, the waste being deposited in the river. Puparia of coprophagous flies and beetles also point to the presence of dung or other decaying organic material.

Some of the later deposits sampled (contexts RT, QG & QM) dating from *c* 1175–*c* 1200, were associated with the construction of stone pavements and a wooden platform which provided access to the river. They produced very few plant remains but, such as they are, also indicate conditions of scrub with areas of disturbed ground or grass.

The construction of the first of a series of buildings in the yard took place from *c* 1250–80. Deposits outside a possible timber-framed building (Bg 7) described as grey/red-brown clays with a high organic content (contexts QB, RB, PA, PH & PK) included the remains of decayed wooden planks. Of interest from these deposits is the fruit of a whitebeam, identified by Heath as *Sorbus aria*. This forms part of a large group of whitebeams which are difficult to identify to species but are common today in rocky woodlands on limestone and oolite; for example in Leigh Woods on the slopes of the Avon Gorge opposite Clifton, and along the banks of the River Avon. This might represent material brought into the site, or it might have been locally common around St Bartholomew's during the medieval period. Fig (*Ficus carica*) was also present in this deposit and is likely to have been fruit imported into Bristol.

Table 13: Waterlogged plant and insect remains

	Common name	LATE 12TH CENTURY						LATE 13TH CENTURY					HABITAT
		SP	SE	RT	QG	QM	DER	QB	RB	PA	PH	PK	
PTERIDOPHYTA													
ASPLENIACEAE													
Asplenium sp	Spleenwort	3f											H-shade, rock/wall crevices
BRYOPHYTA													
Dicranella heteromalla (Hedw.)		4f											W-acid/humus rich
Hylocomium splendens (Hedw.)		49f											W-acid, heath
Neckera crispa (Hedw.)		2f		7f									dry calcareous soils
VIOLACEAE													
Viola canina L.	Heath Dog-violet	27					2						dry G. heaths & fens
CARYOPHYLLACEAE													
Stellaria media agg	Chickweed	8											D, Da
CHENOPODIACEAE													
Atriplex patula L.	Common Orache	17							5	1	2	2	D, Da
Chenopodium album L.	Fat-hen	8				1	1		1	1			D, Da
ROSACEAE													
Malus sylvestris Miller	Crab Apple		3										HSW
Prunus c.f. domestica L.	Plum		7										C
Prunus spinosa L.	Sloe	1	7										HSW
Rosa sp. (thorn)	Rose	1											HSW
Rosa canina L.	Dog Rose	1											HSW
Rubus fruticosus sens.lat.	Blackberry	4	9		1		2		2		1		HSW
Rubus idaeus L.	Raspberry								1				HSW
Sorbus aria sens lat.	Whitebeam												SW
Rosaceae indet		1											
UMBELLIFERAE													
Aethusa cynapium L.	Fool's Parsley	1											Da

Table 13: (cont.)

		LATE 12TH CENTURY						LATE 13TH CENTURY					
		SP	SE	RT	QG	QM	DER	QB	RB	PA	PH	PK	HABITAT
POLYGONACEAE													
Fallopia convolvulus (L.)A.Love	Black Bindweed	1					1						D, Da
Polygonum aviculare L.	Knotgrass	85	1	2									D, Da
P. hydropiper L.	Water-pepper	1											B, damp places
P. persicaria L.	Red Shank	27	2				1		1		1	1	Da
Rumex acetosella L.	Sheep's Sorrel	7			1			6		1			G, Da
R. crispus L.	Curled Dock				1								D, Da, grassy places
R. obtusifolius L.	Broad-leaved Dock	1			1								D, Da, H, field margins
MORACEAE													
Ficus carica L.	Fig								2				CI
CORYLACEAE													
Corylus avellana L.	Hazel	18		4			25						HSW
SOLANACEAE													
Solanum dulcamara L.	Woody Nightshade	3											Da, HW
S. nigrum L.	Black Nightshade	3											Da
LABIATAE													
Stachys officinalis (L.)Trev.	Betony		1										G, H, heaths, open wood
Teucrium scorodonia L.	Wood Sage								2				GW, heaths
CAPRIFOLIACEAE													
Sambucus nigra L.	Elder	6	1		1	1	1	2					HSW
COMPOSITAE													
Arctium lappa L.	Great Burdock	2											D, field border
Bidens sp.	Bur-marigold	1											B, esp where standing water in winter
Sonchus sp.	Sow-thistle	10											D, Da
Compositae indet		1											
TOTAL		235	32	6	5	2	33	8	13	3	4	3	

Table 13: (cont.)

| INSECT REMAINS | LATE 12TH CENTURY | | | | | | LATE 13TH CENTURY | | | | | HABITAT |
	SP	SE	RT	QG	QM	DER	QB	RB	PA	PH	PK	
DIPTERA												
Scatophaga stercoraria	3p	2p										
Sepsis sp	5p	8p										
Indet. *Cyclorrhaphon* sp (poss *Sphaeroceridae*)	25p	10p										
Stratiomyid		1l										
Leptocera	21p					8p						
COLEOPTERA												
Cercyon	1e											
Helophorus	1e											
Aphodius		2e										
Geotrupes						1						

HABITAT:
B: bankside. C: cultivated D: disturbed ground Da: disturbed ground including arable.
G: grassland. H: hedgerow. I: introduced. S: scrub. W: woodland.

e: elytron, *f*: fragments, *l*: larvae, *p*: puparium

Plant identifications are based on the original analysis by Mark Heath. Nomenclature and habitat description are based on Clapham, Tutin and Moore (1989).
Insect identifications are based on the original work by M. Chisholm.

10 St Bartholomew's and other Bristol hospitals: a comparative study

In Chapters 5 to 7 evidence for St Bartholomew's from both excavation and contemporary documents was set out and the interpretation made almost entirely on the basis of that evidence. This chapter examines the degree to which St Bartholomew's may be regarded as typical of medieval hospitals in a number of respects. The recent proliferation of the literature has been referred to at the beginning of Chapter 2, all of the authors quoting cases which amplify their conclusions. In this report some abbreviation is required to make things manageable, and there seems little point in once again heaping up examples, as interested readers may consult the relevant texts cited. Instead, the broad themes will be restated, and how St Bartholomew's related to these described.

In addition, more research has been undertaken into other Bristol hospitals, extending earlier (and now outdated) summaries. Although a fair amount has been published on the subject, this is widely scattered and has not been subjected to scrutiny, particularly in relation to the information available in the calendars of state papers. If our understanding of what actually happened, as opposed to vague generalities, is to be advanced then this must be drawn together, and it is judged that there is no better opportunity than the present work. It is somewhat premature to relate St Bartholomew's to hospitals elsewhere before it has been compared with similar institutions in Bristol. Such an approach has been started for London hospitals, and for the monastic houses of such cities as York and Chester, where it has been shown to be a more rational approach to what is already a sufficiently complex subject (Rawcliffe, 1984; Cullum, 1993; Palliser, 1993; Ward, 1993). Butler (1993) has put forward similar arguments. Most recently, a detailed study of the hospitals of Norwich has set the pace for other towns (Rawcliffe, 1995a).

It must be stressed that this new research into the Bristol hospitals is far from complete and, apart from that undertaken for the St Bartholomew's project, it was impractical in view of the time available to examine in detail manuscript sources lying in the Bristol Record Office or elsewhere. This account is merely a summary of the state of knowledge of hospitals and almshouses in one of the most important medieval towns, which hopes to spark further debate to test its preliminary findings. It is worth reiterating the cautionary observation of Orme & Webster (1995, 10–11) that although the national list compiled by Knowles & Hadcock (1971) is often used for statistical purposes, more focused studies of local areas invariably throw up a number of differences, so caution must be exercised. Even the most thorough research often fails to draw a full picture of the characteristics of any particular hospital.

Foundation and dedication

By the later Middle Ages, as would be expected, the greatest concentration of hospitals was in London and its suburbs, which had about 34 or 35 (including those institutions called almshouses) of which approximately one third were founded after 1300 and nine or ten were leper houses. However, probably as many were also established in York. Some way behind were Norwich, with at least 19; Exeter, with 10, and Canterbury, with 9 (Rawcliffe, 1984, 4–5; Rawcliffe, 1995a, 9; Orme & Webster, 1995, 37). Bristol had at least 18 (see Table 6) which was a substantial number but, given the size and wealth of the town, not particularly large.

The proliferation of hospitals throughout the country in the Middle Ages was a result of the high degree of freedom allowed to people in founding such houses: practically anyone could do so, provided they had the resources, and the fact that others were already in existence was not a bar to setting up more. Indeed, apart from wealth, the only real restrictions were the formation of a chapel and the provision of a burial ground which might be seen as rivalling the local parish church (Orme & Webster, 1995, 37–9). On the other hand, certain hospitals actually incorporated parish churches rather than compete with them (eg St Mary Spital in London) so the situation was somewhat more complex than might appear at first sight (Gilchrist, pers comm).

Like those in towns elsewhere, the Bristol hospitals were almost all established in the 12th and 13th centuries, with Holy Trinity and those termed almshouses originating from the middle or late 14th century, but mostly during the 15th (see Table 6, p 19). It is thought that the first to be instituted was the leper house of St Lawrence, which was under royal patronage. As Earl of Mortain, John (later King John) was granted the honour of Gloucester, of which Bristol was a part, and he maintained close links with the town thereafter (Taylor, 1893–6, 29; Cronne, 1946, 24). This puts the date of the first Bristol hospital to no earlier than c 1183 (the various authorities are not agreed

as to exactly when John assumed the honour) but before his accession to the throne in 1199. Unfortunately the original foundation charter is lost and only a confirmation made in 1208 survives, which does not go into detail, so no more precise information can be given (Graham, 1907, 119).

Even so, the probable date is rather late compared with other towns, and was more than 100 years after Lanfranc's initiative in Canterbury (see Chapter 2, p 13). Why there should have been such a delay is not known. It is perhaps no coincidence that this first house should have been for lepers: society regularly excluded them from towns, Bristol as much as any other. The deed of confirmation refers to the provision of a croft for the lepers near Bristol, stating that John had taken them under his protection (Taylor, 1893–6, 29). This implies that they had been forced out of town and were left to fend for themselves as best they might, so that John's initiative was the first-known attempt at some form of institutionalized relief in Bristol.

It is just possible that John was also involved in the foundation of the hospital of St John the Baptist. The 16th/17th-century chronicler of the Berkeleys, John Smyth, claimed that Maurice de Berkeley, who died in 1189, had granted lands to it (Maclean, 1883, 72). This is not necessarily a reliable source, as Smyth was quoting retrospective sources, but the family certainly held extensive lands in the district. According to a memorandum placed near the end of the medieval Little Red Book of Bristol, its founder was a certain John Farceyn, or Farcey (Bickley, 1900, II, 234). Contrary to what is stated elsewhere, the memo does not give any indication of the date of foundation. A footnote in the same published source quotes Dugdale's Monasticon as stating that the hospital had been founded by King John, but its identification has been shown to be erroneous (Latimer, 1901, 172). Nevertheless, it was certainly in existence during John's reign, as a grant of a piped water-supply was made to the hospital at that time (Latimer, 1901, 173; Scott Holmes, 1911, 160). In 1266, there was a reference to old letters patent concerning the hospital which had been issued by John, those having been examined and agreed by Henry III, but the originals are not published (CPR, 1266–72, 19). Later documents state that the hospital had been founded by the king's progenitors, and was under royal patronage (CPR, 1396–9, 429 & 452; CPR, 1401–5, 413; CPR, 1405–8, 419). Whatever the actual truth of its foundation, it would seem likely that St John the Baptist was the second (if not the first) Bristol hospital, and certainly the first to be established in the town south of the Avon.

It is a matter of some interest that, according to local tradition, a hermitage in the form of a chamber cut into the shallow cliff to the south is supposed to have been loosely associated with St John's Hospital. Exactly what role the anchorite played, whether he was but one man or succeeded by others, and whether the hermitage preceded or

followed the hospital foundation, have not been determined with any confidence. One source, not necessarily wholly reliable, alleges that the hermitage was founded by Thomas of Berkeley in 1347 (Hudd, 1884–8, 262). It was referred to by William Worcestre in c 1480, but he neglected to make it clear whether any hermit was actually living there at the time (Dallaway, 1834, 160; Lobel & Carus-Wilson, 1975, map 2). Such an association was not wholly exceptional, albeit the only example of its type known in Bristol. Hospitals in several towns were founded because of the work of hermits who gave hospitality to travellers or collected alms for the poor, and such people are known to have linked themselves to parish churches and monasteries elsewhere (Orme & Webster, 1995, 66–7).

The other hospitals in Bristol are said to have been founded over the next few decades by various members of the Berkeley family. The establishment of St Mark's has become better understood since the recovery and publication of its cartulary. In outline, some time between 1216 and 1230 Maurice de Gaunt (or de Berkeley) provided money for the Abbey of St Augustine to feed 100 poor each day in the almonry which he had constructed for them. Within two years of Maurice's death in 1230, possibly under the influence of his younger brother Henry de Gaunt, their nephew Robert de Gournay established St Mark's as a separate house, independent of St Augustine's (much to the displeasure of that abbey), confirmed most of the stipulations in Maurice's endowment, and added to the fledgling hospital's property holdings (Ross, 1959, xii–xiii, xxvii–xxviii & 1–6; Graham, 1907, 114). This is further discussed under endowments and resources later in this chapter.

Both William Worcestre and John Smyth claimed that St Katherine's was founded by Robert de Berkeley, Smyth referring to documents in Berkeley Castle which were missing by the late 19th century and might have been lost during the Civil War (Nasmith, 1778, 294; Dallaway, 1834, 77; Maclean, 1883, 89; Hudd, 1884–8, 257–8 & 261–3; Scott Holmes, 1911, 153). Given the landholdings of the family in the area, which included the manor of Bedminster, the identity of the patron seems reasonable, and in 1325 it was implied, without specifically saying so, that the Berkeleys were indeed the founders (CPR, 1324–7, 110). Moreover, the Berkeleys were acknowledged as having the right to present the new master for acceptance (Hudd, 1884–8, 266–70; Scott Holmes, 1896, 328). For these reasons it is provisionally accepted that Robert was the founder, which would place it to before his death in 1220. It is worth noting that in 1414 it was alleged that the hospital had not originally been instituted as a religious house, but its exact nature is not explained (Hudd, 1884–8, 270).

Clay (1909, 291) stated that the hospital of St Mary Magdalene was founded in 1219 by Thomas de Berkeley, Robert's younger brother, but as usual she provided no source for her assertion. Again, it is

possible that she was correct, but Smyth made no reference to this in his catalogue of Thomas's charitable works (Maclean, 1883, 110). It should be noted that Thomas did not die until 1243, so if he was indeed the founder then the date of establishment could have been much later than that claimed by Clay. The earliest definite reference found so far is dated 1235 (CCR, 1234–7, 102). However, there is some confusion between this hospital and the nunnery of the same name which stood on St Michael's Hill. The latter might also have acted in some ways as a hospital and could even have developed as a nunnery from an earlier hospital; but this is uncertain and merits further research. In medieval usage, many of what are now thought of as precise titles, such as hospital, church, and so on, were not as clearly distinguished as they are today (Ross, 1959, 33 & 206; Thompson, 1991, 45–6; Wadley, 1886, 25,99 & 124).

When Sir John de la Warre founded St Bartholomew's some time around 1232–4, it seems to have been the last of those early hospitals. His motives have been examined in the discussion to Chapter 5 (p 79). The analysis might seem rather cynical by modern standards. Perhaps so, but the altruism of such benefactors has been questioned by others (eg Swanson, 1995, 212–4) and medieval attitudes were different from those of today. The poor were even seen as a necessary part of society whereby anyone adopting charitable attitudes towards them could be absolved of his sins (Rawcliffe, 1984, 5; Gilchrist, 1995). How far these benefactors were genuinely inspired by religious piety, and how far by attempts at purchasing reputation and favour, is arguable. Doubtless there were as many reasons as there were founders.

It was not unusual for hospitals to evolve from smaller monasteries (Gilchrist, 1995) but many must have come into being *de novo*. Although details are not clear, it seems that most of the Bristol houses were founded on estates which were essentially unoccupied, at least to the extent that major new building work had to be undertaken. The croft of land donated for the establishment of St Lawrence's has already been referred to (Taylor, 1893–6, 29). St Mark's might have developed from the almsgiving work of the nearby St Augustine's Abbey (Thompson, 1991, 47). For the establishment of Holy Trinity, a plot of land at the end of Old Market was provided (Leighton, 1913, 251).

At St Bartholomew's the situation was somewhat different: a substantial existing building was provided, along with grounds which might have included further facilities. The nature of the immediate local topography and the conformation of this hall were to set the pattern for the layout of the hospital which is still echoed on the site to the present day. In some ways it was reminiscent of the *maisons dieu*, but on a larger scale and more permanent. Nevertheless, William Worcestre's assertion, made c 1480, that St Bartholomew's had formerly been a priory of Augustinian canons seems less strange when viewed in this light; although not a single shred of evidence has been found to support this, whereas an alternative plausible explanation has been put forward (see Chapter 4, p 34).

Unlike the later almshouses, hospitals almost always had religious dedications, with the choice often reflecting prevailing fashion. Some hospitals claimed to possess relics and images, often of their dedicatee saint, which were reputed to answer prayers or assist in healing, but no such examples are known in Bristol (Orme & Webster, 1995, 56).

The dedication of the Bristol hospital to St Bartholomew is interesting. There were at least 22 saints bearing that name, but in this case he was the apostle (Book of Saints, 1989, 77–9). Little is known of him, and it is even likely that Bartholomew was not his real name: he is identified with Nathaniel in the Gospel of St John. Popular tradition has it that he went to preach in India and Asia Minor, where he was flayed alive, then beheaded. It was this fate which led to his associated emblems being the knife and his own flayed skin (Book of Saints, 1989, 78; Coulson, 1958, 63–4; Roeder, 1953, 20; Thurston & Attwater, III, 1956, 391–2).

According to Clay (1909, 252–3) he was associated with the cleansing of lepers. She also accorded him the faculty of healing the sick, and it was his supposed appearance to Rahere during a fever which led to the foundation of St Bartholomew's in London. Probably for this reason Clay (1909, 291) suggested that the Bristol hospital might have been a leper house. Certainly, the saints were traditionally associated with particular aspects of human life. Bartholomew was the patron of Florentine salt and cheese merchants, of bookbinders, butchers, corn chandlers, dyers, glovers, furriers, leather workers, plasterers, shoemakers, tailors, tanners, and vine growers. He was also invoked against nervous diseases and twitching, but healing lepers does not figure among his attributes (Roeder, 1955, 20). Knowles & Hadcock (1971, 310–39) list eighteen medieval hospitals dedicated to him, including that in Bristol. This is less than two percent of the total number of hospitals in England and Wales given by them, but of significance for all that. Of those, seven were for lepers (and that only part of their function, except those at Oxford and at Racheness in Norfolk). It was noted that the Oxford hospital was for lepers only until c 1327. Of all those houses dedicated to the saint, nearly all had mixed functions: eight cared for the poor, seven for the sick, two for travellers, and six were lesser secular almshouses. Those for lepers were mostly founded during the 12th century, the latest being at Spittal by Tweedmouth c 1234 and at Lincoln pre 1314.

If the foregoing numbers are correct, statistically there seems to have been no direct association between St Bartholomew and leper houses. It has been suggested that his supposed flaying might have led to an association with sufferers from skin complaints, and St Bartholomew's at Oxford claimed to have possessed a fragment of his skin

(Orme & Webster, 1995, 50 & 56). Why so many hospitals were dedicated to him is not fully explained. Perhaps it was merely an acknowledgement of his role as one of the twelve disciples, although his association with diseases of the nervous system could have been an important factor. Whether or not more attention should be paid to early claims that 'lunatics are made whole' by the saint is deferred to future research (Clay, 1909, 253). There is no evidence at all that the poor inmates of St Bartholomew's in Bristol were more prone to mental abnormality than equivalent populations elsewhere. Probably part of the reason for the dedications to him is that he had become highly regarded in England during the 11th century when a relic which was purported to be one of his arms was presented to Canterbury (Hallam, 1994, 135).

Finally, it is known that Sir John de la Warre's father, Jordan, died during late August or early September 1231 (see Chapter 2, p 23). The feast of St Bartholomew is on 24 August, and part of the reason for selecting that saint as the dedicatee of the Bristol hospital might simply have been that Jordan had died on St Bartholomew's Day and the name was chosen from among those of the popular saints as a form of commemoration. This is entirely speculation.

The only other hospital to be called as such in medieval Bristol, was Holy Trinity, which has been discussed in some detail by Leighton (1913). He referred to a foundation charter drawn up for the Bristol merchant John Barstaple in 1395, which was lost but confirmed in 1408. It must have been the 'newly renovated' hospital mentioned in a will of 1396, and described in another of 1397 as 'newly made' (Wadley, 1886, 47 & 58). There were clearly problems as the pope was enjoined to intervene in 1399, to ensure that Barstaple's intentions were carried out. Before Barstaple's death, the almshouse was transferred to the Bristol Commonalty in about 1408. This was a different kind of establishment from the other Bristol hospitals, as it was in two parts: an almshouse on one side of the street (probably the south) and a fraternity which seems to have been a religious guild opposite. The licence to establish the fraternity was not granted by the king until 1417 (CPR, 1416–22, 68–9). Its unique organization probably owed much to its late foundation date.

Although they are often seen as distinct from hospitals, almshouses had many similar features and are therefore included in this discussion, but it turns out that surprisingly little specific information is actually known about them (see Table 6).

Neither the founder nor the date of foundation of All Saints' Almshouse have been identified with certainty, but it is possible that it had been established during the 13th century. Lobel & Carus-Wilson (1975, 11) cite one of the All Saints' Church deeds which is dated to 1267/8, perhaps not too reliably on the basis of the names of the mayor and witnesses compared with Ricart's list. But closer examination has shown that the deed does not actually refer to the almshouse itself; rather, it is mentioned without any further details in an endorsement which has been dated to the 14th century, although if the calendarer's evidence is examined more carefully the hand might date to c 1460 (Strong, 1967, 2–3 & xv; Ricart, 1872; Latimer, 1903). According to Sampson (1909, 90) who does not provide the source of his authority, the almshouse was founded by a Stephen Gnowsall (or Snowsale) in 1350, but the truth of that assertion cannot be tested. Even if that were true, there seems to have been some error as Stephen Gnowsale (or Gnosall, or de Gnohussale) was vicar of All Saints' Church in 1254, and later became its dean. He was one of the parties to the deed referred to above, and it is possible that this is the source of the confusion (Atchley, 1901, 159; Ross, 1959, 92). More recently, many of the All Saints' records have been published, and it is stated in a later (undated) medieval note that Gnowsale had given to the church the 12d annual rent arising from the property which later became the almshouse (Burgess, 1995, 6). On balance, it is reasonable to conclude that Gnowsale was in some way involved in its foundation, which would place it to around the middle or second half of the 13th century.

Despite the supporting claims of Sampson (1909, 88–9) and Marochan & Reed (1959, 119) the supposed establishment of an almshouse in 1292 by the mayor of Bristol, Simon Burton, is now queried by scholars. There was certainly a house in Long Row to which a legacy was left in 1385 by Walter Derby, and in subsequent years by others, although it seems never to have been referred to in the Middle Ages under Burton's name, merely as the almshouse in Long Row. A possible explanation is that the house was re-endowed by John Burton, who from 1424 onwards was several times mayor; the coincidence of surnames might have led to the confusion (Wadley, 1886, 15; Lobel & Carus-Wilson, 1975, 8–9 & 26). Perhaps the fire noted by Marochan & Reed (1959, 123) as having occurred in the medieval period caused extensive damage and the need for substantial reconstruction. Interestingly, in his will of 1454 John Burton made no reference to the almshouse among his provision for the poor, so there is still doubt as to even his involvement. By the mid 16th century it was sometimes called St Thomas's Almshouse (Wadley, 1886, 135 & 187). Nevertheless, in his itinerary of c 1540, Leland said '. . . Burton's Almes Howse. Burton maior of the towne and founder is buried in it.' (Toulmin-Smith, 1910, 93). One might pause at arguing with a direct witness, but this complicates the issue further, for John Burton requested in his will that he be buried in St Thomas's Church. Perhaps the founder actually was Simon Burton. The difficulty remains unresolved.

Spicer's Almshouse is the only example in central Bristol to have been excavated properly, but the identification of the site was not absolutely certain.

The evidence points to the house having been first built in the early 14th century (Williams, 1988). John Spicer was mayor in the mid 14th century, but exactly when the almshouse was founded is uncertain; his will, if it survives at all, has not been published. As Williams notes, the only specific reference to Spicer being involved at all was a deed of 1471 quoted by the 18th-century historian Barrett, and given the unreliability of that source the association with him is not certain. The earliest record so far known is dated 1345, and concerns a gift by John Fraunceys of ten shillings per year for its sustenance; but Spicer's name is not mentioned, rather the almshouse is described as lying in Temple Street near the gate (BRO 00020(2): PIT Aa 12(2). Information kindly supplied by Sheila Lang). For some reason, Katherine Calf (Spicer's daughter) did not leave any legacy to it in her will of 1389, which places some doubt as to its relationship with the family (Wadley, 1886, 22). It was in all probability the 'almshouse within Temple Gate' referred to in a deed of 1393, and in similar manner thereafter (Lobel & Carus-Wilson, 1975, 26; Wadley, 1886, 59).

William Canynges was the most famous of the late-medieval Bristol merchants, who built up an enormous trade, particularly in the Atlantic. It was he who paid for the church of St Mary Redcliffe to be magnificently rebuilt, and he had sufficient status to entertain Edward IV, possibly at his house in Redcliffe Street. In later life he became a cleric and dean of Westbury College, a few miles to the northwest of the medieval town, and died in 1475. The date of foundation of his almshouse is not absolutely certain, but it seems to have been in about 1440–2. Clay's suggestion that it was in 1422 seems much too early, as Canynges would then have been only about 20 years old. The will of the merchant John Gaywode, who also lived in Redcliffe Street, made specific reference to it in 1471 (Lobel & Carus-Wilson, 1975, 14 & 26; Dallaway, 1834, 174–209; Sampson, 1909, 100; Clay, 1909, 291; Sherborne, 1985, *passim*; Wadley, 1886, 145 & 151–5).

Richard Forster (sometimes called Foster) was several times mayor of Bristol in the 1430s and 1440s. Little is known of his almshouse just inside Redcliffe Gate, which was also mentioned in John Gaywode's will of 1471 (Lobel & Carus-Wilson, 1975, 14; Wadley, 1886, 145).

Details of the origins of Spencer's Almshouse are also a little confused. Clay (1909, 291) alleged that the date of foundation was 1460, but provided no corroborative evidence. William Spencer, another sometime mayor of Bristol, was a friend of William Canynges and was appointed one of the executors of his will, made in 1474. Although the will is not specific, apparently Canynges left money for the establishment of an almshouse, which Spencer arranged near St Bartholomew's, opposite the Franciscan Friary in Lewins Mead. William Worcestre says that the date of foundation was about 1478, which means that it would have been only a couple of years old when he was writing, so the observation

must be taken seriously (Lobel & Carus-Wilson, 1975, 14; Wadley, 1886, 153; Nasmith, 1778, 261; Dallaway, 1834, 123 & 149). According to Sampson (1909, 84) who does not cite his authority, the foundation did not take place until 1493, but that was a considerable delay and there is likely to have been some confusion over the date.

John Foster was a merchant shipbuilder, like Canynges with an extensive Atlantic trade, and sometime mayor. He founded his almshouse, with its Chapel of the Three Kings of Cologne, just up the hill from St Bartholomew's. The precise date is not certain. Writing *c* 1480, William Worcestre mentioned the poor of the Three Kings at this place, but the meaning is unclear as he seems to have been referring to the nunnery of St Mary Magdalene (Nasmith, 1778, 201; Dallaway, 1834, 77). Sampson (1909, 101) stated that Foster purchased land in 1483 and again in 1484, in which year the chapel was built, but does not make his authority clear. Foster made his will in 1492, appointing a John Easterfield as one of the two executors, leaving instructions for the future financing of the house (Veale, 1951, 175–81; Ross, 1959, 287–8; Lobel & Carus-Wilson, 1975, 14 & 26).

Robert Strange was yet another Bristol merchant and three times mayor of the city. His almshouse was founded within the town walls in about 1490, and because of its location came to be called St John's Almshouse in more recent times (Lobel & Carus-Wilson, 1975, 14 & 26).

The only other medieval merchant known to have established an almshouse was Robert Magdalens, of Nunney in Somerset, which was noted by Leland in his Itinerary of the early 16th century. That almshouse seems later to have been called Redcliffe Hospital or Redcliffe Almshouse (Toulmin-Smith, 1910, 93; Lobel & Carus-Wilson, 1975, 14 & 26).

At least two almshouses were founded by crafts guilds under their halls, presumably in cellars there: those of the Weavers and of the Fullers, both apparently established during the 15th century, although that of the Weavers might have been much earlier. It is possible, in view of their wealth, that the Merchant Tailors' Almshouse was also of 15th-century origin, although it is not definitely known before the mid 16th century (Sampson, 1909, 86; Lobel & Carus-Wilson, 1975, 14 & 26; Williams, 1988, 108).

Location

Examination of the locations of hospitals in any town shows a common trend: they were usually sited towards the edge or just outside the town walls. Doubtless, lack of available space was often a critical element in the selection of a suitable site, but another major factor was the density of nearby traffic. Many hospitals grew up alongside main roads leading into towns, and bridging points were particularly favoured. Others were founded at ports

BRISTOL

Outline plan of the medieval town

Figure 77   Bristol: outline plan of the medieval town, with site location

Monastic Houses	Hospitals	Almshouses
M1 St James's Priory (Benedictine)	H1 St Lawrence's (leper)	A1 All Saints'
M2 St Augustine's Abbey	H2 St John the Baptist	A2 Burton's
M3 St Mary Magdalene's Nunnery	H3 St Katherine's, Bedminster	A3 Spicer's
M4 Dominican Friary (Blackfriars)	H4 St Mary Magdalene's (leper)	A4 Canynges's
M5 Franciscan Friary (Greyfriars)	H5 St Mark's (or Gaunt's)	A5 Richard Forster's
M6 Carmelite Friary (Whitefriars)	(H6) St Bartholomew's	A6 Spencer's
M7 Friars of the Sack	H7 Holy Trinity	A7 John Foster's
M8 Augustinian Friary (Austin Friars)		A8 Strange's (or St John's)
		A9 Fullers'
		A10 Weavers'
		A11 Magdalens's

because they were points of arrival and departure. There were advantages in establishing hospitals in the suburbs: land was cheaper; there was more room to provide gardens which could yield valuable foodstuffs; in general the surroundings would be quieter and healthier than in the bustle of town. There were also disadvantages, however, as such areas were largely unprotected, and were frequently roamed by prostitutes and beggars. In some ways this reflects the attitude of medieval society towards the status of hospitals (Gilchrist, 1995; Orme & Webster, 1995, 41–5). Nevertheless, the positive gains usually more than compensated for the problems which must have arisen. One of the most important was the contact which those locations inevitably brought with travellers. Although many such people were probably not much better off than those within the hospitals, not all were poor. It was common for hospitals to provide temporary accommodation for those who either arrived too late to be admitted into town after the gates had been closed, or wished to make an early start before they were reopened the following morning. This would have been a useful source of income. Moreover, if travellers were forced to pass close by a hospital, they could be solicited for alms. Although not everyone would have given in to such requests by hospital staff and inmates, doubtless many did oblige, and in good times the income generated could have added substantially to the hospital's resources (Gilchrist, 1995; Orme & Webster, 1995, 45–7).

This standard pattern of distribution is seen in Bristol (Fig 77). The two earliest hospitals stood alongside busy thoroughfares: St Lawrence's was on the London road just outside Lawford's Gate at the end of Old Market; St John's stood outside Redcliffe Gate by the main road leading to the southwest (Table 6). A little later, St Mary Magdalene's and St Katherine's were established south of St John's on this same road. For some reason, no hospital was built near Temple Gate, from which the road led to the south-east, although two friaries (Friars of the Sack, and Augustinian Friars) and at least two almshouses (Spicer's and Magdalens's) were later sited nearby. Because of its position not far from the coast, the road leading to the west was of less importance to Bristol's trade, consequently there was less traffic. Here, St Mark's was established opposite St Augustine's Abbey.

To the east of St Mark's, the last of the early hospitals, St Bartholomew's, was founded alongside the principal route to the north: close to Frome Bridge, which was the most important river crossing on the north side of town. Of the Bristol hospitals, it was also the closest to the centre of town. Anyone travelling locally on business to the abbey or the other religious houses situated in the northern suburb would be more or less bound to pass by. For purposes of contact, therefore, it was a well-favoured location. Not only was it by the main road, but it was alongside a bridge, close to any ferry and quayside facilities which might have been provided

on the River Frome before its diversion, and near the port which was built up after the rechannelling of that river (see Chapter 2 and discussion in Chapter 4, p 49). It must have been with such a purpose in mind that a guest house was provided in the hospital. The new porch would also have been ideal as a place for seeking alms. Of course, it was not all gain. The area was prone to flooding because of the tidal nature of the river. Not only did this cause inconvenience, but it led to problems with the buildings, to the extent that in the 14th century the whole hospital had to be virtually rebuilt, which would have placed a severe burden on the already meagre funds. Some hospitals are known to have played some extra role in serving the local community, such as taking responsibility for maintaining a nearby bridge (Orme & Webster, 1995, 67). No such duty is known to have been undertaken by either St Bartholomew's or any of the other local houses.

The locations of the leper hospitals in Bristol (St Lawrence's and St Mary Magdalene's) are interesting. As Gilchrist (1995) has pointed out, it is oversimplistic to see the establishment of such hospitals as merely being out of sight and out of mind. Certainly, medieval townsfolk wished to seclude lepers, but if that was all there was to it then why were they so often housed immediately alongside main roads? Rawcliffe (1995b, 16–17) notes that the leper remained a common sight, identified by his staff, begging bowl, and clapper, and she found evidence which suggests that attempts at segregation were not always rigorously pursued. Although lepers were frequently required to seek alms through an intermediary, in order to minimize direct contact, this was not always the case. Rawcliffe shows a contemporary illustration of a female leper ringing her bell to attract alms. The siting of leper houses seems to echo the position of the leper in medieval society: on the edge, but not totally excluded. The charity which benefactors afforded was on open view and a lesson for all. Indeed, if leper houses were objects of total abhorrence, it must be explained why so many of them quickly became occupied by others who did not suffer from the disease, at least in its physical manifestation, and were prepared to stay there on a long-term basis. As Gilchrist (pers comm) has observed, there is an increasing body of evidence which shows that lepers were even tolerated in more general hospitals, such as at St Giles by Brompton Bridge in Yorkshire (Chundrun & Roberts, 1995, 217; Cardwell, 1995, 237). There was a curiously ambivalent attitude of both sanction and forbearance towards those afflicted. These issues are discussed in more detail by Rawcliffe (1984, 6–7; 1995a, 33–59; 1995b, 14–18) by Manchester (1984) and by Orme & Webster (1995, 29).

Seen in this light, the siting of the Bristol leper houses is fitting. St Lawrence's hospital must have been quite prominent. It was only just outside a flourishing market-place and the passing traffic would have been heavy by medieval standards. The

hospital of St Mary Magdalene was perhaps less favourably placed. Although alongside a main road, it was situated between two other hospitals. The house of St John the Baptist would have been in a better position to obtain alms from those leaving town, whereas St Katherine's was the first hospital passed on the way in.

Whatever their aspirations for a desirable location might have been, of course when someone founded a new hospital any selected site had to be available to them. For most people there would have been limitations according to what land they already owned or could afford to purchase. With the establishment of so many religious houses in the northern suburb of Bristol, there was severe competition for space, although admittedly some of those monasteries were founded a little later than the hospitals (see Table 6). The Berkeley family held huge estates both to the north-west of the town and in the southern suburb of Redcliffe, accounting for the positions of the hospitals which they established. As Earl of Gloucester, John (the future king) came to hold the manor of Barton, so he was able to site St Lawrence's there.

How the de la Warre family acquired the site of St Bartholomew's is still unknown. As discussed in Chapters 2 and 4 (pp 19 & 52) the estate was sandwiched between lands belonging to Tewkesbury Abbey, a fairly small holding of the Crown, and the lands of the Berkeleys to the west. If the de la Warres were indeed a branch of the Berkeleys, their ownership is easier to understand, but this has not been proven. Alternatively, for reasons given in those same chapters, they might have obtained the land from the earldom of Gloucester. Naturally, this was not their only property in Bristol, but the others were either houses within the town, which would have been unsuitable for such an institution, or in Billeswick, where St Mark's had been founded only a few years earlier. Given that the family wished to establish a hospital, therefore, the choice of site was clear.

In the later Middle Ages, there was an increasing trend for the new almshouses to be sited closer to the centre of town, so that they were a more integrated part of the local society. Not only were these new foundations generally much smaller than the earlier hospitals, and thus more readily accommodated within the restricted space, but they were founded by merchants and guilds who wished to provide for more clearly defined groups (Gilchrist, 1995; Orme & Webster, 1995, 44).

Such a pattern is found in Bristol (Fig 77). Thus All Saints' Almshouse, although possibly founded as early as the 13th century, was sited almost at the exact centre of town. Of the eleven medieval almshouses known, seven were established south of the River Avon, in Redcliffe and Temple, which probably reflects the relative spaciousness of that quarter (Lobel & Carus-Wilson, 1975, 13). As late as the 15th century, a little room was found within the old walls to accommodate Strange's Almshouse. Along the road from St Bartholomew's, Spencer's Almshouse was established in Lewins Mead on a narrow plot backing onto the Frome, and Foster's Almshouse was built just up the hill, where there was still space in a relatively underdeveloped area. Even these later almshouses which were set up outside the early town walls were no longer particularly out of the way. As the town continued to expand its boundaries towards the end of the Middle Ages, encroachment into the suburbs had drawn those districts well within the orbit of habitation.

Jurisdiction and administration

Because hospitals were essentially religious houses they came under the jurisdiction of the Church, and thus under the ultimate authority of the pope. Nevertheless, none of the pontiffs seems to have taken any particular interest in the English hospitals, and there is little evidence that they ever interfered beyond granting occasional indulgences and so on (Orme & Webster, 1995, 32). This was certainly the case in the Bristol houses, where examples of direct action are rare. In 1350 Clement VI instructed the Bishop of Worcester what action should be taken concerning Richard Frаunceys, one of the brethren of St Mark's Hospital, who without leave had gone to Rome but then wished to be reconciled with his order (C Pap Letters, 1342–62, 338). The strongest degree of involvement so far discovered was the order made by Boniface IX in 1399, in which he forbade anyone from interfering with the execution of the will of John Barstaple in founding Holy Trinity Hospital; anyone doing so was threatened with excommunication (C Pap Letters, 1396–1404, 245). The other concerned St Bartholomew's. In 1438 Eugenius IV granted dispensation for John Arundel, the master of the hospital, to hold additional wardenships (C Pap Letters, 1431–47, 68).

If the popes remained aloof, the bishops were far more likely to be involved in hospital affairs, and numerous cases are known where they intervened (Orme & Webster, 1995, 34). In Bristol, the diocesan boundary was defined by the River Avon: Worcester to the north, Bath and Wells to the south. The most frequent examples of direct action relate to attempts to control the increasing degree of administrative malpractice at many hospitals, which are discussed in some detail later in this chapter (p 226). In more regular affairs, licences were sometimes granted to meet special needs. For example, in 1339 Ralph of Tetbury, then master of St Mark's, was allowed one year's leave to fulfil his vow to visit the shrine of St James at Compestela in Spain (Haines, 1966, 15). Also, the bishop could intervene in any arguments between houses within his diocese. For example, at St John's in 1320, a licence was given to their workmen to repair their broken water pipe in the churchyard of St Mary Redcliffe, even though the church authorities did not seem to like it (Hobhouse, 1887, 145). At

St Bartholomew's, in 1340 permission was obtained from the bishop to lease off the former women's dormitory (see Chapter 6, p 87).

Otherwise, for the most part the bishops' involvement entailed making periodic visitations to check on how matters stood. As the diocesan registers show, numerous such visits were paid to St Bartholomew's, but St Mark's seems to have been the only Bristol hospital where the bishop and his retinue dined. This doubtless reflects the low status of St Bartholomew's, which was usually inspected at the same time as the nearby, and equally destitute, nunnery of St Mary Magdalene.

Another form of authority, albeit usually indirect unless the hospital was of royal foundation, was the Crown. As ever, lands were subject to taxation unless the house was granted exemption, and after the enactment of the Statute of Mortmain in 1279 prospective benefactors were required to obtain a licence, at a price, to endow any house with property (Orme & Webster, 1995, 34). The various state papers are full of enquiries into supposed attempts at circumventing the statute, in Bristol no less than anywhere else. Frequently, too, the Crown guaranteed protection to hospitals in times of dispute. The Crown often exerted its authority over St Lawrence's and St John's, and for a time around 1325 had exercised the patron's right of confirming the appointment of masters (Hobhouse, 1887, 244). No evidence has been found for any such involvement in St Bartholomew's.

This raises the question of how far the original patrons or their heirs were involved in hospital affairs. Once the house had actually been set up, the basic function of the patron was to appoint the head of the hospital when vacancies occurred, and they usually claimed the right at least to approve the selection of master (Orme & Webster, 1995, 34 & 75). This was the practice at St Bartholomew's, where the master was elected by the staff, approved (or not, as the case might be) by Lord de la Warre, then presented by him to the Bishop of Worcester for confirmation. This right was jealously guarded and the de la Warres found it necessary to restate their authority, as shown by the charter of 1324/5, the presentation by the staff of John de Hulle in 1325/6, the enquiry by the bishop's jury in 1386/7, and the order to the county escheator made in 1427 (Willis Bund, 1902, 76 & 78; Holmes, 1955, 184–7; Marett, 1972, 54–5; CFR, 1422–30, 182).

At St Mark's, as at St Bartholomew's, one of the charters specifically allowed the master to be elected by the staff, which sometimes led to disputes with the descendants of the Berkeleys who wished to retain their rights (Ross 1959, xviii–xxiv & 2; CCR, 1296–1302, 243; CPR, 1292–1301, 469). The bishop had a lot of influence, as can be seen in the case of the appointment of William Lane by Bishop Wakefeld, which seems to have been some form of compensation for Lane failing to be made Abbot of St Augustine's (Marett, 1972, xvi). A similar arrangement of election and confirmation was said to

have applied at St John's, although the king seems to have sometimes made the appointment without further consultation (Scott Holmes, 1896, 551; CPR, 1396–9, 429 & 452). Even there, however, the bishop was involved, and according to Latimer (1901, 174–5) the appointment was his prerogative, but at a later date the Corporation of Bristol was permitted to put forward candidates when there was a vacancy. There might be some misunderstanding in this case, but Latimer does not quote his sources.

Such presentations were also made at St Katherine's by the Berkeleys, but whether any elections took place is uncertain (Hobhouse, 1887, 244; Hudd, 1884–8, 265–76; Scott Holmes, 1896, 328). Interestingly, there is an example of a special privilege at that hospital. In 1486 the king granted Sir Charles Beauford the right of deciding the appointment for one vacancy only (CPR, 1485–94, 68). Clearly, there was thought to be advantage in obtaining this right, but what that might have been is not made clear.

As far as can be determined, at St Lawrence's the king awarded the mastership directly without consulting the staff. In 1321 a writ of intention of the appointment of Robert de Haliwell was sent to the brethren, and later appointments seem to have been made without any discussion (eg CPR, 1317–21, 598; CPR, 1367–70, 445; CPR, 1370–4, 11; CPR, 1388–92, 195). Obviously, direct involvement by the king must have been limited and, when a charge of maladministration was made in 1390, Richard II instructed a number of the leading citizens of Bristol to investigate on his behalf (CPR, 1388–92, 347). The grant of the advowson of St Lawrence's to Humphrey, Duke of Gloucester, in 1415 did not seem to affect any royal appointments (CPR, 1413–16, 397; CPR, 1446–52, 223).

Patrons were also concerned that the chaplains appointed to celebrate perpetual prayers for them and their families should do so but, apart from that, those who had rights to the Bristol hospitals seem to have been mostly content to stay out of things, leaving requests and difficult matters for the bishop to sort out.

It has been noted that the day-to-day affairs of hospitals were managed by a chief officer who was almost always a man – even in mixed houses, where the most senior of the sisters might have acted as the head of women but with no authority over the male staff. Relatively few examples are known of women being totally in charge, although one such case was St Bartholomew's, where for about 50 years during the 14th century a series of prioresses ran the hospital. In that case, the change in authority seems to have been a culmination of years of neglect and mismanagement on the part of earlier masters, as discussed later in this chapter under maladministration (Orme & Webster, 1995, 77 & 80–3; Gilchrist, 1995). The other Bristol houses seem to have remained entirely under male control, unless there was an exception in the case of St Mary Magdalene's, but this house is still somewhat

mysterious. In the years around 1240 there were references to a male master of St Mary Magdalene, which Ross (1959, 33 & 206) opined to refer to a former hospital status of the nunnery on St Michael's Hill, but he seems to have been unaware of the existence of the leper hospital in Redcliffe. Until further evidence is adduced, Ross's interpretation of the records must be treated with reservation (see p 200).

Like the hospitals of which they had charge, the masters varied in wealth and status. Their expectations of quality of life would also vary, and those running the better-endowed houses might expect to command households of their own, in the manner of the heads of smaller monasteries. In the 13th century, men of importance began to be appointed to the larger hospitals, where the duties were not onerous and could even be quite lucrative. The habit also grew, particularly in the years after the Black Death, of awarding multiple benefices which might have been seen to reflect a certain degree of prestige on the titleholder (Orme & Webster, 1995, 34 & 77–8).

Such practices are known in some of the Bristol hospitals, and certain masters seem to have made shrewd career moves. Table 8 summarizes the background information so far gathered concerning the masters of St Bartholomew's. John de Hulle can be seen to have had a steady rise from the rectorship of a small Gloucestershire parish church, through a temporary appointment at Westbury College, near Bristol, to the mastership of St Bartholomew's. Robert de Merston was also in Gloucestershire before coming to St Bartholomew's, and probably went on from there to run the somewhat larger St Wulstan's in Worcester; to which city another native of his same Wiltshire village (probably related to him in some way) and former master of St Bartholomew's, John de Merston, also eventually came. William Badesford seems to have deliberately manoeuvred his position to be near the de la Warres, which led to his appointment. John Dauntre and John Prentys came to another arrangement of exchange, Prentys having come down from Yorkshire. The most wealthy of the St Bartholomew's masters was John Arundel, who was not only of noble birth but held other benefices including the Chapel Royal at Windsor. It seems likely that he was related to the distinguished physician of that name (perhaps even the same person) who in 1454 was one of those who attended the sick Henry VI, later becoming master of St Mary Bethlehem in London, and subsequently bishop of Worcester, but this has not been proven (Rawcliffe, 1984, 8).

The first master of St Mark's was Henry de Gaunt, younger brother of Maurice and one of the wealthy Berkeley family. The reader should consult the account of Ross (1959) for further details. No one of similar status had charge of the hospital after his resignation in 1268.

Several persons of substance are known to have been in charge of St Lawrence's, doubtless because of royal patronage. Thus in 1390 William Coterell was granted the wardenship not only of that hospital but also of St Bartholomew's Oxford (CPR, 1388–92, 195). Coterell was probably the same person who had received a number of grants from the king: in 1384 property in London; in 1388 the custody of the king's park in Cambridgeshire and Essex; in 1389 the position of surveyor of chases and warrens late of Robert de Vere in the same counties; in 1390 the wardenships of the hospitals of Dunwich and Orford in Suffolk, and in 1393 a pension for life from the exchequer (CPR, 1381–5, 373; CPR, 1385–9, 480 & 549; CPR, 1388–92, 80 & 176; CPR, 1391–6, 313). In 1438 Walter Shiryngton (or Chivington) was master of St Lawrence's. He also became the canon of St Patrick's Cathedral in Dublin and in the 1440s was the chancellor of the Duchy of Lancaster, before his death in 1449 (Graham, 1907, 119; Taylor, 1893–6, 25–34; CPR, 1441–6, 341, 347 & 462; CPR, 1446–52, 223). The Walter Hungerford appointed warden after Shiryngton was Lord of Hungerford, who had served as a justice of the peace in various counties, negotiated loans on behalf of the king, was appointed Constable of Windsor, and had served as Treasurer of England before dying in 1452 (CPR, 1441–6, passim; CPR, 1446–52, 127 & 223). His grandson Aldelin took over the wardenship in 1457 (CPR, 1452–61, 336).

Finally, at St Katherine's, Henry Abyndon was appointed master in 1464. William Worcestre made a special reference to him, stating that he was a musician of the Chapel Royal (Nasmith, 1778, 261; Dallaway, 1834, 149; Scott Holmes, 1911, 154).

It is clear that, apart from the energetic Henry de Gaunt, these cases of multiple benefices and the appointment of either the nobility or persons of wealth to the wardenships of hospitals were likely to do little for their efficient management. Indeed, charges of neglect became depressingly common, as discussed later in this chapter, but such persons often justified their appointments by asserting that they were in the best position to secure wealth and influence for the house (Rawcliffe, 1984, 9). Nevertheless, as far as is known at present, such appointments were not the norm and most masters of Bristol hospitals were obscure individuals, and it is unlikely that much will ever be found out about all except a few of them.

Doubtless there were many conscientious masters, but most of the burden must have fallen on the staff. It was usual for members of the clergy to be appointed as chaplains to celebrate services for the founders and to minister to the spiritual needs of the inmates. At mixed hospitals there were also sisters; in some houses they were rather like nuns, perhaps having taken vows; in some they were following a contemplative vocation. Often, the role of the sisters was of a more practical nature, being concerned with the care of the inmates. In many hospitals, they and the chaplains were assisted by a lay staff, whose duty it was to run the daily affairs of the house, to receive and care for the sick, to

prepare food, tend the garden, and so on. Even the lay staff were closely involved with the religious life of the hospital. They often took vows of celibacy and participated in the regular services, but for the most part their lives were comparatively menial. It seems that there were many instances where the sisters were treated badly by the brethren, partly on account of their perceived lowly position and partly because of the financial responsibility usually accorded to the men, who could therefore organize matters to their own advantage. In some hospitals, the women might even be deprived of proper clothing and an adequate diet, despite being grossly overworked. The authorities were more apt to be concerned about preventing opportunities for sexual indulgence than alleviating the lot of disadvantaged females (Orme & Webster, 1995, 52 & 80–1; Rawcliffe, 1984, 13–14).

As is to be expected, even fewer details survive for the staff than for any of the masters of the Bristol hospitals. A beginning has been made at St Bartholomew's, where some have been identified, especially from the diocesan registers, but no more can be said about them at present (see Table 6). With the exception of St Mark's, still less information has been gathered for the staff of the other Bristol houses.

St Bartholomew's was required to have two chaplains at any one time to pray for the de la Warres, which number was increased to three in 1325, but nothing is known of how many other staff there were (Holmes, 1955, 185–6). This lack of evidence stems partly from the deliberate destruction of documents in the 16th century and partly from the fact that the hospital was closed before the Dissolution, so no record was made then. For this reason, it is difficult to make direct comparisons with the other Bristol hospitals.

Few early figures are known for St Lawrence's either, but in 1248 and succeeding years reference was made to the master and brethren, and on two occasions (in 1321 and 1376) to sisters as well (CPR, 1247–58, 20; C Chart Rolls, 1327–41, 381; CPR, 1317–21, 598; CPR, 1374–7, 310). Mention was made in 1310, and again in 1319, of the messengers, or proctors, of the hospital, who seem to have been responsible for collecting alms on behalf of the lepers (Wilson, 1927, 18; Pearce, 1930, 20). In 1370 it was stated that the master had to find two chaplains (C Inq Misc, 1348–77, 301). In 1535 there was one priest celebrating mass for four almsfolk (Knowles & Hadcock, 1971, 347).

At St John's, there seem to have been originally both brethren and sisters, although their numbers are unknown, but between c 1250 and c 1317 no mention was made of the women. Whether or not this is reliable evidence is not clear, as in 1317 the bishop requested that a certain Alice, whom he said was the niece of his valet, be accepted as a secular sister, but it is not stated that this set any precedent. It has been claimed that there was only one resident brother in 1442, although no direct evi-

dence for this has been produced, and it might have been that the hospital was dwindling in importance (Knowles & Hadcock, 1971, 347; Hobhouse, 1887, 9; Scott Holmes, 1911, 160; Latimer, 1901, 175).

St Katherine's is supposed to have had a master and up to four secular priests, the number varying from time to time, and it has been stated in second-hand accounts which have not been corroborated that in 1325 there were both brethren and sisters. Nothing is known for certain of the arrangements for St Mary Magdalene's, where there might have been a master in charge: the references are unclear (Knowles & Hadcock, 1971, 347; Hudd, 1884–8, 270; Hobhouse, 1887, 244; Hall Warren, 1900–3, 3; Scott Holmes, 1911, 153; Graham, 1907, 119; Ross, 1959, 33 & 205; Strong, 1967, 237 & 272).

St Mark's is better understood. It originally had a master and three chaplains, one of whom acted as steward. The number of staff was increased in 1259 to three chaplains, three other clerks and five lay brethren. In 1299, eleven brethren were named. By 1346 there were nine brethren under the master and it is clear that only a few years earlier the hospital employed a number of grooms to tend the horses. Later on, the number of brethren was reduced so that in the early 15th century the master had only three chaplains. Just prior to the Dissolution in 1534, the master was assisted by four brethren (Ross, 1959, xii–xiv & 246; Knowles & Hadcock, 1971, 346; CPR, 1292–1301, 469; CPR, 1340–3, 181).

At Holy Trinity in 1408, shortly after its foundation, there were two chaplains, one of whom was the warden of the almshouse, and brothers and sisters who were empowered to make ordinances. How many is not stated, but at least four members of the fraternity were to be trusted with controlling the hospital's affairs (CPR, 1405–8, 410–11). At the Dissolution, the resident poor were cared for by a single priest, but this might be a sign of decline (Leighton, 1913, 252; Knowles & Hadcock, 1971, 347).

In terms of importance as judged by the numbers of religious staff, it would seem that the chief hospital by a substantial margin was St Mark's. Such an evaluation is, however, extremely hazardous. Insufficient data for the whole period of their existence are available, nor does such an estimation take account of the numbers of sisters working in some of the hospitals. Moreover, it could be argued that the actual charity work of any house, as opposed to its duties to pray for the founder, might be better judged by the numbers of lay staff and servants, let alone the numbers of inmates housed and fed (see the section on inmates later in this chapter, p 215).

Turning to the later almshouses, they too would have needed some form of serving staff, but on a smaller scale than the hospitals. Those almshouses which had a chapel would have required a priest, if only on a part-time basis. At Foster's Almshouse, overall supervision was given to the master of the nearby St Mark's Hospital, who was to employ one

priest to celebrate daily services, and a bailiff who assumed more general administrative duties. The Mayor and Commonalty were also partly involved (Veale, 1951, 176; Ross, 1959, 287). So far, no record at all of any of these arrangements has been found for the other Bristol almshouses, which again is probably a reflection of their essentially local patronage and scale of operation.

Endowments and other resources

All hospital undertakings, including the provision of land, the construction of buildings, the employment of staff, the capacity to accommodate inmates, the purchase of food, fuel and so on, were ultimately governed by money. The first of any hospital's resources was the original endowment made by the founder. Naturally, those varied widely, but the cost of fully endowing even a modestly sized hospital was an expensive proposition, albeit cheaper than setting up a monastery. It was comparable to the cost of a large chantry or small collegiate church, but much more onerous than a chantry of one or two priests because of the greater degree of responsibility involved (Orme & Webster, 1995, 84–5).

To put the financial positions of the Bristol hospitals in perspective, it is instructive to set them in a national context. By far the largest and richest was St Leonard's, York. As everywhere else, its fortunes fluctuated, but in 1276 it had a full complement of staff including a master, at least thirteen brethren, lay brothers, eight sisters, and a number of clerks. It had been founded to care for 206 inmates. By the 14th century, its most prosperous period, it had an annual income in excess of £1350 and maintained up to eighteen clergy, sixteen sisters and female servants, ten private boarders, and between 144 and 240 poor sick people (Carlin, 1989, 26; Cullum, 1993, 14; Orme & Webster, 1995, 36). Of the London houses, later in the 15th and early 16th centuries, three had more than £500 per year, four around £300, and one a little under £200 (Rawcliffe, 1984, 18–21). Obviously, these were very much the exception, and the overwhelming majority of hospitals were considerably more modest in size, having only a fraction of their resources.

If their scale varied greatly, so did the forms which hospital endowments took. The minimum requirement was land on which to build the hospital itself, but this often included sufficient to generate income by growing crops or grazing animals. In addition to town houses, land in the country was frequently granted, from which rents could be collected. By transferring to a hospital the advowson of a parish church, patrons made the master in effect the rector of that church, who was thus entitled to draw on the tithes of that parish. Another practice was to grant special privileges and exemptions from tax. Additionally, of course, the patron could lay out actual cash (Orme & Webster, 1995, 92–4).

Considering how this applied to the Bristol hospitals, it turns out that very little is actually known except for St Bartholomew's and St Mark's. This is mainly because nearly all the original founders' charters are lost. Those for the latter, which were brought into the public domain as recently as 1950, are 15th-century copies, of which at least one was partially falsified (Holmes, 1955, 180; Ross, 1959, ix). Whether those for the other hospitals survive somewhere is unknown, but Smyth did not quote any in his history of the Berkeleys, nor do the historians of the late 19th century or the contributors to the local Victoria County Histories furnish any details (Maclean, 1883; Hudd, 1888–93; Taylor, 1893–6; Graham, 1907; Scott Holmes, 1911; Latimer, 1901). What exists for St Lawrence's is merely King John's confirmation of 1208, in which reference is made to a small plot of land, and how fully that document details the original endowment can never be certain in the absence of the first charter (Graham, 1907, 119). For Holy Trinity, the plot of land for the site is all that is mentioned, and even then there were difficulties in carrying out the founder's will (Leighton, 1913, 253). Nothing is known of the original endowments of St John's or St Mary Magdalene's.

It seems that St Mark's was the richest of the Bristol hospitals. Even for that house, however, no specific valuation of the original endowment is given in the cartulary. When Maurice de Gaunt arranged for St Augustine's Abbey to provide daily meals for 100 poor, he granted 60 loads each of corn, barley, and peas per year, plus a rent of £10 in lieu of 80 loads of barley, to be doled out in the almonry which he had constructed. A little afterwards, he also gave various lands in Somerset and Bristol, including his manor of Pawlett in north Somerset. When, before 1232, Maurice's nephew Robert de Gournay established St Mark's as an independent house, he confirmed Maurice's endowment except for the farm of corn, and added the rights to various properties in the neighbourhood (Ross, 1959, xii–xiii, xxvii–xxviii & 1–6). However, in 1282 the current master claimed that it was worth only just over £20 per year, an improbably low figure, and at the Dissolution St Mark's was said to have holdings valued at slightly more than £165 per year. At that time, valuations of the lands showed that Pawlett was by far the most valuable of these, worth nearly £77 per year, which was more than twice the value of the Stockland estate and all the town lands combined, and more than three times that of Earthcott (Graham, 1907, 115 & 117; Maclean, 1878–9, 254; Barker, 1892, 52).

Details, as far as they are known, of the St Bartholomew's foundation endowment are given with the presentation of documentary evidence in Chapter 5 (p 58). In summary, lands situated in and around Bristol, and a small property in Somerset, were provided. This was a somewhat similar arrangement to the provision for St Mark's, although on a smaller scale. The 100 marks in cash which

were supposed to have been donated by John de la Warre were withheld for nearly 60 years. In 1303 St Bartholomew's received only a little under £11 per annum in rents, which was less than one percent of the wealth enjoyed by St Leonard's York. By the end of the 14th century the revenue had nearly doubled, but it was still pathetically small.

St Katherine's was in much the same position in the early 15th century, with rents amounting to £24. The survey of 1548 showed that by then its earnings had declined to only £21/15/3d per year (Hudd, 1884–8, 268 & 273; Scott Holmes, 1911, 153). Nothing is known of the value of its neighbour St Mary Magdalene's, but in the 16th century St John's was (by local standards) not too badly off, with an annual income of £55 (Knowles & Hadcock, 1971, 346–7). By comparison, at the same time Holy Trinity received in rents somewhat over £30 per annum, which was much less than was spent on repairs and other essentials in what might have been a typical year (Leighton, 1913, 266–70). In 1535, St Lawrence's was stated to have a clear annual value of £12/8/2d (Lobel & Carus-Wilson, 1975, 26). All these figures would have included any property which the hospitals had acquired subsequent to their foundation.

The Bristol hospitals were, therefore, much more on a par with the average across the land, with only St Mark's beginning to approach the value of the intermediate London houses. With the fall in land values following the Black Death, circumstances became even more precarious and income on such a scale would have been insufficient for any of them to have made much headway in their appointed tasks of caring for the poor and sick, so it was essential to find a way of supplementing it. Of course, the original patron was not the only one who could provide the house with lands and rents, and many others did so.

The most significant of these were gifts of lands. In Chapter 5 (p 58) it was noted that only a few years after the foundation of St Bartholomew's its master disposed of several acres in Earthcott, which apparently had not been granted in the original endowment. In addition St Bartholomew's had other tenements in Bristol, and by the beginning of the 14th century had somehow acquired more small estates in Wickwar (probably from the de la Warres) as well as in Wiltshire, and several others within the town. Interestingly, that seems to have been the end of any increase in its holdings, as there is no evidence that any more substantial gifts were made. Why that should have been so is not known, but it is possible that this is illusory and that vital information was lost when many of the hospital's documents were destroyed in the 16th century.

Of St Mark's, Ross (1959, xxvii–xxxiii) notes that almost all its lands were presented by the founders and that little was acquired after 1269, when the masters turned to seeking the advowsons of parish churches as a source of income. By the early 14th century, St John's had managed to obtain several gifts of land, mostly in north Somerset, plus the advowson of Backwell church; but thereafter that hospital, too, saw such gifts peter out (Green, 1892, *passim*; C Inq PM vols IX–XIV; CPR, 1301–38, *passim*). Holy Trinity acquired a number of properties in the town, but whether as part of the original endowment or as later gifts is not clear. It was also presented with woodland by the founder's son Nicholas (CPR, 1408–13, 370; Leighton, 1913, 256 & 265–75).

Little is known about the gifts of properties to St Katherine's, perhaps because in the 16th century there was some attempt at concealing their true worth. Lord Thomas of Berkeley presented land in Slimbridge, Gloucestershire, shortly after its foundation, and the family also bestowed other lands in south Gloucestershire (Hudd, 1884–8, 261–3). There was a dispute about a parcel of land in nearby Ashton, acquired before *c* 1260 (CCR, 1259–61, 156; CCR, 1323–7, 421; CPR, 1330–4, 196). Reference was made in 1363 to their tenement in Old Market, and in 1424 Thomas Halleway granted three shillings per year from the rent of a tenement in Lewins Mead, near St Bartholomew's (Hudd, 1888–93, 245–50; Strong, 1967, 237 & 272). A few other small estates in the country were noted in 1548, but how or when they received them, and their values, are not stated (Scott Holmes, 1911, 154).

St Lawrence's had little luck after the end of the 13th century, although precisely when they were presented with various tenements within the town is not certain (eg C Inq Misc, 1348–77, 399). No lands at all have been identified as belonging to St Mary Magdalene's, but they must have had some source of income.

Even if promises of endowments were made, this did not necessarily mean that they were fulfilled. For example, in 1348 a Robert Gyene was granted a licence to present several messuages and rents in Bristol to St Mark's, but three years later he changed his mind for reasons not stated other than that they were lawful, and made the gift instead to the prior and convent of Bath Cathedral, leaving St Mark's with a smaller gift (CPR, 1348–50, 46; CPR, 1350–4, 179; Penn, 1986, 184).

The distinct impression formed is that after roughly the early–mid 14th century wealthy patrons were less willing to make large donations of property to the Bristol hospitals. Although such gifts did not cease completely, their numbers declined sharply. The most likely explanation is that the numerous cases of mismanagement and downright fraud which were revealed (as discussed in a later section of this chapter) were perceived as distinctly offputting. People were probably concerned that their generosity might well be of little use, as the masters could not be trusted either to spend money on improving the lot of the inmates or to pray for the souls of their benefactors. This could also have been related to the foundation of the new

almshouses at the time. Such a view is entirely conjectural, and there were doubtless many more factors which this simple and somewhat superficial survey has not revealed. But it has been observed that, as they acquired more property, hospitals came to be perceived as landlords as well as charities, which image was not always good for their reputations (Orme & Webster, 1995, 68).

The records of Bristol make frequent reference to rents and the like payable on properties in the city owned by the various hospitals. Although care must be exercised given the paucity of original documents, and it would be premature to make firm pronouncements, interestingly none of those same records make similar statements concerning the later almshouses. It would seem that they were not usually endowed with substantial landed estates from which they could draw long-term revenue. The only details which survive are for Foster's, of which a 16th-century summary in the Great Red Book of Bristol states that John Foster had arranged in his will for the sale of certain of his lands in Gloucestershire to provide for the maintenance of the almshouse which bore his name. Although this estate was misappropriated by one of his co-executors, John Walssh (see p 228) – who later made some recompense by donating 23 messuages and two parcels of land within the city – the other trustee, John Easterfield, added to the holdings in Bristol so that the almshouse could be maintained, and he spent a considerable sum on its refurbishment (Veale, 1951, 175–81). Elsewhere, it appears that almsfolk had to rely on whatever regular doles of money had been provided by their patrons, supplemented by the gifts of others as chance had it. Given the caveats expressed before, this seems to contrast somewhat with the impression of local civic pride noted by Orme & Webster (1995, 103) but it does not mean that there was any lack of compassion since, of course, charity to the poor was not confined to the legacies of the founders.

On a smaller scale than the gifts of estates, but valuable for all that, additional bequests of money or foodstuffs were made. It is fortunate for research into medieval Bristol that copies of the wills of many of the wealthier citizens were gathered together in what was called the Great Orphan Book, and this has been published in condensed form (Wadley, 1886). The first wills in that book date from around 1380 and continue to the end of the 16th century. This means that for the earliest period, before the late 14th century, the surviving papers are still in manuscript form and not easy of access. Moreover, approximately 100 more wills (not examined for this study) are in the papers of the Prerogative Court of Canterbury, and there are wills existing in other local official documents, especially the Great Red Book of Bristol (Veale, 1951) which do not appear in Wadley. Any statistical analysis is, therefore, immediately biased. On top of that, extreme caution must be exercised in interpreting evidence based solely on wills, as is shown

when comparisons are made with other sources, particularly the establishment of chantries (Maclean, 1884; Burgess, 1985; Burgess, 1987a; Burgess, 1987b; Burgess, 1995). Nevertheless, if properly used, some tentative generalizations can be extracted from them.

For the period up to the Dissolution in the 1530s and 1540s, some 300 wills have been examined. The great majority of testators left legacies for the fabric of the church in which they were to be buried, usually for the rector as well, and nearly all left something for the four orders of mendicant friars resident in Bristol. Most made provision for the poor, in the form of bequests of bread, clothing, and so on, but no particular hospital or almshouse was usually specified. It seems that the benefactors were generally content to leave the choice to their executors and only about ten percent actually stated which houses were to receive legacies. Of these, St Bartholomew's was by quite a long way that most often mentioned (24 wills) followed by the almshouse in Long Row (ie Burton's, mentioned in 16 wills) and St John's (15 wills). St Lawrence's and Holy Trinity Hospitals, and Spicer's Almshouse, were less popular, at around nine mentions each. The others were hardly referred to at all.

Wadley did not give details of the sizes of most legacies, which suggests that they were fairly small compared with those left to the testators' families and intimates, but nevertheless worthwhile to the indigent poor. Burgess (1987a, 189) notes that a common bequest was a 'farthing loaf' to individuals. Others, of course, left more. One example was William Canynges, who left 20 shillings to each of the people in his almshouse: a substantial sum to someone who was destitute.

Because hospitals and almshouses were not often specified, it does not mean that little of this largesse came to them: lack of evidence for certain actions must not be taken as evidence for lack of action. Indeed, it is most likely that they did reasonably well, as it would have been far easier for the executors to present money to a recognized institution than searching the streets for worthy beggars. One other way in which they might have benefited was from funerals and anniversaries of deaths. It was not uncommon for testators to set aside money for the purchase of bread, cloaks, or shoes for the poor who attended their funerals, and the cloth used to cover the bier was often presented afterwards. Again, the hospitals would have been far more reliable than casual beggars, and one can envisage a small trade rather like that in which Oliver Twist spent some time with Sowerberry. In return for what would have been, for the executors, a welcome relief from the trouble of making arrangements themselves, hospitals could have made it known that they would provide mourners from among their number. Money was frequently set aside for celebrating anniversaries. As usual, the hospitals were not often mentioned specifically, but Burgess

(1987a, 184) states that an Elizabeth Cornwall left £20 to St Mark's for such a commemoration.

That gifts of other goods were occasionally made has been noted. Some of these were to assist the religious aspect of hospital life. Among them were: the cup worth 5 marks, the chasuble, and alb presented by the king in 1251 to Henry Gaunt of St Mark's (CLR, 1245–51, 362; CLR, 1251–60, 1); the two torches left in 1473 by John Shipward to St Bartholomew's for the use of the mariners' fraternity (Wadley, 1886, 159); the pair of red damask vestments left in 1474 by William Canynges to St John's (Wadley, 1886, 152); the silver chalice weighing eight ounces which St Katherine's still possessed at the time of the Dissolution (Hudd, 1884–8, 273). Even if they were not all especially valuable in strictly financial terms, these gifts would all have been most welcome and conveyed a sense of esteem and worth to the hospitals involved.

Agreeing to bury the wealthy in hospital chapels (or sometimes even in their cemeteries) could be a lucrative business, but few of the Bristol merchants are known to have sought this and almost none of them requested it in their wills (Orme & Webster, 1995, 106; Wadley, 1886, *passim*). The main exception was at St Mark's, where specific provision for such requests was made in the ordinances of 1259. The monuments of the founders and first master may still be seen in the chapel, albeit not in their original positions, and there is some doubt as to their authenticity (Maclean, 1878–8, 245; Taylor, 1878–9a, 233; Taylor, 1878–9b, 241). At least one other member of the Berkeley family and Sir Robert Poyntz were buried there, the latter endowing the so-called Poyntz (or Jesus) Chapel in 1520. Miles Salley, Bishop of Eynsham, and later Bishop of Llandaff, is credited with having reconstructed the east end of the church and was buried there in 1516. Vincent Barstaple requested burial in the cemetery in 1336 and made fairly generous donations to the house and its staff (CPR, 1340–3, 181). A few details of others buried in the cemetery in the 15th century are known, following an attempt by the vicar of the church of St Augustine-the-Less to move their graves (Barker, 1892, 155–7, 179 & 190; Ross, 1959, 8 & 48).

Similarly, John Barstaple requested that he be buried in the chapel of Holy Trinity, which he had founded, and his wife Isabel later paid £10 to the poor there along with her instruction to bury her near her husband (Wadley, 1886, 86; Leighton, 1913, 254). In the 16th century, John Leland said that the founder of Burton's Almshouse was buried in the house, but this has not been corroborated and there is no evidence that the almshouse benefited in a similar manner to Holy Trinity. In his will dated 1454, John Burton (who might have been the eponymous patron – see p 201) requested that he be buried in St Thomas's Church (Toulmin-Smith, 1910, 93; Wadley, 1886, 135).

In this respect, the human skeletal remains from St Bartholomew's are, therefore, all the more inter-esting. Although because of the small sample-size no interpretations are assured, it seems that there is no reason to suppose that any of them was other than an inmate or possibly a member of staff (see Chapters 6 & 9). No evidence at all has been found for any other citizens seeking burial in either the chapel or cemetery and it seems unlikely that any significant donations were received for such a purpose.

The crucial matter of the location of hospitals was dealt with earlier in this chapter, where it was noted that hospitals usually sought alms from passing travellers. This could range from the staff or inmates actually begging for money, to the attachment of a collecting box in a convenient and prominent place. Although the soliciting of alms must have been the norm, if increasingly frowned on by hospital founders and governors in the 15th century (Orme & Webster, 1995, 99) only two examples are known in the literature relating to Bristol, both at St Lawrence's. In 1310, the Bishop of Worcester wrote on behalf of the hospital to all deans and other religious in the town exhorting and commanding them that, when the brethren or messengers sought alms, they should receive them kindly and permit them to set their business before the people, ensuring that the money collected actually went to the hospital. A similar letter was sent out again in 1319, in which the bishop offered 30 days indulgence to those who benefited the hospital (Wilson, 1927, 18; Pearce, 1930, 20). There must have been some quite serious problems for the bishop to have become involved, suggesting either interference by the clergy or reluctance on the part of the people to contribute.

In addition to relying on the charity of others, hospitals usually sought to stimulate income in a variety of ways. At some hospitals it was customary to take money from the staff and inmates in exchange for their lodgings, and some even charged the sick for their care, despite the sacred obligation to offer free succour (Orme & Webster, 1995, 99 & 101; Rawcliffe, 1984, 3). No such practice is recorded for the Bristol hospitals, but that does not necessarily mean that it did not happen.

Taking in paying guests, whether staying overnight while journeying or actually living more or less permanently at the hospital (in financial agreements termed corrodies) was another possible way of obtaining extra cash. A useful background discussion to this topic is given by Harvey (1993, 179–209).

Temporary accommodation at least was provided at St Bartholomew's, where the guest house might have made some pretension to comfort (see Chapter 5, p 59) but no evidence has been found which suggests that any significant income was gained. It has been noted that neither the bishop nor his representatives stayed there when they visited Bristol. However, at St John's the bishop's chamber was referred to in 1348 as being required to be kept available, which implies that the bishops of Bath

and Wells reserved the right to stay there when they were in Bristol (Scott Holmes, 1896, 551). There was a local tradition that King Henry VI stayed at the hospital on his visit to Bristol in 1446 (but that could be merely a fanciful tale). If so, the bishop's chamber would have been the most suitable room for him (Hall Warren, 1900–3, 2). It has been claimed that St Katherine's had a guest house, ruins of which survived until the late 19th century, but no authority for the interpretation is given other than the jottings of a certain Father Grant made in 1887, who claimed that the hospital lay alongside a great pilgrim route (Hudd, 1884–8, 260, pl XXIII).

At St Mark's, the practice of establishing long-term corrodies had started by 1248, when a carpenter named Simon de Dene granted the hospital his land in Earthcott and Lee, Gloucestershire, in exchange for an assurance that he would be taken in after the death of his wife. In 1268, the Ermynton family had their own chamber there. Several similar arrangements were made there right up to 1535, when a Lady Jane Guildford was resident, having made a substantial contribution to the hospital's finances (Ross, 1959, 97 & 194–5; Graham, 1907, 117).

St Mark's might have been the only Bristol hospital to make anything out of its available rooms. At St John's, as at St Mark's on occasion, it is even likely that putting up dignitaries such as the bishop and the monarch, doubtless along with a number of their retainers, put a substantial drain on the hospital's resources. The capacity to house long-term guests could be something of a mixed blessing. Such arrangements were frequently criticized at the time, as vital supplies could be diverted away from the main purpose of the hospital, particularly if the king or the bishops were involved in establishing board for their favourites (Rawcliffe, 1984, 3–4; Rawcliffe, 1995a, 75). When in 1348 John de Moynington, the former master of St John's, resigned, he was allowed by the bishop not only to retain a chamber which he deemed fit, but it was ordered that he should also have a stable for his horse, an allowance for food and drink equivalent to that of two brethren, and the rights to the manor of Bishopsworth – an estate owned by the hospital which lay a few miles to the south of the town (Scott Holmes, 1896, 551). That such an order had to be made in writing suggests that the other staff did not view this largesse with equanimity. St Lawrence's was accused in 1371 of being partly responsible for its own financial difficulty by granting too many corrodies and pensions (C Inq Misc, 1348–77, 301). In 1391, the aged and infirm master of St Mark's, William Brownyng, was allowed to stay on at the hospital, but this seems to have been welcomed by the brethren (Marett, 1972, xvii). No such arrangements are known for St Bartholomew's.

A final source of potential income was the hospital land itself. Although few urban hospitals could have achieved anything like a degree of self sufficiency in producing food, if horticulture was practised on any reasonable scale there would have been the opportunity to sell excess produce of a particular kind, such as eggs. Nothing is known of this for any of the Bristol hospitals, although St Bartholomew's possibly had some capacity in this respect before the lease of part of its grounds in the 1330s (see Chapter 5, p 59).

The effectiveness of all these ways of raising money depended to a large extent on the status of the hospital and how it was perceived by the local society. If it was held in high esteem then it could expect to do reasonably well; if not, then the reverse would be the case. The impression drawn from the various bequests is that, for the most part, the Bristol hospitals were as well thought of as those anywhere else in the country, given the caveats discussed earlier, but generalizations must be treated with caution. The fortunes of all hospitals changed with the times, and what might have been at one time a prestigious house could plunge in estimation, particularly if levels of dishonesty and mismanagement became so great as to be obvious to all. In London, frequent complaints were expressed over the administration of revenue, and this seems to have been echoed in most towns. Indeed, attacks by the citizens upon unpopular hospitals were not unknown (Rawcliffe, 1984, 15; Orme & Webster, 1995, 103). One such case in Bristol was St John's, where in 1399 an enquiry was made into the identities of the malefactors who assembled in large numbers in warlike array, and broke into the hospital close and buildings, carrying away hospital property, and burning many documents (CPR, 1396–9, 510). The reasons behind the riot are not stated in subsequent rolls, but were most likely linked to the charges of corruption made only a few years later, and which led to the king taking everything into his custody. This is discussed further in this chapter in the section on maladministration. No such outright attacks are recorded on any of the other Bristol hospitals, but all of them became the object of scrutiny as a result of sharp practice on the part on their masters, which in large measure contributed to their downfall.

St Mark's seems to have come out of all this in a relatively comfortable position, although the masters frequently complained of poverty. Ross (1959, xxvii) thought that frequent litigation had proved a substantial drain on resources, but he seems eager to ascribe to the masters little except good. When the bishop and his commissaries visited the hospital in 1338 and again in 1339, they were entertained there with food and drink as guests, and the master capped this by presenting the bishop with two marks in cash. On protesting that he should at least return half a mark, the bishop had to insist in order that they take it back (Willis Bund, 1897, 274–5). The number of ancillary staff, such as grooms, employed there has been noted earlier in this chapter. None of this rings true if the house was as poor as it claimed to be.

Overall though, there is no doubt that the Bristol hospitals were desperately impoverished. As may be seen by referring to figures given at the start of this section (p 209) even St Mark's received only about one eighth of the rents of St Leonard's York and one third of those of the richest London hospitals. Next in the Bristol pecking order below St Mark's was St John's, which in the 16th century earned only one third of the rents of the former. Well behind even St John's were Holy Trinity, St Katherine's, and St Bartholomew's, more or less on a par with each other but with Holy Trinity alone exceeding half the value of St John's. St Lawrence's could not match even that, earning about half the rents of the last three and about one thirteenth of that of St Mark's. St Mary Magdalene's might have brought up the rear, but very little is actually known about it.

This poverty was commented on at the time. Thus in 1307 St Bartholomew's could not afford to pay its proxies to the bishop, and in 1412 its value could not be assessed on account of its dilapidation (see Chapters 5 & 6, pp 58 & 88). Similarly, in 1450 St John's was exempted from tithes because of its poverty (Maxwell-Lyte & Dawes, 1934–5, 150). In 1512, the authorities at Holy Trinity were forced to make a 60 percent overspend to maintain their estates, but it is not thought that this was typical (Leighton, 1913, 270).

Functions and organization

Broad functions

As noted in Chapter 2 (p 14) medieval hospitals were of four basic types: those which sheltered the poor; those which cared for the sick poor; leper houses, and hospices for travellers. Some also undertook the encouragement of study and the education of the young. For a fuller discussion of this topic, the reader might consult the accounts of Gilchrist (1995) and of Orme & Webster (1995). All these facilities were provided in some measure by the Bristol hospitals, but each of the houses had an individual character.

Succouring the poor was basic to them all and, as far as is known, this was the sole function of the later almshouses. At St Mark's, this charity was undertaken in a different manner, for the destitute did not actually live at the hospital but came there to be fed on a daily basis. In the ordinances of 1259, the staff were required to carry a small knife to cut bread for the weak and incapable, if asked, and to minister to them sufficiently early so that they could go elsewhere to obtain anything else which might be available (Ross, 1959, 5–10).

Care for the sick, other than lepers, was not a prominent feature of the earlier Bristol houses, and evidence for any such activity at all is thin. At St Bartholomew's there are only three references known, two of them from the late 14th century: one

of these refers to the blind and lame paupers lying in beds there (see Chapter 6, p 88). The evidence from the skeletal remains accords with this picture of a mostly elderly population suffering from infirmities, old injuries, and the ravages of poverty, with one case of a possible bedsore, but otherwise not dramatically sick – at least, not in any form which leaves traces in the bones (see Chapter 9, p 181). No excavation of the other houses has been undertaken, so only documentary evidence is available, and here the records examined are almost wholly silent. At St Mark's in 1259 there was reference to the possibility of the brethren being detained in the infirmary by ill health or blood-letting, but this provision does not seem to have extended to the poor for whom they cared (Ross, 1959, 9). According to Scott Holmes (1911, 153) St Katherine's cared for the sick, but he does not cite his authority for this assertion. A legacy was made in 1398 to the lame, blind or leprous at St John's (Wadley, 1886, 56). This suggests that it functioned in a similar manner to St Bartholomew's. Otherwise, all references to the inmates of the Bristol hospitals speak of them merely as poor.

The reference to lepers at St John's is interesting, especially in relation to the ambivalent attitude often expressed towards them noted earlier in this chapter (see p 204). In c 1254 the hospital assumed responsibility for administering the Chapel of the Holy Spirit, which lay in the cemetery of St Mary Redcliffe Church, just across the street. This chapel is said to have been some sort of leper annexe, but the evidence is not good. This additional duty was discontinued in 1383 (Latimer, 1901, 174–5; Scott Holmes, 1911, 160). The later reference to the leprous might be imprecise medieval usage of terms, or a misunderstanding of the situation. As Gilchrist (pers comm) has pointed out, the idea of actually diagnosing leprosy had become current by the 14th century, and it might be that attitudes were changing. Elsewhere in the town, the care of lepers, as a distinct group of sick persons, was provided at St Lawrence's and at the somewhat mysterious St Mary Magdalene's, which Lobel & Carus-Wilson (1975, 8) say was for women, their dubious authority for this assertion apparently being Clay. As late as shortly after 1485 the Chestre (sic) bequest left 4d for bread to the poor lepers at Brightbow (ie St Mary Magdalene) but no reference is made to their gender (Burgess, 1995, 136).

No hospices specifically for travellers are known in Bristol, but accommodation other than at inns must have been available in such a busy town. St Bartholomew's had a guest house in the early 14th century, which might have been carried over into the major rebuilding programme undertaken later that century (see Chapter 5, p 59 & Chapter 6). According to local tradition, St Katherine's also had a guest house but, although it was certainly well sited to take in travellers coming from the south, this is not necessarily reliable evidence (Hudd, 1884–8, 260). On some of their visits to Bristol the

bishops of Worcester are known to have been enter-tained at St Mark's, but whether they actually slept there is not stated (eg Willis Bund, 1897, 274–5). The bishops of Bath and Wells retained a chamber at St John's (Scott Holmes, 1896, 551). No other evidence has been found for the provision of short-term accommodation in any of the Bristol hospitals.

The only direct evidence for study and education at any of the Bristol houses is for St Mark's, from the library of which five books survive. It is known that in 1259 a scheme was drawn up to provide for twelve poor scholars who lived in and served as choristers, one of them being granted special privi-leges in return for teaching the others. Anyone cap-able of writing or setting down music, or practising a mechanical art, was encouraged to do so (Ross, 1959, 7–10; Orme & Webster, 1995, 64–5). It is possible that some form of rudimentary training was given at St Bartholomew's. Although no writ-ten proof survives, among the skeletons were those of several children, perhaps orphans. As discussed in the last section of this chapter, it is curious that both St Mark's and St Bartholomew's eventually became schools during the Reformation, which might suggest a continuing tradition.

Hospital inmates

Not surprisingly, given their lowly status, little is known in detail of any of the inmates in the Bristol hospitals. This is typical of all towns (Orme & Web-ster, 1995, 107–8). Who they were, whether entirely native Bristolians or containing among their number the destitute who had drifted into town during depressed times, or the means by which they were selected for admission to any particular insti-tution, are outside our knowledge, and will proba-bly always be so.

Some highly speculative ideas about St Bar-tholomew's were put forward in Chapter 5 (p 83) on the basis of the number of trestle tables stated in 1303 to have been in the hall, suggesting that the population of inmates was small, probably no more than around 30 at most, which would have been fairly representative of the period. Even if such a population count is accurate, it is not known wheth-er it was typical of the hospital for other periods, especially during the upheavals of the mid 14th century. The burials in the chapel from around 1400 onwards do not suggest a large population, but without the burial ground itself having been exca-vated not too much reliance should be placed on this. Such evidence as survives in the skeletons suggests that in the 15th century the proportion of males and females was similar, that they were of average stature, mostly elderly, but that there were some children or young adults amongst them (see Chapter 9). Their pathology is discussed in the con-text of medical care at the end of this chapter. This assumes, of course, that they were all inmates, but that need not necessarily have been the case.

The 100 poor non-residents and the 12 scholar choristers at St Mark's have already been noted. Drawing on an analogy with St Cross Winchester, Ross (1959, xvii) suggested that as the almsgiving function of the hospital declined so resident alms-folk came to be admitted, leading by the late 14th century to 27 of them living there. At Holy Trinity shortly after its foundation there were 24 inmates, despite a note made in the 16th century that it had been founded to care for six poor men and six poor women (CPR, 1405–8, 410–11; Knowles & Hadcock, 1971, 347). Writing of St Katherine's in 1887, Fa-ther Grant said that there were 12 poor men resi-dent, but he gave no justification for his statement and his jottings were more of a romanticized de-scription of the area (Hudd, 1884–8, 260). No fig-ures are available for the other hospitals, although it is known that for at least some time both men and women were housed at St John's and possibly at St Lawrence's (eg Wadley, 1886, 25 & 83; CPR, 1317–21, 598).

Only a little more is known about some of the later almshouses. Spencer's Almshouse was en-dowed for sixteen inmates who were each to receive 2d per week (Sampson, 1909, 84). Foster's was to provide for eight poor men and five poor women, who were also to receive 2d each per week, but none of them was to be married and they had to be Eng-lish (Veale, 1951, 175–7; Ross, 1959, 287). Burton's Almshouse is known to have been for both men and women in the later 16th century, but whether this had been the case in earlier times has not been determined (Marochan & Reed, 1959, 119). Al-though the source is doubtful, the Weavers' Guild Almshouse might have accommodated four poor women, but when is not stated, and the Tuckers' Guild Almshouse gave refuge to six poor folk of unspecified gender (Sampson, 1909, 86).

In summary, the evidence for the inmates of the Bristol houses is negligible, some light having been shed by excavation on St Bartholomew's, but what little is known indicates that they were entirely typical of such institutions elsewhere, although not rivalling in scale the largest hospitals of London or York.

It is worth observing, however, that the class of special inmates termed corrodians (see p 212) were rather different in this respect. Some of their names have survived in the records and they are known to have been relatively wealthy, perhaps even belong-ing to the minor gentry. Some examples in Bristol are given in the discussion of finances earlier in this chapter, but whether or not they should really be considered as inmates is a debatable point, and many of them would probably not have been flat-tered at being classified among their number. A recently discovered, and rare, example in an alm-shouse was Agnes Bartlett, who had been a resident of All Saints' Almshouse, and on her demise in c 1488 left to the parish church a silver spoon set with jewels under the figure of Jesus (Burgess, 1995, 19). It seems most unlikely that she could

have been typical of the residents in that almshouse, who at about the same time were so poor as to require a legacy of bread from Henry and Alice Chestre (Burgess, 1995, 136). This sets in perspective the small hoard of coins found at St Bartholomew's (see Chapter 6, p 118).

Religious rule

As noted before, hospitals were essentially religious houses in which the daily round was ordered according to a particular set of rules. The ordinances for many houses survive and they tended to embrace similar precepts. The most common model was the monastic Rule of St Augustine, perhaps modified somewhat to meet the special needs and circumstances of the hospital. That particular rule was sufficiently flexible to allow the staff and inmates to carry on a lifestyle which was not as rigorous as that of monks, but nevertheless encouraged a regular round of worship and self discipline (Cullum, 1993; Orme & Webster, 1995, 69–70).

Little definite information survives for the Bristol hospitals apart from St Mark's, for which the ordinances of 1259 have been published, although those rules were devised for the guidance of the staff and choristers rather than the poor (Ross, 1959, 7–10). In summary, at St Mark's regulations were imposed about the style of dress (discussed below) fasting and the conducting of divine offices, and the manner of distribution of food to the poor. All the staff were to eat in the refectory and sleep in the house unless ill, in which case they were to be cared for in the infirmary, but no secular person was allowed to dine there except by special leave. The master could dine and entertain in his private chamber or elsewhere, but he was then required to be accompanied by one or two of the chaplains; similarly when he slept outside the dormitory. None of them was to eat or drink outside the house except in the presence of the bishop or patron, or in other religious houses. A lesson was to be read aloud during mealtimes. The lay brethren were also to attend to the offices assigned by the master. Other pronouncements were made about diet and learning which are dealt with elsewhere in this section. Other evidence strongly suggests that the 'canons' of St Mark's were living more or less according to the Augustinian rule, and at least one contemporary source stated that this was so (Graham, 1907, 116; Ross, 1959, xvi).

It is known from a single reference made in 1387 that St Bartholomew's was then organized according to a rule (Marett, 1972, 54–5) and it was argued at the beginning of Chapter 4 that this was the Augustinian model. Whether or not this was imposed from the date of foundation or introduced later on is unknown. It has been asserted that incoming inmates at St John's were required to take an oath to follow the Augustinian rule, but the evidence for that, coming from an 18th-century source

with no further authority, is to be treated with caution (Scott Holmes, 1911, 160). St Katherine's was also stated in 1348 to have had a rule which the incoming master promised to obey, but its form is not identified. How this squared with the statement made in 1414 that it had not originally been instituted as a religious house is unclear (Hudd, 1884–8, 268 & 270; Scott Holmes, 1911, 56 & 153).

Although they must have had some sort of code to live by, what happened in the other hospitals is uncertain. Similarly, nothing is known about the rules of the later almshouses except for Foster's, where it is certain only that the inmates had to attend a daily service (Veale, 1951, 175–7; Ross, 1959, 287). The marital restrictions on inmates at that house were noted earlier (p 215). It seems that, in common with such institutions elsewhere, the Bristol almshouses were much more secular in nature than the earlier semi-monastic hospitals. Certainly, religious worship was an integral part of everyday life, but it became more relaxed in manner.

Distinctive dress

Harvey (1988, 7) has pointed out the importance of symbolism in all aspects of dress in the Middle Ages: it signified feeling, intention, social status, and more besides. In consequence, one must look beyond the mere colour, shape, and quality of the garment in searching for the meaning which these features conveyed. It is outside the scope of the present work to examine this topic in any detail, and Harvey's study of practices at the Benedictine Westminster Abbey in particular provides a useful background to a surprisingly complex subject. In monastic garments, black was especially favoured as it symbolized repentance; lepers in particular assumed it as a sign of repentance for the sins which were thought to have brought about their condition (see p 14).

Many hospitals required both staff and inmates to wear some distinctive style of dress, partly to reflect the vows of semi-monastic life, which were supposed to include the renunciation of individual property, and partly to allow them to be easily identified as belonging to that house. In the case of the mobile inmates, this would help to check undesirable and unofficial pestering of the public for handouts. There was no set pattern, but some particular cut, colour, or decorative motif was often developed. Probably most houses made a further distinction in providing different clothing for the staff and inmates, with a special garment reserved for the master (Orme & Webster, 1995, 125–6). Harvey (1988, 8–9) has also observed that secular clerks (who were often defined in records as the administrators of hospitals) actually had no specifically agreed form of garb, despite efforts on the part of the Church and other authorities to encourage them to adopt one. There was clearly a fairly high

degree of individuality, within limits. This makes the threat in 1331 of the excommunication of John de Mershton, master of St Bartholomew's, especially interesting, as part of the charge was that he had cast aside his religious habit (see Table 8). This does not necessarily mean that he had forsaken an official hospital uniform; more likely is that he had temporarily assumed some form of dress wholly inappropriate to a divine while taking on manual work, but the charge was a serious one.

At Bristol, only two hospitals are known to have adopted distinctive habits, although for the reasons outlined in the foregoing there is every reason to suppose that the others did so as well. At St Mark's, the ordinances of 1259 make a number of specific statements: the choristers were to wear black copes and surplices; the clerks and lay brethren were to wear habits in the style of the hospital of St John Lechlade, except for the badge, which was a white cross and a red shield showing three white geese (or 'gants', probably a punning rebus on the name Gaunt); when newly admitted, the brother's habit should bear only the shield with geese, but after probation, or in other circumstances at the master's discretion, the cross was added. This dress was to be worn when administering food to the poor or when going outside; if not, then suitable solemn attire according to the use of Salisbury was to be adopted. When dining, the master and brethren were to wear black mantles and amices, with the same badge showing, but when riding or walking in the town they were to have black copes with the badge showing (Ross, 1959, 7–9). At St Katherine's in the early 15th century, the brethren were to wear the garments of secular priests (not specified in more detail) except that instead of the outer vestment they used a cope or mantle in black or burnet, with a patch of cloth of a different colour bearing the badge of St Katherine's wheel sewn on the left breast. What the inmates were supposed to wear is not described (Hudd, 1884–8, 270; Scott Holmes, 1911, 153).

Buildings and ground plans

In many ways, this is the most difficult aspect of hospitals to assess. A number of factors would have governed the size, facilities, and layout of the ground plan, including: available land, resources, constraints imposed by any earlier structures and the local topography, and (not least) the purpose which the hospital was to fulfil. Some hospitals were quite complex and elaborate, others less so. Everyone who has studied the subject realizes that there was a huge variety of possible combinations, but some general tendencies are apparent and it seems that there were common features, one of the most constant being at least some form of courtyard (Gilchrist, 1992, 103; Orme & Webster, 1995, 85–7). Thus Cullum (1993, 11 & 18) has reduced the overall plans of hospitals nationwide to three essential

forms: the leper hospital organized around a church; the infirmary type, with a chapel and inmates accommodated in or near it; and the college, with separate housing for inmates located around a courtyard. There would also have been structural modifications if, or when, the circumstances and function of the hospital changed. Of course, this is a gross simplification, but it has the merit of allowing at least the beginnings of a scheme of classification. This section will consider in brief outline how these principles applied to the Bristol houses.

Taking first the leper houses, nowhere are they well understood and it is difficult to perceive any coherent scheme of development, largely because relatively few have been excavated and documentary evidence is scarce. It has usually been assumed that they were mostly small, with the lepers living in individual cells or cottages built of perishable materials such as timber and thatch. More recent evidence from both excavation and documentary sources suggests that a clearly defined precinct was usual, with sufficient numbers of detached chapels known to indicate that the claustral arrangement was not the norm, although a courtyard might be formed by the alignment of buildings. Despite the Lateran Council order of 1179 that all leper houses were to have chapels, in practice many found it difficult in the early days to acquire one, so that some managed to do without. They were certainly not unusual, and by the later Middle Ages licences to build them became easier to obtain (Orme & Webster, 1995, 39). Such excavations as there have been are curiously lacking in evidence for actual accommodation, supporting the idea of their ephemeral construction. One feature noted has been what were called barns. There is no reason to accept the earlier notion that common dormitories were not provided, as there is strong evidence that they were, although some undoubtedly housed the lepers in individual cells (Gilchrist, 1995).

Of the two Bristol examples, the evidence is quickly stated: it is almost non existent. Virtually nothing has been discovered of St Mary Magdalene's, even the 15th-century itinerary of William Worcestre being largely silent other than to describe its location, although he does note that it had a chapel and implies that there was a cross either as part of its fabric or very near (Nasmith, 1778, 205; Dallaway, 1834, 83–4). Worcestre also provides the only detail of St Lawrence's, which he recorded as having a beautiful church (Nasmith, 1778, 261; Dallaway, 1834, 150). For reasons given in the preceding paragraph, it is not certain that either of the Bristol leper hospitals had chapels right from the beginning.

At St Lawrence's, because there were both male and female staff (presumably living there) and possibly inmates of both sexes, some segregated accommodation would have been necessary, and there was sufficient in 1370 for the charge to be made that the hospital buildings had been laid waste (C Inq Misc, 1348–77, 301). It was also complained

that numerous corrodians had taken over the hospital, which implies that there was at least a significant number of chambers for them to occupy (CPR, 1374–7, 310). There exists a rather confused description made in 1402 which seems to have focused on St Lawrence's and specifically noted the existence of two barns which were of no net value. This is particularly interesting in view of the foregoing comment on such structures, but none of the details can be taken with any confidence to refer to the hospital itself (C Inq Misc, 1399–1402, 100–101).

Turning to hospitals of the infirmary type with a more standardized layout, a little more is known. A church or chapel (used in the sense of a part of a larger building set aside for worship) was often a prominent building within the complex, which attested the importance placed on worship. Such buildings were sometimes sufficiently large to rival parish churches in scale. It is important to recognize, however, that by no means all hospitals possessed such buildings, some finding it more convenient, especially in the early years after their foundation, to use a nearby parish or monastic church.

It was also common for those hospitals which possessed infirmaries to construct them so that they connected in some way with the church, thereby allowing those confined to their beds to witness the mass conducted at the high altar, which was in itself believed to confer healing properties. There were various means by which this was achieved. One way was to house the sick at the west end of the building, with the chapel at the east, rather like the relationship between the nave and the chancel of a parish church. There might have been some division of accommodation, for example by partitioning between the aisles, perhaps as cubicles, especially if the sexes had to be segregated. An alternative was to build the infirmary either parallel to, or at right angles to, the church, with a direct connection between the two. This had the disadvantage that those not lying immediately at the intersection could not participate directly in the service. Finally, some hospitals had infirmary halls located in upper storeys, with at least visual or aural access to the mass (Orme & Webster, 1995, 88–90; Gilchrist, 1992, 106–7).

It was not rare for larger hospitals to have two courtyards, but such an arrangement was usually beyond the means of the smaller houses. It has been found that these were not necessarily always square or rectangular, depending on local circumstances; regular quadrangles being more in vogue after the late 14th century. The plan would also have determined the location of the sleeping quarters for the staff and those inmates who were mobile. Usually, everyone slept in communal dormitories, but the sexes were always kept strictly apart, so that the women were housed in a different building. For symbolic reasons tied up with Christian beliefs, this was often sited on the north side.

With this in mind, specifically designated thoroughfares, often enclosed by walls, were laid out for passage between the church and the other buildings, the men being forbidden to enter the women's area and vice versa, unless the female staff were to attend the sick. It must have been common practice for the more senior staff to be furnished with a chamber of their own. Nor did all hospitals have their own burial ground, as this might be seen as interfering with the perquisites of the local parish church; and on a more practical level, there might not have been sufficient space available. Such considerations also limited their positions, so that cemeteries could not always be sited as preferred on the south side of the church; and indeed many are known which were sited on the north. If the available land was insufficient to make such a provision unfeasible it might have been possible for burial to take place within the church itself, which has been confirmed by several excavations (Orme & Webster, 1995, 86–8; Gilchrist, 1994, 128–35; Gilchrist, 1992, 103–7; Smith, 1979, fig 2; Richards et al, 1989; Thomas et al, 1989, fig 3).

Considering how these principles applied to the Bristol hospitals, St Mark's Hospital is treated first as it was somewhat different from the others in the town; the founders not envisaging that it would accommodate inmates, whatever might have happened later on. The first building on the site was an almonry whereby food could be distributed to the poor; but exactly what constituted such a place in this context is not clear. Obviously, there must have been somewhere for the alms to be received, presumably in what came to be known as a Hundred Man's Hall. One of these at St Cross Winchester was sited near a kitchen in an outer courtyard, from which a gatehouse led into the larger inner quadrangle which encompassed the church and the permanent residences (Orme & Webster, 1995, 86). Whether such an arrangement was built at St Mark's is unknown. If the alms were indeed originally administered by the monks of St Augustine's Abbey, there need not necessarily have been any requirement to provide other facilities until the hospital was made independent some time around 1230 (see discussion on foundations, p 199).

The first chapel at St Mark's, built c 1230 according to the identification of surviving architectural features, seems to have been a single hall measuring c 32m by 6m internally (Barker, 1892, pl IV). How this related to the almonry is not known, but it was recorded early on that mass was conducted in the latter (Ross, 1959, 8). It is interesting that despite there being plenty of ground on which to build, the chapel is substantially misaligned from the east–west orientation required liturgically. This is not the only such example in Bristol, but its east end is some 30 degrees more to the north than the abbey and parish church opposite. By the early 1250s a cemetery was established to the south of the chapel – although it spilled outside the gate through the stone boundary wall onto the green

lying to the west, where the abbey had its cemetery. In 1259, the ordinances record that other facilities included a choir, a dormitory where the master and all the staff were to sleep, a refectory, an infirmary, and the master's chamber (Ross, 1959, 7–9). Probably, those buildings lay to the north of the church, and the line of the so-called Gaunts' Pipe, which supplied fresh water from a hill to the north-west and entered the grounds to the north of the church, supports this scenario as it would most likely have gone directly to the domestic buildings rather than under the church (Lobel & Carus-Wilson, 1975, maps 2 & 8; see p 223). Several 13th-century deeds state that the secular buildings were separated from the immediate hospital precinct by a stone wall. There seem to have been extensive grounds to the north-east of that church, where at some stage an orchard and garden were probably established, as commemorated in the present-day street names (Dallaway, 1834, 131; Taylor, 1878–9, 242; Ross, 1959, xxv & xxxiv; Ralph & Evans, 1979, 4).

The chapel was widened by some 4m in c 1265, when the south aisle was built (Barker, 1892, pl IV). In 1268 there was reference to the so-called knights' chamber, taken over by members of the Ermynton family for their private accommodation, and which provided a fire (Ross, 1959, 97). Additions continued to be made to the chapel. Thus a tower was built in the south-east corner in c 1487; the east end was extended in c 1500, and a little later both the memorial chapel in the south aisle, and the Poyntz Chapel east of the tower, were constructed (Barker, 1892, pl IV).

During the programme of chapel renovation at the end of the 19th century, several observations of the domestic aspect of the hospital buildings were made, some sketches of which survive. Thus, on the north side were found openings, including doors, which showed that the adjacent buildings were set on three storeys. A fragment of what was interpreted as the north side of the cloister was found in 1883–4, its distance suggesting a cloister garth some 16.5m square. This is conjectural, but it would fit with standard arrangements and the layout already suggested. Exactly how the various components of the cloister might have been arranged was also speculated on at the time, but this is not backed up by specific evidence (Barker, 1892, 24 & pl 1). What is known is that, at the Dissolution, the accommodation included the master's lodgings with a hall, buttery, pantry, and kitchen; those presumably having been present for some time (Maclean, 1878–9, 252; Barker, 1892, 50). Given that there were several grooms in 1341, the stables must have been large (CPR, 1340–3, 181).

Of St John's, Lobel & Carus-Wilson (1975, map 2) show a chapel with a chancel, to the north of which lay a cloister, but the dimensions indicated are imprecise. Although the point is contentious, it is possible that William Worcestre recorded in c 1480 the dimensions of the chapel as 21 yards (19m) long by 8 yards (7.2m) wide. In the version of Dallaway (1834, 72) this reference appears in isolation to mean the parish church of St John Baptist, on the north side of the town near St Bartholomew's, but that church is much too long according to measurements taken in 1995, although the width is about right. In the same section of Worcestre's manuscript published by Nasmith (1778, 196–7) it is made more clear that the reference to St John Baptist is actually part of the description of the Redcliffe area, and thus part of the hospital. If that is so, the chapel would have had at most two aisles, and possibly only one. Worcestre also noted that the hospital had a hall measuring some 21 by 13 steps (probably c 12.5m by c 7.8m if the conversion given in Worcestre's adjacent paragraphs is used) and a cloister 32 by 30 steps (c 18.5m by c 18m) with a square fountain placed in the middle. There was a gateway apparently 4 yards (3.2m) wide in the wall on the west side, where a lane led to the river (Nasmith, 1778, 274; Dallaway, 1834, 161). This was probably a rear entrance, as in 1287 the master had been accused of erecting a gate which obstructed common passage, probably on Redcliffe Hill – although this is not stated – but it does prove that the hospital was enclosed within a boundary wall (Fuller, 1899, 174–5). As both men and women were living in the house, some form of segregated accommodation would have been necessary, perhaps on opposite sides of the cloister. Reference was made in 1348 to two chambers, one of which was for the use of the bishop on his visits, the other for the master, and there was at least one stable (Scott Holmes, 1896, 551). It would have been sensible to locate the latrines towards the river for ease of drainage. Otherwise, nothing certain is known. Its proximity to St Mary Redcliffe Church suggests that St John's might not have had a cemetery, but this is conjecture.

Little is known of the layout of St Katherine's. William Worcestre recorded the nave of the chapel as measuring 16 yards (14.5m) long by 7.5 yards (7m) wide; he says nothing about any aisles. He also noted that it had a chancel measuring 9 yards (8m) by 5.5 yards (5m) which is a little narrower than the nave (Nasmith, 1778, 294). It has been suggested that the chapel was largely demolished at the end of the 16th century, and a fragment of its supposed east end with a pointed window apparently survived until 1829. In the late 19th-century sketches were made of the remaining buildings. What was thought to be the guest house was a three-storey structure with a gabled roof. The windows, of which three sets are shown on each of the upper floors, were in 16th-century style. In addition, there were two ranges forming two sides of what seems to have been a courtyard. Those buildings were also gabled and either two or three storeys high. A fine statue of the patron saint was set up on the street frontage and survived until at least 1523 (Hudd, 1884–8, 258–9, pl XXIII; Stone, 1909, 304). Hudd also provided a conjectural outline

ground plan of his interpretation of the hospital layout, showing a quadrangular arrangement with a gatehouse fronting the street, the chapel adjoining on its north-east side and an unspecified building, perhaps the guest house, on the south-west. How he arrived at this scheme is not explained. Comparing this with the 1828 plan of the area surveyed by Plumley & Ashmead, the tan yard which is known to have replaced the hospital buildings is shown as quadrangular, with its external dimensions some 90 m by 65 m. Although the dimensions were much too great to have represented the courtyard as such, this arrangement might have echoed the suggested earlier ground plan and is likely to have incorporated within it some, at least, of the buildings just described. But how they were oriented is uncertain, nor is it obvious whether or not the chapel lay with the courtyard to the north-east or south-west (Hudd, 1884–8, 259–60).

Considering the latest of those places in Bristol which were actually called hospitals, Holy Trinity is yet another poorly understood series of buildings. There was a chapel on the south side of the street, accompanied by an uncertain number of other ill-defined houses, and an almshouse arrangement on the north side of the street (Nasmith, 1778, 210; Dallaway, 1834, 90; Lobel & Carus-Wilson, 1975, map 7). Neither the reason why the hospital assumed this divided arrangement nor the disposition of the component buildings has been discovered.

Because of the excavation project, more is known of St Bartholomew's. The interpretation of the structures recovered has been set out in Chapters 5 and 6, and need not be repeated in detail here except to summarize the main points for comparison. Paramount in the determining factors for the layout was the unusual topography, with the curved wedge of land sandwiched between the tidal river and a shallow cliff at the foot of a hill. Also crucial was the principal building bequeathed by the de la Warres, perhaps with even more outhouses which have not been observed. The original hospital seems to have centred on that early aisled hall (building 1A) and was not purpose built. It is not known if this included a chapel from the date of foundation, but the local parish church of St Michael's (already in existence for many years) was a long trek up a steep hill – which journey would have been impossible for the aged and infirm – so the provision of such within the newly adapted estate would not be unlikely. Alternatively, it could be that one of the other local churches such as St John's, on a level walk just over Frome Bridge, might have served. Because of the apparent lack of general facilities, it is supposed that the aisled building served a number of functions, perhaps including an infirmary at its west end, in the usual pattern. Its style of architecture is rather similar to the infirmary hall of St John Cirencester, which seems not to have had a chapel of its own for many years (Leech & McWhirr, 1982). The burial ground of St Bartholomew's is known to have existed before 1340, and it might have been

there from the earliest days of the hospital as the land was available at the far north end of the precinct.

After the programme of extension got under way in the late 13th century, St Bartholomew's began to assume the form of buildings placed around an irregularly shaped courtyard. It is likely that the original hall continued to serve as chapel and infirmary, but a long range on the western margin seems to have provided accommodation for the master and guests, with the northern edge of the yard bounded by a domestic block which included the kitchen and refectory. There is some evidence that this was a two-storey building which might have housed the men's dormitory on its upper floor. Behind this were other services in a modest courtyard, on the north side of which lay the women's dormitory, in the symbolic position referred to previously. Beyond that range were the garden and burial ground, extending as far as the cemetery of the adjacent Franciscan friary (see Fig 35).

Although St Bartholomew's was almost entirely rebuilt during the second half of the 14th century, the overall ground plans of both phases were strikingly similar, including the alignment of the chapel to the north of east, rather like St Mark's. This must have been because of the need for secure foundations on the alluvial clay and the restricted available land, which had been substantially diminished with the leasing off of land to the north in about 1340. It is not clear how much, if any, of the burial ground was relinquished as part of the deal. The loss of the female dormitory must also have forced a reconsideration of how segregation was to be managed, assuming that the male inmates stayed on. In the new design, the reconstructed building on the south must have served as the chapel, because a number of burials were made there. Moreover, an extension was built at the east end in the form of a chancel, which also accommodated a few burials. This strongly suggests that it no longer housed the infirmary, since requiring people to sleep immediately over where they were to be buried would have been both inhumane and contrary to medieval notions of hygiene. Such pronouncements must be treated with caution, as one must not impose a modern viewpoint, and there was just a hint of screens in the north aisle which might possibly have been cubicles.

A kitchen seems to have been established at the west end, partitioned from the rest, where there were no burials, and it is now recognized that the north aisle opened directly into the west range, which lay at right angles to it in one of the standard infirmary arrangements. The kitchen was only a temporary affair, probably serving while a more permanent block and other domestic services were built on the north side of the courtyard. That courtyard had begun to be partitioned as cloister walks, and it seems that this was probably part of the new segregation arrangement. But that was not all. Evidence provided by the discovery of a fragmentary

staircase in the south aisle, and a probable window above the south arcade, show that there was an upper floor over that aisle. On the north side of the north aisle, a parallel room was added rather like another of the infirmary schemes referred to before – although in that case it is not obvious how it linked to the chapel itself, nor whether it too had an upper floor. There is little point in speculating on details of how all these various rooms might have accommodated the inmates as there is no direct evidence one way or the other. Suffice it to say that there was ample scope to meet the requirements of both a religious lifestyle and the sexual proprieties of the day.

In summary, St Bartholomew's has been shown to have exhibited a number of features which were common to contemporary hospitals of its type. In terms of layout it is difficult to draw firm conclusions in comparison with the other larger Bristol houses as so little is known of them. It would seem that it was different in originally having a square rather than a long, narrow chapel (even if a chancel was added later). St Mark's had by far the largest chapel of that type. St Mark's is also the only hospital other than St Bartholomew's known for certain to have had its own burial ground. The courtyard or cloister arrangements of St Mark's, St John's, and St Katherine's seem to have been somewhat similar (admittedly on extremely slender evidence) but that at St Bartholomew's was different because of its unusual origins. St Bartholomew's is also the only one for which there is an indication of a second courtyard, but that would have been extremely modest, if it can be said to have existed at all. Finally, the only direct documentary evidence for an infirmary is at St Mark's, and that was reserved for the benefit of the staff and long-term guests, and probably on a modest scale, but the circumstantial evidence for the existence of such a place which cared for the sick inmates at St Bartholomew's is compelling.

Comparing St Bartholomew's more widely, it was much smaller in scale than hospitals such as St Mary Spital in London (Thomas *et al*, 1989, fig 3). If set against the comparative plan of churches drawn by Richards *et al* (1989, fig 2) the St Bartholomew's building is seen to have been of modest proportions, much smaller than nearly all the examples provided. Not only the chapel but the whole precinct was rather unusual in form, which is accounted for by the circumstances of its origins and topography.

Finally, turning to the later almshouses, their configuration was also determined by the available space, but by the 15th century an increasingly strong trend was for greater privacy to be provided, often accomplished by arranging more or less separate accommodation around a quadrangle (Orme & Webster, 1995, 89–90). For the Bristol houses very few details are known and Lobel & Carus-Wilson (1975, map 2) record nearly all of them as simple blocks of undetermined size.

In their survey of the site of the demolished Burton's Almshouse, Marochan & Reed (1959) revealed a substantial portion of what they believed to have been the original buildings. They found a two-part range with a frontage on Long Row at least 30m long. The west room was 16m long and 7m wide externally. There was no indication that it was further subdivided, so that room might have functioned as the hall, but the superficial nature of the investigation prevents firm conclusions being reached. At its east end the building was irregular and further subdivided lengthwise into two smaller rooms, each a little under 4m wide internally. If the almshouse included a chapel, which is not certain, it was most likely in one of these. The observation of John Leland, made *c* 1540, that the founder was buried in the almshouse implies that there was at least some form of consecrated ground, most likely a chapel (Toulmin-Smith, 1910, 93). No human burials were seen by Marochan & Reed. Behind the long range were what seem to have been small outhouses in a walled courtyard. The excavators believed that more buildings lay to the east, and possibly to the south, but whether these were part of the almshouse or merely adjacent tenements is not known. On Rocque's map of Bristol published in 1743, it is shown as a single range measuring some 15m by 8m, which would have been a later rebuild of 1721. Either it was considerably reduced in size when rebuilt, or Marochan & Reed's identifications are not entirely correct. Further, according to Plumley & Ashmead's 1828 survey, which is acknowledged as being accurate, the almshouse then had an L-shaped plan, with the street frontage measuring some 20m and a return on its east side going back some 10m. How these discrepancies are to be resolved, if ever, remains to be seen.

Williams (1988) made a much more detailed study of Spicer's Almshouse. Although the actual frontage was not available for investigation, sufficient was recovered to show that it was similar to what is known of Burton's. A range at least 25m long and more than 4m wide ran parallel to the street and was subdivided into at least five rooms. According to the interpretation made, an entrance led off Temple Street into a through passage which gave access to a hall, kitchen, and garden at the rear. The presence of a stair shows that it was at least two storeys high. The internal divisions of the range were modified some time around the late 14th century, but it was finally demolished and rebuilt in the late 15th century. The ground plan of this last phase is fragmentary. Enough survived to indicate that it might have been based around a quadrangle, but this could not be proven. No evidence from post-medieval maps is available, as Spicer's Almshouse had been completely demolished by then.

If Spencer's Almshouse as described in the mid-19th century was the original medieval construction, then it would have been a one-storey range, some 30m long and up to 10m wide, with a path or

narrow courtyard running alongside it (Clark, 1850, 54; Rocque, 1743; Lobel & Carus-Wilson, 1975, map 2).

John Foster's is the only Bristol almshouse definitely known to have incorporated a chapel, which still survives, albeit much restored and reduced in length, so that it now measures only approximately 7m square. According to Dawson (1981, 19) it originally formed the east end of a range of buildings along the street, where there is one jamb of an entrance door. The precise form of the original almshouse is not certain, and Lobel & Carus-Wilson (1975, map 2) show it as a block some 30m long and around 7m wide, orientated north–south rather than the arrangement suggested by Dawson. As it is known that the occupants were each to have separate dwellings and gardens, it could well have been built around a quadrangle on the collegiate model, which is the form in which it stands today. In contrast, both surveys of Bristol by Rocque (1743) and Donne (1826) show the almshouse as L-shaped rather than quadrangular, with the main block as described by Dawson and a return on the south, each wing measuring some 25m by 7m and embracing a pathway and small courtyard. But whether that plan related directly to the original medieval establishment is not known; the house is known to have been enlarged in 1553 and rebuilt in 1702 (Sampson, 1902, 102).

Magdalens's Almshouse, in its guise as Redcliffe Hospital, is shown on Millerd's 1673 plan of Bristol as a long building lying parallel to the road, which might have reflected its medieval layout before its rebuild in *c* 1675. In 1828 it was a range some 22m long by 5m wide, with extensive grounds to the rear, according to the plan of Bristol drawn up by Plumley & Ashmead. On the site, Blundel's 1717 view shows a gabled building with two storeys. These sources must be treated with extreme caution but, such as they are, they indicate that Magdalens's Almshouse was similar to the nearby Burton's and Spicer's.

Water supplies and sanitation

The provision of a supply of clean drinking water and the effective disposal of human waste were of much concern to monasteries everywhere, and the importance of this aspect of medieval institutional life is now realized (Gilchrist, 1992, 108 & 112–3; Bond, 1993). It is essential, as ever, not to impose modern views on the practices of earlier times, but it is clear that even lacking any understanding of the real causes of the spread of infectious diseases, medieval authorities recognized the benefits of managing water in a decent way. Inside towns especially, it must have been particularly difficult to keep local wells free from pollution, a problem aggravated by the need to swill sewers into the most handy river. Moreover, with an expanding population in a busy town, the demand could not be expected to be met as the proliferating wells caused the water table to recede. On the suburban margin, this could be less of a problem if the site was chosen with care, so that any spring or natural watercourse could be employed but, as already shown, the choice for locating a hospital was usually circumscribed. To this end, it was the practice in many towns to pipe in water from sources quite a long distance away, and such undertakings were frequently associated with monastic houses. It was also common for latrines to be flushed out by culverting streams, and where a piped supply was available it would have been sensible to employ it for that purpose. In mixed houses it would have been necessary to install separate toilet facilities for men and for women.

In Bristol, at least six piped water supplies drew on sources in the surrounding hills, usefully summarized by Bond (1993, fig 5.1) in a plan which was based on that of Lobel & Carus-Wilson (1975). Several of the hospitals made direct use of them.

As proposed in the discussion accompanying Chapter 5 (p 86) the earliest occupants of St Bartholomew's might have had access to some natural run-off point for rainwater flowing down from the hill to the north, perhaps collecting it in butts. Although a well was sunk in the courtyard during Period 3B (*c* 1280–*c* 1320), given the proximity to a tidal river which must have flooded it frequently with semi-saline water, this could hardly have been appropriate as the sole source for drinking. Perhaps it was used for laundering clothes. It seems almost certain, therefore, both from the viewpoint of practicality and of desirability, that a feather pipe would have been provided to tap the supply from the hill to the north of the town which had been established by the neighbouring Franciscans some time in the late 13th century. The excavated evidence for Period 3C (*c* 1320–*c* 1340) supports this assertion, as what seems to have been a conduit house was built during that phase. Its installation would have caused no great difficulty as the pipe ran from the friary along the street outside the hospital before being routed across the bridge to supply the town. The siting of this supply behind the kitchen and domestic services is logical, and it suggests that the latrines would also have been placed in the courtyard between the domestic range and the original women's dormitory, which was a convenient location for them to be flushed into the river. None of the drains excavated would have been adequate as a sewer, and this reinforces the argument that the latrines lay in an unexcavated part of the site. At St Mary Spital, there was a special toilet facility adjacent to the infirmary (Thomas *et al*, 1989, fig 3) but no such provision was found at St Bartholomew's. By Period 4A (*c* 1340–*c* 1400) the St Bartholomew's system had become more elaborate, with an improved conduit house and the routing of the water via a lead pipe. It is possible that a drinking fountain was erected in the courtyard and, as Bond

(1993) describes for religious houses elsewhere, facilities could have been quite sophisticated.

As for food waste and other detritus, rather than burying it in pits on site it was the custom in Bristol to throw this in the river or have it taken away. All the evidence agrees that this was the practice at St Bartholomew's.

St Mark's also benefited from a similar supply of fresh water. This had its source on the west side of Brandon Hill, at the foot of which the hospital lay. The system, closely associated with that of the adjacent Augustinian Abbey, was established by c 1240 and seems also to have been run via a lead pipe into a tank for use throughout the hospital. This so-called Gaunt's Pipe survived the Dissolution and was still functioning in the late 19th century (Bond, 1993, 63). The location of the latrines is uncertain, but they too were probably flushed by the fresh water into the River Frome. In fact, an agreement drawn up in c 1240–5 allowed for the construction of a drain 1.2m wide which debouched into the river. For ease of identification when servicing was required, its route was marked by stones and no trees were allowed to be grown over it (Ross, 1959, xxxix & 75).

The other hospital known for certain to have had a conduited supply was St John's, which tapped the Redcliffe Pipe running from hills to the south. As discussed earlier in this chapter, the provision of a feather pipe of the diameter of a man's thumb is among the earliest evidence for the actual existence of the hospital, and may be dated to c 1186–1216 (Bond, 1993, 63). Lobel & Carus-Wilson (1975, maps 2 & 8) show the feather as running off the main supply somewhere between the hospital church and the shallow cliff just to the south. It is not yet determined whether this precise line is based on firm evidence or speculation according to the supposed local topography. William Worcestre, writing c 1480, stated that in the middle of the hospital cloister was a pool of water with a square conduit (Nasmith, 1778, 274; Dallaway, 1834, 161). Again, there is no evidence for the latrines, which probably emptied into the Avon.

It is possible that both St Katherine's and St Mary Magdalene's were also serviced by the Redcliffe Pipe, but there is no evidence for this. Leper hospitals such as St Mary Magdalene's and St Lawrence's were not often supplied with elaborate systems of water supply or drainage (Gilchrist, 1995) and this seems to have been the case with the Bristol houses. No freshwater conduit is known to have run anywhere near St Lawrence's, which presumably relied on its own well, as probably did the nearby Holy Trinity.

Of the other almshouses little is known. They were all fairly close to one or more of the various piped supplies, but it is unlikely that any of them was directly plumbed into the main conduits and, if it was utilized, the fresh water would have been transported in containers from some convenient tap. Given the distances which might have to be travelled, some doubtless relied on nearer wells. In their admittedly superficial examination of Burton's Almshouse, Marochan & Reed (1959) found no well on site. At Spicer's, Williams (1988, 118–120) did uncover one which had been constructed in the late 15th century, suggesting that even if a possible feather supply to the Austin Friars just across the street was available as a convenient source, it needed to be supplemented. Those almshouses which lay within the town walls of the Redcliffe and Temple districts could have drained their effluent into the so-called law ditches, which ran between the main north–south oriented streets to mark the boundaries of tenements and eventually drained into the Avon, or into the ditch outside the Portwall. No toilet facilities were observed during excavations at Spicer's Almshouse (Williams, 1988, 108 & 122).

Diet

The potential for archaeological excavation to add extensively to knowledge of diet has often been observed, and in the study of hospitals this subject is all the more important as a prescribed dietary regime was an important form of treatment for ailments (Harvey, 1993, 34–71 & 91–4; Gilchrist, 1995). But as only one hospital and one almshouse in Bristol have been investigated, neither of which yielded substantial quantities of animal bone or other evidence, this information for the town is still rather limited, so any supplementary evidence from the documentary record is all the more valuable.

The 1303 St Bartholomew's inventory (see Chapter 5, p 59) records the following: an oven for cooking meat, a cask for ale, a box for keeping flour, tubs for storing salt and meat, five quarters of beef, six salted hogs, troughs for making dough, a mill for grinding malt, a quarter of barley, and one and a half quarters of beans. This shows that facilities for preparing a basic diet were certainly available at the hospital. The analysis of the animal bone recovered by excavation is presented in Chapter 9. This evidence must be treated with circumspection as no obvious midden was found and it is unlikely that the larger bones would have been allowed to accumulate on floors, which introduces an immediate bias into the results. Bearing that in mind, it seems that for the earliest period of hospital occupation, up to c 1280 the quality of meat was reasonably good, with a variety of animals (especially young ones) including sheep or goat, cow, pig, chicken, and goose being slaughtered. Although from a slightly earlier period, this agrees with the inventory. Unfortunately, little evidence was recovered for the precise period when the inventory was compiled, or from the following years up to c 1340, so meaningful conclusions are difficult, but the stone egg recovered suggests that egg-laying chickens were kept. In the second half of the 14th century, heavy reliance was still placed on young sheep/goat and cow, but it is worth noting that one beef animal yields

more meat than a sheep. After about 1400 mutton became more common, which is interesting in relation to the wool trade. During the 14th century this had become of huge importance, but the export of raw wool shrank as the 15th century wore on. Nevertheless, the country areas around Bristol continued to make a fine living out of the woollens produced locally, even if the city itself was not quite so fortunate. Although there is no proven connection in this case, it would be surprising if the greater number of animals slaughtered at an older age did not find their way onto the food table (Lobel & Carus-Wilson, 1975, 11; Grant, 1984, 182). In that later period the cattle and pigs slaughtered continued to include more young animals, but the consumption of poultry tended to decrease. It seems that greater reliance was then being placed on the cheaper cuts of meat, although better joints were not unknown, and the habit of preparing brawn from sheep heads tended to lose favour, largely ceasing after the 14th century. Cut marks on the recovered bones suggest that boiling or stewing was the most usual cooking technique, which also ties in with the listing of large cauldrons in the earlier inventory. Fish is known to have been prepared or eaten in the kitchen area set aside at the west end of the chapel, and the ubiquitous oyster shells demonstrate that shellfish were a regular feature of the diet. One supposes that in a religious house full observance was made of the 'meatless' days during Lent and on Fridays, when fish of some sort would have been essential unless a vegetarian diet was provided (Tannahill, 1975). As argued under the discussion of economics earlier in this chapter (p 211) quantities of extra bread were made available from bequests by the wealthy, which would have supplemented that produced by the hospital's own kitchen. In all, this would seem to have been an adequate dietary range by medieval standards, even very good from the viewpoint of the poorest members of society.

Some assessment of the impact of diet on health can be gained by an examination of the human skeletal remains. As noted in the report in Chapter 9 (p 179) at St Bartholomew's there is evidence that three of the youngsters and two of the elderly women (probably inmates, but this is not certain) had suffered from anaemia, caused by iron deficiency in childhood which was never made up. This does not necessarily indicate a poor diet at the hospital, as it might equally well be taken as evidence of poverty and malnutrition before they were admitted and which was left too late to be remedied.

At Spicer's Almshouse, the inmates were given old beef animals, young pig, chicken and eggs, a variety of fish, and the plentiful oysters (Levitan, 1988) but insufficient quantities of material were recovered to make comparisons with St Bartholomew's of any significance.

Some details are furnished concerning St Mark's. The cartulary records that corn, beans, and peas were allotted to provide the poor with a daily dole of food. According to the charter of c 1230–2, the poor were to receive bread prepared from equal quantities of wheat, beans, barley, and rye, and a pottage made from oat flour: a solid, if monotonous diet, far inferior to that provided at St Bartholomew's, but one which would have provided a lifeline to the starving who might have been able to supplement it elsewhere, as was mentioned in the 1259 ordinances. Those same ordinances allowed the brethren good bread made from corn, good ale, and good pottage, although the contents of the latter were not specified. They were also occasionally allowed a side dish, but were not allowed to purchase wine for their own use, nor were they to have feasts if that meant that the poor had to do without their rations (Ross, 1959, xii–xiii, 3 & 9). No mention is made of arrangements for meatless days. Clearly there was more to the diet of the master at least, as in 1344 the hospital was substantially in debt to a fishmonger and a spicer, both of London (CCR, 1343–6, 350). In view of the distance of transportation, it is likely that the fish purchased from London was salt cod or something similar; presuming, of course, that the debt incurred was for the purchase of food.

Of the other hospitals and almshouses, no details have yet been discovered.

Medical care and artefacts

As reiterated a number of times in this report, the attention of trained medical practitioners was not generally provided in the overwhelming majority of hospitals in this country, whatever might have been the practice in their Continental counterparts. For hospitalized people, even if sick, the most that could be expected would have been shelter, food, warmth, and possibly basic nursing, with some simple remedies such as purges being given for minor ailments. That is not to say that the population as a whole was entirely without help during illness. The services of physicians, barber-surgeons, and apothecaries were available, at a price, alongside the more homely bone setters, midwives, and wise women (ie women who were skilled in the use of herbal treatments and traditional remedies) and the like.

In the Middle Ages, blood-letting was practised not only to cure the ailing (for example, victims of the plague) but in routine fashion on the healthy to improve their wellbeing and to ward off possible illnesses before they occurred. The procedure had been recommended since Classical times in the all-pervasive teachings of Galen as a means of balancing the body's humours; but the more responsible authorities recognized the potential dangers of the operation if left in the hands of the incompetent. There were various ways in which the blood could be taken, from cutting into a vein and catching the flow in a bowl, to scratching the skin and applying heated cups to draw it out. Leeches might be applied to those who were so frail that opening a vein

was too hazardous, and the animals were applied locally in cases of boils, ulcers, infected wounds, and so on. Prophylactic blood-letting was a regular feature of monastic life, but how often this was done would obviously vary enormously. It has been calculated that at Westminster Abbey the operation, called the 'seyney', would have been performed on individuals about every six to eight weeks, although its frequency declined towards the 16th century. After the operation, the monks enjoyed a special diet and a period of recuperation (Harvey, 1993, 96–9; Rawcliffe, 1995b, 63–9). In Bristol hospitals, blood-letting is recorded in the 1259 ordinances for St Mark's, which note that the brethren were then to retire to the infirmary where they were fed at the direction of the master (Ross, 1959, 9). Although it is not proven, presumably the same practice took place elsewhere in the town's monastic houses, and possibly in the hospitals on occasion (although for reasons expressed before this is less certain) but whether the services of professional barber-surgeons were called on, or whether some members of staff were sufficiently skilled to undertake the operation themselves, is unknown. Probably this varied from place to place.

At St Bartholomew's, the small number of skeletons recovered provides some insight into the state of health of the inhabitants. Their pathology is discussed in detail in the report presented in Chapter 9 and need only be summarized here. The population was generally elderly, but some had died in childhood or early adulthood. Most had poor dentition; some exhibited signs of dietary insufficiency and stress in early life, which is hardly surprising among the destitute. A few had healed fractures of the limbs or the skull, and one had extensive fractures to the ribs and lower back which were possibly caused by senile osteoporosis, some breaks having repaired only shortly before death. A few skeletons bore benign bone tumours, but there was no sign of any infectious disease such as tuberculosis or leprosy, although one individual probably suffered from middle ear disease. There was one case of a possible bedsore, one of a leg ulcer, and many inmates were troubled by osteoarthritis.

This shows that there was certainly ample scope for nursing at St Bartholomew's, and there is a documentary reference in the late 14th century to the blind and lame who were forced to retire to their sickbeds (Wadley, 1886, 46; Bickley, 1900, I, 224). However, no artefacts were recovered which could be specifically termed medical. The stone mortar (Chapter 9, no 224) was more likely for kitchen use. An often-quoted example of a medical mortar is that recovered from Arundel. It was claimed that, because it was small and carved from the smooth Portland Stone rather than sandstone, it was used by an apothecary, as it would be undesirable for particles to contaminate medicinal compounds (Dunning, 1969). This is overstated. An example in greensand recovered from St Mary Ospringe was also suggested as possibly pharmaceutical on ac-

count of its square shape, but this too might equally have been for kitchen use (Smith, 1980, 154 & fig 32). A very few other objects in glass or metal have been described at other hospital sites which might have been used for surgery or diagnosis, but only the supposed urinals from St Mary Spital, London, are at all convincing (Gilchrist, 1995; Thomas *et al*, forthcoming). Cardwell (1995, 238) is surely correct is exercising caution when making claims for the medical use of artefacts recovered from the hospital of St Giles by Brompton Bridge.

Occasionally, unusual pottery forms have been recovered which have been claimed to be appropriate for nursing. Probably the best-known example is the assemblage from St Nicholas's leper hospital in Fife (referred to in Gilchrist, 1992, 109–110, quoting Hall, forthcoming). There was an unusual preponderance of jugs, some with forms which might have been designed for feeding the sick. There was also a high proportion of jugs found at St Bartholomew's, but this seems to have been quite usual in Bristol at the time, perhaps caused by a decrease in the use of earthenware cooking pots as metal cauldrons became more common. This is amply illustrated by the 1303 inventory. St Bartholomew's also yielded two jugs which bore unusual marks, both recovered from the same context in the west end of the church. No 79 was inscribed on the base with what might just possibly indicate a liquid measure; no 81 was marked with a letter A near the spout, which might have served to identify its contents. In both examples, any interpretation of this as evidence of them having been used for supplying medicines is thin in the extreme. Ponsford (1988, no 42) has suggested that an Andalusian vessel found at Spicer's Almshouse, which he now assigns to the 14th century, was an ointment pot.

One of the problems facing the archaeologist is that, although specialized vessels in earthenware, metal, and glass, were certainly made for the preparation of medicines by the apothecary, they must always be extremely rare. Otherwise, everyday vessels might have been adapted to meet specific needs, but they might not be readily recognized unless found in substantially complete condition. A study of this particularly interesting topic has been started by Moorhouse (1993). Even if the chance of finding any such on excavations would be remote, it is still frustrating that, although specific pharmacy wares were made in the late 16th century, no apothecary jars bearing the name of the drug are known to have been manufactured in England before the mid-17th century. This contrasts with, for example, maiolica from Italy and Spain, which was marked from the mid-15th century onwards (Drey, 1978; Price, forthcoming). In this country the name of the drug would have been written on a paper label or painted over the glaze, perhaps in the form of a reference number. In Romeo and Juliet (Act V, Scene 1) Shakespeare describes a contemporary apothecary: '. . . and about his shelves a beggarly account of empty boxes, green earthen pots . . .'.

This sounds very much like the standard Tudor Green and similar wares.

An alternative approach to defining possible medicines is the analysis of plant remains and the like recovered from the soil. Some have claimed success, for example at Soutra in Mid Lothian and at St Mary Spital, London (SHARP, 1986; Thomas *et al*, forthcoming). Seeds from plants which might have been used medicinally have been found, but the claims for Soutra seem rather exaggerated. At St Giles by Brompton Bridge, it is now acknowledged that the recovered herbs such as dill, flax, and henbane do not necessarily prove pharmaceutical practice, and any extracts of imported drugs would leave no pollen residues (Huntley, 1995, 231–2; Cardwell, 1995, 238). Even in stratified deposits, it is often impossible to be certain that the seeds were not transported to the site by natural means. Moreover, a browse through medieval herbals and pharmacopoeias will show the reader that the number of plants then thought to have some healing virtue is quite staggering: nearly everything was supposed to have been useful in some way, so great care must be taken to avoid making unjustified claims.

No specifically curative plants were identified at St Bartholomew's, but given the meagreness of the analysis this is not surprising. Yet even if they had been found, the location of the hospital near a tidal river which was prone to flooding, and at the foot of St Michael's Hill from which much debris must have been washed down, would have made any interpretation as evidence for medical practice dubious. Rawcliffe (1995b, 183) has referred to the possibilities for the cultivation of numerous medicinal herbs in even a relatively modest garden, and there must have been a lot of space in all the Bristol hospitals for such horticultural practice; for example in the plot of ground to the north of the St Bartholomew's site, and in the extensive grounds of St Mark's. Women were particularly involved in this occupation, so the potential at St Bartholomew's is clear; but whether this was actually done is an altogether different matter.

As Gilchrist (1995) has astutely observed, research intending to focus on medieval medicine would be far better directed toward the infirmary areas of Benedictine and Augustinian monasteries. The study by Harvey (1993) of the Benedictine house of Westminster Abbey, and Rawcliffe's accounts (1995a & 1995b) of both medieval medicine in general and how this applied in the hospitals of Norwich, provide an invaluable introduction to a complex subject.

Maladministration, decline, and change

It is natural to cast a romantic glow over accounts of charity and piety. In the Middle Ages doubtless there were many, perhaps even a majority, of carers who were compassionate and dedicated to their work. But all too often a closer examination of the evidence reveals a less than flattering picture. As Rawcliffe (1984, 13) rightly counsels, a sense of proportion must be maintained, not least in resisting the tendency to impose a 20th-century viewpoint on the beliefs and affairs of a rather different society; but for much of the 14th century and the early years of the 15th, the picture in Bristol tends to be as depressing as it is in other towns.

In Chapters 5 and 6, especially in Table 8, the administrative difficulties at St Bartholomew's during the 14th and early 15th centuries were described. In summary, from around 1319 onwards there were arguments over who was actually in charge of the hospital, to the extent that the bishop was minded to intervene, and in 1331 the master was threatened with excommunication for not attending fully to his duties. After a period of uncertainty, by the late 1330s the sisters assumed more or less full control; which seems to have been the start of a period of relative progress, but there is very little evidence so far available to make any decisive judgement on this. Under the guidance of the bishop's advisors, the women's authority was removed after some 50 years, in what seem to have been rancorous circumstances.

Interestingly, no charges of actual fraud were laid against any of the masters of St Bartholomew's: rather, the maladministration seems to have centred more on a struggle for power, with the benefits which accrued to the wardenship acting as the spur. Those were difficult times for all, and even the small reward of a benefice at an impoverished hospital was sufficient to provoke the jealous guarding of perceived rights. Earlier in this chapter (p 207) the manoeuvres of several of the masters to secure their positions were referred to, as well as the tendency for favoured persons to be granted multiple benefices.

Although there might have been exceptions, this problem of maladministration is seen at several of the other Bristol houses.

Ross (1959, xviii–xx) commented that he believed the masters of St Mark's to have been of good character. That might be true of most of them: others were less altruistic in their dealings. Many of the details have been presented by Graham (1907, 114–17) and it suffices here to summarize her account, along with any new information. In 1279, the bishop's commissaries reported that although the house had originally been founded to feed 100 poor every day, for the past four years this had been 'damnably omitted'. The bishop ordered a return to the ordained provisions and appointed two receivers to take all money due to the house and to render an account to the master and three or four of the wiser brethren (Willis Bund, 1902, 104). If he thought that such measures would be effective he was mistaken, as in 1281 he wrote to the Archbishop of Canterbury stating that he had pronounced a sentence of suspension against them for contumacy (Willis Bund, 1902, 138). Again, in 1284 the bishop

visited the house to investigate the 'enormities and transgressions' made, which chiefly concerned the withdrawal of the alms of the house (Willis Bund, 1902, 233).

At the very end of the 13th century, problems arose with the current patrons, John and Elizabeth ap Adam, who on the death of the master broke into various of St Mark's country estates and took away quantities of corn and other goods, so that the customary alms could not be dispensed. This seems to have come about as a result of a dispute over the patrons' rights in directing the affairs of the house, which arguments continued until well into the 15th century (CPR, 1292–1301, 469 & 619; Ross, 1959, xxiii). In 1312 there arose yet another dispute, whereby certain of the brethren accused each other of behaving improperly and assuming authority which was not theirs. Despite direct orders from the bishop, the master actually imprisoned one of the brothers until he was commanded to release him (Wilson, 1927, 56 & 75). In 1319, one of the brethren was accused of being a married man even though he was a professed monk, but he claimed that he had made this confession out of fear of his fellow brethren (Pearce, 1930, 40). A visitation by the bishop's officials in 1336 noted that corrections had to be made, but their nature is not detailed (Haines, 1996, 281 & 340). As things dragged on, more and more debts accumulated; for example in 1344 the hospital owed £100 for provisions (CCR, 1343–6, 236 & 350). It seems that the master, Ralph of Tetbury, was living beyond his means and was deposed, but he appealed to the court of Canterbury and a compromise was reached (Haines, 1966, 131–4). Even then, some of the brethren continued to act more or less as they pleased. Thus in 1350 the pope had to intervene in the case of Richard Fraunceys, who without leave had gone off to Rome to seek indulgences but later wished to be reconciled with his order (C Pap Letters, 1342–62, 338). Perhaps it was this sorry state of affairs which caused Robert Gyene to withdraw his proposed gift of land, as discussed in an earlier section of this chapter (p 210).

The situation at St Mark's then seems to have become more or less regularized until towards the end of the 14th century, but trouble surfaced again after the appointment of William Lane as master. In 1406 it was found that he had cut from thirteen to three the number of chaplains maintained at the hospital, and that divine service had been withdrawn for the previous 20 years. Further, the provision of food for the poor seems to have been seriously reduced (C Inq Misc, 1399–1422, 174). To do him justice, it might be that Lane was innocent, as argued by Maclean (1878–9, 250) and Barker (1892, 38) because the lands were subsequently returned to the hospital, but that is not wholly convincing proof. Even if that particular case is doubtful there is no reason to absolve all masters from all charges, as those writers sought to do. Lane seems to have been one to get into debt, and in 1412

was accused of owing £9 to a London draper, although he failed to answer the charge before the King's Bench (CPR, 1408–13, 441). Thereafter matters appear to have settled down and there are no further records known of any particular malpractice, but at the end of the 15th century the master was prepared to falsify the details of the foundation charter copied into the cartulary to make it seem that the eleemosynary duties were less than had been prescribed by the founders (Ross, 1959, xiv). With the passage of time, St Mark's concentrated less on its charity work and more on its role as a religious house which accommodated priests.

No details are given of what took place at St Katherine's, but it is clear that shady dealings were also happening there. In 1324–5 the Bishop of Bath & Wells commissioned an investigation to audit the accounts of the late master, not named, whom he finally had removed, putting in his place a temporary guardian from St John's Hospital to correct all excesses. In 1353 the current master, Walter de Eastham, was also removed by the bishop, but this might have been because of incompetence rather than dishonesty (Hobhouse, 1887, 239; Hudd, 1884–8, 265–9). Other than those instances, matters seem to have been quite regular.

At St Lawrence's, real trouble seems not to have started until a little before 1370, when it was reported that the master, Ralph Coteller, had for three years previously cut back the number of chaplains required by the original terms of foundation, and was making waste of the hospital buildings. Whatever the truth of that, there was a dispute between Ralph and the succeeding master, Robert Bailly, as to who was the rightful appointee, with Ralph accusing Robert of making false charges which he was given no opportunity to answer (C Inq Misc, 1348–1377, 301). The difficulties continued, for in 1376 a commission was appointed to enquire into a report to the king that by the misrule of wardens, alienations of its lands, too many grants of corrodies and pensions, and withdrawal of its goods, the hospital had fallen so far that its remaining assets were insufficient for its maintenance, with the result that divine worship was diminished and other works of piety withdrawn (CPR, 1374–7, 310). The findings of the enquiry are not known, but again in 1390 another commission was made for various leading citizens to visit the hospital and correct any abuses found (CPR, 1388–92, 347). In 1400 it was reported that Robert Bailly had pulled down a barn and cowshed on one of the estates and sold the rubble, along with numerous trees which he had had cut down for timber. He also sold a valuable brass pot which was supposed to be used to hold food for the lepers, and allowed certain people to live on hospital lands at well below a reasonable rent. The enquirers found that they could not calculate how much it would cost to make good these depredations (C Inq Misc, 1399–1422, 2–3).

St John's seems to have been more or less decently looked after until 1398, when the king had to revoke his letters patent by which he granted the mastership to a Henry Mory because that person had made a false petition that the post was vacant (CPR, 1396–9, 429). The riot which caused much damage to the hospital in 1399 (referred to earlier in this chapter, p 213) strongly suggests that by then the locals did not see it in a favourable light. In 1404 the house was greatly in debt because of oppression and incompetent dealings, which led to the king putting the matter into the hands of the Archbishop of Canterbury (CPR, 1401–5, 413). This did not resolve the difficulties, as in 1408 it was necessary for the king to commission the mayor of Bristol to enquire into a report of wastes, dilapidation, and destruction committed in the hospital and its lands: divine services and other accustomed charges had become diminished and various goods had been carried off. This disgraceful state of affairs rumbled on until at least 1411 (CPR, 1405–8, 419; CPR, 1408–13, 320; Scott Holmes, 1914–5, 65).

More happily, no such sharp dealings are known for St Mary Magdalene's or Holy Trinity. In fact, little is known of them at all, especially the former, so this might be a false picture. However, in the case of Holy Trinity it is likely that the prominent citizens who were members of the religious guild which formed part of the hospital kept a close eye on things, so that opportunities for self advancement at the expense of the poor were less easily manoeuvred.

Similarly, the record is largely silent on the almshouses of Bristol. There are two exceptions known. One concerned All Saints' Almshouse, where it was recorded that in the early years of the 15th century the rent had been withheld from the parish church (Burgess, 1995, 44, 45 & 54). The reasons are not stated and it is possible that some form of protest was being made rather than a deliberate attempt to defraud. The other exception was at Foster's Almshouse. John Walssh (sic) was co-executor with John Easterfield of John Foster's will, but Easterfield accused him of putting the revenue from Foster's lands to his own use (see p 202) although he later admitted that Walssh had in the end made the matter good by donating property of his own. Even so, his reparation was worth less than that which he had embezzled (Veale, 1951, 175).

The necessity of maintaining a sense of proportion in viewing this evidence is reiterated, although there seems no reason to go so far as Ross, who exculpated the masters of St Mark's from all misdeeds and seems to have taken his argument from Maclean. Apart from St Mark's, there is no proof of actual fraud at any of the Bristol hospitals until the 1360s, with the trouble at St Bartholomew's being more of a power struggle, and everywhere things seem to have been more or less corrected by the early 15th century. Nevertheless, the impact of these charges on the local populace must have been substantial, and such evidence as is available supports this view. It is clear that, in common with hospitals elsewhere, those at Bristol experienced varying fortunes, their difficulties often being caused by the neglect and dishonesty of their administrators, to the detriment of the inmates. It is generally acknowledged that the Black Death of 1348–9 had a major impact on such institutions throughout the country, and in many the rate of mortality was considerable (Orme & Webster, 1995, 127). Bristol was as devastated as elsewhere; in fact some contemporaries even claimed that the plague was introduced into this country via the port, but that seems unlikely. It is known that it arrived there in the summer of 1348 and one 14th-century account stated that virtually the whole town was wiped out. That is clearly an exaggeration, but if around half the citizens died it would be fairly typical of the general trend. Certainly, the people of Gloucester tried to prevent the plague from spreading there by denying access to Bristolians, even if such measures were ultimately of no avail. It must be remembered also that the Black Death itself was not the last of such visitations, and it is thought that many religious houses experienced abnormally high mortality rates about every ten years or so until well into the 15th century (Horrox, 1994, 3,12, 62–3, 77 & 81).

After about 1350 many hospitals were left with inadequate resources. It was not so much that financial difficulties appeared for the first time, but that they involved many more hospitals. It has been estimated that some 20% of foundations might have closed in the second half of the 14th century. The larger and more wealthy remained, but they were constrained to narrow their range of activities (Orme & Webster, 1995, 129). Rubin (1987, 50–3) has commented on a change in attitude towards the poor by the end of the 14th century, whereby they came to be seen as something of a menace to society, which meant that hospitals were often left to decay. There were also complaints made by certain groups that beggars were taking advantage of poor relief by plying the streets for handouts during the day while sleeping in the hospitals at night (Rawcliffe, 1984, 4). This has a singularly modern ring. How far the Bristol houses were affected by the plague and how far by maladministration, changing attitudes, and altered economic circumstances, is difficult to determine with precision; most likely, there was an interwoven complex of reasons. Nevertheless, all of them survived in one form or another, and there was a role for them to play alongside the new almshouses.

Thus, in 1445 St Bartholomew's was expanded to include a home for retired poor mariners, as discussed in Chapter 6 (p 120). By about that time, St Mark's seems to have been functioning more as an Augustinian convent with the provision of alms definitely taking second place to its role in maintaining clergy (Ross, 1959, xiv–xvii). In 1465, St Lawrence's was taken under the control of the College of Westbury, which lay a few miles to the north west of the

town and was in a better position to ensure that it was administered more effectively (CPR, 1461–7, 444). In 1535 it was said that the Dean and Chapter of Westbury paid a priest £2 per year to celebrate mass in the chapel at St Lawrence's, and gave 10 shillings to the four remaining almsfolk (Lobel & Carus-Wilson, 1975, 26).

What happened at the other hospitals is less clear, owing to the incomplete record, but they too seem to have gone into a general decline even if they did not assume any new functions. The exception seems to have been Holy Trinity, where accounts survive from 1512 onwards, of which a selection has been published. The general impression formed is that the hospital continued its intended function, was being competently administered, and its estates looked after (Leighton, 1913, 265–75).

The Reformation and the closure of hospitals

The background to the Reformation and the Dissolution of the monasteries is a complex subject which is outside the scope of the present discussion. The major upheaval had a profound effect on hospitals, even if they were not at first among its principal targets. As religious houses it was inevitable that they would become caught up in events and were frequently charged with existing merely for the support of idle priests (Orme & Webster, 1995, 148–55). In Bristol, the effects were much the same as elsewhere: in general the hospitals which led an essentially religious lifestyle were closed or put to different use, whereas the secular almshouses for the most part survived.

As discussed in Chapter 7, St Bartholomew's was actually closed before the Dissolution took effect and was instituted as the Grammar School in 1532. The precise details and motives of the Thornes in establishing the new school are unclear. There is no evidence that the hospital had served any educational function before then, although the human skeletal remains included children who presumably lived there (see Chapter 9). In summary, the premises served as a school until the mid-19th century, when they were reconstituted for Poor Law housing, but the worthy venture was not a success and the site was given over to industrial and office usage, which function it still maintains at the present day.

The later history of St Bartholomew's is curiously intertwined with that of St Mark's. The master and four brethren of the latter acknowledged the royal supremacy in 1534, which led to the surrender of the house in 1539. The master was awarded a pension of £40, and the steward £6/13/4d; others received smaller allowances. At the time, there were sixteen men and children living there, plus servants and choristers who were paid a total of £10/9/4d in wages. In 1541 the site and most of its possessions were sold to the Mayor and Commonalty, and the chapel became established as the Lord Mayor's Chapel, wherein worship took place on ceremonial occasions. Reconstruction of the area probably commenced more or less immediately and the conventual buildings were demolished, but the supply of fresh water piped down from Brandon Hill was maintained for many years. In 1586 the merchant John Carr gave substantial lands for erecting on the site a hospital for the education and maintenance of poor orphans, which became the City School, more commonly known as Queen Elizabeth's Hospital (or QEH) for which a royal charter was obtained in 1590. Thus the educational role which the hospital is known to have played formerly was to continue. A second school, the Red Maids', occupied part of the ground alongside QEH from 1634–55. In 1702–3 was begun a major rebuild of the whole site, and in 1767 arrangements (largely governed by the self interest of the influential headmaster of the Grammar School) commenced for the QEH to be moved to St Bartholomew's so that the Grammar School could be transferred to the larger and more pleasant premises available at QEH. The rehoused Grammar School itself eventually moved on to new premises up the hill in 1879, as the QEH at St Bartholomew's had also done some 30 years earlier (Barker, 1888–9, *passim*; Barker, 1892, *passim*; Graham, 1907, 117; Hill, 1951, 56–8; Bettey, 1990, 19–20). Thereafter the site saw a general development mostly for commercial premises and the new Merchant Venturers' School. The Lord Mayor's Chapel, restored at the end of the 19th century, survives to the present day as the only more-or-less intact medieval hospital building in Bristol.

St John's was closed in 1544 and the king granted the estate to his physician Dr George Owen. Apparently, all the buildings were demolished soon afterwards, and part of the site is now occupied by a Quaker burial ground which, according to a commemorative plaque on the site, was inaugurated when the land was purchased in 1665. The Chapel of the Holy Spirit, which it had previously administered, became a grammar school during the reign of Queen Elizabeth, but was demolished in 1763 as it obstructed the south-west view of the church (Latimer, 1901, 175–6; Scott Holmes, 1911, 160; Lobel & Carus-Wilson, 1975, 26).

St Lawrence's was also closed in 1544, along with the surrender of Westbury College. Its estates were granted to Sir Ralph Sadleyr. It is said that Queen Elizabeth stopped briefly at the hospital on her way into town during her visit, suggesting that at least some of the buildings were still standing even if the hospital was no longer functional. The date of its final demolition is uncertain, but it might have been a piecemeal process. There seem to have been only a few vestiges left in c 1770 (Taylor, 1893–6, 33–4; Graham, 1907, 119; Lobel & Carus-Wilson, 1975, 26).

St Katherine's was in an unusual position. In 1535 it was assessed for closure, but no poor were

found to be actually residing there; rather they had been assigned nearby cottages which belonged to the hospital and a priest celebrated mass in the chapel three times a week. The chapel and other buildings were closed, the former being sold off during the reign of Edward VI, and the house gradually went into decay. Yet the cottagers remained for some time – how long is uncertain, but possibly until the late 19th century. In 1548, a Richard Hall was recorded as holding the site and its demesne lands, certain estates being held by others, and the holder of the three cottages occupied by paupers was not given (Green, 1888, 272). Nevertheless, guardians continued to be appointed until 1573, when Francis Nevil became the last master, his family purchasing the site in 1588. His descendants in turn sold it to the Smyth family of the nearby Ashton Court estate. It has been suggested, without clear authority, that much of the chapel was demolished at the end of the 16th century, although the east window survived until 1829. In 1730 a glasshouse had been erected on part of the site, later to be accompanied by a tanning yard. Some of the hospital buildings seem to have survived, albeit in ruinous condition, until c 1887, but were eventually demolished for the construction of a new tobacco factory (Hudd, 1884–8, *passim*; Stone, 1909, 304–5; Lobel & Carus-Wilson, 1975, 26).

Of the fate of St Mary Magdalene's, nothing is known. The last reference so far discovered occurs in the records of All Saints' Church, wherein Henry and Alice Chestre (sic) bequeathed 4d per year for bread for the poor lepers at Brightbow. As Alice died in 1485, the note must have been made in or after that year, but on internal grounds it seems likely to have been written before 1510 (Burgess, 1995, 15, 17, 136). Doubtless, if the hospital actually survived that long, it was closed during the Dissolution and demolished shortly afterwards, but that is conjecture.

Holy Trinity was the only one of the Bristol hospitals to survive the Dissolution more or less intact. Although assessed for closure, it seems to have been ignored for reasons which remain unclear. In 1544 there were moves to place it under the authority of the Mayor and Commonalty, but nothing seems to have come of this at first. It was actually extended by a William Carr in c 1572, then finally devised to the Corporation. An inventory was taken of its goods in 1653 (when the hospital rules were formally drawn up) and another taken in 1658, all of which have been published. The building on the north side of the street was extended in 1739; the chapel was rebuilt in 1796, and the whole house was again rebuilt in various programmes from 1857 to 1913 (Leighton, 1913, 266, 276–7 & 282–6; Dawson, 1981, 18). It survives to the present day.

Turning from the hospitals to the almshouses, the position is somewhat different. All Saints' Almshouse survived the Dissolution, but the site was partly built on in 1739–40 when the new Exchange was erected, and the almshouse was moved to a new site adjacent to Strange's Almshouse. It was moved again down the hill to All Saints' Street in 1813, but that building was demolished some years later to make way for a chocolate factory (Sampson, 1909, 90; Lobel & Carus-Wilson, 1975, 26).

Burton's Almshouse was another survivor. It was rebuilt in 1606, and then again in 1721. There were still sixteen residents in 1940, but the house was destroyed in a bombing raid. It remained an empty shell until 1958, when it was finally demolished (Sampson, 1909, 89–90; Marochan & Reed, 1959, 120).

Canynges's Almshouse also survived the Dissolution, but by c 1700 had become ruinous and was rebuilt. In 1737 there were seventeen almspeople living there. In 1803 there were still fourteen residents, but when the New Cut was constructed in 1805 as part of the development of the city's harbour it was taken down and rebuilt nearby. How long it survived after that is not known (Sampson, 1909, 100; Lobel & Carus-Wilson, 1975, 26).

Foster's Almshouse was enlarged by Dr George Owen in 1553. It was rebuilt in 1702, when each resident was allotted a chamber and small garden. The original chapel was kept and survives to the present, although somewhat shortened when the hospital was rebuilt again in 1861–73. Apart from the chapel, those buildings were demolished for what was, so far, the final rebuild in 1882–3 (Sampson, 1909, 102; Lobel & Carus-Wilson, 1975, 26). The almshouse survives and is occupied to the present day.

Strange's Almshouse witnessed administrative problems in c 1640, when it was discovered that many local parish records relating to the charity had been destroyed and that Strange's tomb had been defaced. The almshouse became ruinous and was demolished and rebuilt in 1721, when it accommodated thirteen women and became known as St John's Almshouse, after the nearby parish church. The site was sold in 1901 and the almshouse demolished in 1907 for the erection of a chocolate factory (Sampson, 1909, 103; Hirst, 1921, 63; Lobel & Carus-Wilson, 1975, 26).

Spencer's Almshouse seems to have declined rapidly and had become a slum, so that after various delays the site was sold in 1845. In 1850 it was described as '. . . a row of houses now deserted, or rather, retaining only one inhabitant, whose hovel is in a most miserable condition. It is one storey high, ruinous, and the passage is charged with heaps of rubbish and manure. There are no back windows. This is probably about the worst place in the City'. The house was then demolished (Sampson, 1909, 85; Clarke, 1850, 54).

Magdalens's Almshouse was administered from 1548 onwards by St Mary Redcliffe Church, and was recorded on Millerd's 1673 map as Redcliffe Hospital. It was rebuilt in c 1675. In 1793 it had sixteen occupants, and was still standing as late as 1843, when the site was sold and it was demolished

(Sampson, 1909, 88; Lobel & Carus-Wilson, 1975, 26).

The Weavers' & Fullers' Almshouses both survived the Dissolution, along with the guild halls of which they were a part. The Weavers' Almshouse was closed in the 1840s and demolished *c* 1870. It is likely that the Fullers' Almshouse was closed at a similar time, but this has not been proven (Sampson, 1909, 87).

Neither Spicer's nor Richard Forster's Almshouses seem to have survived the Reformation, as no record of them has yet been found. Excavation undertaken in 1975 indicated that Spicer's was demolished in the late 16th or early 17th century, and there were no remains of it in 1818 (Lobel & Carus-Wilson, 1975, 26; Williams, 1988, 110–11; Sampson, 1909, 88).

Ultimately then, the charitable hospitals and almshouses of Bristol suffered mixed fortunes. Although much was lost, it was far from being a disaster for the poor. Certainly, the oldest and wealthiest institutions were closed, but some of them were put to other good use. As Orme & Webster (1995, 166) observe of such places throughout the land, they were no longer overshadowed by monasteries. It seems that the Crown and the Church began to take almshouses rather more seriously and they came to assume a central role as valuable social amenities. Thereafter, even more almshouses were founded in various parts of Bristol, several of which survive in use to the present day, but their study is outside the scope of the present work.

11 Conclusions

In Chapter 1 the broad aims of the St Bartholomew's project were stated. To what extent were they achieved?

First, evidence was obtained that the site had been occupied for some time before the hospital was founded, and a new understanding of activities on the waterfront alongside the principal northern route into the early town has been gained. Not least, it is now recognized that the course of the River Frome before its rechannelling in the mid-13th century must have been rather different than had previously been supposed. It is perhaps not surprising that there was some sort of boat-building or boat-repair yard on the river bank, but the excavation produced the first evidence in Bristol for this vital trade at such an early date.

The significance of the Norman column is now clear: it was part of a late-12th century merchant's hall. The recovery of substantial remains of this important early building has added much to our knowledge of late-Norman stone houses in the Bristol region. Moreover, although it is not claimed that its design was unique, it was an unusual example and therefore all the more interesting. The role of its builders, the de la Warre family, in both local and international affairs has been sketched out for the first time.

As a direct result of the project, a reasonably precise date for the foundation of the hospital has been determined. This was worked out largely by critically evaluating a number of seemingly disparate documentary sources, but the excavation findings are in agreement. This stresses the importance of combining the two approaches when investigating an urban site. The value of such an approach was emphasized by comparing the crucial inventory of 1303 with the structures found. Also, an outline picture of the organization of the hospital has emerged; so much so that it is probably now better understood than any other hospital in the region – with the possible exception of St Mark's, of which both the cartulary and the chapel have survived. Yet, in the case of St Mark's we are still all too reliant on the cartulary and little is known about how the details given in the ordinances and other charters were actually put into practice on the ground. At St Bartholomew's, on the other hand, the excavation has added immeasurably to what is, despite all the effort put into research, still a relatively meagre documentary record. Only about half of the original hospital precinct was available for excavation, but fortunately that was the part which contained the principal hospital buildings. From that has emerged a fairly detailed ground plan for the two main phases of construction during the 13th and 14th centuries. It is the only hospital in Bristol for which any details of the domestic arrangements have been gathered.

The site was not rich in artefacts. Nevertheless, the recovery of a number of partially complete human skeletons has provided reasonably clear evidence for the kind of person for whom the hospital cared. Their pathology showed no dramatic features, and none of them was leprous. This lends no support to the earlier suggestion of Clay that St Bartholomew's might have been a leper house, but this cannot be stated with certainty as the principal burial ground (to the north of the site) has not yet been excavated. Documentary research has demonstrated that there were indeed blind and lame paupers living there, the latter confirmed by signs of trauma on the skeletons, but the house seems to have functioned more as an almshouse which happened to take in a certain number of elderly and infirm persons. Judging from both the food waste and the documentary record, they would appear to have been looked after reasonably well, as far as the limited resources available to the staff would allow. Like nearly all other hospitals, no evidence at all has been found to suggest that any medical treatments other than basic nursing were practised.

It could be that some form of education of the young was provided at the hospital. Some children lived there, as a few were buried in the church. It might have been this which in part inspired Robert Thorne to establish the Grammar School on the site just a few years before the dissolution of the monasteries – which otherwise would almost certainly have led to the hospital being closed. As has been pointed out, the 16th century was a time of mixed fortunes for the new school. Despite the high ideals of the Thornes, their lofty intentions were not carried out in the manner that they would have wished, and the destruction of so much of the documentary record by irresponsible heirs did untold harm. Excavation was able to compensate for this loss to only a limited extent, and merely the barest understanding has been gained of the 16th-century reconstruction undertaken to meet the needs of the developing school.

In comparison with other Bristol hospitals, St Bartholomew's seems to have been fairly well esteemed by the citizens, but it was always bedevilled by lack of funds. It was a small-scale, fairly typical hospital of its time. It saw administrators both good and bad: some were sufficiently motivated to raise the capital to undertake quite ambitious projects for rebuilding the hospital and improving its facilities;

others were more concerned with their own prestige and personal welfare. This was quite characteristic of hospitals everywhere. In all, despite some unusual features caused by the local topography and the design of the de la Warres' hall, St Bartholomew's was quite ordinary, and therefore all the more important for improving our understanding of such places.

As shown by the foregoing, it is fair to say that the project must be judged a success. From the few paragraphs written in the Victoria County History and the documents published by Holmes, the account has been extended to fill a substantial proportion of a monograph. But such success was inevitably incomplete. In truth, the excavation posed as many unresolved questions as it supplied answers. None of the buildings has yielded a complete ground plan, owing to the severe restrictions on excavation space. Other than the church and kitchen areas, the interpretation of functions is at best an educated guess based on analogy, occasional characteristic deposits on floors, and hints in the documents. It is something of a tragedy, therefore, that the opportunity was not taken to make a thorough follow-up study when the site was redeveloped in the 1980s. In particular, the eastern ends of both the chapel and the domestic block (building 2) were removed without record when an underground car park was constructed. On a more positive note, however, the preservation of so much of the standing remains came about as a direct result of the excavation. The developers were made fully aware of the need to keep as much as possible, which meant that the only substantial loss above ground was the 1818 eastern range, but that was beyond saving because of severe structural weakness and was of little intrinsic merit anyway. The present-day St Bartholomew's still attracts a considerable amount of interest, both from casual visitors and those with a more scholarly intention, and it now stands as one of the most important of Bristol's historic attractions.

What of the future? There is still much that could be done on the site. Despite redevelopment, the foundations of the north-west range (building 8) and the south porch of the chapel have not been touched and should be investigated if the opportunity ever arises. Similarly, now that the superstructure covering the courtyard has been removed, the west end of the domestic block and its relationship with building 8 could be determined. Likewise, much of the area over the chapel has been opened up and could now be investigated more conveniently. More important, the half of the original precinct north of Johnny Ball Lane, where the women's dormitory and the burial ground are thought to have lain, is not cellared and should be given a high priority for excavation if the existing buildings are ever demolished or redeveloped. For a statistically meaningful study of the pathology of the almspeople to be made, far more skeletons must be recovered. Below the now little-used street, a more

extensive investigation could be made of the extrapolated line of the early course of the Frome, to test the ideas put forward in this report. Any future excavation work might take much more account of the structure and biological contents of the soil than had been the case twenty years ago, when the significance of such data was not as clearly appreciated as it is today.

It is worth noting that not all the potential of the finds already recovered has been exhausted. Some samples from various floors were omitted when the specialists prepared their reports. Unfortunately, no funds were available to include these during the final stages of the preparation of the report, but it might be possible to get something out of them at a later date. Similarly, more could be done with the residual animal bone. It is now possible to analyse residues adhering to potsherds, from which a future study might amplify our knowledge of both diet and medical care. At present, such analyses are expensive and would have to be made on a few carefully chosen samples, but as costs come down this might become a realistic option.

The detailed study presented in Chapter 10 has paved the way for future studies of the other hospitals and almshouses of Bristol. As was emphasized there, the documentary study was only a preliminary account, drawing together in a critical manner a number of separate threads. This should be followed up by an examination of the records which undoubtedly survive in the Bristol Record Office and elsewhere, particularly the unpublished diocesan records which were used for compiling the Victoria County Histories. It was in this way that so much of the history of St Bartholomew's was assembled, and there is no reason why similar results should not be obtained for the other houses. In particular, the mysterious St Mary Magdalene's and its shadowy link with the nunnery of the same name should be looked at. Any opportunity for excavation at the remaining Bristol sites should be seized if they are threatened by redevelopment, and the St Bartholomew's project provides a starting point for designing a research programme – learning from both its successes and its failures.

On a wider scale, hospitals are at last beginning to receive the attention which they deserve. Some might argue that in Chapter 10 more examples of hospitals in other towns should have been given. This is the usual approach, but the reasons for concentrating on one town are given at the beginning of that chapter. Now that an outline profile has been drawn of the institutions established in one of the most important medieval towns, it remains to develop this to determine how typical the arrangements in Bristol were. Were they essentially the same as, or significantly different from, towns elsewhere? More detailed comparisons can now be made with, for example, London, York, and Norwich.

The difficulty facing all students of medieval hospitals is the sheer diversity of these places. Several

people have called for a classification of ground plans, and that must surely be the way to a thorough understanding of the history of their development. The snag lies in having sufficient data available for making truly meaningful comparisons. To date, relatively few hospitals have been excavated, and many of those have been restricted to a small area such as the chapel. Further, as has rightly been pointed out, the functions of buildings must be established on the basis of the available evidence rather than be assumed. Whereas analogy certainly has its place, when dealing with hospitals it is dangerous and potentially misleading to assign functions merely because of a similarity to a building elsewhere. To do so implies that the identification of the model is correct and that it had some influence, either directly or indirectly, on the construction of the hospital under investigation. Therein lies the problem. How many of the ground plans presented, particularly in earlier studies, should be accepted without a critical re-examination of the evidence on which they were based? Also, sites should be taken in totality. If, for example, a hospital church is compared with another elsewhere, then the other domestic buildings must also be compared. In drawing conclusions from similarities, it is equally important to provide reasons for any dissimilarities. The 'pick-and-mix' approach to comparative studies is not good enough.

In addition to extending work on individual houses, the results of any research projects should be put in context. For example, how does the provision of alms for the poor relate to the economic history of the town? A more detailed examination of the provision of estates than has been possible in the present work would doubtless prove worthwhile in this context. Is the establishment of a hospital an indicator of pressing need in hard times, or a sign of general affluence and status, as some have claimed? How do hospitals and almshouses relate to the more general issues of charity, poverty and the lot of those who, for various reasons, were forced to remain on the streets? The wide-ranging studies made of Cambridge by Rubin and of Salisbury by Brown show how much can be learned by such an approach. Orme and Webster have called for the development of a prosopographical approach to understanding the people involved, particularly the masters. As shown in Table 8 in the present work, far more than might be envisaged can be discovered by painstaking research, and the results put our understanding of the management of the medieval hospitals of Bristol in a new light. At last, real personalities are beginning to emerge from the fragmentary record.

The investigation of St Bartholomew's has been addressed on many fronts, which combine to yield a reasonably detailed picture. In this, it has already fulfilled its objectives: but if the project stimulates further investigation of other Bristol hospitals, their inter-relationships and roles in the wider affairs of the town, and how well medieval Bristol treated its poor compared with other towns, it will be all the more valuable and serve a wider purpose.

Bibliography

Adler, M, 1931, The Jews of Bristol in pre-expulsion days, *Trans Jewish Historical Soc*, **12**, 117–86

Allan, J P, 1984, Medieval and post-medieval finds from Exeter, 1971–1980. *Exeter Archaeological Reports*: **3**. Exeter: Exeter City Council & Univ of Exeter

Atchley, E G C F, 1901, Some documents relating to the parish church of All Saints, Bristol. *Archaeol J*, **58**, 147–81

Atkinson, D R, & Oswald, A, 1980, The dating and typology of clay pipes bearing the Royal Arms, in P Davey (ed), The archaeology of the clay tobacco pipe III, *BAR Brit Ser*, 363–91. Oxford

Atkyns, R, 1712, *The ancient and present state of Glostershire*: **1**. Facsimile reproduction: Classical County Histories, Wakefield, EP Publishing, 1974

Baker, J, & Brothwell, D R, 1980, *Animal diseases in archaeology*. London: Academic Press

Barker, W R, 1889, The restoration of St Mark's, or the Mayor's Chapel, Bristol, *Proc Clifton Antiq Club*, **2**, 1–36

——, 1892, *St Mark's; or, the Mayor's Chapel, Bristol: (formerly called the church of the Gaunts)*. Bristol: Hemmons

Barrett, W, 1789, *The history and antiquities of the city of Bristol*. Bristol

Barry, A C, 1975, Factors affecting the incidence of non-metrical skeletal variants, *J Anat*, **120**, 519–35

Barton, K J, 1960, Excavations at Back Hall, Bristol, 1958, *Trans Bristol Gloucestershire Archaeol Soc*, **79** (2), 251–86

——, 1961, Some evidence for two types of pottery manufactured in Bristol in the early 18th century, *Trans Bristol Gloucestershire Archaeol Soc*, **80**, 160–72

——, 1964, The excavation of a medieval bastion at St Nicholas's Almshouses, King Street, Bristol, *Medieval Archaeol*, **8**, 184–212

Berry, A C, 1975, Factors affecting the incidence of non-metrical skeletal variants, *J Anat*, **120**, 519–35

Bettey, J, 1990, The suppression of the religious houses in Bristol, *Bristol Branch Historical Ass, Pamphlet* **74**. Bristol: Univ of Bristol

Bickley, F B (ed), 1900, *The Little Red Book of Bristol. Vols I & II*. Bristol: Crofton Hemmons; London: Sotheran

Biddle, M, 1990, Artefacts from medieval Winchester, Part II, 'Object and economy in medieval Winchester', *Winchester Studies*, **7**. Oxford: Clarendon Press

——, & Brown, D, 1990, Writing equipment, in M Biddle 1990, 729–47

——, & Cook, L, 1990, Buttons, in M Biddle 1990, 571–81

Blackwood, H J J, 1963, Arthritis of the mandibular joint, *Brit Dent J*, **115**, 317–26

Boessneck, J, 1969, Osteological differences between sheep (Ovis aries Linn) and goat (Capra hircus Linn), in D R Brothwell & E S Higgs (eds) 1969

Blundel, H, 1717, *The city of Bristol*. Engraved by J Kip. Bristol

Bond, C J, 1993, Water management in the urban monastery, in R Gilchrist & H Mytum (eds) 1993, 43–78

Bond, F, 1905, *Gothic architecture in England: an analysis of the origin and development of English architecture from the Norman Conquest to the dissolution of the monasteries*. London: Batsford

Book of the Saints, 1989, *The Book of saints. A dictionary of servants of God canonized by the Catholic Church*. Compiled by the Benedictine monks of St Augustine's Abbey, Ramsgate. 6th edn. London: Black

Boore, E, 1984, *Excavations at Tower Lane, Bristol*. Bristol: City of Bristol Mus & Bristol Threatened Hist Soc

——, 1989, Upper Maudlin Street, City, in M Ponsford, R Jones, B Williams, E Boore, J Bryant & A Linge, Archaeology in Bristol 1989, *Bristol Avon Archaeol*, **8**, 42–4

——, 1990, Upper Maudlin Street, City; Lower Maudlin Street, City, in M Ponsford, R Jones, B Williams, E Boore, J Bryant & A Linge, Archaeology in Bristol 1989, *Trans Bristol Gloucestershire Archaeol Soc*, **108**, 180–2

Boucher, C E, 1938, The Black Death ib Bristol, *Trans Bristol Gloucestershire Archaeol Soc*, **60**, 31–46

Bowen, F W E, 1971, *Queen Elizabeth's Hospital, Bristol. The City School*. Clevedon: Clevedon Printing Co

Brears, P C D, 1971, *The English country pottery, its history and techniques*. Newton Abbot: David & Charles

Brothwell, D R, 1981, *Digging up bones*. 3rd edn. Oxford: Brit Mus Nat Hist/Oxford Univ Press

——, & Higgs, E S (eds), 1969, *Science in Archaeology*. 2nd edn. London: Thames and Hudson

Brown, A D, 1995, *Popular piety in late medieval England. The Diocese of Salisbury 1250–1550*. Oxford: Clarendon Press

Burchill, R, Coxah, M, Nicholson, A & Ponsford, M W, 1987, Excavations in Bristol in 1985–6. *Bristol Avon Archaeol*, **6**, 11–30

Burgess, C, 1985, For the increase of divine service: chantries in the parish in late medieval Bristol, *J Eccles Hist*, **36** (1), 46–65

——, 1987a, A service for the dead: the form and function of the anniversary in late medieval Bristol, *Trans Bristol Gloucestershire Archaeol Soc*, **105**, 183–211

——, 1987b, By quick and by dead: wills and pious provision in late medieval Bristol, *Engl Hist Rev*, **405**, 837–58

——, (ed), 1995, The pre-Reformation records of All Saints', Bristol, (Pt I), *Bristol Rec Soc*, **46**. Bristol

Butler, L A S, 1993, The archaeology of urban monasteries in Britain, in R Gilchrist & H Mytum (eds) 1993, 79–86

Cardwell, P, 1990, Excavations at St Giles Hospital, Brough, North Yorkshire. Interim Report. *N Yorkshire Archaeol*

Cardwell, P, with principal contributions by Chundun, Z, Costley, S, Hall, J, Hanson, J, Huntley, J, Jamfrey, C, Maxwell, R, Speed, G, Simpson, R, & Stallibrass, S, 1995, Excavation of the hospital of St Giles by Brompton Bridge, North Yorksire, *Archaeol J*, **152**, 109–245

Carlin, M, 1989, Medieval English hospitals, in L Granshaw & R Porter (eds), *The hospital in history*, 21–39. London & New York: Routledge

Carosi, A, Luigi, R, Macini, C, Mazzucato, O, & Romagnoli, M, 1988, *Speziali e spezerie a Viterbo nel '400*. Viterbo

CCR, *Calendar of the Close Rolls* preserved in the Public Record Office. 1227–1509. 60 vols. London: HMSO

C Chanc Rolls, *Calendar of various Chancery Rolls (Supplementary Close Rolls. Welsh Rolls. Scutage Rolls)* preserved in the Public Record Office. 1277–1326. 1 vol. London: HMSO

C Chart Rolls, *Calendar of the Charter Rolls* preserved in the Public Record Office. 1226–1516. 6 vols. London: HMSO

CFR, *Calendar of the Fine Rolls* preserved in the Public Record Office. 1272–1509. 22 vols. London: HMSO

Chadwyck-Healey, C E H (ed), 1897, Somerset pleas (civil & criminal), from the rolls of the itinerant justices (close of 12th century – 41 Henry III.). *Somerset Rec Soc*, **11**. London

Chundrun, Z, & Roberts, C, 1995, Human skeletal remains in P Cardwell *et al*, 1995, 214–9

C Inq Misc, *Calendar of Inquisitions Miscellaneous (Chancery)* preserved in the Public Record Office. 1219–1422. 7 vols. London: HMSO

C Inq PM, *Calendar of Inquisitions Post Mortem, and other analogous documents* preserved in the Public Record Office. 1272–1413. 19 vols. 1485–1509. 3 vols. London: HMSO

Clapham, A R, Tutin, T G & Moore, D M, 1989, *Flora of the British Isles*. Cambridge: Cambridge University Press

Clarke, G T, 1850, *A report to the General Board of Health on a preliminary inquiry into the sewerage, drainage, and supply of water, and the sanitary condition of the inhabitants of the City and County of Bristol*. London: Clowes

Clason, A T (ed), 1975, *Archaeozoological Studies*. Amsterdam: Elsevier

Clay, R M, 1909, *The medieval hospitals of England*. London: Methuen

CLR, *Calendar of the Liberate Rolls* preserved in the Public Record Office. 1226–1272. 6 vols. London: HMSO

Cohen, A, & Serjeantson, D, 1986, *A manual for the identification of bird bones from archaeological sites*. London: Archetype Publications

Coleman-Smith, R, & Pearson, T, 1988, *Excavations in the Donyatt Potteries*. Chichester

Colvin, H M (ed), 1963, *The history of the king's works. Vols 1 & 2: The Middle Ages* London: HMSO

Coulson, J (ed), 1958, *The saints. A concise biographical dictionary*. London: Burns & Oates

CPR, *Calendar of the Patent Rolls* preserved in the Public Record Office. 1216–1509 & 1547–82. 70 vols. London: HMSO

C Pap Letters, *Calendar of entries in the Papal Registers relating to Great Britain and Ireland. Papal letters*. 1198–1471. 12 vols. London: HMSO. 1471–1513. 5 vols. Dublin: Irish Manuscripts Commission

C Pap, Petitions, *Calendar of entries in the Papal Registers relating to Great Britain and Ireland. Petitions to the Pope*. 1342–1419. 1 vol. London: HMSO

C Pap Reg, Petitions, *Calendar of entries in the Papal Registers relating to Great Britain and Ireland. Petitions to the Pope*. 1342–1419. 1 vol. London: HMSO

Cronne, H A (ed), 1946, Bristol charters 1378–1499, *Bristol Rec Soc*, **XI**. Bristol

Cullum, P H, 1993, St. Leonard's Hospital, York: the spatial and social analysis of an Augustinian hospital, in R Gilchrist & H Mytum (eds) 1993, 11–18

Cur Reg, *Curia Regis Rolls* preserved in the Public Record Office. *c* 1190–1243. 17 vols. London: HMSO

Dallaway, J, 1834, *Antiquities of Bristow in the middle centuries, including the topography by William Wyrcestre and the life of William Canynges*. Bristol: Mirror Office

Dawson, D, 1981, Archaeology and the medieval churches of Bristol, Abbots leigh and Whitchurch. *Bristol Archaeol Res Group Rev*, **2**, 9–24

——, & Ponsford, M, forthcoming, Medieval and post-medieval pottery from Redcliff Hill, in *City Bristol Mus Art Gall Monogr*, **4**. Bristol

Dermott Harding, N, 1930, Bristol Charters, 1155–1375, *Bristol Rec Soc*, **1**. Bristol

Dickinson, J C, 1976, The origins of St Augustine's, Bristol, *Essays in Bristol and Gloucestershire History*, 109–126. Bristol: Bristol Gloucestershire Archaeol Soc

Dieppe, P, 1986, (Name of paper? Paper given at a meeting of the British Palaeopathology Group, Bath)

Donne, B jr, 1826, *A plan of Bristoll, Clifton, the Hotwells & c. from an actual survey by B. Donne*. Bristol: Donne

Dreisch, A von den, 1976, A guide to the measurement of animal bones from archaeological sites. *Peabody Museum Bulletin* I. Peabody Museum of Archaeology & Ethnology, Harvard University, Cambridge (Mass)

Drey, R E A, 1978, *Apothecary jars. Pharmaceutical pottery and porcelain in Europe and the East, 1150–1850*. London & Boston: Faber & Faber

Dunning, G C, 1969, The apothecary's mortar from Maison Dieu, Arundel, *Sussex Archaeol Collect*, **107**, 77–8

Du Quesne-Bird, N, 1970, Medieval and later European coins from the Bristol area, *Spink Numis Circ*, **78**, 196–8

Durham, B, 1992, The infirmary and hall of the medieval hospital of St John the Baptist at Oxford, *Oxonensia*, **56**, 17–75

Ellis, R H, 1986, *Catalogue of seals in the Public Record Office. Monastic seals. Vol I*. London: HMSO

Ellison, A B, & Pearson, T, 1981, The Wincanton bypass: a study in the archaeological recording of road works, *Committee for Rescue Archaeology in Avon, Gloucestershire & Somerset (CRAAGS) Occasional Paper*, **8**

Faulkner, P A, 1975, The surviving medieval buildings in C Platt *et al*, 1978, 56–124

Fowler, P J, & Bennett, J (eds), 1974, Archaeology and the M5 Motorway, third report, *Trans Bristol Gloucestershire Archaeol Soc*, **93**, 101–30

Fuller, E A, 1894, The tallage of 6 Edward II. (Dec. 16, 1312) and the Bristol rebellion, *Trans Bristol Gloucestershire Archaeol Soc*, **19**, 171–278

——, 1899, Pleas of the Crown at Bristol, 15 Edward I, *Trans Bristol Gloucestershire Archaeol Soc*, **22**, 150–78

Gaimster, D R M, Margeson, S, & Hurley, M, 1990, Medieval Britain and Ireland in 1989, *Medieval Archaeol*, **34**, 162–252

Gerrard, C, 1987, Medieval pottery reports: vol 2, the Bristol type series and local fabric, *City Bristol Mus Art Gall Archive Report*

Gibbs, V (ed), 1916, *The complete peerage of England Scotland and Ireland Great Britain and the United Kingdom extant extinct or dormant by G.E.C.* New edition, revised and much enlarged. Vol IV: Dacre to Dysart. London: St Catherine Press

Gibson, M, 1982, *Saints of patronage and invocation*. Bristol: Avon County Library

Gilchrist, R, 1992, Christian bodies and souls: the archaeology of life and death in later medieval hospitals, in S Bassett (ed), *Death in towns, urban responses to the dying and the dead: 100–1600*, 101–18. Leicester: Leicester Univ Press

——, 1994, *Gender and material culture. The archaeology of religious women*. London & New York: Routledge

——, 1995, *Contemplation and action: the other monasticism*. Leicester: Leicester Univ Press

——, & Mytum, H (eds), 1993, Advances in monastic archaeology, *BAR Brit Ser*, **222**. Oxford

Godfrey, W H, 1929, Some medieval hospitals of East Kent, *Archaeol J*, **86**, 99–100

Godfrey, W H, 1955, *The English almshouse: with some account of its predecessor, the medieval hospital*. London: Faber & Faber

Gomme, A, Jenner, M & Little, B, 1979, *Bristol – an architctural history*. London: Lund Humphries

Good, G L, 1987, Excavations at Narrow Quay, Bristol, 1978–9, *Post-Medieval Archaeol*, **21**, 25–126

——, & Fettes, P L, 1992, The floor tiles, in G L Good, Excavations at Water Lane, by Temple Church, Bristol, 1971, *Bristol Avon Archaeol*, **10**, 34–6

——, & Russett, V, 1987, Common types of ware found in the Bristol area, *Bristol Avon Archaeol*, **6**, 35–43

Goodall, A R, 1990, Objects of non-ferrous metal, in J P Allan, 1984, 337–48

Goodall, I H, 1990, Knives, in M Biddle 1990, 835–60

Graham, R, 1907, The religious houses of Gloucestershire, in W Page (ed), *The Victoria History of the Counties of England: Gloucestershire, vol 2*, 113–26. London: Constable

Grant, A, 1976, Medieval animal husbandry, in J Clutton-Brock & C Grigson (eds), Animals in archaeology: 2, *BAR Int Ser*, **63**. Oxford

——, 1982, The use of tooth wear as a guide to the age of domestic animals in B Wilson, *et al*, 1982, 91–108

——, 1984, Medieval animal husbandry: the archaeozoological evidence, in C Grigson & J Clutton-Brock (eds), Animals and archaeology: 4. Husbandry in Europe, *BAR Int Ser*, **227**, 179–86. Oxford

Gray's Anatomy, 1980, Williams, P L & Warwick, R (eds), 36th edn. Edinburgh

Green, E (ed), 1888, The survey and rental of the chantries, colleges and free chapels, guilds, fraternities, lamps, lights and obits in the county of Somerset as returned in the 2nd year of King Edward VI. AD 1548, *Somerset Rec Soc*, **2**. London

——, (ed), 1892, Pedes finium, commonly called Feet of Fines, for the County of Somerset.

Richard I to Edward I. AD 1196 to AD 1307, *Somerset Rec Soc*, **6**. London

Haines, R M (ed), 1966, *A calendar of the register of Wolstan de Bransford, Bishop of Worcester, 1339–49*. London: HMSO

——, (ed), 1979, *Calendar of the register of Adam de Orleton, Bishop of Worcester, 1327–1333*. London: HMSO

——, (ed), 1996, Calendar of the register of Simon de Montacute, Bishop of Worcester, 1334–1337. *Worcestershire Hist Soc, New Series*, **15**

Hall, D W, forthcoming, *Excavations at St Nicholas Farm, St Andrews, 1986–7*. Scottish Urban Archaeol Trust

Hall Warren, R, 1893–6, The ecclesiastical seals of Bristol, *Proc Clifton Antiq Club*, **3**, 5–15

——, 1900–3, The ecclesiastical seals of Bristol. Part III, *Proc Clifton Antiq Club*, **5**, 1–7

Hallam, E (ed), 1994, *Saints. Over 150 patron saints for today*. London: Weidenfeld & Nicholson

Harrison, A C, 1969, Excavations on the site of St Mary's Hospital, Strood, *Archaeol Cantiana*, **84**, 139–60

Harvey, B, 1993, *Living and dying in England 1100–1540*. Oxford: Clarendon

Harvey, B F, 1988, *Monastic dress in the Middle Ages. Precept and practice*. Oxford: William Urrey Memorial Trust

Harvey, Y, 1975, The small finds catalogue, in C Platt and R C Coleman-Smith, 1975, **2**, 254–93

Haskins, S, 1993, *Mary Magdalen. Myth and metaphor*. London: Harper Collins

Hearne, T (ed), 1769, *The itinerary of John Leland the antiquary, vol 7*. 3rd edn

Hill, C P, 1951, *The history of Bristol Grammar School*. London: Pitman

Hillson, B, 1990, *Teeth*. Cambridge: Cambridge Univ Press

Hinton, D A, 1990, *Buckles and buckle-plates*, in M Biddle, 1990, 506–26

Hirst, H C M, 1921, *History of the church of St. John the Baptist, Bristol. Containing notes on the gateway, the conduit, rectory house, almshouses, churchyard, etc*. Bristol: Arrowsmith

Hobhouse, Rt Rev Bishop (ed), 1887, Calendar of the register of John de Drokensford, Bishop of Bath and Wells (AD 1309–1329). Edited from the original in the Wells Registry, *Somerset Rec Soc*, **1**. London

Holling, F, 1977, Reflections on Tudor green, *Post-Medieval Archaeol*, **11**, 61–6

Holmes, M, 1955, St Bartholomew's Hospital, Bristol: some new material, *Trans Bristol Gloucestershire Archaeol Soc*, **74**, 180–7

Horrox, R, 1994, *The Black Death. Manchester Medieval Sources Series*. Manchester: Manchester Univ Press

Hudd, A E, 1884–8, The hospital of St. Katherine, Brightbow, near Bristol, *Proc Clifton Antiq Club*, **1**, 257–76

Hudd, A E, 1888–93, Ancient Bristol documents, Nos. IX. and X. Two deeds of 1348 and 1434 relating to St. Katherine's Hospital, Bedminster, Co. Somerset, *Proc Clifton Antiq Club*, **2**, 244–50

Huntley, J P, 1995, Carbonized seeds and pollen, in P Cardwell *et al*, 1995, 225–33

Hurst, H, 1974, Excavations at Gloucester 1971–73: second interim report, *Antiq J*, **54**, 41–6

Hurst, J, 1964, Tudor green ware, in B Cunliffe (ed), *Winchester excavations, 1949–60*, **1**, 140–1. Winchester: City of Winchester, Museums & Libraries Committee

——, 1977, Spanish pottery imported into medieval Britain, *Medieval Archaeol*, **21**, 68–105

——, Neal, D S & Beuningen, H J E van, 1986, Pottery produced and traded in north-west Europe, 1350–1650. *Rotterdam Papers*, **6**. Rotterdam: Museum Boymans – van Beuningen

Jackson, R G & Price, R H, 1974, Bristol clay pipes: a study of makers and their marks, *City Bristol Mus Art Gall Res Monogr*, **1**. Bristol

Jones, J, & Watson, N, 1987, The early medieval waterfront at Redcliffe, Bristol: a study of environment and economy in N D Balaam, B Levitan & V Straker (eds), Studies in palaeoeconomy and environment in South West England, *BAR Brit Ser*, **181**, 135–62. Oxford

Jones, R H, 1991, Industry and environment in medieval Bristol, in G L Good, R H Jones & M W Ponsford (eds), *Waterfront Archaeology, Proc 3rd Int Conf, Bristol, 1988, CBA Res Rep*, **74**, 19–26. London

Jones, S R, & Smith, J T, 1960, The great hall of the bishop's palace at Hereford, *Medieval Archaeol*, **4**, 69–80

Keene, S, 1990, Eyed weaving implements, in M Biddle, 1990, 232–3

Knowles, D, & Hadcock, R N, 1971, *Medieval religious houses: England and Wales*. London: Longman Press

Latham, R E, 1965, *Revised medieval Latin word list from British and Irish sources*. London: Oxford Univ Press

Latimer, J, 1887, *The annals of Bristol in the nineteenth century*. Bristol: Morgan

——, 1901, The Hospital of St. John, Bristol, *Trans Bristol Gloucestershire Archaeol Soc*, **24**, 172–8

——, 1903, The maire of Bristol is kalendar. Its list of civic officers collated with contemporary legal MSS, *Trans Bristol Gloucestershire Archaeol Soc*, **26**, 108–37

——, 1908, *Sixteenth century Bristol*. Bristol: Arrowsmith

Lawson, G, 1990, Pieces from stringed instruments, in M Biddle, 1990, 711–18

Le Cheminant, R, 1982, The development of pipe clay hair curlers – a preliminary study, in P Davey (ed) The archaeology of the clay tobacco pipe VII, *BAR Brit Ser*, **100**, 345–54. Oxford

Leech, R H & McWhirr, A, 1982, Excavations at St John's Hospital, Cirencester 1971 and 1976, *Trans Bristol Gloucestershire Archaeol Soc*, **100**, 191–209

Leighton, W, 1913, Trinity Hospital, *Trans Bristol Gloucestershire Archaeol Soc*, **36**, 251–87

Levitan, B, 1988, Animal bone, in B Williams, 1988, 160–63

Little, B, 1954, *The City and County of Bristol. A study in Atlantic civilisation*. London: Werner Laurie

Lobel, M D, & Carus-Wilson, E M, 1975, Bristol, in M D Lobel, & W H Johns, (eds) *The atlas of historic towns*, **2**. London: Scolar press

Maclean, J, 1878–9, Supplementary notes on the Hospital of St. Mark, of Billeswick, or Gaunt's Hospital, *Trans Bristol Gloucestershire Archaeol Soc*, **3**, 245–55

Maclean, J (ed), 1883, *The lives of the Berkeleys, Lords of the Honour, Castle and Manor of Berkeley in the County of Gloucestershire, from 1066 to 1618, with a description of the Hundred of Berkeley and of its inhabitants, by John Smyth, of Nibley*. vol **1**. Gloucester: Bristol Gloucestershire Archaeol Soc

——, 1884, Chantry certificates, Gloucestershire, *Trans Bristol Gloucestershire Archaeol Soc*, **8**, 229–308

Maltby, J M, 1979, Faunal studies on urban sites: the animal bone from Exeter 1971–1975. *Exeter Archaeol Rep*, **2**. Univ of Sheffield

Manchester, K, 1984, Tuberculosis and leprosy in antiquity: an interpretation, *Medical History*, **28**, 162–73

Manson, J D, 1980, *Periodontics*. 4th edn. London: Kimpton Press

Marett, W P (ed), 1972, A calendar of the register of Henry Wakefield, Bishop of Worcester, 1375–95. *Worcestershire Hist Soc, New Series*, **7**

Marochan, K, & Reed, K W, 1959 Burton's Almshouse, Long Row, Bristol, *Trans Bristol Gloucestershire Archaeol Soc*, **78**, 119–28

Maxwell-Lyte, H C, & Dawes, M C B (eds), 1934–5, The register of Thomas Bekynton, Bishop of Bath and Wells, 1443–1465. *Somerset Rec Soc*, 49–50. London

McGrath, P (ed), 1952, Records relating to the Society of Merchant Venturers of the City of Bristol in the seventeenth century, *Bristol Rec Soc*, **17**. Bristol

Megaw, J V S, 1984, Bone musical instruments from medieval Exeter, in J P Allan, 1984, 349–51

——, 1990, Bone whistles and related objects, in M Biddle, 1990, 718–23

Meindl, R S, Lovejoy, C D, Mansforth, R P, & Walker, R A, 1985, A revised method of age determination using the os pubis, with a review and tests of accuracy of other current methods of pubic symphyseal aging, *Am J Phys Anthrop*, **68**, 29–45

Millerd, J, 1673, *An exact delineation of the famous Citty of Bristoll and Suburbs*. Bristol: Millerd (Facsimile edn, 1979: City of Bristol Printing & Stationery Dept)

Mitchener, M, 1988, *Jetons, medalets and tokens: the medieval period and Nuremberg*. Vol **1**. London: Seaby

Moore, W J, & Corbett, E, 1973, The distribution of dental caries in ancient British populations, II: Iron Age, Romano-British and Medieval periods, *Caries Res*, **7**, 139–53

Moorhouse, S, 1993, Pottery and glass in the medieval monastery, in R Gilchrist & H Mytum, (eds) 1993, 127–48

Morse, D, 1978, *Ancient diseases in the Midwest*. Springfield: Illinois State Museum

Nasmith, J (ed), 1778, *Itineraria Symonis Simeonis et Willelmi de Worcestre. Quibus accedit tractatus de metro, in quo tradantur regulae a scriptoribus medii aevi in versibus Leoninis observatae*. Cambridge

Neale, F, 1982, An inventory of Bristol Grammar School, 1658, *Trans Bristol Gloucestershire Archaeol Soc*, **100**, 254–7

——, forthcoming, William Worcestre: Bristol, *Bristol Gloucestershire Archaeol Soc Rec Section*

Nenk, B, Margeson, S, & Hurley, M, 1991, Medieval Britain and Ireland in 1990, *Medieval Archaeol*, **35**, 126–238

Nicholls, J F, & Taylor, J, 1881, *Bristol Past and Present*. Vols **1–3**. Bristol: Arrowsmith

Noel Hume, I, 1970, English clay tobcco pipes bearing the Royal Arms from Williamsburg, Virginia, *Post-Medieval Archaeol*, **4**, 141–6

——, 1982, *Martin's Hundred*. London: Gollancz

Orme, N, & Webster, M, 1995, *The English hospital, 1070–1570*. New Haven & London: Yale Univ Press

Ortner, D J, & Putschar, W G J, 1985, Identification of pathological conditions in human skeletal remains, *Smithsonian Contributions to Anthropology*, **23**. Washington: Smithsonian Instit Press

Oswald, A, 1985, On the life of clay pipe moulds, in P Davey (ed), The archaeology of the clay tobacco pipe IX, *BAR Brit Ser*, **146**(i), 5–22. Oxford

Page, W (ed), 1907, *The Victoria History of the Counties of England: Gloucestershire, vol 2*. London: Constable

Palliser, D M, 1993, The topography of monastic houses in Yorkshire towns, in R Gilchrist & H Mytum, (eds) 1993, 3–9

Patterson, R B (ed), 1973, *Earldom of Gloucester charters: the charters and scribes of the earls and countesses of Gloucester to AD 1217*. Oxford: Clarendon Press

Patterson, R B, 1989, Robert Fitz Harding of Bristol: Profile of an early Angevin burgess-baron patrician and his family's urban involvement, *Haskins Soc J Studies in Medieval History*, **1**. 109–22

——, 1991, The ducal and royal acta of Henry Fitz Empress in Berkeley Castle, *Trans Bristol Gloucestershire Archaeol Soc*, **109**, 117–37

Paul, R W, 1912, The plan of the church and monastery of St Augustine, Bristol, *Archaeologia*, **63**, 231–50

Payne, S, 1973, Kill off patterns in sheep and goats: the mandibles from Asvan Kale, *Anatolian Studies*, **23**, 281–303

——, 1975, Partial recovery and sampling bias in A T Clason, 1975, 49–64

Pearce, E H (ed), 1930, *The register of Thomas de Cobham, Bishop of Worcester, 1317–27*. Worcestershire Hist Soc. London

Pearson, G W, & Stuiver, M, 1986, High-precision calibration of the radiocarbon time scale, AD 1950–500 BC, *Radiocarbon*, **28**, 805–38

Penn, S A C, 1986, A fourteenth-century Bristol merchant, *Trans Bristol Gloucestershire Archaeol Soc*, **104**, 183–6

Pevsner, N, 1958, *The buildings of England: North Somerset and Bristol*. London: Penguin Books

Pipe Rolls, *The Great Roll of the Pipe*. 1159–1188. 38 vols. New Series, 1189–1221. 48 vols. London: Pipe Roll Society

Platt, C, 1978, *Medieval England: a social history and archaeology from the Conquest to AD 1600*. London: Routledge & Kegan Paul

Platt, C, & Coleman-Smith, R C, 1975, *Excavations in medieval Southampton, 1953–1969*. Vols 1 & 2. Leicester: Leicester Univ Press

Plumley, J, & Ashmead, G, 1828, *Plan of the City of Bristol and its suburbs (6 sheets)*. Bristol: Ashmead

Ponsford, M W, 1975, *Excavations at Greyfriars, Bristol*. City Bristol Mus Art Gall & Bristol Threatened History Soc, Bristol

——, 1980, *Bristol Castle: archaeology and the history of a royal fortress*. Unpublished M Litt thesis, University of Bristol

——, 1981, Excavations at Westbury College, Bristol, *Bristol Archaeol Res Group Rev*, **2**, 24–6

——, 1983, Appendix 1: North European pottery imported into Bristol 1200–1500, in P Davey & R Hodges (eds), *Ceramics and trade: the production and distribution of late medieval pottery in north-west Europe*, 219–224. Sheffield: Univ of Sheffield

——, 1985, Bristol's medieval waterfront: the Redcliffe project in A E Herteig, (ed), *Conference on waterfront archaeology in north European towns, no.2, Bergen 1983*, 112–21. Bergen: Historisk Museum Bergen

——, 1987, Evidence for the production of medieval pottery in the West Country c 930–1750 in B Vyner & S Wrathmell (eds), *Studies in medieval and later pottery in Wales presented to J M Lewis*. Cardiff

——, 1988, The pottery, in B Williams, 1988, 124–45

——, 1991, Dendrochronological dates from Dundas Wharf, Bristol and the dating of Ham Green and other medieval pottery, in E Lewis (ed), *Custom and ceramics, essays presented to Kenneth Barton*. Wickham

——, Jones, R, Williams, B, Boore, E, Bryant, J & Linge, A, 1989 Archaeology in Bristol 1989, *Bristol Avon Archaeol*, **8**, 41–5

—— & Price, R H, 1979a, Pottery in R H Price, 1979b

—— & Price, R H, 1979b, Pottery in R H Price, 1979c

Poole, A L, 1986, *The Oxford history of England: Domesday Book to Magna Carta, 1087–1216*. 2nd edn. Oxford: Clarendon Press

Potter, K R (transl & ed), 1955, *Gesta Stephani. The deeds of Stephen*. London: Nelson

Potto Hicks, F W, 1936, Original documents of the thirteenth century relating to Bristol, *Trans Bristol Gloucestershire Archaeol Soc*, **58**, 219–42

Prescott, E, 1992, *The English medieval hospital c 1050–1640*. London: Seaby

Price, R H, 1979a, *Excavations at St Bartholomew's Hospital Bristol*. Bristol: Redcliffe Press

——, 1979b, Excavations at the town wall, 65 Baldwin Street Bristol, 1974, in N Thomas (ed), Rescue archaeology in the Bristol area: 1. *City Bristol Mus Art Gall Res Monogr*, **2**, 15–27. Bristol

——, 1979c, Survey and excavation near St Peter's Churchyard, Bristol, 1972, in N Thomas (ed), Rescue archaeology in the Bristol area: 1. *City Bristol Mus Art Gall Res Monogr*, **2**, 35–48. Bristol

——, 1979d, An excavation at Bristol Bridge, Bristol, 1975, in N Thomas (ed), Rescue archaeology in the Bristol area: 1. *City Bristol Mus Art Gall Res Monogr*, **2**, 29–33. Bristol

——, 1979e, *Pottery kiln-waste from Temple Back, Bristol*. Bristol: City of Bristol Museum (limited-edition publication – new edition forthcoming)

——, 1991, An excavation at Broad Quay (Watergate) Bristol, 1979. *Bristol Avon Archaeol*, **9**, 24–8. Bristol

——, forthcoming, *Italian apothecary jars in the Science Museum collection*. London

——, Jackson, R G & Jackson, P, 1979, *Bristol clay pipe makers: a revised and enlarged edition*. Bristol: Private publication

Pryce, G, 1861, *A popular history of Bristol, antiquarian, topographical, and descriptive, from the earliest period to the present time, with biographical notices of eminent natives and residents, impartially written*. Bristol: Mack

Rackham, O, 1986, *The history of the countryside*. London: Dent

Radford, C A R, Jope, E M, & Tonkin, J W, 1973, The great hall of the bishop's palace at Hereford, *Medieval Archaeol*, **17**, 78–86

Rahtz, P, 1979, The Saxon and medieval palaces at Cheddar, *BAR Brit Ser*, **65**. Oxford

Ralph, E & Evans, H, 1979, *St Mark's, the Lord Mayor's Chapel, Bristol (formerly the chapel of the Gaunt's Hospital)*. Bristol: City of Bristol

Rawcliffe, C, 1984, The hospitals of later medieval London, *Medical History*, **28**, 1–21

——, 1995a, The hospitals of medieval Norwich, *Stud East Anglian Hist*, **2**. Norwich: Univ of Norwich, Centre of East Anglian Studies

——, 1995b, *Medicine and society in later medieval England*. Stroud: Sutton

Reaney, P H, & Wilson, R M, 1991, *A dictionary of English surnames*. 3rd edn. London: Routledge

Ricart, R, 1872 (ed L Toulmin Smith), The maire of Bristol is kalendar, *Camden Soc new series*, **5**. London

Richards, J, Heighway, C, & Donaghey, S, 1989, Union Terrace: Excavations in the Horsefair. The archaeology of York, **II**(1) The medieval defences and suburbs. CBA for York Archaeol Trust

Rigold, S E, 1964, Two Kentish hospitals re-examined: St Mary, Ospringe and SS Stephen and Thomas, New Romney, *Archaeol Cantiana*, **79**, 31–69

Rocque, J, 1743, *A plan of the city of Bristol. Survey'd and drawn by John Rocque. Engrav'd by John Pine 1742*. Bristol: Hickey

Roeder, H, 1955, *Saints and their attributes, with a guide to localities and patronage*. London: Longmans, Green & Co

Rogers, J, 1979, Skeletons from the lay cemetery at Taunton Priory, in P Leach (ed), The archaeology of Taunton: excavations and fieldwork to 1980. *Western Archaeol Trust Excav Monogr*, **8**

——, Watt, I & Dieppe, P, 1981, Arthritis in Saxon and medieval skeletons, *Brit Med J*, **283**, 1668–70

Ross, C D (ed), 1959, Cartulary of St Mark's Hospital, Bristol, *Bristol Rec Soc*, **21**. Bristol

Rubin, M, 1987, *Charity and community in medieval Cambridge*. Cambridge: Cambridge Univ Press

——, 1989, Development and change in English hospitals, 1100–1500, in L Granshaw & R Porter (eds), *The hospital in history*, 41–59. London & New York: Routledge

Rudder, S, 1779, *A new history of Gloucestershire*. Facsimile reproduction: Dursley, Allan Sutton, 1977

Sabin, A, 1956, The foundation of the Abbey of St. Augustine at Bristol, *Trans Bristol Gloucestershire Archaeol Soc*, **75**, 35–42

——, (ed), 1960, Some manorial accounts of St. Augustine's Abbey, Bristol. Being the computa of the manors for 1491–2 and 1496–7 and other documents of the fifteenth and sixteenth centuries, *Bristol Rec Soc*, **XXII**. Bristol

Sampson, W A, 1909, The almshouses of Bristol, *Trans Bristol Gloucestershire Archaeol Soc*, **32**, 84–108

——, 1912, *A history of the Bristol Grammar School*. Bristol: Arrowsmith

Scott Holmes, Rev Chancellor T (ed), 1896, The register of Ralph of Shrewsbury, Bishop of Bath

and Wells, 1329–63, *Somerset Rec Soc*, 9–10. London

——, 1911, The religious houses of Somerset, in W Page (ed), *The Victoria History of the Counties of England: Somerset*, vol **2**, 68–171. London: Constable

——, (ed), 1913–4, The register of Nicholas Bubwith, Bishop of Bath and Wells, 1407–1424. From the original in the Registry at Wells, *Somerset Rec Soc*, 29–30. London

——, (ed), 1915–6, The register of John Stafford, Bishop of Bath and Wells, 1425–1443. From the original in the Registry at Wells, *Somerset Rec Soc*, 31–2. London

Seyer, S, 1821, *Memoirs historical and topographical of Bristol and it's neighbourhood, from the earliest period down to the present time*. Vols 1 & 2. Bristol

Shapiro, J, 1981, *Radiology of the normal skull*. Chicago, London: Year Book Medical

Sharp, M, (ed) 1982, Accounts of the constables of Bristol Castle in the thirteenth and early fourteenth centuries, *Bristol Record Soc*, **XXXIV**. Bristol

SHARP, 1986, *The first report on researches into the medieval hospital at Soutra, Lothian Region*. Soutra Hospital Archaeoethnopharmacological Research Project. SHARP Practice, 1. Edinburgh: Private publication

Sherborne, J W, 1971, The port of Bristol in the Middle Ages, *Bristol Branch Historical Ass, Pamphlet* **13**, 2nd edn. Bristol: Univ of Bristol

——, 1985 William Canynges (1402–1474). Bristol Branch Historical Ass, Pamphlet 59. Bristol: Univ of Bristol

Silver, I, 1969, The aging of domestic animals in D R Brothwell and E S Higgs, 1969, 283–302

Smith, G H, 1979, The excavation of the Hospital of St Mary of Ospringe, commonly called Maison Dieu, *Archaeol Cantiana*, **95**, 81–184

Smith, W E L (ed), 1976 The register of Richard Clifford, Bishop of Worcester, 1401–1407. A calendar, *Pontifical Institute of Mediaeval Studies. Subsidia Mediaevalia*, **6**. Toronto

Spittle, D, 1974, Browne's Hospital, Stamford, *Archaeol J*, **131**, 351–2

Stone, G F, 1909, *Bristol as it was and as it is. A record of fifty years' progress*. Bristol: Reid

Strong, P L, 1967, *All Saints' City, Bristol. Calendar of deeds. Part 1: Introduction & text*. Unpublished thesis for Diploma in Archive, University of London (copy at Bristol Record Office)

Stuiver, M, & Reimer, P J, 1986, A computer program for radiocarbon age calculation, *Radiocarbon*, **28**, 1022–30

Swanson, R N, 1995, *Religion and devotion in Europe, c 1215–c 1515*. Cambridge Medieval Textbooks. Cambridge: Cambridge Univ Press

Tannahill, R, 1975, *Food in history*. St Alban's: Paladin

Tatton-Brown, T, 1995, The beginnings of St Gregory's Priory and St John's Hospital in Canterbury, in R Eales & R Sharpe (eds), *Canterbury and the Norman Conquest. Churches, saints and scholars 1066–1109*, 41–52. London: Hambledon press

Taylor, C S, 1893–6, Ancient Bristol documents, No. XI. A lease of the master or warden of St Lawrence Leper Hospital without Lawford's Gate, Bristol, *Proc Clifton Antiq Club*, **3**, 25–34

Taylor, J, 1878–9a, The Dominicans and Dominican Priory, *Trans Bristol Gloucestershire Archaeol Soc*, **3**, 232–40

——, 1878–9b, The Hospital of St. Mark, commonly called Billeswike, or Gaunts, Hospital, *Trans Bristol Gloucestershire Archaeol Soc*, **3**, 241–5

Thomas, C, Philpotts, C, Sloane, B & Evans, G, 1989, Excavations of the Priory and Hospital of St Mary Spital, *London Archaeol*, **6** (4), 87–93

——, Sloane, B, & Philpotts, C (forthcoming), *Excavations at the Priory and Hospital of St Mary Spital, London*. London: English Heritage

Thompson, S, 1991, *Women religious. The founding of English nunneries after the Norman Conquest*. Oxford: Clarendon

Thurston, H & Attwater, D (eds), 1956, *Butler's 'Lives of the saints'*. Vols I–IV. London: Burns & Oates

Toulmin Smith, L (ed), 1910, *The itinerary of John Leland in or about the years 1535–1543, Parts IX, X and XI, with two appendices, a glossary, and general index*. London: Bell & Sons Ltd

Trotter, M, & Gleser, G C, 1952, Estimation of stature from long bones of American whites and negroes, *Am J Phys Anthrop*, **10**, 468–514

——, & ——, 1958, A re-evaluation of estimation of stature based on measurements of stature taken during life and of long bones after death, *Am J Phys Anthrop*, **16**, 79–123

Ubelaker, D H, 1978, *Human skeletal remains*. 2nd edn. Washington: Taraxacum

Vanes, J, 1982, Education and apprenticeship in sixteenth-century Bristol. *Bristol Branch Historical Ass, Pamphlet* **52**. Bristol: Univ of Bristol

Veale, E W W (ed), 1931, The Great Red Book of Bristol. Introduction (Pt I): Burgage tenure in medieval Bristol, *Bristol Rec Soc*, **2**. Bristol

——, (ed), 1933, The Great Red Book of Bristol. Text (Pt I). *Bristol Rec Soc*, **4**. Bristol

——, (ed), 1951, The Great Red Book of Bristol. Text (Pt III). *Bristol Rec Soc*, **16**. Bristol

Vince, A, 1977, The medieval and post-medieval ceramic industry of the Malvern region: the study of a ware and its distribution, in D P S Peacock (ed), *Pottery and early commerce: characterization and trade in Roman and later ceramics*, 257–305. London: Academic Press

——, 1979, The medieval pottery fabric types, in B Cunliffe (ed), *Excavations in Bath 1950–1975*, 27–38. Committee for Rescue Archaeology in Avon, Gloucestershire & Somerset (CRAAGS)

——, 1988, Early medieval English pottery in Viking Dublin, in G MacNiocaill & P F Wallace (eds), *Keimelia: studies in medieval archaeology in memory of Tom Delaney*, 254–70. Galway: Galway Univ Press

——, 1991, The medieval pottery, in R Shoesmith, Excavations at Chepstow 1973–1974, *Cambrian Archaeol Monogr*, **4**, 93–139. Bangor: Cambrian Archaeol Assoc

Wadley, T P, 1886, *Notes or abstracts of the wills contained in the volume entitled the Great Orphan Book and Book of Wills in the Council House at Bristol*. Bristol: Bristol Gloucestershire Archaeol Soc

Walker, I C, 1977, Clay tobacco-pipes, with particular reference to the Bristol industry. *History & Archaeology* **IIa**. Canada: Parks Canada

Ward, S W, 1993, The monastic topography of Chester, in R Gilchrist & H Mytum, (eds) 1993, 113–26

Watson, E J, 1902, *Pleas of the Crown for the hundred of Swineshead and the township of Bristol, taken at Bristol before Simon Abbot of Reading Randolf Abbot of Evesham Martin Pateshull John of Monmouth Ralph Hareng and Robert Lexington Justices Itinerant in the fifth year of the reign of King Henry the Third AD 1221*. Bristol: Crofton Hemmons

Watts, L, & Rahtz, P, 1985, Mary-le-Port, Bristol. Excavations 1962–3, *City Bristol Mus Art Gall Monogr*, **7**. Bristol

Weare, G E, 1893, *A collectanea relating to the Bristol Friars Minors (Gray Friars) and their convent, together with a concise history of the dissolution of the dissolution of the four orders of mendicant friars in Bristol*. Bristol: Bennett

Weaver, F W (ed), 1901, Somerset medieval wills (1383–1500), *Somerset Rec Soc*, **16**. London

White, T D, 1953, A method of calculating the dietary percentage of various food animals utilised by Aboriginal peoples, *American Antiquity*, **18**, 396–8

Williams, B, 1988, The excavation of medieval and post-medieval tenements at 94–102 Temple Street, Bristol, 1975, *Trans Bristol Gloucestershire Archaeol Soc*, **106**, 107–68

——, 1995, Survey of Spanish tiles imported into England: an interim note, in C M Gerrard, A Gutiérrez & A G Vince (eds), Spanish medieval ceramics in Spain and the British Isles, *BAR Int Ser*, **810**, 335–7

——, & Ponsford, M W, 1988, Clay roof-tiles, in B Williams, 1988

Willis Bund, J W (ed), 1897, *The register of the Diocese of Worcester during the vacancy of the See, usually called Registrum Sede Vacante, 1301–1435*. Worcestershire Hist Soc. Oxford

—— (ed), 1902, *Episcopal registers, Diocese of Worcester. Register of Bishop Godfrey Giffard, September 23rd, 1268, to August 15th, 1301*. Vols 1 & 2. Worcestershire Hist Soc. Oxford

—— (ed), 1929, *The register of William de Geynesburgh, Bishop of Worcester, 1302–1307; with an introduction by R A Wilson*. Worcestershire Hist Soc. Oxford & London

Wilson, R A (ed), 1927, *The register of Walter Reynolds, Bishop of Worcester, 1308–1313*. Worcestershire Hist Soc & Dugdale Soc. London

Wilson, B, Grigson, C, & Payne, S, 1982, Aging and sexing animal bone from archaeological sites, *BAR Brit Ser*, **109**. Oxford

Wilson, D M, & Moorhouse, S, 1971, Medieval Britain in 1970, *Medieval Archaeol*, **15**, 124–79

Winstone, R, 1986, *Bristol as it was: 1934–1936*. Bristol: Private publication

Wood, M, 1965, *The English medieval house*. London: Ferndale

——, 1974, *Norman domestic architecture*. London: Royal Archaeol Inst Monogr Ser

Wright, J, 1876–1903, *J Wright & Co's Mathews' Bristol directory*. Bristol: Wright & Co

Index *by Peter Rea*

ST BARTHOLOMEW'S HOSPITAL, BRISTOL
THE EXCAVATION OF A MEDIEVAL HOSPITAL:1976–8

The last twenty years have seen fundamental changes in our perception of charitable works in medieval Britain. Rigorous re-examination of the surviving documentary record continues to give fresh insight into the attitudes of medieval society towards the poor and the sick. Much has also been learnt from comparative studies of hospital buildings, their associated artefacts, and skeletal remains, so that we now have a better understanding of how pious intentions were actually put into practice.

Despite that, from the archaeological viewpoint such studies still represent only a modest beginning for, even up to the present day, relatively few hospitals have been excavated on any great scale. This report on the excavation of St Bartholomew's Hospital, Bristol, is therefore of special significance. It describes in detail the history of a house which was relatively undistinguished and impoverished (and therefore more typical of the majority of such houses in the country) and how that hospital competed for resources to provide refuge and care in one of the most prominent medieval cities.

General view of St Bartholomew's courtyard in 1820, looking south-west to the 18th-century Grammar School development. (Reproduced by kind permission of the City of Bristol Museum and Art Gallery: Braikenridge Collection)

Front cover: French engraving of a medieval hospital scene, c 1500. (Bibliotheque Nationale, Paris)

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