



The
University
Of
Sheffield.

**The Archaeology of the Medieval Hospitals of England and Wales,
1066-1546**

By:

Martin Huggon

A thesis submitted in partial fulfilment of the requirements for the degree of
Doctor of Philosophy

The University of Sheffield
Faculty of Arts and Humanities
Department of Archaeology

Submission Date

08.06.2018

Abstract

This thesis provides the first comprehensive synthesis of the archaeology of the medieval hospitals of England and Wales in two decades, bringing together a broad array of academic publication and grey literature reports. Since Gilchrist's (1995) summary of the archaeological evidence, there has been an increasing examination of these institutions from a historical perspective, investigating the constitutional origins of these sites, their place within the spiritual economy, the nature of medical practice carried out, founders and patronage, and regional variations and dedications. However, the utilisation of the archaeological remains has seen relatively little advancement, despite a surge in developer-funded excavation that has seen the numbers of sites investigated increase.

By drawing upon these resources, as well as other published excavations, this research has tested and devised a new conceptual framework for how the hospital was set out architecturally. It proposes that there was a hierarchy of space, with the high-status chapel located to the southeast, with the religious brethren located to the north, and the infirmary to the west, northwest, or north. Where women were part of the residence, especially as staff, there were quartered to the northwest, often in the furthest place from the altar. The kitchen and staff areas buffered the religious eastern half of the site from the more secular western side.

The layout held variability visually but was organised around zones of activity for the different groups that lived at the hospital, and mirrored the standard Augustinian monastic layout, modified with a northern, rather than a traditional southern, focus. The thesis also examined the material culture and evidence of diet and environment, integrating these finds into the wider hospital layout through the appreciation for the manner in which the medieval hospital functioned as a non-natural environment.

Acknowledgements

There are many people I would like to thank for the help they provided over the years. Apologies if I have forgotten anyone, and I thank you for all the help.

Firstly, I would like to thank all those I contacted over the years to supply a considerable wealth of reports from a vast array of locales. For humouring this ex-commercial archaeologist and his wish to utilise grey literature, I thank you and I apologise if I miss any one off the list:

Grahame Appleby, City Archaeologist, Leicester; Dr Nigel Baker; Suzy Blake, Historic Environment Record Officer, Staffordshire HER; Dr Rose Broadley, Historic Environment Record Officer, Kent County Council; Giles Carey, Historic Environment Records Officer, Shropshire HER; Dr Patrick Clay, Director ULAS; Sean Cook, 110 Archaeology; John Craven and Dr Rhodri Gardner, Directors, Suffolk Archaeology CIC; Liam Delanewy, Historic Environment Record Officer, Herefordshire HER; Philip Dixon; Ben Donnelly-Symes, Archaeology Officer, Cambridgeshire HER; Dr Helen Drinkall, Project Support Technician, University of Durham Archaeological Services; Camila Garces-Bovett, Historic England; Dr John Gater, Director of Archaeology, GSB Prospection Ltd; Jonathon Goodwin, Senior Planning Officer (Archaeology/HER) Stoke-on-Trent; Sue Hill, Heritage Conservation Officer, Glamorgan-Gwent Archaeological Trust Ltd; Nick Hodgson, Archaeological Projects Manager, Tyne & Wear Archives & Museums; Nancy Hollinrake, C & N Hollinrake Ltd; Zoe Horn, Archaeological Services WYAS; Lorraine Horsley, HER Officer, Nottinghamshire County Council; Guy Hunt, L-P Archaeology; Marc Johnson, The Archaeological Practice Ltd; James Kenny, Archaeology Officer, Chichester District Council; Claire MacRae, Tyne and Wear Archaeology Officer; Tracy Matthews, Archaeologist for Winchester Historic Environment Team; Peter Mills, Director Mills Whipp Projects; Melanie Millward, Warwickshire Historic Environment Record; Ian Milstead, Head of Archaeology York Archaeological Trust; Keith Parfitt, Canterbury Archaeology Trust and Dover Archaeology Group; Ingrid Peckham, Historic Environment Record Officer, Southampton; Mandy Pover, Archives Assistant, Stoke-on-Trent Libraries and Archives; Natasha Powers, Senior Manager, Allen Archaeology Ltd; Lin Rivers, Director HR & Administration, Border Archaeology; Kate Smart, Project Manager (Programme and Archives) Trent and Peak Archaeology; Charlotte Walker, Historic Environment Record Advisor, Northamptonshire Archives and Heritage Services; Zoe Walter, Archives Enquiry, Tyne and Wear Archives; Richard Watts, Historic Environment Record Assistant, Lincolnshire HER; Chris Webster, Somerset Historic Environment Record; Helen Wells, Historic Environment Record Officer Leicestershire and Rutland HER; Sonia Whiteman, Funding Officer, and Brett Thorn, Keeper of Archaeology, Buckinghamshire County Museum; David Whitmore, Senior Project Officer, NPS Archaeology; Julia Wise, Historic Environment Record Officer, Buckinghamshire County Council.

I would also like to thank all those who provided permissions for the images or helped in my search for contact details. Every effort has been made to contact copyright holders, but if there are any issues, I will make every effort to rectify them.

Thanks go out to all those who aided me on my journey, and who I met through the opportunities this thesis dragged me through. In particular: Vickie Bruce, Johnnie Bedford, Martin Dunk, and Richard Lester; to my friends from home my thanks for being there whenever I pop back: Ellen Redmond, Adam Lockett, Aidan Drage, and Rob Inwood.

I would also like to thank Dr Sarah Kerr and Dr Duncan Berryman for suggesting I head to Borderlines, and from which much has developed. Thank you for providing me with the opportunities you have, and I hope we will continue to work together and meet up in the future.

To all my friends both far and wide, for all the fun times: Jake Nickles, Dunc Cameron, Liam Lee, Lee Eales, Alex Cassels and Ros Buck, Fiona Eaglesham, Tom Stratford, and Islay, Emily Eastwood, Sam Fairhead and Grace Corbett, Tom and Charlie Firth and the Firthlets, Mike Hartwell and Ruth Surman, James and Lizzie Thomson, Phil Garner and Dani Kow, Toby Pillatt, Jude and Pete Townend, Sam Bromage, Emma Hook, Tracy O'Donnell and Scott Hawley, and all the students both new, current, and gone from the department. Thanks and see you soon a lot less stressed.

Thanks to my fellow PhDs: Sam Garwood, Hannah Plumer, Ged Poland, Mik Lebowski, Lenore Thompson. It has been a long, eventful experience, and I am glad to have done it with you guys.

Thank you to Prof Dawn Hadley for the advice, suggestions, and pointers that have led me to where I am now.

Special thanks to Nic Austen for all the help and support.

Thanks to my now grown family, both those from my Stamford part: Jim Simons, Clare and Adrian Mainstone, Colin Crichton-Turley, and Jay and Lydia Mainstone; and those to do with home: Geraldine and John Huggon, Andi Huggon, Alex Huggon and John, Eddie, and Aaron. Thank you for all the support, the interested questions, and the good times. And especially to Mum and Dad, for putting up with the long silences and the forgotten phonecalls. One day I will get it right.

Thank you to me examiners, Dr Lizzie Craig Atkins and Dr Duncan Wright for the engaging comments, the good questions, and the pertinent suggestions that have only improved this work and given me many avenues to consider in the future. Any and all mistakes or errors remain my own.

My eternal gratitude to Dr Hugh Willmott. Thank you for being a wonderful supervisor and mentor. You put up with a lot and never let me down. I am forever in your debt.

I wish to apologise to Loki, my dog, for the stress I put him through getting this done.

And finally, Courtenay-Elle Crichton-Turley, without whom this would have been a much sadder and lonely journey. You have helped me through some of the worst times I have known and been there for some of the best. I hope to be there for yours.

Contents

| | |
|--|------------|
| Title Page..... | i |
| Abstract..... | ii |
| Acknowledgements..... | iii |
| Contents..... | v |
| List of Figures..... | ix |
| | |
| Chapter 1. Introduction: Framing the Archaeology of the Medieval Hospitals of England and Wales..... | 1 |
| | |
| Chapter 2. Hospitals and Medicine: An Overview..... | 9 |
| The Medieval Hospital..... | 9 |
| The Hospitals of England and Wales..... | 18 |
| The Hospital Residents and Daily Routine..... | 27 |
| The Changing Face of Patronage..... | 35 |
| Leprosy and the Hospital: A Special Case?..... | 44 |
| Medicine and the Hospital..... | 51 |
| Discussion..... | 67 |
| | |
| Chapter 3. Conceptualising the Architectural Layout of the Medieval Hospital: An Organised Space..... | 71 |
| Faith and Charity as Structural Elements of Layout..... | 72 |
| Architectural Layout: An Influential Idea?..... | 75 |
| Medieval Architecture as an Active and Informed Space..... | 81 |
| Categories of Layout..... | 86 |
| A Different Approach?..... | 95 |
| The Hospital of St Mary Spital, London..... | 96 |
| The Initial Foundation (1197-1235)..... | 96 |

| | |
|--|------------|
| Refoundation (1235-1280)..... | 97 |
| Redeveloping the Layout (1280-1320)..... | 100 |
| A Western Expansion (1320-1350)..... | 104 |
| Domestic Changes (1350-1400)..... | 106 |
| Increasing Separation (1400-1538)..... | 109 |
| Summary..... | 111 |
| The Hospital of St Bartholomew, Bristol..... | 112 |
| Foundation (c.1234-1280)..... | 114 |
| Developing the Layout (1280-1320)..... | 116 |
| Modifying the Service Area (1320-1340)..... | 122 |
| Rebuilding St Bartholomew's (1340-1400)..... | 124 |
| Transition and Dissolution (1400-1532)..... | 131 |
| Summary..... | 136 |
| The Hospital of St Mary, Ospringe..... | 137 |
| Summary..... | 145 |
| A Complex Issue: Hierarchies of Space..... | 145 |
| Chapter 4. The Architectural Layout of Medieval Hospitals..... | 163 |
| Introduction..... | 163 |
| The Hospital of St Giles, Brompton Bridge..... | 163 |
| The Initial Hospital of St Giles: Late 12 th to Mid-13 th Century..... | 164 |
| Redevelopment: The Mid-13 th to 14 th Century..... | 166 |
| A Changing Emphasis: the Late 14 th century..... | 170 |
| The End of the Hospital: The 15 th Century..... | 175 |
| Summary..... | 178 |
| The Hospital of St Saviour, Bury St Edmunds..... | 184 |
| The Initial Foundation: The Late 12 th Century..... | 184 |
| Developments in the 13 th and Early 14 th Century..... | 188 |

| | |
|--|------------|
| Restructuring in the Late 14 th to 16 th Century..... | 189 |
| Summary..... | 195 |
| The Hospital of St Mary Magdalen, Colchester..... | 197 |
| The Foundation Buildings: 12 th Century..... | 198 |
| A slowly Evolving Site: Mid-13 th Century to 16 th Century..... | 199 |
| Summary..... | 202 |
| The Hospital of St John the Baptist, Oxford..... | 204 |
| The Hospital of St Mary Magdalen, Partney..... | 209 |
| The Hospital of St Mary in the Horsefair, York..... | 213 |
| Restructuring the Old Friary: 13 th to 14 th Century..... | 213 |
| Minor Modifications: Late 14 th to Early 15 th Century..... | 215 |
| A Significant Remodel: The Mid-15 th Century to 16 th Century..... | 216 |
| Summary..... | 220 |
| Other Hospital Sites..... | 222 |
| Following the Plan..... | 222 |
| The Secular Almshouse: Continuing the Tradition..... | 236 |
| T-Shaped Hospitals: Distinct but Similar..... | 243 |
| Summary..... | 248 |
| Sites with Limited Evidence For Only the Chapel and Hall..... | 248 |
| Examples of Sites That Do Not Follow the Plan..... | 261 |
| Discussion..... | 273 |
| Chapter 5. The Material Culture of Medieval Hospitals..... | 277 |
| Introduction..... | 277 |
| Material Themes..... | 279 |
| Material Culture of Food Preparation and Consumption..... | 279 |
| Religious Artefacts..... | 301 |
| Clothing and Dress Accessories..... | 309 |

| | |
|--|------------|
| The Material Culture of Buildings..... | 313 |
| Domestic Items..... | 331 |
| Discussion..... | 339 |
| Chapter 6. Hospitals and Hospitality for the Living..... | 345 |
| Hospitality for the Living..... | 345 |
| The Archaeology of Hospitality for the Living..... | 346 |
| The Zooarchaeological Evidence..... | 348 |
| The Three Case Studies: St Mary Spital, St Bartholomew, and St Mary..... | 348 |
| Other Hospital Assemblages..... | 363 |
| Discussion..... | 369 |
| The Archaeobotanical and Other Environmental Evidence..... | 372 |
| Discussion..... | 379 |
| Hospitals, Diet, and the Environment..... | 380 |
| Chapter 7. Discussion and Conclusions..... | 387 |
| Conceptualising the Hospital..... | 387 |
| The Hospital as a Redemptive Environment..... | 388 |
| Structuring Space in the Medieval Hospital..... | 390 |
| Hospitality for the Living..... | 393 |
| Residents and Activity..... | 396 |
| Hospitality for the Dead..... | 397 |
| The Medieval Hospital in Context: Avenues for Further Work..... | 406 |
| Conclusions..... | 410 |
| Bibliography..... | 417 |

List of Figures

- Figure 2.1:** Medieval Bristol displaying the layout of religious institutions including hospitals (Bond 1993, 45, Fig. 4.1)..... 11
- Figure 2.2:** Hospital at Tonnerre, France, showing the alcoves along the north and south wall of the chapel, and the open central aisle (Godfrey 1955, 23, Fig 6)..... 12
- Figure 2.3:** Distribution map of hospitals. In terms of individual sites there is a considerably even distribution, although there are distinct clusters of sites at major urban centres, such as London, York, Bristol, and Norwich (author's image)..... 19
- Figure 2.4:** Top: lead sheet wrapped around the right shin of a 26-35-year-old female, dating to c.1250-1400. Below: a copper alloy plate found between the knees of an adult male (12th century). Both were recovered from the cemetery at St Mary Spital, London, possibly indicating the strapping and securing of bandages (Connell *et al.*, 2012, 208-9, Fig 231 and 232). Reused with permission of Museum of London Archaeology..... 55
- Figure 2.5:** Holy water container souvenir from Canterbury, mid-14th century, found in London (Egan 2007, 75, Fig 5.3)..... 56
- Figure 3.1:** St Mary's Hospital, Chichester, showing the classic layout of a medieval hospital, with a long nave and a small chapel in the area where a chancel would be in a traditional church (Gilchrist 1995, 19, Fig. 3) © Roberta Gilchrist, 1995, *Contemplation and Action: The Other Monasticism*, Leicester University Press, used by permission of Bloomsbury Publishing Plc..... 74
- Figure 3.2:** Above: Thematic plan of a Kabyle house, setting out the activity areas; Below: theorised spatial orientation and associated symbolic meanings. Note the way both function and symbolism are combined within the space of the building, but with only limited physical markers to hinder movement. As such, use and access are understood through other avenues of knowledge that are encoded in the interactions with the building (Bourdieu 1970, 166-7, Fig 1 and 2)..... 76
- Figure 3.3:** Top: A schematic section through the Brunswick Centre, London. Note the tiered nature of the flats and the intended focus of the central area as a location of meeting; Below: A picture across the central section of the Brunswick Centre looking at one of the tiers of flats. The abundance of concrete has been felt to date the Centre. Also evident here is the manner in which the flats face each other, impacting upon perceptions of privacy (Melhuish 2005, 7, Fig 2 and 3)..... 79
- Figure 3.4:** Plans of St Michael, Fulda, Holy Sepulchre, Paderborn, Rotunda, Lanleff, Holy Sepulchre, Cambridge and Anastasis, Jerusalem. Despite the obvious visual differences between these different plans, the first four sites were considered direct copies of the last one, the Anastasis, Jerusalem. Such considerations bring into question ideas of identical copies when viewing architecture (Krautheimer 1942, Pl 1 a, b, c, d and Pl 2a <https://www.jstor.org/stable/750446>)..... 84
- Figure 3.5:** Anastasis in the Sacramentary of Henry II. Munich, cod. lat. 4456. Visible are external sections of the wall, especially in the middle section, but also the columns of the internal space (Krautheimer 1942, Pl 2d <https://www.jstor.org/stable/750446>)..... 85

Figure 3.6: Plan of Ewelme Hospital, Oxfordshire, showing the quadrangular form of hospital. The almshouse is the central quadrangle, with the church at the top of the page, to the east, and the grammar school at the bottom. From Francis T. Dollman 1858, *Ancient Domestic Architecture*..... 87

Figure 3. 7: Ground plan of the Hospital of S. Maria Nuova, c.1500, showing the clear cruciform shape of the main hospital building, as well as the range of associated buildings to the north and south of the west arm (Henderson 2006, 22, Pl 1.9). John Henderson, *The Renaissance Hospital: Healing the Body and Healing the Soul*, adapted from an original design by Patrick Sweeney from the original in the *Kunsthistorisches Institut Florenz*; Reproduced with permission of Yale University Press through PLSclear..... 89

Figure 3. 8: The main three forms of hospital layout: 1. Organic form, where there is no perceptible link between chapel and infirmary; 2. Parallel, where the chapel and infirmary are not connected but closely orientated, usually with the chapel to the south; and 3. Linear, where the infirmary and chapel are connected as one building, with the chapel to the east and the infirmary hall to the west (Roffey 2012, 225, fig 10). Reproduced with permission of Taylor and Francis and the Society for Medieval Archaeology <https://www.tandfonline.com/loi/ymed20>..... 90

Figure 3. 9: The plan of St Gall, 9th century, showing a hypothetically correct layout to a religious community. On the facing page is the key to the image. The infirmary is located in the area east of the church (at the top of the page), and has its own kitchen, garden, and cloister to organise space, as well as a separate chapel. Interestingly, this is also the area where the novices are accommodated (D’Aronco 2005, 237, Fig. 15.2)..... 92-3

Figure 3. 10: Map of London, with the city walls marked. The square box to the north east is the site of St Mary Spital, outside of Bishopsgate (Thomas *et al.* 1997, 3, fig 1). Reused with permission of Museum of London Archaeology..... 97

Figure 3. 11: Plan of principal archaeological features at St Mary Spital, 1197-1235, comprising the possible area of the hospital and burials to the south (Thomas *et al.* 1997, 22, Fig 9). Reused with permission of Museum of London Archaeology..... 98

Figure 3. 12: Plan of principal archaeological features at St Mary Spital, 1235-1280. The hospital has been enlarged, forming a T-shape. The cemetery has moved to the west of the north transept (Thomas *et al.* 1997, 27, Fig 14). Reused with permission of Museum of London Archaeology..... 99

Figure 3. 13: Plan of St Mary Spital, c. 1300. The hospital now has a cloister to the north of the chapel for the staff, and a new infirmary building has been constructed where the cemetery was (Thomas *et al.* 1997, Fig 32). Reused with permission of Museum of London Archaeology 101

Figure 3. 14: Plan of principal archaeological features at St Mary Spital, 1320-50. The infirmary hall has been extended to the west, and a new range has been constructed to the west of the Sisters’ Garden (Thomas *et al.* 1997, Fig 50). Reused with permission of Museum of London Archaeology..... 105

Figure 3. 15: Plan of principal archaeological features at St Mary Spital, 1350-1400. The site is almost at its height, with new quarters for the sisters and a latrine to the north of the infirmary, another new range to the north of the kitchen, and an expansion to the kitchen range (Thomas *et al.* 1997, Fig 53). Reused with permission of Museum of London Archaeology..... 107

Figure 3. 16: View of the latrines (B17) from the west (2x2m scale and 1m scale). The two drain channels pass to either side of the central stone divider (Thomas *et al.* 1997, 71, Fig 54). Reused with permission of Museum of London Archaeology..... 108

- Figure 3. 17:** Plan of principal archaeological features at St Mary Spital, 1400-1538. The only addition is a small building to the north of the Sisters' quarters, probably a tenement or corrodian accommodation (Thomas *et al.* 1997, Fig 62). Reused with permission of Museum of London Archaeology..... 110
- Figure 3. 18:** Reconstruction drawing of the infirmary and chapel after the refoundation (Thomas *et al.* 1997, 35, Fig 25). Reused with permission of Museum of London Archaeology 111
- Figure 3. 19:** Map locating the Hospital of St Bartholomew, Bristol. Also located are the primary monastic sites, and other hospitals and almshouses in Bristol. Note St Bartholomew's position at the bridge over the Lewin, providing entrance into the city from the northwest. The other sites also cluster around the periphery of the city, apart from several of the later almshouses, which are located within the main city and central suburbs (Price and Ponsford 1998, 17, Fig 2) © Roger Price and Michael Ponsford..... 113
- Figure 3. 20:** Summary plan of the principle structure in the first phase of the Hospital of St Bartholomew. It is unclear about the arrangements at this stage in the hospital, given the paucity of evidence (Price and Ponsford 1998, 60, Fig 20) © Roger Price and Michael Ponsford..... 115
- Figure 3. 21:** Summary plan of the principal structures at St Bartholomew, 1280-1320. By this point a new domestic range has been constructed (Building 2A), with associated structures to the north (Price and Ponsford 1998, 64, Fig 23) © Roger Price and Michael Ponsford..... 117
- Figure 3. 22:** Detail plan of buildings 2A and 3, courtyard, and well in Area K. This area appears to be the focus of domestic activity, probably serving as the kitchen and refectory (Price and Ponsford 1998, 72, Fig 30) © Roger Price and Michael Ponsford..... 119
- Figure 3. 23:** Summary plan of the principal structures at St Bartholomew, 1320-40. The majority of new work is north of Building 2A (Price and Ponsford 1998, 76, Fig 33) © Roger Price and Michael Ponsford..... 123
- Figure 3. 24:** Summary plan of principle structures at St Bartholomew, 1340-1400. This period saw extensive modifications to the site, with the clear use of the Norman Hall (Building 1B) as a chapel, a new domestic range in Building 2B, and possible changes to buildings around the courtyard (Price and Ponsford 1998, 89, Fig 36) © Roger Price and Michael Ponsford..... 125
- Figure 3. 25:** Detailed plan of Building 1B, Area D/G/H. This appearance of burials means that at least by this point Building 1B is being used as a chapel, although it is likely it was doing so before. Also note the addition of a small chancel, just observable as a right-angle wall in the middle right of the plan (Price and Ponsford 1998, 90, Fig 37) © Roger Price and Michael Ponsford..... 126
- Figure 3. 26:** Detailed plan of Buildings 2B and 6, 1340-1400. Observable is the stone floor in the kitchen to the west, and the beaten earth floor in the refectory to the east. Drain 50 can also be seen (Price and Ponsford 1998, 98, Fig 42) © Roger Price and Michael Ponsford..... 128
- Figure 3. 27:** Summary plan of principle structures at St Bartholomew, 1400-1532. The only major changes occur in the courtyard area, possibly representing the creation of a cloister walk (Price and Ponsford 1998, 109, Fig 50) © Roger Price and Michael Ponsford..... 133
- Figure 3. 28:** Plan of modification to kitchen in building 2B and the construction of a corridor in the courtyard. (Price and Ponsford 1998, 111, Fig 52) © Roger Price and Michael Ponsford..... 134

- Figure 3. 29:** Location map of St Mary, Ospringe. The chapel appears to have been in the area of the Ship Inn, with the rest of the site located to the north (Smith 1979, 83, Fig. 1). Reproduced with permission of Kent Archaeological Society..... 137
- Figure 3. 30:** Plan of St Mary, Ospringe, also referred to as the Maison Dieu. The site is split by the stream running through the middle of it, along the line of the east wall of the Common Hall. This creates two halves to the site, with the east comprising the chapel and Camera, and the west, with the hall, the kitchen and the bakehouse (Smith 1979, 85, Fig. 2). Reproduced with permission of Kent Archaeological Society..... 139
- Figure 3. 31:** A focussed plan of the excavated areas of St Mary, Ospringe (Smith 1979, Fig. 4). Reproduced with permission of Kent Archaeological Society..... 140
- Figure 3. 32:** The Kitchen (Building 954) at St Mary, Ospringe, showing the phases of alteration (Smith 1979, 94, Fig. 5). Reproduced with permission of Kent Archaeological Society..... 141
- Figure 3. 33:** Overview plan of the wider precinct of St Mary Spital, c. 1400. The creation of two spaces to the north of the chapel can be clearly seen, one focussing on the canon's space to the east, and the other on the infirmary and Sisters' quarters to the west. Also note the space to the south of the chapel for the cemetery, perhaps reflecting the space of the canons (Connell *et al.* 2012. 199, Fig. 219). Reused with permission of Museum of London Archaeology..... 146
- Figure 3. 34:** An overview of the ground plan of St Bartholomew's Hospital, showing the creation of two spaces, the first to the north of the chapel and the second to the north of the kitchen and refectory (building e in the diagram) (Price and Ponsford 1998, 80, Fig 35) © Roger Price and Michael Ponsford..... 148
- Figure 3. 35:** A reconstruction of the major hospital buildings revealed by the excavation, as well as those mentioned in the 'Survey of Kentish Estates, 1571' (Smith 1979, Fig. 8). Reproduced with permission of Kent Archaeological Society..... 149
- Figure 3. 36:** Proposed conceptual layout for English and Welsh medieval hospitals, showing the breakdown of space and the symbolic associations of each half of the site (author's image)..... 157
- Figure 4. 1:** The late 12th to mid-13th-century chapel (Building 1450) in Area 4 and associated features at St Giles, Brompton Bridge (context numbers in brackets refer to skeletons). Note the small size of the initial chapel building (Cardwell 1995, 125 Illus.7). Reproduced with permission of Taylor and Francis and the Royal Archaeological Institute <https://www.tandfonline.com/loi/raij20>..... 165
- Figure 4. 2:** Plan of features relating to Hall 2108 in Areas 2 and 3 at St Giles, Brompton Bridge. Evident is the drain at the east of the building and the postholes forming the south and west sides (Cardwell 1995, 124, Illus.6). Reproduced with permission of Taylor and Francis and the Royal Archaeological Institute <https://www.tandfonline.com/loi/raij20>..... 166
- Figure 4. 3:** Plan of mid-13th to 14th-century features within the western part of Areas 2 and 3 at St Giles, Brompton Bridge, including the boundary walls to the precinct and Building 943 (Cardwell 1995, 130, Illus.10). Reproduced with permission of Taylor and Francis and the Royal Archaeological Institute <https://www.tandfonline.com/loi/raij20>..... 167
- Figure 4. 4:** Top (A): Plan of Chapel 1188 and associated features in Area 4 at St Giles, Brompton Bridge, including the added tower to the west and the addition of doorways into the northwest and southwest

corners; Bottom (B): Outline sections across chapel 1188, with selected walls, layers and cuts from later periods as indicated (Cardwell 1995, 132, Illus.12). Reproduced with permission of Taylor and Francis and the Royal Archaeological Institute <https://www.tandfonline.com/loi/raij20>..... 168

Figure 4. 5: Late 14th-century buildings (217 and 567) and associated features within western part of Areas 2 and 3 at St Giles, Brompton Bridge. These include the new precinct wall to the west and outbuilding 819 (Cardwell 1995 137, Illus.14). Reproduced with permission of Taylor and Francis and the Royal Archaeological Institute <https://www.tandfonline.com/loi/raij20>..... 170

Figure 4. 6: Late 14th-century buildings (848 and 934) and associated features in Areas 2 and 3 at St Giles, Brompton Bridge. As seen, little is left of the building interiors (Cardwell 1995, 138, Illus. 15). Reproduced with permission of Taylor and Francis and the Royal Archaeological Institute <https://www.tandfonline.com/loi/raij20>..... 172

Figure 4. 7: St Giles, Brompton Bridge, Area 4: the late 14th -century buildings (chapel 1120, hall 1626 and dovecote 1717) and the alterations that comprised chapel 1005. Hall 1626 suggests that the eastern section of the precinct was turned into a new area of accommodation, possibly of a higher status to the western section given the associated garderobe and dovecote (Cardwell 1995, 142, Illus.17). Reproduced with permission of Taylor and Francis and the Royal Archaeological Institute <https://www.tandfonline.com/loi/raij20>..... 173

Figure 4. 8: Layout of the hospital of St Giles, Brompton Bridge, in its final phase in relation to the adjacent trackways and river crossing (Cardwell 1995, 234, Illus.55). Reproduced with permission of Taylor and Francis and the Royal Archaeological Institute <https://www.tandfonline.com/loi/raij20>..... 179

Figure 4. 9: Structural development of the hospital chapel at St Giles during the medieval period, showing the expansion up to the 14th century before the chapel was reduced in size (Cardwell 1995, 236, Illus.56). Reproduced with permission of Taylor and Francis and the Royal Archaeological Institute <https://www.tandfonline.com/loi/raij20>..... 180

Figure 4. 10: Principal structures within the excavated areas of the medieval hospital of St Giles, Brompton Bridge (Periods 3 to 6 from top to bottom). The site is clearly separated into two halves for its entire life, with the eastern side comprising the chapel and the later hall and the west likely comprising the main hospital precinct (Cardwell 1995, 123, Illus.5). Reproduced with permission of Taylor and Francis and the Royal Archaeological Institute <https://www.tandfonline.com/loi/raij20>..... 181

Figure 4. 11: A reconstruction drawing of St Giles, Brompton Bridge, from the east suggesting the appearance of the hospital in the late 14th century (Cardwell, 1995, 240, Illus.57). Reproduced with permission of Taylor and Francis and the Royal Archaeological Institute <https://www.tandfonline.com/loi/raij20>..... 183

Figure 4. 12: The plan of 12th-century features at St Saviours, Bury St Edmunds. The main focus of activity is around the chapel and to the south, although areas to the west and northwest have been truncated by later disturbance (Caruth and Anderson 1997 Fig 6) © Suffolk County Council Archaeological Services..... 185

Figure 4. 13: The plan of the late 12th-century chapel of St Saviours, Bury St Edmunds. Note the crosswall cutting off the western third of the structure (Caruth and Anderson 1997, Fig. 4) © Suffolk County Council Archaeological Services..... 186

- Figure 4. 14:** Plan of the 13th to early 14th-century chapel at St Saviour, Bury St Edmunds. There is a shift in the internal layout, providing more space in the central bay, as well as a new floor (Caruth and Anderson 1997, Fig. 15) © Suffolk County Council Archaeological Services..... 188
- Figure 4. 15:** A plan of new features to the south of St Saviours, Bury St Edmunds, dating to the late 13th to early 14th century. A large pit and a series of pits and postholes probably made up the structure of Building 803, south of the chapel, whilst other structures were possibly to the north in the area of 802 (Caruth and Anderson 1997, Fig. 7) © Suffolk County Council Archaeological Services 190
- Figure 4. 16:** A detail plan of Structure 803, from south of the chapel of St Saviours, Bury St Edmunds. The area measures 7.5m by 5.5m, and possibly represents a small bakehouse given the presence of the oven 0120 and proximity to water (Caruth and Anderson 1997, Fig. 30) © Suffolk County Council Archaeological Services..... 191
- Figure 4. 17:** The final phase plan of the Hospital of St Saviours, Bury St Edmunds, showing featured dating to the 14th – 16th century. Most of the construction was focussed around the chapel (Caruth and Anderson 1997, Fig. 8) © Suffolk County Council Archaeological Services..... 192
- Figure 4. 18:** Detailed plan of the final phase chapel at St Saviours, Bury St Edmunds. The east end of the chapel was demolished and the building extended 3m to the east, with a flint and mortar altar base built against the new wall (Caruth and Anderson 1997, Fig. 16) © Suffolk County Council Archaeological Services..... 193
- Figure 4. 19:** Overview plan of the last features relating to the use of the site as St Saviours hospital. To the northeast are the features that comprise Building 0702, a possibly covered work area, byre or shed (Caruth and Anderson 1997, Fig. 9) © Suffolk County Council Archaeological Services..... 194
- Figure 4. 20:** An overview plan of structures and features associated with the hospital of St Saviours, Bury St Edmunds. Ancillary buildings appear to be located to the north and south of the chapel, along the edge of the pond, with more buildings probably facing onto Fornham Road (Caruth and Anderson 1997, Fig. 11) © Suffolk County Council Archaeological Services..... 196
- Figure 4. 21:** The building sequence of Buildings 183 and 185, St Mary Magdalen, Colchester. Note how it is the western half that sees the more reuse (Crossan 2004, 99, Fig. 5). Reproduced with permission of the Colchester Archaeological Trust © Colchester Archaeological Trust and the Essex Society for Archaeology and History..... 198
- Figure 4. 22:** A plan of features associated with Building 186 at the top left of the plan, located north of the chapel of St Mary Magdalen, Colchester (Building 183/185). Also visible are a number of postholes and ditches that seem to make up boundary markers (Crossan 2004, 106, Fig. 11). Reproduced with permission of the Colchester Archaeological Trust © Colchester Archaeological Trust and the Essex Society for Archaeology and History..... 201
- Figure 4. 23:** The phase plan of the Hospital of St Mary Magdalen, Colchester. The focus of the hospital shifts north in phase 2 (mid-13th to 16th century), although the chapel is maintained in the south (Crossan 2004, 97, Fig. 4). Reproduced with permission of the Colchester Archaeological Trust © Colchester Archaeological Trust and the Essex Society for Archaeology and History..... 204
- Figure 4. 24:** The medieval core of St John the Baptist, Oxford (what would become Magdalene College), showing the location of trenches within the Survey Area, and the known and conjectured plan of the hospital. The hall running along High Street and stopping at the River Cherwell was the

infirmery hall with a possible chapel and pools at the east end, with the kitchen and staff accommodation running to the north (Durham 1991, 27, Fig. 4). Reproduced with permission of the Oxfordshire Architectural and Historical Society and *Oxoniensia*..... 205

Figure 4. 25: Two alternative roof reconstructions of the infirmery east annexe at St John the Baptist, Oxford: above, the 'aisled' option; below, the cross-roof option (Durham 1991, 68, Fig. 18). Reproduced with permission of the Oxfordshire Architectural and Historical Society and *Oxoniensia*..... 208

Figure 4. 26: Magnetometry survey of St Mary Magdalen, Partney, in relation to the excavated area (marked in green). The area set out by blue dashed lines may contain further structures associated with the hospital (Atkins and Popescu 2010, 215, Fig. 4). Reproduced with permission of Taylor and Francis and the Society for Medieval Archaeology <https://www.tandfonline.com/loi/ymed20>..... 210

Figure 4. 27: Plan of the hospital phase (Phase 1, before c 1115 to c 1318) at St Mary Magdalen, Partney. Structure 1 to the south of the chapel may be a home farm for the site, associated with the fields to the south (Atkins and Popescu 2010, 216, Fig. 5). Reproduced with permission of Taylor and Francis and the Society for Medieval Archaeology <https://www.tandfonline.com/loi/ymed20>..... 211

Figure 4. 28: Plan of the main structures from St Mary in the Horsefair, York, 13th – 14th century. Room P appears to be a domestic space, with accommodation areas in Rooms M and N, as well as in the main nave. Latrines were located at Y and Z (Richards *et al.* 1989, 10, Fig. 3). Reproduced with permission of York Archaeological Trust..... 214

Figure 4. 29: Construction in the late 14th to early 15th century at St Mary in the Horsefair, York. Room X represents a third latrine for the site (Richards *et al.* 1989, 10, Fig. 3). Reproduced with permission of York Archaeological Trust..... 215

Figure 4. 30: From the mid-15th century into the 16th century St Mary in the Horsefair, York, saw an extensive modification to the infirmery hall, with a new entrance and two new rooms added to its west end (Rooms E and W). To the northwest a new domestic range was constructed (Richards *et al.* 1989, 10, Fig. 3). Reproduced with permission of York Archaeological Trust..... 217

Figure 4. 31: The first phase of new construction in the early to mid-16th century at St Mary in the Horsefair, York, comprising the addition of Room B to the south of the new rooms at the west end of the chapel building (Richards *et al.* 1989, 10, Fig. 3). Reproduced with permission of York Archaeological Trust..... 218

Figure 4. 32: The second phase of construction in the early to mid-16th century at St Mary in the Horsefair, York. Room B was further modified, including the removal of the cellar element (Richards *et al.* 1989, 10, Fig. 3). Reproduced with permission of York Archaeological Trust..... 219

Figure 4. 33: The final phase of construction in the early to mid-16th century at St Mary in the Horsefair, York. At this point the open entrance to the south west of the chapel was enclosed and the old latrines were removed and replaced just to the north (Richards *et al.* 1989, 10, Fig. 3). Reproduced with permission of York Archaeological Trust..... 220

Figure 4. 34: Recorded remains of St Leonard's Hospital York. Note the proposed cloister to the west of the undercroft, with the chapel possibly to the south. The two extensions to the east of the infirmery were the attached chapels of the site (Cullum 1993 17 Fig 2.1)..... 223

Figure 4. 35: The excavation and site plan of the hospital at Llawhaden. The chapel was to the east of the infirmery, and further structures may be located to the north (Crane 1995, Fig. 5). Reproduced with permission of Dyfed Archaeological Trust..... 224

- Figure 4. 36:** A detail plan of the chapel and infirmary hall, indicating the movement of the chapel to the east and the increase in the size of the hospital (Crane 1995, Fig. 3). Reproduced with permission of Dyfed Archaeological Trust..... 225
- Figure 4. 37:** St Mary Magdalen, Winchester. Phase 1, pre-c 1150. The small structure to the south of the cemetery in the middle of the site may be the pre-1150 chapel, although it is unclear what form of structure is comprised by the postholes and linears to the north. At the northwest corner is a cellared structure (Roffey 2012, 207, Fig. 2). Reproduced with permission of Taylor and Francis and the Society for Medieval Archaeology <https://www.tandfonline.com/loi/ymed20>..... 226
- Figure 4. 38:** The Phase 2 plan of St Mary Magdalen, Winchester, indicating features from the mid-12th century to the late 14th century. Clearly shown at the north is an aisled hall, parallel to the chapel in the south, with the cemetery further south (Roffey 2012, 208, Fig. 3). Reproduced with permission of Taylor and Francis and the Society for Medieval Archaeology <https://www.tandfonline.com/loi/ymed20>227
- Figure 4. 39:** Phase 3 of St Mary Magdalen, Winchester, dating from the 15th to mid-16th century. The plan shows the aisled infirmary, now with adjunct southern structure, possibly a medieval master's lodge (Roffey 2012, 209, Fig. 4). Reproduced with permission of Taylor and Francis and the Society for Medieval Archaeology <https://www.tandfonline.com/loi/ymed20>..... 228
- Figure 4. 40:** The Agas Map of 1562, showing the precinct of St Giles Hospital, London. The area marked in red is the area of the chapel, with a courtyard of buildings to the northwest (Mills Whipp 1995, Fig. 3)..... 230
- Figure 4. 41:** Plan of excavations in the area of St Leonard's, Newark. The buildings associated with the hospital are at the south, including F601, F147, and F151. These may be the outlines of hospital buildings, with the chapel to the east (Cuttler and Ramsey 2006, 50, Fig. 3). Reproduced with permission of The Thorothon Society of Nottinghamshire..... 231
- Figure 4. 42:** Trench plans of Burford Priory. Elements of the Hospital of St John the Evangelist were located in Trench 1, possibly including a wall from the chapel in the east and parts of the infirmary to the west. To the north in Trench 12 was a trackway, possibly indicating the original entrance into the medieval hospital (Thompson 2010, Fig. 4) © Wessex Archaeology, reproduced with permission.... 232
- Figure 4. 43:** The excavated area of St Oswald's, Worcester, are shown at the centre bottom of the plan, comprising the eastern end of a rectangular building. The northeast corner may also have been a tower. Note the ground plan of the current buildings, forming a courtyard (Brown 1991, Fig 3) © Worcestershire Archive and Archaeology Service, Worcestershire County Council..... 233
- Figure 4. 44:** The architectural plan of St Cross, Winchester. The chapel is located in the southeast corner, with almshouses forming the rest of the courtyard, and the domestic range to the north (Orme and Webster 1995, 140, Fig. 20). Nicholas Orme and Margaret Webster, *The English Hospital, 1070-1570*; © 1995 Yale University Press. Reproduced with permission of the Licensor through PLSclear 235
- Figure 4. 45:** Plan of St Katherine's Hospital, Ledbury, comprising a chapel at the east, the infirmary hall in the middle, and a partitioned-off room at the west, possibly staff quarters or specialist housing (Hillaby 2003, 11, Fig. 2.1)..... 236
- Figure 4. 46:** The wider proposed plan of St Katherine's, Ledbury, with excavation revealing a substantial stone building to the west of the chapel, north of which was the Masters' House (Miller

and Potten 2008, Fig. 4) © Worcestershire Archive and Archaeology Service, Worcestershire County Council..... 237

Figure 4. 47: The leper hospital of SS. Stephen and Thomas, New Romney. Building B appears to be the chapel of the hospital, with a hall to the north. The site is also located on a rise in the land, with several roads in the near vicinity (Rigold 1964, 52, Fig. 5). Reproduced with permission of Kent Archaeological Society..... 238

Figure 4. 48: The Hospital of St Nicholas, Salisbury, with a twin infirmary hall and double chapel and the staff hall to the north. It is also suggested there may be other structures forming a cloister between the infirmary and the staff hall (Orme and Webster 1995, 100, Fig. 13). Nicholas Orme and Margaret Webster, *The English Hospital, 1070-1570*; © 1995 Yale University Press. Reproduced with permission of the Licensor through PLSclear..... 238

Figure 4. 49: Plan of the Hospital of St Giles, Norwich, showing the manner in which the nave of the parish church of St Helen sat between the chancel and the infirmary hall. Also note the claustral range to the north, housing the staff and domestic activities, with the kitchen running off to the north (Rawcliffe 1999, 62, Map III). Reused with permission of Carole Rawcliffe © Phillip Judge..... 239

Figure 4. 50: Plan of Ewelme Hospital, Oxfordshire, with the church to the east (at the top of the page), and the grammar school to the west (at the bottom). The use of the quadrangle for the accommodation of the almspeople is one of the clearest instances of the secular almshouse. From Francis T. Dollman 1858, *Ancient Domestic Architecture*..... 240

Figure 4. 51: A plan of Ford's Hospital, Coventry. Top: First floor plan; Below: Ground floor plan. The site was very small, but in this case the chapel was located at the west on the first floor, looking into the courtyard. From Francis T. Dollman 1858, *Ancient Domestic Architecture*..... 241

Figure 4. 52: The ground floor plan of Browne's Hospital, Stamford. This plan dates to 1858, but much of the layout was based upon the late medieval original, including the accommodation layout and location of domestic areas. The inmates stayed in the hall at the south, connected to the chapel by a cross-corridor. Staff and domestic rooms were located around the cloister to the north. From Francis T. Dollman 1858, *Ancient Domestic Architecture*..... 242

Figure 4. 53: Plan of St John the Baptist, Canterbury, showing the T-shaped arrangement between the chapel and the infirmary halls. The building to the north was a latrine, whilst the structure to the south west was probably domestic in nature (Orme and Webster 1995, 92, Fig. 10). Nicholas Orme and Margaret Webster, *The English Hospital, 1070-1570*; © 1995 Yale University Press. Reproduced with permission of the Licensor through PLSclear..... 243

Figure 4. 54: The Hospital of St Giles, Maldon. Other than the standing remains almost no other investigation has been carried out at the site. From what is left it appears to have been a T-shaped hospital, with very short transepts/wards (Nunn 1983, 4). Reproduced with the permission of the Maldon Archaeological Group..... 245

Figure 4. 55: The plan of excavated walls at St Mary's Hospital, Strood. The T-shaped building may have housed a mixed community within the arms of the hall, but it later underwent a series of modifications, as did the chapel, with the infirmary hall being significantly shortened (Harrison 1969, 143, Fig. 2). Reproduced with permission of Kent Archaeological Society..... 246

Figure 4. 56: An overview plan of the whole precinct of St Mary, Strood. The gate into the precinct was to the south, onto the High Street. The addition of Smetham's Building to the northwest and

possible structures to the south may have formed a courtyard to the west of the chapel (Harrison 1969, 148, Fig. 10). Reproduced with permission of Kent Archaeological Society..... 247

Figure 4. 57: The plan of St Mary's Hospital, Chichester. The site clearly demarcated space between the infirmary hall and the chapel. The hall had small apartments inserted, adding privacy to the originally more open hall. The hospital was also shortened in the post-medieval period (Gilchrist 1995, 19, Fig. 3) © Roberta Gilchrist, 1995, *Contemplation and Action: The Other Monasticism*, Leicester University Press, used by permission of Bloomsbury Publishing Plc..... 249

Figure 4. 58: The plan of the hospital of St John the Evangelist, Cirencester, based on excavations in 1971 and 1976. A thin chapel ran to the east from the three aisled hall to the west. Possible partitions may also indicate the breaking up of the internal space into small apartments or bedrooms (Leech and McWhirr 1982, 194, Fig. 2). Reproduced with the permission of Bristol and Gloucestershire Archaeological Society..... 250

Figure 4. 59: Plan of St Bartholomew's Hospital, Gloucester, with the excavated remains marked by hatches. A limited amount of the chapel and hall were encountered, but it indicates that at times the chapel was split in half, possibly indicating a mixed community (Hurst 1974, 44 Fig. 16). Reproduced with permission of the Society of Antiquaries of London and the *Antiquaries Journal*..... 251

Figure 4. 60: The Newarke Hospital, Leicester, measuring over 70m in length. Despite the length a small chapel was all that was deemed necessary for the community (Godfrey 1955, 30, Fig. 12)..... 252

Figure 4. 61: The parallel halls of St John the Baptist, Winchester. Again, this seems to be linked to the segregation of the sexes. There were also possible cupboards located during excavation, implying a level of privacy for the residents at this hospital (Godfrey 1955, 34, Fig. 17)..... 252

Figure 4. 62: The plan of St Nicholas Hospital, Pickering. The site comprised a chapel at the east, a central nave space probably for accommodation, and a partially enclosed room to the west, possibly for staff and cooking (Fox 1943, 327). Reproduced with permission of the Yorkshire Archaeological and Historical Society..... 253

Figure 4. 63: The Hospital of St Bartholomew, Chatham, with an apse attached to the chapel. The hall may also have been wider, forming two unequal wards, similar to St Bartholomew's, Gloucester (Orme and Webster 1995, 89, Fig. 8). Nicholas Orme and Margaret Webster, *The English Hospital, 1070-1570*; © 1995 Yale University Press. Reproduced with permission of the Licensor through PLSclear..... 254

Figure 4. 64: The plan of the chapel of St Mary Magdalene, Stourbridge, showing the linear hall and chapel arrangement (Jones 1927, 139). Reproduced with permission of the Proceedings of the Cambridge Antiquarian Society..... 254

Figure 4. 65: The possible location of a hospitium for Waltham Abbey, Essex, is located at the point marked II, just below the causeway and one of the entrances into the northern precinct of the abbey (Huggins 1970, 127, Fig. 51). Reproduced with permission of Taylor and Francis and the Society for Medieval Archaeology <https://www.tandfonline.com/loi/ymed20>..... 255

Figure 4. 66: The Hospital of St John the Baptist and St John the Evangelist, Sherborne, with the two floors opening into the chapel, allowing some element of participation in the service whilst keeping the sexes segregated (Orme and Webster 1995, 131, Fig. 17). Nicholas Orme and Margaret Webster, *The English Hospital, 1070-1570*; © 1995 Yale University Press. Reproduced with permission of the Licensor through PLSclear..... 256

- Figure 4. 67:** The Hospital of St Saviour, Wells, with the linear ground plan. By the 16th century it was common to have individual bedrooms or alcoves. The hospital is also attached to the guild hall, and the members of the guild likely provided much of the financial support for the hospital (Orme and Webster 1995, 131, Fig. 17). Nicholas Orme and Margaret Webster, *The English Hospital, 1070-1570*; © 1995 Yale University Press. Reproduced with permission of the Licensor through PLSclear..... 257
- Figure 4. 68:** The Bede House, Higham Ferrers. For the plan at the bottom, east is to the left of the page. Even at this late date, the creation of a church environment for the inmates was still popular (Godfrey 1955, 32, Fig. 14)..... 257
- Figure 4. 69:** Plan of the Hospital of St Mary Magdalene, Glastonbury. Again another linear design, in this case modified to provide personal accommodation in the 16th century (Orme and Webster 1995, 90, Fig. 9). Nicholas Orme and Margaret Webster, *The English Hospital, 1070-1570*; © 1995 Yale University Press. Reproduced with permission of the Licensor through PLSclear..... 258
- Figure 4. 70:** The plan of St John the Baptist, Glastonbury, located during small scale excavation within the nave of the parish church. The hospital was constructed onto the northern aisle of the parish church, from the east end of the tower to the west. This created another aisle for housing of guests to the shrines of Glastonbury (Hollinrake 2014, 14, Fig. 15). Reproduced with permission of Hollinrake Archaeology Co-operative..... 258
- Figure 4. 71:** Geophysics from the Hospital of St John, Old Sarum, Wiltshire. A possible structure is highlighted in green, with other associated areas of interest in red. The structure seems to consist of three rooms, and there may be a boundary or second range running to the south (Bartlett 2003, Fig. 5). Reproduced with permission of Alister Bartlett and Bartlett Clark Consultancy..... 259
- Figure 4. 72:** A simplified plan of the ground floor of Old Chapel Cottage which may be St Mary Magdalene, Wentworth (Satchell 2003, 295, Fig. 65)..... 260
- Figure 4. 73:** The Maison Dieu, Dover, showing the possible layout of the infirmary hall between two aisles, which may have had their own chapels (Godfrey 1995, 36, Fig. 19)..... 261
- Figure 4. 74:** The plan of the chapel of St Mary Magdalene, Durham. No other remains were located near the chapel, although entrances to the north and south does suggest a wider complex of buildings (Jessop 1996, 123, Fig. 2). Reproduced with permission of Oliver Jessop..... 262
- Figure 4. 75:** The trench locations and site overview of St Nicholas, Lewes. The hospital chapel seems to have been located in Area A, although was later truncated out. Domestic activity was associated with another structure in Area B. The infirmary hall is suggested to be under St Anne's School (Barber and Sibun 2010, 80, Fig. 1). Reproduced with permission of Sussex Archaeological Society and Archaeology South-East..... 264
- Figure 4. 76:** The plan of features in Area A, St Nicholas, Lewes. The chapel is suggested to have been in the area south of the graves, especially around the dog-leg in the run of burials, although the site has undergone heavy truncation and so no architectural features survive (Barber and Sibun 2010, 84, Fig. 4). Reproduced with permission of Sussex Archaeological Society and Archaeology South-East. 265
- Figure 4. 77:** Plan of the recovered structural elements of the Maison Dieu, Arundel. This site seems to copy the layout of the nearby College of the Holy Trinity (Evans 1969, 71, Fig. 1). Reproduced with permission of Sussex Archaeological Society..... 266

- Figure 4. 78:** A plan of the Hospital of St John the Baptist, Bath. The layout clearly orientates to the south, forming a courtyard with the chapel and infirmary hall as the northern range (Manco 1998, 31, Plan 2)..... 268
- Figure 4. 79:** Plan of excavated features within the precinct of St Mary Magdalene, Clothall. The presence of burials in the northwest corner could suggest that this was the location of the chapel, whilst domestic waste in the eastern half of the compound suggests that this was accommodation (Phillips 2009, 126, Fig. 7.2). Reproduced with permission of Albion Archaeology..... 269
- Figure 4. 80:** The plan of St John the Baptist, Lichfield, showing the accommodation located in the east range, whilst the masters' house was located at the western end of the north range (Meeson 2000, 3, Fig. 1)..... 271
- Figure 4. 81:** The plan of the Savoy Hospital, London. This hospital, founded by Henry VII, was the only attempt at the Renaissance cruciform hospitals in England. It was only operation for a few decades before it was closed at the Dissolution. The site still splits up space between the genders, as well as between inmate and staff, although there seems to be a less clear southeast to northwest orientation (Gilchrist 1995, 31, Fig.15) © Roberta Gilchrist, 1995, *Contemplation and Action: The Other Monasticism*, Leicester University Press, used by permission of Bloomsbury Publishing Plc..... 272
- Figure 5. 1:** Decorated London ware jugs recovered from the fill of pit C1725, St Mary Spital, London (Thomas *et al.* 1997, 57, Fig. 45). Reproduced with permission of Museum of London Archaeology 280
- Figure 5. 2:** Cooking pots and jugs from the fill of pit C1725, St Mary Spital, London. Images P13-16 are London ware; P17 is Late Medieval Hertfordshire Glazed ware; P18 is Kingston type ware; P19 is Mill Green ware; and P20-23 are South Hertfordshire grey ware (Thomas *et al.* 1997, 58, Fig. 46). Reproduced with permission of Museum of London Archaeology..... 281
- Figure 5. 3:** Wooden vessels from the sluice pit, St Mary Spital, London. Of note is S68 a deep bowl that may also be reversable and may be better suited to aiding someone eat. Also depicted at the bottom are some of the individual markings found (Thomas *et al.* 1997, 60, Fig. 47). Reproduced with permission of Museum of London Archaeology..... 283
- Figure 5. 4:** The wooden vessels recovered from St Mary Spital, London (Thomas *et al.* 1997, 108, Fig. 73). Reproduced with permission of Museum of London Archaeology..... 284
- Figure 5. 5:** A Saintonge green-glazed jug with a parrot-beak spout recovered from St Bartholomew, Bristol. To the left of the spout a Gothic 'A' (pictured above) had been incised through the glaze. This may mark the jug as containing specific liquids or be associated with a specific person or function (Price and Ponsford 1998, 149, Fig. 59.81) © Roger Price and Michael Ponsford..... 286
- Figure 5. 6:** Pottery recovered from the area of the kitchen, St Bartholomew, Bristol, including Redcliffe ware jugs, Ham Green ware cooking pots, and some Merida-type ware (Price and Ponsford 1998, 153, Fig. 61) © Roger Price and Michael Ponsford..... 287
- Figure 5. 7:** A selection of Tyler Hill ware jugs from St Mary, Ospringe (Smith 1979, 164, Fig. 35). Reproduced with permission of Kent Archaeological Society..... 289

- Figure 5. 8:** Tees Valley ware jars, St Giles, Brompton Bridge (Cardwell 1995, 173-4, Illus. 31-32). Reproduced with permission of Taylor and Francis and the Royal Archaeological Institute <https://www.tandfonline.com/loi/raij20>..... 290
- Figure 5. 9:** Reduced green glaze ware, St Giles, Brompton Bridge (Cardwell 1995, 176, Illus. 34). Reproduced with permission of Taylor and Francis and the Royal Archaeological Institute <https://www.tandfonline.com/loi/raij20>..... 291
- Figure 5. 10:** Medieval pottery from the first phase of St Mary Magdalen, Colchester (c. 12th century), from pit groups BF117, BF124, and BF204. The pottery comprises Thetford-type ware, Spare shell ware, early medieval ware, and medieval coarse ware (Crossan 2004, 135, Fig. 22). Reproduced with permission of the Colchester Archaeological Trust © Colchester Archaeological Trust and the Essex Society for Archaeology and History..... 292
- Figure 5. 11:** A selection of the pottery assemblage from SS. Stephen and Thomas, New Romney. Sandy coarseware cooking pots and a skillet (no. 6 at the top of the figure) are amongst the examples at the top, with Rye ware jugs (at the bottom of the figure) making up 20% of the overall assemblage (Rigold 1964, 62, 64 fig 10-11). Reproduced with permission of Kent Archaeological Society..... 293
- Figure 5. 12:** A small assemblage of pottery recovered from St John the Evangelist, Cirencester (Leech and McWhirr 1982, 206, Fig. 6). Reproduced with the permission of Bristol and Gloucestershire Archaeological Society..... 294
- Figure 5. 13:** Cooking pots and jugs recovered from Context 10 of St Nicholas, Lewes. Dating to the late 12th to early 13th century, it consisted of mostly undecorated cooking pots (Barber and Sibun 2010, 89. Fig. 10). Reproduced with permission of Sussex Archaeological Society and Archaeology South-East..... 295
- Figure 5. 14:** Jugs and floor tiles from St John the Baptist, Oxford (Durham 1991, 51, Fig. 11). Reproduced with permission of the Oxfordshire Architectural and Historical Society and *Oxoniensia*..... 296
- Figure 5. 15:** Jars, jugs, and bowls from St Saviours, Bury St Edmunds, with examples of Grimstone ware dishes and jugs, early medieval coarsewares, and Hedingham ware jugs (Carruth and Anderson 1997, Fig 52-3) © Suffolk County Council Archaeological Services..... 297
- Figure 5. 16:** A: Stone mortar from St Bartholomew's, Bristol; B: Stone mortar with lug from St Saviours, Bury St Edmunds (Image A from Price and Ponsford, 1998, 167, Fig. 68, obj 224; Image B from Carruth and Anderson 1997, Fig 51, obj 158) © Roger Price and Michael Ponsford; © Suffolk County Council Archaeological Services..... 300
- Figure 5. 17:** Stone mortar from St Mary, Ospringe, recovered from the floor levels of the kitchen (Smith 1979, Fig 32). Reproduced with permission of Kent Archaeological Society..... 301
- Figure 5. 18:** A lead chalice and paten from the 14th-century burial at St Giles, Brompton Bridge (Cardwell 1995, 202 Illus 43, 1-2). Reproduced with permission of Taylor and Francis and the Royal Archaeological Institute <https://www.tandfonline.com/loi/raij20>..... 302
- Figure 5. 19:** Writing implements and material culture: A – a bone stylus from St Mary Spital, London; B – a bone parchment pricker from St Bartholomew's, Bristol; C – bone stylus from St Saviours, Bury St Edmunds; D – lead styli from St Saviours, Bury St Edmunds (Image A from Thomas *et al* 1997, 111, Fig 76, S3; Image B from, Price and Ponsford 1998, 172, Fig. 72, obj. 322; Images C and D from Carruth and Anderson 1997,61, Fig 55, obj 190-2). Image A reproduced with permission of Museum of London

Archaeology; Image B © Roger Price and Michael Ponsford; Image C and D © Suffolk County Council Archaeological Services..... 303

Figure 5. 20: Copper alloy book fittings: A – Book fitting from St Mary, Ospringe; B – Book fastening from St Giles, Brompton Bridge; C- Book clasp from St John the Baptist, Oxford (Image A from Smith 1979, 140, Fig. 25, obj 133; Image B from Cardwell 1995, 190, Illus. 39, obj 20; Image C from Durham 1991, 56, Fig 15, obj 3). Image A reproduced with permission of Kent Archaeological Society; Image B reproduced with permission of Taylor and Francis and the Royal Archaeological Institute <https://www.tandfonline.com/loi/raij20>; Image C reproduced with permission of the Oxfordshire Architectural and Historical Society and *Oxoniensia*..... 304

Figure 5. 21: Religious material culture: A – Copper alloy incense censor from St Giles, Brompton Bridge; B – Ivory altar cross from St Mary, Ospringe; C – A lead pilgrim badge from the floor levels of the kitchen at St Mary Ospringe; D – Two lead pilgrim badges from St Giles, Brompton Bridge, possibly showing the Holy Face of Lucca (left) and St Peters and St Pauls, Rome (right) (Image A from Cardwell 1995, 189, fig 5.45b, obj 8; Images B-C from Smith 1979, 153 and 146, Fig. 31 and 29, respectively; Image D from Cardwell 1995, 202 Illus 43.5-6). Image A and D reproduced with permission of Taylor and Francis and the Royal Archaeological Institute <https://www.tandfonline.com/loi/raij20>; Image B and C reproduced with permission of Kent Archaeological Society..... 305

Figure 5. 22: Papal bulla recovered from a grave in the north transept of St Mary Spital, dating to Pope Urban VI (1378-89). The inclusion of bulla in graves was not uncommon from this century onwards (Thomas *et al.* 1997, 69, Fig 54). Reproduced with permission of Museum of London Archaeology.. 306

Figure 5. 23: Skeleton 249 from St Nicholas, Lewes, with attached manacle (Barber and Sibun 2010, 98, fig 17). Reproduced with permission of Sussex Archaeological Society and Archaeology South-East 307

Figure 5. 24: Religious finds from the cemetery of St John the Evangelist, Cambridge: A: Jet crucifix pendant found associated with the burial of an adult male, dating to the 15th century; B: Copper alloy cruciform horse harness pendant found associated with a charnel bundle, dated to the 13th or 14th century (Image a and b from Cessford 2015, 81, fig 11, obj 2 and 3). Reproduced with permission of Taylor and Francis and the Royal Archaeological Institute <https://www.tandfonline.com/loi/raij20> 308

Figure 5. 25: Copper alloy dress accessories: A – Two buckle from St Mary Spital, London; B – An annular brooch from the cemetery of St John the Evangelist, Cambridge; C – Bronze belt fittings from St Mary's, Strood; D – a buckle from St John the Baptist, Oxford; E – a finger ring from St Giles, Brompton Bridge (Image A from Thomas *et al.* 1997 38, fig 28; Image B from Cessford 2015, 8, fig 11, obj 1; image C from Harrison 1969, 154, fig 6; Image D from Durham 1991, 56, fig 15, obj 2; Image E from Cardwell 1995, 191, Illus 39, obj 29). Image A reproduced with permission of Museum of London Archaeology; Image B and E reproduced with permission of Taylor and Francis and the Royal Archaeological Institute <https://www.tandfonline.com/loi/raij20>; Image C reproduced with permission of Kent Archaeological Society; Image D reproduced with permission of the Oxfordshire Architectural and Historical Society and *Oxoniensia*..... 310

Figure 5. 26: Leather boots from St Mary Spital, London (Thomas *et al.* 1997, 61, fig 48). Reproduced with permission of Museum of London Archaeology..... 312

Figure 5. 27: Decorated Penn floor tiles from St Mary Spital. Note the variety of patterns utilised (Thomas *et al.* 1997, 76, fig 59). Reproduced with permission of Museum of London Archaeology.. 315

- Figure 5. 28:** Medieval floor tiles recovered from St Bartholomew's, Bristol (Price and Ponsford 1998, 158, Fig. 64) © Roger Price and Michael Ponsford..... 316
- Figure 5. 29:** Decorated floor tiles recovered from St Mary, Ospringe. They were found exclusively in the eastern half of the hospital, associated with the camera and the possible brothers' quarters (Smith 1979, 118, fig 14). Reproduced with permission of Kent Archaeological Society..... 317
- Figure 5. 30:** Decorated floor tile from St Oswald's Almshouse, Worcester (Brown 1991, Fig 7) © Worcestershire Archive and Archaeology Service, Worcestershire County Council..... 318
- Figure 5. 31:** Decorated floor tile from St John the Baptist, Lutterworth. Although very little remained of the buildings, these tiles indicate the presence of a building in the vicinity which was decorated to some level (Priest and Chapman 2002, 68, fig 20). Reproduced with permission of the University of Leicester Archaeological Services..... 319
- Figure 5. 32:** Decorated medieval window glass from St Mary Spital, London (Thomas *et al.* 1997, 83, Fig 64). Reproduced with permission of Museum of London Archaeology..... 321
- Figure 5. 33:** Decorated window glass from St Mary, Ospringe (Smith 1979, 116, fig 13). Reproduced with permission of Kent Archaeological Society..... 322
- Figure 5. 34:** Decorated window glass from St Mary Magdalen, Colchester, some of which depicts animals and hint at other motifs (Crossan 2004, 125, fig 20). Reproduced with permission of the Colchester Archaeological Trust © Colchester Archaeological Trust and the Essex Society for Archaeology and History..... 323
- Figure 5. 35:** Decorated window glass from St John the Baptist, Oxford, including a decorative roundel that may have been applied to a scene (no. 4) (Durham 1991, 59, fig 16). Reproduced with permission of the Oxfordshire Architectural and Historical Society and *Oxoniensia*..... 323
- Figure 5. 36:** Decorated window glass from St Saviours, Bury St Edmunds. Depicted are a range of geometric and floral designs, although at the bottom (no.11) is a possible letter, as well as the possible depiction of architectural elements (nos 12-15) (Caruth and Anderson 1997, fig 56) © Suffolk County Council Archaeological Services..... 325
- Figure 5. 37:** Decorated window glass from St Saviours, Bury St Edmunds. Depicted are clear examples of writing (at the top), as well as border elements (below) (Caruth and Anderson 1997, fig 57) © Suffolk County Council Archaeological Services..... 326
- Figure 5. 38:** Decorated window glass from St Saviours, Bury St Edmunds, this time showing some depictions of men (nos 36 and 40), as well as border elements and geometric symbols (Caruth and Anderson 1997, fig 58) © Suffolk County Council Archaeological Services..... 327
- Figure 5. 39:** Sculpted crucifixion scene recovered from St Giles, Brompton Bridge. The piece probably dates to the 14th century and given its lack of wear was likely an internal element, most likely in the chapel (Cardwell 1995, 208, Illus. 46). Reproduced with permission of Taylor and Francis and the Royal Archaeological Institute <https://www.tandfonline.com/loi/raij20>..... 328
- Figure 5. 40:** Architectural stone from St Giles, Brompton Bridge. Much of the stone was reused in later rebuilds of the hospital, suggesting limited funds. No. 7 comprises elements of a stone cross (Cardwell 1995, 209, Illus. 47). Reproduced with permission of Taylor and Francis and the Royal Archaeological Institute <https://www.tandfonline.com/loi/raij20>..... 329

Figure 5. 41: Painted wall plaster fragments from the chapel of St Giles, Brompton Bridge. The pattern on the right formed a five-lobed rosette. Much of the decoration was red earth in colour, although some blue was also used (Cardwell 1995, 214, Illus. 50). Reproduced with permission of Taylor and Francis and the Royal Archaeological Institute <https://www.tandfonline.com/loi/raij20>..... 330

Figure 5. 42: Small copper alloy keys for small cupboards, recovered from contexts dating to the period 1235-80 in the north transept of St Mary Spital. In total 33 keys were recovered from this area alone, suggesting the wide-spread use of cupboards, perhaps to store personal items whilst a member of the quasi-monastic community (Thomas *et al.* 1997, 36, fig 26). Reproduced with permission of Museum of London Archaeology..... 332

Figure 5. 43: Iron objects from St Mary, Ospringe, including a blacksmith's hammer (1), augur bits (2), and an awl and broken needle for leather working Objects (Smith 1979, 130, fig 130). Reproduced with permission of Kent Archaeological Society..... 334

Figure 5. 44: Two knife blades (152 and 153), a bone handle (156) and a bone spatula (157), recovered from St Saviours, Bury St Edmunds (Caruth and Anderson 1997, fig 51, obj 152,3,6 and 7) © Suffolk County Council Archaeological Services..... 335

Figure 5. 45: Material culture possibly associated with medical practice: A – a fragment of a glass urinal from St Mary Spital, London; B – Tweezers from St Giles, Brompton Bridge; C – a comb from St Saviours, Brompton Bridge; D – a cup weight from St Mary Spital, London (Images A and D from Thomas *et al.* 1997, 36, Fig 26, and 111, Fig 76; Image B from Cardwell 1996, illus 38, obj 8; Image C is from Caruth and Anderson 1997, fig 30, obj 85). Images A and D reproduced with permission of Museum of London Archaeology; Image B reproduced with permission of Taylor and Francis and the Royal Archaeological Institute <https://www.tandfonline.com/loi/raij20>; Image C © Suffolk County Council Archaeological Services..... 338

Figure 6. 1: A histogram of animal species present in the assemblage of St Mary Spital, London, by period as a percentage of total recovered bone weight. This clearly indicates the reliance upon cattle for meat at this site (Thomas *et al.* 1997, 233, Fig 114). Reproduced with permission of Museum of London Archaeology..... 348

Figure 6. 2: Animal bone part representation for the period 1234-1280 at St Bartholomew's, Bristol. Cattle would still be the dominant supply of meat, but sheep is much more represented than at St Mary Spital (Price and Ponsford 1998, 188, Fig 74) © Roger Price and Michael Ponsford..... 351

Figure 6. 3: Animal bone part representation from the floor of the remodelled chapel (Building 1B), from the period 1340-1400, at St Bartholomew's, Bristol. This area seems to have served as a short-term infirmary hall, and the animal bones suggest that a lot of sheep was consumed (Price and Ponsford 1998, 188, Fig 75) © Roger Price and Michael Ponsford..... 353

Figure 6. 4: Animal bone part representation for the kitchen floor surfaces in the period 1400-1532 at St Bartholomew's, Bristol. Meat from cattle would still predominate, possibly to a greater degree than earlier periods, although sheep and pig still made significant contributions to the diet (Price and Ponsford 1998, 192, Fig 76) © Roger Price and Michael Ponsford..... 355

Figure 6. 5: The estimated contribution of meat to the diet of St Giles, Brompton Bridge, by species, comparing cattle, sheep/goat, and pig. On the left is the hospital period, and on the right the post-medieval farm. Cattle was the dominant species, providing over three quarters of all meat (Cardwell

1995, 220, Illus. 53). Reproduced with permission of Taylor and Francis and the Royal Archaeological Institute <https://www.tandfonline.com/loi/raij20>..... 362

Figure 7. 1: Distribution of individuals with leprosy buried in the cemetery of the hospital of St James and St Mary Magdalene, Chichester. Using sites such as this more comparative work is needed to understand the choices and processes evidenced in the burial record. By examining these sites, it may be possible to better understand concepts such as hospitality for the dead (Magilton *et al.* 2008, 105, Fig 7.20)..... 399

Figure 7. 2: Detail plan of the hospital-phase cemetery at St Mary Magdalen, Partney. The burials to the south of the path were overwhelmingly adult males, whilst to the north of the path and around the chapel the population was more mixed, including the presence of children. Such a distribution may indicate segregated or at least controlled space in the cemetery areas of hospitals (Atkin and Popescu 2010, 219, Fig 8). Reproduced with permission of Taylor and Francis and the Society for Medieval Archaeology <https://www.tandfonline.com/loi/ymed20>..... 400

Figure 7. 3: Phase 1 burials, associated with the Black Death, excavated from a shaft into the cemetery on the land of St Bartholomew's Hospital, London. *Yersinia pestis* was detected in the aDNA of at least one adult male, yet *all* the bodies were buried in single graves (Pfizenmaier 2016, 31, Fig 16). Reproduced with permission of Museum of London Archaeology..... 401

Figure 7. 4: Overview of the long trench burial at East Smithfield, London, one of the main cemeteries operated during the Black Death. Although a long trench was dug, each body was placed individually, with no stacking and very little evidence of bodies touching. Together with the Crossrail excavation in Charterhouse Square and excavations at Thornton Abbey, Lincolnshire, it indicates that Black Death cemeteries may look very similar to 'normal' cemeteries, with little evidence of traditional mass grave stacking (Grainger *et al.*, 2008, 14, fig 13). Reproduced with permission of Museum of London Archaeology..... 402

Figure 7. 5: Plan of excavated features associated with the leprosy hospital of St Nicholas, St Andrews. Very little was located that could be directly tied to the hospital, although it seems to have had a large and relatively open precinct (Hall 1995, 57, fig 8). Reproduced with permission of Derek Hall..... 408

Figure 7. 6: The Templar preceptory at South Witham, Lincolnshire, excavated between 1965 and 1967. The chapel is located to the south of the central hall in the middle of the plan, forming a large courtyard to the north around which the rest of the necessary buildings for the community are located. The chapel may also be serving to separate the site into two halves, although without further sites to compare to such suggestions must remain tentative (Mayes 2002, 4 Figure 1.3). Republished with permission of Philip Mayes and the Society for Medieval Archaeology, from *Excavations at a Templar Preceptory. South Witham, Lincolnshire 1965-67*, Philip Mayes, The Society for Medieval Archaeology Monograph 19, 2002; permission conveyed through Copyright Clearance Center, Inc..... 410

Figure 7. 7: An overview plan of the Priory of St John of Jerusalem, Clerkenwell, London, the headquarters of the Hospitallers in England, as it was in the period 1185-1280. The site experienced much disturbance and was later modified into a more conventional monastic layout with a southern cloister, but at this early stage much of the domestic and conventual buildings appear to be located to the north of the church. The possible influence of English hospitals upon the order's structures is worthy of further consideration (Sloane and Malcolm 2004, 62, Fig 47). Reproduced with permission of Museum of London Archaeology..... 411

1. Introduction: Framing the Archaeology of the Medieval Hospitals of England and Wales

The medieval hospitals of England and Wales have long been seen as a conflicting and spectral form of religious practice, caught in a liminal place between the monastic and the ecclesiastical, the religious and the secular, the rich and the poor. At their most basic, the sites were concerned with the care and support of the poor and infirm, those unable to care for themselves. Contemporary academic problems arise from the attempt to rationalise the numerous forms, sizes, and routines of thousands of hospitals established across Europe during the Middle Ages, and at least 1,146 for England and Wales alone. Furthermore, greater consideration is required of the broad span of society who supported them, their relationship with wider changes in religiosity and spiritual practice, the presence or absence of medical practice, individual site idiosyncrasies, and slightly different approaches taken between different kingdoms, regions, counties, or even towns as to how to organise and run these myriad sites. It is commonly noted across the scholarly world that the medieval hospital owes some, but not all, of its traits to wider monastic practice across Europe, but there is little agreement as to what elements were shared or not (Carlin 1989; Gilchrist 1995; Godfrey 1955; Leistikow 1967; Orme and Webster 1995; Prescott 1992; Rawcliffe 2006; Rubin 1989; Watson 2006; Ziegler 2011). What is clear is that the hospital was considered an institution in its own right, and not just an offshoot of other forms of religious expression. It should also be noted here that within the term 'hospital' is also included the 'almshouse'. Whilst the question of categories will be developed more fully in Chapter 2 this research has diminished the distinctions used to, sometimes artificially, subdivide the hospital. As such the term hospital and almshouse are somewhat interchangeable within the following work, although hospital has been favoured to distinguish the medieval institutions from the later post-medieval hospitals and almshouses where a distinct difference in function, shape, and origin become increasingly apparent.

Since Mary Rotha Clay's (1909) first full summary of the English hospital tradition, the topic has held a small but important corner of scholarly discourse, pertinent for those interested in medical practice, social welfare, attitudes to the poor, and ancillary expressions of religious practice. These approaches were not without issue, and scholars of hospitals and poverty, especially in France during the 1960s and 1970s, in an attempt to provide synthesis on the material being studied, often relied too heavily on documents emanating from governments and the church (Rubin 1989, 41). From the 1970s there was a more concerted

effort to use the hospital as an example of a charitable institution focussed on the needy and poor as a bridge to study poverty and the experience of the poor. There were a number of rich archives available, standing remains to examine, some archaeological evidence, and a growing appreciation for the opportunities available through this institution located at the convergence of religious and social sensibilities that had lacked comprehensive study (Rubin 1989, 41–2). By examining them more holistically, it was appreciated that a more nuanced understanding of social commitments and attitudes towards the poor and the clergy could be gained, as well as begin to unpick the interaction between religious charity and economic fashions for the provision of social welfare. The increasing interest in poverty and hospitals was also linked to the rise in interest of urban history, with the examination of the structural problems faced by urban life, complex social organisation, and the role of the urban centre for political and social transformation. The town was the concentration of wealth and poverty in close proximity, providing both the resources for and recipients of religious charity. As such, the hospital was often integrated into the wider study of the nature of this need for aid and the social awareness of that need (McIntosh 2012; Rubin 1989, 42).

The hospital was also frequently tied to medical practice, a debate often complicated by the conflation of modern and past ideals on what a hospital was (Bowers 2007; Furniss 1968; Gale 1967). This will also be discussed more fully in Chapter 2, but the debate has usually focussed on the history and historiography of these sites, and although there have been some pivotal paradigm shifts, especially revolving around the presence or absence of medical practice at these sites, little of this has found its way into the interpretation of the ever-expanding archaeological data, brought about by the increase in developer-led excavation. This has had the indirect consequence of maintaining confusion about the role and nature of the medieval hospital, and focussed much of the debate more around the theoretical and conceptual frameworks of hospitals, hospitality, charity, poverty, and health and medicine. This is keenly felt in the archaeological discourse where there has been very limited synthesis of the material and resultantly a reduced integration of the physical evidence into the historical milieu. Roberta Gilchrist's (1995) work remains the only dedicated work to fully examine the archaeological material, although a limited update was carried out by John Roberts (2007) whose focus was more on geographical distribution, regionality, and the nature of the different social groups who supported hospitals. The approach taken in both studies served to highlight the nature of the remains of different categories of hospital or to assess the individual buildings of a site, in particular the infirmary hall and chapel that served as the focus of the site, rather than the site as a whole. This serves to reiterate some of the

inherent biases of architectural studies, which also focussed on these two pillars of the hospital complex due them often being the only elements retained for posterity, to the detriment of integrating an understanding of the wider precinct (Godfrey 1955; Leistikow 1967; Prescott 1992).

Where broader discussion of the site layout as a whole does occur the use of courtyards, ancillary ranges, and cloisters is noted but not interrogated in the manner that the layout of other monastic and religious institutions have been, for example monasteries (Greene 1992), chantries (Roffey 2007; Roffey 2008), and nunneries (Gilchrist 1994). This reinforces the enigmatic nature of these sites and has served to prevent integration of the archaeological remains into the wider historical discourse, since most of the archaeological material is focussed on a single site as an excavation report. As such, the sites are placed singularly into the broader historical context of hospitals rather than collected together to bring a new perspective to the debate. Given the expanding number of sites known about or that have seen partial excavation in the past two decades, these sites are an untapped but potentially pivotal resource. Although the archaeology of the hospital has received little scholarly attention, some historians have begun to either integrate elements of the archaeological material into their debates or have encouraged a paradigm shift that highlights the importance of the physical environment and material remains of these sites in comparison to the spiritual and economic focus that has often been more discussed. The work of Peregrine Horden (Horden 1988; Horden 2001; Horden 2005; Horden 2007), Carole Rawcliffe (Rawcliffe 1984; Rawcliffe 1995b; Rawcliffe 1995a; Rawcliffe 1999; Rawcliffe 2001; Rawcliffe 2002; Rawcliffe 2006; Rawcliffe 2008), and Christopher Bonfield (Bonfield 2006; Bonfield 2013) have all served to emphasise some of the more forgotten aspects of the hospital, such as the gardens, the use of reading and music alongside the liturgy, the role of diet and physical care as well as spiritual devotion, the ambiguous and often highly religious identity of the inmates, including lepers, in comparison to those outside the hospital, and served to refocus attention on the concept of the hospital as a whole. They have all also connected the medieval hospital to medical practice that combines the physical and the spiritual, rather than emphasising one over the other or searching for evidence of physical intervention that in most cases is lacking definitive proof (Egan 2007).

The following thesis aims examine the medieval hospitals of England and Wales from a more holistic perspective. Firstly, this thesis interrogates the architectural layout of hospital sites with the aim of highlighting the manner in which space within the hospital precinct was order, manipulated, and controlled. Alongside this examination of the architectural layout

are assessments of the material culture and environmental data recovered. Bringing these forms of evidence together, this project focussed on critiquing the wider historical understanding of hospital and medieval practice through comparison with the available physical remains. In doing so it has also provided an updated general examination of the archaeological remains of the medieval hospitals of England and Wales, looking in turn at the architectural layout and buildings, the material culture, and the zooarchaeological, environmental, and scientific evidence of diet, daily routine, and physical surroundings. In so doing, it provided an opportunity to both highlight the potential of archaeology when examining concepts such as charity, poverty, sickness, religiosity, and social dynamics, and show that there is enough material to not only critique theoretical positions but also provide new approaches to how these sites were conceived and understood.

One of the main focusses for this research is incorporation of grey literature and lesser known archaeological excavations into the general discussion. In some cases, the physical remains were limited but where possible they have been included to provide further context to the core set of sites where excavation has been more extensive. Although there are a number of archaeological projects currently ongoing, both through universities and commercial units, only those that have produced published results have been included. This served principally as a means of keeping the sample size manageable and as a means of highlighting the wealth of information readily available across the country. Further archival work was not undertaken, with the focus being on assessing the dataset as broadly as possible rather than carrying out more specific assessments of individual sites or regions. This choice was informed by the lack of broader synthesis in favour of more focussed studies that cannot highlight some of the generalised concepts that were the target of this research. As such there will also be a lessened emphasis on the various categories of hospital, such as *leprosaria*, almshouse, hospice for pilgrims, and so on, and this thesis instead will attempt to articulate whether the archaeological remains can highlight why these disparate institutions were identified as a unified concept.

This thesis will not explore the osteological and cemetery evidence from hospitals, although there are several elements of this research that touch upon the data. There is an urgent need for a synthesis of this material, since there are more sites that have produced burials than sites that have produced archaeological evidence of hospital buildings, but this information has not yet been pulled together on a large scale (although see Gilchrist and Sloane 2005 for the best summary). A significant number of smaller cemetery excavations have been published only as grey literature and have not seen wider integration into the discourse

occurring around the hospital and its residents. That being said there have been a number of significant cemetery publications (such as Cessford 2015; Connell *et al.* 2012; Magilton *et al.* 2008), and the use of this material has been more integrative than the approaches taken for the buildings and material culture. Some implications of this material will be discussed, and future research avenues will be highlighted when appropriate. This thesis will also only lightly touch upon regional distributions and a more geographical approach. Again, the scale of the task involved means it was unfeasible to incorporate. In this case there have been excellent recent synthesis of the evidence, especially John Roberts (2007), who carried out an extensive regional and geographical examination of the hospitals of Britain, whilst there have been several in depth regional or county studies that have also added greatly to the scholarly discourse (Cullum 1989; Orme and Webster 1995; Sweetinburgh 2004). Instead this thesis will focus on the buildings, material culture, and evidence of food, environment, and daily practice, utilising the range of sites as a large dataset that has not been distilled by the application of hospital categories or the focus on one type of resident.

By looking at the medieval hospitals of England and Wales as a unified dataset and by including the whole site within the remit of the analysis, alongside the range of new sites available, a novel conceptual framework for the medieval hospital has been developed, one that places the architectural layout and material remains of the hospital within the wider discourse currently circulating these sites. In Chapter 2 the focus will be on an overview of current theories and interpretations about the hospital, highlighting the quandary over what form of institution the hospital actually was. This will also touch upon the nature of the support and location of these institutions (although also see Gilchrist 1995; Orme and Webster 1995; Rawcliffe 2006; Roberts 2007; and Sweetinburgh 2004), and the manner in which it tied into other institutions, such as monasteries and chantries. There will be some discussion on why the hospital was such a popular form of religious expression, and a brief discussion of the hospital experience in England and Wales. After this the medieval hospital will be located within the contemporary medical practices that seem to have influenced the manner in which they functioned in the later medieval period.

This will serve to complete the overview of the hospital as a site of charitable hospitality, an intentionally ambiguous institution that allowed it to cater to a range of social needs by interacting not with the specific condition of the individual but with the two most important characteristics of all those supported inside the hospital: the inability to support oneself and a willing and pious nature. The inability to look after oneself seems to have frequently been labelled as infirmity in the medieval period and as an identity was incredibly socially and

spiritually dangerous to the individual and society. In this way the term 'inmate' that is often used to describe the non-staff residents of these sites becomes more apt than has perhaps been appreciated, since it is only by residence within the hospital environment, an environment intended to exemplify redemption, purity, quasi-monastic practice, and deserved charity, do these individuals retain their status as good Christians. The hospital causes the infirmity and poverty to be redefined not as dangerous and an indicator of idleness, but as religiously pure, even almost monastic in its nature. Without this support they would fall to destitution and ill-repute as those punished by God for their circumstance, rather than as voluntarily choosing a life of poor religious solitude and prayer.

The thesis will then develop a new conceptual framework that places the theorised benefits of a planned religious environment that integrated non-natural medical theory into its creation (Horden 2007), adequate and healthy diet (Bonfield 2006; Bonfield 2013), and the unifying identity of redemptive quasi-monastic communities, within the physical remains of these sites. In Chapter 3 three case studies, St Mary Spital, London, St Bartholomew, Bristol, and St Mary, Ospringe, indicate that whilst these sites may have very little direct visual similarity there was a unity of activity, an emulation of focus, and a reflection of monastic organisation that adds to the understanding on the conceptual framework which meant they all fall under the term 'hospital'. Such non-identical emulation and similarity is reflective of medieval architectural theory (Krautheimer 1942), but is also reflective of a tension between the *intent* of a site to frame and articulate specific relationships with the environment and society and the *result* of the actual site biography and the natural evolution of the site. It is only when these various theoretical positions are brought together and interrogated through the physical evidence can the applicability of these various positions be understood, something that has been rare in hospitals studies previously, but which archaeology is perfectly positioned to undertake. That there is an element of similarity, locating the chapel to the southeast of the complex of buildings, locating the religious brethren and high status guests to the north of the chapel, the infirmary for the inmates to the west, northwest, and north, and the location of women further to the northwest, mirrors the basic articulation of monastic space, possibly tying into Anglo-Saxon or female religious utilisation of space (Gilchrist 1994). At the very least this northern mirroring served as a distinct marker that this site was not the same as a monastery, highlighting its liminal, even paradoxically ambiguous status as a site of quasi-monastic secular religious poverty.

This hypothesised intended layout for English and Welsh hospitals will then be tested against a range of other sites that can provide some indication of the wider layout in Chapter 4.

Following on from this Chapters 5 (material culture) and 6 (zooarchaeology, archaeobotany, and other scientific approaches) will provide summaries of the other material remains recovered from archaeological excavation and begin to place these within the modern discourse. There are a number of links between the material that would be expected from more theoretical historical works and the archaeological remains, although in many cases the evidence has only a partial presence or is limited by the fact that none of the sites were fully excavated. In many ways these Chapters serve as a starting point, and future work will be required to fully explore the potential of this material. That being said, this thesis makes it clear that the archaeological remains should no longer be overlooked within the wider debate but necessitate further integration to answer questions on what the medieval hospital was like for those who chose to live there. Indeed, the application of this holistic approach to the archaeology of the medieval hospital indicates the necessity of a greater appreciation for the physical remains. The potential ordering of space is more clearly represented in the physical remains, and whilst medical texts may suggest practices carried out in hospitals only the physical remains can begin to indicate how widely they were followed. By applying ideas such as *intent* and *result* a more nuanced appreciation for the proposed and actual experience of the hospital can be gained, something that has long been necessary but which has up until now been virtually absent from the scholarly discourse.

The thesis will finish with a comprehensive discussion of the material as a whole, highlighting the trends in the data and avenues for further research. One key avenue is further formulation of the concept of hospitality for the dead as a means of integrating hospital cemetery data into the wider archaeological record of these sites by setting aside how to tell whether a buried individual was a resident of the site or not and rather seeing these burials as additional members of the wider hospital community who, through their own decision or the choice of those left behind, valued entry into the precinct of the medieval hospital, even in death. Furthermore, the appreciation for a northern emphasis to the layout as a means of distinguishing itself may also have implications for other religious institutions, such as the military orders, friaries, secular colleges, and possibly nunneries, where they differed from the monastic norm.

As shall be shown in this thesis, the medieval hospital still retains a large element of its ambiguity and variation, but it will be argued that there was an element of consistency in how the English and Welsh sites intended to be laid out and operate. Activity, gender, and status were segregated in a manner that indicates an underlying framework for how the site should look and act. Connecting this with wider medical theory, religious practice, and the

perception of poverty and disease is something that has been sorely missing for the archaeological material, and the situation only becomes more difficult with more sites being uncovered. This thesis lays out a new approach that unlike much of the previous work looks beyond what divided the different forms of hospital to examine what united them. Only after it is clarified what all hospitals were intended to do can the variation be fully contextualised and understood. Appreciating these variations that virtually define the hospital will fall outside the remit of this research, since the scale of material being approached is considerable. However, integrating these variations and approaching the concept of categories of hospitals will be a vital future research aim. Ultimately, this thesis highlights that the interpretative approach to the archaeology of medieval hospitals has seen little development over the past two decades despite the substantial growth in available material and the changing direction of discourse more broadly. This is surprising given that the subject is a broad and vitally important source of research that ties into a wide range of current research paradigms. It shall be argued that not only does the archaeological material reflect and corroborate these wider discussions but that the available material is plentiful enough to provide a new perspective on what the hospital signified and how those who lived within the site were viewed by society. In this way the archaeology is not merely passively corroborating theory but actively creating new theoretical paradigms from which to interrogate other sources of information.

2. Hospitals and Medicine: an overview

The Medieval Hospital

The medieval hospitals of Western Europe were religious and charitable institutions that aimed to alleviate some of the visible social problems affecting wider society. The word hospital derives from the Latin *hospitale*, a care or concern for *hospites* or guests, and at its root focusses on the physical and spiritual benefits of charitable hospitality (Carlin 1989, 21; Dainton 1976, 532; Gilchrist 1995, 8; Godfrey 1955, 15). They were not necessarily focussed on the care for the sick as would be associated with the term hospital in modern usage, but instead were more focussed upon charitable support for those unable to care for themselves (Cullum 1991, 2; Rubin 1987). The aid was usually targeted at particular groups such as the poor, the sick, the infirm, the leprous, or travellers and pilgrims (Carlin 1989, 21). Few hospitals in the medieval period were set up specifically for the care of the mentally ill, and often were explicitly exclusive of the mad, although mental and intellectual impairment were sometimes more accepted, especially at hospitals or almshouses for the poor or infirm (Roffe and Roffe 1995, 1709; Stainton 2001). The actual distinguishing element about who was given aid was based on the economic viability of an individual and their perceived piety and willingness or evidence of hard work, not necessarily the medical issues they may have had.

The charitable care was grounded in biblical precedence, especially the Christian teachings of Jesus Christ, in particular the Gospel of Matthew, who noted the Seven Acts of Mercy (also referred to as the Comfortable Acts) undertaken by Christ. These acts were feeding and clothing the poor, bringing drink, housing wayfarers, visiting prisoners, nursing the sick, and the burial of the dead (Gilchrist 1995, 9; Sweetinburgh 2002, 237–9). The sentiment was reinforced through other bible verses, such as Mark 10:21: *“One thing thou lackest: go thy way, sell whatsoever thou hast, and give to the poor, and thou shalt have treasure in heaven.”* Another important verse was Matthew 25:40: *“... whatever you did for the least of these, you did for me”*, which identified Christ with the receivers of this charitable care and the verses that followed linked a lack of charity and hospitality with severe divine judgement (Courtenay 2007, 86; Orme and Webster 1995, 56–7). Such close associations with judgement, redemption, and the works of Christ likely formed an important psychological element in the continuing maintenance for charitable provision.

The origin of Christian hospitals is difficult to unpick, but the clearest evidence dates to around the year AD 350, with the foundation of a *xenodochium* (a hospital for strangers) by Bishop Leontius at Antioch (Horden 2005, 365–6). Others seem to have quickly followed, possibly indicating a new phase of Christian patronage that focussed on the biblical encouragement to support the poor and needy. The medieval hospital was a distinct and permanent structure, created to provide overnight accommodation and relief to the poor and sick, but it required a stable urban economy to supply the materials and purpose, as well as serving as the loci for the societal problems that needed solving (Horden 2005, 371). Medieval hospitals have often been seen as an offshoot of more generalised monastic hospitality and infirmaries (Leistikow 1967, 17–8). That being said, the nature of the hospitality carried out by monastic orders such as the Benedictines may have been overplayed, especially in the first centuries of the later medieval period (Kerr 2001), and this may explain the function of the hospitals located outside the walls of many abbeys, serving to restrict the numbers given hospitality at the monastic guesthouse.

What is clear is that the later medieval period saw a distinct increase in the support for these institutions, with more leprosy hospitals founded between 1100 and 1250 in England than for the entirety of the Byzantine Empire in the eight centuries before (Horden 2005, 380). In a sense, the hospital acted as a weapon of social order, maintaining a good flow of commerce and wealth from the wealthy to the poor, thus simultaneously protecting the marginal social strata from destitution and sin and also protecting society from the marginal social strata (Buklijaš 2008, 151). The growth of the hospital also tied into the change from early medieval asceticism, where the religious withdrew from the worldly life to the more secular-orientated later medieval religiosity, which emphasised social action and charitability (Buklijaš 2008, 151–2). This led to the hospital functioning as a cenobitic vocation (but usually for the secular poor), where they took on the identity of religious living together in a communal environment (Gilchrist 1995, 2).

This may explain the dramatic increase in the number of hospitals in the later medieval period across Europe, and the manner in which hospitals became more public around the 11th century, just as their numbers begin to rise (Ziegler 2011, 4–5). Across Europe more generally these 11th-century hospitals built upon the existing presence of hospitals but came to utilise the template of existing religious institutions to organise their communities. They also located themselves within existing guidelines that related to parish boundaries or forms of monastic lifestyle, and frequently the religious were both the providers and recipients of this charity (Rubin 1989, 44). A common location for hospitals was at the gates

of a town, as shown at Bury St Edmunds where hospitals were located at every gate into the town, and important ports such as Dover, Bristol, Hull, and Southampton had several hospitals serving the transient communities that visited or travelled through these locales (Fig. 2.1) (Godfrey 1955, 15). Another common location was on bridges, such as St Thomas's Hospital in Southwark on the approach to London Bridge or St Giles at Brompton Bridge on the River Swale (Cardwell 1995). As such they, like many elements of wider monasticism, held a liminal position in the landscape which were often close to the urban environment or located at crossroads and crossing points, but distanced from mainstream life by the profession of religious life, the adoption of a new identity, and renunciation of the former sense of self (Gilchrist 1995, 6).

The hospital was at its heart a spiritual institution with liturgy at its core, and sought to meld the spiritual and physical benefits of a good life, often functioning of a semi-monastic rule and common recitation of at least some of the daily office (Bonfield 2006, 184–5; Godfrey 1955, 20–1; Rowe 1958, 257). The most usual building form was thus based off the

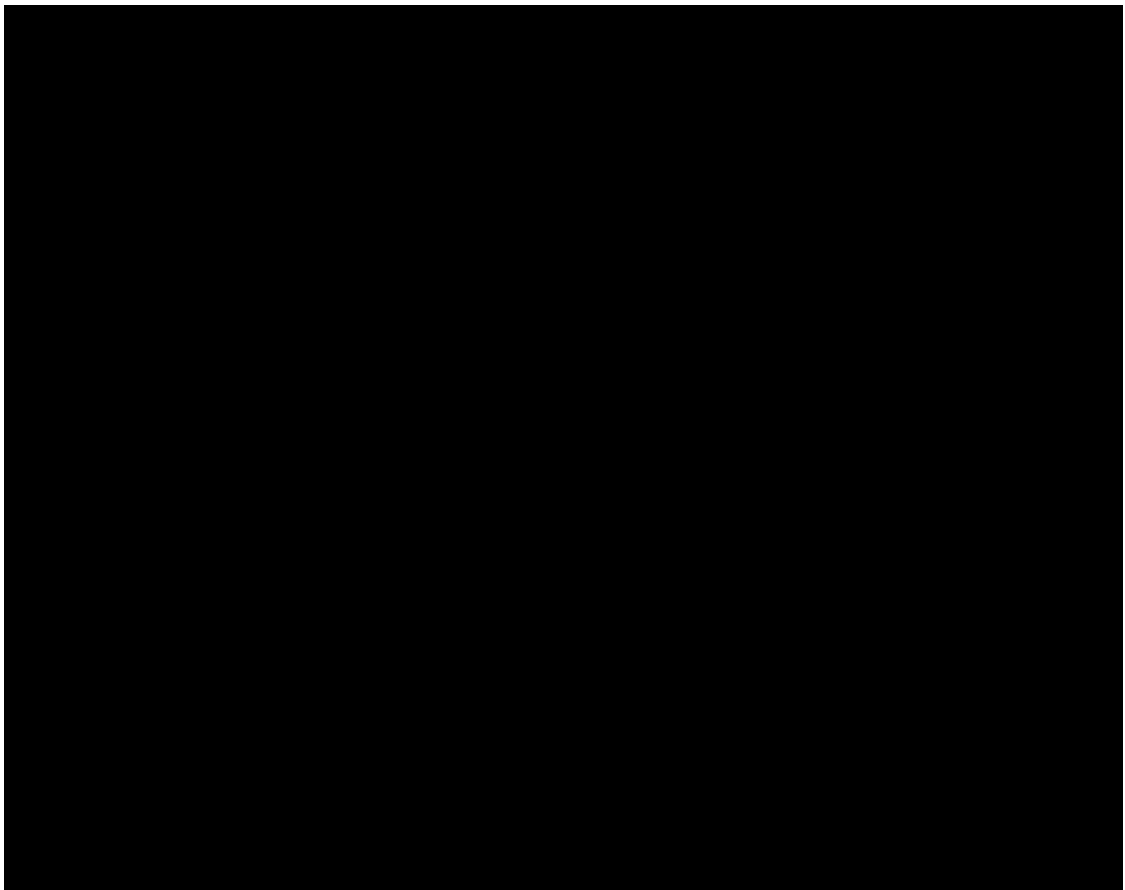


Figure 2. 1: Medieval Bristol displaying the layout of religious institutions including hospitals. Note the location of hospitals around the edges of the town, especially St Bartholomew's Hospital to the northwest of the town and St John's Hospital to the southwest (Bond 1993, 45, Fig. 4.1)

church, providing a large hall for the community connected to a chapel at its east end. The side aisles could serve as locations for the beds of the inmates when they were housed in this nave area, whilst the central aisle was free for the staff and their equipment (Fig. 2.2) (Gilchrist 1995, 17; Godfrey 1955, 21; Leistikow 1967, 25). This arrangement would also have allowed the inmates to witness the daily celebration of the mass from their beds. The presence of the altar served as a constant source of divine comfort, closely associated with the room for the inmates, indicating a close association between the religious and secular life, and the polarity inherent between the presence of the altar and the domestic life of the residents (Leistikow 1967, 25–6).

Communal housing for the inmates was the standard for all sites in the initial period of hospital building, but as the partitioning of personal space became more common in monasteries and private housing, so too did this practice transfer across to hospitals (Gilchrist 1995, 60). There was the suggestion that a form of standardised arrangement in part resembled the medieval monastery as the only available template for ordering a religious life (Furniss 1968, 246; Godfrey 1955, 15), but as will be discussed in Chapter 3 this was rarely articulated fully, especially for England. In the contemporary mind it seems that hospitals were distinct from religious houses and separate from monasteries, such as Gervase of Canterbury's *Mappa Mundi*, made c.1200, where *Hospitalia* were listed separately from *Domus religionis*, whilst legal agreements recognised the distinctive nature of hospitals as separate from monasteries through the use of the juridical term

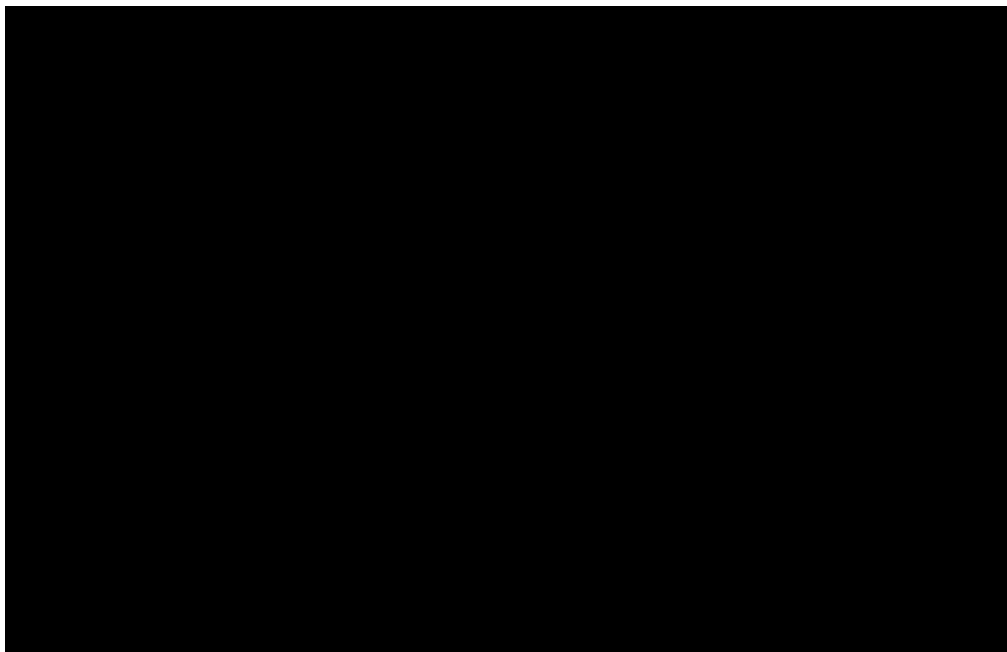


Figure 2. 2: Hospital at Tonnerre, France, showing the alcoves along the north and south wall of the chapel, and the open central aisle (Godfrey 1955, 23, Fig 6)

xenodochium (Watson 2006, 80). Even in later centuries when distinctions between some hospitals blurred with activities of churches and chantries, the term 'hospital' was distinct as an administrative category, listed alongside but separately from monasteries and other religious houses (Watson 2006, 81).

Thus, it looks like the hospital utilised some elements of the monastic lifestyle but also joined them to other religious institutions and social attitudes to create a distinct entity (Gilchrist 1995, 8). They were clearly influenced by the monastic ideals, and they grew and were likely a part of the monastic revival experienced across Europe (Orme and Webster 1995, 69). Many of the hospitals founded before the 14th century were also staffed by communities of canons or monks to care for the inmates, and were often directly tied to a religious institution, for example St Leonard's, York being tied to York Minster (Cullum 1991, 2). As much as they were influenced by monasteries, or even run by them, hospitals were their own style of institution. They also differed from the monastic guesthouse and infirmary, a situation complicated by the fact that around 69 English monasteries maintained hospitals or *hospitiums* at or close to the gates of the monastery, in all likelihood to care for poor pilgrims whilst wealthier guests were received in the guesthouse and unwell religious housed in the infirmary. This location at the boundary of the monastery also equated to a liminal point between the lay and religious boundary, clearly marking the edge of the abbey or priory (Mahood 2015). This location also allowed the monastic houses to carry out their charitable duties whilst maintaining the exclusion of the inner precinct, gaining the benefits of the association whilst limiting the intrusion of the secular world. Such actions clearly highlighted the identity of those housed within these boundary hospices as separate from those allowed access to the cloister or inner guesthouse, serving as an element of armour to the monastery (Mahood 2015, 65–6).

The English hospital did not provide invasive medical care, but rather the inmates were expected to lead a semi-monastic lifestyle, eating and sleeping in common halls, wearing habits or uniform, attending mass, and saying daily prayers for themselves, the founders, and benefactors (Carlin 1989, 24). The provision of all elements of hospitality was couched in religious practice, with meals eaten at set times in a common room, either in silence or accompanied by readings from a sacred text (Popescu 2010, 261). The most common activity for the residents would be worship and prayer, and many hospitals were referred to as *maison dieu* or *domus dei*, the house of God (Orme and Webster 1995, 49–50). The seven daily offices were usually said at all sites, and from the 13th century mass and the presence of chantry priests added to the prayers and worship already being carried out.

Because of the association with the sick the presence or lack of medical practice has been a subject of much consideration, often to emphasise the beneficial nature of the quasi-monastic lifestyle and the segregation of the sick (Carlin 1989, 31; Rubin 1989, 51). It will be argued that this sentiment over-emphasises the importance of the sick and diseased, since the term 'hospital' was a broad concept that included the care of a range of people, only some of whom were sick (Henderson 1989, 63). Whilst sickness was occasionally the focus of aid, many hospitals across Europe were focussed on poverty, providing a home for infirmity, or serving as hospices for travellers and the poor. This begins to undercut the notion that the personal circumstances of the individual inmates correlated to a drastic difference in function between the different types of hospital.

Those being cared for formed a legal part of the community, and their status as both receiver of charity and provider of spiritual salvation made them a crucial element of the economic and spiritual equation (Courtenay 2007, 79–80). The hospital acted as a form of potential safety net for those with nothing else to rely on since other self-help mechanisms were limited (Horden 2005, 389). Those that did fall ill or were too infirm were often cared for by the staff or healthy female inmates, whilst some smaller leper houses had no provision of medical support (Carlin 1989, 24). The establishment of a hospital with the apostolic 12 inmates and a master, warden or prioress was particularly popular, and the majority of hospitals in Europe were small sites run by a staff of half a dozen or so salaried servants with an attendant priest or chaplain caring for little more than a score of inmates (Brodman 2007, 124; Gilchrist 1995, 14). Larger sites, with staff of a dozen or more with beds for hundreds of inmates, were relatively rare, but were more likely to run to an organised rule and hold extensive support from episcopal or royal support.

The role of hospitals in medieval society was more central than has been shown by the mainstream historical and archaeological scholarship, since they provided practical assistance and spiritual aid (Gilchrist 1995, 2). It was a highly visible element of social welfare and acted in concert with other forms of charitable institution such as the alms dispensed by monasteries and nunneries, the social care provided through religious fraternities, and the informal systems of care provided at the parish, neighbourhood, or family level (Henderson 1989, 63). Part of the reason for the neglect in locating the hospital within the wider medieval world has been centred on the difficulty of classifying what a hospital was, and has not been helped by the reticence for the active use of archaeology due to the more modest architecture when compared to the larger institutions like monasteries and their smaller impact on the landscape (Gilchrist 1995, 4, 9). An indicator of

their impact and the importance for further study can be seen in the example of the late 15th-century hospitals of Florence, which served as the basis for the remodelling of many large and elite-sponsored hospitals across Europe, for example Henry VII's Savoy Hospital (Henderson 1989, 64). After the Black Death Florence experienced an increase in living standards for the survivors, even as population fell from over 100,000 in 1338 to 70,000 in 1360, and just under 40,000 in the 1420s, the continuing decline caused by further epidemics occurring at an almost decade interval (Henderson 1989, 66). This did not eliminate the need to care for the poor as is sometimes suggested, but appears to have provided more wealth for them to be cared by, resulting in a larger number of hospitals with more limited lifespans tied more closely to their patrons, especially in the 13th and 14th century (Henderson 1989, 66).

In France between 1213 and 1215, a number of church councils ahead of the Lateran Council in Rome saw the repeated introduction of reform ideals for hospitals by Robert de Couçon, Cardinal and Papal Legate, aided by a reformist movement that included Jacques de Vitry and Foulques de Neuilly (Brodman 2007, 124–5). These plans included the imposition of a Rule to impose regular discipline on hospitals in the light of accusations of fraud and abuse, following on from several affirmed statements in 1213 and 1214 that all hospitals fell under the responsibility of the Church, and that they were viewed as essential for helping the needy in times of distress. Not all sites lacked a rule at this time, but the fact that it was not a requirement indicates both the separation from the monastic ideal and also the inherent difficulty in understanding how these sites fit into wider monasticism, since they appear to have picked only some elements to utilise. Where a rule is evident the Augustinian was most commonly used or modified as it provided the quasi-monastic lifestyle that suited the nature of the aid provided (Gilchrist 1995, 12). The flexibility and more vocational aspects of the rule also integrated better with the varied activities and people included as part of the community. The religious regimen of 13th-century French hospitals, and concurrently other hospitals in Europe, where a religious Rule was implemented to enforce vows more usually associated with monastic or mendicant lifestyles suggests that such provision was for the imposition of discipline, not the enhancement of palliative or religious care for the poor (Brodman 2007, 132).

Hospitals were also commonly mixed houses, which was better handled by the Augustinian, rather than the Benedictine, rule. When the houses were mixed, the arrangement of the chapel and infirmary hall was often more complex, and special note was made to segregate male and female inmates (Gilchrist 1995, 21; Leistikow 1967, 25). There appear to have

been several forms used to achieve spatial segregation, the most obvious being the T-shaped plan seen at St Mary Spital, London, and at the extant structures of St John, Canterbury, with men in one arm and women in the other. Other forms put the sexes in different aisles separated by a partition wall or had two floors. Whilst some hospitals, especially in the 11th-14th centuries were more generalised in their care, in some cases the hospitals were established for people from particular professions, guilds, or fraternities who could not care or support themselves anymore, especially amongst the clergy, or were directly focussed on the local deserving poor (Gilchrist 1995, 54). For the poorer priests who could not gain a retirement through retention of a benefice or the hiring of a curate to deputise, hospitals like the one at Clyst Gabriel, Exeter, were a welcome presence, and were often founded and supported by the local bishop (Orme 1988). These infirm priests then acted as subsidiary chantry priests for the hospital, and although the majority were likely elderly, the presence of deacons, subdeacons, and clerks suggest that some may have been younger men who had an infirmity or disability that halted their progression or required their retirement (Orme 1988, 6, 8). Hospices for travellers were often multi-purpose, also serving as an almshouse or leprosy hospital as well, and their size and complexity was just as variable as other hospitals (Gilchrist 1995, 49). In general limited guest accommodation was likely available at most hospitals, and given their location on the edge of towns this was likely a useful facility when towns closed their gates at night (Roffey 2012, 222). Although many of the almshouses were established for those, such as elderly priests, who were considered to be worthy of the aid, many of the almshouses may have been established to correct the deviancy it was thought was responsible for the poor being in the situations they found themselves (Gilchrist 1995, 61).

Through the monastic tradition from which they emerged, hospitality was a key component of their function, although such hospitality may have been more rudimentary than that provided by monasteries, and all social classes were welcome (Rawcliffe 1984, 2). Providing aid without charge was a principle that theoretically underpinned the majority of hospitals, and many of the surviving statutes of these sites refer directly to the “sacred obligation of providing free succour for the needy” (Rawcliffe 1984, 3). In reality these principals were often moulded to suit changing economic circumstances, and many of the inmates who could make a contribution for their upkeep and nursing usually did, through cash or other arrangements with the house. For example at St Bartholomew’s London, those too infirm or elderly to look after themselves gave their house to the hospital, in return for which the brethren cared for them within their house for as long as possible before moving them into

the hospital infirmary and taking over the house (Rawcliffe 1984, 3). The level of fees asked for more affluent inmates is something that varied between individuals, across sites, and throughout time (Rawcliffe 1984, 4). A 1403 inquest of the administration of St Mary Bethlehem found that 6s. 8d. was being charged per quarter as a general fee, with reductions for those who had stayed for 2 or more years (Rawcliffe 1984, 4).

Despite the regular housing of secular elements of society and the sometimes questionable nature of the charity given, the hospitals of later medieval Europe were sacred spaces and should never be considered, in the modern sense, as secular institutions (Brodman 2007, 123). The spiritual care was emphasized over the secular or medical care, and commemorative masses and a proper burial held as much interest in the statutes as diet or medicinal regimen. This spiritual care, and the service of God through healing, served as a central organisational tenet, and the medieval hospital was largely determined by this primary function (Rawcliffe 1984, 11). These sites could constitute a 'good' place to die as much as a location for cure, and this led to the central importance of the priest or chaplain, who carried out the *cura pauperum* (care of the poor) in a similar way that parochial clergy carried out the *cura animarum* (care of the soul) (Brodman 2007, 123). This may also explain the choice of saints to which the hospitals were dedicated, for although there were favoured saints associated with illness and disease, such as St Giles, St Leonard, and St Bartholomew, many more were associated with pilgrimage, purity, and redemption, such as St James, St Catherine, St John the Baptist, St Mary Magdalene, and St Mary the Blessed Virgin (Gilchrist 1995, 40–1). In England the most popular dedications were St John the Baptist, St Mary the Blessed Virgin, St Mary Magdalene, and St Leonard, accounting together for over one third of all sites, although there is evidence for regional variation, especially in terms of local veneration such as St Cuthbert and St Michael in the northeast and St Anthony and St Catherine in the south (Roberts 2007, 253–257). Some of the statutes of French hospitals covered attitudes towards those being cared for, with the penance at Troyes of bread and water for three days if one of the staff complained about the sick or showed anger towards them, and patience must have been a key quality in the staff (Brodman 2007, 130). The popularity and necessity of this form of charity is expressed by its extension into the East with the crusades and the evolution of a new religious institution, the military orders, which focussed on the defence of those cared for by the hospital (Amouroux 1999).

It seems clear that those who chose to enter the medieval hospital were rarely the most destitute, but poverty was a significant factor, as was the designation of being deserving of

the charity given (Sweetinburgh 2003, 24). The hospitals admitted those who through no fault of their own were unable to support themselves, whilst attempting to keep out the more visible and socially disruptive group of poor who were unwilling to work (McIntosh 1988, 210–1). The increasing mobility of the poor population in the medieval period meant that distinguishing the deserving poor from the idle became increasingly difficult. In the 14th to 16th centuries much depended on the economic and political vitality of a town or village as to the response to this increasingly dominant issue, and of pertinence to this work is the important divide in charity between voluntary aid, for the deserving poor, and compulsory aid, for the idle (McIntosh 1988; McIntosh 2012). This form of charity was highly reliant on ‘descending’ models of gifting, creating a clearly articulated two-way relationship between the poor and the rich, and between all these groups and God (Horden 1988, 369).

The Hospitals of England and Wales

The author’s current count of definite and likely hospitals and almshouses in England and Wales stands at 1,146 sites (Fig. 2.3), although some estimates suggest around 1,300 almshouses, hospitals, and similar institutions (Ashby 2005, xv). Even this higher number probably underappreciates the number of hospitals that were active during the medieval period (Horden 2005, 383–4). Despite these numbers there is still considerable uncertainty about the form and nature of English hospitals, especially in the first centuries following the Conquest (Watson 2006, 76). Although there is a wider appreciation that hospitals were not the same as monasteries the distinct differences are still debated. This may explain the manner in which categories and types of hospital have come to dominate the wider discourse, since they provide an element of tangible information to work from. To gain some appreciation for the general breakdown of support more generally the sites will be broadly split down along the categories defined by Knowles and Hadcock (1971), into leprosy hospitals, hospitals for the poor and almshouses, hospices for travellers, and hospitals for the sick.

This division is not entirely rigid given the level of uncertainty about the exact number of sites, as well as the fact that many hospitals fell into multiple categories, either due to being intended to care for multiple groups or changing function during its life, and as such the percentages listed are not directly comparable. There were at least 350 leprosy hospitals, making up about 30 percent of the total number across England and Wales.

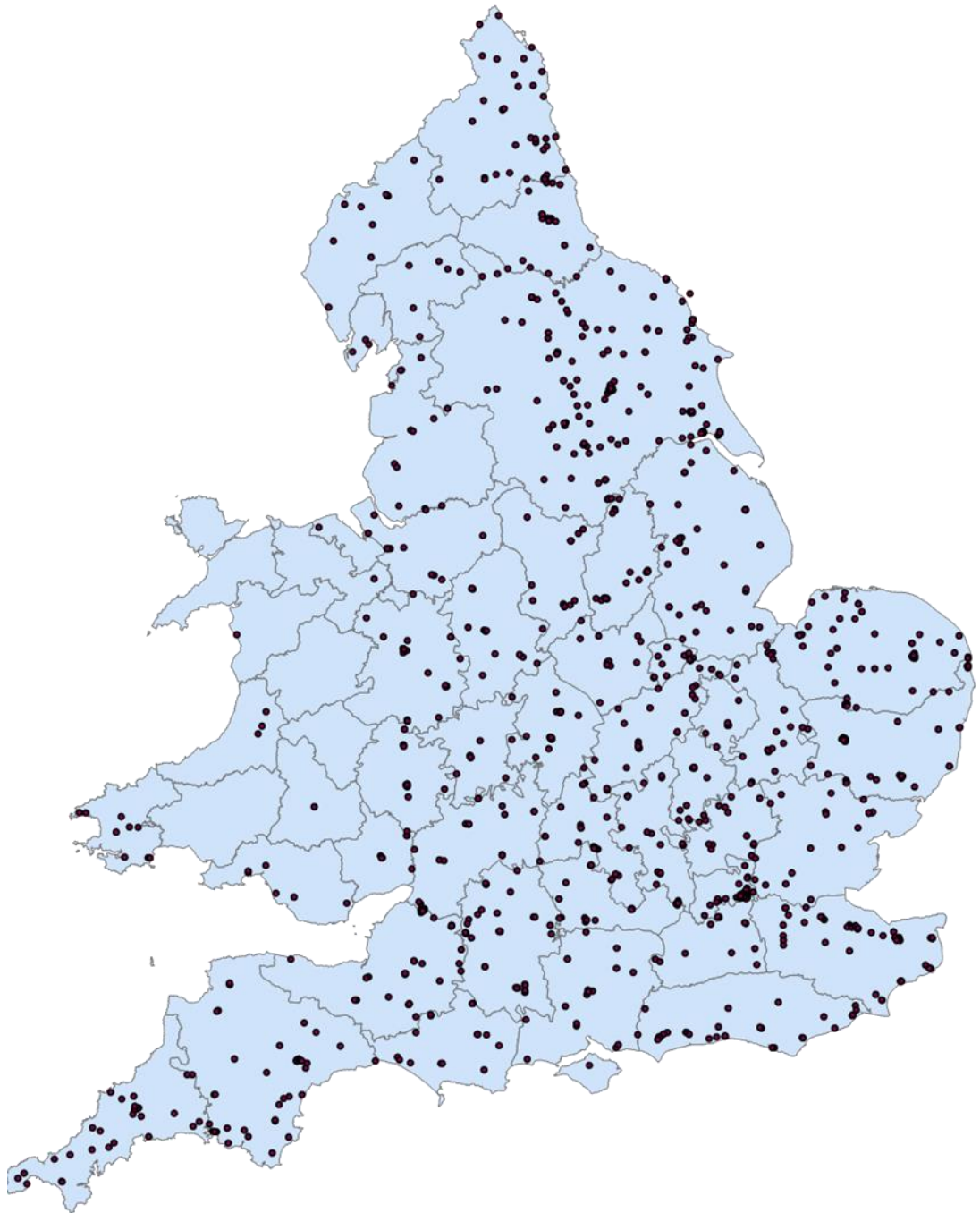


Figure 2. 3: Distribution map of hospitals. In terms of individual sites there is a considerably even distribution, although there are distinct clusters of sites at major urban centres, such as London, York, Bristol, and Norwich, and this does not take into account the relative sizes of the resident population (author's image)

These hospitals were initially the most prolific, seeing a wide range of support across the country (Carlin 1989, 22). In terms of total numbers of sites, hospitals for the poor and infirm, coupled with the almshouse, which during this period were caring for the same sorts of people, was the largest group of sites. Over 750 were founded or converted, comprising about 65 percent of the total number, and they were often restricted to certain people, such as guild members, fraternities, and local residents (Carlin 1989, 23–4). There were about 140 hospices for pilgrims and travellers, or 12 percent, although only 49 were specifically for travellers and pilgrims, with the rest including them as a majority of those cared for (Carlin 1989, 24). The last category were those sites providing care to the sick, either partially or wholly, of which there were 112, or 10 percent, but only about 20 were devoted solely to this task, with the rest including them as part of the range of inmates supported (Carlin 1989, 24).

This use of categories based upon the listing of Knowles and Hadcock's work to assign function to the hospitals is not without issues, many acknowledged at the time by the authors themselves. These included the 'blurring' that occurs between types, such as houses for leprosy that also allowed travellers to stay for example, or that the types would be redefined by individual scholars, in an attempt to simplify the complex mass of houses (Watson 2006, 78). Distinction is overemphasised by these classifications, since numerous sites changed focus over the course of their lifespan. This was particularly true for leprosy hospitals in the 15th century, where the majority were either redundant or derelict, leading to either being closed or refounded to serve other purposes (Carlin 1989, 23; Roffey 2012, 215).

Ultimately the entire process of categories sidestepped the pivotal question: "what it is that permits modern historians, or that permitted contemporaries, to consider a leper house in the same broad category as a large, liturgical hospital or a late 15th-century *maison dieu*" (Watson 2006, 78). Whilst the charitable focus could serve as the shared aspect, it still does not define what separated the hospital from other institutions that also carried out charity, such as monastic houses or royal courts. Another avenue could be to broaden the approach to assess the hospital as an offshoot of monasticism, either due to the increasing pressures on monastic hospitallers and infirmarers or due to the monastic model being the main organisational form for institutions of this kind (Watson 2006, 78). Despite utilising elements of monasticism, as has been discussed above, they were not considered to be monastic in contemporary eyes. There were very distinct differences between the formation of these sites, and a monastic rule was not mandatory until the 13th

century. By this point it appears that the hospital, as an institution, had gained its distinctive form due to civil involvement solidifying the joint charitable and liturgical roles. The problem is exemplified by taking the year 1300 and noting that some hospitals in England had elaborate liturgical services, some followed a rule, and others had neither.

This complexity, the variety, and the sheer number of institutions, alongside the five centuries of support for these sites, has often been used as a reason not to generalise about what a 'hospital' was in the medieval period. Instead it has been argued that it is better to carry out a range of regional studies (usually with a social or theoretical theme), or on individual case studies, usually constituting the later, larger, and better archived examples (Rubin 1989, 42; Watson 2006, 76). Examples of regional or county studies include Cumbria (Wiseman 1987), Yorkshire (Bottomley 2002; Cullum 1989), Kent (Sweetinburgh 2004), the southwest (Orme and Webster 1995), Norwich (Rawcliffe 1995b), Cambridge (Rubin 1987), or Wales and the Borders (Cule 1977), whilst individual hospitals that have seen in-depth study include St Giles, Norwich (Rawcliffe 1999), and St Cross, Winchester (Hopewell 1995). This has served to further divide the medieval hospital, overemphasising the differences to fill the gap left by having no baseline of material to compare with. It is not without fault that the English hospital tradition can be said to possess "an undefined, unruly, shifting, and quasi-monastic form" (Watson 2006, 76-7). Yet the medieval hospital would have been a familiar and understood institution by 1200, and at several points during the medieval period there were more hospitals across the English landscape than monasteries, priories and cells of the Benedictine, Cluniac, Fontevrault and Cistercian orders combined (Watson 2006, 76). This makes the current confusion of their nature even more troublesome.

To counteract this lack of an apparent shared constitutional framework, scholarship has emphasised the broader meanings of the hospital in relation to later medieval urban society. This approach has led to illuminating the dynamics of power and need through theories of gift-giving and the conceptual developments of charity and pious expression, reinterpreting notions of piety, charity and healing, and highlighting previously unappreciated dynamics in prosperity and plight in late urban politics (McIntosh 2012; Sweetinburgh 2004; Watson 2006, 77). Ultimately, this has led to the actual hospitals becoming less visible, located between peoples' actual need, the acknowledgement of need, and the actual or perceived responsibility to alleviate that need. The lack of understanding about the constitutional form meant that "hospitals have become more spectral, a concept within social discourse" (Watson 2006, 77). Where archaeology could

be used to reinforce the role and function of the hospital, there has instead been little investigation into the experience of the communities as represented by material culture, how they were cared for and provided for, and how their environment was structured (Roffey 2012, 203). When discussed in a British context it has usually been as a component of more general studies of hospitals, often as an alternate form of monastic and religious experience (Roffey 2012, 204), and also hampered by a lack of baseline data to compare to and the focus of categories. The issue is exacerbated by the fact that the increased amount of developer-funded archaeology has led to the excavation of increasing numbers of hospitals in both urban and rural settings, and as such can allow a re-examination of how these sites changed, what physical elements may have unified them, and to what extent their daily practice linked to monasticism over time through the material culture that is being found (Gilchrist 1995, 4).

An examination of the documentary sources for pre-1250s hospitals, especially charters and parish and custodial agreements, highlights two things that may help with forming an underlying conceptual framework. Firstly, the terminology solidified in the 12th century with the focus on the word 'hospital', a descriptive term rather than a constitutional one, which would be paired to another descriptive that noted the form of aid or support provided (Watson 2006, 79). Secondly, the nature of the foundation entailed three elements: a site, a designated form of alms, and an endowment to provide the alms (Watson 2006, 84-5). This relationship was the public basis for the existence of the hospital, not a written constitution, rule, or statutes, and the form of the site was created through repetitive acts of public charity and the physical transfer of alms that maintained dependence between benefactor and the hospital (Watson 2006, 87). To compare, by the 12th century four elements were needed to found a monastery: a church, a resident community, a Rule, and domestic architecture to provide for their common life (Watson 2006, 89). Such requirements were not necessary for hospitals, although the addition of a chapel was common from 1170 and domestic architecture and a form of rule from 1240. The hospital form was sited alms, supported and provided purpose by the founder and other benefactors through gifts from sources of income that they rarely relinquished control of (Watson 2006, 90). Such a relationship did not require written documentation until it was decided the relationship should be codified, a process that occurred from the late 12th century onwards. During this codifying the more generalised support was usually narrowed, with care for the poor and sick being restricted to the care for infirm clerics, pilgrims, or the local deserving poor for example (Watson 2006, 91). Even with the greater

defining of the endowments and adding greater specificity the basic legal frameworks concerning endowment and use set out by the founder were still maintained (Watson 2006, 92).

This framing of the relationship between hospitals as 'sited alms' and their benefactors through repeated gift provides part of the conceptual framework that unified the hospital as a varied group of sites. Unlike monastic endowments, this model meant the original founders and benefactors could affect the nature of future gifts by enforcing function or expenditure on certain things, and clauses limiting the ability to change the types of people admitted were common in charters of hospital foundations. This approach to establishing and supporting hospitals was not similar to the rest of Europe, where institutions were usually larger independent communities living under a textual rule that mirrored the religious houses (Watson 2006, 93-4). There were a few cases of this approach in England before the 14th century, such as Rahere's foundation of St Bartholomew, London, inspired by a hospital of Rome and Hugh de Puiset's foundation of the large conventual hospital of Sherburn living to his unique Kepier rule, upon motivation of French models of princship. The overall impact on wider foundation and endowment trends was negligible, however, and these limited examples would still ultimately conform to the local structures of hospital constitution. This approach to endowments and foundation also explains the confusion over the constitution of English hospitals (Watson 2006, 94). The hospital was a legal entity, with possessions and rights that could be defended, but there was little to no scope to reform or redesign itself internally, since it was always accountable to the original intent of its foundation, and there was scope for support to be with-held or transferred if the appointed purpose was not maintained. This constitutional form also suggests that hospitals would have only experienced limited influence from monasteries, since the clear accountability in the hospital system was something lacking from the monastic endowment (Watson 2006, 94).

The indication that the English hospitals did have a distinctive constitutional form is an important step forward in understanding these sites. Even more intriguingly it may be that this unique approach originated in Anglo-Saxon practices of alms. From the descriptions of Lanfranc's foundations at Harbledown and Northgate in the 1080s it is clear that Eadmer, the scribe of the document, thought of these institutions as something new (Watson 2006, 79). His vocabulary used was not the usual seen in Europe to describe hospitals, which had been present from the 6th century at the latest, instead at one point using the term *palatium*. His description of St Gregory's priory, included in the same document, was

brief and more routine, utilising the expected terminology. This clearly suggests that the concept of the hospital had only just been introduced to England, and the correct terminology was not yet known (Watson 2006, 75-6). There is no clear evidence for Anglo-Saxon hospitals before the Norman conquest, with only counterfeit charters or tradition to back them up (Godfrey 1955, 16-7; Horden 2005, 380). The only exception may be St Peter's, York, which would later become St Leonard's after moving to its new location to the south of St Mary's Abbey. It is also possible that some of the earliest leprosy hospitals may have gradually formed from less defined enclaves of sufferers associated with monasteries or urban locales into distinct houses under wider patronage and episcopal sanction as part of a church reform programme of Bishop Æthelwold of Winchester during the 950s, which was based on the Continental Benedictine Rule that had an unparalleled programme to care for the sick (Roffey 2012, 212; Satchell 1998). No such enclaves have yet been provably located, but the possibility is worthy of further research. This lack may be due to the nature in which almsgiving was highly dependent upon the virtue of the recipient being deserving, something that the few texts that discuss charity in the early medieval period clearly highlight as being perceived as a rare trait (Horden 2005, 381-2).

What is observable in the Domesday Book is the use of the terms 'alms' and 'almsland' to denote a form of tenure that could include the land granted to a religious community and land of a manor church to support the priest (Watson 2006, 87). These terms could also relate to lay tenure where an individual was given land as a form of mercy from the lord, land that could not be sold, transferred, or inherited without the express permission of the lord. The standard size for these lay tenures was half a hide, half that of the royal or manorial priest, and as such likely deemed the basic unit to support an individual (Watson 2006, 87). The nature of these tenures seems personal and they were used infrequently, suggesting that those being given this land knew the benefactor. In some cases the use of these parcels of land does seem tied to charitable aid, such as the only individuals labelled 'cripples' in Domesday, one Edric *mancus* and another simply recorded as *quidam loripes*, were almsmen from King Edward's reign, whilst in Warsop a blind man held a bovate in alms (Watson 2006, 88). These examples show a legal, tenurial and constitutional model for the practice observed in the later medieval hospitals, whereby an income, in this case land, was designated by the lord to be held at his will for the material support of a charitable recipient, chosen by the lord, which held attendant obligations or duties of his own determination (Watson 2006, 88). This seems to suggest the English hospital comprised the importation of a European religious institution that was framed through an Anglo-Saxon

system of lordship, charity, and custom that provided a legal framework but also shaped the institution as sited alms in a dependent relationship with the benefactor (Watson 2006, 93). This idea of the hospital being introduced by the Normans is supported by the fact that the number of hospitals in Wales were relatively limited and concentrated along the south coast and along the English side of the border, although some of the Welsh monastic houses appear to have had some informal shelters for the infirm, elderly, and sick (Cule 1977).

The English hospital was overwhelmingly an urban and suburban tradition, being located within or just outside town walls and gates (urban) or on the peripheries of city suburbs or towns (suburban), although rural sites still comprised a significant minority. Of a minimum of 90 medieval hospitals in Yorkshire, 72 are urban or suburban, almost half of which come from York alone, and a similar figure of 82% of the minimum of 90 hospitals from East Anglia were urban or suburban (Gilchrist 1995, 14). This is exemplified by Hedon, Yorkshire, an urban centre that formed late in the 12th century, never acquiring a monastery or nunnery, but was supplied with at least four hospitals (Palliser 1993, 3). This focus on the urban may explain the prevalence of hospitals that supplied care for poverty and infirmity. During the first centuries of the later medieval period leprosy was clearly a concern, often viewed as the common scourge of the later medieval period, and many of the first hospitals founded at the end of the 11th century were leprosy hospitals, including St Nicholas, Harbledown, founded in the 1080s by Bishop Lanfranc, which may have been one of the first hospitals in England (Dainton 1976, 532). From this start the first great wave of hospital foundation in England occurred in the second half of the 12th century and through the first half of the early 13th century, during a period of economic and demographic growth, urban development, growing trade, and a proliferation of markets and fairs (Rubin 1989, 43). It was at this point and in the centuries later that St Leonard's, York, the largest hospital in England, was caring for over 200 inmates, and the hospital as a whole was valued at over £300 (Cullum 1993, 11). The hospital was staffed by male and female religious, both living to the Augustinian Rule, and enjoyed the privileges associated with a religious site, including a Liberty and a large site within the walls of the town by 1100. However, the site went into decline, likely due to economic factors, and was only supporting 60 inmates when it was suppressed (Cullum 1991).

This was also the time that hospitals for pilgrims and travellers may have reduced in relative importance partly due to them costing more than they brought in, especially at high-traffic sites like Canterbury, where the cellarers accounts noted that the amount spent

to house the pilgrims exceeded the shrine offerings for the year (Bell and Dale 2011, 617). A clearer understanding of how these sites functioned would be a benefit to the archaeology of pilgrimage, which has been more focussed on shrines and the physical accompaniments, such as staffs and badges, rather than the buildings and landscapes associated with it (Stopford 1994). Leprosy hospitals were also declining, and many converted to almshouses, but some were also reconstituted to act as secular colleges, chantry chapels, or grammar schools. The leprosy hospital at Sherburn was so impoverished that in 1434 it was reconstituted to focus on almsmen, although housing for two lepers was maintained, if that many could be found (Carlin 1989, 23). Multiple purposes was a common feature of later medieval hospitals; for example the London hospitals of St Anthony and St Bartholomew were noted for their high standards and their status as exceptional educational establishments (Rawcliffe 1984, 2). Despite the issues experienced by many hospitals in the 14th to 16th centuries this was another period of rapid hospital foundation and support, although this time focussed on almshouses and support of the deserving poor, evolving into the main form of benefaction for the infirm and elderly poor (Bonfield 2013, 29; Goose 2010, 3). One final form that might be of interest archaeologically but would likely be incredibly difficult to interpret were those domestic houses left in wills to house the poor, sometimes referred to as *maison dieu*, and an as yet under-investigated hospital institution (Cullum 1993, 11).

Whilst the architectural layout and buildings of these sites will be discussed further in Chapters 3 and 4 there are some generalised perceptions of the architectural development of the English and Welsh hospitals that bear note. Despite the debates over categories of hospital and the relative proportion during the later medieval period, little work has actually been carried out on the hospital buildings themselves, or the association between the cemetery and the buildings (Roffey 2012, 203). There has been much more emphasis placed on understanding the nature of the buildings on the Continent, and in many ways, this reflects the lessened impact archaeology has had on the conceptualisation of the hospital in comparison with historical studies. The limited studies on the buildings that there have been were architectural studies such as Godfrey (1955) and Prescott (1992). These highlighted that the majority of hospitals cared for between a dozen and 20 inmates, with some caring for as few as two individuals, and the form varied greatly, with larger ones seeming to take on a monastic plan from the 13th or 14th century, and smaller ones imitating the parish church, with a chapel at the east end and the nave serving as the dormitory. During the later medieval period there appears to have been an overall move

from a monastic or church arrangements to a domestic or collegiate plan with an increase in private housing over the later medieval period (Cullum 1993, 12; Gilchrist 1995, 55). One of the earliest collegiate quadrangle almshouses was founded at Ewelme, Oxfordshire, in 1437 by William de la Pole, Earl and later Duke of Suffolk, and his wife Alice, herself a granddaughter of Geoffrey Chaucer (Godfrey 1955, 45). The Duchess of Suffolk also built the church at Ewelme, where she was buried, and nearby were the 13 almshouses arranged in a covered cloister around a paved court. A grammar school was established down the hill, linked to the cloister by the school master's lodgings and offices, all with porches facing the north. In some cases these two styles appear together, such as the collegiate quadrangles that formed the almshouse of Noble Poverty that was added to the more traditional monastic plan of St Cross, Winchester, by Cardinal Beaufort in the 15th century (Belfield 1982; Hopewell 1995). This transition from the common infirmary hall and chapel to a more collegiate system has been interpreted as the transformation of hospitals from sites of open temporary refuge and assistance to an institution with set numbers of resident beneficiaries relieved of all duties (Godfrey 1955, 45). However, the broader evidence does not corroborate such a clear transformation. Indeed the great variety in the form of hospitals, both in size, inhabitants, and religious nature, cause significant issues in producing a general description of a 'typical' layout of an English hospital, and given that ancillary buildings rarely survive, any such description would be lacking important information (Cullum 1993, 12).

The Hospital Residents and Daily Routine

Most masters of a hospital were male and were appointed by the patron, but some allowed the inmates to elect a member of staff to the position, such as St John's, Oxford, founded by Henry III in 1213 for infirm poor and travellers to remedy health (Dainton 1976, 534; Orme and Webster 1995, 77). Masters were expected to act to a high standard of conduct, with the master at Wells, Somerset, expected to be an expert of temporal and religious matters and be without vice. At Heytesbury, Wiltshire, the master was not allowed to visit the alehouse, hunt, or play cards or handball, nor could he be away from the site at night, visits away from the hospital during the day should be as short as possible, and he also acted as master of the village school (Dainton 1976, 534). Where sites were under the control of another religious institution the masters were usually clerics who would also follow the rule of the house (Cullum 1993, 11–2). Towards the end of the medieval period secular priests became more common as religious communities at hospitals diminished,

and in many cases, laymen held the position of master; for example, Master Hugh of St Leonard's, York, was a layman who was expected to wear the habit of the house and live chastely without property. The general status and wealth of the masters varied greatly, although from the 13th century the larger sites began to be run by wealthier and more well-known men when the personal households of the position had grown and were often seen as the same level of power as a small monastery (Orme and Webster 1995, 77–8). The position of warden was frequently given to relatives or friends of the principal patron, and as such were often absent for some or all of the time, or held multiple other positions (Dainton 1976, 537). An example of this nepotism and pluralism can be found in the actions of a Bishop of Winchester who appointed his 18-year-old nephew as master of two hospitals, one in Winchester and the other in Portsmouth, as well as an archdeaconry, and two canonries, all held at the same time. One of the main duties of the master or warden was to manage the household of the hospital, oversee the finances of the site, and maintain the provision of alms in a site of piety (Roberts 2007, 59).

The rule that seems to have served as the basis for most hospitals was the Augustinian, centred on vows of chastity, poverty, and obedience that were less constricted, shorter daily offices, and the church was not such a focal point of the day (Cullum 1993, 13; Rawcliffe 1984, 5). Canons did not have to do physical labour and the Rule allowed them outside the cloister, as well as a less restricted diet which included meat, unlike monks, with more opportunity for conversation. This looseness in the Augustinian Rule was more ideal for institutions that had duties other than the maintaining of the rounds of *Opus Dei*, such as the hospital (Cullum 1993, 13). Typically, the lay brothers and sisters of a house would also take vows of chastity, obedience, stability (i.e. permanence of residence), and the giving up of personal possessions. In the hospital-priories, of which St Mary Spital, London, is the best excavated example, religious and caring activities were split between the sexes, with the canons carrying out regular religious observance the lay-brethren seeing to the general maintenance of the site and daily activity, and the sisters and lay-sisters caring for the inmates and carrying out the domestic responsibilities, sometimes aided by male staff (Gilchrist 1995, 16; Rawcliffe 1984, 5). This separation of duties is reflected in episcopal injunctions received by St Thomas the Martyr, Southwark, after a visitation of 1387, when the brothers were encouraged to conform to the Rule of St Augustine, study the scriptures, the chant, grammar, and the observance of the rule, and carry out the canonical hours (Carlin 1989, 32). They were also, and at all other times than when saying divine office or on the business of the house, to occupy themselves in the

cloister with study, whilst in contrast, the sisters, also professed into the Rule of St Augustine, were to supervise the sick and poor daily, visiting each personally. Such a clear gender divide is less obvious in smaller houses, such as St John the Baptist, Winchester, and both the permanent brothers and sisters would undertake the same formal religious vows as well as accepting the charity of the house.

More generally the medieval hospitals served to provide opportunities for the staff, many of whom may also have been poor or in an area suffering underemployment (Horden 2005, 384). In particular they provided women with an opportunity to join a religious community, but with a more pastoral role than compared to the traditional nunnery, and provided more places for women seeking a religious life (Gilchrist 1995, 16). This expression of female piety was likely reinforced by the number of religious women of the early and mid-13th century that acted as role models for those women wishing to maintain a secular but spiritual life or to undertake a more active and successful religious lifestyle. These included St Clare of Assisi (1194-1253), founder of the female Franciscan order the 'Poor Clares', Isabelle of France (1223-69), the founder of the Franciscan convent of Longchamp and renowned for her piety and charity, and St Elisabeth of Thuringia, a role model for widows who founded, supported, and lived within her own hospital to provide for the poor (Courtenay 2007, 84). Only a handful of the lay brothers or sisters cared for the inmates, with the majority acting in non-care duties, one of which was serving as the proctor, whose duty was to collect alms (Dainton 1976, 534). The hospital was often highly reliant on gathering passing alms and hospitals inmates of all forms were renowned in wider literature as the insistent collectors of alms (Orme and Webster 1995, 45).

When entering the hospital inmates removed themselves from the outside world, subordinating themselves to specific spiritual regulations and taking on the identity of a religious (Leistikow 1967, 25). It is likely that not all inmates would have been expected to adhere to the Rule or statutes to the same extent as the staff, although frequent prayer and a strict religious lifestyle would still have been maintained, with daily prayer for themselves and for the founders and patrons of the hospital being standard practice at all sites (Cullum 1993, 11; Furniss 1968, 245; Rubin 1989, 48–9; Tremayne 2010, 35). The actual schedule of prayers undertaken could vary greatly, and was highly dependent on the wishes of the benefactor. For example, the brothers and sisters of St Laurence, Canterbury, were expected to be present at all the offices of the day to say their beads, whilst at St Bartholomew, Sandwich, they were only expected to say two psalters, one in the morning and the other after dinner (Sweetinburgh 2003, 26–7). Even at the later almshouses, such

as Hellard's Almshouse, Stevenage (Hertfordshire), was also known as All Christian Souls House, the three poor people supported were expected to daily pray for the soul of Hellard, as well as say three paternosters, three aves, and one creed (Ashby 2005, 5). The church or chapel would have been accessible to staff, the inmates, and even visitors and passing travellers at all times of the day (Tremayne 2010, 36).

As was discussed above, hospitals rarely noted statutes in any number before 1260 and then usually as visitation ordinances or upon foundation (Watson 2006, 83). These documents were also less elaborate, briefer, and concentrated on limiting extreme or contentious behaviour deemed detrimental to the community, as well as to enforce administrative practice that could include basic common rights, the form of accounts, or the nature of election or appointment. As such, the rules and statutes of a site were likely initially highly dependent on the patron and the master, tempered to suit the needs and aims of the individual hospital, rather than the overbearing imposition of a Rule that might be in many ways unsuitable, especially for sites caring for the infirm or elderly. The difficult nature of the hospital lifestyle is indicated by the changes that occurred at St Mary Elsyng, London, initially founded in the early 1330s by William Elsyng with a staff of regular clerics who were replaced after nine years with a community of Augustinian canons in the hope they would be less distracted by the secular lives around them, leaving them more committed to the ideal of Christian charity embodied by the hospital (Rawcliffe 1984, 5). This looser approach evolved into what were essentially secular rules based on the Augustinian way of life, allowing priests to carry out pastoral care, teaching, and charity, but still maintaining purity and modesty in routine, and with the full liturgical life (Rubin 1989, 49).

That being said, some hospitals held all strongly to the rule and maintained a strict monastic lifestyle of penitence with expulsion being the punishment for deviation from the rule, seen especially amongst those hospitals caring for leprosy (Cullum 1993, 11; Rawcliffe 2001, 248–9). The 12th-century foundation of St James, Westminster, is a good example, where a house for leprous girls and virgins and eight Augustinian brothers carried out a strict daily routine of penance and prayer, with clothes of one colour, either russet or black, daily aves and paternosters and weekly confession (Gilchrist 1995, 17). Whilst other rules or orders were used in small numbers, such as the Trinitarians or the canons of the Holy Sepulchre, these were in very small numbers and often utilised modified Augustinian rules themselves (Orme and Webster 1995, 69–74). In general, the English hospitals usually implemented their own unique rules and statutes or copied these from nearby hospitals

rather than hold to a full rule, allowing greater flexibility that matched the flexibility of their constitutional form. Each house was also affected by individual circumstances, such as available land, social status of the inmates, patronage, and the intensity of ailment, all of which modified the necessary rules for the hospital (Courtenay 2007, 79; Cullum 1993, 11; Roffey 2012, 219; Tremayne 2010, 7).

Discipline, obedience, and piety were always of great emphasis, as was a calm and patient demeanour. Such attributes were understandable imperatives given the small intimate nature of the communities, where religious of both sexes lived in close proximity to each other and to the wider urban surroundings, often with staff recruited predominantly from the local community, replete with familial ties to relatives potentially living in nearby neighbourhoods (Brodman 2007, 127; Tremayne 2010, 35). The needs of the community would require clear guidelines that may be less necessary for single-sex communities, and a separateness with the outside world would have to be remained for the health of the religious community (Brodman 2007, 127). This maintenance of discipline, piety, and obedience was one of the roles of the master, and was usually dispensed at a weekly meeting to deal with infringements, the punishments ranging from a fine, flogging, or fasting (Dainton 1976, 534). A hospital at Reading punished inmates by making them sit in the centre of the dining hall at mealtimes and eat only bread and water, with his share of food distributed to the other residents. The lepers residing at St Mary Magdalen, Gloucester, from the late 12th century lived under a rule that stipulated all had to observe patience, obedience, and charity, maintain strict gender segregation, and submit to correct at a general meeting of the house for all transgressions against the rule or community (Roffey 2012, 219). The presence of strict community segregation, the suggestion of a formal arrangement of buildings, and the provision for an assembly of the community were common traits to all hospitals, and also draw parallels with monasteries more generally (Roffey 2012, 219). In this case the focus on discipline and observance but without a clear unifying rule suggests that it was not intended to create a religious character for the site, but was a way of ensuring the spiritual function inherent in the constitutional form was discharged properly (Brodman 2007, 132).

The need for discipline and piety likely explains the clear importance placed on only admitting people who would conform to the good practice of the house and maintain the good standards intended on the site. Many hospital rules and statutes included clauses on admission, that were to be upheld and implemented by the master of the house, such as those of St John, Cambridge, and St John, Bridgwater, which excluded the chronically ill and

permanently maimed, as well as pregnant women, sufferers of leprosy, the wounded, and the insane (Carlin 1989, 25; Rubin 1989, 49). Such individuals were deemed to be intolerable to the community, and would be expelled immediately if accidentally allowed in, hinting that much of the care over admittance was about the perceived purity of the community as a whole, not necessarily the health of the individuals. There were a handful of mixed hospitals or dedicated sites that were less restrictive, such as St Paul, Norwich, and St Mary Spital, London, where pregnant women could go for childbirth (Gilchrist 1995, 14).

The care for the sick or chronically ill could also turn into an unwanted and impossible burden, and the majority of hospitals focussed on those who would benefit from a short stay or else those who became permanent residents, be they lepers, the elderly, or the infirm (Rubin 1989, 49). Whilst this latter group would likely have provided some of the issues associated with the sick and chronically ill, such as expensive and time-consuming care, these groups often remained at the site for the rest of their lives, giving up any possessions to the house and paying for burial within the hospital cemetery. Their choice to permanently enter the hospital was an indication of dedication to the lifestyle and the house rather than temporary need, and the imminence of death or the association with misfortune and judgement from God may have added to their wish for the religious life. It was likely this wish for a good Christian life that would counteract any intolerable essence on their soul that likely counted when looking for admittance, and may explain why at some sites the leprous and the unafflicted lived together on the same site. At Hellard's Almshouse, Stevenage, the trustees had four months to fill a vacancy, with agreement going to the majority, or if a tie, then the rector of the parish would hold the deciding vote, emphasising the continuing selection based on piety and spirituality amongst those sites without a dedicated religious community (Ashby 2005, 5).

Whilst the theoretical intent of these sites was to create an environment of piety, obedience, and good living, the reality could often fall short of these ideals. Cases of corruption, theft, and disorder are scattered throughout documentary sources referring to hospitals from the 13th century onwards. An inspection of the kitchens of St Thomas, Southwark, by the Bishop of Winchester in 1387 led to the pronouncement that the food was "dangerously inadequate", requiring the master to immediately rectify the situation or be suspended (Rawcliffe 1984, 13). At St Mary Spital, London, when it was discovered in 1431 that the 7 sisters were being heavily overworked and being deprived of adequate clothing and a proper diet, the actions that received the highest censure from the Bishop of London

was that the sisters and brothers were consorting illicitly in the kitchens (Rawcliffe 1984, 14). In 1403 a royal commission investigating abuses by the porter and acting deputy warden, Peter Taverner, found that he had, along with his wife, exploited his position to steal the entire revenue of the hospital for the past 4 years, as well as portions for the past 14 years, stealing not just money from the almsboxes and the food given as charity to the patients, but also bedding, cooking utensils, gardening tools, two keys to the garden gate, a bier, four pairs of iron manacles, 5 chains of iron, and six iron chains with locks (Carlin 1989, 34). By the second half of the 14th century several masters at St Leonard's, York, excluded the poor in favour of fee paying residents, and at St Mary Spital, an episcopal visitor in 1303 found that legacies for the sick poor were not being paid, food and drink for the poor were being limited below the supposed level that should have been offered, and lamps intended for the solace of the infirm had been taken (Carlin 1989, 34-5). The bishop ordered the legacies be restored, the food allowances increased, and that lamps should be returned, but at the cost of the hospital, not by selling the clothes of the poor. In general, such extreme cases of clear corruption were vastly outnumbered by cases of laxity, with repeated visitation records indicating masters, the religious brothers, or the lay-sisters from many sites needed reminding of their sacred duty to visit and tend the inmates daily (Rawcliffe 1984, 14).

This seems to fit more broadly into the pattern of perceptible decline more generally across religious institutions, both spiritually and economically. This resulted in closures and decay amongst hospitals, as well as possibly tying into the increasing practice of fee-demanding almshouses, secular colleges, or schools (Carlin 1989, 34; Rawcliffe 1984, 14). Communities often shrank, and privacy increased, especially for the head of the house who often gained separate lodgings, whilst the strict monastic elements of the rules or statutes were often relaxed, allowing private eating at meal times or reducing the limits on meat (Cullum 1993, 12). It might also be argued that the additions of these elements to a traditional hospital might have some added benefits, over monetary stability. The frequent presence of choirboys at larger hospitals or the addition of an educational facility could also reflect the use of liturgical music and the encouragement or reading and contemplation of God as elements of a more holistic routine that was aimed at the care of the body and soul, alongside other practices such as prayer, relics, and the divine offices as efficacious cures (Courtenay 2007, 89). Hospitals maintained at least the basic complement of service books for worship, and may also have provided books for pastoral care (Rawcliffe 2002, 147–8). In some cases there is direct mention of the inmates being encouraged to read, as at Richard

Whittington's London hospital, or being left books to read, as indicated in the will of one of the first chaplains of Brown's Hospital, Stamford (Rawcliffe 2002, 129). Books and reading are an unappreciated element of the work carried out at hospitals, and given the evidence discussed by Rawcliffe (2002) also hint at members of a range of hospital communities, from hospitals caring for sufferers of leprosy to infirm priests and pilgrimage hospices, where small libraries were present and accessible to the inmates.

The actual institution of the hospital represented only one part of a wide spectrum of social welfare activities, but it was one of the more visible sections (Horden 2005, 378). The majority of those people in the medieval world who fell sick, suffered poverty, or travelled the roads of the kingdom did not make use of the hospital, instead relying upon family, friends, and neighbours (Sweetinburgh 2003, 35). Overall numbers of inmates housed in England is relatively difficult to ascertain, although a snapshot of the year 1390 suggests c. 470 operational hospitals that on average may have cared for ten people, yielding an estimate in the region of 4,700 inmates (McIntosh 1988, 216). Since there were around 9,000 parishes in England at the time this suggests one person for every two parishes was being cared for in these institutions, implying that the vast majority were cared for unofficially by family and neighbours in a manner unseen archaeologically. This relatively low number is contrasted with the period from 1465 to the 1530s when the number of idle poor seems to have risen and vagrancy became an increasing issue (McIntosh 1988, 217; McIntosh 2012). One interesting point highlighted from the Cambridge assizes of 1260 were the number of paupers dying of hunger and exposure, reflecting both the selectivity of alms provision but also the sentiment of the wider community who were not providing this more informal care (Horden 1988, 371–2).

Outside of the more open system of almsgiving possible with the medieval hospital, alms of money and food provided a substantial level of support by the state, the Church more widely, and other wealthy individuals (Horden 2005, 386). Direct alms-giving by cathedrals could be significant to the poor of the city, as in the case of the £62 of alms given a year by Lincoln Cathedral during the first half of the 14th century (Lepine 2011). The hospital was also likely a more limited form of the alms provided by the manor or guilds and confraternities (Horden 1988, 371). The availability of other forms of alms and the reliance on horizontal aid in the form of familial and informal community aid indicates that those men and women who chose to enter the hospital were an unusual group, placing themselves under a more restrictive regime and risking the fragmentation of their household (Sweetinburgh 2003). Such a lifestyle may have found particular attraction

amongst the elderly, infirm, and bereaved, whose limited means, inability to work, and closeness to death might be ameliorated by the nature of hospital living. Most worked for their place through prayer and supporting the communal life through domestic chores and begging, and so the life was not necessarily easy, although likely tempered slightly towards ability (Sweetinburgh 2003, 36). Although this monastic lifestyle would have been clearly of benefit to those unable to support themselves, it could still be a vigorous and sometimes dangerous one. More widely in monastic communities the continual routine of prayer and work could lead to collapse and exhaustion, and miracle texts are replete with examples of monastics who suffered physical and mental injury through their lifestyle (Kerr 2008).

The Changing Face of Patronage

The sick poor were believed to represent the living manifestation of Christ and the Passion, and this in part served as the foundation for the widespread support of the poor and the popularity of the ideal of poverty (Courtenay 2007, 87). The poor were also “*blessed... in spirit for theirs is the kingdom of heaven*” (Matthew 5:3), and this power over entry to heaven became a key fixture of the basis of hospital charity, the exchange of worldly wealth from the rich for spiritual prayer from the poor (Bonfield 2006, 187; Sweetinburgh 2004). Related to this was the hope that giving would reduce the suffering experienced during purgatory, a belief based on Church teachings that saw man as sinful and that this sin would need to be atoned for before entry to heaven (Ashby 2005, xiv; Sweetinburgh 2004). Intercessory prayers were held to hasten the soul through purgatory and could be bought through charitable acts such as supporting hospitals, and it is perhaps not surprising to note that religious observance and prayer became prerequisites to entry of hospitals (Rawcliffe 1984, 11). This form of gift-giving was slightly unusual since the act did not focus on the gift and so it did not place the church in the donor’s debt, but instead located it as an intercessory agent in a relationship between the giver and the supernatural (Moreland 2010, 113–4 n. 48). In return for physical and spiritual care, those deemed worthy of aid were obliged to intercede for the salvation of the founders and other benefactors by a constant round of prayer, joining priests and choristers to turn the medieval hospital into important locales of liturgical performance and religious activity (Ashby 2005, xv).

Inmates of Milbourn Almshouse recited the psalm *de profundis* and a paternoster, ave, and creed every morning, as well as prayers for the salvation of their patron. At Whittington’s Almshouse they held daily attendance of all the monastic hours, prayed for the souls of

Whittington and his wife every morning and night, and filled idle moments with the recitation of several psalters of Our Lady, three ave marias, and 15 paternosters (Rawcliffe 1984, 11-2). Only the seriously ill were excused this daily routine. The increase in foundations observed from the 12th century onwards may be linked to a society-wide awakening to a need for spiritual cleansing through the prayers of the poor (Courtenay 2007, 104–5; Sweetinburgh 2004). This seems particularly evident in the rich and powerful aristocracy and urban patriciate who were benefitting from the labours of the lower orders, leading to a huge investment throughout the spiritual economy, but particularly in hospitals (Ashby 2005, xv; Roberts 2007; Sweetinburgh 2004). This act of alms for defined spiritual recompense was best illustrated by the widespread support for the chantry chapels, and the nature of this gifting to institutions that were not the public venue of the parish church and wider community suggest that these other institutions were perceived to provide superior intervention for the soul despite their enclosed nature (Postles 2001).

This 12th century increase in foundations can be seen within the wider context of monastic growth during this century. This wider growth was felt across Europe, through almost all orders and forms of religious institution, including the rise of the mendicant and military orders (Aston 2001). There was clearly widespread and extensive support for religious institutions, but larger establishments seem to reduce from 1300 onwards in many areas, including places like the north-east of England (Aston 2001, 28). This slowdown may have been caused by the extreme financial burden of such large numbers of religious houses, likely close to a thousand across England, as well as limited surplus land suitable for monastic establishments. In the case of hospitals this rapid growth was partly fuelled by a clear rise in the support for poverty, especially clear in the widespread establishment of the mendicants and the surge in numbers of hospitals, and by the 13th century the 'value' of the poor as an actor in schemes of redemption were at its height (Courtenay 2007, 87–8). This value of the poor, was usually centred on the growing support for the familiar and deserving poor, especially from the 13th century onwards, although indiscriminate charity was still provided throughout the period (Sweetinburgh 2002, 240). Interestingly, whilst there was a clear slowdown across Europe in the establishment of monastic and other religious institutions (Aston 2001), there was a continuous establishment of new hospitals throughout the later medieval period. Examination of the gazetteer of sites recorded by Knowles and Hadcock (1971) indicates that from 1300 the number of sites steadily increased, only dipping immediately after the Black Death.

This dip, however, masks the fact that over one hundred new hospitals were still established in the second half of the 14th century (see Roberts 2007 for more details on foundations over time). This clearly indicates that the smaller scale and more limited finances of hospital sites provided a more achievable benefaction. The belief in purgatory and the necessity to atone for all sin before entering heaven was a spur to the foundation of hospitals, and there was a clear connection between the concept, catastrophic events like the Black Death, and hospital foundation (Bonfield 2006, 189). This seems tied to a clearer articulation that those admitted to hospitals and almshouses from the 14th century were true innocents and pious individuals, although arguably this can still be seen before the 1340s. The more malleable nature of hospitals and the direct social benefit associated with them may also explain the longevity of support for this institution. New hospital foundations were a continuous process in the medieval period, with interest sparked during the wider monastic growth of the 12th century but the continuing need for them dictated by the often short-life of these sites and their role in wider social display.

There has been some argument that the 14th century and the various epidemics that decimated the population saw the shrinking of demand for charity and the availability of funds to support the hospitals (Rubin 1987, 49–53, 291). This may actually be more reflective of changing fashions, with fewer monastic hospitals being established (i.e. those established by or run through monasteries) and the increase in secular hospitals (i.e. those run by secular administrators and guilds) (Gilchrist 1995, 12). Arguably this shrinking of demand may have had a larger effect upon older hospitals more reliant upon rental income which was becoming less lucrative with the greater bargaining power of the reduced population (Cullum 1991, 4). Henderson (1989, 66–7) noted that in Florence the opposite seems to have been true, with hospitals instead increasing in size and specialisation. The foundation of hospitals had begun to slow by the end of the 13th century in northwest England and Wales, and there was a general hiatus in foundation during the middle of the 14th century, although this is not evident in the east of England (Roberts 2007, 176). In England hospitals from the second half of the 14th century onwards were increasingly founded and supported by the urban elite (Cullum 1991, 4; Roberts 2007, 52). Care for the deserving poor was on the rise, since economic factors were increasingly affecting labour demand and supply. Almshouses were more frequently founded, especially in the mercantile hubs of the southeast and the midlands, where local polarisations in wealth fostered by the wool trade of the latter half of the 15th and into the 16th century likely increased the number of deserving poor (McIntosh 1988, 221–224).

The nature of the constitution of the English hospital established an alternative to personal almsgiving that was visible but also close to centres of importance, providing a permanent stage for publicly visible displays of their charitable lordship to the pious poor and needy (Watson 2006, 92-3). These new foundations were located at town gates, on marginal land, and on the edge of urban centres of business, commerce, or social activity (Roberts 2007, 43–51; Rubin 1989, 46). The hospitals, especially those in and around urban areas and on well-travelled roads, were purposefully located as a symbol of piety, generosity, and an indicator of social responsibility expressed by the leading clerics and elites of the area (Roffey 2012, 222; Ziegler 2011, 8). By locating hospitals on the roads out of towns, such as can be seen at Winchester with St Cross on the southern road and St Mary Magdalen on the east road, patrons could effectively brand the landscape with the markers of their prestige and piety (Roffey 2012, 222). With these clear markers of the relationship between wealth and poverty, power and charity, it is not surprising towns have become a focus for the study of poverty and charity, reflecting a network of social, economic, religious, and political circumstances that acted upon support of the needy (Rubin 1989, 42). Hospitals have also been highlighted as a good indicator of small-scale urbanisation and wealth, since they were more economically supportable than larger priories or even friaries (Dyer 2003, 104; Palliser 1993, 3). They can serve as an indicator of the extent of built up areas, urban defences, and the edge of the legally defined town. Unfortunately this focus on the urban has led to a lack of appreciation for the role of rural sites in this interplay, and left non-institutional forms of care understudied (Rubin 1989, 43).

The more secular form of some of these institutions, especially in the last few centuries of the later medieval period, were actually still very similar to the more traditional canonical or monastic institutions that were more common earlier, located in similar locations and caring for the same types of people (Courtenay 2007, 79). The expansion of charitable institutions also served as an outlet for newly prosperous peasant-holders, manor administrators, master craftsmen, and tradesmen to improve their local environments and tackle the varied issues caused by urbanism, such as the poverty gap, disease, and unemployment, whilst simultaneously exploring opportunities to patronise local religious and charitable houses (Rubin 1989, 43-4). The sites were still expressions of personal piety, wealth, familial commemoration, and architectural patronage, all bound together with the salvation of the founders and benefactors through fiscal or material endowment. It should always be borne in mind that to those supporting these sites the benefits were both tangible and psychological, a definable boon for themselves that was as understood as the

benefits to the poor who were being supported (Courtenay 2007, 79). As such, poverty and illness were problems that were acknowledged and mediated but never resolved, and in fact the existence of these groups was necessary for the social order, particularly with the increasing focus on the deserving poor (Gilchrist 1995, 9).

Hospitals were supported by the full range of medieval society but there was a steady shift from the highest levels of society, such as kings, queens, bishops, monasteries, and nobles, founding the earliest hospitals to a larger proportion being founded and supported by mayors, merchants, and other urban elites from the 14th century onwards (Roberts 2007, 22–42). In particular hospitals were keenly supported by the local burgesses, as well as streams of donations and bequests from other townsmen and local villagers of some wealth (Rubin 1989, 46). Whilst often established by individuals, hospitals were frequently put under the administration of or made dependent upon outside institutions, such as local monasteries or town councils, which oversaw the overall administration of the site, and if they were large enough and held communal property and tithes this would place them under the monitoring of the diocese (Courtenay 2007, 80; Cullum 1993, 11). St Bartholomew, Smithfield, was initially dependent upon the nearby priory until its size and importance provided an element of independence, as was the case of St Leonard, York, which was initially dependent on the Minster. The six hospitals of Bury St Edmunds were all dependent on the abbey, and were aspects of the abbey's provision for the welfare of its own members as well as lay neighbours (Rowe 1958, 257).

Gifts of money, material items, and lands formed the basis of support for most hospitals, usually subsidised by begging, payment for prayers, offerings to any relics, and burial dues (Dainton 1976, 534; Gilchrist 1995, 13). The majority of gifts were small in nature, however, either limited annual rents or regular payments provided by lesser local lords or townfolk, and the local community often took a very active interest, noting any deterioration in the site, testifying during inquests and visitations, and during the latter half of the medieval period increasingly taking an administrative role in many houses (Watson 2006, 93). Ela, countess of Warwick, who died after 1303, left St Mary without Bishopgate bequests that included perpetual annual payments of £1 for milk, £1 for sheets, and £1 for firewood, whilst in 1458 the former London mayor Stephen Forster left £10, and in 1479 London mercer John Don, left £13 6s. 8d. to St Mary Bethlehem for food, drink, linen, and woollen clothing for the sick poor set there (Carlin 1989, 31-2). St Mary Magdalen, Colchester, received a range of small gifts from local parishioners, including the sum of 6s. 8d. in 1394 from the merchant John Baker, whilst the wealthy merchant Edmund Harmanson from

New Hythe, left 20*d.* to the church and 4*d.* to each of the inmates in 1502 (Cooper 2004, 92). As many as two-fifths of wills left something to hospitals around Norwich in the period 1370-1532, with many providing token gifts as a conscious act of piety to aid the soul (Bonfield 2006, 188; Rawcliffe 2006, 302).

The dependent relationship between benefactor and hospital allowed a wide range of responses to charitable giving, either leaving the utilisation of the gifts to the hospital or providing the flexibility in the legal language to allow the patron to create a network of obligations that structured the moral and religious symbolism inherent in the giving and receiving of gifts (Sweetinburgh 2002; Sweetinburgh 2004). These small but frequent donations from a multitude of patrons may have aided the hospital when it had to adapt to new circumstances. With the increasingly resource-scarce decades of the 14th century a more discriminating attitude towards welfare provision can be seen that continued on for the rest of the later medieval period. Charity was becoming overtly concerned with the ability and will for an individual to work, a tension that became increasingly evident in the later medieval period as the contrast between the deserving poor and the idle was heightened in both hospital patronage and art (Metzler 2011, 50–1). The monastery of Westminster increasingly targeting the worthy local poor, especially those with addresses, and hospitals set up by guilds and town corporations appear to have been more disciplinary and corrective sites, aiming to removing groups thought to be liable to break public order, such as the poor and sick (Gilchrist 1995, 61).

The increasing influence of secular patrons saw the reduction in the professed religious community, linked to feelings of increasing civic responsibility and influence and a mistrust of monastic hospitals which seem to have had many accusations of financial maladministration. Such concerns were even raised in the Commons of the Parliament in April 1414, where it was asserted that wastage and corruption were causing the deaths of those the hospitals were supposed to be saving (Dainton 1976, 538; Rawcliffe 1984, 15). This less formal and more flexible constitutional form, as well as the need for ecclesiastical approval and protection producing a new relationship of dependence with the local bishop through the adoption of rules or particular statutes, led to disputes over rights, often over complaints of usurped control by the patron or bishop (Rubin 1989, 47). In the 1280s and 1290s St Mary Magdalene, Southampton, saw the right to appoint the warden taken away from the burgesses and placed into the hands of Edward I, which was then challenged by Bishop Pontoise in 1285, before the site was seized by the sheriff of Hampshire and restored to the crown, only for the right to appoint masters be returned to the burgesses of

Southampton in Easter 1291 (Tremayne 2010, 37–8). This was challenged again in 1342 by Edward III, who then placed the hospital and all its possessions under the control of the Priory of St Denys due to the poor financial situation of the hospital, to the anger of the burgesses. At St Mary Magdalen, Colchester, there was a dispute with the abbey in 1301, when the inmates rejecting the recently appointed master, Roger of Crepping, instead electing one of the leprous inmates, Simon of Nayland (Cooper 2004, 91). In part this dispute concerned the payment of the lay subsidy, for which houses governed by a leper were exempt from paying, but it also served as a general challenge to the abbot's authority over the hospital. The abbot responded by removing the charters from the hospital, and also dragging Simon and another brother of the hospital out of the church and stopping them from returning to the hospital (Cooper 2004, 91).

More direct and controlled sources of income were always welcomed by hospitals, some of which managed to acquire the rights to hold markets or fairs from the Crown, the largest being the annual fair at Sturbridge, near Cambridge, granted in 1211 by charter by John I for the lepers of the Hospital of St Mary Magdalene located there. Another source of finances that grew in importance during the later medieval period was the practice of corrodies, the purchase with money or land by the elderly or infirm wealthy of shelter, food, drink, clothing, and general care at religious institutions, a practice common at hospitals. Whilst the practice of corrodies has been seen as financially damaging, and there were repeated episcopal injunctions against them from the 13th century, recent research using actuarial techniques have suggested that they may have been purposefully over-priced to offset potential loss, but that the derived income might have been invested poorly or squandered (Bell and Sutcliffe 2009). The popularity of this form of aid would imply that the overprice was deemed acceptable due to non-pecuniary benefits, such as prayers for the soul and the provision of bodily care.

Serious economic difficulties were experienced by virtually all the hospitals in England, but it would be incorrect to always blame waste or corruption. The fall of land prices after the Black Death was another pivotal issue that had severe consequences for many houses, whilst over-ambitious building schemes often led to financial ruin (Rawcliffe 1984, 15). Underlying these problems was the precarious nature of hospital funding, with only a part of the income coming from stable rents and tithes, and the rest entirely dependent on continuing public charity (Rawcliffe 1984, 15). Inflation in the late 14th and 15th centuries rendered the small endowments provided to these sites inadequate, and public generosity was aimed increasingly at parish churches and friaries (Cooper 2004, 92). Some, like St

Mary's, Bootham, York, became chantries, commemorating the original founder or a later re-founder and their families, or focussed on education, but for many they simply disappeared as land incomes diminished during the 14th century (Rubin 1989, 53). The example of Cardinal Beaufort's almshouse at the Hospital of St Cross, Winchester, highlights how vulnerable these institutions were to changing fortunes of their patrons (Belfield 1982; Hopewell 1995). In this particular case the War of the Roses saw the decimation of its patrons from the House of Lancaster, leading to the site being deprived of lands and income through political powerplays of the leading noble families. Survival required houses to reorganise and redefine their purpose; for example St John's, Cambridge, stopped using the term inmates after the mid-14th century and instead became a chantry that housed numerous corrodians, with the brethren themselves often also serving in chantries across Cambridge (Rubin 1989, 53).

These forms of obligation could often come to weigh heavily on smaller institutions, and in many cases the provision was put aside once living memory had passed and the value of the endowment made the duties untenable. The frequency of papal and episcopal dispensations of the 13th and 14th centuries, freeing houses of charitable duties for relief and hospitality, indicate the scale of both earlier support and the later difficulties it could cause (Rubin 1989, 45). Sometimes administrators departed from monastic precepts of free charity and imposed charges for charitable work (Rawcliffe 1984, 17). The number of small urban almshouses founded from the late 15th century onwards indicate the popularity of this form of poor relief that simply used a domestic house left for the purpose by the founder, and often working to a plan that did not attempt to establish a religious unit observing a liturgical routine but was instead intended to do the bare minimum, clearing the streets or providing a bit of help to the deserving poor (Rubin 1989, 55–6).

Despite the many problems observed at hospitals this should not detract from the sense that patrons and staff of hospitals for the entire later medieval period were usually motivated by a genuine wish to aid others, feelings of civic pride, and a wish to care for their own souls (Rawcliffe 1984, 5). Guilds and fraternities also supported hospitals, sometimes due to the association with the founder of the hospital, or being in close proximity to the site, such as the Pouchmakers and Drapers who supported St Mary Bethlehem, London, but in many cases it is not always clear what the reasons for the associations were (Rawcliffe 1984, 16). In some cases these guilds even integrated hospitals into the undercrofts of guildhalls, such as the Trinity hospital in the Merchant Adventurers Hall, York (Cullum 1993, 11). As an inevitable consequence of the increasing involvement

and responsibility over the hospitals, these laymen began to take increasing control over the way money was spent, and more and more sites fell under lay supervision as exasperation rose over administrative incompetence (Rawcliffe 1984, 17). There were 34 London hospitals and almshouses in the later medieval period, most owing their foundation and support to the wealthy merchants living in the city. In the case of four of the ten leprosy hospitals the mayor and aldermen were directly responsible for running them (Rawcliffe 1984, 17-8). There was a clear intent to provide aid to those who both needed it and deserved it, exemplified in Robert Copland's doggerel poem *The hye way to the Spyttell house*, written c. 1536, which describes the issues facing the porter of St Bartholomew, Smithfield, when selecting the deserving poor, needy, sick, injured, poor wayfarers, maimed soldiers, and honest folk from the disreputable, the drunks, the layabouts, the con artists, and the people who made a living scamming a place in a hospital day to day (Carlin 1989, 27).

Such a series of charitable interactions highlights the importance of these sites and the need to better understand the manner in which they functioned. The hospital also practiced money-lending, even to some of the great-men of Cambridge, such as the squire-burgesses the Dunnings of Cambridge, stepping in to free them from debts to Jewish money-lenders in return for control of the pledged land released as a security (Rubin 1987; Rubin 1989, 48). Interestingly this still played into the role of the hospital as a charitable institution, since it was seen as a Christian charitable act to free fellow Christians from Jewish moneylenders, and highlights the manner in which the hospital, through its benefactors, could respond to the needs of the community outside simple alms and religious practice (Rubin 1989, 48). Such an ambiguous nature, as well as their relative ubiquity can be seen in Chaucer's *Canterbury Tales*, where the Pardoner is from the Hospital of St Mary Rouncivall, Charing Cross (Maxfield 1993). The ill-repute of the hospital evident in Chaucer's work was reflective of issues experienced by the hospital at the time, and shows that audiences of the work would understand both the intended function of the site and the jokes taken at its expense.

The end of the War of the Roses and the actions of the Tudor dynasty encouraged a revived spirit of civic responsibility that led to the establishment of many hospitals (Dainton 1976, 538). Sir Thomas More, writing of his Utopian dream, held a high place for the benefits of hospitals that provided not only a location for the sick to go for treatment, but also as locations of quarantine for contagion that were so well appointed those who were sick would willingly take themselves there rather than lay at home. However, the actions of the

Suppression and the Dissolution saw the disappearance of a significant number of hospitals, and many towns, including London, experienced periods where charitable care virtually disappeared to the detriment of the poor population (Dainton 1976, 538; Godfrey 1955, 45). After the dissolution of the Abbey of Bury St Edmunds, and the associated hospitals, there was public outcry at the loss of support for the needy and elderly provided by these institutions (Rowe 1958, 253).

Although the Dissolution in the 1530s did see a significant drop in the number of hospitals, removing over 200 sites that were deemed overtly monastic in nature, it was the Chancies Act of 1547 that had the most significant impact by removing the practice of intercessionary prayers and confiscating the associated endowments, closing over half of all remaining hospitals and almshouses (Godfrey 1955, 48; Goose 2010, 4–5; Roffey 2008, 167–9). Survival during this time often involved an ambiguity about commemoration or the protection of a strong patron (Roffey 2008, 177–9). In the case of St Mary Magdalen, Colchester, its semi-parochial function and the presence of almspeople seem to have saved it from destruction (Cooper 2004, 93). Whilst in the case of St Giles, Norwich, it was strong support from the local gentry and a concerted aim to form a poorhouse from the site that eventually secured its survival (Rawcliffe 1999, 238–9). Poor alleviation in general became the direct responsibility of the parish, necessitating taxation to support almshouses that had previously been operated through voluntary alms (McIntosh 1988, 234–5). Petitions to Henry VIII and then Edward VI saw the refoundation of several hospitals that helped provide some level of care, but with an overtly secular nature where personal prayer was encouraged but not in an intercessionary form (Dainton 1976, 538; Godfrey 1955, 45, 48). Despite this, later 16th-century almshouses still utilised forms associated with previous centuries, not just in the form of collegiate quadrangles but also cloisters and the retention of infirmary halls, with chapels maintaining importance at the central or eastern extents of the sites (Godfrey 1955).

Leprosy and the Hospital: A Special Case?

In most discussions of medieval hospitals, the sufferers of leprosy are often held as different or suggested to be treated differently to other forms of hospital. The disease *Mycobacterium leprae* is a bacillus disease that affects the nerves and skin, with a spectrum of disease symptoms depending on the extent to which the disease was lepromatous or tuberculoid. These included numbness, blindness, and rhinomaxillary decay, as well as primary and secondary infections, further nerve damage, the loss of extremities, and

extensive bone damage (Magilton *et al.* 2008; Manchester and Roberts 1989; Roffey and Tucker 2012). It has a long incubation period of between five and thirty years and is transmitted through close and long-term contact and nasal mucus.

The main justification for this viewpoint of the differential treatment of lepers has revolved around the essence of the disease itself, since there has been relatively limited archaeological investigation of the leprosy hospital despite there being over 340 sites in England and Wales that cared for leprosy sufferers (Roffey 2012, 203). The work that has been carried out has often focussed on the cemeteries, and little is known of their buildings, inmates, or the institutional context of medieval leprosy (Roffey 2012, 213). Although all disease was regarded as both a spiritual and physical affliction in the medieval period leprosy was specifically connected to sin and in particular sexual sin, either personally or that of a parent, through acts like having sex when a mother was menstruating or on a 'banned' day (Gilchrist 1995, 39). Due to this clear link between leprosy and sin those afflicted invariably took the identity of a religious penitent, seeking repentance through a life of poverty and with a distinctive habit and a clapper to mark themselves out from society (Furniss 1968, 247; Gilchrist 1995, 39; Murphy and Manchester 1998, 13; Rawcliffe 2006; Richards 1977; Tremayne 2010, 16). Although no dedications were specific to any type of hospital, St Mary Magdalene was the most popular choice for leprosy hospitals amongst English and Welsh hospitals, likely due to a mix up between two men called Lazarus in the Bible, the first her brother and the second who died at the gates of a rich man covered in sores, which later became associated with leprosy (Cooper 2004, 91; Roberts 2007, 254). She was also associated with spiritual healing, repentance, and divine cleansing (Roberts 2007, 254; Tremayne 2010, 15).

Leprosy, although present in Britain from the Roman period, is most prevalent in the archaeological record from the 12th century onwards, and particularly associated with urban areas (Roffey 2012, 204). Leprosy appears to have been rare in the Anglo-Saxon period, with no irrefutable literary or artistic evidence of leprosy before the Norman Conquest, and there is no evidence that the sufferers were ostracised or segregated at this time (Manchester and Roberts 1989, 267). This appears to have changed in the later medieval period and the scale of infection amongst the population is hinted at by the rapid and large-scale introduction of leprosy hospitals in the period 1066-1350, accounting for over a third of all active hospitals. This correlation between an increase in the burial record and an increase in hospitals does suggest that leprosy was less of a problem in Europe until the later medieval period and that there was a genuine correlation between the rise of

leprosy hospitals and an increasing prevalence of the disease (Murphy and Manchester 1998, 12). This rise has been associated with the Crusades (Rowe 1958, 256), but the evidence for the assertion is unclear.

What is clear is that from the late 13th century there was a strong and steady decline in the disease (Cullum 1991, 4; Murphy and Manchester 1998, 12; Rowe 1958, 256). The reason for the decline is not certain but may be associated with the rise of tuberculosis, a related bacillus disease to leprosy that could give immunity but was more virulent, either immunising large sections of the population or killing them (Donoghue *et al.* 2005; Manchester 1984, 165–6, 172–3; Murphy and Manchester 1998, 12; Roffey 2012, 214; Tabuteau 2007, 49–50). The multitude of epidemics, famines, and Black Death during the 14th century would have been an incredible dangerous period for those with a weakened immune system and body, also likely contributing to this drop by wiping out significant numbers of the leper population (Roffey 2012, 214–5; Rowe 1958, 256). Notably the correlation between leprosy hospitals and the presence of leprosy in the cemetery population is surprisingly clear, especially given the likelihood that bone change is likely displayed in only 50 percent of leprosy cases (Cullum 1991, 4; Manchester 1984, 171; Manchester and Roberts 1989, 267). This would argue against the suggestion made that diagnosis of leprosy was often poor or that the hospitals included a lot of people with other forms of skin complaint.

The Biblical Levite laws on ritual impurity indicated that those with signs of leprosy were to be taken to the priest for assessment, after which they would go through a ceremony of ritual death, and would then be sent to live outside the camp of their families (Covey 2001; Leistikow 1967, 33; Richards 1977, 49). This course of action was reinforced by the edicts of the church, such as Canon 23 of the Third Lateran Council in 1179 that stated lepers could not dwell amongst the healthy (Richards 1977, 49; Roffey 2012, 220). This has encouraged the impression that there was a clear response to leprosy that suggests elements of exclusion, significant restrictions on their movement, and limited access to populated areas, but there were also indications that these restrictions were not always active or enforced (Rawcliffe 2006; Richards 1977). The disease was particularly associated with sin as well as the consumption of unclean or rotten food and drink (Covey 2001, 319; Rawcliffe 2006; Richards 1977). Despite the injunctions based on the belief that leprosy was the Biblical disease *zara'at*, it is now clear that this was not the case since although the symptoms are in some cases similar to leprosy they do not seem to match to the expected amount (Kaplan 1993; McEwan 1911; Rawcliffe 2006, 75–7). Rather it seems to have been

a purposeful mistranslation in medical texts to the word *leprea*, already associated with numerous skin conditions, to avoid confusion between *elephantiasis*, the biblical disease, and *elephancia*, a humoral subtype. In all likelihood the biblical disease was more an allegory for a specific indicator of impurity that was distinct from a variety of skin conditions, serving the purpose of allowing the afflicted to be ritually assessed and then allowed to re-join the community, rather than be excommunicated (Kaplan 1993, 509–10). Ultimately this may not have been an issue if leprosy had not become more common in the later medieval period, causing a societal crisis that occurred at the time the medieval hospital was becoming more popular as a religious institution.

The common impression of leprosy hospitals is that they were sites on the edge of society to segregate the afflicted who wore distinct clothing and were discouraged from contact with the healthy (Carlin 1989, 22–3; Leistikow 1967, 33; Manchester and Roberts 1989, 268). The visible signs of the disease were interpreted as divine punishments, necessitating exile due to the contagious and incurable nature of the disease (Hyacinthe 2007, 210–1). It affected the lay and religious equally, and was no respecter of rank (Rawcliffe 2001, 233). Leper hospitals were some of the first hospitals founded in England, namely St Nicholas, Harbledown, by Bishop Lanfranc in the 1080s, and the majority of them were small, only providing aid for perhaps a dozen or less, and there has long been an argument that the leper hospitals had a unique building layout based on imitation of the first leprosy hospital of St Nicholas, Harbledown, comprising individual shelters for the afflicted clustered around a central chapel (Carlin 1989, 23; Leistikow 1967, 33–4). Larger sites were founded, including the Hospital of SS. Lazarus, Martha and Mary Magdalene, Sherburn, Durham, founded c. 1181 to house 65 leprous monks, nuns, and other religious. The hospitals were often located near rivers, springs, or healing wells to allow ritual bathing (Leistikow 1967, 33–4). There is also the common assertion that lepers lost their liberty and rights to inherit or bequeath property (Tremayne 2010, 11), although in reality the afflicted maintained the property they already had. The impact of the process of legal ‘death’ was subject to change since leprous individuals were inheriting and bequeathing possession from at least the late 13th century onwards (Rawcliffe 2006, 271–273). There has also been an overemphasis on the use of the writ of removal, or *De Leproso Amovendo*, although voluntary movement or informal directives and intimidation may have been more common (Rawcliffe 2006, 39, 273).

In reality the treatment of lepers in medieval society was more complex, and in general less negative than is commonly suggested (Brenner 2010). Although clearly marked as a distinct

identity, work by Carole Rawcliffe (2006) has highlighted the level of support provided for the afflicted, the ability for them to carry out most functions in society if they remained slightly secluded, and that their identity could also be seen as a heightened level of religious actor, tormented by Christ in imitation of his suffering to bless their souls. This conflicting identity, partially damned and partially blessed, may explain the care and nursing provided to those with leprosy especially amongst the wealthy, such as the actions of St Elisabeth, spouse of the Landgraf von Thüringen, who supported a leprosy hospital and regularly visited and cared for them (Leistikow 1967, 33; Rawcliffe 2006). The same Lateran Council that declared lepers should live apart also passed a Canon that required leprosy communities to have their own priest to care for them spiritually, and chapels were a regular feature of these hospitals (Leistikow 1967, 33–4; Roffey 2012, 223). On some sites these chapels would have also been used for accommodation creating a clear link between the afflicted body and spiritual cleansing, as well as the influence of living in sight of the altar (Roffey 2012, 224). The debilitating nature of leprosy seems to have been combatted with a quasi-monastic lifestyle and regular, usually daily, religious practice associated with prayers for benefactors that made up an increasingly important revenue stream for smaller houses, as well as food, shelter, and warmth (Cooper 2004, 91; Roffey 2012, 224–5). What is clear is that these practices were almost identical to those carried out on other hospitals, although, as noted above, the leprosy hospitals may have held a stricter monastic routine.

The edict to live outside the town would explain the location of these hospitals on the outskirts of urban centres, and in part they seem to have served as markers for the liminal zone between the urban space and the rural (Gilchrist 1995, 40; Roffey 2012, 220). Thus, locating the leprosy hospitals at a point of symbolic tension may have acted to purify the urban zone, keeping potentially damaging elements to the periphery. These were also prominent, visible areas, such as on major roads, at town gates, or on bridges, exactly the same places as the other hospitals were likely to be found. By the similarity of location, the leprosy hospital was still acting to display the charitable good works, piety, and wealth of the patron, and also ensuring prayers from both the lepers and passers-by. This raises significant questions about the distinctiveness of leprosy hospitals and also that these sites were intended to segregate lepers from wider society (Roffey 2012, 220). Such a location also aided in the collection of alms for the hospital since they were the first religious institution associated with the urban that a traveller, pilgrim, or merchant would have encountered, and the chapel would have been available for prayers of thanks if needed (Rawcliffe 2006, 307–13; Roffey 2012, 221–2). The site of St Mary Magdalene,

Southampton, ran for several hundred metres along both sides of the King's Highway to Winchester, giving free access to the road at a visible geographical marker (Tremayne 2010), whilst at St Mary Magdalen, Reading, there were official procedures in place to allow the afflicted to beg for alms on the road (Roffey 2012, 222).

These were quasi-monastic communities, with similar rituals and statutes of entry as other hospitals. Confession was common, as were celebratory prayers, and even feasts (Rawcliffe 2006, 303). The leper-house at Lamford (now known as Maudlin), Cornwall, was a small institution, likely for 12 men and women, but its statutes noted the necessity of a gift for admittance, which should also include 2s for a communal feast, and that all property, except food and clothing, became part of the communal fund (Orme and Patel 1996). Admittance to Buckland leprosy hospital required an oath of faith, use, and obedience to the hospital, agreeing to pray to the crown, the patrons and benefactors, and the people of Dover, and that upon their death all their possessions went to the hospital, on top of the 100s. payment required for admittance to the community (Dainton 1976, 532). The Buckland daily routine included inmates saying 200 paternosters and aves in the morning and another 200 at night. There was a clear allowance of lepers to go amongst the wider community, and the experience may be mediated by the perception of 'wild' and 'tame' lepers, i.e. those that were dangerous and loose and those that were pious and usually associated with a hospital or good practice (Rawcliffe 2006, 284–9). The danger was not just physical from the disease but spiritual, and the distinctive habits helped to provide an indicator of good and pious intent and respectability to lepers who were begging, indicating their tame nature. When London imposed a blanket ban in 1367, fearing problems with the idle poor and vagrants, it included mendicants, vagrants, pilgrims, and lepers without any apparent distinction (Rawcliffe 2006, 289). Attitudes towards segregation and exclusion also show that if there was an element of this in the treatment of the leprosy it was not unique, but reflective of wider practice to exclude potential physical and spiritual dangers, as in the case of Bishop Aelfward of London, who resigned his see in 1044 due to serious ill-health to spend his last years at his old abbey of Evesham but was refused and sent away (Rawcliffe 2001, 236–7).

As such, there has been a drastic oversimplification of attitudes to the physical and spiritual elements of leprosy for the medieval period that has created a 'historical myth' mostly formed by Victorian attitudes to disease (Rawcliffe 2006; Roffey 2012, 221). Thus, leprosy hospitals founded before the 13th century were actually shelters for the incurables, a positive charitable offering, providing residing individuals with an ambiguous and secluded

identity (Roffey 2012, 221). Notably this identity was very close to the monastic communities they emulated, being closed off, liminal sites, operating a religious lifestyle. In France lepers of the 12th and 13th century were living collectively in open brotherhoods, living an eremitic lifestyle, almost monastic in nature (Tabuteau 2007, 44). Many religious women, such as St Radegund and Queen Mathilda linked the care they provided for lepers to the devotion they felt to the broken and humiliated body of Christ (Rawcliffe 2001, 246). The tending of the leprosy was seen as a cure for pride and love of self, and many chose to follow the steps of pious women like Jutta of Huy who lived alongside the afflicted to improve her nature (Rawcliffe 2001, 246–7).

The case of Robert de Torpel is particularly pertinent, since he was allowed to enter Peterborough Abbey in 1174 as a monk-corrodian with four servants whilst suffering from leprosy (Rawcliffe 2001, 234). Many leprosy hospitals also accepted an increasing number of the non-leprosy to the community, such as St Giles, Norwich, and St Mary Magdalene, Lynn (Carlin 1989, 23; Manchester 1984, 170). The ordinances of St Mary Magdalene, Colchester, set out that the master of the house should be a healthy secular priest, and that the inmates should be five poor, sick, or leprous men, with the brothers spending their time in prayer, attending mass, keeping monastic hours, and saying the Lord's prayer 300 times a day (Cooper 2004, 92). Such a set up was reflective of the hospital movement more generally and does not appear distinct in any manner. Given that these statutes were reiterated in 1423, the hospital was on the site of the parish church, to which appears to have been attached the hospital chapel. The clear integration of possible lepers with the wider community would have been very apparent. This raises a further question concerning the influence a religious environment had on the perceptions of corruption or disease usually associated with the leprosy. Indeed, poor behaviour at a leprosy hospital would result in expulsion (Manchester and Roberts 1989, 269), hinting that there was a clear benefit to being associated to a hospital. These were not prisons for the incurably sick and tainted, they were shelters for a community of the pious afflicted, penitently praying for forgiveness for their sins and the promise of salvation (Hyacinthe 2007, 211).

This view must be tempered by an appreciation that although the leper may not have been so distinctly ostracised and cursed as is sometimes noted, there were many issues. It may be an indication of the uncomfortable, isolated, and strict conditions maintained at the London leprosy hospitals that some lepers would actively resist attempts to remove them from the streets and provide them shelter (Rawcliffe 1984, 6). The leprosy hospital was also just as susceptible to the decay and decline from the 14th century onwards that affected

other hospitals, and it seems not to have been just due to a decline in the disease but also because of scanty resources, maladministration, and draconian conditions (Rawcliffe 1984, 5). Similar to other sites, with this joint decline in support and need from the mid-13th century, institutions changed, often being refounded as almshouses with reduced facilities and a smaller intake (Rawcliffe 1984, 6). St Mary Magdalene, Ely, being united to St John's Hospital, to form a new house for the poor and infirm under the Augustinian Rule, and aided with episcopal patronage, whilst St Mary Magdalene, Stourbridge, founded before 1160 two miles outside of Cambridge, had been converted to a free chapel by 1279, carrying out no pastoral or charitable duties (Rubin 1989, 44). Despite the decline in the disease leprosy hospitals continued to be founded in the late 14th and early 15th centuries, but endowments and resources continued to be a problem (Rawcliffe 1984, 6). Although sufferers of leprosy could live unmolested if they kept signs of their disease covered or hidden, the open display of symptoms could still illicit hostility and violence given the connotations of sin and contagious disease (Rawcliffe 1984, 7). With the reduced presence of leprosy the association and stigma of sexual deviancy and sin began to transfer onto other groups, including those with perceived mental deficiencies, sufferers of fits, and pregnant women, groups that were already perceived to be dangerously disruptive (Gilchrist 1995, 60). The ever reducing leprosy population began to be equated to vagrancy and pauperism, adding the fear of their disease to the fear of the 'stranger' associated with the wandering poor (Tabuteau 2007, 44).

Medicine and the Hospital

The medieval hospital was a religious institution that cared for a wide range of people, either permanently or temporarily, in an environment of good living, prayer, and piety. Despite often having hundreds of years of accounts (some very in depth), there are rarely a mention of the purchase of medicines or the payment for the services of physicians and surgeons (Bonfield 2006, 174; Rubin 1989, 51). When medical professionals were mentioned it is usually from the late 14th century onwards, including men like William Hobby, warden of St Mary Bethlehem, London, and physician to Edward IV, and John Middleton, master of St Nicholas, York, and physician to Richard II and Henry IV (Bullough 1961). A 12th-century charter of St Leonard, York, and an early 13th-century charter of St John the Evangelist, Cambridge, were witnessed by doctors but in all cases this does not equate to an active presence on site (Cullum 1991, 3). This is clear from the case of the

surgeon Master Thomas de Goldington, who in 1348 held wardenship of the hospitals of St Nicholas, Carlisle, and St Leonard, Derby, and appears to have been working in the local area but with no word on whether he operated on any of the inmates (Carlin 1989, 30). The majority of physicians and surgeons would have restricted themselves to fee-paying clients, and most medications that were not home grown would have been too expensive for the relative wealth of most hospitals (Rawcliffe 1984, 7). The previously mentioned John Middleton was paid a yearly sum of 100 marks to be retained, whilst William Bradwardyne, surgeon to the 1394 expedition to Ireland, submitted a bill of £66 13s 6d for medicine and travelling expenses alone (Rawcliffe 1984, 7).

The Fourth Lateran Council of 1215 severely restricted priests' and monks' ability to be physicians and surgeons by forbidding the religious to spill blood, implying that such activities would have fallen to secular physicians and surgeons who would need to be brought in to care for patients (Rawcliffe 1984, 8). An example of this may be seen in a rental of St Mary Elsyngspital from 1448, recording 37s. 2d. and 10s. owed respectively to Robert Leech and Geoffrey the Barber, and it was common for surgeons and bloodletters to work in partnership in this way (Rawcliffe 1984, 8). The impact of these limited visits would have been negligible, and the majority of the care provided entails the standard elements of hospitality (food, drink, shelter, and warmth), alongside a quasi-monastic lifestyle of prayer and contemplation, that varied in intensity and focus, but which provided a distinct identity to all the residents as members of a religious institution. English miracle books highlight an attitude against practiced medicine in favour of faith and spiritual healing (Palmer 1982, 88). The lack of physicians or surgeons at English hospitals is another unique element alongside the flexible constitutional form when compared to hospitals in Continental Europe, especially France and Italy where medical practice was far more evident (Rawcliffe 1995a, 210).

This lack of medical practice at hospital sites was clearly highlighted by a survey of the material culture of medicine by Geoff Egan (2007). His work noted that medical tools have are incredibly rare from all contexts from medieval England, although some have been found that suggest forms of care that were more spiritual than physical (Egan 2007, 65). Equipment for writing and reading were relatively common in the assemblages from religious houses of the medieval period, such as book mounts, styli, and even spectacle frame fragments (Egan 2007, 66). Although large numbers of knives have been found at several hospital sites, it is purely speculative as to the number used for surgical procedures or other medical activities, even when they have been found in the area of the infirmary

(Egan 2007, 67). This is almost certainly due to the rarity of the professions associated with these practices, and the very nature of medicine in general (discussed below). As such, whilst there is a modern expectation to find medical implements at hospital sites, this is in fact ignoring several important facets of how a medieval hospital in England functioned. Such assumptions have raised a number of quandaries in studies focussing on this subject that have required a new appreciation for the historical and medical backgrounds of these sites, one which can explain why medical material culture is so limited in general, let alone at hospital sites. These can be suggested to include the visibility of these implements at all when compared to other domestic material culture, the nature of the medical practices being carried out, and the social environment of those carrying out these practices. Fundamentally, the lack of medical material culture at hospital sites can be explained by two important points: until recently studies have been looking for the wrong evidence of medical practice, and in England it is likely that it is in the secular, domestic housing of physicians and surgeons that we will find the expected tools of medicine, not in the hospital, something that will form the focus of the following section.

The central quandary of looking for the material culture of medicine was highlighted by an examination of the barber-surgeon's chest from the *Mary Rose*, complete with 64 items that could be directly tied to his profession. Despite this, relatively little was diagnostically medical out of this special context, with a urethral metal syringe being the only overtly medical item. Tall turned-wood containers, often referred to as 'drug jars' were found, including one that was still filled with peppercorns, which in this context could be suggested to be medicinal rather than dietary, and another vessel containing frankincense, again a spice with multiple uses including medicine and food (Egan 2007, 67). Although the iron tools had rusted away, nine wooden handles remained, eight of a smaller size that were comparable to 17th-century cauterizing tools, and the last one larger, possibly for an amputation knife or saw. Also recovered were a mallet and eight razors, arguably for practical medicine only through the association of the location and would otherwise be classed as household items (Egan 2007, 67). A whetstone and five stoneware jars of common form were also located, again household items apart from the association with the barber-surgeon.

Glass vessels have been found in a number of Dissolution assemblages at monastic or hospital sites, especially of the type known as the urinal, used to assess the colour of a patients morning urine to define a patients state of health, a pseudo-science known as uroscopy (Egan 2007, 69). Glass and ceramic vessels for distilling are also known from later

assemblages at religious houses, either producing alcoholic beverages, possibly with a medicinal application, or for alchemical experimentation (Egan 2007, 69). Evidence of folk-medicine has also been recovered, in the form of a normal shaped 15th-century bowl, made of jet found in a dump on the Thames waterfront (Egan 2007, 69). Jet naturally occurs at Whitby, North Yorkshire, although rarely in such a large size to make a bowl. Tradition from the Roman period onwards has associated jet with women, and from medieval lapidaries (manuals on the medical properties of different minerals), jet that was placed in water for three days eased labour pains, a possible function for the bowl (Egan 2007, 70). Also found at St Mary Spital were a group of seven gold coins minted by Henry VIII, referred to as 'angels' due to the design of the archangel St Michael, dating from just before the Dissolution (Egan 2007, 70). This form of coin gained an association with protecting against evil due to the image of the archangel as well as the associated Latin legend of "*Through your cross, save us, Christ Redeemer*". The monarch occasionally gave out such coins, pierced so they could be hung around the neck, at special ceremonies for selected sufferers of the skin condition known as scrofula, also known as the 'King's Evil' (Egan 2007, 70). The coins may have been part of the hospital's spiritual arsenal against disease, as well as a substantial amount of wealth.

The majority of clear medical activity comes from burial evidence, including in three burials from St Mary Spital, two of which had copper plates with holes around the edge for attaching in some manner and textile on the inner surface, with the third being cruder and made of lead that was bent around the knee (Fig. 2.4) (Egan 2007, 70). It could be that these plates protected bandages holding some form of medicinal preparation against an area of trauma or disease, and other examples have been noted from a burial at Merton Priory, Surrey, located on the knee of an individual with *osteochondritis desiccans* which would have caused swelling of the joint and locking whilst walking. A burial from the Cistercian abbey of Statford Langthorne to the east of London, produced a 72mm roundel with perforations and traces of linen located at the elbow, dating to the late 13th/early 14th century, whilst another roundel was found at the Gilbertine Priory of St Andrew at Fishergate, York, located on a knee with obvious trauma (Egan 2007, 71). Another similar example comes from a burial at Reading Abbey, which revealed a two-part box arrangement of copper-alloy sheeting, larger and more concave than those mentioned above, possibly to hold a medicinal preparation, and an ivy leaf may have been recovered in it (Egan 2007, 71). One suggestion has been that this represents a remedy of Hippocrates for a dislocated knee, whereby leather straps held a plate of copper to form a padded splint

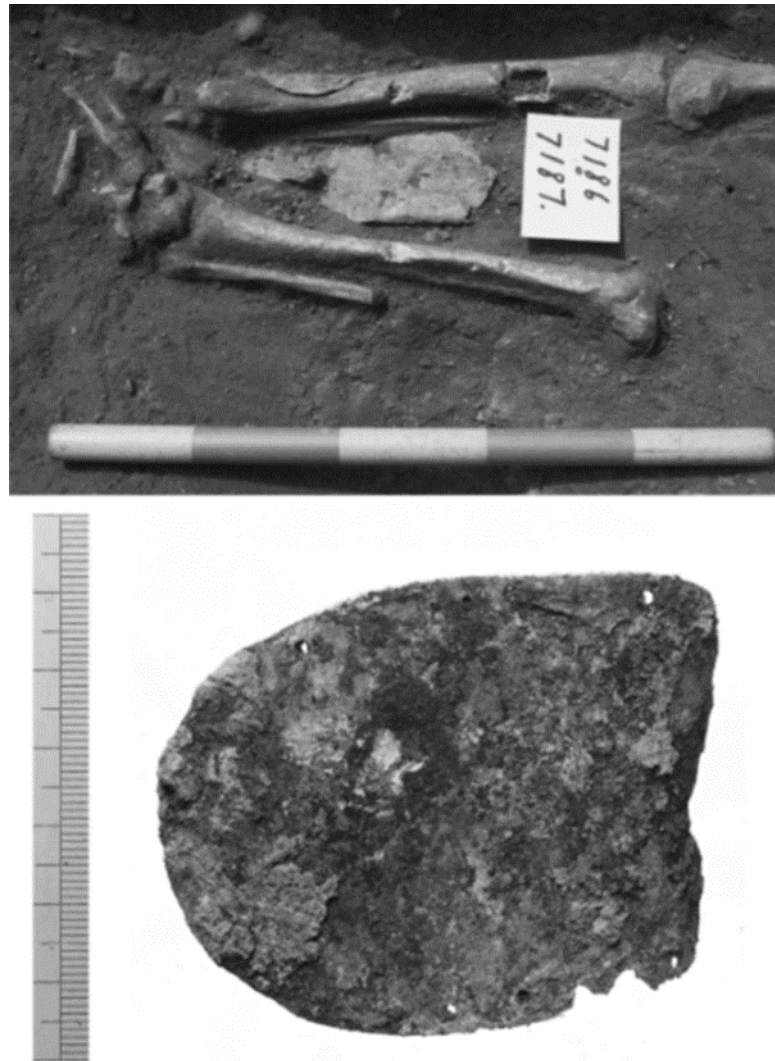


Figure 2. 4: Top: lead sheet wrapped around the right shin of a 26-35-year-old female, dating to c.1250-1400. Below: a copper alloy plate found between the knees of an adult male (12th century). Both were recovered from the cemetery at St Mary Spital, London, possibly indicating the strapping and securing of bandages (Connell *et al.*, 2012, 208-9, Fig 231 and 232). Reused with permission of Museum of London Archaeology

(Egan 2007, 71). Another burial at Merton Priory had a buckle in the pelvic region and the remains of what could possibly have been a surgical truss (Egan 2007, 72). This highlights the better standard of medical care experience at a monastery in comparison to the population at large. With greater appreciation for medical appliances, more will likely be reported in cemetery excavations (Egan 2007, 72). More widely the number of healed fractures, even amongst the poorest in later medieval England, is highlighted by the cemetery at St Helen-on-the-Walls, York, where the lack of deformity for the majority of fractures indicated immobilisation and even some reduction being carried out (Grauer and Roberts 1996).

Moving on to less clearly medicinal items an assemblage of over 230 pilgrim badges found from a possibly votive dump in the River Stour at Eastbridge that half were made up of badges of St Thomas, 86 of which were of the Head Reliquary, but from a range of moulds (Egan 2007, 74). Interestingly the Eastgate Hospital, founded c. 1175, at the beginning of the Becket cult, was located on the south side of the river right next to the dump, and many of the badges likely came from those pilgrims seeking comfort or healing from sickness at Becket's shrine and the hospital (Egan 2007, 74). An *ampulla*, or holy water container, from Canterbury was found on the Thames waterfront at London, likely of a mid-13th-century date, with an inscribed legend that reads "*optimvs egrorum medicvs fit Toma bonorum*" ("Thomas [Becket] is the best doctor for the pious sick")" (Fig. 2.5) (Egan 2007, 74). Through the miraculous power of the water held in the vessel the bodily sick would be healed, although healing was dependent on an individual being spiritually clean (Egan 2007, 74). In summary, archaeological evidence for medical care is rare, especially when trying to identify the tools of physicians and surgeons (Egan 2007, 76). Medical intervention is easier

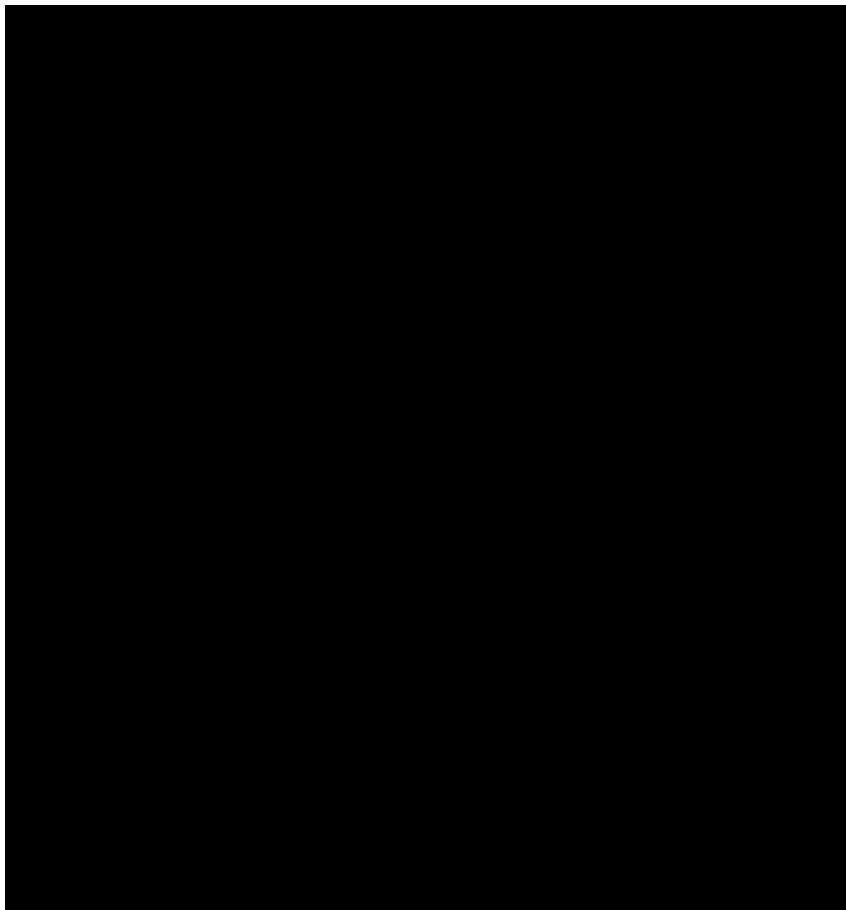


Figure 2. 5: Holy water container souvenir from Canterbury, mid-14th century, found in London (Egan 2007, 75, Fig 5.3)

to spot, especially from burial evidence, but this is not restricted to hospital cemeteries but all forms of religious institution (Egan 2007, 76). The metal plates constitute the most obvious example, yet at St Mary Spital, the largest collection of these implements, the three examples constitute less than 0.16 percent of the approximately 11,000 burials (Egan 2007, 76). More evident is the spiritual aid for the sick, corresponding to Rawcliffe's view of medical provision being more spiritual than for temporal illnesses (Egan 2007, 76). This rather emphatic absence of evidence has been taken to support the idea that, although the placebo affect may have caused some healing of issues, the real care provided was shelter, rest, food, and general nursing (Cullum 1991, 3).

One of the biggest changes in the past two decades of scholarship on hospitals has been the broadening appreciation for Galenic theory, in particular his non-natural theory and its later elaboration by Islamic scholars. Galen was particularly popular with Christian scholars because his medical theories were dominated by concepts of order and purpose that linked easily into a divinely created universe (Ziegler 2001, 9). This medical theory was passed on to Western medicine through the *Isagoge* or 'Introduction' of Johannitius (Hunayn ibn Ishaq) who died c. 877 (Horden 2007, 134). The text was partially translated into the Latin from Greek and diffused widely across medieval Europe from at least the early 12th century. Johannitius' work distinguished between three forms of naturals; the *res naturales*, the naturals represented by the elements, the cardinal directions, the seasons, qualities such as hot and moist, and the four humours, constituting a healthy organism; the *res contra naturum*, the contra-naturals, such as disease, the causes of illness, and sequelae, which detract from the healthy organism; and the *res non naturales*, the non-naturals, which served as the determinants of health (Horden 2007, 134; Nicoud 2008, 7). There were generally considered to be six non-naturals, comprising ambient air, food and drink, exercise and rest, sleeping and waking, evacuation and repletion, and passions of the soul, often referred to by physicians as accidents of the soul (*accidentia animae*), but Johannitius expanded the number by including sex and bathing (Horden 2007, 134–5; Nicoud 2008, 7). Accidents of the soul defined the way emotion or the mind could affect change to the body, such as a feeling of heat under the skin, and could be quick, as with anger, slow, as with delight, or cause disturbances in personal energy, such as grief. In the most influential of these treatises, the *Compendium de epidemia*, written in 1348 by the master of Paris' medical faculty, it was noted that anger, sadness, and anxiety were emotions to be avoided, and that they should be replaced with hope and resolution. Joy, although potentially dangerous due to the manner in which it could moisten the body, was

encouraged as a means of comforting heart and soul, through which was gained peace and the knowledge that death was not to be feared (Horden 2007, 137). The aim was to stem the fear associated with the plague, or indeed any ailment, injury, or disease, and this was considered a vital part of any practical or theoretical medicine.

By this schema, emotion was active in health, with negative emotions capable of causing illness, whilst positive emotion could counteract or stave it off. As a result advice and approaches to controlling emotion were included in the various versions of the *Regimen Sanitatis Salernitanum*, as well as numerous *consilia* written by physicians for their wealthier patients, and the psychosomatic influence of emotion on health was well appreciated and utilised in the medieval past (Bifulco *et al.* 2008, 602; Horden 2007, 135). Although known of from the end of the early medieval period, the application of the effects of emotions on health appear to have been most common after the Black Death period, with many plague treatises discussing the preventative or mitigating abilities of positive emotion in times of plague (Horden 2007, 137). The appearance and utilisation of the *Regimen Sanitatis* in England dated to 1348 at the latest, and provided a tool for medical self-sufficiency in the centuries after the plague and epidemics that had rocked Europe in the 14th century (Bonfield 2006). The practice of prognostication was particularly related to the manner of emotion in the patient, and physicians often weighed up the likely outcome of a patient using rhetoric and a judgement between nature and the patient on one side, and death and the disease on the other (Demaitre 2003). Even the worst prognosis provided clarity and understanding of the situation, relieving anxiety and the suffering of the unknown, and allowing the patient to properly prepare for death, an action with far-reaching implications for the soul's prospects in eternity (Horden 2007, 138-9).

Fundamentally, medieval medicine was dominated by the practice of prevention rather than cure, and aspects such as diet, daily routine and regimen, emotions, and spiritual purity were all emphasised (Horden 2007, 138-9). The range and number of writings concerning regimen, begun in the Hippocratic corpus of the 4th century BC and continuing into the later Middle Ages, saw a huge number of dietetic writings, suggesting that food and diet were more fundamentally important than previously appreciated. These therapeutic treatise, such as *practicae* and *consilia*, and preventative treatise, especially the *regimina sanitatis*, communicated to elites the basic principles of hygiene, positive living, and diet that the authors believed were at the heart of good health (Nicoud 2008, 7). These texts reinforce ethnopharmacological studies that also highlight the important role food as medicine can play and the capability for plants, meat, and other materials to be both

medicine and food at the same time (Etkin 2006). A good diet was seen as paramount and the cook was put before the doctor in his importance to preventing illness (Bifulco *et al.* 2008, 602). Indeed to the medieval physician there was no clear distinction between food and medicine, since both could impact upon health and humoral balance (Bonfield 2013, 30). A number of medieval medical treatments are still utilised today, either formally or informally, for modern illnesses or diseases. Modern diabetes sufferers in Saudi Arabia take myrrh, cumin, fenugreek, and aloe to treat their condition, all regular ingredients for medieval medicines for kidney and liver issues which may have represented some aspects of diabetes, but also ingredients in other medicines and foods (Riddle 2007, 13–4).

As such the perfect physician needed to know the qualities and properties of food, simple and complex medicines, and astronomy, and be able to unravel the causes and cures of all diseases (Ziegler 2001, 6-7). Even municipal authorities were interested in the connection between health and diet, and many regulations were enacted to control aspects of food, such as sanitation, condition, fraud, and price (Nicoud 2008, 7). The interest was so high that in some of the larger texts produced in the 13th century the chapters on food were the largest component on dietary thought, often dealing with each individual article or dish separately and scrutinising the benefits or dangers to the patient dependent upon their humoral balance and regimen (Nicoud 2008, 8). These treatises could be relative, written for a specific patient who displayed particular humoral characteristics, or they could be more general, discussing the characteristics of different foodstuffs, whom they would help, dangers related to the food, the quantity and style that should be served, and how to control humours (Nicoud 2008, 8). By applying positive action on the non-naturals, a preventative regime could be developed. The everyday nature of the medicine also meant that with guidance, such as through a *consilia*, the patient could also doctor themselves, encouraging a more active engagement with medical practice. As Horden (2007, 139) noted:

“As the *Salernitan Regimen* put it, in a passage that Chaucer might well have known: *Si tibi deficiant medici, medici tibi fiant / Hec tria: mens leta, requies, moderata dieta* (If you should lack doctors, these three shall be doctors to you: a joyful mind, rest and a moderate diet).”

The emphasis on the spiritual practice in medicine, especially at hospitals, has marginalised some of the regimes for bodily health that would have been just as vital to maintain a healthy community such as the active engagement with non-naturals (Bonfield 2013, 21–

2). By looking at the range of activities carried out by the hospital there is a suggestion that these sites may have been acting within this medical framework. For example, the focus on hospitality meant that a lot of attention would have been on food and diet. At St Giles, Norwich, dietary provision accounted for over 50 percent of total expenditure during the mid-14th century, and attempts were made to satisfy the patrons' wishes about the diet of the inmates (Rawcliffe 1999, 178–186). The accounts from St Anthony, London, dating to the late 15th century, show there was a clear distinction between the staff in the hall and the inmates in the hospital. The meat consumed by the staff was more plentiful, of a higher quality, and accompanied by spices and luxury items, in comparison to the inmates who had a simpler fare of mutton, beef, plaice, and haddock (Bonfield 2013, 31–43). Although the staff were consuming pork, birds, and more diverse species of fish, indicative of wider consumption trends, the inmates diet was still nutritious, and meat or fish was a regular provision, much more frequently than would be expected amongst poor households more generally. This hints that an examination of the archaeological remains of food might be useful for interrogating dietary strategies.

Other than food, there was an emphasis on cleanliness and the provision of clothing and bedding for inmates. Clean linens for beds and clothing were not just an expression of outward appearance, but were also considered to purify the skin, and some medical writers, such as John of Gaddesden (d. 1361) suggested that unclean clothing could exacerbate certain diseases including leprosy (Bonfield 2013, 45). This cleanliness would also improve the image of the hospital, and maintain a pure and dignified community. Clean clothing was often provided for new members of the community, and the importance of this was not just hygienic or moralistic, but also spiritual as well, since clothing the poor ranked as one of the Seven Comfortable Acts (Bonfield 2013, 46). Latrines and washing facilities were held to be of clear importance for patrons, and a good supply of fresh water were frequently emphasised (Bonfield 2006, 194–5; Gilchrist 1995, 37). Some hospitals were actively engaging in the inmates health with medicines and visits from physicians when necessary, such as St Leonard, York, although this was on a very small scale (Bonfield 2013, 26–7). At the Hospital of Notre Dame des Fontenilles, Tonnerre, the medical care provided by the hospital was limited in terms of pure medicine until the 16th century, but instead utilised devotional practice and the grounds and architecture to create a calming religious environment that served as 'medicine' to the inmates (Courtenay 2007, 90–1). In this case the medieval hospital needs to be considered not just in the scientific context of medicine, but also in the socio-religious context, where the principles of

salvation and the practical implementation of the Seven Acts of Mercy can be integrated into the wider pan-European context of a flourishing interest in the 12th century for the poor (Courtenay 2007, 104). The purposeful creation of a religious site, the care over dormitories, the availability of gardens to walk in and grow food, the smells, sights, and sounds, would all have impacted on the experience of the inmates and their emotional and physical state, and as such need to be better integrated into the definition of a hospital.

At a range of hospital sites, from Santa Maria de Nuova, Florence, to St Giles, Norwich, inmates could pray at the altar and see the sacraments, live their lives to the monastic routine, and cure their souls of sin and idleness (Horden 2007, 141). The spiritual and physical benefits of the monastic routine are well documented in relation to the rest of medieval society, especially the poor and destitute. With the use or adaptation of monastic routines, clothing, and lifestyle, it also suggests the potential to borrow other elements, like a planned layout to the buildings. Religious institutions usually have set rules about building layout, the lack of a clear plan for hospitals if they formed a unified conceptual institution requires re-examination. The central importance of prayer at least indicates the importance of the chapel and religious observance at these sites, and the connection to God would have been extremely positive for health and wellbeing. This is often taken to mean the mass acted simply as a spiritual remedy, or acted as medicine by analogy, usually depending on whether the presence of a doctor is essential for medical practice to occur or if it is thought that the primary medicine of a hospital is religion (Horden 2007, 142).

But there is another step that can be taken, of realising that the religion of the hospital is a type of medicine, where the spiritual was not just a theological medicine but a physical, practical medicine that improved lives, cured ailments, and prepared people for death (Horden 2007, 142). Since the example of the *consilia* shows that the doctor need not be present for medical practice to occur, their presence or absence for the hospitals becomes a minor difference that does not affect the overall capacity for the hospital to 'treat' the inmates on a daily basis (Horden 2007, 141). The body's infirmities were not actively worked on, and Canon 22 of the Fourth Lateran Council reiterated that the health of the soul was a precondition of the recovery of the body, but through exposure to the host, regular confession, the use of relics, and the contemplation of devotional imagery, these all served to affect the emotions of the inmate, through contemplation of God and the stories of the bible and find peace and piety (Horden 2007, 141). By affecting the accidents of the soul, medicine for the soul was acting as a component of physical medicine, a fact well known by medieval doctors, for example Bartholomaeus da Montagnana who urged the

study of theological and moral narratives, and the singing of psalms as part of a package of exercises that brought delight to the patient, and thus good health (Horden 2007, 142). The 16th-century physician Alvise Luisini claimed visible physical improvements in patients who had confessed the previous day, since the freedom from anxiety brought about improved health, even to the remission of fever (Horden 2007, 142). In a similar fashion the use of song and preaching would also seek to uplift the inmates, to reiterate the religious lifestyle they had chosen to live by, and free them from anxiety or sin (Davis 2010; Horden 2001).

This form of medicine would also not be limited to the religious aspects of the hospital but to anything else promoting optimism in patients, such as diet, rest, and nursing. This could also include such things as royal visits, an activity Christine de Pisan urged princesses to do in 1405, who he felt should tour hospitals in grandeur and with a large entourage to honour the poor inmates and raise their spirits, again with the aim of encouraging cheerfulness as the most therapeutic of emotions (Horden 2007, 143–4). Here we have the argument for hospitals potentially acting as a complete or partial non-natural environment, definable as a location where every facet daily life, diet, religious practice, and the buildings and open areas around them serves a medical purpose (Horden 2007, 144). If these sites were acting as non-natural environments then there should be consideration for: the quality of air; provision of wholesome food and drink; the provision and organisation of space for exercise (likely outside) and rest (represented by the dormitory); a set agenda for waking and sleeping; provision of clean and adequate latrines and controlled diet; control of the passions of the soul, likely through pray and contemplation; control of sex, through celibacy, abstinence, and the segregation of male and female; and procedures and facilities for regular bathing and cleanliness. It would also be highly likely that given the combination of elements discussed, and the vital importance of religious cleansing and absolution as a means of controlling accidents of the soul, the nature of these sites would have significant influence from, or expressions of, Christian religious institutions. As such, it is suggested that a non-natural environment in this setting would entail a religious institution, structured around a fixed daily routine of prayer and service, controlled diet, a structured space of buildings and open areas, and clear evidence of segregation and controlled movement of the different elements of the community.

At the large leprosy hospital at Sherburn, Durham, the inmates were fed a range of foods including fish, meat, and cheese, provided warmth through the fires, and the provision of bedding, clothes, and a habit set each inmate out as a member of a religious institution (Bonfield 2006, 186). Several leprosy hospitals were association with wells or healing

waters, such as Peterborough, Newark, Burton Lazars, Nantwich, and St John the Baptist, Bath, with the intent of providing cleansing (Gilchrist 1995, 43). Furthermore, the pious and penitential outlook of these hospitals would have been deemed incredibly relevant to those suffering God's judgement through disease or malady, or whom had been struck by bad luck, age, or infirmity to have ended up unable to support themselves, but with a will to not sink to the bottom of the social ladder (Roffey 2012, 205).

Although the implementation of the non-natural environment might have been the ideal, it was not always the reality, and episcopal visitations of both St Mary, Leicester, and St Bartholomew, London, noted that the infirm poor were being replaced by the wealthy and able or being discharged before they had been fully healed, both in contravention to the founding statutes of the sites (Bonfield 2013, 28). The beneficial lifestyle of the hospital could be adversely affected by a range of problems or choices, such as corruption or inefficiency, poverty, restricted space, a lack of staff or inmates, or changing social attitudes that diminished the importance of the healing environment to the hospital function (Horden 2007, 144). There is also a question to be asked about when this purposeful creation of a non-natural environment in hospitals started, or even how intentional this idea of a planned religious space might be. Without some other form of unifying idea behind the establishment of these sites, such as a unified architectural framework, it would seem unlikely the site would be founded as a non-natural environment unless the founder was a trained physician or was otherwise aware of the theory. In all likelihood the intentional application of non-natural ideas to the hospital environment likely highlights the evolution of the hospital, not the origin (Horden 2007, 144).

It has been argued that theoretically hospitals could function, fully or partially, as non-natural environments. At the very least it can be acknowledged that hospitals were aware of the application of non-natural theory and were attempting to implement it, since there is documentary evidence from an English hospital showing the link. The *Breviarium Bartholomei*, written by John Mirfield, a canon of the hospital of St Bartholomew, Smithfield, London, in the last decades of the 14th century during 40 years of service, indicated the range of medical treatments and approaches taken at the site. These included emphasis on excerpts from important medical texts for those without a medical library, a section on the necessity and application of non-natural theory for hospitals, advice for staff, and useful recipes for a range of ailments typical to hospitals (Dainton 1976, 535–6; Gilchrist 1995, 34; Horden 2007, 144). Of note John Mirfield was not a trained physician,

but had gained his knowledge from working at the hospital (Bullough 1961, 76). Later in his life Mirfield compiled an anthology of religious texts, called the *Florarium*, in which he reproduced the section on regimens from the *Breviarium*, a model of self-discipline that was firstly medical and then religious in nature (Horden 2007, 144). Interestingly another nearby hospital, St Mary Elsyng, Cripplegate, which cared for sick clergy, held a copy of the *Florarium* by 1448. Such associations of non-natural theory to hospitals, especially two so close together, is unusual, and goes some way to reinforcing the impression that this theory was at least partly utilised (Horden 2007, 144–5). This means that medical practice was more widely dispensed than is observed by noting the work of physicians and surgeons. It may even be that the impact of non-natural elements was as effective, if not more so, than the effect of medicine from doctors for improving the health and lifestyle of the recipients (Horden 2007, 145).

By placing religious observance within its wider context of daily activities the therapeutic practices of the hospital become much more prominent. Their approach to diet, lifestyle, and cleanliness were just as important as the medicine for the soul, and together would have been mutually supporting the beneficial experience of the inmates so that the benefit for the soul and the benefit for the body were indivisible (Bonfield 2013, 25–6). In this way it can be seen that the division between the body and the soul was less concrete, and more attention should be paid to the physical elements of this care. This also suggests that the non-natural environment as a whole, such as the manner in which buildings were laid out, the presence of gardens and areas to walk, food, material and documentary evidence of religious practice and routine, indicators of cleanliness, bathing, and rest, are all avenues for researching and understanding the implementation of medical practice at a hospital site. Archaeology has considerable scope to further examine the medieval hospital as a non-natural environment.

The provision of hospitality would have had clear health benefits to many who chose to live there, and the connection with religious observance would have tied into the wider medical appreciation for the benefits of a positive soul (Bonfield 2006, 181–2). Indeed, it could be argued that the English medieval hospital saw the best expression of medicine without doctors, since the very nature of the hospitality and the general environment was an articulation of non-natural theory (Bonfield 2006, 185; Horden 2007). Of note, the Fourth Lateran Council of 1215 stipulated that treatment of a patient must come after a full confession, on pain of excommunication, which may explain the frequent insistence of confession as part of the entry process to the medieval hospital (Bonfield 2013, 47). At a

minimum the larger hospitals were following a comprehensive regimen, that in theory, if not always in reality, combined physical and spiritual elements to heal body and soul (Bonfield 2006, 204–5). In many ways the provision of clean and calm environments, with basic nursing and steady nourishing food may have provided exactly the environment to either improve or to die peacefully, and in reality it was the lack of funds and poor administration that threatened the health and life of inmates rather than the lack of regular medical intervention (Rawcliffe 1984, 10).

The theories set down in Johannitius' work seems to mirror some of the other approaches to health observed in the medieval period. For example, one of the main sources for medical knowledge at the beginning of the later medieval period was the Benedictine Order, whose interest in medical texts were revitalised by introduction of the Norman monastic tradition that reintroduced the ancient medical texts of Galen and Hippocrates (Dawtry 1982). Their rule clearly stipulated the process to go through if unable to carry out the daily regime of monastic life, becoming an *infirmi*, for as long as was necessary, and being sent to the infirmary where they were to be honoured as if they were Christ Himself (Yearl 2007, 180). The *infirmi* was fortified with a meat diet in contrast to the rest of the community, even during times when it was prohibited, and whether in the infirmary due to illness or through routine bleeding those convalescing were encouraged to live with humility, read, sing, and tell edifying stories to occupy the mind with religious themes (Yearl 2007, 182–3, 188, 190). Being classified as *infirmi* required public supplication at chapter, begging the forgiveness of the community before displaying the sign of illness, and the process was repeated every few days until health was restored (Yearl 2007, 189). There were severe punishments for those caught abusing the system, such as beating with a rod in chapter, or being publicly corrected in front of the whole community, and the routine bleeding may have been scheduled so as to provide regular rest sessions throughout the year.

Even those that were bled often begged forgiveness as well, and this was part of the medicinal process, by confirming the ailment and the inability to function normally and atoning for it. What is interesting is this dual identity of the *infirmi*, of being both the surrogate of Christ but simultaneously marked by deviancy for their inability to act within the daily monastic routine and be a true member of the community. There is the implication that the rest of the house needed to be protected from the negative influence of these deviants. This would have been partly due to sickness being associated with actual, perceived, or imminent sin, and as such the *infirmi* had potentially compromised the whole

community. Sickness was also seen to act as a purifier of the body, scourging away sin in imitation of Christ and the martyrs, and served to cure wounds of the spirit by serving as an act of penance (Yearl 2007, 191). The relevance of this to the hospital is the manner in which the *infirmi* becomes both less and more by their movement to the infirmary, a source of religious activity through the provision of care, but one who holds potential corrupting danger. The mix of identities at the hospital, the leper, the destitute, travellers and pilgrims who would be strangers, these groups are also both less and more when they are resident in the hospital. This idea echoes the point made by Buklijaš (2008) that the hospital protected the residents from the outside world but also the outside world was protected by the hospital.

Ecclesiasticus 38 was also frequently used to describe the nature of disease by linking the pain and suffering to sin, and thus represent the punishment of God (Ziegler 2001, 5-6). This placed the body and the soul in a duality, and it was thus argued by physicians that their job was to use negative or positive actions on one to affected the other, since just like the priest cares for the soul, they cared for the body. Whilst there was negative suffering there was also pious suffering, a common theme amongst the religious, with the motif of *Christus Medicus* was a common trope in the works of St Augustine, underpinning the concept of spiritual purity as a means of besting bodily disease or infirmity (Arbesmann 1954). The sufferer would be cured of their ailment by God as physician who pushed through the issue with divine power, for example alleviating a fever through religious fervour, curing the ills of poverty through religious poverty, or death through a pious and absolved death. The Blessed Mary was also an important association, both as an mediating influence with the divine and due to her being the model for patience in adversity and of compassion for all, inspiration for both staff and inmate alike (Henderson 2001). It was emphasised that the current illness or suffering was only a momentary experience that would soon be left behind, either due to improvements that allowed the inmate to leave, or through the reinforcement of spiritual health that would allow a good death (Henderson 2001, 213–4).

Many diseases, such as leprosy could have both positive and negative associations. With almost identical descriptions the blind were also seen as God's chosen, kept innocent from sin, whilst also seen as possibly afflicted through sin (Hawkins 2011). Similar to leprosy and the plague, the deciding factor on whether they were one of God's chosen or suffering damnation depended on the manner of their conduct and the perceived cause of their ailment, meaning that both the saintly and the impious could be placed within the same

conceptual world-view (Hawkins 2011; Palmer 1982). The lack of medical hospitals in England meant that treatment for the poor blind was more limited than on the continent, but the blind were often included within hospital communities, such as St Mary Magdalene, Ripon, when it could no longer find lepers to house and instead turned to supporting elderly and blind priests from the 1340s (Hawkins 2011, 204–5). Indulgences were offered by John Dalderby (d. 1320), Bishop of Lincoln, to support three blind people, one of whom, Geoffrey de Flegard, was a resident of the hospital of St James, Dunwich.

In reality, the misnomer between ‘care’ and ‘cure’ which has often caused friction in academic discourse on hospitals, especially in relation to their medical nature, were not mutually exclusive in the medieval appreciation of medical practice (Horden 1988, 366–7). Even at hospitals more associated with medicine, such as the Santa Maria de Nuovo, Florence, the emphasis on medicine for the body has been overemphasised and should rather be examined together with the programme of spiritual treatment (Henderson 2001). Even where therapeutic care was undertaken it seems that it was aimed at acute ailments eased by the hospital surroundings, such as fevers or skin conditions. These sites require an examination that notes the liturgical and social function, not as a self-serving enterprise for patrons but as an expression of religious activity and social welfare (Horden 1988). The reason why the appearance of the medieval hospital left little mark on medical literature in late antiquity and into the medieval period was simply because the hospital did not actually bring anything distinctive with it, but instead utilised a range of existing concepts (Horden 2005, 388–9). The hospital would also serve as an interesting focus for how women interacted with these medical concepts in both a practical and theoretical sense, given the discrepancy inherent in the male-dominated texts and the noted ubiquity of midwives and female nurses, who would have vast knowledge gained from practical work (Green 1989).

Discussion

This overview sought to introduce the main contentions in the medieval hospital and frame them towards the opportunities they present for the archaeological material. Overall, the confusion over the status of the medieval hospital and their place within wider monasticism is not unexpected given the diversity of the institutions. The sites were not strictly monastic, and the relationship between the community and the Rule was more basic and fluid, dependent on the choices made by the founder and the master of the house (Cullum 1993, 11). They were hugely variable in size, from sites for two lepers to hospitals caring for over 200 inmates and who held the status of priory due to their size.

Another issue is the varied groups who could reside within these sites, each one with their own set of needs and agendas. However, there were some basic fundamentals to unify the disparate institution. Religious practice and piety were ever present as some form of ideal. All residents were expected to pray during the day, although the schedules themselves could vary from two condensed sessions in the morning and evening, to prayer virtually all day, every day. They were quasi-monastic, in terms of the creation of a unified religious community, that held an identity created by admission to the hospital. The process was less binding than monastic vows, and in some cases admittance was intentionally short, acting as a safety net. Others were more permanent residences for the destitute. But in all cases, there were increasingly strict guidelines to admission, with the focus shifting more and more on to the deserving poor, those who needed help through no fault of their own, rather than the vagrant and the idle, entities that held danger.

This concept of danger also leads to a point that has been increasingly made in the past decade: the medieval leper was not as vilified as is often set out in scholarly work. This point also supports the notion that the categories that have typically been used to analyse medieval hospitals are probably not as distinct as previously thought. The admission process was very similar to other hospitals, they went through similar phases of support and decline as the others, they provided the same elements of hospitality, and the religious lifestyle was also present. One possible difference is the slightly stronger monastic identity with the leprosy hospitals, but this may also not be as distinctive as thought. It is clear that leprosy hospitals were also more open, with many having mixed populations of lepers and almspeople or guest quarters for poor travellers. Without the label of 'leper' there was very little that would truly distinguish these sites in terms of unique constitutional elements not seen at other hospitals or daily practice. This helps to support the notion that it is important to consider these sites as a unified institution, without the use of categories, when examining such aspects as constitutional form or architectural layout. This is not to ignore the likelihood that there will be some differences between the different categories of hospital, but merely that to truly see the difference requires defining what was similar.

The flexible constitutional form that was brought in from Anglo-Saxon conceptions of almsland helps to define another aspect of the conceptual framework of the unified hospital. It has also gone some way to explaining the difficulty in seeing how these sites were unified in the first place, since the inherent variability allowed by the form was theoretically limitless. Nevertheless, this flexibility was not exploited to the point where any of the hospitals and almshouses were no longer considered under the term hospital

and the range of smaller orders or informal religious institutions that sprang up during the later medieval period indicate that if they were ever not considered a hospital they would have been called something else. Also connected to this unique English form are two other elements that are distinctly English. The first was the lack of overt and telling presence of physicians on site, and the second was the fact that the English hospitals never developed into the large municipal hospitals and foundations, but they were an expression of a wider re-evaluation of charity and relief, utilising the parish framework that allowed the use of closer social ties, co-operation, and mutual responsibility for foundations, and meaning the task of poor relief could be controlled and checked by those funding it, as well as by their friends and family after they had died (Rubin 1989, 56). In essence the system of relief active in the medieval period was entirely dependent upon those that had the resources agreeing to and providing resources to support those who had nothing in return for the salvation of their souls in a relationship dependent upon consensus and trust; when such things diminished the will to provide equally disappeared (Rubin 1989, 57). Charity and relief were flexible, and new institutions and old went through phases of re-evaluation and refashioning as the community's needs, wants, and resources changed. One of the biggest changes was the understanding that poverty was virtuous, changing to the point where poverty was seen as dangerous if not acknowledged as such and contained by choosing a voluntary religious poverty instead. Charitable provision changed, relying less on the good working of religious charitable communities and becoming more discriminating and controlled (Rubin 1989, 55).

If the Acts of Mercy undertaken by Christ were the conceptual framework for the charity provided at the medieval hospital then this would break down into a number of needs: an adequate water supply; an infirmary or dormitory with ample beds and good air supply; a kitchen to prepare the food and drink; gardens for growing and contemplation; a reception area; bathing and latrine facilities; a chapel or altar; a cemetery; and considerable storage facilities for the food, utensils, linens, and clothing for the community (Courtenay 2007, 91). Where the sites were mixed this would also require separate facilities to segregate the sexes. This provides a clear baseline for the material needs of the hospital, but it ignores other conceptual influences, such as the introduction of medical theory. There is a strong case for arguing that the medieval hospital was implementing some form of non-natural theory, aiming to positively influence the health and outlook of those residing within the walls. Given that the leprosy hospital appears to have very little differentiating it from an almshouse of a travellers hospice, and with the awareness that conceptions of suffering

were malleable and constructed not by a set defined interpretation but by personal outlook and association, then the healing environment that would be suited for the penitential lifestyle of the leprosy would also, theoretically, be suitable for the pauper or the traveller. This implies that poverty and being a stranger could have similar medical and spiritual associations that leprosy could have. All those who were being selected to reside in the hospital were increasingly those who could not support themselves but who were worthy of aid, those who had worked before, or who were temporarily unable to function in society. Just like the Benedictine *infirmi*, these individuals were possibly dangerous and corrupting for others more fortunate. In essence poverty was only good if it was carried out as part of a voluntary religious institution.

The hospital was by its very form less-ordered than the monastery, holding a lower status, both of itself and through its residents (Gilchrist 1995, 60). The changes observed throughout the later medieval period reflect fluctuations in urban development and resources, changes in epidemiology and social attitudes to disease, varying fashions in piety, charity, and power display amongst the urban elites, and the growing formal arrangement of corporate responsibility for welfare. What this chapter has demonstrated, and what will be reinforced in the rest of this thesis, is that a “hospital housing a few people with basic needs is a surprisingly complex phenomenon – at once an invention and an evolution, patchy in its geography yet far-reaching in the history that it implicates” (Horden 2005, 389). The next chapter serves to set out a theoretical paradigm for examining whether the medieval hospital did function as a non-natural environment, serving to shift the dialogue towards the under-appreciated physical remains of these sites. By investigating the manner in which the buildings related to each other and structured the relationships of different elements of the community, it will be tested whether this complex phenomenon can be argued to have shared traits that serve to unify this currently disparate and paradoxical set of institutions.

3. Conceptualising the Architectural Layout of the Medieval Hospital: An Organised Space

The study of the interconnectivity and organisation of the architectural space of the medieval hospital is an issue that has received limited scrutiny, even when the buildings of these sites have formed a central focus of study. There is nothing new about proposing that the buildings of the medieval hospital were of vital importance to the daily life of the residents of the site. Such a sentiment has been expressed in various manners by both historians and archaeologists (Carlin 1989; Clay 1909; Gilchrist 1992; Gilchrist 1995; Godfrey 1955; Prescott 1992; Roberts 2007), but much like work in the first half of the 20th century on monastic sites (see Greene 1992; Leistikow 1967, 14 for details), this has centred on the central portions of each site. In the case of hospitals this has been the chapel and the infirmary hall, representing in their way the spiritual and physical hearts of the site. In recent years attempts have been made to categorise wider hospital layout (Gilchrist 1995; Prescott 1992; Roffey 2012), with the central argument of each analysis focusing on the physical association of these two buildings, such as how and where buildings attach to each other, angle, visibility of the altar, and size. There has been little discussion of any underlying ideological framework for how or why these sites were arranged in such a manner, nor how the wider ranges of buildings, such as kitchens, staff areas, guest quarters, and ancillary buildings, fit in with the interaction between chapel and infirmary hall. Ultimately, English medieval hospitals have been viewed as sites that grew organically, with little planning, and no overall framework that impacted upon the layout of sites, with funds and available space being seen as the main drivers for structuring the precinct.

There was a tendency in studies on hospitals before the 1990s to focus on the documentary sources or on architectural analysis, emphasising surviving examples or larger, well-endowed sites (Cardwell 1995, 233). Where rural sites had been investigated they focused on larger sites that experienced high-levels of support, such as St Mary, Ospringe, and Soutra, Lothian and Borders, Scotland, both of which had royal patronage. The focus on these wealthier and more urban sites created an imbalance in studies of medieval hospitals that dismissed the relevance of looking more widely (Cardwell 1995, 241). Even in the past two decades there has been little discussion about how the layout affected the daily use and perception of space, nor whether there was more to the manner

of layout than money and space. A prime factor in this mismatch in the dialogue has been the persistent problem that records or building layouts are usually incomplete, be it documents, standing architecture, or archaeological excavation, introducing a significant element of uncertainty to discussions of broader trends. It is also clear that the analysis of buildings has often lagged behind, or not interacted with, wider discourse on such aspects as religiosity, poverty, medicine, and the integrated nature of the medieval world view, all of which have been applied to aspects of the medieval hospital (such as Horden 2007; Rawcliffe 2006; also see previous chapter), or wider theory on buildings and architecture (discussed below). Integrating such discussions into an analysis of hospital architecture was one of the two central pillars of this project, and it will be argued that there is an underlying framework for how the space was constructed and utilised. This framework also provides the first clear articulation of how the physical remains of hospitals fits within wider discourse on medieval medicine, Christian charity, and poverty. The ultimate aim of this work is not just to highlight the potential of hospital material for looking at poverty, sickness, charity, and religion, something that has regularly been pointed out for decades, but that there is already a body of evidence from a wide range of sites that can advance the understanding of how these sites were conceived and experienced.

Faith and Charity as Structural Elements of Layout

In most previous discussions of the architectural layout of English medieval hospitals the focus has lain on the chapel and the infirmary hall. This is invariably due to survival or excavation bias, since it is correct to view these two buildings as representing the core pillars of the medieval hospital: faith and charity. As discussed in the previous chapter, there is still contention as to how the concept of the hospital arrived in England, but the most likely case is that the Continental idea of the hospital was amalgamated with Anglo-Saxon ideas on charity and the support of the poor, sick, and infirm (although see Watson 2006 for the full commentary of this). The implication of Watson's work is that it is possible that English hospitals may not necessarily conform to a framework or archetypal layout that is evident in the earlier European hospitals or English monasticism more widely, especially if aspects of Anglo-Saxon religious practice were imitated or incorporated. When examining the full spectrum of evidence on English medieval hospitals on a large scale it is difficult not to see the vast variation in forms and layout, and it would be understandable to accept without serious opposition Watson's description of these sites as "spectral" (Watson 2006, 77). This "spectral" nature is also probably caused by an amalgamation of

Anglo-Saxon and Continental monastic influences upon the ordering of space in religious buildings. Whilst some of the Continental influences are subjects of wider discussion (for example see Bowers 2007; Leistikow 1967), the nature of Anglo-Saxon religious spaces is still a subject of considerable discussion, which is only just beginning to be unpicked (Everson and Stocker 2011; Gittos 2013; Pestell 2002).

Roberts showed the breadth of support in terms of social status, as well as providing an excellent analysis of the regional spread of these sites across Britain (Roberts 2007), and it is evident from the distribution maps (see previous chapter) that there was a significant geographical spread, a mix of urban, suburban, and rural locations, a mix of religious orders, secular and religious individuals, and even cultural and social changes in the five centuries that make up this study. The local topography was also highly relevant, with sites frequently located at the gates of town or monasteries, at bridges or crossroads, even in some cases on rises in the ground (for example St Mary Magdalen, Partney, and St Mary Magdalen, Winchester). The nature of this topographical visibility was not always concerned with sight-lines over long distances but more upon the local visibility. Hospitals required people to notice the site, both to accrue inmates and staff, as part of their use in social display, and in aiding the site in the collection of alms, but each site would have experienced different motivations impacting upon the choice of location. The availability of appropriate land or buildings under the control of the founders, the dynamics of local politics and society, and the wider religious environment would all have acted upon the locality of sites. Although this topographical aspect will not be considered in much detail in this thesis, it will obviously have played a role in the individual appearances of each of the sites. These choices would lead us to expect that there was significant levels of variation and difference, even before individual site finances, differing objectives in terms of care, idiosyncratic histories on a site-by-site basis, reuse of old buildings, changing function, luck, and the vagaries of survival are all taken into account. That being said, all sites were acting within this requirement to be observable and noticeable and were also intended to fulfil the set functions of the hospital as a site of religious charity. As such whilst location may have been more restricted or open depending upon the specific topographical location, thus impacting upon the specific individual appearance, the choices made concerning layout and the required buildings would still be similar, irrespective of location. A wider study of hospital layouts must still be made first before a wider assessment of these influences can possibly be made.

When considering the two central buildings, the infirmary hall typically comprised a long, rectangular hall, sometimes referred to as a nave, that in some cases was partitioned to segregate sexes, with the chapel frequently located at the east end (Fig. 3.1) (Carlin 1989, 28; Prescott 1992, 5). In many cases these chapels opened on to the infirmary hall with little division between the two, and this has been argued to represent patients being allowed to witness the daily celebration of mass from the beds (Carlin 1989, 28; Gilchrist 1995, 17; Rubin 1992, 80–82). Of possible note is work by Mark Gardiner on the similarities between the form and function of medieval halls and chapels (Gardiner 2015). In this it is noted how status and use are mediated through the understanding of space, with clearly understood relationships between people and their place within the structure. Where the nave also serves as dormitory space, such as in some hospital sites, the manner in which living arrangements are manipulated by the impact of the eastern chapel, the equivalent of the high end of the hall, would have possibly provided an understandable template for inmates to understand the position and access to certain spaces within the hospital precinct.

In some cases the chapel was a separate building, such as at St Giles, Brompton Bridge (Cardwell 1995; and discussed in Chapter 4), and there seems to have been considerable variation in how the chapel looked or related to the infirmary hall (as discussed below). This may have reduced the importance of the hall template on understanding access and function within the hospital precincts, but the implications for the manner in which familiar templates may have been used to structure the life of inmates will still be relevant.

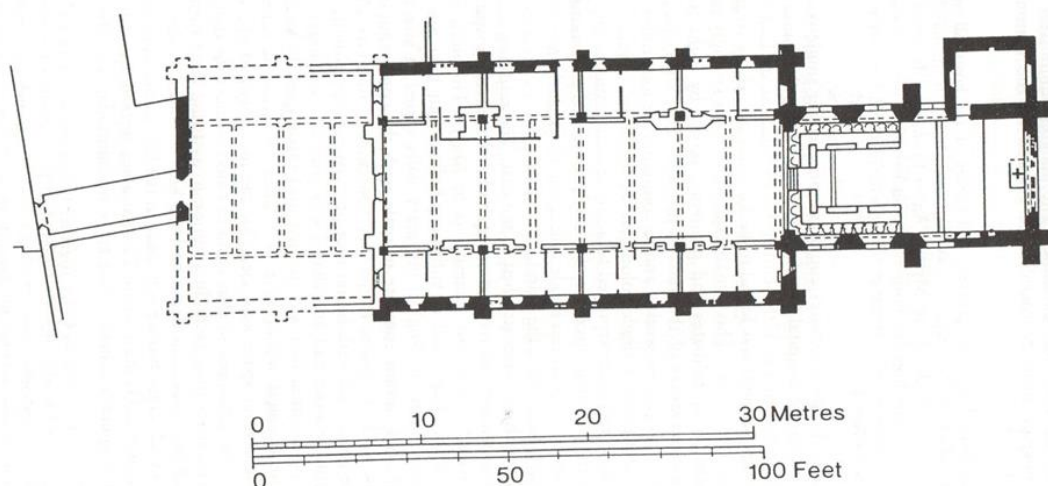


Figure 3. 1: St Mary's Hospital, Chichester, showing the classic layout of a medieval hospital, with a long nave and a small chapel in the area where a chancel would be in a traditional church (Gilchrist 1995, 19, Fig. 3) © Roberta Gilchrist, 1995, *Contemplation and Action: The Other Monasticism*, Leicester University Press, used by permission of Bloomsbury Publishing Plc.

Considering the wider precinct, although it has been suggested that most were contained within an enclosed precinct, accessed through one or more gates (Carlin 1989, 28), it seems probable that this is only true for the medium to large sites, with smaller hospitals, especially those consisting of a singular house, most likely having no obvious demarcation from the surrounding environs. These are also usually the shortest-lived sites, the hardest to find archaeologically, and often have few surviving records. Given that a detailed examination of the overall layout of any religious institution would be hugely pertinent when discussing the function of buildings there has been relatively little scholarly attention on the subject (Gilchrist 1995, 9). In the main, generalised comments about the wider complex of associated buildings, although held to be important in understanding how the site functioned (Prescott 1992, 6), have been virtually missing. The focus on the infirmary hall and chapel, coupled to this lack of concerted investigation into the wider layout, has instead led to an overall interpretation that these sites lacked organisation or were unplanned, especially when considering other buildings in the precinct, such as kitchens, staff dormitories, master's lodgings, workshops, and so on.

Architectural Layout: An Influential Idea?

A wide range of buildings and cultures have been examined through the idea that the buildings that surround us influence the way in which the world is experienced and provide means of articulating wider world-view concepts. There are numerous examples of this, such as Pierre Bourdieu's (1970) dissection of the meanings inherent in the Kabyle house (Fig. 3.2), although his conclusions were criticised for creating too distinct a break between male and female (Bellal 2004). Bourdieu showed that whilst technical descriptions and functional understanding can explain or provide reason behind the layout of a building, often there are symbolic elements underpinning both features that are not necessary or unusually placed and also those elements that appear to be purely functional. Whilst contentious, the salient point that direction, association, opposition, and hierarchy all have factors to play in the way in which a building is structured are of extreme relevance if we wish to start assessing if there was a conceptual hospital framework, and how this operated. In the Berber houses Bourdieu noted that activities such as cooking and weaving were defined by compass orientation and in relation to other areas of the house, and that certain areas were more associated with certain genders, ages, or physical abilities (Bourdieu 1970, 153, 155). He also highlighted that the building/s as a whole can have associations or meanings that are different to the associations and meanings at work inside

the building. In the Kabyle case the house as a whole was seen as female and dark but inside of which there were oppositions of male, female, light, dark, and so on (Bourdieu 1970, 157–9). Buildings can function as a system for convenient and self-repeating mythico-religious ideology that self-supports both the internal unit itself and wider society more generally (Bourdieu 1970, 160). The physical building serves to embody the ephemeral concept of an eternal and imperishable social order, manifesting it in a way that denies change and transformation (Parker Pearson and Richards 1994, 3).

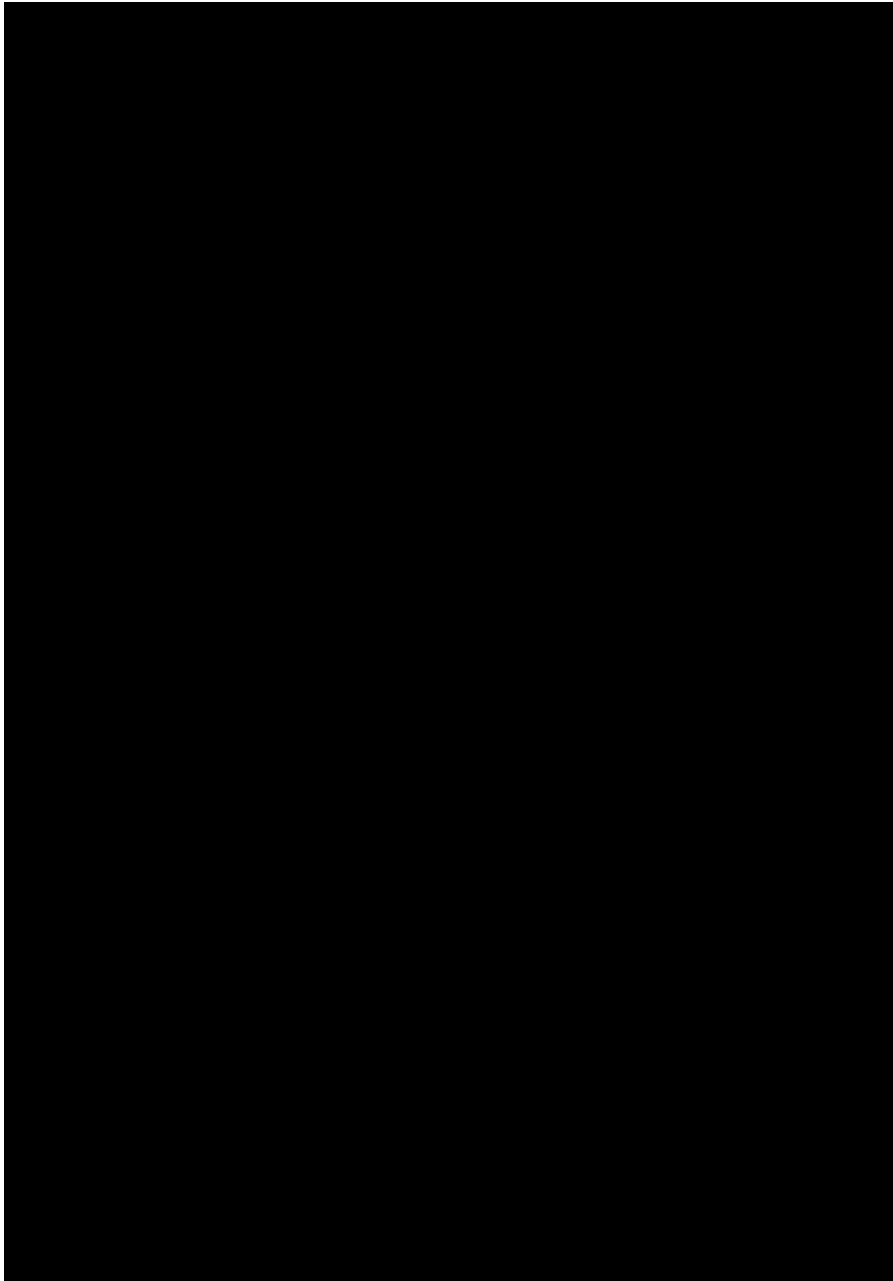


Figure 3. 2: Above: Thematic plan of a Kabyle house, setting out the activity areas; Below: theorised spatial orientation and associated symbolic meanings. Note the way both function and symbolism are combined within the space of the building, but with only limited physical markers to hinder movement. As such, use and access are understood through other avenues of knowledge that are encoded in the interactions with the building (Bourdieu 1970, 166-7, Fig 1 and 2)

By no means can this ideology put forward by Bourdieu be simply transposed across to the medieval hospital, but what can be taken from this work is the fact that buildings can *potentially* have this influence on both the immediate residents and wider society. The importance of the materiality of a building or the influence of its shape or layout have been shown in numerous ways, such as the clom (or mud) constructed houses of post-medieval Wales (Alfrey 2008) or the increasing “hardness” and permanence of Zafimaniry houses on Madagascar as a reflection of personal and social ancestors (Bloch 1995). In the first application of this form of approach to the medieval period, David Austin and Julian Thomas applied a binary structuring to the conceived space of medieval peasant houses of Dartmoor (Austin and Thomas 1990). In this study distinctions between inside and outside, private and public, and between relative changes in status were implied to be both dependent upon an individual’s location at any point in space but also in time. Different times of year, such as harvest, required different approaches to social interaction, and thus the use of space within and around the house (Austin and Thomas 1990, 75). All manner of spaces required and gained meaning through confrontation and negotiation, structuring life and the understanding of personal place within the wider community.

This means that the built environment engrains repeated patterns of action, becoming traditional and stable, but also potentially leading to confrontation and change (Austin and Thomas 1990, 75). The built space constricts and informs movement and action, but monumentality can inform about *why* something may be, as communicated through a series of signs and surfaces that mask the overt imposition of power behind collective will and thought (Parker Pearson and Richards 1994, 3). The environment is created through interaction, imbued with meaning, actions, and stories that architecture can bind to space, becoming material markers that create permanence of place, even if that meaning can change or be manipulated (Parker Pearson and Richards 1994, 3-4). This meaning need not just be visual or intellectual meanings of components, but can also be communicated through all the senses, and as such there is a heightened vitality and dynamic to the material nature of buildings, rather than just acting as inert and passive containers for action (Melhuish 2005, 10). What the senses perceive becomes the manner in which the world that is present is understood, bonding together ‘perceived object’ with ‘perceived subject’. This perception of the wider environment and personal place is available through the archaeological record, but requires a broader outlook. In the case of the Dartmoor houses, Austin and Thomas did not just look at the houses but out into the village dynamics, the relationship to and with fields, and the interaction with outside authority,

highlighting the manner in which these social interactions can be examined together through a range of evidence strands working together (Austin and Thomas 1990).

As such, 'experience' can be seen as of vital importance to how architecture is understood, and should be combined with examinations of more literary or semiotic based messages (Melhuish 2005, 10). The material environment is not a neutral concept, but acts for or against chaos or order, in conjunction with elements of society or against it, and this active status is culturally relevant, dependent on, and helping to form, wider experience (Parker Pearson and Richards 1994, 4). Yet, it should be kept in mind that experience, the understanding of the senses to organise the perception of the world, is highly dependent on culture, as which senses provide what information, and the responses that are created by what the senses perceive, will still be structured by the expectations of the individual through their place in the society and their knowledge of their culture (Melhuish 2005, 11). Thus spatial form is intimately linked to human agency, as mediated through meaning; the physical environment is actively given meaning by people, who then act upon those meanings in their life (Parker Pearson and Richards 1994, 5). In a sense we could suggest a split between the *intent* of a site's layout and the *result*.

The relevance of understanding *intent* and *result* when examining built structures is evident in Clare Melhuish's research on the Brunswick Centre, London. Using a phenomenological approach to the built environment that focussed upon the experience of the space, alongside interviews and a historical narrative of the changing fortunes of the site, Melhuish contrasted the discrepancies between the intended value of the Centre to its inhabitants and visitors with the actual multi-vocal experiences of the varied groups and individuals who called the site their home (Fig. 3.3) (Melhuish 2005). The architect of the site intended residents to experience a modern community that was from diverse backgrounds and origins that was tied together by their locality in a space that was upward looking, a township that was both separate from and a part of the wider city, a community united by positive social values and an open and outward-looking manner (Melhuish 2005, 13–4). In reality it created an increasingly socially and spatially stratified society, broken into distinct groups that did not mix. Social interactions were often limited to immediate horizontal neighbours, with limited engagement with those above and below. This resulted in a breakdown in the unity of the space, a rise in vandalism and crime, and a dislocation between the individual people and the space that they inhabited. The upper levels are seen as more desirable, leading to a breakdown in community spirit made worse by the disconnect visually and spatially between each floor (Melhuish 2005, 20–1). The shops

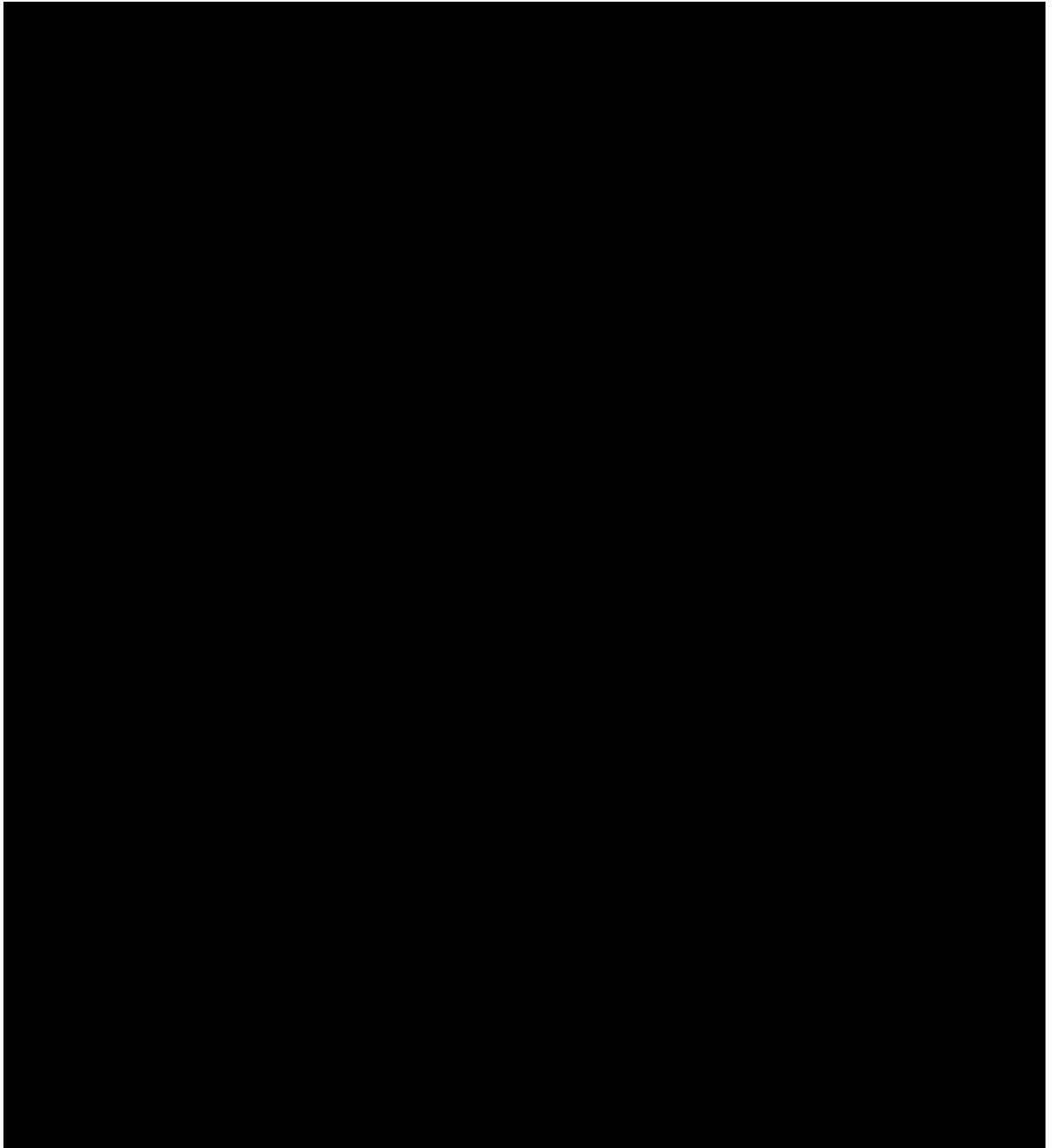


Figure 3. 3: Top: A schematic section through the Brunswick Centre, London. Note the tiered nature of the flats and the intended focus of the central area as a location of meeting; Below: A picture across the central section of the Brunswick Centre looking at one of the tiers of flats. The abundance of concrete has been felt to date the Centre. Also evident here is the manner in which the flats face each other, impacting upon perceptions of privacy (Melhuish 2005, 7, Fig 2 and 3)

established as part of the Brunswick Centre did not include the main shopping hall, and those that were established could not be supported by the initial resident population and as such closed, changing the nature of the social interactions in the middle of the site

(Melhuish 2005, 20). There was a restriction in the cross-interaction between the two sides caused by the lack of viable meeting areas in the centre and the limited mobility between the two halves along two narrow walkways. This over-emphasised the stairs and lifts as areas of social interaction, but these engagements were often time-limited and came to be feared as crime increased and the interactions between the different resident communities decreased. The flats of the Brunswick Centre were also built with young families in mind, but over time, through a mix of economic and social change in London, the families either remained, leading to overcrowding, were used by the local council to house migrant families, or were bought by young professionals, further fragmenting the intended unity of the community (Melhuish 2005, 22–3). Even the wide-spread use of concrete, seen as modern and novel at the time, quickly came to be a sign of the site's age, leading to its description as a 'concrete jungle' (Melhuish 2005, 18).

Whilst the intended benefits and messages associated with the construction of the Brunswick Centre are observable through an understanding of the architectural history, the actual experience of the site was much different, caused by unintended, consequential, or external factors. By examining both the intended ideal and the actual experience together Melhuish indicated the danger of only looking at the theorised origin of a structure or the physical remains, instead reflecting upon both to establish the full impact and experience of a site. As such, an appreciation that the archaeological record will represent elements of both *intent* and *result* is key, since only looking at the intended reasons behind why the buildings were constructed will hinder accurate interpretation of the results that remain. This will be particularly true when evidence of both are incomplete, poorly articulated, or highly variable, as in the case of the medieval hospital.

There has been a neglect of the importance of everyday spaces and life to communicate cultural meaning in approaches to architectural studies in the past two decades (Melhuish 2005, 12). Space cannot be examined without relation to the activities taking place within and around them, be they social, domestic, ritual, economic etc., and as such any space still entails a cognitive, physical, and emotional response that is not fixed but continually changing, often in a manner highly dependent upon the individual (Melhuish 2005, 12). If the symbolic is difficult or impossible to understand, then the underlying structure may only be read one-dimensionally, ignoring "the possibility that design structures have different meanings in different cultural contexts" (Parker Pearson and Richards 1994, 30). The argument has been made by some that architecture is the "concretisation of existential space", generated by the transformation of nature into a 'cultural landscape' (Melhuish

2005, 15). Construction becomes the mediator between humans and the environment, making a place from a site, and becoming central to the creation of that environment's meaning. It must be borne in mind that this theoretical paradigm can often concentrate overly on the visual, examining the symbolic forms that focus humans on their place in the world, ignoring the rest of the sensory experience (Melhuish 2005, 16–7). A more sensory attempt to understand architecture looked at “acoustic intimacy, silence, scent, touch, taste, physical movement, and scale and gravity”, but this approach still did not take into account the way the senses are socially constructed (Melhuish 2005, 17). The importance of imagination, and the connection to the senses should also be remembered, since imagination allows the mind to see more fully (Melhuish 2005, 17). Underlying all assessments of architecture should be the understanding that all action develops “out of a complex web of cultural and economic influences and conditions, which defined both the brief and the response, not simply the result of an act of individual authorship” (Melhuish 2005, 17).

Medieval Architecture as an Active and Informed Space

The buildings of the medieval hospital should not be viewed as a passive entity but one that acted upon all the senses of those who resided within them. The multi-sensory impact of hospitals has already been highlighted, including such elements as preaching in hospitals (Davis 2010), music and song (Horden 2001), food, environment, and daily routine (Horden 2007), or the use of gardens (Rawcliffe 2008). Despite the theoretical and historical understanding of the use of senses in hospitals this discourse has not translated to a wide-ranging and encompassing examination of the physical remains. Despite there being an awareness that the nature of the buildings around us structure our relationships with them and the actions that we take, as reflected by the sentiment that “[s]tructures are both the medium and the outcome of social practices” (Parker Pearson and Richards 1994, 3), it is often a difficult thing to put into practice, especially concerning an institution as varied and whose remains are so incomplete or piecemeal as the medieval hospital. However, the medieval hospital, and the almshouses that were included under this title, served as a distinct category of site, and “[t]hrough classification order is imposed upon the world, not simply an ordering of everything in its place, but an order of morality, social relations, space, time, and the cosmos” (Parker Pearson and Richards 1994, 10). Since classification usually centralises around the human body, as the basis of experience (Parker Pearson and

Richards 1994, 10), then the fact that these groups of buildings were classified as similar suggests an attempt to unify the human experience of what was provided.

It is a common feature of symbolic systems that they use centrality and space through concentric and/or diametric associations to help organise both time and space (Parker Pearson and Richards 1994, 12–4). Many orderings are associated with sacred and profane, male and female, up and down, inside and outside, symbolising the unity of social units whilst at the same time encoding gendered space, organising work patterns, and embodying inequalities between social members (Parker Pearson and Richards 1994, 17). In locations with a sharp transition from sacred to profane purification can be an important concept that encapsulates the transition (Parker Pearson and Richards 1994, 25), something clearly noted in surviving accounts of the Rules of entry to many hospitals with the regular inclusion of confession as part of the entry ceremony. Of great relevance to many of the medieval hospitals was how the known concern over mixed religious houses in the medieval period was dealt with outside the chapel and infirmary halls. Taken alongside the manner in which the hospital, or at least very specific elements of the site, served as a sacred area it should be recognised that looking for how the hospital encoded the organisation of time and space, as well as religious and profane, through architecture is vitally important.

The material used may also be highly relevant, especially when considering differences between sacred and profane. The permanence of stone, in relation to the more widespread use of transient materials for construction, may have held wider implications about wider status and understandings about function. Such considerations have been articulated for the Anglo-Saxon world by Michael Shapland (2013), where there was great importance placed upon the utilisation of the different materials, with stone almost exclusively utilised for religious buildings. As such, differing construction materials may also be another avenue of exposing the creation of hierarchy in space within the hospital precinct, and may also link into expressions of symbolic and social value placed both upon the building itself but also upon the associated residents and activities. For example, it would be expected that stone would be utilised for the chapel structures, but its use elsewhere, and the quality of construction, would also provide added information on the effort and expense gone into the construction. This would imply certain value judgements (value taken here to not just imply financial but also social, symbolic, political) associated with the structures, and how this changes not just across the site but also through time and between sites. In the Anglo-Saxon world timber was the secular building material, although this need not

imply a lack of care or design to its use (Shapland 2013, 27). Whilst this changed after the Conquest, elements of these associations may still have existed in building practice, creating a series of potential relationships between material, the quality of construction, status, and function that may be observable in the archaeological remains of medieval hospitals.

Coupled to this is also a lack of interaction with the theoretical conceptions of medieval architecture, which took into consideration practical and liturgical functions, rather than more modern concerns with design and construction (Krautheimer 1942, 1). Questions of symbolic significance about dedications or layout, the immaterial content of the architecture, appears to have been the most prominent problem at the forefront of the medieval mind, meaning sites could be considered similar or copies that to a modern observer seem utterly different. This suggests that medieval architecture utilised different conceptions of similarity from our own (Krautheimer 1942, 3). For example, there were a number of 7th- to 12th-century copies of the Holy Sepulchre in Jerusalem but in each case these architectural copies were not exact (Fig. 3.4) (Krautheimer 1942, 3–5). A structure with more than four sides was considered in medieval architecture to be an attempt at a circle, arguably meaning “[a]n approximate similarity of the geometrical pattern evidently satisfied the minds of mediaeval men as to the identity of two forms” (Krautheimer 1942, 6).

There was not only an apparent indifference to direct shapes but also specific details of a building when making architectural copies, such as the number of chapels, the number of supports, or the layout of key features like the ambulatory. When reading medieval documents discussing architecture there is often a lack of clarity when describing architectural patterns and geometric shapes, which suggests there were other intentions behind the copying of a building (Krautheimer 1942, 7–8). Whilst general pattern and its implications were important, that does not necessarily mean building shape was always determined by symbolic implications; sometimes the symbolic implications were formed around the shape of a building. Usually this interplay was not clear at all, and the process of creating “the relation between pattern and symbolical meaning could be better described as being determined by a network of half-distinct connotations” (Krautheimer 1942, 9). Symbolism accompanied form, not acting as the starting point for structure or as a means of creating meaning after the fact. These symbolisms were often vague connotations that were dimly visible or understood, and often held varying interpretations, explaining why the same shape could hold varying meanings (Krautheimer 1942, 9).

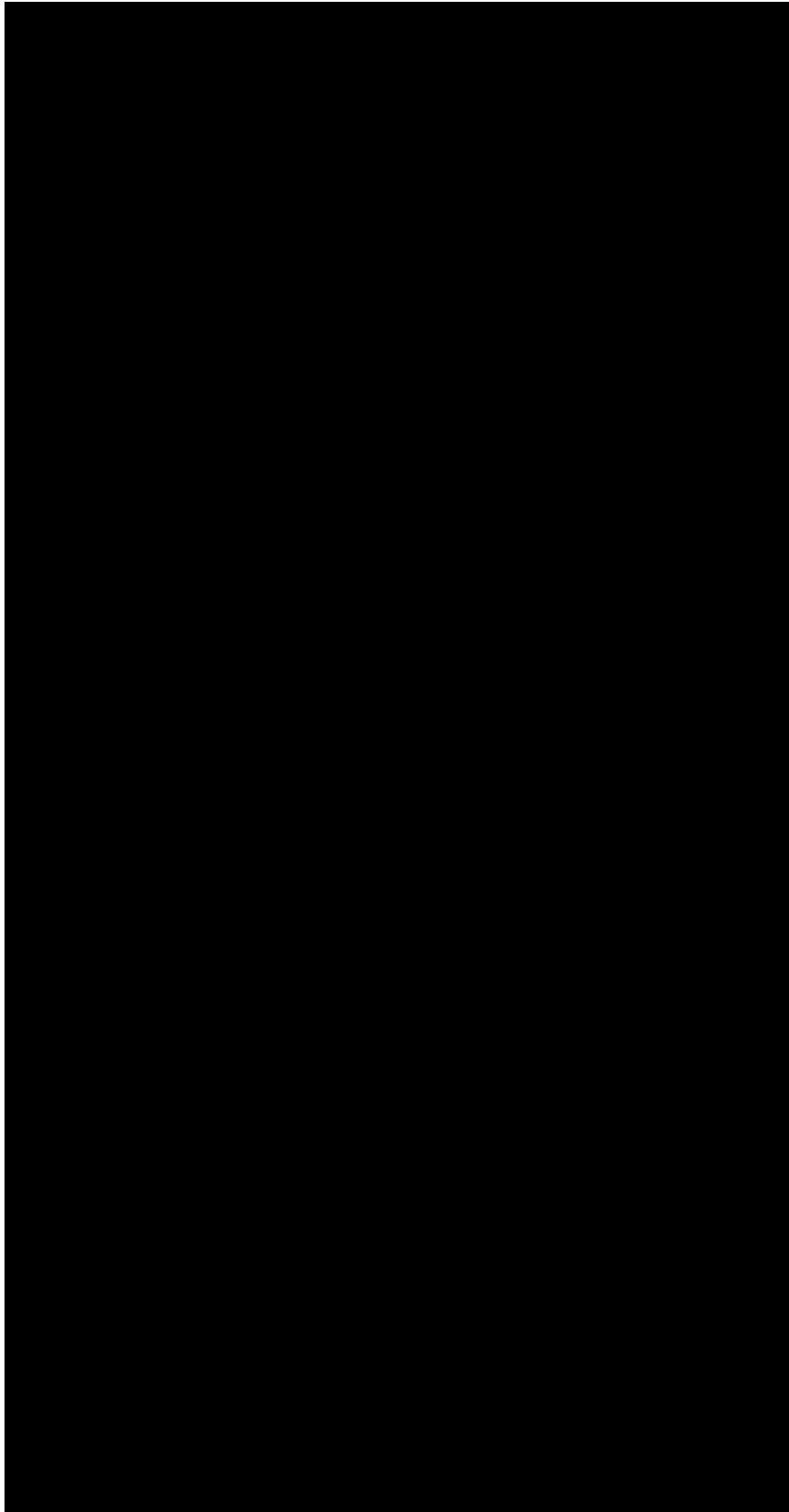


Figure 3. 4: Plans of St Michael, Fulda, Holy Sepulchre, Paderborn, Rotunda, Lanleff, Holy Sepulchre, Cambridge and Anastasis, Jerusalem. Despite the obvious visual differences between these different plans, the first four sites were considered direct copies of the last one, the Anastasis, Jerusalem. Such considerations bring into question ideas of identical copies when viewing architecture (Krautheimer 1942, PI 1 a, b, c, d and PI 2a <https://www.jstor.org/stable/750446>)

Overall we see a selective transfer of architectural elements, but through this transfer there could also be changes made to the original relationships or coherence, as well as other influences impacting this transfer, either from other copies or other sites associated with the original (Krautheimer 1942, 13–4). Such changes can also be seen in medieval painting and sculpture, where buildings were disintegrated into its single elements and then reshuffled selectively back together again, leading to a mix of internal and external elements being viewed in the same image (Fig. 3.5). This process could utilise the majority of the elements of a building, but usually only a few elements were used, those diagnostic in association to provide an identity to the building being pictured (Krautheimer 1942, 15). Thus, to the medieval mind buildings with little seeming similarity could be comparable because they contained a few diagnostic elements in common, be it shape, dedication, measurements, the number of supports, or any number of other architectural elements.

Sometimes the dedication or name alone could provide the similarity of a copy to an original, both becoming “mementoes of a venerated site” where a more elaborate copy was only adding material elements to the more important immaterial element, the name and the dedication (Krautheimer 1942, 16). “Both immaterial and visual elements were intended to be an echo of the original capable of reminding the faithful of the venerated site, of evoking his devotion and of giving him a share at least in the reflections of the blessings which he would have enjoyed if he had been able to visit the Holy Site in reality” (Krautheimer 1942, 16). From the beginning of the 13th century this trend began to change,



Figure 3. 5: Anastasis in the Sacramentary of Henry II. Munich, cod. lat. 4456. Visible are external sections of the wall, especially in the middle section, but also the columns of the internal space (Krautheimer 1942, Pl 2d <https://www.jstor.org/stable/750446>)

with increasing emphasis on accurate copies, and by the 15th century these changes were more obvious, creating a stronger bond between constituent elements and relative proportion when being copied (Krautheimer 1942, 20). From this it can be taken that direct similarities are not necessarily required to indicate that hospitals shared a common underlying framework, but that a similarity of spiritual meaning and some similarity in use of form could serve as a unifying theme. If so it is important to understand what was similar about the sites, not just how the arrangements differed.

Categories of Layout

When examining the layout of medieval hospitals, the overwhelming focus has been on the infirmary and the chapel. The central importance of these two buildings in excavation strategy is unlikely to change, especially given that the vast majority of these sites are now, to a greater or lesser extent, lost to us, with remains built over or lying under agricultural fields. To even begin to unpick these sites still demands accurately locating and assessing both the infirmary hall and the chapel buildings to be certain that the site was a hospital, given the manner in which these two buildings served as a pivot around which the rest of the complex is formed (Prescott 1992, 6). The chapel was also frequently a central justification for the site, as the focus of the prayers of the community for those supporting the house, and is often the single most distinctive archaeological feature. Thus, it comes as little surprise that when attempts to categorise the hospitals via architecture has been attempted, virtually the sole focus is upon the infirmary hall and the chapel.

Prescott's (1992) examination of the hospitals of England divided them into a mix of temporal and stylistic categories, with earlier hospitals mostly complying with the "infirmary-hall style", also sometimes referred to as the chapel and nave style, remaining in use until the end of the study period but with extensive modifications to increase privacy or establish quarters more suitable for convalescents (see Fig. 3.1 as an example). From the 14th century the increasing support for the poor and almshouses has also been linked to the introduction of the quadrangle used in contemporary colleges to the hospital tradition (Fig. 3.6) (Prescott 1992, 48–9). This change related to the reduction in care for the sick and the increasing preference for private residences, but was also used to argue for the diminishing importance of monastic elements of life to the community. Separate from these trends was

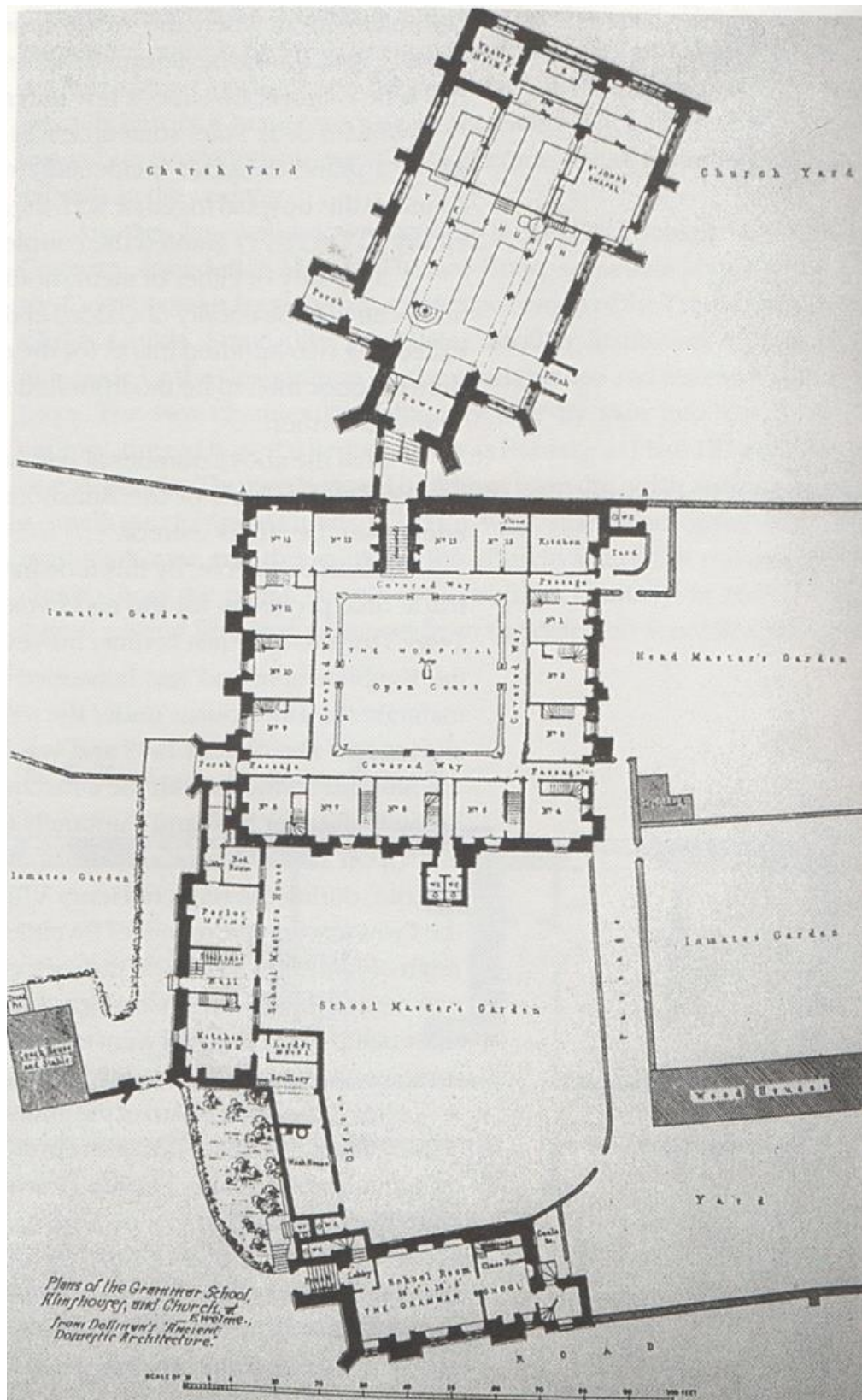


Figure 3. 6: Plan of Ewelme Hospital, Oxfordshire, showing the quadrangular form of hospital. The almshouse is the central quadrangle, with the church at the top of the page, to the east, and the grammar school at the bottom, to the west. From Francis T. Dollman 1858, *Ancient Domestic Architecture*

the leprosy hospitals, suggested to comprise a central chapel and an associated collection of small huts or houses in which the afflicted would stay to ensure their isolation from the wider world (Prescott 1992, 5), a sentiment challenged in the previous chapter.

In Patricia Cullum's discussion of the topographies of medieval hospitals she noted that although there is much variation they can be broken down into three overall forms, virtually identical to Prescott's groupings of church-style, collegiate, and leprosy (Cullum 1993, 18). Cullum also associated the church-type with a heightened emphasis on caring for the sick, whilst the collegiate style, introduced in the 14th century, were usually caring for independent, elderly, or poor inmates. There was recognition that hospitals could also be founded with existing buildings on site that were converted, adding the variability seen in the remains (Cullum 1993, 18). Cullum also argued that large hospitals, like St Leonard's, York, developed their own topographies, independently from others, in this case with a church and cloister and a separate infirmary with its own chapels (Cullum 1993, 18). This focus on the gradual shift from the monastic influence to a more individual form of living in hospitals has also been raised by studies of the European hospital tradition more widely; "In England, the medieval hospital buildings, which were intended for the communal life of inmates who were subjected to a strict religious rule, gave way, in many places, to more individual forms even before the Reformation" (Leistikow 1967, 69).

The sentiment focussed on one rather static conceptual form, the more monastic infirmary-hall style, coming into increasing competition from the 14th century with another fairly static conceptual form, the more secular and individualistic collegiate style. Interestingly, for the rest of Europe the Renaissance saw hospitals become larger, with a palace-like construction centred on extensive wards, often in a cruciform pattern (Fig. 3.7) (Henderson 2006; Leistikow 1967, 11), something almost entirely absent from England. In principle this serves as an adequate summary of the overall trend in English hospitals during the medieval period, but it neither explains the variation visible, nor really delves into the similarities noted in the use of these broad categories. Whilst Prescott observed the possibility of a distinctly Kentish approach to hospital layout, with chapels located at right-angles to the infirmary hall, such as at St Mary Ospringe, St Mary, Dover, St Bartholomew, Chatham, and St Thomas the Martyr, Canterbury (Prescott 1992, 11–2), and although there are a number of 11th- to 13th-century hospitals in Kent that follow this trend, what this possible trend meant for hospital organisation, the spread of ideas or what constituted the conceptual justification for the hospitals was not developed.

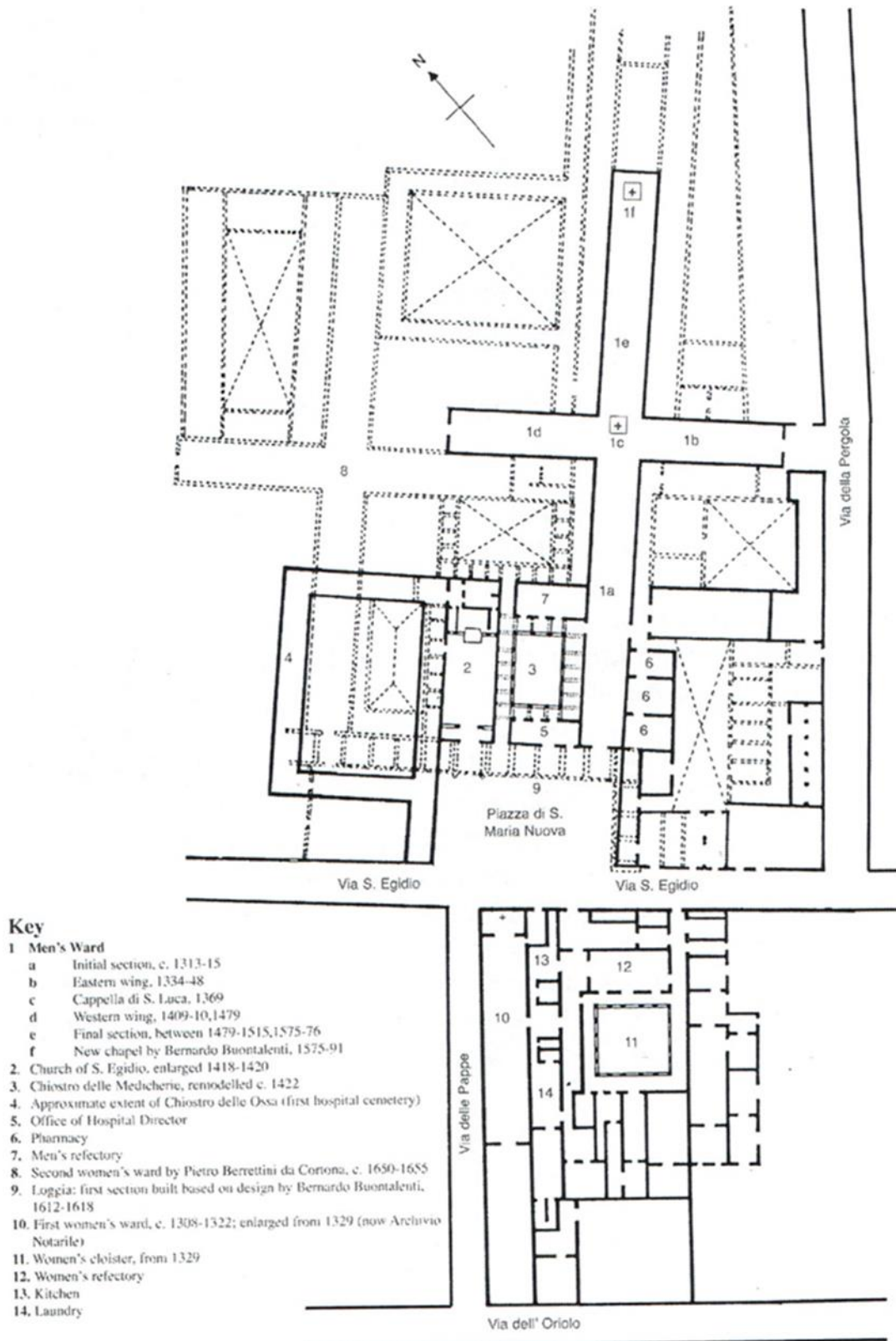


Figure 3. 7: Ground plan of the Hospital of S. Maria Nuova, c.1500, showing the clear cruciform shape of the main hospital building, as well as the range of associated buildings to the north and south of the west arm (Henderson 2006, 22, Pl 1.9). John Henderson, *The Renaissance Hospital: Healing the Body and Healing the Soul*, adapted from an original design by Patrick Sweeney from the original in the Kunsthistorisches Institut Florenz; Reproduced with permission of Yale University Press through PLSclear.

With the increase in archaeological evidence, it was seen that there were a series of other arrangements visible in the evidence, in general breaking down into three forms (Fig. 3.8) (Gilchrist and Sloane 2005, 33; Roffey 2012, 225 which focussed more on how this applied to leprosy hospitals): organic, where development was irregular; integrated, where the chapel and infirmary hall were connected; and parallel, where the two buildings were separate but aligned. The organic form was suggested to be more representative of smaller institutions, whilst the other two forms were associated with larger houses, which had more available space, lessened financial restrictions, or had founding objectives emphasising the chapel and altar. The parallel form could also be integrated into a close or claustral system (Roffey 2012, 225), ideas that begin to touch upon the manner of how the space was utilised and lived in. Unfortunately, these analyses do not go any further in their attempts to categorise the architecture. A slightly expanded system discussed by Atkins and Popescu (2010, 253) noted 5 main groups, of which only the first four were significant in England and Wales: a hall with terminating chapel; a hall with detached chapel; a collection of buildings with detached chapel; buildings arranged around a court or cloister; and a cruciform plan (the one least relevant). But again, there was virtually no allusion as to *why* these differences were important and comprises essentially the same groupings as other attempts.

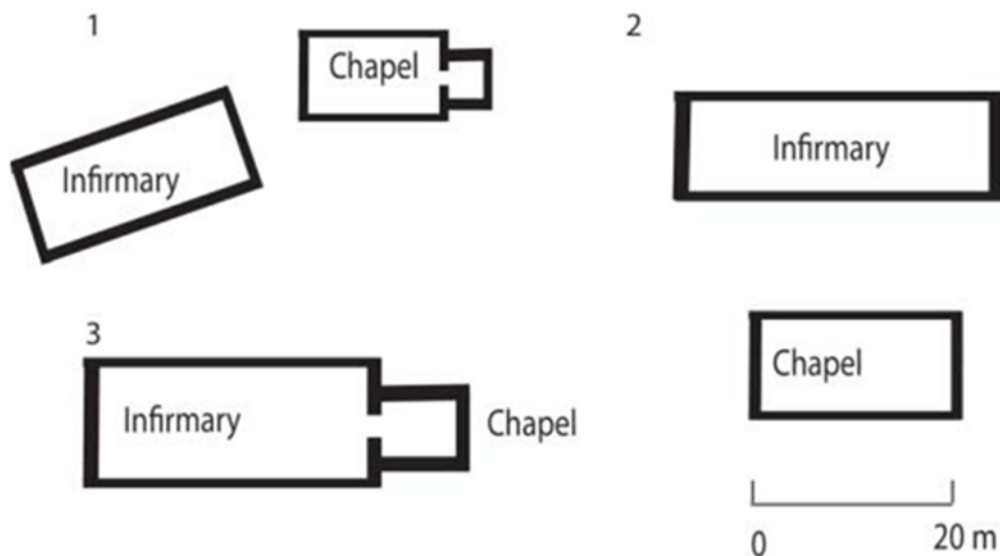


Figure 3. 8: The main three forms of hospital layout: 1. Organic form, where there is no perceptible link between chapel and infirmary; 2. Parallel, where the chapel and infirmary are not connected but closely orientated, usually with the chapel to the south; and 3. Linear, where the infirmary and chapel are connected as one building, with the chapel to the east and the infirmary hall to the west (Roffey 2012, 225, fig 10). Reproduced with permission of Taylor and Francis and the Society for Medieval Archaeology <https://www.tandfonline.com/loi/ymed20>

A plan that has received extensive attention on the manner in which a hospital complex might be laid out was for a site that never existed. The Plan of St Gall is frequently held up as an exemplar of how a medieval hospital should look, despite the fact that it does not seem to represent any real location (Fig 3.9). It is related to the Benedictine revival of St Benedict of Aniane in 816-7 (D'Aronco 2007, 236; Leistikow 1967, 13), which may tie to the influence of Benedictine ideals on health mentioned in Chapter 2. Many elements of the Plan, such as a lack of gates or the arrangement of a monastery along a common axis, follow Carolingian ideals and reinforce this association to St Benedict of Aniane, who actively encouraged a more ascetic life locked away from the lay world (D'Aronco 2007, 238). The plan clearly separates areas, with the religious activity, such as the church-cloister and the novitiate-infirmery, and areas open to more secular elements of the public, such as guests and pilgrims, located to the north, south, and west, most with their own kitchen and related facilities, reducing the contact the monks would have with worshipping laity, serfs, and workmen.

The church and associated buildings for the religious community and their needs sit in the medial zone of the plan, kitchen to the south, abbot's lodgings to the north, with a separate novitiate-infirmery to the east, the attached chapel divided in two with sick monks to the west side and the novices to the east (D'Aronco 2007, 240-1). The infirmery area was self-sufficient but closely connected to the main monastic precinct, but also implies a level of segregations. The combination of the sick, old, and young is attuned to St Benedict's Rule that these groups were not expected to follow the full Rule and had less strictures on food and bathing (D'Aronco 2007, 241, 245). The infirmery cloister was to the north of the chapel, with the refectory and supply room in the west wing, the dormitory and latrine in the east wing, and the north wing being the room for the critically ill, close to the physicians house (D'Aronco 2007, 245; Leistikow 1967, 14). It has been argued that this location in the St Gall Plan of the infirmery at the eastern end of the complex is in keeping with isolating the sick whilst also locating them somewhere inside the inner monastic precinct (D'Aronco 2007, 243).

The St Gall Plan also includes a house for bloodletting, which is west of the physician's house, both north of the infirmery cloister (D'Aronco 2007, 243). Bloodletting was a widespread practice that was even prescribed to the healthy, and the Plan of St Gall locates it near the physician, although separated from other areas by a fence, and also provided a number of latrines for purging. The physician's house was located near the critically ill ward, as well as the herb garden in the north-eastern corner of the precinct to allow the

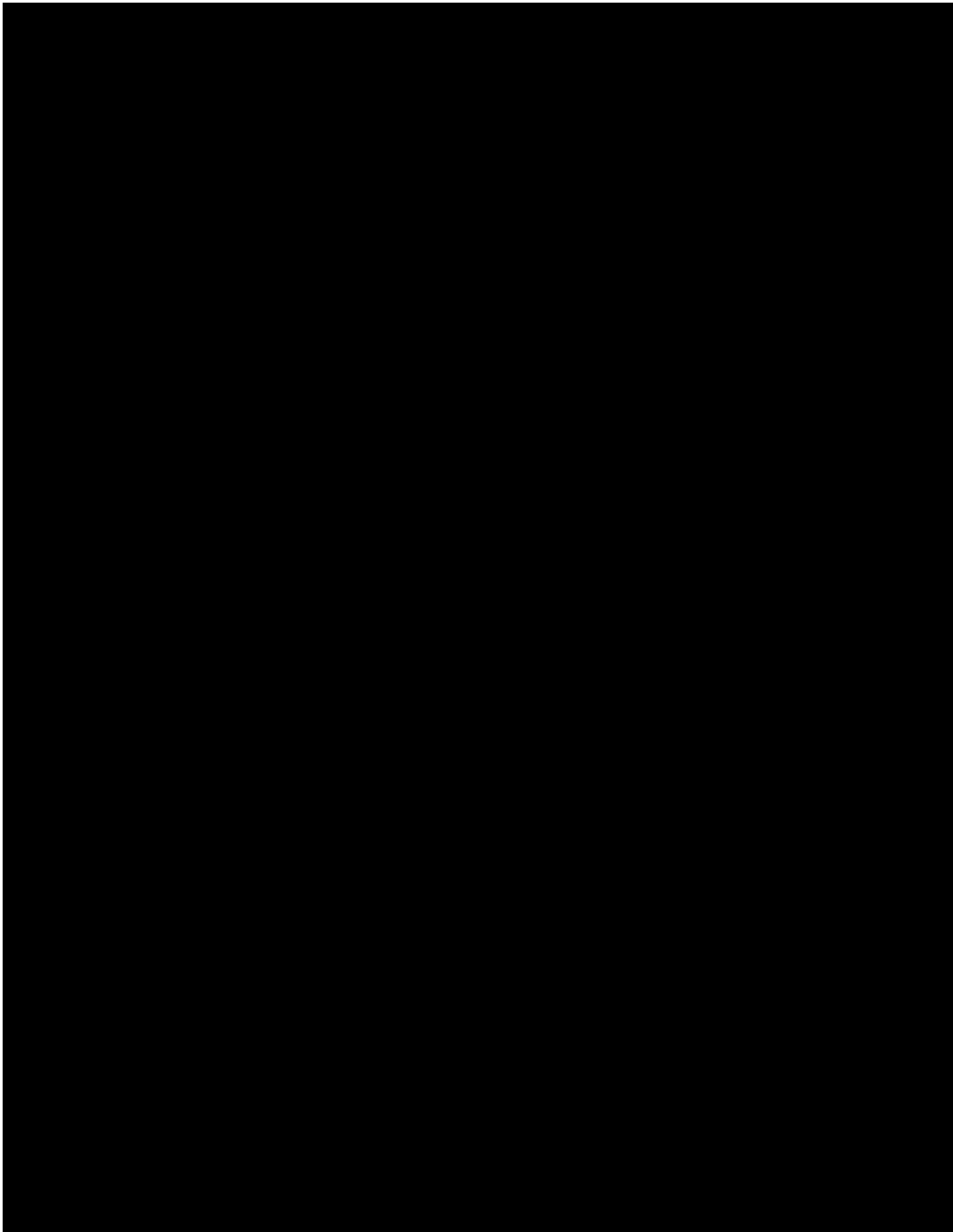


Figure 3. 9: The plan of St Gall, 9th century, showing a hypothetically correct layout to a religious community. On the facing page is the key to the image. The infirmary is located in the area east of the church (at the top of the page), and has its own kitchen, garden, and cloister to organise space, as well as a separate chapel. Interestingly, this is also the area where the novices are accommodated (D'Aronco 2005, 237, Fig. 15.2)

Key:

1. The church.
2. Annex for preparing sacred bread and oil.
3. Monks' dormitory above, warming room below.
4. Monks' privy.
5. Monks' bath and laundry.
6. Monks' refectory below, vestiary above.
7. Monks' cellar below, food stores above
8. Monks' kitchen.
9. Monks' bakery and brewery.
10. Kitchen, cellar, bakery, and brewery for distinguished visitors.
11. Hostelry for distinguished visitors.
12. External school.
13. Abbot's house.
14. Abbot's kitchen, cellar and bath.
15. House for bleeding and purgation.
16. Physicians' house.
17. Novitiate and infirmary complex.
18. Infirmary kitchen and bath.
19. Novitiate kitchen and bath.
20. Gardener's house.
21. Goose yard.
22. House for keepers of chickens and geese.
23. Poultry yard.
24. Granary.
25. Workshops and artisans' lodgings.
26. Annex for artisans' lodgings.
27. Mill.
28. Mortars.
29. Drying kiln.
30. House for turners and coopers with threshing stage for grain for the brewery.
31. Hospice for pilgrims and the poor.
32. Kitchen, bakery, and brewery for pilgrims and the poor.
33. Cow stalls and stable with lodging for cowmen and stable boys.
34. House for the emperor's suite (identification uncertain).
35. Sheepfold and shepherds' lodging.
36. Goat stalls and lodging for goatherds.
37. Stable for dairy cows and lodging for dairymen.
38. House for farm workers and servants attached to the emperor's suite (uncertain, cf. no. 34).
39. Pigsty and lodging for swineherds.
40. Stable for mares and colts and lodging for stable boys.

production of remedies, which was suggested to be planted in two orderly beds, arranged by family (D'Aronco 2007, 244–5). The plan appears to be for a mild climatic zone, possibly the south east of England, with a number of fireplaces and a hypocaust in the dormitories of the monks, the novices, and the sick (D'Aronco 2007, 246). The strange single monastery with two churches is also a feature of Anglo-Saxon monasticism, such as St Augustine's in Canterbury, Glastonbury Abbey, and Lindisfarne Abbey, although this connection is not without criticism (D'Aronco 2007, 246–7). The St Gall Plan indicates a well-organised and structured layout of medical facilities that ties to the monastery in general but remains partially separated, in a manner that follows St Benedict's Rule completely whilst also being rooted in Roman and Classical ideas of structured space and medical practice (D'Aronco 2007, 247-9), as well as one grounded in mainstream monasticism, first evident in the south but quickly transmitting to the north of Europe as well, and the hospital complexes seem to have copied this scheme (Leistikow 1967, 14). One potential candidate for such thoughts was Theodore of Tarsus, who became Archbishop of Canterbury in 669 (D'Aronco 2007, 247–8).

The pertinence of the St Gall Plan, especially given the potential English association, is that it strongly implies that the layout of a hospital should be a structured space, with clear associations of groups of residents and a location in the overall plan. It also suggests that the concept of the hospital was known in Anglo-Saxon England, even if there are no clear signs yet of their existence. The plan highlights that in the 9th century it was held, at least in some circles, that the hospital environment should have a planned layout, and one that embodied both religious ideology and medical theory. It is important to remember that this plan is not representing just a hospital but the ideal of a whole monastic complex, of which the various forms of infirmary and pilgrim harbourage are lesser elements to how the monastery itself would function. Indeed it is not hospitals but monasteries more widely that seem to have exemplified the St Gall plan, usually including guest quarters, a monk's infirmary, and occasionally a *hospitale pauperum* or poor hospital at the gates (Leistikow 1967, 17). None the less the Plan of St Gall may serve as an archetype of hospital layout, or at least reinforce the notion that there should be some underlying plan that associated certain buildings with a group of the community and located them in specific areas of the precinct. That there was a visible hierarchy to this space which orientated construction and activity does seem evident in the later medieval hospital environment.

Any planned framework must fit within the suggested ideals of the hospital noted in Chapter 2. These were healing environments for both the body and the soul through

therapeutic activities like good food, warmth, shelter, and daily religious practice. There was the suggestion that this environment was as beneficial for the poor as it was for the sick, and that this environment served as a protective and redemptive refuge that segregated vulnerable and potentially dangerous social entities to maintain the purity of Godly poverty. This would possibly be portrayed through a formalised religious ordering of space that tied to wider plans on the benefit of religious buildings and spiritual associations. It will also need to account for the obvious variability in the evidence that probably arises from the constitutional flexibility of the English hospitals and from the interaction between *intent* and *result*. It will probably remain unclear how much the healing environment was planned from the beginning of the hospital tradition in England or was a process of evolving knowledge (Horden 2007, 144), but to interrogate this question requires understanding whether there is a plan to begin with. Caution should also be taken in assuming all hospitals held to the same ideal, but these buildings did serve to structure the lives and routines of an entire community, just as other forms of monasticism did through the layout of their buildings.

A Different Approach?

Whilst theorising that these sites should have some form of planned layout that ties to a conceptual framework that combined the religious, the secular, medicine, and the constraints of a mixed gender community holds an internal logic, the physical evidence has not yet been interrogated in the wider discourse. To that end three of the most extensively excavated hospitals have been chosen as case studies to examine any potential similarities. The sites chosen were St Mary Spital, London (sometimes also referred to St Mary without Bishopsgate); St Bartholomew's, Bristol; and St Mary, Ospringe, Kent. These three were selected due to the range of circumstances they covered: St Mary Spital was the second largest hospital in England, located just outside the walls of London, and was one of the wealthiest hospitals; St Bartholomew's was located just north west of the centre of Bristol, and utilised an older building gifted by the founder, but struggled with money for much of its life; and St Mary, Ospringe, a royal foundation in a relatively rural location on the road from Dover to London, and enjoyed significant patronage. They all date from the first half of the 13th century, specifically the mid-1230s, although in the case of St Mary Spital this represents its refoundation date as a larger institution. This close grouping of foundation will allow a direct comparison for the *intent* of the initial design exerted on hospitals at a

specific point, highlighting if there were any differences or similarities. This will also allow a direct comparison of the experience and development of the sites over the next three centuries. The evidence for each site will be discussed individually, examining the different buildings and phasing, before the three sites will be brought together to explore if there was an ordering of the space in relation to the religious practice, the secular presence, issues concerning gender, the location of domestic activity, and the viability of seeing the hospital as a non-natural and quasi-monastic space.

The Hospital of St Mary Spital, London

The site of St Mary Spital was located 500m outside Bishopsgate, one of the main gates into the City of London, and the most important of the northerly gates (Fig 3.10) (Thomas *et al.* 1997, 2). The site was founded by Walter and Roisia Brunus within the manor of Norton Folgate in 1197, with the land being provided by, or bought from, one of the other co-founders, Walter fitz Ailred (Thomas *et al.* 1997, 19–20). The initial benefaction, and the later refoundation in 1235, included parcels of land and tenements along both sides of Bishopsgate street, some of which formed the precinct of the hospital, although the area of initial foundation had not been built upon, but comprised a series of cared for and managed drainage channels, possibly as part of a civic project by the bishops of London who owned the manor (Thomas *et al.* 1997, 15–9). The hospital also held land in other areas of London, including Tottenham and Hackney. Although the site initially fronted onto the street, the whole precinct was later stepped back slightly, with tenements constructed to its northwest (discussed below). Although within a suburb much of the land around the site, especially away from the road, comprised common fields. The hospital also came to an early agreement with the parish in which it sat, St Botolph's, paying 10s compensation for the parochial rights held by the hospital within the parish, allowing burial and services for the members of the community, but requiring further compensation for burial and the provision of services to parishioners more widely (Thomas *et al.* 1997, 21). As such, the hospital existed on an important transport link to the country north of London, interacting and affecting the built-up suburban parish in which it was located, but located with space to potentially grow to the east.

The Initial Foundation (1197-1235)

Initially founded as a small roadside hospital in 1197, consisting of an infirmary hall and small chapel of the nave-and-chapel style and a small cemetery, St Mary Spital seems to have initially cared for 12 or 13 inmates (Fig. 3.11) (Thomas *et al.* 1997, 24). The cemetery

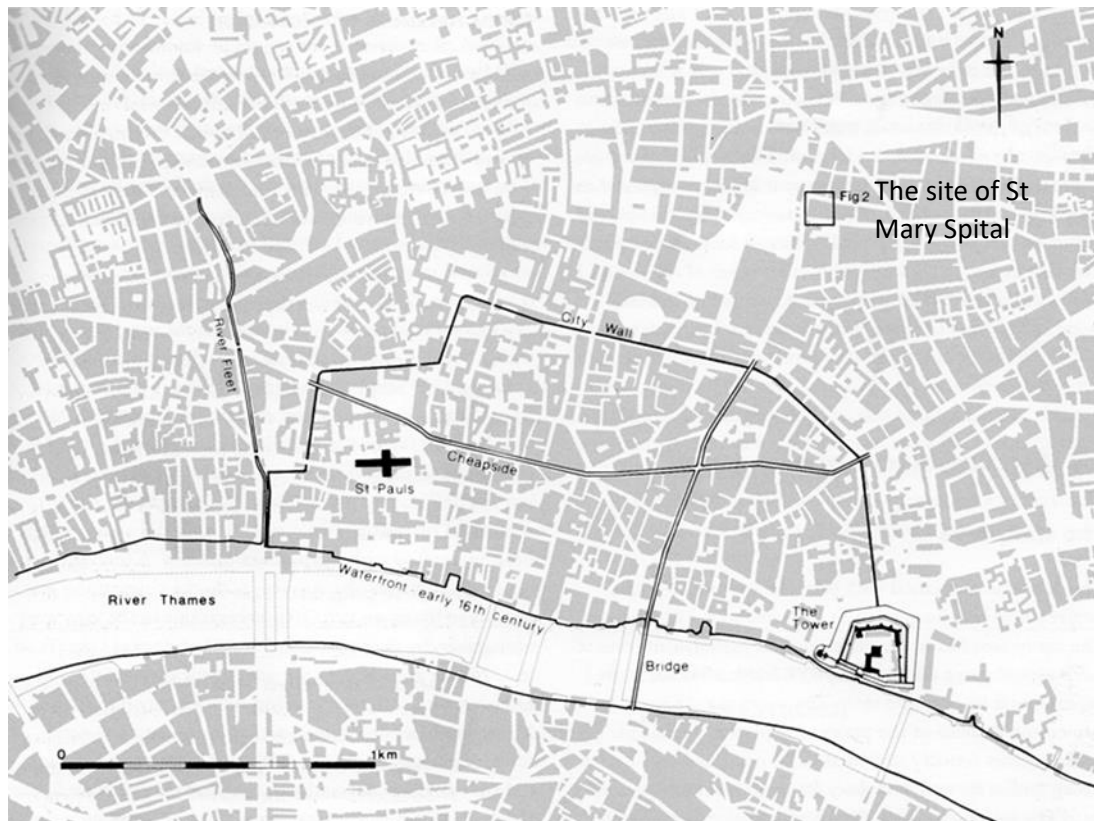


Figure 3. 10: Map of London, with the city walls marked. The square box to the north east is the site of St Mary Spital, outside of Bishopsgate (Thomas *et al.* 1997, 3, fig 1). Reused with permission of Museum of London Archaeology

remains had a high number of women and children, supporting the documentary evidence that the hospital was admitting and caring for destitute women and children. The hospital building itself was around 15m long, with a 10m long infirmary hall on an east-west alignment and a small attached chapel to the east (Thomas *et al.* 1997, 25). A Norman capital from 18th-century make-up levels may date to this period and suggest a substantial aisled building.

Refoundation (1235-1280)

St Mary Spital was refounded in 1235 and the site underwent significant redevelopment, starting with the demolition of the old hospital hall and chapel and the construction of a T-shaped building (Fig. 3.12) (Thomas *et al.* 1997, 28, 33). The east-west chancel section of the hospital was at least 25m long, and would be more than 30m with the Lady Chapel included, whilst the north-south range, forming two wards for the hospital and the central crossing where the entrance was located in the west wall, measured 51m long and 16.4m wide (Thomas *et al.* 1997, 28, 33). The flooring was gravel mortar in the wards and rammed gravel on clay, perhaps with a mortar coating, in the crossing (Thomas *et al.* 1997, 32).

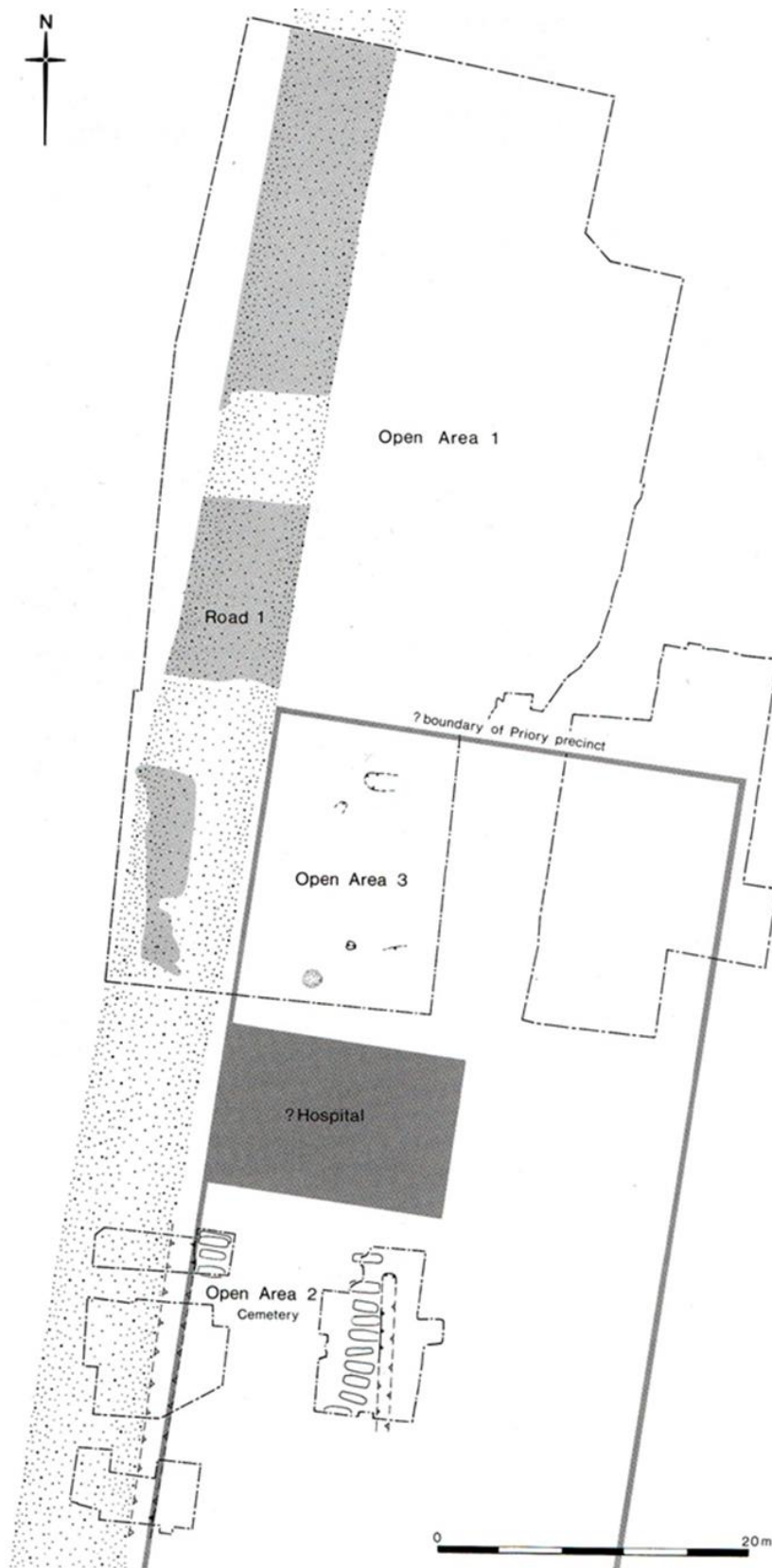


Figure 3. 11: Plan of principal archaeological features at St Mary Spital, 1197-1235, mostly comprising the possible area of the hospital and burials to the south (Thomas *et al.* 1997, 22, Fig 9). Reused with permission of Museum of London Archaeology

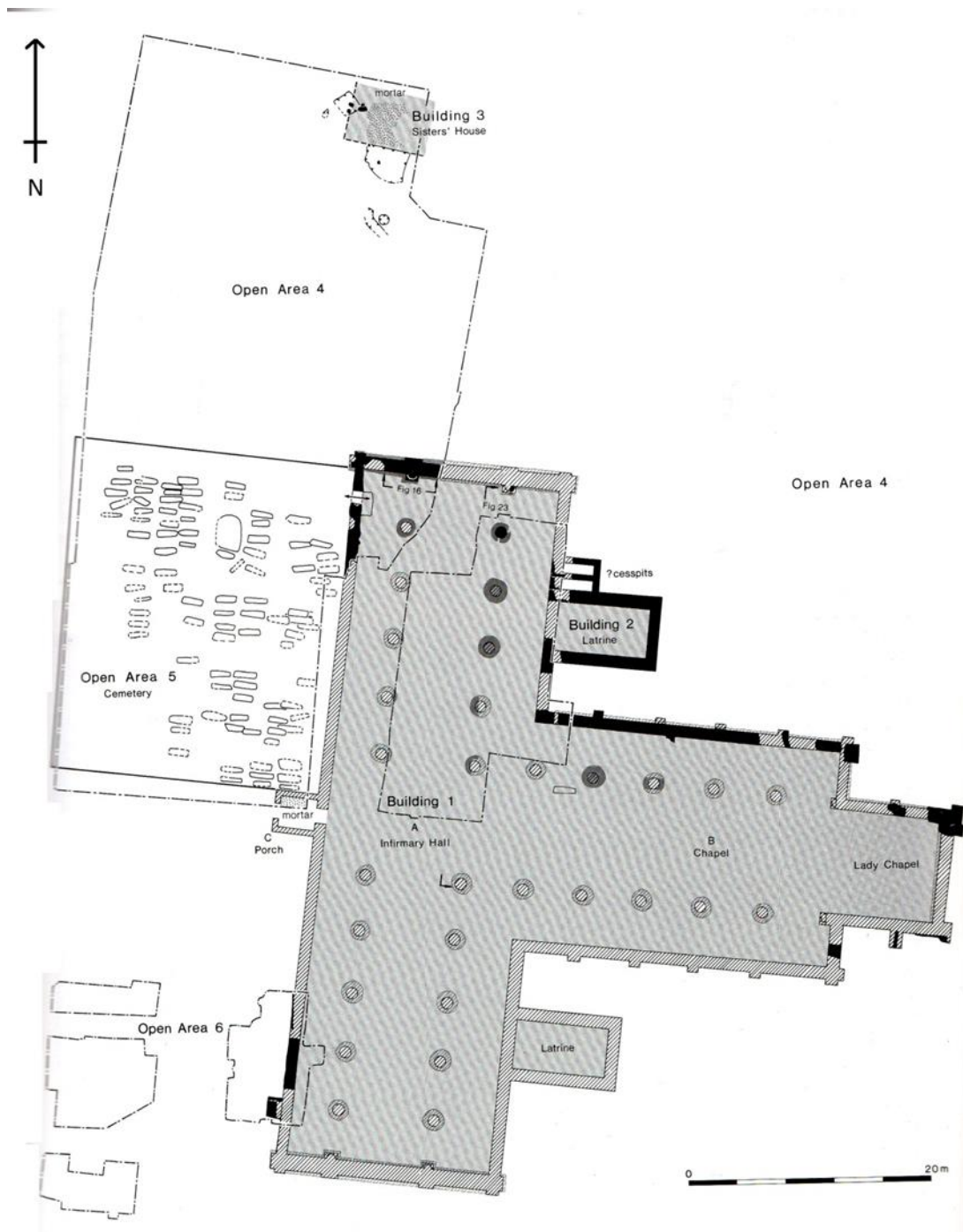


Figure 3. 12: Plan of principal archaeological features at St Mary Spital, 1235-1280. The hospital has been enlarged, forming a T-shape. The cemetery has moved to the west of the north transept (Thomas *et al.* 1997, 27, Fig 14). Reused with permission of Museum of London Archaeology

Wear patterns in the wards indicate that the central aisle was the main thoroughfare, with beds located in the outer aisles, and with an estimate of 2m by 2.5m per bed, there would be space for 60 inmates (Thomas *et al.* 1997, 33). A group of small keys, apparently for small cupboards, were found in this period and may suggest the presence of lockers or small cupboards to lock away possessions, as suggested at St John the Baptist, Winchester (Thomas *et al.* 1997, 34–5). The most likely system for segregation of this known mixed

community would be for each ward to be given over to one sex and curtained off, with the crossing and the chapel in the middle serving as a break between the two. The chapel itself, much like the rest of this phase, was heavily truncated by later work, but 'gothic' tiles found in the area of the Lady Chapel in 1892 may suggest that it was tiled, and two burials were located in front of the altar, potentially of founders Walter and Roisia Brunus (Thomas *et al.* 1997, 35). A latrine was located attached to the east wall of the northern ward, complete with two chalk-lined cess-pits, and although later building modification and truncation have removed this area of the southern ward it is highly likely that there would have been a similar arrangement for the south ward (Thomas *et al.* 1997, 35–6).

A building to the north of the north ward, named Building 3 or the Sister's House, was also heavily truncated but measured 3.5m north to south, and at least 3.25m east to west, with a mortar floor on a bed of gravel and silt, and a set of 4 postholes to the south and west (Thomas *et al.* 1997, 36). Although it is not clearly associated with the lay sisters of the site, who were first mentioned in a document of 1303, it lay in the area later referred to as the Sister's Garden, and taken with the presence of hearth waste and the similarity to the later Sister's House that replaced this building when it burnt down, it is suggestive this was the area of their housing from this point (Thomas *et al.* 1997, 36–7). To the west of Building 3 was an area of cultivation, whilst rubbish pits to the south seem to be associated with the Sister's House, including food waste and pottery. Rubbish pits were also located to the west of the north ward, where the new cemetery was located (Thomas *et al.* 1997, 39). Of note for this period was the lack of the canon's dormitory or the lay brother's lodgings (Thomas *et al.* 1997, 40). The large expansion in this period and the movement of the road, coupled with acquisition of new land suggests that the hospital had become of great importance and was "a major stopping point for travellers, and perhaps a refuge for migrants without work", as well as mothers in childbirth and the sick and poor (Thomas *et al.* 1997, 41).

Redeveloping the Layout (1280-1320)

Period M4, dating from 1280 to 1320 saw the continuation of the redevelopment of the site, as well as some remodelling of the existing set-up (Fig. 3.13) (Thomas *et al.* 1997, 44). Burials began to be located in the crossing, suggesting a clearer separation of the two wards and the expansion of the chapel to include the entrance into the hospital (Thomas *et al.* 1997, 44). Postholes and stakeholes in the northern ward area may indicate the removal of screens and partitions or the presence of scaffolding, and it seems that the original door to the cemetery in the northern section of the west wall was screened off or blocked at this

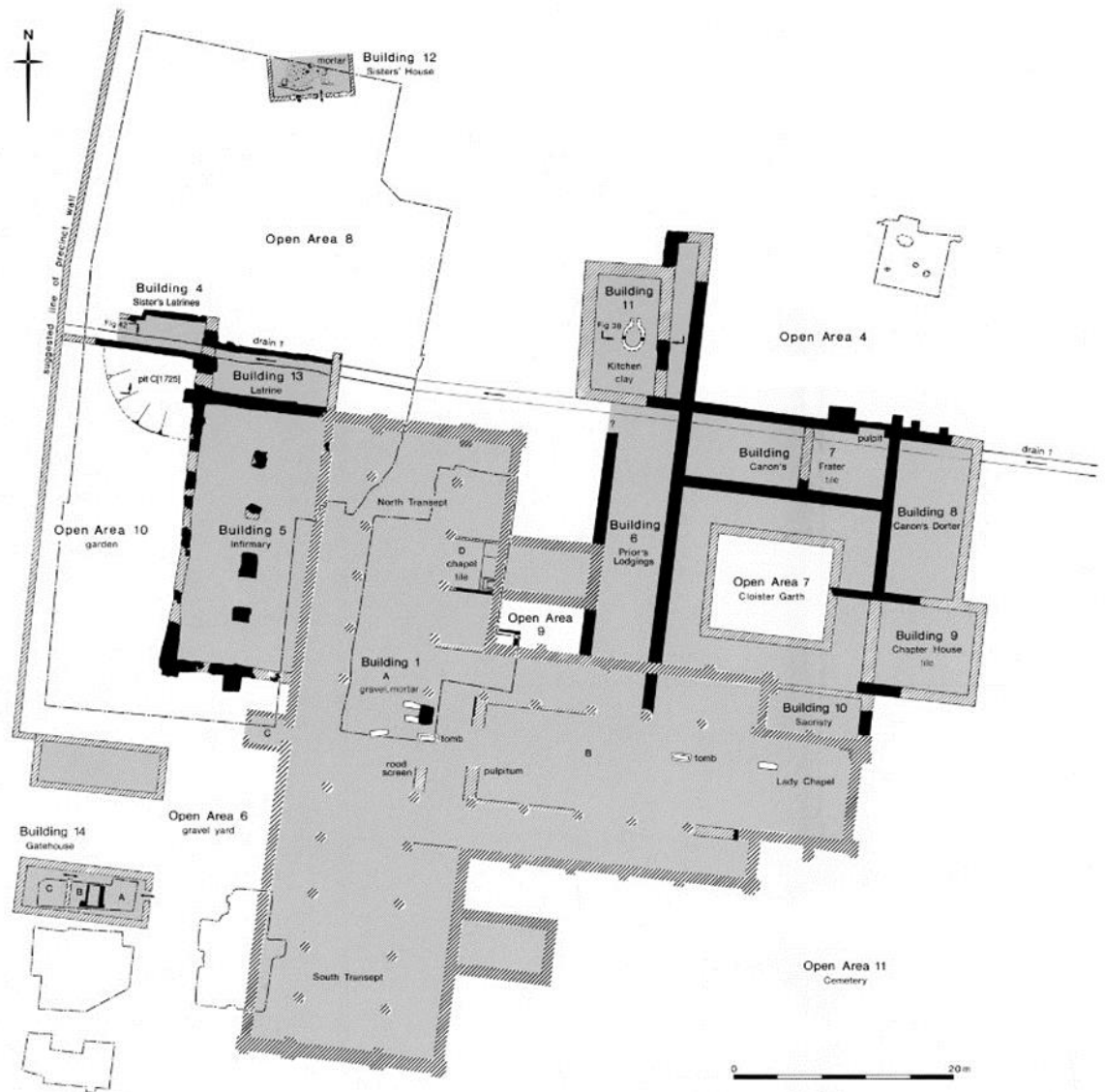


Figure 3. 13: Plan of St Mary Spital, c. 1300. The hospital now has a cloister to the north of the chapel for the staff, and a new infirmary building has been constructed where the cemetery was (Thomas *et al.* 1997, Fig 32). Reused with permission of Museum of London Archaeology

point. The chapel seems to have had a substantial rood screen added to separate it from the crossing at this point as well as potentially improve structural stability in the area, whilst the addition of the *pulpitum* as the entrance to the choir also dates to this period (Thomas *et al.* 1997, 45). That a prominent tomb was included in the construction of the rood screen suggests it may have been part of a bequest, and was used to begin a premeditated encroachment of liturgical space into the infirmary area. Parts of the northern and southern aisles of the chapel were also separated off, whilst a new chapel was created in the eastern aisle of the northern ward with the addition of two walls connecting the archbases to the wall (Thomas *et al.* 1997, 45). This new chapel seems to

have been floored with 'Westminster' tiles in an alternating dark green/black and yellow pattern, with a small altar placed against the east wall. The old northern latrine was either blocked off by the new chapel thus created, was left open as another chapel, or was connected to the prior's lodging in the new cloister to act as a private chapel, vestibule, or vestry (Thomas *et al.* 1997, 45).

The old northern ward was now turned into a transept, and it can be surmised the same happened for the southern ward, turning the building into a nave-less priory chapel (Thomas *et al.* 1997, 46). Built against the western wall of the north transept was a new infirmary, Building 5, measuring 22.3m long north-south by 11m wide, comprising two aisles split by central arches, a gravel floor for the western aisle, whilst at least one hearth was located in the northeast corner formed from reused roof tiles in a clay floor (Thomas *et al.* 1997, 47). This hearth could not have heated the whole building, and suggests that either there were others now lost due to later truncation or this was a place for staff to congregate when not caring for the inmates. This new infirmary had thick walls and a number of buttresses to the northwestern and southwestern corners, suggesting it was a two storey building, and given that the new hall was half the size of the old wards this would have maintained the number of beds and still allowed separation of the sexes (Thomas *et al.* 1997, 47–8). Since the old door to the northern transept appears to have been blocked in this phase the entrances seem to have been to the north, into the Sister's Garden and the latrines, and to the south to the gate and the external entrance into the chapel (Thomas *et al.* 1997, 48). Building 5 does not appear to have any direct access, either physically or visually, to the chapel, and either portable altars allowed services for the sick while the able attended service in the chapels crossing space, or the infirmary was the location of the altar of 'St Nicholas before the Sick' mentioned in documents in 1394 (Thomas *et al.* 1997, 68).

Buildings 6, 7, 8, 9, and 10 all related to the cloister that was now built to the north of the chapel, although it had been heavily disturbed and truncated by later activity, meaning much of the layout was assumed from the typical layout of Augustinian houses and a series of rescue excavations from the 1930s (Thomas *et al.* 1997, 48–9). Building 6 butted the wall of the chapel to the south and measured 23m by 5.2m, interpreted as the location of the prior's lodging and the guest lodgings. Very little material was recovered relating to this building. Building 7, comprising the northern range of the cloister, measured 5.6m wide, with two rooms, 10.2m and 6.8m long respectively, possibly tiled throughout although the 1935 excavation did not record the extent (Thomas *et al.* 1997, 49). This matches the

typical location of the frater, and the recess in the eastern room would be a convenient location for the pulpit. Building 8 is the suspected canon's dormitory, with cellar underneath, which was not located within the excavation area, but was noted in the 1930s to be contemporary with building 7, whilst building 9 was the chapter house, with the Sacristy located just to the south, and the whole claustral range was noted as being contemporary (Thomas *et al.* 1997, 50-1).

Building 11 seems to have been the priory kitchen, complete with a heavily truncated oven and Drain 2, and appears to have been the most southern and central of the service buildings, the rest of which were located to the north (Thomas *et al.* 1997, 51-2). A series of passageways connecting the kitchen with the infirmary to the west and the frater to the east, establishing itself centrally between the two areas. Building 12 was a timber building with beam slots and stakeholes for the walls, and possibly a central posthole, located north of the infirmary (Thomas *et al.* 1997, 52). It measured at least 7.5m by 5m, although the northern section was not excavated, but two rows of stakeholes inside the building suggest the use of partitions. The location of the building in the area of the Sister's Garden and replaced Building 3 this was interpreted as a new phase of the lay sister's lodgings (Thomas *et al.* 1997, 52-3). At the western end of Drain 1 was Building 4, located to the north of the transept and suggested to be the Sister's Latrine, which had some refuse pits to the south (Thomas *et al.* 1997, 46, 50). To the east was Building 13, the infirmary latrine, also on the run of Drain 1, butting up to the northern wall of the new infirmary and connected with a doorway (Thomas *et al.* 1997, 53). The additional buttressing on this building suggests it could have been a two-storey structure, a necessity if the infirmary was also two storeys. Building 14 was located to the west of the main hospital complex, measuring 11.7m by 3.7m, and split into 3 rooms, and is interpreted as the southern section of the new gatehouse for the site, the northern portion unexcavated but to run to the same format (Thomas *et al.* 1997, 53-4).

Pottery from Drain 1 suggest a date after 1300 for its installation, meaning that the majority of this remodelling dates to around or just after this point, and it is interesting to note that the use of cesspits to the north of the site, such as one located to the north of Building 5 that would have served as the inmates latrines, cease after this point (Thomas *et al.* 1997, 54-5). The drain flowed into another drain running along the Bishopsgate road, but the system is reported to have frequently backed up and flooded the house. Whilst this was certainly an issue the complete lack of drain residues suggest that they were regularly maintained and cleaned (Thomas *et al.* 1997, 54-5). This implies an importance attached to

hygiene as part of the regimen of the hospital, since this would have helped reduce smell from this area of the site at the least. Another drain serviced Building 4, running in a backward c-shape to empty west of the Infirmary hall into Pit C[1725], pottery from which dated to around 1300 (Thomas *et al.* 1997, 55). The combination of the two pits around Building 4 and the insertion of the short drain and sluice suggested it was a stopgap between 1280 and just after 1300 whilst Drain 1 was inserted across the rest of the site, with Pit C[1725] acting as refuse pit and occasional cesspit when human refuse flowed through the sluice (Thomas *et al.* 1997, 63). In sum this period saw an extensive redevelopment in the site, the greater use of stone in the buildings, and a seeming ideological change to the arrangement of the site, possibly to aid revenue generation by expanding the chapel area for burials and private chapels (Thomas *et al.* 1997, 64).

A Western Expansion (1320-1350)

In the three decades between 1320 and 1350 St Mary Spital saw yet more expansion of the hospital complex, with Building 5 being extended to the west with Building 15, an asymmetrical addition 27.5m long, 5.5m wide at the northern end and 4m wide at the south (Fig. 3.14) (Thomas *et al.* 1997, 65–6). The western wall of Building 15 continued south to probably connect to the gatehouse, as well as north to form the eastern wall of Building 16, the new stables. The odd shape of Building 15 was probably due to the fact that the western wall was constructed first, possibly as some form of boundary marker that did not run parallel to the western wall of Building 5, the infirmary hall, and Building 15 was added as an afterthought, possibly to deal with an ever increasing inmate population (Thomas *et al.* 1997, 66). The extension had large brick-lined cesspits to the south, possibly to ease the pressure on the existing latrines, since the buttressing of the extension suggests it was also two-storey. This would have added 15 more beds per storey, but given the dividing wall these new beds may have been used for special groups, such as unmarried women, children, or sufferers of specific diseases, all groups known from the documentary sources elsewhere to have been provided special spaces (Thomas *et al.* 1997, 66). This apparently impromptu addition may be associated with the increasing number of epidemics and famines in the 14th century that very likely increased the number of people requiring aid from hospitals (Thomas *et al.* 1997, 67).

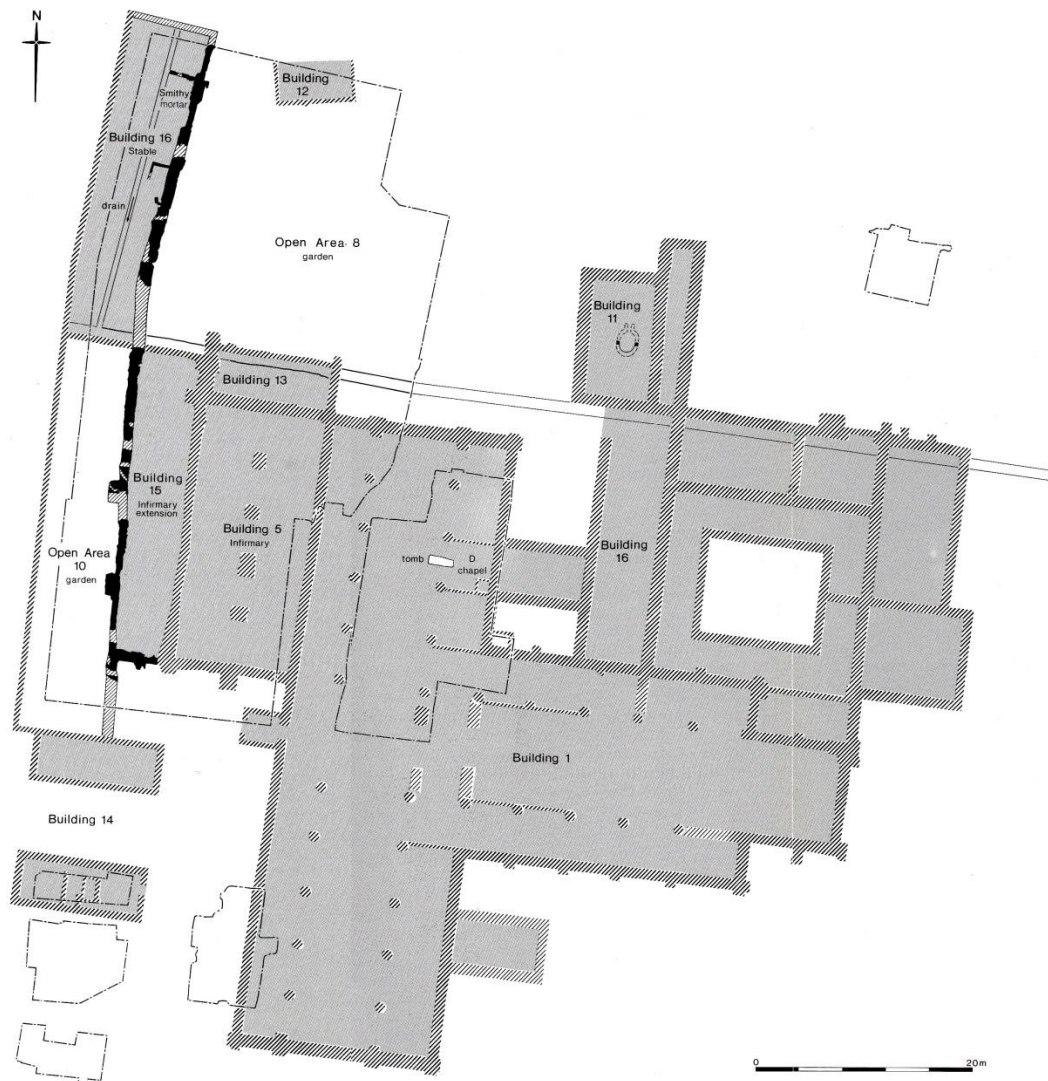


Figure 3. 14: Plan of principal archaeological features at St Mary Spital, 1320-50. The infirmary hall has been extended to the west, and a new range has been constructed to the west of the Sisters' Garden (Thomas *et al.* 1997, Fig 50). Reused with permission of Museum of London Archaeology

Building 16 appears to have been 27m long and 5m wide with a mortar floor, although not all of it fell within the excavation area (Thomas *et al.* 1997, 67). A small ragstone wall at the northern end, associated with metal working debris and interpreted as a smithy, and two wooden L-shaped partitions more centrally split the stable down into separate areas, and a small drain appears to have run north to south through the building to connect to Drain 1. Access seems to have been from the street to the west, whilst the open areas to the east and south both appear to have been informal gardens, with some dumped layers (Thomas *et al.* 1997, 67). To the north documentary sources note two tenements were constructed, and it is almost certain there was another entrance into the hospital to the north, now that access to the northern ranges was blocked by the new stables.

Domestic Changes (1350-1400)

This period relates to an extensive remodelling of the service ranges and cloister (Fig. 3.15). The two southern most bays of the southern transept were blocked off for an unknown reason and a cesspit was added, but it appears that parts of the eastern wall of the transept were demolished and collapsed, and the hospital may have taken the opportunity to fashion one or two tenements rather than expand the infirmary further (Thomas *et al.* 1997, 69, 74). A small hearth and stakeholes in the northern transept also suggest modifications or repairs to the superstructure of the building. Building 12, the Sister's House, was demolished, as were Building 13 and Drain 1, and alterations were made to the internal space of Building 14, the gatehouse, with the insertion of a cesspit and changes to the sub-basement and internal walls, interpreted as turning the gatehouse into a tenement for lease (Thomas *et al.* 1997, 70). The yard to the east of the gatehouse was resurfaced with mortar and gravel to provide a better surface to the chapel entrance and the cemetery located to the south and southeast, as well as the new southern tenement (Thomas *et al.* 1997, 75). Building 15, the infirmary extension, had a new east-west wall inserted that shortened the hall by over a metre, with a 3.2m long cesspit inserted into the northwestern corner of the hall, probably as another stop-gap whilst the old latrines and Drain 1 were demolished and further modifications made to the infirmary halls and the area to the north, which would have much of the northern section of the hall uninhabitable (Thomas *et al.* 1997, 70). The cesspit was sealed with sand when it was no longer needed, assumed to be an attempt to mitigate the negative impact of cess in a living area. These modifications and the addition of Building 17 also meant the southern wall of Building 16, the stable, was moved as well.

Building 17 was the new infirmary latrine, built between Buildings 15 and 16, complete with a new drainage system that reused the western elements of Drain 1, entering from the north before turning west inside the building and splitting to form two stone-lined parallel drains along the northern half of the building before joining together again as they exited the building (Fig. 3.16) (Thomas *et al.* 1997, 70-1). Again, these drains were kept very clean, the earliest residues dating to the post-Dissolution phase. Rubbish pit C[1339] was also inserted into the southern half of the building through levelling layers before they being capped by what appears to have been the floor surface (Thomas *et al.* 1997, 71). On the ground floor access was through Building 15, suggesting that the extension was no longer a special ward area, and possibly Building 18, the Sister's dormitory, and it is assumed that the latrines were two-storey to give access to the ward above. The split

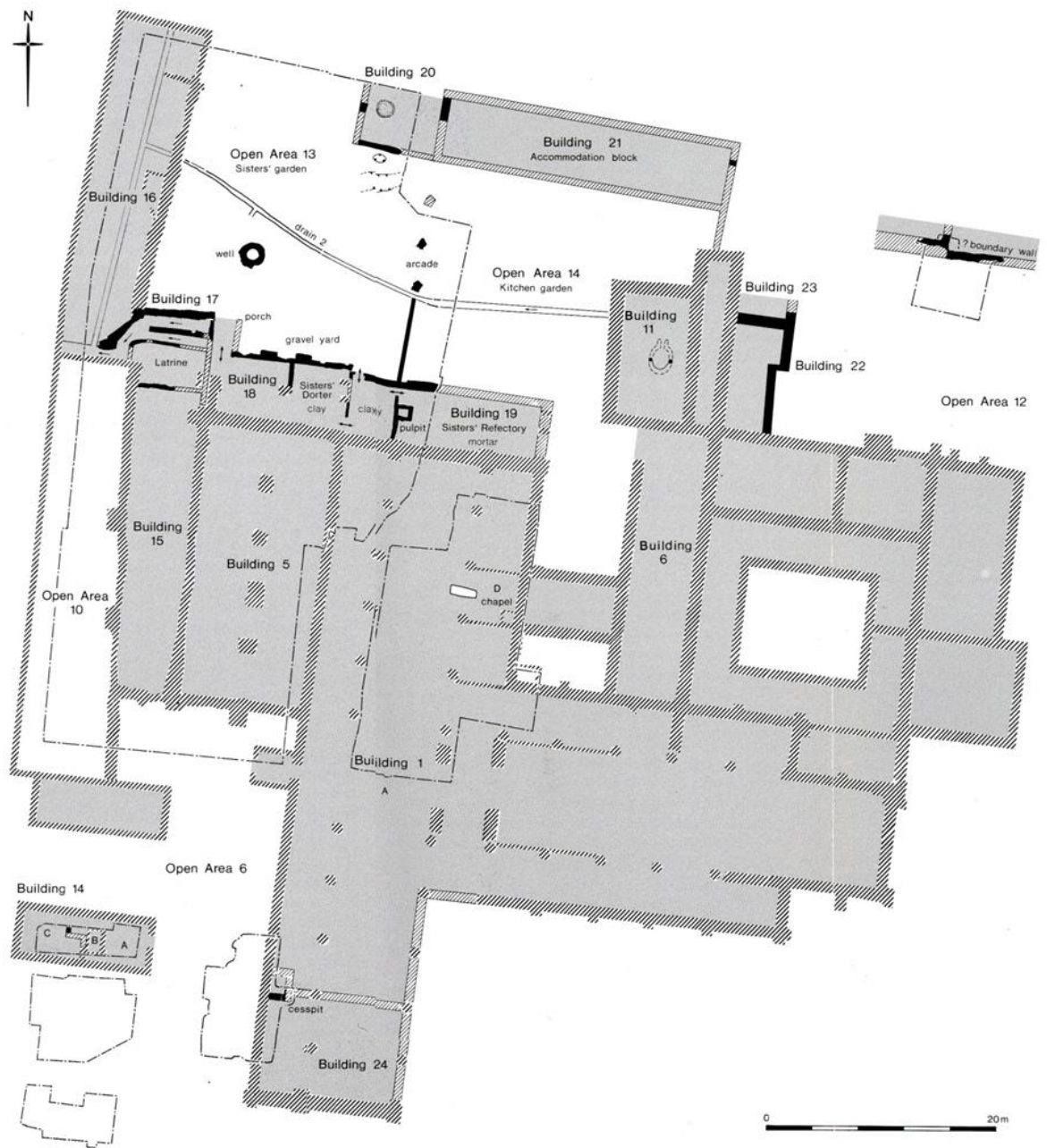


Figure 3. 15: Plan of principal archaeological features at St Mary Spital, 1350-1400. The site is almost at its height, with new quarters for the sisters and a latrine to the north of the infirmary, another new range to the north of the kitchen, and an expansion to the kitchen range (Thomas *et al.* 1997, Fig 53). Reused with permission of Museum of London Archaeology

drains either represent back-to-back privies, such as at Fountain's Abbey, or they were serving the separate stories, and were sluiced with piped water or rainwater from the roof.

Building 18 itself was a single storey building, approximately 12m by 5m, with a porch to the north and an internal partition splitting the building in half, and appears to be contemporary with Buildings 17 and 19 (Thomas *et al.* 1997, 72). It was built onto Building 5's northern wall, and has been interpreted as the Sister's Dormitory, connected to the



Figure 3. 16: View of the latrines (B17) from the west (2x2m scale and 1m scale). The two drain channels pass to either side of the central stone divider (Thomas *et al.* 1997, 71, Fig 55). Reused with permission of Museum of London Archaeology

latrines, the infirmary, and Building 19, the Sister's Refectory. If this was where the female servants were housed then there was only room for a maximum of 6 people in each room. Building 19 was outside the excavation area but historic mapping suggests it measured 16.5m by 4.25m, attached to the northern wall of the northern transept, and had a corridor leading into the garden to the north and giving access to the dormitory to the west and the kitchen to the east (Thomas *et al.* 1997, 72–3). A 2m square stone feature may indicate the location of a pulpit located just south of the main door into the refectory.

Building 20 was located north of the gardens in Open Area 13, with Building 21 adjoining to the east (Thomas *et al.* 1997, 73). Building 20 measured just over 5m in diameter with multiple hearths that had been rebuilt several times and used extensively, and although it is unclear what the room was used for it was probably for industrial or food preparation processes. Building 21 was mostly outside the excavation area but seems to have been an accommodation block, perhaps for the lay brothers and male servants, and its location gave ready access to the barn, to the north, and the main hospital complex to the south (Thomas *et al.* 1997, 73). Buildings 22 and 23 were built to the east of the kitchen, just to the north of the cloister, and although their use was unclear their location would suggest

they acted as pantry, bakery, and buttery range (Thomas *et al.* 1997, 73–4). Drain 2 was remodelled to run from the kitchen to the stables, which then fed south to join the new latrines and were also kept clean, despite the fact they were only being used by the kitchen and stable (Thomas *et al.* 1997, 74).

The garden area to the west of Building 15 had a cesspit added, and may also have been a stop-gap whilst the new latrines were built (Thomas *et al.* 1997, 75). Open Area 12, between the cloister and the service buildings to the north seems to have been an area of waste ground, whilst Open Area 13 seems to have been formally turned into the Sister's Garden at this point, with a series of stone piers possibly for an arcade to Building 21, and chalk spreads, although rubbish pits were also cut into the garden (Thomas *et al.* 1997, 75–6). Open Area 14 appears to have been a kitchen garden by this point. The manner in which elements of Drain 1 were intentionally kept and reused, as well as the way in which other elements were demolished and constructed, suggest this remodelling was clearly planned in its entirety (Thomas *et al.* 1997, 74).

The second half of the 14th century saw the virtual completion of the main complex, with a focus on the ancillary buildings and servant quarters, but it was also the period in which some of the structural issues inherent from the earliest building began to make their presence known (Thomas *et al.* 1997, 77). Despite the reorganisation of the drains during this period it is clear that the supply was still inadequate, and a well was sunk in the Sister's Garden. In the cemetery to the south east a charnel house, chapel, and a pulpit cross were also constructed (Thomas *et al.* 1997, 77).

Increasing Separation (1400-1538)

Little overall was changed in this 138-year period, in stark opposition to the extensive changes experienced in the 150 years previously (Fig. 3.17). Stakeholes and new buttressing around certain piers in the church suggest that the structural issues observed even as far back as Period M4 were becoming an increasing problem (Thomas *et al.* 1997, 81). The chancel was also extended into the crossing, taking the whole of the eastern aisle. This period also sees the earliest evidence of painted glass, suggesting that the church, the Sister's Dormitory and Refectory, parts of the infirmary hall, and in all likelihood the cloister, had painted windows, some showing vine leaves and gothic script decoration (Thomas *et al.* 1997, 83). Although a minor change, the creation of a corridor between a kitchen window and the Sister's Refectory, as well as the construction of a wall separating

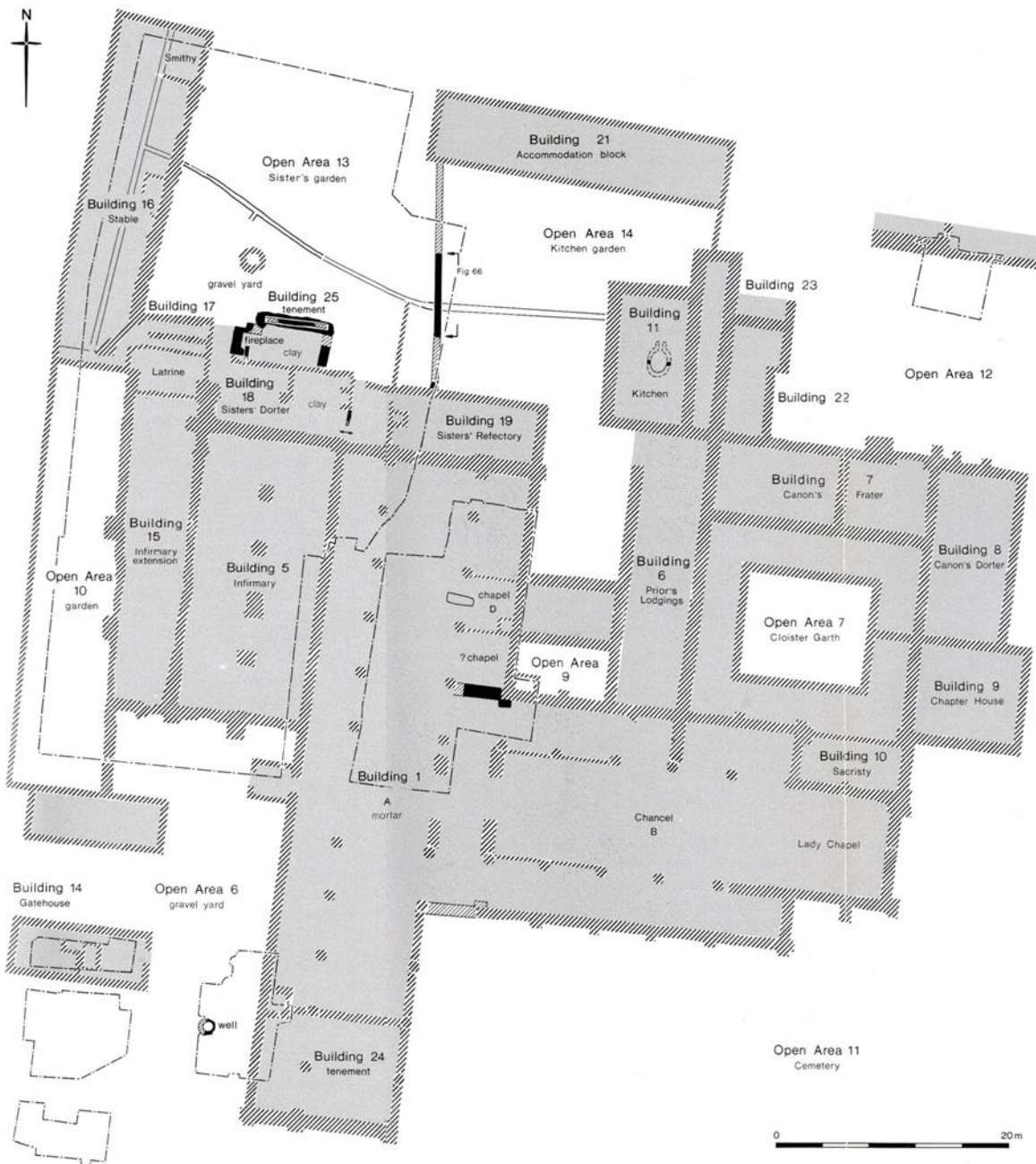


Figure 3. 17: Plan of principal archaeological features at St Mary Spital, 1400-1538. The only addition is a small building to the north of the Sisters' quarters, probably a tenement or corrodian accommodation (Thomas *et al.* 1997, Fig 62). Reused with permission of Museum of London Archaeology

the Sister's Garden and the kitchen garden, suggest a significant amendment to access between the eastern and western sections of the complex (Thomas *et al.* 1997, 84). This change isolated the Sister's area and infirmary from the cloister and has been associated with a possible scandal concerning some of the lay sisters in the 15th century, leading to a need to regulate movement more strictly (Thomas *et al.* 1997, 87).

Building 20 was abandoned, whilst Building 25, a new tenement building, was constructed against the northern wall of the Sister's Dormitory, measuring 6m by 3.5m, and as well as new tenements constructed next to the others north of the stable, added to the hospital's collection of private dwellings, some of which probably housing corrodians, also located south of the cemetery, in the gatehouse, and in the southern transept (Thomas *et al.* 1997, 84, 87). Water still seems to have been an issue, with another well sunk into the yard east of the gatehouse, and alongside pits and dumping levels associated with the new tenements, it suggests that this entrance had reduced in importance, in favour of the northern road which also gave access to the cemetery (Thomas *et al.* 1997, 85). The Sister's Garden was also disturbed by pits and dumping layers, but also seems to have been tilled for much of its existence, given the mix of pottery found in the soil (Thomas *et al.* 1997, 85).

Summary

St Mary Spital underwent extensive changes over the three centuries it was active. Starting as a small linear chapel, this modest road-side hospice was replaced by a large T-shaped church (Fig. 3.18). This form allowed the three communities of the hospital to exist in one

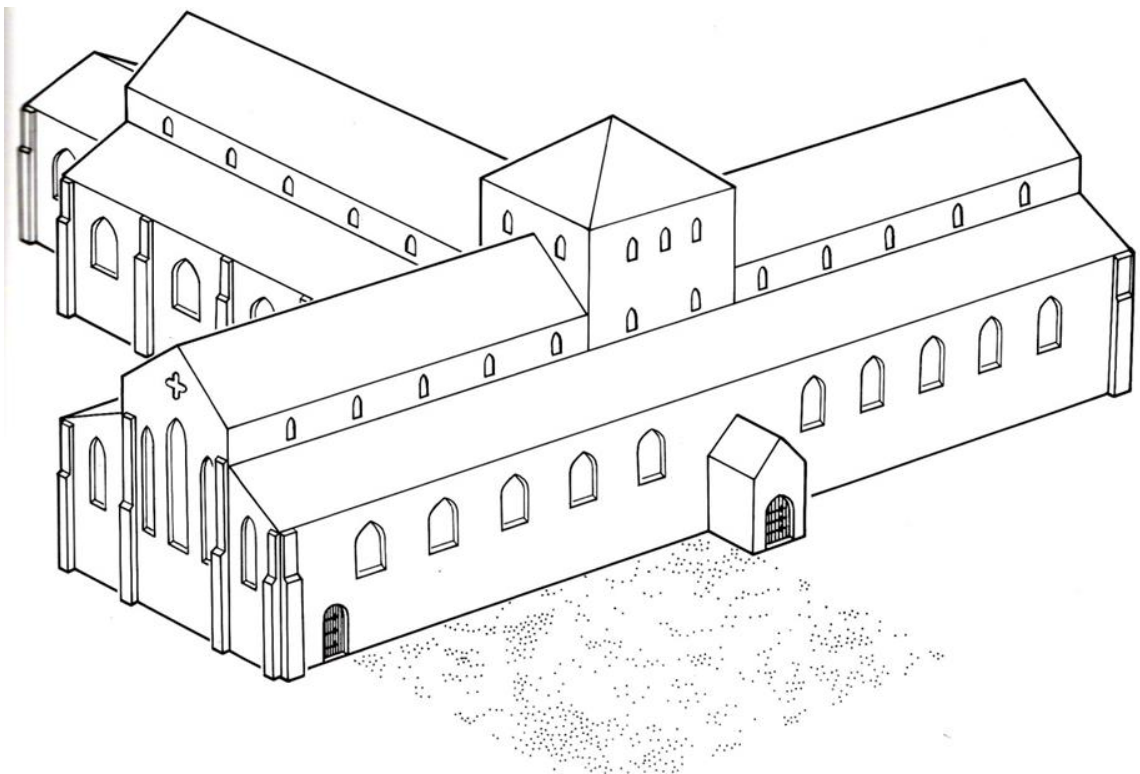


Figure 3. 18: Reconstruction drawing of the infirmary and chapel after the refoundation (Thomas *et al.* 1997, 35, Fig 25). Reused with permission of Museum of London Archaeology

structure: the religious in the east arm and the secular men and women split between the north and south arm. The lay sisters who carried out the majority of the domestic work seem to have been housed separately from the hospital community, in their own house to the north across a garden area. In the century following this the main design of the hospital was formed, with a cloister for the religious men attached to the north of the chapel and the infirmary for the secular inmates in a new building attached to the west wall of the north transept. There was a clear division of space inherent in this layout. The development over the next two centuries merely formalised this arrangement, and apart from the movement of the female staff quarters to a position against the northern wall of the north transept the only major construction work served to expand existing activity areas, such as the addition made to the infirmary.

The Hospital of St Bartholomew, Bristol

St Bartholomew's was founded by John de la Warre II, at some point between 1232 and 1234, and although there was a significant component of religious piety in the charitable act, the financial difficulties of his father and other members of his family, as well as the structural instability of Building 1 that was already apparent suggest the situation was more complicated (Price and Ponsford 1998, 53, 78-9). The efforts to divert the River Frome may also have led to de la Warre being advised to divest of the unprofitable site for spiritual and social status, and this approach may explain the limited nature of the endowments to the hospital (Price and Ponsford 1998, 79). The site itself was located at the junction of Lewins Mead and the Frome Bridge, leading to the Frome gate, the new north-western gate into the city of Bristol after the river was diverted and new land enclosed by the walls of Bristol (Fig. 3.19) (Price and Ponsford 1998, 16-9). This area became an enclave of religious houses in the 12th and 13th centuries, including the Greyfriars, St James's Priory, the Whitefriars, St Mark's Hospital, and St Augustine's Abbey, all of which lay between the Brandon Hill and the ridgeline running to the northeast and the new run of the River Frome (see Fig. 2.1 above). The site came with a number of small property endowments across the city and surrounding areas, including on Baldwin Street, Market, and Grace Lane (Price and Ponsford 1998, 58). A deed included in the St Mark's Cartulary, dating to 1335, refers to several tenements along Lewins Mead, almost certainly fronting onto the street with the hospital's land behind (Price and Ponsford 1998, 59). This suggests that the hospital was located in a built-up suburb of Bristol, just outside a major gate and located on, and

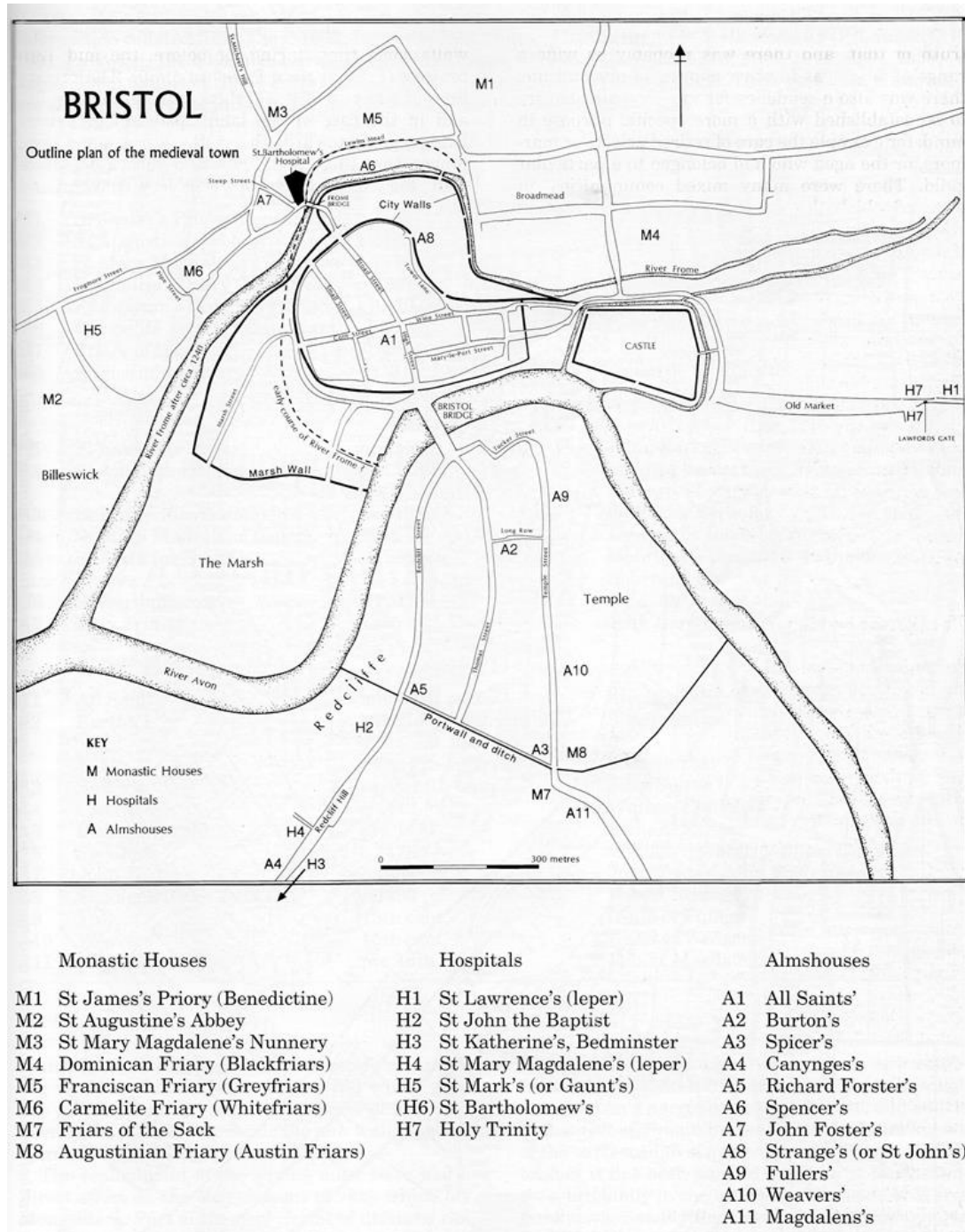


Figure 3. 19: Map locating the Hospital of St Bartholomew, Bristol. Also located are the primary monastic sites, and other hospitals and almshouses in Bristol. Note St Bartholomew's position at the bridge over the Lewin, providing entrance into the city from the northwest. The other sites also cluster around the periphery of the city, apart from several of the later almshouses, which are located within the main city and central suburbs (Price and Ponsford 1998, 17, Fig 2). © Roger Price and Michael Ponsford

fronting, a series of roads connecting several religious institutions and the area to the northwest of the city.

A pre-existing hall was included as the primary building of the endowment, possibly serving as a merchant's house with access to the headway of a small creek leading into Frome and

the associated suburb in which it was located (Price and Ponsford 1998, 49–52). There is a historical suggestion that the site was the location of a house of Augustinian canons, but the nature of the house and the very fragmented and partial documentary sources available means this idea cannot be refuted or confirmed. A more secular origin was preferred by the archaeologists who excavated the site, but the potential of a religious connection may reflect either real or perceived associations between later hospitals and earlier religious communities, a concept discussed by Paul Everson and David Stocker (2011) in relation to Barlings Abbey, and by Tim Pestell (2002) when discussing East Anglian monasticism, the implications of which will be discussed below. The hospital was established with a master, two chaplains to lead the prayers for the founder and his family, and a mixed inmate community who, by the 14th century at the latest, were living to a Rule, which although unclear was most likely modified Augustinian (Price and Ponsford 1998, 79). The inmates were poor men and women from the community, and although these probably would include illness and infirmity caused through poor nutrition and old age there appears to have been no special treatment of the sick, but instead acted as an almshouse for the infirm, elderly, and passing travellers.

Foundation (c.1234-1280)

In this first phase of the hospital the undercroft floor inside the Norman aisled Hall, Building 1A, was raised, with stone flags laid in the northern aisle, whilst mix material, including gravel, clay, sand, limestone, and crushed slate, were also used as patching material, and a limestone porch was added as a new entrance from the south (Fig. 3.20) (Price and Ponsford 1998, 59). It is unclear how the main hall of the building functioned, whether it was acting as an infirmary, a chapel, or both, and how the sexes were kept separate if this was the infirmary hall, since the floor did not survive later modification and only the undercroft floor was left (Price and Ponsford 1998, 81). The earlier slipway and yard area was built over, starting with Building 7, and east-west aligned building with stone walls probably with a timber superstructure (Price and Ponsford 1998, 62). The western room had a peaty floor deposit, whilst the eastern room had a clay floor with a high organic content. To the north of this building was a mixed clay surface with a possible stone pavement, and at the very north of the excavation area was a possible drain, with a shallow gully to the south (Price and Ponsford 1998, 62).

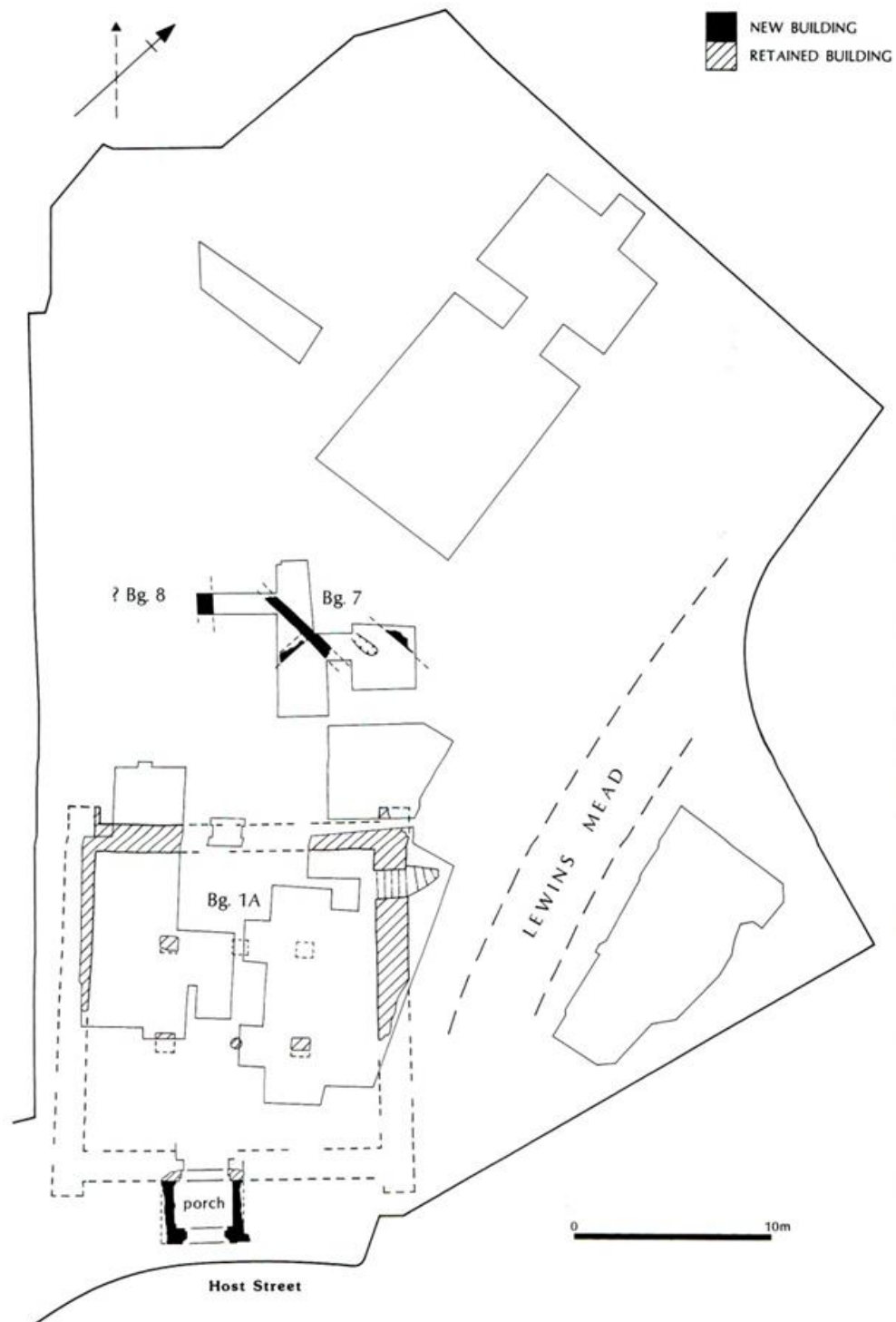


Figure 3. 20: Summary plan of the principle structure in the first phase of the Hospital of St Bartholomew. It is unclear about the arrangements at this stage in the hospital, given the paucity of evidence (Price and Ponsford 1998, 60, Fig 20). © Roger Price and Michael Ponsford

A documentary source from the 1340s commenting on the old dormitory for the women suggests there may have been another building outside the excavation area to the north, with Building 7 serving as kitchen and refectory of the early hospital, although a dormitory

function may also be possible (Price and Ponsford 1998, 81). The cemetery for the hospital appears to have been north of the main site, past the women's dormitory, with an area called Lowynesmede next to it being used as a small pasture or patch of cultivated land. The structural instability of the building was already apparent from this first phase of the hospital, and the lack of major changes or added construction in this period was probably influenced by the lack of labour in Bristol until after a series of large civil construction projects were completed in the 1250s, such as the River Frome diversion and the construction of the new city walls (Price and Ponsford 1998, 79, 81).

Developing the Layout (1280-1320)

This period saw the creation of the more formal arrangement of St Bartholomew's, with a group of three buildings seeming to form the core of the hospital (Fig. 3.21). Building 1A was further amended with bracing walls to counteract the subsidence and the structural issues caused by the river, and the floor was again raised, aiding stability and reduce flooding, especially after the collapse of Pier 3 potentially damaging the southern aisle and undercroft (Price and Ponsford 1998, 62, 84). The two bracing walls seem to run across the whole building, and traces of plaster on the interior of one of the walls suggests that the central aisle may have been plastered and at a lower level than the other levels, with a flagstone floor on the southern portion (Price and Ponsford 1998, 63–5). The rest of the floor was raised with gravelly clay and mortar layers (Price and Ponsford 1998, 65-8). Building 7 was demolished and the area levelled, and the western range, Building 8, although mostly outside the excavation area, seems to have been constructed at the same time (Price and Ponsford 1998, 69). The thickness of the wall and fragmentary window remains suggest this was a two-storey building, and with a buttress located on the northwest corner of Building 1A it seems the two buildings were not connected, possibly arguing against it being an infirmary hall (Price and Ponsford 1998, 82).

After the western range was constructed a path made of small Pennant blocks with crushed limestone and Brandon Hill grit edging was built, 1.3m wide and running east-west between Building 8 and the hospital gate across the mound left by Building 7 (Price and Ponsford 1998, 70, 82). To the north was probably a courtyard garden, with two postholes and a gully that was either a flower bed or a setting for stone slabs and a bench located just to the north to the path. A worn area to the south of the path was patched, suggesting some level of use. Drain 15 ran through the northwest section of the northern garden soil

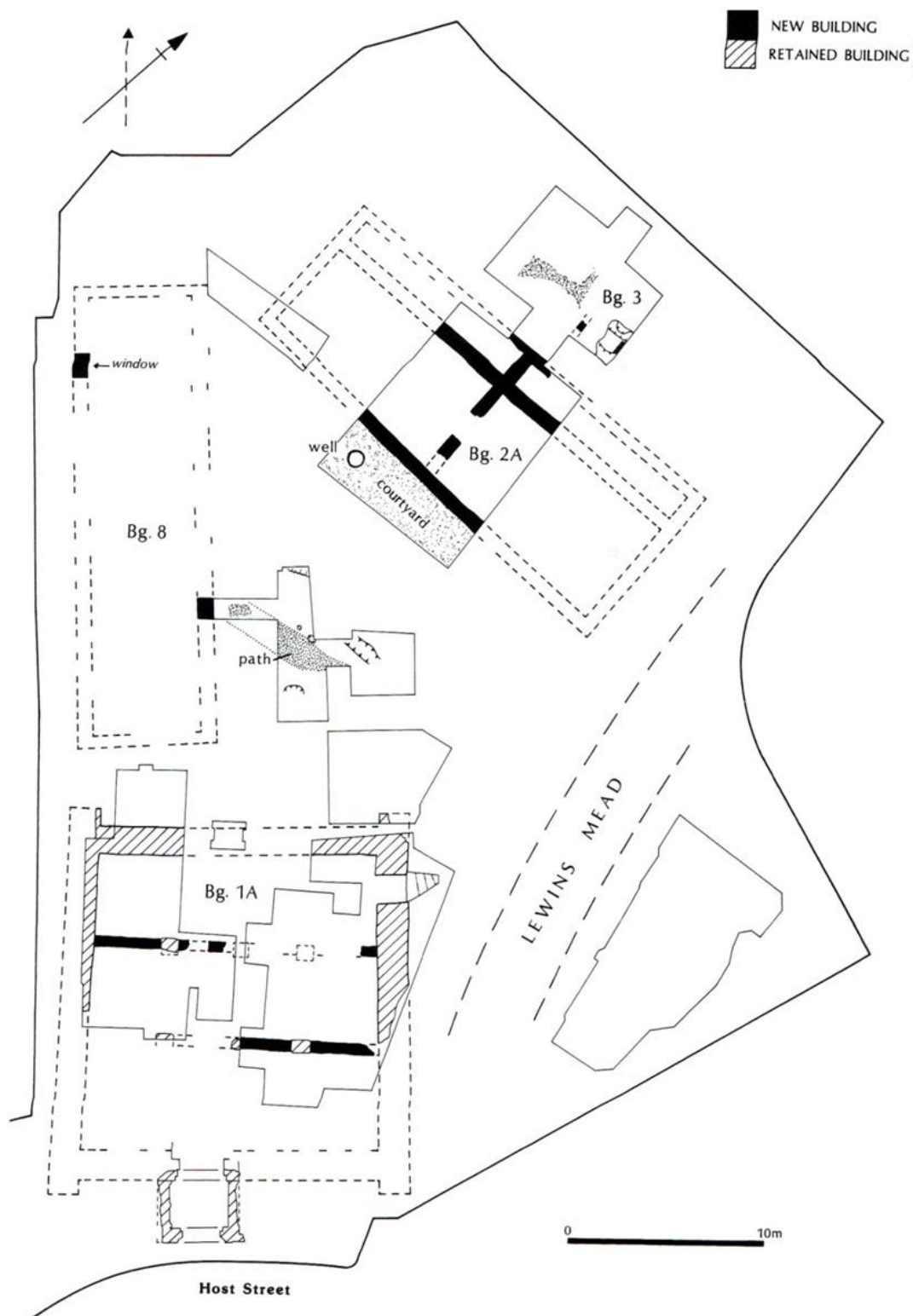


Figure 3. 21: Summary plan of the principal structures at St Bartholomew, 1280-1320. By this point a new domestic range has been constructed (Building 2A), with associated structures to the north (Price and Ponsford 1998, 64, Fig 23) © Roger Price and Michael Ponsford

to have served Building 8 (Price and Ponsford 1998, 70). Taken together Building 8 was interpreted as the lodgings for the master and staff, as well as functioning as the guest accommodation for two travellers (Price and Ponsford 1998, 83).

To the north of this, in Area K, a building platform was created with levelling layers, upon which Building 2A was constructed, and although heavily robbed and truncated by later activity it appears to have been approximately 22m long and 6.5m wide (Fig. 3.22) (Price and Ponsford 1998, 71). No entrance was observed in the excavation area, but the building was broken up into a series of rooms, Room 4K to the west, and 5K to the east, separated by a heavily disturbed north-south partition wall with a connecting door at the southern end, with Rooms 4Ka and 5Ka further divided off by an east-west partition, each smaller room being 1.3m wide but of an unknown length (Price and Ponsford 1998, 74). Stratigraphy was significantly truncated and disturbed, but the earliest levels floor levels were located in the southeast corner of Room 4K consisting of the limited remains of a mortar spread with a patch of flagstones and smaller cobbles on top, suggesting the building may have been paved (Price and Ponsford 1998, 74). A shallow posthole to the west of the floor surface may have been related to construction or a short-term structure inside the room. In the north Room 4Ka had a large stone structure in the northwest corner of the excavation area, running slightly off parallel to the partition wall, interpreted as a possible staircase, with part of a stone paved floor to the south (Price and Ponsford 1998, 74). Room 5K had a heavily truncated flagstone floor, laid on top of sand, clay, and gravel, whilst Room 5Ka had a floor consisting of the makeup layers, with the eastern part of the floor being more ashy (Price and Ponsford 1998, 74–5).

Building 2A almost certainly functioned as the kitchen and refectory/hall, suggested by later rebuilding and the organic residues on the floor, with Room 5K being the hall, Room 5Ka as the pantry, Room 4K as the kitchen, and Room 4Ka as the larder (Price and Ponsford 1998, 83). If the stone structure in Room 4Ka was stairs then the upper storey may have been dormitory space, and with no doors in the central area of the building the entrances may have been at the ends, keeping areas of activity separate even when in the same building or segregating the sexes (Price and Ponsford 1998, 83). Although no hearths or ovens were found, as would be expected and as mentioned in the inventory, only the central portion was excavated and much of the area was heavily disturbed. This later disturbance seems to have removed much of the early drain system, although some elements were revealed (Price and Ponsford 1998, 83). The size of the buildings of this phase suggest a population of around 30, including staff and guests, but if the community

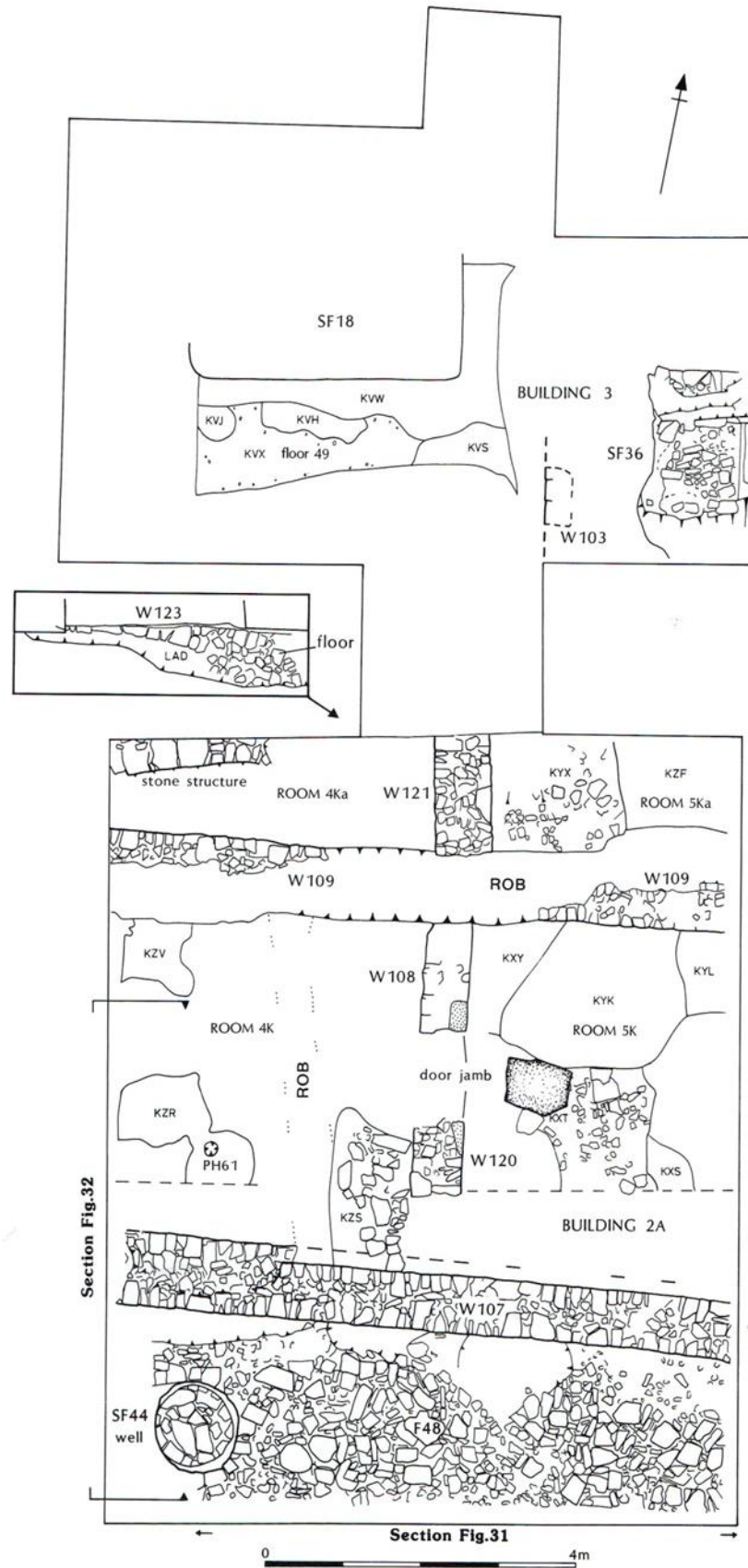


Figure 3. 22: Detail plan of buildings 2A and 3, courtyard, and well in Area K. This area appears to be the focus of domestic activity, probably serving as the kitchen and refectory (Price and Ponsford 1998, 72, Fig 30) © Roger Price and Michael Ponsford

ate in shifts or the women's dormitory had separate facilities this number may have been larger (Price and Ponsford 1998, 83).

To the south of Building 2A was a flagstone surface, worn by water and foot traffic, creating a triangular courtyard and garden (Price and Ponsford 1998, 75, 83). The well did not have a retaining wall to keep flood water from contaminating the water supply, leading to the suggestion that it was for laundry and boiling, not direct consumption. Building 3 was located just to the north of Building 2A, possibly serving in association with Room 5Ka as a brewhouse/bakehouse, which the inventory suggested had equipment for grinding malt (Price and Ponsford 1998, 75, 84). It seems to have been floored with flagstones, on top of which was a charcoal-rich deposit, possibly a hearth of considerable size. To the west was a heavily worn gritted path, bedded in mortar and clay, but if it led to Building 3 it seems to have required patching near building with crushed sandstone and clay, over which were more charcoal deposits. Other areas of patching in the area also included ash and charcoal, as well as a large amount of crushed oyster shell. Area E, to the northeast of Building 1 and near the river, appears to have been backfilled and then had an area of paving placed on it, as well as more build ups of soils and clays (Price and Ponsford 1998, 75). The main entrance to the hospital seems to have been off Lewins Mead along the path leading to Building 8, with a wall enclosing the site. Missing from the excavated areas were the latrines, either located close to the river to ease the drainage or dug cesspits to the north of Building 3 so that the human waste, and the associated smell that was believed to cause disease, was kept away from the living and eating areas (Price and Ponsford 1998, 84).

This expansion of the hospital buildings suggest that the earlier poverty had alleviated somewhat, with the de la Warre family paying 100 marks in 1292 promised at the foundation of the site, as well as pawning some items and being let off the payment of proxies to the Bishop of Worcester (Price and Ponsford 1998, 82). This was also associated with some modest acquisitions and probably other financial benefits not recorded, allowing a period of repair and improvement of the site in general. An inventory of 1303, seemingly carried out for and held by the de la Warre family, broke the site down into distinct buildings: hall, pantry, guest house, kitchen, cellar, larder, bakehouse, and granary (Price and Ponsford 1998, 82). Missing from this list are the chapel, the infirmary, the master's lodgings, and the dormitories, and although a hall is mentioned it is noted to have been provided tables, suggesting a refectory rather than the infirmary hall (Price and Ponsford 1998, 82). The presence of indents at the top of the page indicate that the surviving elements of the inventory were the second part and that the text as a whole may be

incomplete. That these were the four most important buildings for the site (as discussed in Chapter 2) may corroborate the suggestion that the missing first portion of the inventory included these buildings. Price and Ponsford (1998, 82) also suggest that the absences may be due to changes in the function of certain areas, for example, at the time of the inventory the master, John de Mershton, did not live on the site and further turmoil during this period may have seen the dedicated masters' lodgings converted to other uses. It is also unclear as to what role the Norman hall was carrying out since none of the original ground level floor surface survives. Although the hall later became the location of the chapel, it may be that originally religious observance was carried out elsewhere (Price and Ponsford 1998, 82).

If so this could be related to the secular origins of the Norman hall, possibly making religious observance in this building problematic in the early phases of the site and requiring off-site facilities. This practice was not unusual for small or new hospitals, and was noted for several of the smaller hospitals at Bury St Edmunds, where religious observance was controlled through the abbey (Rowe 1958). That being said, the hall remains the best constructed building throughout the life of the hospital, and later is clearly utilised as a chapel, with internal burials, as well as dormitory space. As such, it is also possible that the hall served as the location for several of the missing elements in the earlier phases, the evidence of which was lost through later disturbance, and as part of the original foundation were deemed exempt from the inventory focussing on the expenses and assets of the site (Price and Ponsford 1998, 82). Given the size of the hospital, its independent nature, and the use of the hall in the following phases as the chapel it seems more likely that the hall was being utilised as the chapel for onsite religious observance, as well as other possible roles such as dormitory and staff quarters, meaning that it is highly probable that the inventory is incomplete or the Norman hall was exempt from the inventory.

Despite some level of wealth the work carried out through the 14th century appears to have been either shoddy or structurally unsound (Price and Ponsford 1998, 82). In this period the quality of the staff declined despite increases in endowments and improved facilities, with disputes between the master, the brothers, and the sisters, as well as interference from those outside the community, such as Adam de Cumpston, making the everyday environment of the hospital (Price and Ponsford 1998, 84). This may be the reason for the 1303 inventory, acting as an attempt to gain a handle on the physical condition of the hospital.

Modifying the Service Area (1320-1340)

Building 2A was modified in this period, with Room 4K receiving a new floor surface over the mortar spreads, consisting of a stoney loam over which was placed “black, oily material” interpreted as the residue of rotten rushes or food debris, on top of which crushed stone and a new slab floor was laid (Price and Ponsford 1998, 77). Even more organic residue was located between more floor levels of sand, clay, and stone that built up the floor of Room 4K. Two patches of wear in the northeast corner were filled with gravel and then covered with two large slabs, and further spreads of material, including ash and charcoal were found. Room 4Ka had a clay layer spread over the stones, with a possible drain placed to run parallel to the east-west partition wall (Price and Ponsford 1998, 77). Room 5K had floor layers of sand, clay, and stone sandwiched with black residue, with a large slab placed to the east of the north-south partition wall possibly acting as a series of steps to the lower floor surface of Room 4K. Above all of this Room 5K was covered in a dark organic layer, again seemingly the accumulation of rotten vegetable matter such as rushes (Price and Ponsford 1998, 77). Room 5Ka only had limited levels of levelling material, suggesting the room received limited use (Price and Ponsford 1998, 77).

There were no changes made to the surface south of Building 2A, suggesting it was kept clean and maintained, but to the north of Building 2A Building 3 was demolished, with its function probably moving to the refectory, and replaced with Buildings 4 and 5 (Fig. 3.23) (Price and Ponsford 1998, 78, 85-6). Building 4 was located to the west, comprising of a timber structure on shallow stone walls of unclear length but 2.6m wide, located on top of the demolition of Building 3. Interpreted as a granary, the dating was unclear and it may have been built in Period 3B (Price and Ponsford 1998, 84). Building 5 was built on the eastern third of the building platform to the north of Building 2, but was heavily disturbed and only the suggestion of a soil and mortar floor was found. To the immediate east of the west wall of Building 5 was an uncapped freshwater conduit, 0.1-0.2m wide and 0.1m deep, running north to south and originating from the Greyfriars to the north, who had the rights to a spring and piped water to Lewins Mead and then over the Frome Bridge into the town, past the hospital (Price and Ponsford 1998, 78, 85-6). This would have provided a vast improvement in the quality of the water supply, coupled with the continued use of the well to the south of Building 2A.

Administrative issues continued into the period with the death of Roger de la Warre, son of the founder, in 1320, and John de la Warre IV, as well as the Bishop of Worcester, becoming more active in the matters of the hospital (Price and Ponsford 1998, 85). How

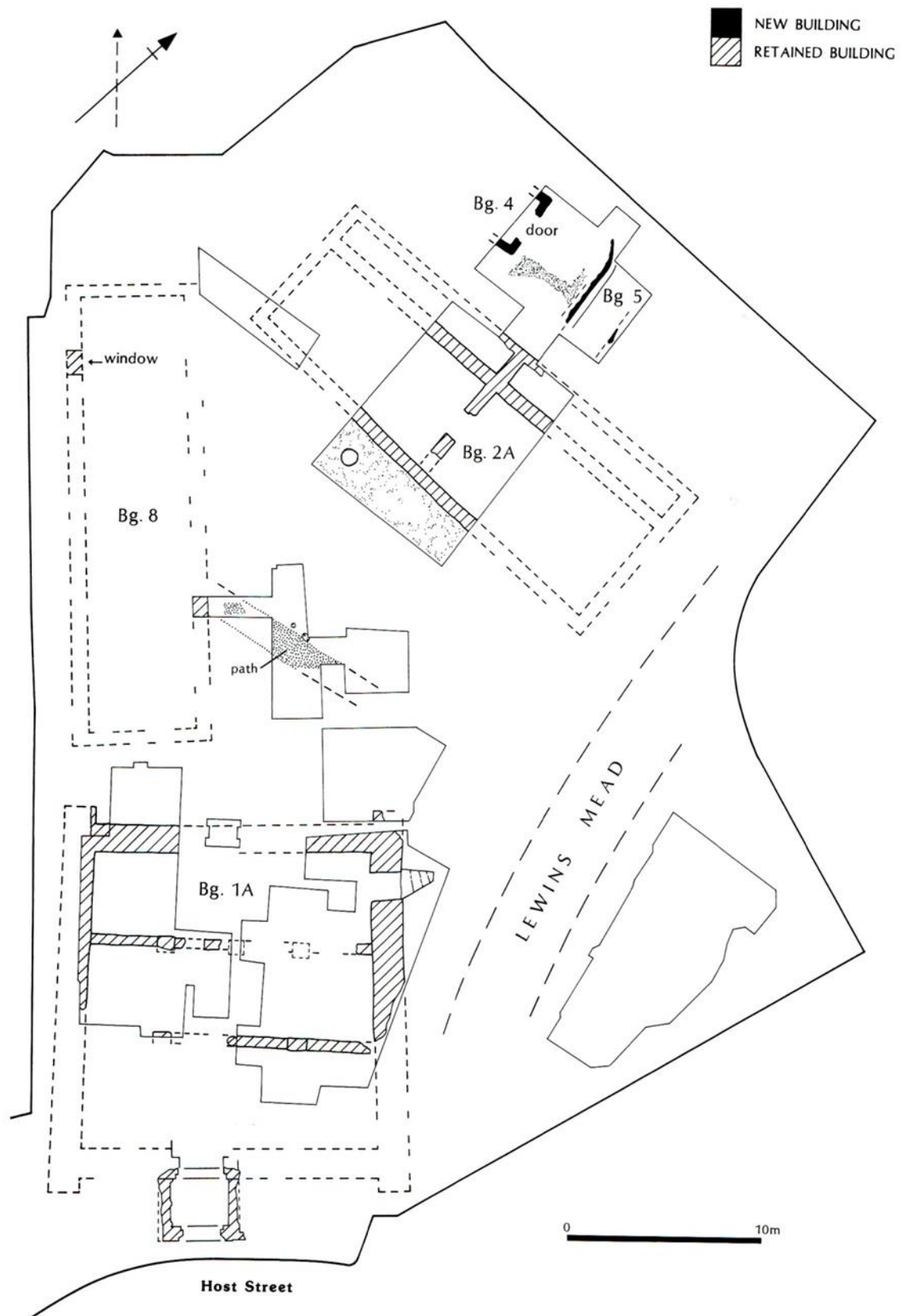


Figure 3. 23: Summary plan of the principal structures at St Bartholomew, 1320-40. The majority of new work is north of Building 2A (Price and Ponsford 1998, 76, Fig 33) © Roger Price and Michael Ponsford

much John de la Warre knew of the internal happenings of the hospital are unclear since John de Mershton, master at the time of the inventory and only succeeded in 1334 by William Williams, was almost excommunicated. By 1340 the sisters were in control of the hospital, with no brothers of the house mentioned after 1336 (Price and Ponsford 1998, 85).

Rebuilding St Bartholomew's (1340-1400)

This period relates to the time when the Sisters were in charge of the site and saw the widescale rebuilding and replacement of the majority of buildings in the precinct (Fig. 3.24). Building 1A was replaced with Building 1B, the undercroft filled with demolition material and the new walls placed on to the partially demolished older walls (Price and Ponsford 1998, 90). The old door to the undercroft was blocked up in a manner that allowed it to support a large monument. What was interpreted as a chancel was added into the eastern wall of Building 1B, 4.4m wide, in between the northern and southern arcades, with an arch over the opening into the rest of the building (Fig. 3.25) (Price and Ponsford 1998, 90). Elements of the new arcades seem to still have suffered from structural instability and collapse, some even reusing Period 3 columns, although much was demolished and replaced in an attempt to rectify this. The backfill of the undercroft may have been in two phases, with a temporary partition between, on top of which the new floor surface seems to have been initially tiled but other possible floor surfaces of stone roof tile and then later compacted clay capped by stone pavement in the western half of the new building (Price and Ponsford 1998, 94). In the central aisle a stone foundation for a substantial structure was laid, as well as additional support for the chancel wall, with a layer of hardcore, sand, and clay laid down to cover the last of the remains of Building 1A (Price and Ponsford 1998, 94–5). This hardcore was cut by two postholes against the northwest wall of the chancel and represent the supports of a screen or a wainscot.

A spiral staircase was added to the south of the door in the southern wall, evident by 5 surviving steps that appear to have been part of this phase of construction and not added later (Price and Ponsford 1998, 95). The addition of the staircase would have weakened the southern arches and may explain some of the irregularities evident in the piers and arches of the southern aisle. The southwestern wall of Building 1B continued past the northwestern wall and on towards Building 8, with a gap of uncertain size opening from the northern aisle into the area to the west of Building 1B that had a mortar and clay floor

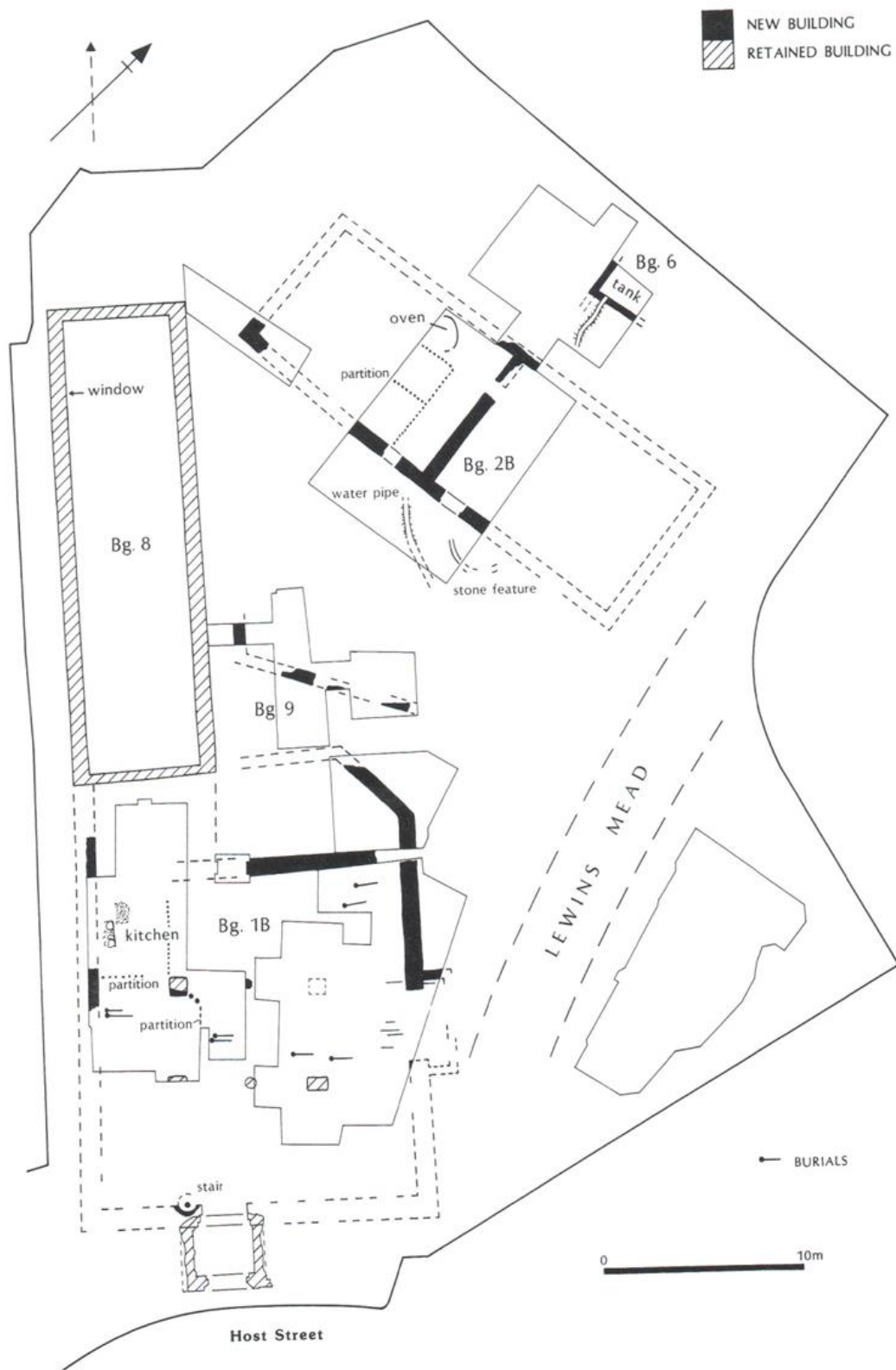


Figure 3. 24: Summary plan of principle structures at St Bartholomew, 1340-1400. This period saw extensive modifications to the site, with the clear use of the Norman Hall (Building 1B) as a chapel, a new domestic range in Building 2B, and possible changes to buildings around the courtyard (Price and Ponsford 1998, 89, Fig 36) © Roger Price and Michael Ponsford

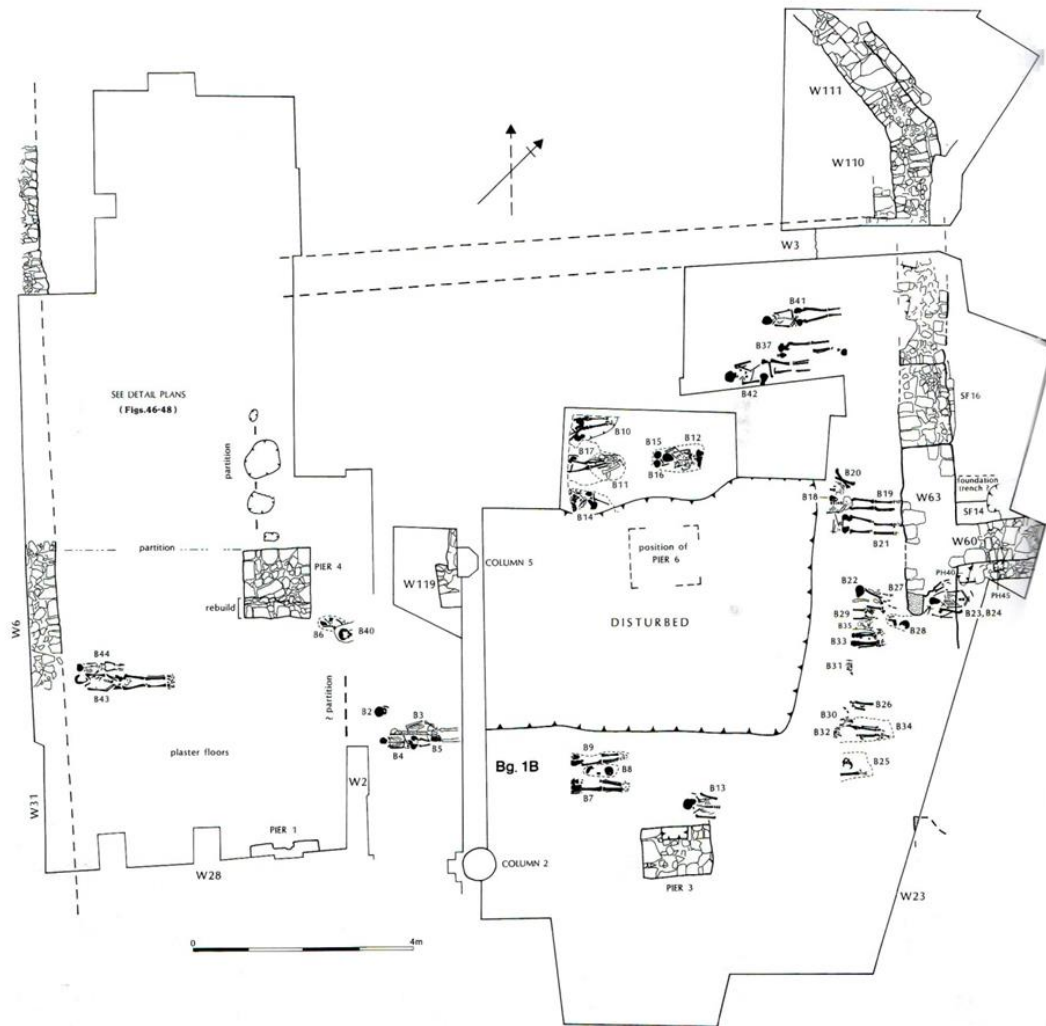


Figure 3. 25: Detailed plan of Building 1B, Area D/G/H. This appearance of burials means that at least by this point Building 1B is being used as a chapel, although it is likely it was doing so before. Also note the addition of a small chancel, just observable as a right-angle wall in the middle right of the plan (Price and Ponsford 1998, 90, Fig 37) © Roger Price and Michael Ponsford

surface higher than the rest of internal surfaces (Price and Ponsford 1998, 95). The north-eastern wall of Building 1B continued past the return of its northwestern wall and doglegged west (Price and Ponsford 1998, 95–6). Since the wall did not continue on into Area A it seems it turned again to head towards the southern end of Building 8, forming a parallel hall that potentially opened into the northern aisle at its western end; unfortunately, later modification and disturbance destroyed many of these important relationships. To the north of Building 1B mortar, crushed stone, and plaster seem to date to the demolition of Building 1A and are then cut by Wall 60, the northern chancel wall and the only wall that fell within the excavation area (Price and Ponsford 1998, 96).

The path in Area A from Building 8 to the gate was covered over with make-up layers, including crushed stone, and then Building 9 was constructed over the top (Price and

Ponsford 1998, 96–7). Only fragments of the northern wall survived, although the foundation cut survived much better, and showed the wall ran virtually east-west. The building seems to have been separated into smaller rooms with partition walls just over a metre wide, with the central section of the excavated building having a mortar and gravel mixed floor, while to the east a red sand was mixed with plaster, seemingly separated by another partition under the baulk of the trench (Price and Ponsford 1998, 97). To the west the run of the wall seemed to dogleg northwest to run parallel to the walls of Building 8, although there was little left of this wall. To the west of this wall, W122, yet another floor was evident, made up of different coloured mortars overlain by a pale green crushed Pennant stone layer set in green and red sand, with possibly another floor surface above this one (Price and Ponsford 1998, 97). Taken together it seems that these were all floors with the building, with W122 and W5 to the west forming a corridor 1.25m wide running north out of Building 9 and alongside Building 8. Outside Building 9 were a series of clay soils, some possible with construction material like mortar and stones as inclusions (Price and Ponsford 1998, 97).

This radical remodel of the site continued with the infilling of the well in Area K and the demolition of Building 2A, with the rubble spread, particularly in the area of Rooms 5K and 5Ka, to form a platform on which Building 2B was built, retaining a similar layout but on a slightly different alignment (Fig. 3.26) (Price and Ponsford 1998, 97). Entry into the building was via side-by-side doors, 1.2m wide and 2m apart, split by a partition wall, indicating a change in conception of how this range would function. The main partition wall also seems to have had two doorways in it, although later disturbance has made this unclear. The western Room 2K had a varied floor surface, with Pennant slabs laid on edge in the northwest, the surface stained with soot in a crescent shape, possibly from a metal oven, whilst to the south this layer was made from limestone cobbles, with a shallow step down to another cobble surface (Price and Ponsford 1998, 99–100). To the east of this surface, butting up with an uneven edge that may suggest some form of partition between the two, was a stone slab floor, possibly acting as an antechamber for the western wing. These surfaces appear contemporary given the manner in which Drain 50 was set into both floors (Price and Ponsford 1998, 100).

Drain 50 measured 0.25m wide and 0.15m deep and seems intentionally set across the partition which would imply a downpipe against the partition or it served as a general drain point for the western room. It drained to the east into Drain 51, which was located in the hallway of the building flowing north. Animal bones in the drain and the probable location

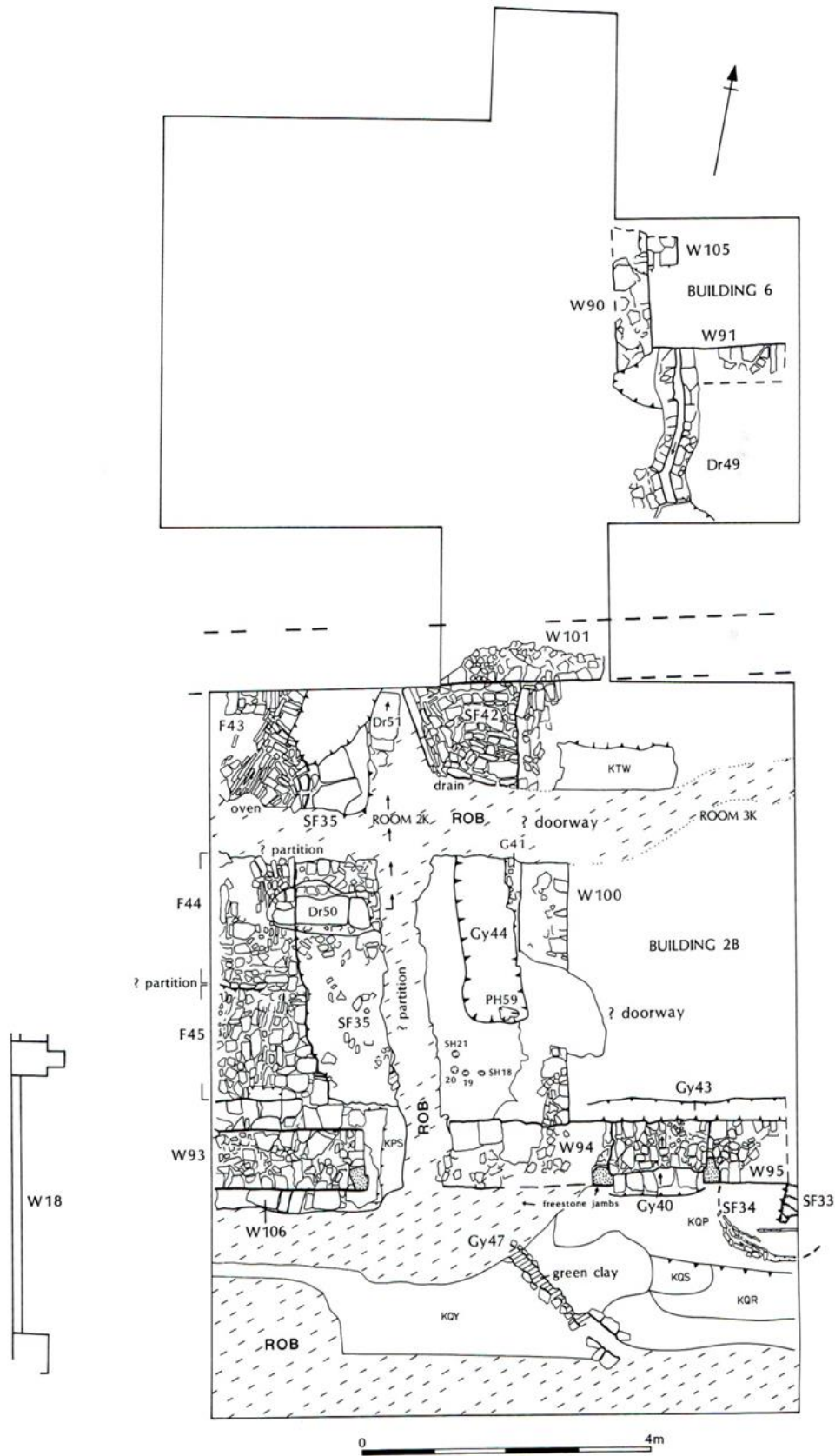


Figure 3. 26: Detailed plan of Buildings 2B and 6, 1340-1400. Observable is the stone floor in the kitchen to the west, and the beaten earth floor in the refectory to the east. Drain 50 can also be seen (Price and Ponsford 1998, 98, Fig 42) © Roger Price and Michael Ponsford

of an oven indicate this was the kitchen (Price and Ponsford 1998, 100). Another portion of limestone cobble floor was located in the northeast corner of the room, with the western stones forming the eastern edge of Drain 51, and the facing stones visible at the southern edge of this floor layer suggests another drain entered Drain 51 from the east, possibly from the northern portion of the eastern room (Price and Ponsford 1998, 100). The southeast corner of the room had two gullies, possibly beam slots, a posthole, and a stakehole, possibly comprising a structure that was later dismantled and the gullies purposefully backfilled. Room 3K had less substantial floors when compared to Room 2K, comprising haphazard slabs, whilst the northern section of the room had another floor, possibly indicating another robbed out partition, running in line with the northern wall (Price and Ponsford 1998, 100–1).

To the south of Building 2B the demolition was trampled to form a floor surface, cut by a gully running downhill to the south representing the robbed out lead water pipe from Greyfriars (Price and Ponsford 1998, 101). Outside the eastern door was a stone setting, possibly for a water butt to catch runoff, although it may also have been the base for a monument, and fragments of statue were found in the trench. Another drain ran into the area from the northwest, probably originating from the northern end of Building 8 or another building located outside the excavation area. To the north of Building 2B, Building 6 was built over Building 5, the inside seemingly rendered in mortar, with a thick layer of clay inside and a conduit channel running north to south against the western wall, possibly entering Room 3K (Price and Ponsford 1998, 101–2). It seems highly likely that this room served as a water tank for the conduit, feeding clean water into the system.

With the site under control of the Sister's it is unclear whether the male inmates were also expelled or, if they weren't, what the sleeping arrangements were, but it seems that there were no male staff members (Price and Ponsford 1998, 115–6). The period of control by the prioresses appears to have been a stable one, and with more revenue streams found especially by Eleanor, first prioress of the hospital, such as renting out the women's dormitory, it seems it was her who began the major reconstruction work. The de la Warre family do not seem to have given the hospital high priority, although they may also have provided some of the funds for the rebuild. The dating of the renovation of the site is problematic, although at some point in the late 14th century seems the most probable. This makes the statement from 1412 that the hospital was in a dilapidated state difficult to understand, but may have been part of a campaign to denigrate the work of the Sisters to stop them regaining authority on the site, or may be more related to the overall effects of

the epidemics and famines of the 14th century on gaining skilled craftsmen, since the archaeological evidence suggests that some of the buildings may have suffered from structural instability due to poor construction (Price and Ponsford 1998, 116). It may also have been that the hospital was still relatively poor and could not afford the best, despite the aims of the renovation, and it is probable this construction scheme lasted a long time, putting considerable strain on the institute's finances as well as causing much disruption.

The phasing of the demolition and rebuilding is unclear but given the obvious structural issues associated with Building 1A this seems a highly likely candidate for the earliest work, with the building being levelled and undercroft walls serving as foundations for the new building, as well as the reuse of significant amounts of the older stonework to create what was definitely the new chapel of the site (Price and Ponsford 1998, 116–7). The provision of steps, the thickness of the walls, and other features such as a window in the southern wall suggest there was a second storey, at least over the southern aisle, and could have served as accommodation, possibly for staff or inmates, especially if any male residents remained during the period when the Sisters were in control. Given the spiral staircase it seems only the healthy would have been able to use this space. The addition of a small chancel could not have extended far, given that Lewins Meads ran very close to the old north-eastern wall, and both the chapel and parts of the chancel were used for burial (Price and Ponsford 1998, 117). The chapel appears to have been decorated, with a possible tile and stone slab floor, as well as wainscoting over the entrance to the chancel, and features associated with the eastern face of the partition may have held monuments (Price and Ponsford 1998, 117–8).

Documentary evidence suggest that parts of the chapel were used as an infirmary, probably in those areas to the west of the temporary partition in the western section of the chapel, as well as in the room to the north of the chapel, and the arrangement seems to date to around 1400. Such an arrangement would not have allowed the inmates to see the altar, but collections of finds, such as a group of coins, and the domestic waste observed do suggest the use of this area as an infirmary with its own temporary kitchen, closed off from the rest of the chapel with partitions during the late 14th century. This temporary kitchen seems to have been replaced with another stone hearth to continue providing kitchen facilities, possibly as a stop-gap whilst the main domestic range was rebuilt, or possibly that this new infirmary area was provided with its own dedicated kitchen (Price and Ponsford 1998, 118). There may also have been more partitions in the central aisle, possibly for an expansion of the infirmary area, but the divisions were slight. Architectural elements noted

in the 1820s in the area of the doglegged extension of the chapel to the northwest suggest that this may have been a two-storey structure serving as the main entrance into the hospital complex, connecting Building 1B with Building 8, although it is unclear if it connected directly into the northern aisle of the chapel (Price and Ponsford 1998, 118).

Building 2B was roughly 22m long, with two doors providing access from the courtyard, with the western side broken into separate areas by a series of partitions, with a passageway against the main dividing wall of the building allowing access to the different areas (Price and Ponsford 1998, 119). The floors were a series of stone layers, with a new drainage system established from the rebuild. Room 3K was provided with a small cupboard to the north but the floors were simpler and remained relatively ash free, suggesting this was the refectory, whilst the cupboard probably served as a pantry, holding serving and eating equipment, corroborated by the pottery finds in the area (Price and Ponsford 1998, 119). This new range may have been smaller and a full second storey may not have been deemed necessary or economically viable, since there was no evidence of stairs and evidence of temporary supports of an upper storey structure. The domestic nature of this building is supported by the presence of two phases of a conduit house just to the north, as well as the series of drains and robbed out lead water pipes through the building and in the courtyard to the south. Along the western edge of this courtyard a walkway appears to have been constructed, possibly connecting into Building 9 which was a less substantial structure on the right alignment for the walkway (Price and Ponsford 1998, 119). The nature of Building 9 is uncertain, but it does seem to have been split into a number of smaller rooms. Administratively, the Sisters lost control of the hospital in the 1380s amid accusations against the effectiveness of the prioresses over the past 50 years (Price and Ponsford 1998, 119). Whilst the dating of many of these features is imprecise it is clear that much of the redevelopment of the site was carried out under their authority and left the hospital in a much better condition than when they received it.

Transition and Dissolution (1400-1532)

A transitional phase, the features included in this section were undated but known to have been after the main series of Period 4A building (Price and Ponsford 1998, 103). In Building 1B this included a series of partitions that separated out the western corner of the building, extending out to the west possibly as far as Building 8, and eventually being given over to domestic activities. The floor was levelled and a beam slot put in, which was covered by a mortar surface 5m by 1m and then cut by a series of five stakeholes, some of which

seemed to support a timber frame or bench, whilst others to the north and northeast may have supported a short partition between Pier 4 and Wall 43 (Price and Ponsford 1998, 105). This structure seems to have been short-lived and was covered over by spreads of organic material and charcoal. A small stone slab surface appears to have been placed to serve as a replacement for the timber structure and two stone slabs to the south of Wall 43 served as a base for a monument, wall fitting, or bench. A small hearth, 1.6m by 1m, made of stone slabs was located just to the north associated with a range of domestic refuse and charcoal indicate this area was given over to domestic activities, possible associated with the range to the north (Price and Ponsford 1998, 106). The activity was short-lived and a mixed series of mortar, sand, clay, lime, and stone patches and layers covered the majority of the area. Cutting this layer were a series of postholes, possibly to support a gallery or ceiling above the corner of the building, with a possible doorway into the rest of the aisle located between the north west wall and the posthole to the south (Price and Ponsford 1998, 106). A mortar layer in the central aisle at the western half of Building 1B may also have had an insubstantial partition or screen across it, and with the absence of burial to the west of the partition it may be suggested it was utilised for non-religious activity (Price and Ponsford 1998, 106–8).

There were only limited modifications to the site for the next 130 years, suggesting that the layout achieved served the purpose of the community (Fig. 3.27). All building activity in Building 1B now appears to have been non-domestic in nature, with new mortar and clay spreads being put down (Price and Ponsford 1998, 108). Building 9 was demolished, although parts of the external wall were maintained to form additional elements of the claustral walk, whilst to the east in the garden area Drain 14 was inserted, 0.4m wide and 0.25m deep and constructed of mortared stone slabs, making it one of the largest drains on the site (Price and Ponsford 1998, 108, 120). It is probably the drain was a waste flow for the northern extension of Building 1B and flowed north, and as such most likely the main drain for the range. To the west Drain 10 exited Building 8 and flowed east, implying some form of washing facilities or latrine, cut through the new gravel floors between Walls 5 and 122, while another possible structure, Building 10, comprised fragments of suspected stone sleeper walls for a timber superstructure running southeast to and attaching to Wall 122 to the south west (Price and Ponsford 1998, 110-1, 120).

In building 2B later stone robbing had disturbed many of the later deposits, but it could be seen that probable kitchen waste built up on the earlier stone floor in the southwest corner, immediately on top of which was a new floor of stone roof slate and slab pavement

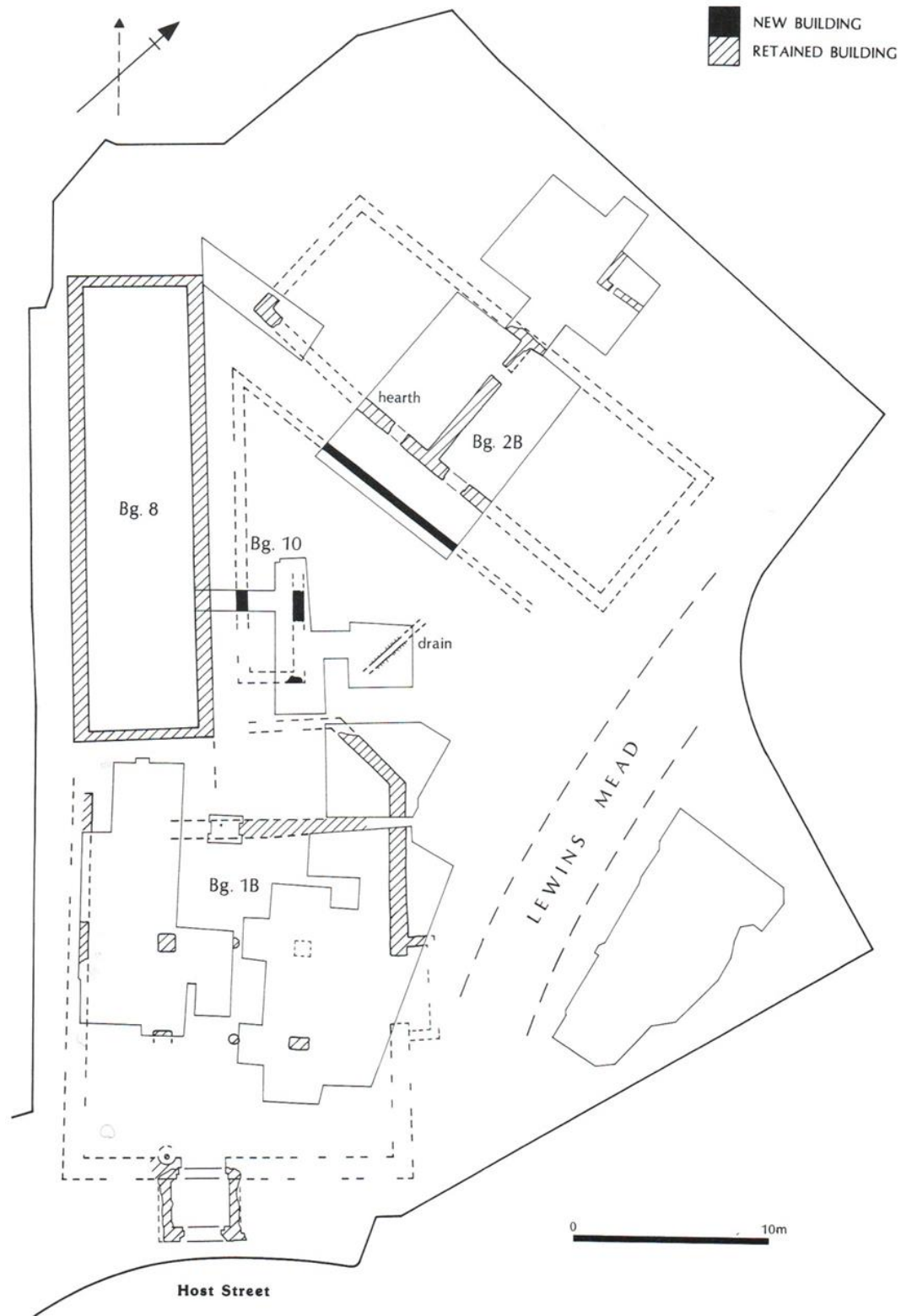


Figure 3. 27: Summary plan of principle structures at St Bartholomew, 1400-1532. The only major changes occur in the courtyard area, possibly representing the creation of a cloister walk (Price and Ponsford 1998, 109, Fig 50) © Roger Price and Michael Ponsford

running from the western door and further west, 0.6m wide and at least 1.7m long (Fig. 3.28) (Price and Ponsford 1998, 111–2). This probable hearth surface was stained with soot, with thicker floor deposits to the north and east, over which was more organic residue. A possible partition, evidenced by a series of postholes for the frame and a series of small stone slabs for a sill-beam to rest on, running east-west seems to have split Room 2K in half. North of this possible partition was a compact spread of organic material, of a different nature to the spreads to the south. A new drainage system was inserted into the northwest area of the excavated Room 2K, with Drain 45 running west to east against the

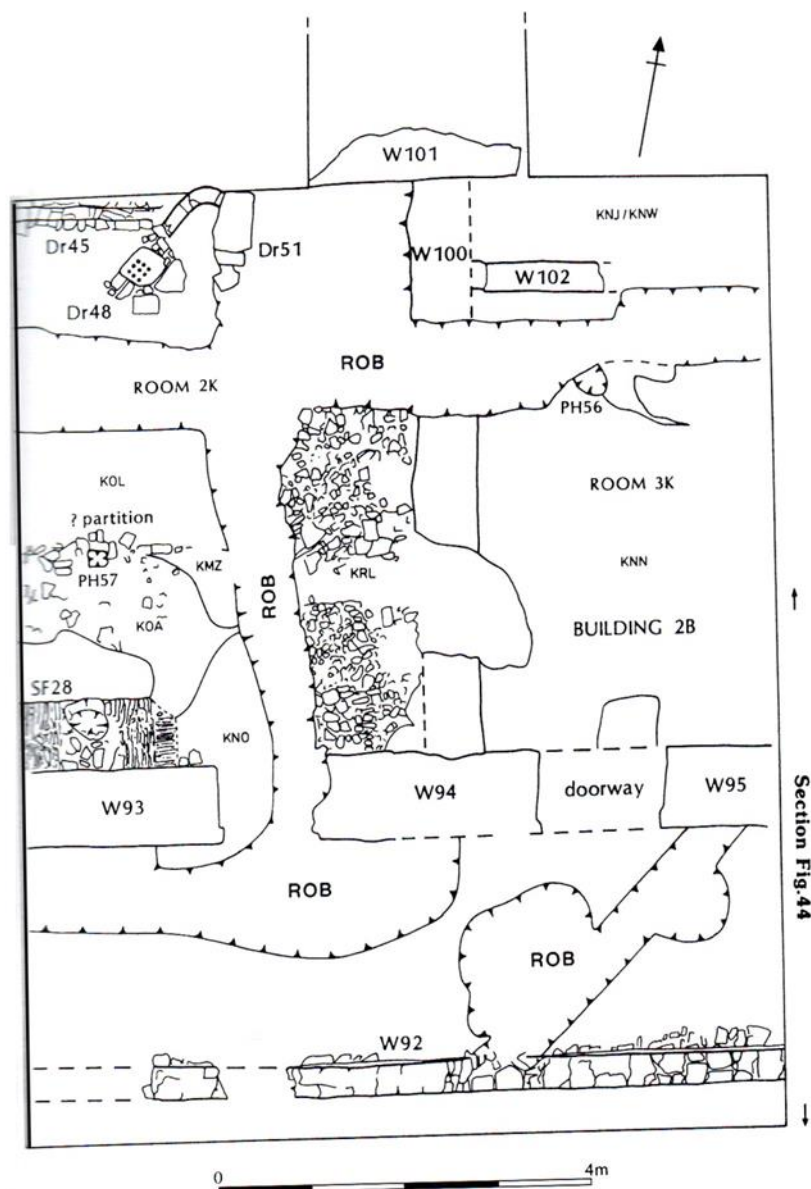


Figure 3. 28: Plan of modification to kitchen in building 2B and the construction of a corridor in the courtyard. (Price and Ponsford 1998, 111, Fig 52) © Roger Price and Michael Ponsford

northern wall to empty into Drain 48, which was capped with a slab with nine holes drilled in it to form a soakaway, which then flowed into Drain 51 to the east, which still flowed north. The quality of construction, the association of the soakaway and the hearth, and the differing organic residues strongly indicate this was the kitchen (Price and Ponsford 1998, 112).

To the east of this kitchen area but still in Room 2K the partition seen to the west does not continue, instead the earlier stakeholes are covered over with a mixed layer with stone, and then a new stone floor was laid down in the area of the western door, raising the floor to a level where the door was either replaced or removed (Price and Ponsford 1998, 113). The rest of Room 2K had a new floor of rammed sandy clay, with 3 postholes placed against the western face of the wall dividing Room 2K from Room 3K, of a size to suggest support of an upper floor structure or wainscoting (Price and Ponsford 1998, 112, 120). This surface also covers the hearth just to the west of the door. There was yet another raising of the floor with a sand, lime, and clay laid under a crushed stone layer, but given how clean this surface was it seems that it was not in use long (Price and Ponsford 1998, 114).

In Room 3K a short, 1.5m long wall was constructed about a metre south of the northern wall, forming a cupboard or pantry, whilst a new mortar floor was laid across the whole area south of this new wall (Price and Ponsford 1998, 114). Above this was a series of layers of organic matter, sand, and clay, before another mortar surface was laid down. A posthole was located just south of the eastern end of the cupboard wall, possibly for an entry structure, but this was then covered by more levelling layers of sand, clay, and stone, and then a crushed stone layer covered with mortar, into which had been trodden charcoal and ash, again covering the area south of the cupboard wall, and then covered with more crushed stone (Price and Ponsford 1998, 114). The cupboard floor was made up of repeated layers of clay mixed with lime and charcoal (Price and Ponsford 1998, 114–5). To the south of Building 2B a new wall was constructed running parallel to the building, forming a cloister walk, with the floor made up of numerous layers of sand, clay, and mortar, frequently patch, on top of which was a crushed limestone and mortar level, similar to the last layer in Room 2K (Price and Ponsford 1998, 115). Over this was another accumulation of material, whilst to the south of the wall was a dark soil. To the north of Building 2B Building 4 was demolished and covered with a dark soil and Building 6 stopped supplying the drains with water and was left disused, although these may have been very late in the life of the hospital (Price and Ponsford 1998, 115).

With the takeover by male administrators control seems to have relaxed, possibly leading to the claim in 1412 of the dilapidated nature of the site, at a time when the de la Warre family appointed Master John Arundel, who held multiple benefices and seems to have taken little interest in the hospital (Price and Ponsford 1998, 119–20). This final period of the hospital saw almost no new building work, and given the return of male staff, if not male inmates, it is unclear how the sleeping arrangements were managed, although it is highly likely that the second storey of the chapel would have played a part. Some of the renovation work on the floors and internal space may relate to the accommodation of mariners from the Fraternity of St Clement from 1445, who lived alongside the other residents under the authority of the master, but with their own warden and deputy appointed by the seafaring community of Bristol (Price and Ponsford 1998, 120). The mariners did not have to hold to the Rule of the other inmates but were required to pray for the souls of members of the Fraternity in their own chapel of St Clement, which was large enough for the 12 mariners, the mayor, the sheriff, and the corporation of the town to hear mass every St Clement's Eve on the 23rd November. This chapel may have been the hall to the north of the chapel, or this may have been the mariners dwelling space, since food waste was no longer found in the floor layers. It seems that the mariners were moved to a new Chapel of St Clement built on land in the Marsh during the 1490s, since they were still residents in 1473 but were not mentioned when the hospital was closed in 1532 (Price and Ponsford 1998, 121).

Summary

The plan for St Bartholomew's remained relatively set from around 1300 onwards. Before this the main hub was the Norman Hall, but given the presence of an undercroft and later rebuilding very little can be said about the arrangement of accommodation and domestic areas. It is most likely that Building 1 served as the chapel of the site, especially given the modifications later in the 14th century that clearly indicate the building as being the chapel. The development at the end of the 13th century and into the 14th century set the template for the site, with Building 2 acting as the main domestic hub. Building 8, although only observed through one wall at the edge of the excavation would be in the right location to serve as staff quarters, if they were not in Building 1, and guest lodging, especially if the presence of a second floor to Building 2 related to the inmates' dormitory. These three structures formed three sides of an irregularly-shaped courtyard that was maintained for the full life of the hospital. To the north of Building 2 was the service area, with multiple

different buildings being constructed to match the changing needs of the site as other buildings were modified to increase or decrease the activities being undertaken. Outside the excavation, but well to the north appears to have been the Women's dormitory. Since most of the documentary sources related to it being rented out rather than used this either indicates another dormitory to the north of Building 2 or the modifications to the chapel in the mid to late 14th century included moving the staff from Building 8 to the chapel and moving the inmates to Building 8 and the new infirmary hall on the north of the chapel. It is unfortunate that very little personal material culture was recovered, since these items may serve an important role in highlighting gendered space, as will be discussed in Chapter 5, and it would have been of great interest to know if the women were moved into Building 8 or the new infirmary in the chapel. It is clear that the layout served the purposes of the community since the rebuild replicated the earlier layout, as does the lack of major development for the last 130 years, outside of the addition of a cloister walk.

The Hospital of St Mary, Ospringe

St Mary, Ospringe, was located straddling a south to north running stream, close to Faversham and fronting onto Watling Street (Fig. 3.29) (Smith 1979, 86–7). Founded in

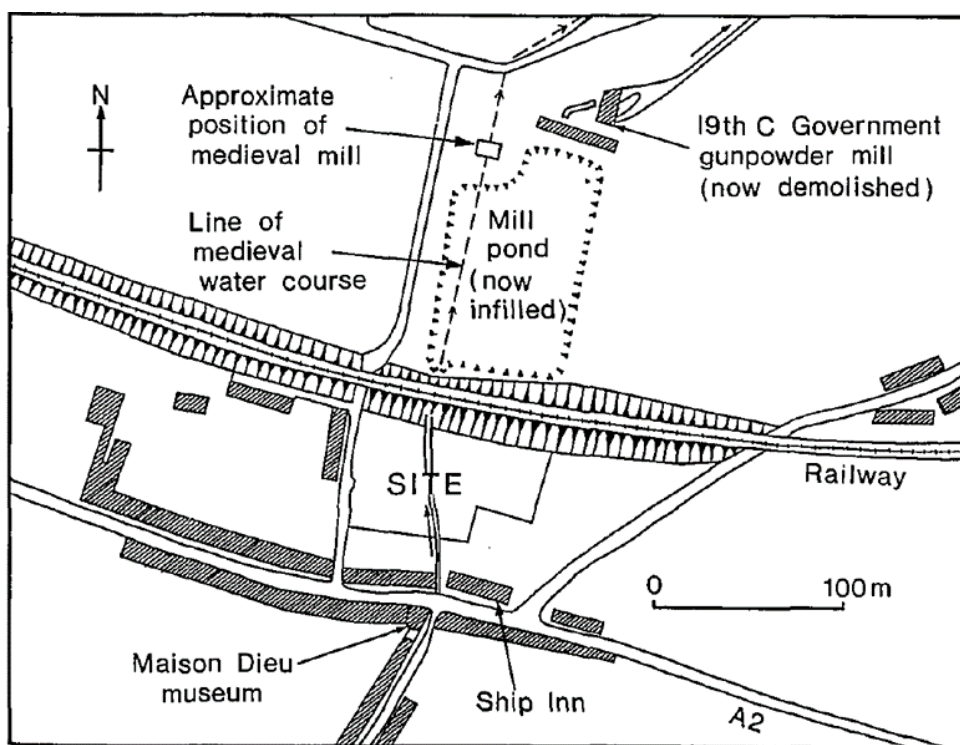


Figure 3. 29: Location map of St Mary, Ospringe. The chapel appears to have been in the area of the Ship Inn, with the rest of the site located to the north (Smith 1979, 83, Fig. 1). Reproduced with permission of Kent Archaeological Society

1234 through a royal grant of Henry III, there is a possible suggestion that elements of the site had already been built in the early 1230s (Smith 1979, 82–4). Two subsidiary buildings were recorded south of the road, both constructed after the initial site was established, one around 1255 and the other in the 14th century. There do not appear to have been earlier structures in the area of the hospital, but the village of Ospringe was mentioned from the 11th century onwards and had initially been held by Hubert de Burgh. The wider built surroundings are unclear, but it was clearly purposefully located at the point Watling Street crossed the stream. Its location and the presence of royal patronage probably served as the impetus for the establishment of a *Camera Regis* for royal visitors travelling along Watling Street between Dover and Canterbury at the hospital, as well as its purpose as a hospital for travellers and the sick (Smith 1979, 82–4, 86).

The chapel was outside the excavation area, south of Building 415, and east of the Common Hall (referred to from now on as the infirmary hall) (Fig. 3.30). The infirmary hall and the chapel were perpendicular to each other but separate, with a stream running through the centre of the site from north to south providing fresh water (Fig. 3.31). The infirmary hall, Building 534, was an eight bay structure, 36m long, terminating up against Watling Street to the south (Smith 1979, 92; Wilkinson 2014, 24–5). The hall was orientated north-south with a beaten clay floor, with the chapel aligned east-west to the south east, and although only one bay fell within the excavation area a set of octagonal and round pillars running down the centre of the hall suggests it was split into 2 aisles with a sleeper wall constructed as the base of a screen between the two sides and a connecting doorway at the northern end. The architectural stone recovered from the later demolition layers suggest a minimum height of 3m, whilst 0.8m below the floor was the culverted stream. The northern gable end had a rebated door, initially providing access to the courtyard to the north until Building 954 was constructed against the northern wall, whilst Building 1733 was constructed against the western half of the northern wall (Smith 1979, 93). The lack of buttresses for the infirmary hall suggests it was a single-storey structure. To the east of the main northern door was another exit, this one leading to a short passageway, Building 1685, formed of flint sills for partition walls that opened into Building 1230, interpreted as the *necessarium* or latrine since the culvert ran directly through it, but later erosion of the stream had destroyed the internal features of this building. Another doorway in the east wall led out to passageway 381, with a yard area, 1446, just to the south that had a drain from the buildings to the east heading west to join the main culvert (Smith 1979, 93). Small evaluations at the southern end of the hall have suggested the presence of a possible belfry

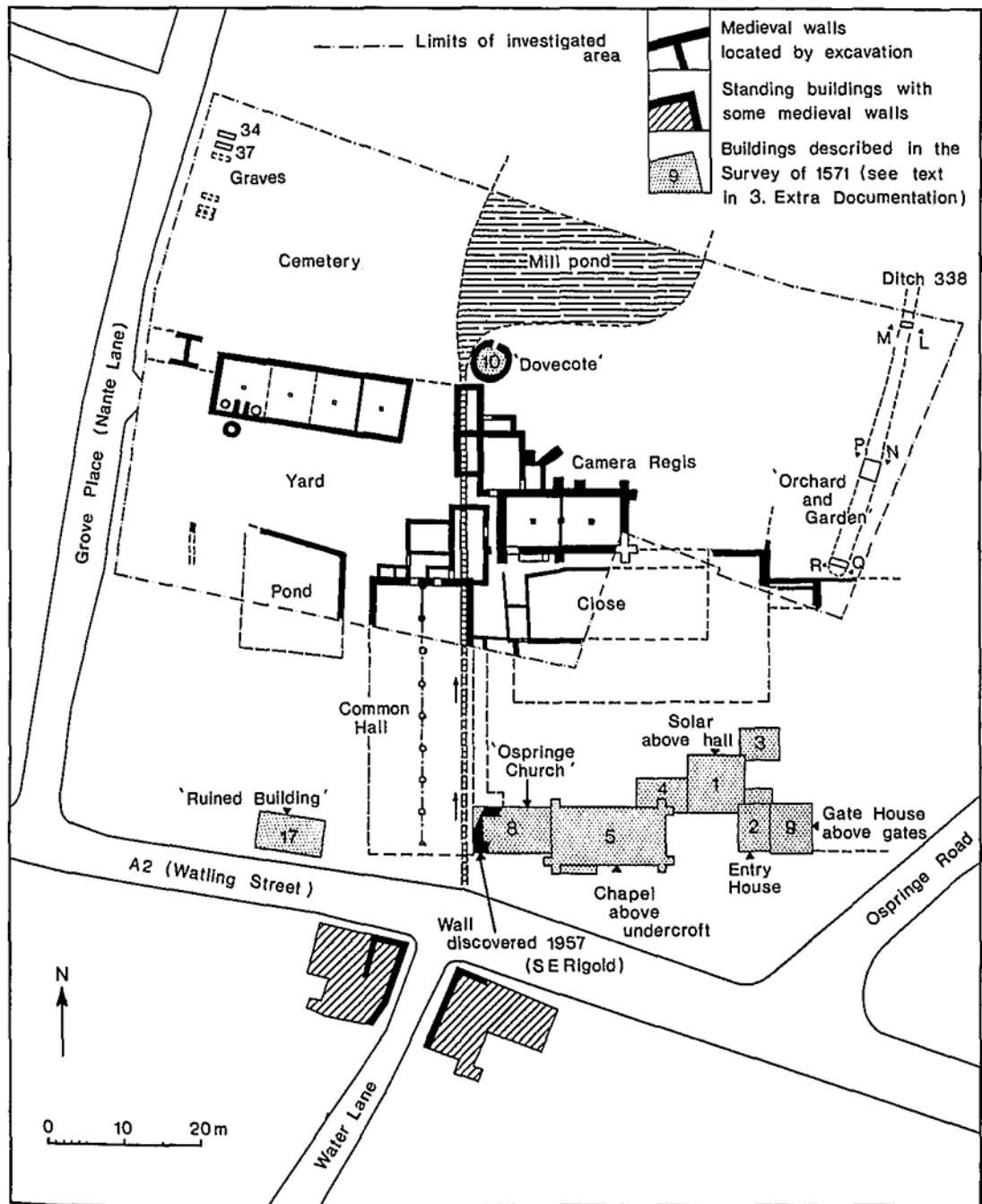


Figure 3. 30: Plan of St Mary, Ospringe, also referred to as the *Maison Dieu*. The site is split by the stream running through the middle of it, along the line of the east wall of the Common Hall. This creates two halves to the site, with the east comprising the chapel and *Camera*, and the west, with the hall, the kitchen and the bakehouse (Smith 1979, 85, Fig. 2). Reproduced with permission of Kent Archaeological Society

between the southeast corner of the infirmary hall and the chapel (Margetts 2011; Wilkinson 2014, 25).

Building 954 was constructed after the cobbled yard had been formed to the north, making it the only major addition to the site during the life of the hospital (Fig. 3.32) (Smith 1979, 93). The number of ovens, and the early floor levels which contained substantial charcoal

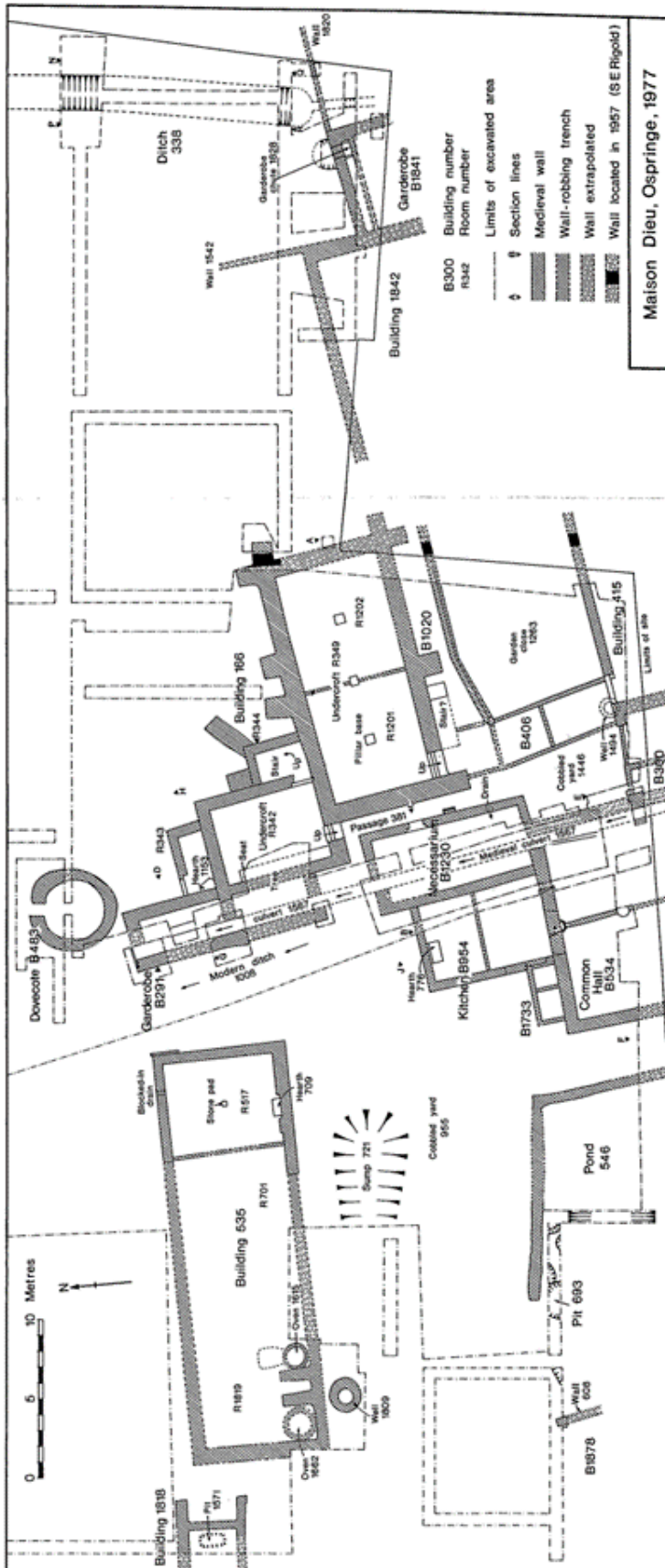


Figure 3. 31: A focussed plan of the excavated areas of St Mary, Ospringe (Smith 1979, Fig. 4). Reproduced with permission of Kent Archaeological Society

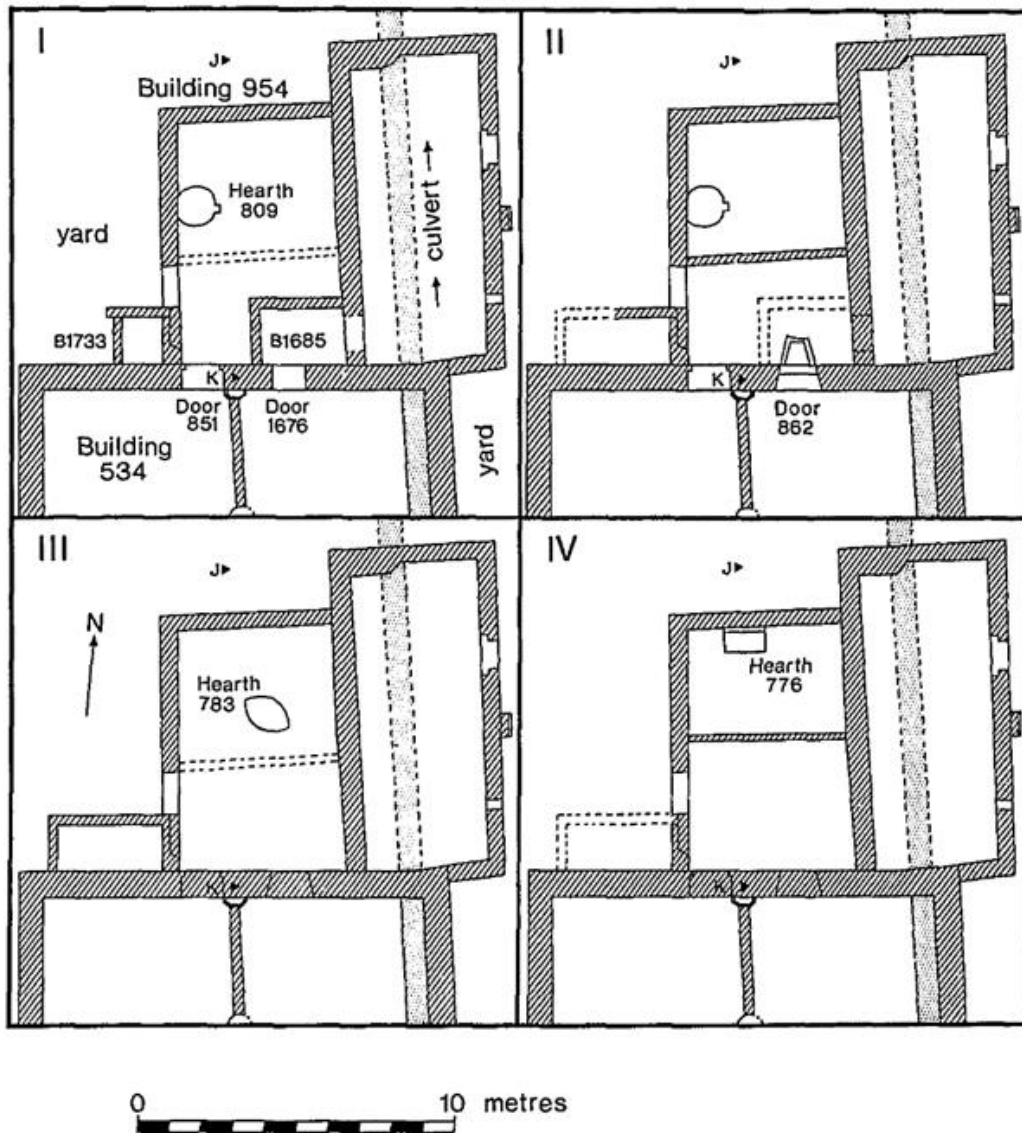


Figure 3. 32: The Kitchen (Building 954) at St Mary, Ospringe, showing the phases of alteration (Smith 1979, 94, Fig. 5). Reproduced with permission of Kent Archaeological Society

and oyster shell indicate that this was the kitchen for the hall, at least for a while. The first hearth or oven was circular and formed of roof tiles set in clay, inset into the western wall, and a coin of the associated floor levels dates to 1252-1280. The room was then divided in two by an east-west partition wall, partially blocking the door to the latrines as well as the door into the infirmary hall (Smith 1979, 93). This blocking seems to relate to the raising of the floor level inside the infirmary hall, possibly to counter flooding, and the door was blocked with a raised sill, Phase 3 saw the eastern north wall door blocked off and a centrally located oval hearth constructed, with a date in the 15th century from an associated pilgrim badge (Smith 1979, 94). In the final phase, Phase 4, another hearth of roof tile was added against the north wall and a new partition, set on a narrow flint sill, and replaced the old partition wall located just to the south. Coins from the associated floor

levels date to the mid-15th century (Smith 1979, 96). Abutting the infirmary hall to the east was Building 300, a narrow clay-floored building of uncertain use, but possibly serving as a porch, a pentice, or a storeroom.

Building 535 was a large rectangular building that was later heavily robbed of stone, but from what remained it seemed that although mainly constructed of flint, unlike the hall and *camera* it was not finished in an ashlar trim (Smith 1979, 96). The building did not sit on top of the cobble yard to the north of the infirmary, suggesting it was one of the original buildings constructed. Running east-west, the building was partitioned into an east and west room, the smaller eastern room containing a tiled hearth recessed into the southern wall, whilst a stone chimney hood found in the demolition suggests it had an inbuilt chimney. In the northern wall was a narrow tile-lined drain, which was later blocked off. In the western room were two robbed out tile bases for ovens, set adjacent to each other with a pair of retaining walls that could have supported another chimney (Smith 1979, 96). The western oven was 1.4m in diameter and probably a baking oven, whilst the eastern oven was 1.2m in diameter with an internal sandstone lining and extra hearth area that may have served as a malting oven by providing space to apply indirect heat. Coupled with the well located just to the south, and a possibly associated sump east of that in the yard surface, it seems almost certain that this was the brewhouse/bakehouse of the site (Smith 1979, 96). Unfortunately, there were no indicators of where the doors were due to the heavy robbing. The floors of the building were of trodden earth, patched with clay, and a large postpad in the eastern room may suggest a second storey to the building (Smith 1979, 97).

To the west of the brewhouse/bakehouse was building 1818, a small building buttressed on at least its eastern side, and close to the medieval lane running along the western edge of the precinct (Smith 1979, 97). The only feature was a pit coated with mortar on the sides, but bare on the base, possibly serving as a storage area. To the north was the hospital cemetery. Yard 955 was the large flint-cobble yard surface laid over a chalk footing, located to the north of the infirmary hall (Smith 1979, 98). This yard was part of the initial construction of the site but was definitely laid after the infirmary hall, and probably after the brewhouse/bakehouse and the latrines as well. In the southwest corner of the yard there seems to have been another building, reused as the footings for a post-medieval wall, running parallel to the pond to the east, and may have been part of a series of buildings to the west of the courtyard, potentially evidenced by a layer of roof tiles on the medieval ground surface (Smith 1979, 98). The yard itself had been repaired or patched several

times, especially in the area of Building 954, and a patch of burning to the north of the pond suggests the yard was utilised as a work area during construction of the site. Other than Building 535 blocking access to the northwest, the cemetery to the north was not separated from the rest of the hospital complex. The pond, feature 546, measured 1.7m deep, was located centrally in the yard, to the west of the infirmary hall, and was surrounded by a flint wall set on the yard surface, with a 1.5m berm between the water's edge and the wall, which had been cut by a number of pits before the flint wall was built (Smith 1979, 98–9; Wilkinson 2014, 24, 27). Dating evidence suggests a 16th-century date for the lower deposits of the pond, implying that it was regularly cleaned out rather than being a relatively late addition, given the manner in which it associates with the other features around the yard.

Building 166 was the site of the *camera*, which had a main range and four annexes: a north wing (R342); two smaller rooms leading off from R342 (R343 and R344); and an elongated structure, Building 291, to the west over the culverted stream, probably the garderobe of the building, although later erosion left little evidence (Smith 1980, 99, 101). The placement for a flying buttress for Building 166 against the east wall of the latrines indicates that the *camera* complex was built after the main hospital complex to the south and west was constructed. The 4 bay undercroft of Building 166 was entered via a door in the south wall, and had plastered walls, an internal partition set on a flint sill, a clay floor, and three central pillars (Smith 1979, 99). The construction clearly indicates a second floor to the *camera*, accessed by an external staircase set against the southern wall, with no indication of accessed via the undercroft. The *camera* either suffered from subsidence or had a chimney, as another buttress was located against the northern wall, and there was elements of a stone hearth surround found in the demolition rubble in the undercroft (Smith 1979, 100). Painted plaster, floor tiles, elements of a wall arcade, and fragments of painted window glass indicate the upper rooms were decorated.

R342 was another undercroft building, this one accessed by three steps down onto a clay floor based on chalk rubble that was remade at least twice, with walls that were roughly plastered (Smith 1979, 100). A flint and chalk bench was set against the western wall, whilst a timber doorway was added later in the eastern wall leading into turret room R344 when it was built onto the side of the *camera*. It seems that the upper storey was accessed via the *camera* hall above until R344 was added, which contained an internal staircase. The use of diagonal buttresses suggest this turret was constructed in the 14th century, allowing access from the undercroft into the apartments above (Smith 1979, 100). Room 343 was a

narrow addition on the north of R342, possibly an earlier staircase made redundant after R344 was constructed (Smith 1979, 101). The room had a small fireplace in the southwest corner, possibly with a sandstone hearth surround, with the main door in the northwest corner.

Only a small section of Building 415 fell into the excavation area, but the size of the walls suggest a two storey structure with a tiled floor and no undercroft (Smith 1979, 101). Building 406, a pentice running to the north, connected Building 415 with the *camera*, whilst another pentice, Building 1020, ran along the southern wall of the *camera* to the south of which was a rubble spread and a timber sill, suggesting 1020 was a two-storey gallery around garden area 1263. It is possible that the garden extended as far east as Building 1842 to form a quadrangle to the north of Building 415. There was another yard area to the west of Buildings 415 and 406, initially running down the western wall of Building 415 but later cut in two by a small wall, cobbled to the east and comprising large amounts of organic material and crushed oyster shell (Smith 1979, 101). Building 415 was a later addition to the site, as it was constructed over the top of a 13th-century well, but so little was available for excavation that little can be suggested for its function other than it required close access to the *camera* and was of high status, possibly the staff refectory or as additional space for wealthy guests (Smith 1979, 102). North of the *camera* was the dovecote, Building 483, a circular flint structure with a northern door and rough chalk rubble floor, to the north of which was a 2m deep pond, possibly serving as the hospital mill pond (Smith 1979, 102).

To the east of the site was a further building, of which Buildings 1841 and 1842 represent the wings, a small amount of which fell within the excavation area (Price and Ponsford 1998, 102). The floor of Building 1842 was mortar, and although the walls were heavily robbed, it seems access was from the south or west. Building 1841 had an attached garderobe chute in the north wall that was later blocked off, possibly in the mid-15th century given similarities in material and approach as that taken with the blocking of the door in the infirmary hall (Smith 1979, 103). This change may indicate the change of function from staff quarters to storerooms in the declining years of the hospital, and a room to the east with a thin chalk floor may have been another storeroom. To the northeast of this winged building seems to have been a walled garden, which if correct may related to a garden in an *inspeximus* of 1401, which noted Sir Philip Wem had paid a corrody for a chamber in the nearby building, possibly Building 1842. The garden appears to have been irrigated by a ditch carrying water from the pond to the west, and would have

served as the drain for the garderobe chute, but given the lack of silting deposits it seems to have been kept clean until backfilled when it went out of use around the time of the Dissolution (Smith 1979, 104).

Summary

The plan evident at St Mary, Ospringe, “hinged around its principal buildings, i.e. the hall with its adjoining chapel”, and although there was space for a more inline layout, the stream seems to have dominated the plan of the precinct, creating a clear division of activity between the west, with the infirmary hall, kitchen, brewhouse/bakehouse, storerooms, and layservants accommodation, from the east, with the *camera*, the religious staff quarters, chapel, and gatehouse (Smith 1979, 104–5). The chapel was at the south of the precinct, probably built by Henry III in 1235, and there may have been another chapel, referred to as the lower chapel in a document of 1249-1250, most likely located in the unexcavated southern portion of the site (Smith 1979, 105). Edward I funded in 1299 refurbishments and added construction on the site including another chapel, probably when the kitchen was constructed, as well as buildings south of Watling Street. Whilst the interpretation of a *camera* on site is slightly spurious, given the only firm mention of one on site is in a document of 1671, there was certainly need for high status accommodation for the royal foundation, and Building 166 provided evidence of a building matching the requirements (Smith 1979, 105). If it was a *camera* the apartments seem to mix styles, with private rooms and a separate garderobe with a public hall (Smith 1979, 105–6). Despite almost three hundred years of occupation there was no major rebuilding work done on the site, and the style of architecture supports the position most of the buildings found their final form in the mid- 13th century (Smith 1979, 106).

A Complex Issue: Hierarchies of Space

Each site experienced a different set of circumstances and underwent an evolution that was unique to its own situation. St Mary Spital saw a drastic enlargement when it was refounded, changing from a humble roadside hospital to one of the largest hospitals in the country in less than a century. This change was predicated on a large growth in the site and the extensive use of stone for most of the hospital buildings from 1280 onwards (Fig. 3.33) (Thomas *et al.* 1997, 41, 64). There was further expansion to accommodate more inmates

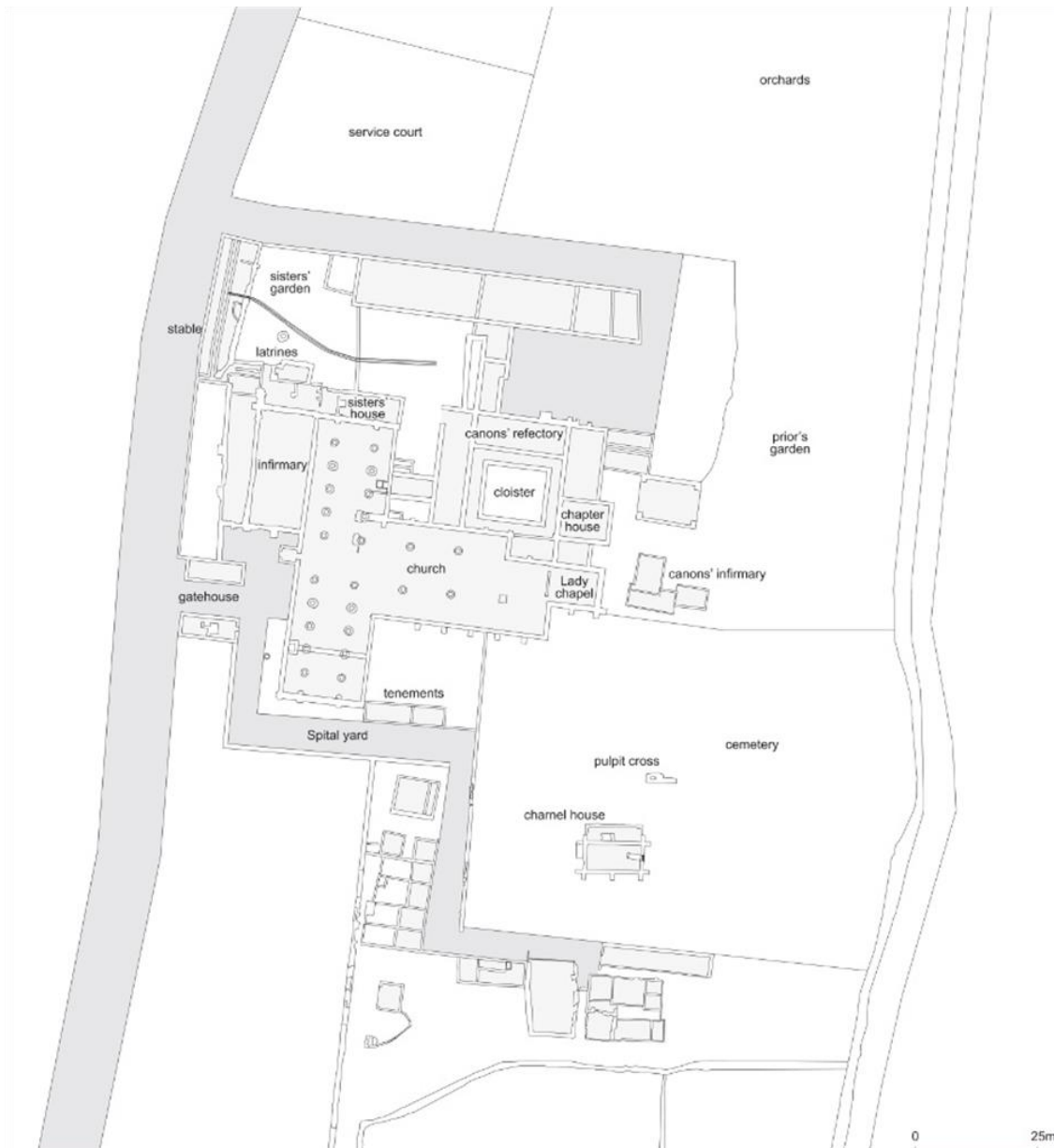


Figure 3.33: Overview plan of the wider precinct of St Mary Spital, c. 1400. The creation of two spaces to the north of the chapel can be clearly seen, one focussing on the canon's space to the east, and the other on the infirmary and Sisters' quarters to the west. Also note the space to the south of the chapel for the cemetery, perhaps reflecting the space of the canons (Connell *et al.* 2012. 199, Fig. 219). Reused with permission of the Museum of London Archaeology

in the decades before 1350, when there were a significant number of epidemics striking the populous and making a hospital that looked after the sick an important location for the local area (Thomas *et al.* 1997, 67). An element of segregation in the infirmary can be implied if the building was two-storey and with the extension seemingly separated from the rest of the infirmary until the late 14th century, suggests they may have created specialist wards for a time, and the installing of a northern gatehouse suggests that there was preplanning of the service range changes occurring in the northern section of the site during the late 14th century (Thomas *et al.* 1997, 66-7). Looking more widely at the

precinct, the site was clearly split up between the religious in the east and the secular to the west. The location of the chapel and the cemetery to the southeast and the more domestic functions to the northwest may also highlight a conceptual difference between space from north to south.

St Bartholomew appears as a restricted and poor hospital, limited by both the land it was based on and a lack of strong benefaction, resulting in poor quality construction and the need to lease out buildings, especially the women's dormitory (Fig. 3.34) (Price and Ponsford 1998, 116). The virtual lack of major construction after around 1400 seems to support the lax administration suggested by the documentary sources after the Sisters were removed from power, and the only major change, the addition of the mariners of the Fraternity of St Clement, could be argued to indicate an attempt to revive the fortunes of the hospital (Price and Ponsford 1998, 120). There was a clear separation of the site into two courts, the northern one associated with the women and domestic functions, and the southern one with the chapel. The occupation of St Mary, Ospringe, for almost 300 years saw only two major construction events, and both seem to have occurred very close together, the first setting out the majority of the site, the other adding the kitchen and elements of the *camera regis* (Smith 1979, 106). Although there appears to have been space for a more inline layout, the stream seems to dominate the plan, cutting the site into two clear spaces of activity, with the west a place of (low-status) secular and domestic occupation, and the east religious activity and accommodation, as well as the royal or high-status accommodation (Fig. 3.35) (Smith 1979, 104–6).

Despite the variation in the specifics seen in the three sites, several common themes can be drawn out of the evidence. There seems to be a clear association between important buildings and stone, with poor quality stone or wooden buildings for the lay-sisters and lay-brothers until late 14th century at St Mary Spital, whilst the canons were accommodated in a stone walled, tile floored cloister, and the inmates provided with a stone infirmary hall, although of not great quality, attached to the chapel. This created a clear hierarchy of material and status between the different buildings and occupants. Also worthy of consideration here is not only the financial division in quality but also the symbolic value, if the two can be separated in the medieval period. The use of durable and expensive stone for the religious buildings and most important residents of the site could also be argued to create a symbolic divide between the groups residing in the hospital. Functionally this could be explained by the relative importance of the different groups to the nature of the hospital as a concept of religious and charitable practice, but it may also be a further

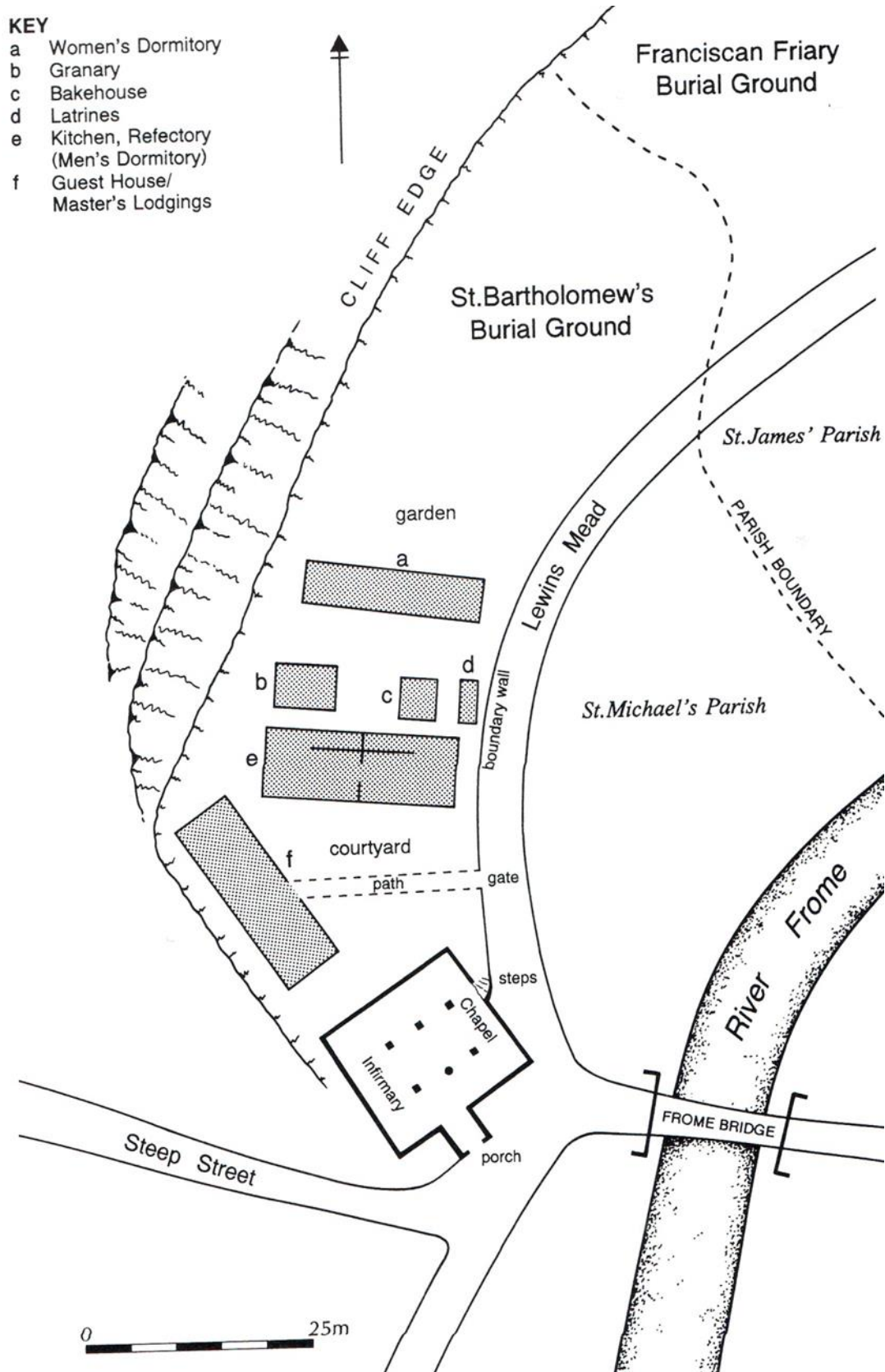


Figure 3. 34: An overview of the ground plan of St Bartholomew's Hospital, showing the creation of two spaces, the first to the north of the chapel and the second to the north of the kitchen and refectory (building e in the diagram) (Price and Ponsford 1998, 80, Fig 35) © Roger Price and Michael Ponsford

Maison Dieu, Ospringe

Reconstruction of the buildings
north of Watling Street

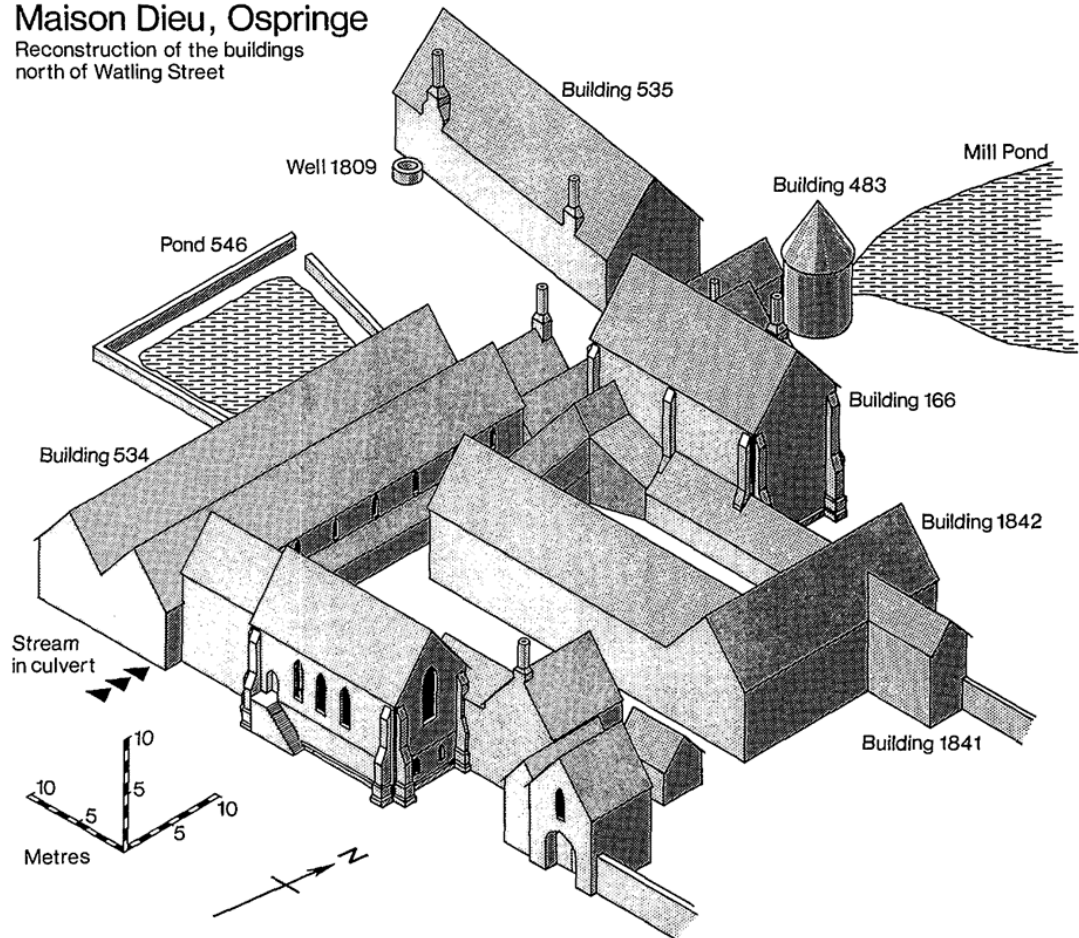


Figure 3. 35: A reconstruction of the major hospital buildings revealed by the excavation, as well as those mentioned in the 'Survey of Kentish Estates, 1571' (Smith 1979, Fig. 8). Reproduced with permission of Kent Archaeological Society

indication of the initial roots of the institution as an amalgam of Continental and Anglo-Saxon religious practice. Only religious buildings were constructed of stone in Anglo-Saxon England, and this may continue to echo into the nature of the later medieval hospitals of England, where the chapel receives the most permanence, with descending permanence being provided for the less symbolically important buildings in the precinct. More work is required on the nature of this relationship between attitudes to material and financial and symbolic value, but religious sites such as hospitals, where income is often limited or fluctuates highly, may provide an avenue to critique attitudes to materiality in medieval religious buildings.

There are several clear indicators of gendered divides in the use of space at two of the hospitals. At St Mary Spital the lay-sisters and female servants were located across an informal garden to the north of the infirmary, possibly from as early as the refoundation, and a location that both physically and symbolically seems to place them the furthest away

of all the residents of the hospital from the altar of the chapel. From around 1300 at the latest the canons were located directly north of the chapel, but it is unknown where they resided before this point. The women's dormitory of St Bartholomew's Hospital was also located at the furthest point from the chapel, in what was the north of the site. On the other hand, the men's dormitory appears to have been closer to the chapel, either Building 2 in the earlier phases, at the north of the chapel courtyard, or in the northern and western sections of the chapel and in Building 8, attached to the north wall of the chapel. The half-storeys possibly evident in the chapel may also have been dormitories, possibly serving as accommodation for some of the staff (Price and Ponsford 1998, 117, 120). If male staff and inmates were present during the time the prioresses were in charge, it is unclear how the additional stress of housing these two groups would have been managed, since it seems the women's dormitory was by that point on lease, but it would have required the movement of one group into Building 8 and the other into the infirmary hall to the north of the chapel (Price and Ponsford 1998, 115–6).

All three sites showed evidence of thought-out systems of drainage and cleanliness, providing fresh water to the kitchens, and systems of water to flush latrines. At St Mary Spital the mid-13th-century cesspits were directly connected to the transept wards, but this arrangement was soon removed when the infirmary shifted location and a flushed latrine constructed to the north. When this latrine was replaced and the infirmary hall was without a latrine, a cesspit was located in the infirmary hall, a highly unusual location. From this, and the manner in which it was capped in sand, we can suggest there was a wish to provide an interim arrangement whilst the new latrine building was constructed (Thomas *et al.* 1997, 70), but also that there was a wish to restrict inmates to the area of the infirmary rather than use another latrine located elsewhere on site. The stone drains at St Mary Spital were kept scrupulously clean, since no medieval residues at all were found (Thomas *et al.* 1997, 54–5, 64). St Bartholomew had a full set of drains, seemingly running off the Greyfriars' supply, held in lead pipes and backed by a stone conduit room by the time the Sister's had finished their renovations. The manner in which Drain 51 drains north, in opposition to all other drains that head to the main courtyard, suggests that the kitchen waste water was piped over to the latrines, highly likely to be located to the northeast, leaving the clean water from the conduit free for other uses across the site. The water supply for St Mary Ospringe ran directly between the infirmary hall and chapel, splitting the site in two and servicing both halves of the residents.

These sites also provide information on attitudes to the inmates at these sites. At St Mary Spital, the removal of the inmates from the transepts to an attached infirmary hall almost immediately after the construction of the chapel, as well as the blocking of the chapel door to the infirmary, suggests that although the inmates were important, their association with the chapel was not the paramount concern of the site. They also would not have had a view of the altar from their beds when the wards were in the transepts, and instead it may have been the ability to hear the service that was important, not see it. This attitude is also suggested at St Mary Ospringe, given the way in which the chapel and the infirmary hall seem to attach via a short corridor, which may have also contained the belfry (Margetts 2011). The fact that the infirmary hall seems to have later become attached to the chapel of St Bartholomew's is tempered by the evidence of restricted access into the chapel, communicating only at the western end of the building.

The presence of corrodians is also visible at St Mary Spital, with apartments being located to the south of the chapel, in the western gatehouse, north of the stables, to the north of the Sister's dormitory, and in the southern transept, whilst documentary evidence from St Mary Ospringe suggests they were located in the east of the site, north east of the religious close and chapel (Smith 1979, 102–3; Thomas *et al.* 1997, 84, 87). These additions, evident in St Mary Spital to date to the 14th century onwards, matches with documented financial issues experienced by all sites, requiring the addition of paying residents, and potentially further blurring the outside secular world with the religious one inside the precinct walls (Gilchrist 1995, 30). There was only very limited evidence for the decorative elements of these buildings, especially the infirmaries and chapels, although painted glass and walls, paved or tiled floors, statues and other monuments can all be suggested from material remains, all intended to inspire a sense of religious peace, which may also have been carried on into the refectories and gardens.

Segregation is evident at these sites, be it the use of the two transepts and then later the two-storey infirmary hall at St Mary Spital, the infirmary divided into an eastern and western half at St Mary Ospringe, or the separate building blocks associated with men and women at St Bartholomew's. The T-shape used at St Mary Spital was similar to that of St John's Hospital, Canterbury, built in the 11th century, and St Mary, Strood, built in 1193, and it is suggested that the men were located in the southern ward or transept, and the women in the northern (Thomas *et al.* 1997, 33). If true this would add further reinforcement to the location of the female staff as being a purposeful structuring of space to associate women with the northwest. This separation of the sexes is evident in the

location of the lay-sisters at St Mary Spital in a separate building until scandal in the 14th and 15th centuries brought them closer to attempt to control access. Access between the two halves of the community were restricted by an arcade to the kitchen, later modified in the 15th century to physically block off the women and inmates from the canons with a north to south wall, with access to the kitchen only via an enclosed corridor (Thomas *et al.* 1997, 87).

From this brief discussion there seems to be three major similarities. First, women were located to the northwest of the chapel, or as far away from the chapel as space allowed, creating an intentional separation between men and women. For the women to access the chapel at all three sites required movement through an intermediary space that was usually for the domestic and/or secular men, such as the infirmary hall at St Mary Spital, the supposed male half of the infirmary hall at St Mary Ospringe (assuming the usual association of men to the south and east of these halls is correct), and through Building 2A/B at St Bartholomew, which was intentionally located across access to the southern courtyard and chapel. There seems to be a clear demarcation of space inherent in these choices that associated women with the north and west.

The second point highlights a common misconception concerning the medieval hospital; that inmates were housed in sight of the altar or with direct access to the chapel. Only at St Mary, Ospringe can this be really contended, and even then, the access was through a corridor not a directly connected chapel. At St Mary Spital, the movement of the inmates to Building 5 visually and physically removed them from the chapel and the connected doorway being blocked (Thomas *et al.* 1997, 48), meaning that access to the chapel seems to have been through the main western doors of the chapel and required walking out of the infirmary into the gatehouse courtyard first. The later addition of an altar to “St Nicholas before the sick” would have replaced or supplemented the mobile altars being used in the infirmary mentioned in earlier documents (Thomas *et al.* 1997, 48), but this is not unequivocal, and it would still be uncertain as to the access available to it. The presence of beds in the transepts after the construction of Building 5 was unlikely given the presence of burials and chapels in these transepts after this point, and shows a conscious decision for the premeditated encroachment into the infirmary area of the liturgical space (Thomas *et al.* 1997, 45). Similar arrangements may be seen at St Bartholomew, although the first clear evidence of the infirmary dates to the 14th century. At St Mary Ospringe this separation was planned from construction.

Third, there was a clear relationship between the chapel and the infirmary that dictated its location. The infirmary buildings still remained important, and in all cases an infirmary hall is directly attached to the chapel, even if it is not from the beginning or directly communicating with it. In all three cases these halls were to the northwest of the chapel, and although sight seems unlikely, it would have been possible for those in these infirmaries to hear the service. The choice of the northwest of the chapel seems strange, however, since this was the least holy area of a church. The restrictive nature of the land, the requirements of water supply, and the vagaries of general development will all have impinged the form of any given hospital, and at St Bartholomew it is evident how the land provided skewed Building 8 off cardinal compass points and the already existing building which was used for the chapel was not aligned east-west. Also, at St Mary Spital it was not until the late 14th century that the full precinct layout was achieved, although this layout was mostly established from around 1300. At St Mary Ospringe the whole precinct was gifted in one go, providing enough space for the site to be constructed as wished. There does appear to have been some pre-existing buildings on site when the hospital was founded (Smith 1979, 82, 84), and may explain the location of the chapel on the road.

The location of the chapel at St Mary Spital, and the manner in which this might have impacted the canon's cloister, may have been dictated by the available space at the time of construction, since it is unclear whether there was any other construction work to the north and south immediately after refoundation. There was space to construct a building to the north of the transept on the other side of what later became the Women's Garden, so it implies there was space to the north into which the chapel could have shifted to allow buildings to the south of the chapel. The fact that the cemetery was relocated to the south and east of the chapel also suggest there may have been space there as well. As such the only other consideration was to make use of the fact that the original smaller hospital had access to the road and that by placing the chapel where they did it meant the western façade was at least partially visible from Bishopsgate. The use of a T-shape may also be suggested as a space-saving measure in comparison to a more linear shape, but if so why was the infirmary then constructed and the inmates removed from the transepts? Why transepts at all and not a parallel infirmary hall? And if there was space for the cemetery why a northern religious cloister, especially considering the water supply for the house seems to originate due east, meaning the water supply cannot be used to justify this change.

When we turn to St Mary, Ospringe, the third similarity becomes clear and there is the suggestion that something else may be behind the layout of service and claustral ranges becomes more compelling. There is the suggestion that some of the buildings, especially in the area of the chapel, may have already existing at the time of foundation, however, with royal support it would have been possible to modify the site to allow a more typical form for a religious community. The purposeful location of the service buildings to the north and northwest of the hall, and the clear structuring of a religious and high status claustral complex to the north of the chapel, as well as the location, probably later, of corrodian accommodation in this same area, rather than in the more open ground to the west and north, suggest this was an intentional plan. The northern claustral range and the northwest service range were specifically located in this arrangement, and it matches the manner in which space and activity were divided in the other two examples. This indicates a similar architectural development, not temporally since each site has its own biography of construction, but spatially, one that was planned from the outset. This intention from the outset may also have been the case for St Bartholomew and St Mary Spital, and it indicates that whilst there are visual differences to the specific ordering, this does not change the similarity in the underlying division and separation of parts of the community, and the creation of a hierarchy of space.

There may also be an influence from the use of existing buildings as part of the foundation becoming important or focal buildings, with the chapels of both St Bartholomew's and St Mary, Ospringe, being located in pre-existing structures that may have served secular purposes. This turning of the secular into the religious may indicate limited initial scope for the foundation of hospitals, with founders utilising available assets to minimise the expense, but there may also be elements of symbolic attitudes to status, with the reused secular buildings either reflecting lower status to other purpose-built religious structures, or reflecting the process carried out in the hospital of turning the secular into the religious. Whilst a more detailed approach to the origins of specific hospitals is outside the scope of this thesis, the influence of earlier Anglo-Saxon religious institutions or sites will be of considerable importance, (as suggested by Everson and Stocker 2011; Pestell 2002), especially given the lack of Anglo-Saxon hospitals and the apparent influence Anglo-Saxon legal and religious practice had on the nature of the hospitals in England. This would be particularly true for the first two hundred years of hospital establishment, when monasteries and other religious institutions had a stronger influence on the operation and legal status of these sites, before more secular administration seems to come to the fore.

As such the hospital may have initially provided a means of tapping into abandoned religious sites without the expense or complications of establishing new monastic houses, utilising the more ambiguous nature of the hospital as both secular and religious to either claim the prestige of the earlier site, stake a claim to any associated land, or to return to the fold land and buildings previously perceived of as belonging to the church. This may be of potential relevance to St Bartholomew, Bristol, if the suggestion of an earlier religious community are true, and may well also be important to other hospital sites which may have been located near earlier religious communities or have been suggested to be based on Anglo-Saxon religious institutions or communities, St Mary Magdalen, Partney, where an earlier monastery was located in the area (Coppack 2010; and discussed in Chapter 4), St Mary Magdalen, Winchester, where the archaeological evidence may indicate a pre-Conquest establishment of some form (Roffey 2012; also discussed in Chapter 4), as well as hospitals such as St Leonard's, York, which claimed pre-Conquest origins as the site of St Peter's, west of the Minster (Knowles and Hadcock 1971, 407). It seems evident that there is scope for a broader appreciation for the origin and materiality of religious buildings and the symbolic messages these provided, although this sits mostly outside the thrust of this thesis.

Each site has at least two closes, with St Mary Spital having at least one more to the northwest associated with the lay-brothers, and there appears to be archetypal associations with them: chapel, male, religious, ceremonial, and high status; reflected by infirmary, female, secular, domestic, and low-status. The former is located directly north of the chapel, the other located to the northwest of the chapel. At all three the kitchen is located at the point where these two closes meet, and alongside this may be the masters' or staff lodging, since Building 8 at St Bartholomew is suggested to be staff and traveller lodging, the west range of the cloister at St Mary Spital is suggested to be the prior's lodging, and the close directly to the north of the chapel at St Mary Ospringe was suggested to be the staff area. As such, the buildings of food (and through it hospitality and charity) and authority (through which came order, routine, obedience, and the rules of the house) would act as a barrier or buffer between the two zones. Movement was also restricted or at least impeded, with the placement of Building 2A/B at St Bartholomew between the two courtyards, and incidentally the women and the chapel, whilst the female staff at St Mary Spital, already located across an informal garden, were increasingly cut off from the chapel and religious cloister by the infirmary, the latrines, and the kitchen. Throughout the life of the hospital more buildings and even a wall and corridor are put in

to minimise or strictly control when and how contact between male and female, and canon and inmate, occur. At St Mary, Ospringe, the same occurs with control through the corridor to the chapel, another that leads to the latrine and the open close that eventually led to the religious close, but there were no such hindrances to enter any of the service buildings.

This division in space may not be as simple as east to west, since there is an absence of buildings to the south of the chapel, apart from two buildings across the road at St Mary Ospringe, that may be staff lodging. The hierarchy of space is clearly east to west, but also possibly southeast to northwest: the closer to the chapel the higher the status appears, but a location on the east, even if north appears more favourable than a close location to the west. If all three final phase plans are examined: the chapel is located at the south-eastern point of the hospital complex; directly north the claustral range, with staff lodging, (high status) guest housing, and refectory; northwest lies the infirmary or inmates dormitory; between the infirmary and the claustral range the kitchen; north of the infirmary a service range, including brewhouse/bakehouse if not attached to the kitchen, granary, stables, and other service buildings, with the women located either as part of this or further north/northwest in relation to the closest male accommodation. The location of the lay-brothers dormitory is unclear, although at St Mary Spital it may be north of the kitchen, whilst at St Mary, Ospringe, they may be residing in the buildings south of the road, and at St Bartholomew the likeliest location would be Building 8. It seems their more manual work placed them slightly outside the schema, but in two of the three cases they are located associated with the claustral range or in the eastern half of the site. This arrangement mirrors in many ways the Augustinian monastic layout, and does not seem affected by the location of the entrance, with St Bartholomew having entrances to the south and east, St Mary Spital the west and north, and St Mary Ospringe, south and east.

Such a hierarchical system seems to reaffirm the vital role that the chapel had in organising space would suggest that these were planned religious sites. There are also clear garden and courtyard areas associated with each of the sites and the infirmaries or dormitories in which the inmates resided. At St Mary Ospringe there was a cobbled surface near the pond, at St Bartholomew a claustral walkway was constructed to replace the paths and possible benches seen in the earlier phases, and the placement of arcades to the east of the Women's Garden at St Mary Spital all suggest that these were locations for walking and possibly contemplation. The fact that the main section of the garden at St Mary Spital showed signs of being tilled reinforces the impression of active horticulture, and it can only be speculated what was grown, but it would have been the secular servants, and possibly

even the inmates, who tended to the plot. In this we can see elements of the non-natural environment that Horden outlined. The monastic elements of life would have accompanied the religious structure of the hospital precinct, complete with gardens to walk around, with the intent to produce a setting that was spiritually uplifting.

It seems too much of a coincidence for all three sites to show such a trend, each in different parts of the country, all with different kinds of benefactors and wealth, and experienced different developmental processes. Figure 3.36 shows a brief schematic of this proposed architectural framework, which reflects the general relationship between all the main buildings, and reflects this mirrored monastic layout. By applying the concepts of *intent* and *result* also allows us to interrogate the physical remains and contextualise the individual site biographies that have frequently hindered wider discussion. The intent was to create a religious precinct, dedicated to pious charity and the spirituality of the vulnerable poor and infirm. It needed to be flexible to allow variations in constitution, size, and outlook, but structured so as to aid religious activity that in all cases held a quasi-monastic dimension, with set prayer, obedience, and a contemplation of God. This *intent* must be tempered by *result*, affected by uncertain finances, individual site politics, change

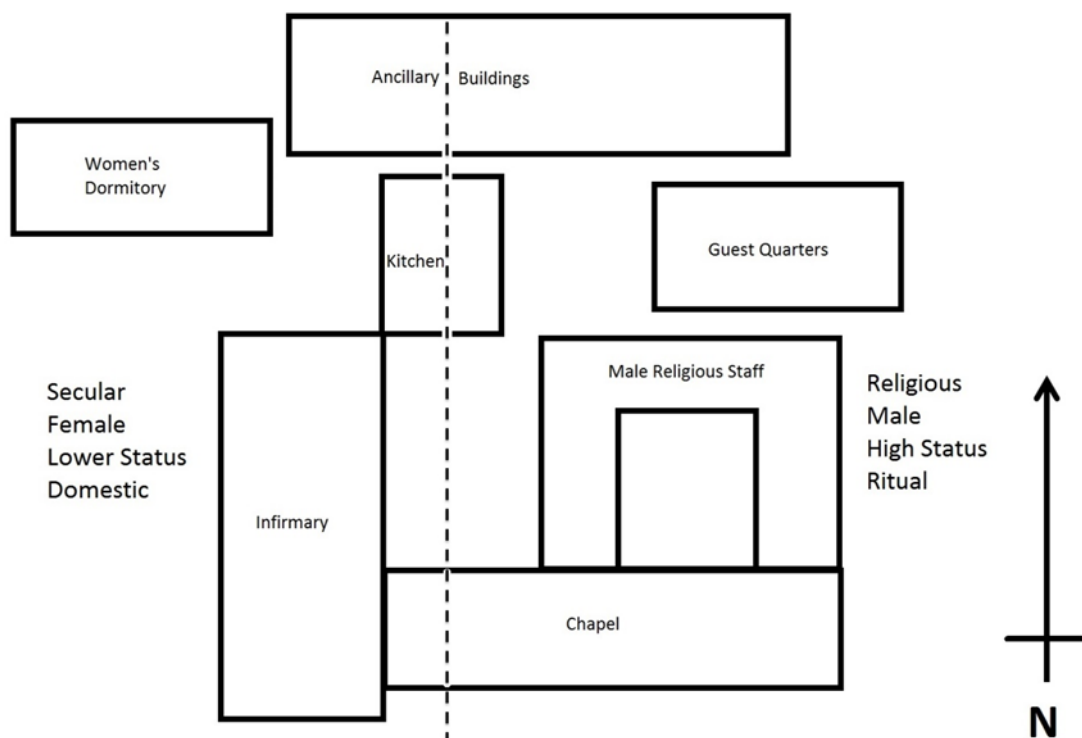


Figure 3. 36: Proposed conceptual layout for English and Welsh medieval hospitals, showing the breakdown of space and the symbolic associations of each half of the site (author's image)

in ownership or the impact of public censure, and the variance in wealth available to support the community. That there is such a clear similarity is perhaps the most surprising element given all of these factors.

It is unclear why the northern association would be intentionally chosen. It may have been as simple as a means to articulate that these sites were not monastic but shared the religious outlook and practice. Roberts (2007, 222) suggested a similar idea to explain a number of northern refectories at hospital sites but did not push the point further to suggest a northern and western orientation to the sites as a whole. There may even be a range of ideological or symbolic messages, although the north in Christian religious buildings has often been connected to women, water, the moon, cold, earth, and the Old Testament, as well as the Virgin Mary, who was at the right hand of Christ during the Crucifixion, which on the medieval rood screen would place her north of the altar (Gilchrist 1994, 133–5; Ward 2006, 151). When discussing later medieval nunneries Roberta Gilchrist (1994, 136–8, 148–9) suggested it may also represent an association with, or emulation of, some of the refounded Anglo-Saxon double monasteries, where men and women lived on the same site and the women's cloister was located to the north in a duality with the location of men to the south. This emulation of Anglo-Saxon monasticism and mixed houses may also have been used to set apart the hospital, linking the institution back to some of its founding principles in early alms practices.

It would also have served as a plan for the negotiation of gendered, or more specifically female, space with men, and in particular monastic men, a source of difficulty, contention and difference. By referencing Mary, and her obvious centrality to such redemptive portions of Jesus' life as his birth, death, and resurrection, as well as her own life, death, and elevation, all of which would have been positive contemplative stories in the hospital environment, it may also have provided added religious significance and support for those residing with the hospital complex. Unfortunately, the specific ideological underpinning of this framework is not yet clear, but the fact that this northern association was not just functional but symbolic, and may not just be limited to hospitals but also nunneries may have important implications for other non-monastic institutions, such as friaries, military orders, or secular colleges.

The nature of the intended planning to the site, the articulation of a hierarchy of space that may include symbolic associations, and the inclusion of open courtyards and closes as well as associated fields, open ground, and water features also tie into the conception of a non-

natural environment. The framework suggested above reflects the articulation of a planned religious space, although subject to individual site differences. This planned space would aid in the movement of the community in a manner that reflected wider monastic practices, providing access to a chapel whilst simultaneously creating a controlled environment. By the creation of gendered space and areas of differing social or community-based status the different groups of residents would understand their place within the wider precinct. They would also have been provided with clear areas for accommodation, eating (if this was separated from the living areas), but also for recreation and contemplation, two other important facets of non-natural theory. Garden spaces and open areas would have provided localities for walking and manual labour, as well as places to sit, pray, and think upon the works of Christ. This creation and control of an internal and external religious environment within the hospital precinct was one of the key elements raised by Horden (2007). There were also spaces for congregation and religious practice, as well as practical work, for example bakehouses and smithies. All these activities seem to be located with relation to the chapel and the accommodation of the separate groups within the hospital, just as a religious community would order space, thus creating the quasi-monastic landscape that would aid in the healing, not just physically but also spiritually and emotionally, of those who would get better, or the acceptance of death for those who were not expected to get better.

What is also clear is that in most cases the infirmary hall was separated from the chapel, just as monasteries separate the dormitory from the church, and as such this may also indicate the attempt to create a more monastic layout to the site. The separation of chapels and infirmary halls does mitigate against the suggestion of a close tie between these buildings being necessary for inmates to experience the healing and salvation associated with the mass and other services. Instead, the use of mobile altars, as indicated at St Mary Spital, may have been a widespread practice, as may have been the regular movement of the community, or portions of it, between the infirmary hall and the chapel, allowing a more individualised approach to the religious experience dependent upon mobility and physical ability. This may also tie into the appreciation for prognosis in medieval medical thought, reflecting the probable outcome for the resident rather than the specific issue, as well as tie into wider uses of the inmates in the everyday functioning of the hospital, such as the use of able-bodied inmates for cleaning and support of more invalided members. There was also the clear importance of water, with streams or drains running through the centre of each site, a requirement for cleanliness on site.

There was some indication that not all buildings were constructed equally well, with the chapels and the structures for male staff and elite guests seeming to have been the best constructed and finished with more decorative elements. This would have provided clear indications of importance across site, affirming to each individual their place within the community and taking away the negative influence of uncertainty. Although this was the intent it is also clear that in many cases the results were less beneficial, with elements of construction either collapsing during the use of the building, such as the south transept of the chapel of St Mary Spital, or suffering from continued structural faults and issues, such as the kitchen and refectory building at St Bartholomew's, Bristol. This separation of inmates from the chapels may also have allowed the staff to open this space up more to the wider world and serve as a location of burial, seen at both St Mary Spital and St Bartholomew. As such, it seems that the built environment does still support the ideas of the hospital as a non-natural environment, something discussed further in relation to other sites, the material culture, and the environmental evidence in the following chapters). This must be tempered with the appreciation that the archaeological evidence also indicates areas where this non-natural environment was diverted or manipulated to benefit others, either the staff or outsiders to the community, possibly as a means of producing or diverting funds for the hospital. As will be reaffirmed throughout, the fact that the non-natural environment was not always implemented or continued does not negate its intended benefits, but merely highlights aspects of the experience inmates and other residents on these sites would have lived through.

This hypothesised framework would not be argued to be strict in terms of identical physical layout, both the physical evidence and the manner in which medieval architecture dealt with copying (as discussed above) would argue against that. What is evident instead is a set of associations of directions, hierarchies, activities, gender, social standing, and space that seems to have resulted in a surprisingly ubiquitous pattern, a template for the hospital complex as a whole. What the preceding study has shown is that around the main *foci* of the site, despite the myriad of claustral arrangements or apparently haphazard arrangement of ancillary buildings, an underlying conceptual framework is evident, one that may connect to other elements of what these sites did and argue that there is a visible and understandable architectural layout to charity and medicine at these sites. This requires considering these institutions in their entirety, with every element of these sites seen as part of an intentional choice, even if those choices were not always fully understood or appreciated by those inhabiting, running, or founding the sites. At its core

the chapel served as a marked and obvious point from which the rest of the site is orientated in a way that it creates an underlying framework that provides a homogeneity to the English medieval hospital that cuts across the many categories that remain a central part in discussions about these sites.

Whilst the nature of the inmates of these sites, and to a lesser extent the gender of those admitted, create some distinctive elements that often make generalisation impossible, the simple fact remains that to the medieval mind the hospital in all its forms, from hospice to travellers to *leprosaria*, from sites for the sick to secular almshouses, all fell under this generalised title. In part this is clearly evident theoretically from aspects discussed previously, such as the Comfortable Acts and the nature of charity, but here it is argued that the actual layout, coupled to medieval medical practices and attitudes to religious participation for specific parts of the secular world, play both a key part in understanding the treatment carried out at these sites but equally what unified all the different forms, both categorically and architecturally, into a core concept that actually changed very little throughout the medieval period and which could be argued to have survived in many ways into the post-medieval period. It is hoped that by combining this evidence that the medieval hospital will be better integrated into wider discussions on medieval religious practice, medical theory, and approaches to the poor in subjects outside archaeology. In the following chapter layouts and architecture of other hospitals in England and Wales will be discussed in relation to this hypothesised trend, testing the veracity of the association of hierarchies of space.

4. The Architectural Layout of Medieval Hospitals

Introduction

This chapter, following on from the three case studies presented in the previous chapter, focusses on other hospitals across England and Wales, evaluating the material remains for the layout of each site. The nature of the planned precincts with an orientation from southeast to northwest will be tested against other excavated sites and standing remains. Whilst the hypothesised planning of these sites is evident in the analysis of the three case studies, this only represents a tiny fraction of the total number of medieval hospitals operating in medieval England and Wales, and although they are some of the most significant archaeological excavations available for examination, there have been others. These include locations with standing architectural remains that will also be incorporated where the data is comprehensive enough. There has been a lack of more recent synthesis of the archaeological and architectural material, however, meaning that many of the sites available for discussion have never been integrated into the wider discourse. It was one of the central aims of this research to attempt to collate as much of the published and grey literature evidence as possible to allow a more holistic comparison of the evidence. The focus throughout this chapter will be on evidence that allows a reconstruction of the relationship between different buildings, rather than on the architectural styles utilised. This chapter will first focus on a number of major or extensive excavations that will be discussed individually, such as St Giles, Brompton Bridge, St Saviours, Bury St Edmunds, and St Mary Magdalen, Colchester. This will be followed by a summary of the more limited evidence from other sites across England and Wales, where the discussion will concentrate on how they replicate layouts already discussed or provide only limited further evidence. This chapter will then conclude with a broader discourse on the validity of the proposed framework for the organisation of medieval hospital layouts.

The Hospital of St Giles, Brompton Bridge

The hospital of St Giles, Brompton Bridge, was located in North Yorkshire, between Swaledale and the Vale of Mowbray, on the south bank of the River Swale, at a now lost medieval bridge that carried an earlier road to Richmond (Cardwell 1995, 109). The site was probably founded in the mid-12th century, probably by the Marmion family, although the Furneal's were included on the one reproduction of the hospital seal from 1376 and Henry

fitzRanulf has also been listed as a founder in a document dated to 1231 (Cardwell 1995, 113). Like many smaller hospitals it was believed to have been an Augustinian house, and it cared for infirm brothers, although the definite rule has not survived and only the names of 7 masters are known, 4 of whom appear to have been local men. Given its location on the Swale, St Giles would also have provided shelter to travellers, and there is local lore that associates the site with lepers, possibly supported by its isolated location outside the borough of Richmond (Cardwell 1995, 113–4). Records from around 1280 indicate that by this date the site was also housing women. When a new bridge was built downstream in 1421/2 there appears to have been a resultant decrease in traffic and status for the hospital, and it was no longer mentioned in a visitation itinerary by the Archbishop of York in 1442, leading to its probable closure at some point before 1500 (Cardwell 1995, 114–5). Whilst a large portion of the available precinct underwent excavation, erosion seems to have taken away 10m of the southern river bank meaning the available space for the site precinct would have been larger to the north (Cardwell 1995, 120).

The Initial Hospital of St Giles: Late 12th to Mid-13th Century

The earliest evidence of the hospital was from the late 12th to mid-13th centuries when two structures were evident, a large timber building on a roughly east-west alignment to the west, and a small stone chapel to the east, with a bank seemingly separating the two (Cardwell 1995, 122). The chapel in this early period was a single-cell rectangular stone building, aligned east to west, measuring 5.7m by 4.1m, and although heavily robbed or truncated by later buildings the foundations survived intact, as did much of the lowest courses of the north, south, and west walls (Fig. 4.1) (Cardwell 1995, 124, 126). There was no evidence of a door, which was assumed to be in the west wall in an area of significant disturbance, but the external walls appear to have been plastered and the floor formed of compact earth and clay. Set into this floor appears to have been benches against the walls and a possible ablution drain for a central *piscina* (Cardwell 1995, 127). To the west of the chapel was a bank running roughly northeast to southwest, along the east side of a trackway, whilst to the north was a boundary ditch, banked to the south to form a terrace. The entrance to the chapel area appears to have been where the trackway bank met the northern boundary ditch. The hospital cemetery was located to the south and east of the chapel, and six burials appear to have dated to this early period (Cardwell 1995, 127). The location of the chapel in its own small enclosure, bounded by the main road to the north, with the trackway from the southern escarpment that split the hospital in half just to its

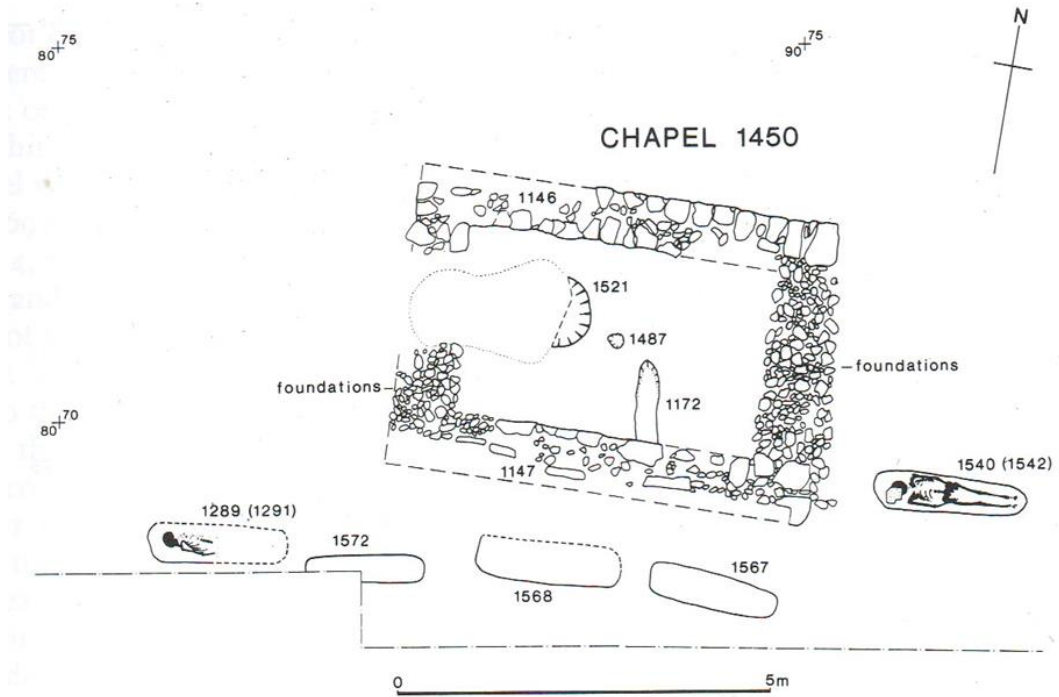


Figure 4. 1: The late 12th to mid-13th-century chapel (Building 1450) in Area 4 and associated features at St Giles, Brompton Bridge (context numbers in brackets refer to skeletons). Note the small size of the initial chapel building (Cardwell 1995, 125, Illus.7). Reproduced with permission of Taylor and Francis and the Royal Archaeological Institute <https://www.tandfonline.com/loi/raij20>

west, and close to the bridge suggests it functioned as both hospital chapel and a chapel for passing travellers (Cardwell 1995, 127–8). Its small size also suggests that the population at the hospital was a limited one.

The whole northern edge of the western building had been eroded away, but enough was found to suggest that it measured approximately 12.8m long and 9.6m wide (Fig. 4.2). Daub in the later demolition deposits of this building implied a timber framed structure, possibly with a thatch roof based upon archaeobotanical deposits, and the presence of two additional posts in the southern and eastern wall may be the location of two doors into the hall (Cardwell 1995, 122). Another possible entrance was located in the northwest that opened into a small, 2.2m wide structure, hypothesised by the presence of posthole 366. The size of the hall would have required supporting posts, but given the lack of postholes these may have been supported on post pads (Cardwell 1995, 128). Unfortunately, no internal features, partitions, or hearths were located associated with this structure. The length of the hall was extended to 14.5m when the small structure on the west wall was modified at some point in this initial phase by a construction trench with a number of post-holes or stake-holes, although given the size of the posts this addition could only have been able to support a lean-to structure (Cardwell 1995, 122, 124). A drainage gully intentionally ran through the lean-to structure this could imply the location of the latrine, flowing north

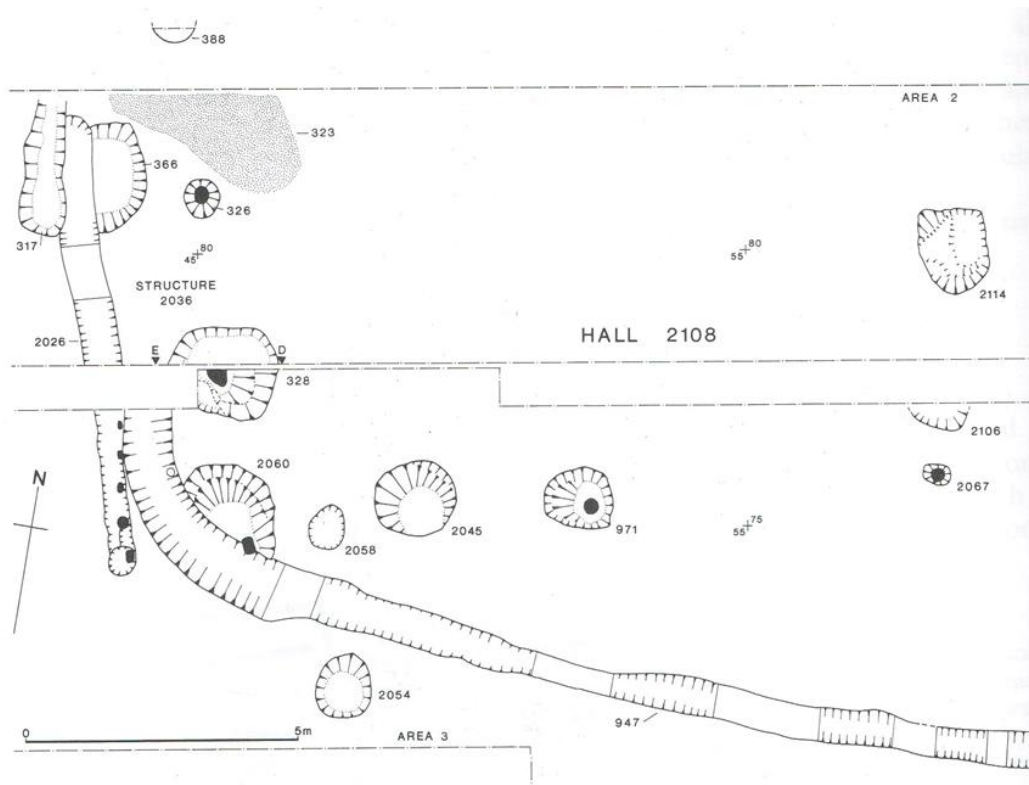


Figure 4. 2: Plan of features relating to Hall 2108 in Areas 2 and 3 at St Giles, Brompton Bridge. Evident is the drain at the east of the building and the postholes forming the south and west sides (Cardwell 1995, 124, Illus.6). Reproduced with permission of Taylor and Francis and the Royal Archaeological Institute <https://www.tandfonline.com/loi/raij20>

into the river, although the lack of flowing water from a spring or other source would have made the system inefficient (Cardwell 1995, 128). A post-hole to the south of the hall possibly indicates the presence of another building in this location which did not fall within the excavation area (Cardwell 1995, 124). Given the lack of clear evidence for other buildings it is possible that this western hall served as accommodation for either the staff or inmates, although which of the groups is unclear due to the lack of surviving material, and its role as the infirmary hall can only be presumed, especially if there were other, as yet unexcavated, structures to the south (Cardwell 1995, 128).

Redevelopment: The Mid-13th to 14th Century

During the period between the mid-13th century to the late 14th century, the large western hall burnt to the ground and the possible latrine was infilled and covered by the eastern north-south wall, wall 649, which followed the western wall of the old hall the entire length of the excavation area (Cardwell 1995, 129). Towards the end of this phase the wall was demolished, and a probable timber structure, Building 943, located along the southern portion of Area 3 (Fig. 4.3). The visible portions of the structure included beam slot 905

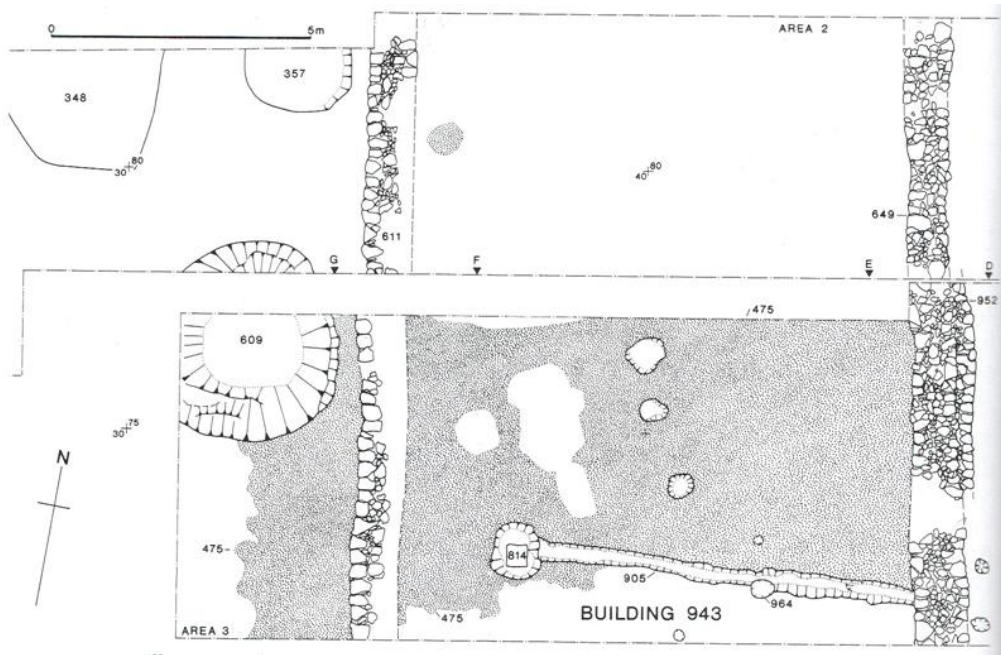


Figure 4. 3: Plan of mid-13th to 14th-century features within the western part of Areas 2 and 3 at St Giles, Brompton Bridge, including the boundary walls to the precinct and Building 943 (Cardwell 1995, 130, illus.10). Reproduced with permission of Taylor and Francis and the Royal Archaeological Institute <https://www.tandfonline.com/loi/raij20>

terminating in a post or post-pad, and a post-hole halfway along the slot, defining a building at least 7.6m in length. The overall size remains unclear, however, since most of the building was outside the excavation area and parts of wall 649 may have been reused (Cardwell 1995, 130). Three post-holes, possibly for a fence or less substantial structure, were located running northwest-southeast to the north of Building 943, with a series of large pits to the west (Cardwell 1995, 130–1). Another wall running north to south was also constructed to the west of building 943, just to the east of a series of pits. All told it seems that wall 649 represented a precinct wall that was then replaced as the site expanded to the west with another timber hall and precinct wall.

Also around the mid-13th century the small chapel was systematically demolished and replaced by a larger building in a planned development of the site that reused some elements of the earlier chapel (Fig. 4.4) (Cardwell 1995, 129, 131, 134). There was no evidence of abandonment or collapse, and although the development included the expansion of the chapel at a time when the old hall seems to have burnt down, there was no evidence that the extra space was used as an infirmary hall as was common in other 12th and 13th-century hospitals (Cardwell 1995, 134). The larger chapel, Building 1188, was a stone-built narrow single-cell building, running east to west, 15.1m long by 5.4m wide. The thicker walls at the west end may suggest a second floor or gallery to the chapel, and a pair of postholes in the northwest corner of the chapel may have supported stairs or access up

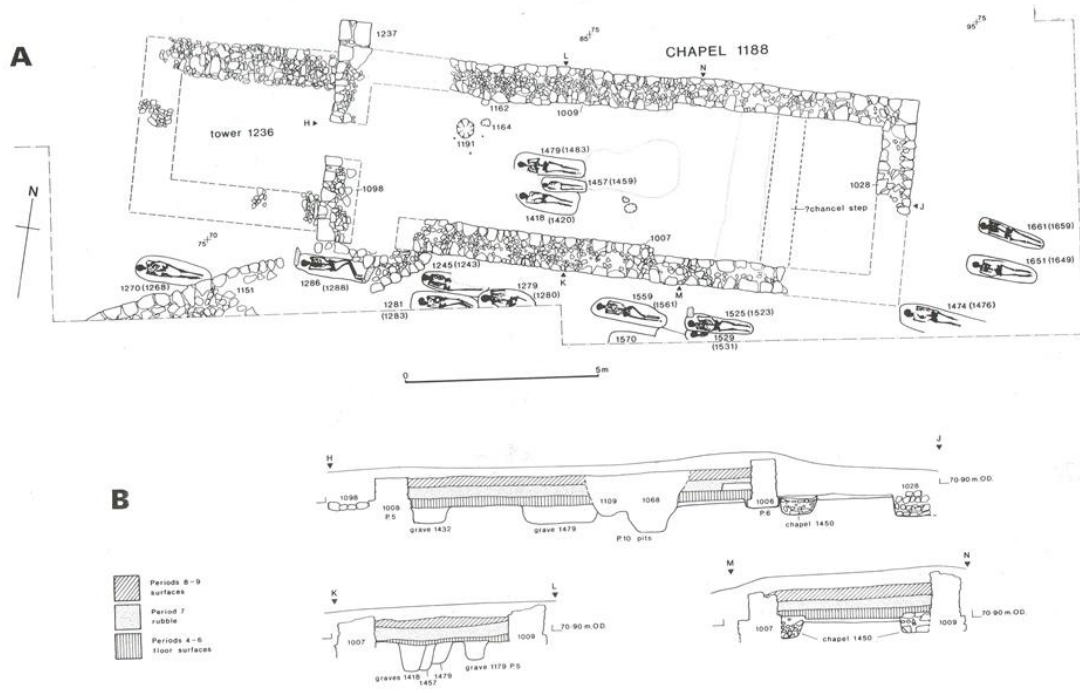


Figure 4. 4: Top (A): Plan of Chapel 1188 and associated features in Area 4 at St Giles, Brompton Bridge, including the added tower to the west and the addition of doorways into the northwest and southwest corners; Bottom (B): Outline sections across chapel 1188, with selected walls, layers and cuts from later periods as indicated (Cardwell 1995, 132, Illus.12). Reproduced with permission of Taylor and Francis and the Royal Archaeological Institute <https://www.tandfonline.com/loi/raij20>

(Cardwell 1995, 135). The doorway was located in the western wall, and there seems to have been a window in both the west and east wall. Architectural elements suggest the presence of a *piscina* in the eastern half of the building, and that the building was roofed with stone tile. The interior was plastered and painted, seemingly with a red masonry pattern and foliate decoration over a limewash, but none had survived *in situ* (Cardwell 1995, 131–3). Drapery patterned decorative plaster was also found in the eastern half of the chapel. A lead melting hearth located in the northwest corner of the chapel was highly likely associated with this extensive reglazing (Cardwell 1995, 134). The floor was of compact clay, with patching of worn areas, and the eastern wall of the old chapel appears to have been retained as an altar step (Cardwell 1995, 133). Later in this period a tower was added to the west end of the chapel, butting onto the western wall and measuring 4.9m by 4.5m, extending the chapel to 19.9m in length (Cardwell 1995, 133). There were no indications of an external door to the tower, so access must have been through the old west door, necessitating a new doorway that was located in the southern wall, at the corner closest to the tower, up to which a cobbled path led (Cardwell 1995, 134–5). It is unclear what purpose the tower served, although it may have housed bells or acted as a visual landmark for travellers to guide them to the hospital.

As in the earlier phase, the chapel was the only building in the eastern area, kept distinct from the rest of the hospital buildings, and the continued location between two trackways near the probable location of the bridge again indicates that the chapel was still fulfilling the dual roles of hospital and traveller chapel (Cardwell 1995, 134). The increased size of the chapel suggests either a rise in fortunes or an increase in inmates, and given that in c.1280 there is mention of both brothers and sisters at the hospital, it may be the introduction of women to the site that encouraged these changes (Cardwell 1995, 135). The loss of the hall, seemingly due to an accidental fire, would have considerably affected the hospital, but despite this it seems that the hall was not directly replaced, unless the building lay outside the excavation area (Cardwell 1995, 135–6). The placement of wall 649 probably served to indicate the precinct of the hospital for some of the late 13th century at the least, and the lack of buildings to the west of the wall until the construction of Building 943 suggests that there were some hospital buildings located to the south of the old timber hall. The wall was not maintained for long, and it was demolished before the construction of Building 943, indicating the expansion of the hospital to the west. Although little of the building was excavated and its use is unclear, given the apparent increase in population, as well as its now mixed nature, it is probable that expanded accommodation would be required to both house and keep separate different elements of the population (Cardwell 1995, 136). Wall 611 to the west of Building 943 was almost certainly intended to serve as the new precinct boundary with a yard area that was developed to the west of the wall, containing a series of pits. Waste disposal seems to have focused in this outer yard area, with pit 609 contained higher concentrations of phosphate and vivianite suggesting the disposal of cess that had then been burnt several times before being filled with other domestic waste including a large concentration of ceramic cooking jars (Cardwell 1995, 136). The presence of another building to the west of the old timber hall, between walls 611 in the west and 649 in the east, was indicated by pottery concentrations but any structural evidence had been destroyed by later structures (Cardwell 1995, 136). This indicates that during Period 4 the hospital definitely comprised a stone chapel in the east and a building of unknown function to the west, and perhaps at least two other structures, one to the north of building 943 and perhaps another to its east, within the old precinct boundary (Cardwell 1995, 136).

A Changing Emphasis: The Later 14th century

Shortly after these changes, most likely during the 14th century the site underwent another remodelling. North of Building 943, in an area mostly later eroded away by the river, Building 217 was constructed, an east-west aligned half-timbered structure for which only a few wall elements survived, one of which was possibly of an earlier building (Fig. 4.5) (Cardwell 1995, 137). The west wall of Building 217 appears to have reused elements of boundary wall 611, which was partially remodelled at its northern end to include an entrance into the precinct just south of the new building that included a cobble path from the yard area, whilst the rest of the boundary wall was demolished and rebuilt slightly to the east. The eastern wall of Building 217 appears to have reused the foundations of wall 649, the earlier boundary wall, giving a total length of around 11.3m. If this is correct, the building would have been 6m wide and allows the assumption that at least 10m of the riverbank has eroded away, leaving enough space to the east for another structure and significantly increasing the possible size of the precinct (Cardwell 1995, 146). The large roughly squared stones in the wall seem to have served as post pads that imply a base cruck structure, with a doorway at the western end of the south wall where a post pad and

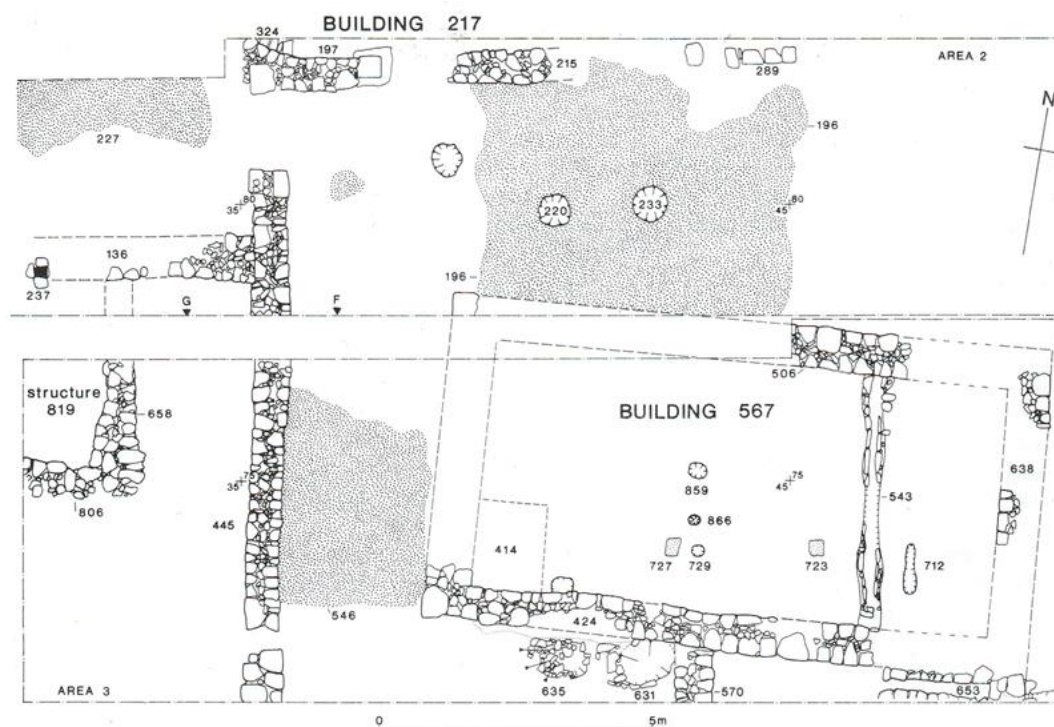


Figure 4. 5: Late 14th-century buildings (217 and 567) and associated features within western part of Areas 2 and 3 at St Giles, Brompton Bridge. These include the new precinct wall to the west and outbuilding 819 (Cardwell 1995 137, illus.14). Reproduced with permission of Taylor and Francis and the Royal Archaeological Institute <https://www.tandfonline.com/loi/raij20>

threshold stone was located (Cardwell 1995, 137–8, 146). The fragmentary remains and the later erosion make the identification of the function of this building unclear, but its size suggests a building of a domestic nature, and given that the earlier building to the south, 943, appears to have been abandoned before this period, it may have been constructed as a replacement (Cardwell 1995, 146).

To the southwest, wall 136, over 6m in length, was butted up to the west face of the precinct wall (Cardwell 1995, 138–9). Building 819 was located just to the south of wall 136 and consisted of two stretches of wall forming the east and south walls to form, with wall 136 to the north, an enclosed area roughly 4.6m square. The building appears to have had a timber superstructure sat on a stone foundation, but with no internal features or deposits surviving, the function was unclear (Cardwell 1995, 139). A location outside the proposed precinct either indicates pressure on available space inside the precinct or a building sited in a manner to highlight its isolation beyond the boundary wall (Cardwell 1995, 146). A number of pits were found to the west and east, one of the eastern ones (857) possibly being a dug out post-hole for a structure to the south of the excavation area, and two other eastern pits contained industrial waste including copper alloy sheet fragments. This industrial waste would have been produced from several hearths in the area, some of which may have been associated with postholes and a limestone-lined pit filled with stones, although it is not clear what the copper was for or why the activity was located here (Cardwell 1995, 139).

Between these structures and the chapel area another two timber structures were built. Building 848 was rather ephemeral, having been mostly truncated by later levelling that removed any internal features, and only parts of the east and south walls were located (Fig. 4.6) (Cardwell 1995, 139). The building seems to have been a timber-frame structure with walls set into a sleeper beam, parts of which had been enclosed by stone, and postholes at the corners that created a structure at least 7.3m long from east to west, although the full extent could not be ascertained. The function of building 848 may have been associated with the hearths and pits located along the western side of the yard area to its south, although there was still uncertainty as to the purpose of location of the hearths, none of which appeared to be directly associated with any structures (Cardwell 1995, 146). One hearth, 763, was associated with a large amount of oats, and so was highly likely to have been used for the preparation of food, but another, hearth 2034, was of a size and character that should have been associated with a building of some form but there was no

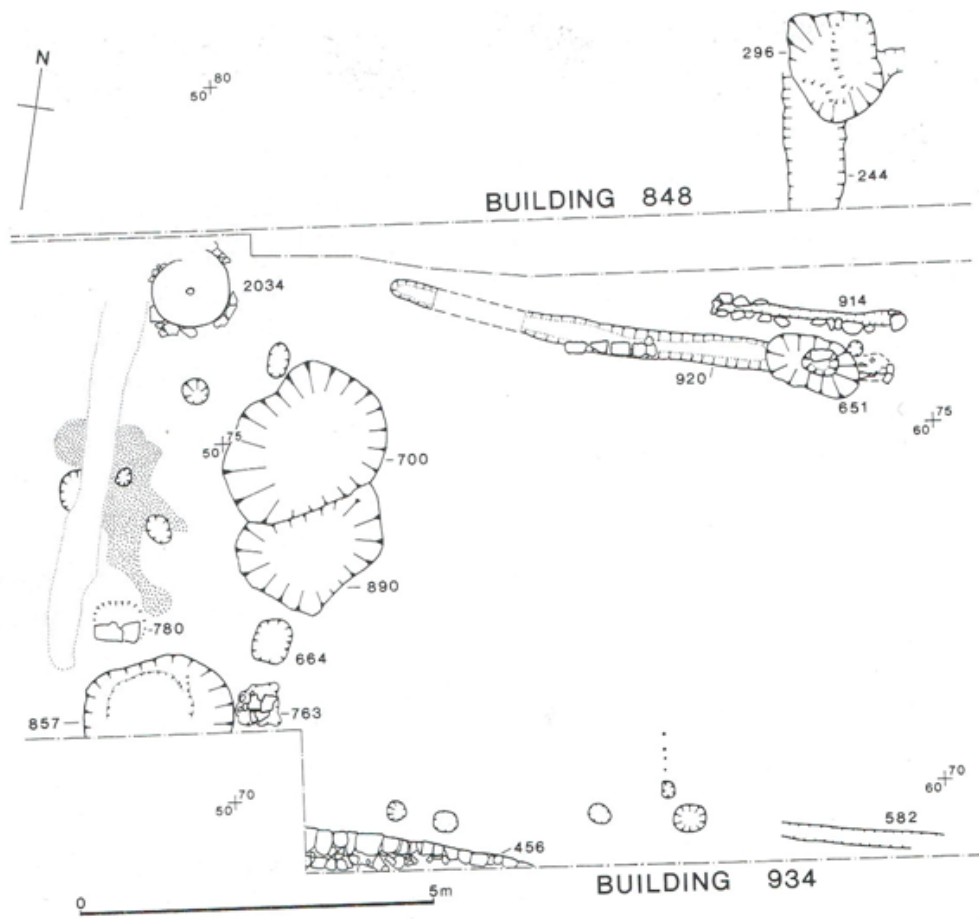


Figure 4. 6: Late 14th-century buildings (848 and 934) and associated features in Areas 2 and 3 at St Giles, Brompton Bridge. As seen, little is left of the building interiors (Cardwell 1995, 138, Illus.15). Reproduced with permission of Taylor and Francis and the Royal Archaeological Institute <https://www.tandfonline.com/loi/raij20>

associated structure, and later disturbance and issues over dating meant its function and period of use were unclear (Cardwell 1995, 146).

Building 934 was another timber-frame structure located at the very southern extent of the excavation, formed of a length of beam slot with four postholes to the west, the two closest to the beam slot being larger and possibly indicating the presence of an entrance to the building (Cardwell 1995, 139). It is not certain if all the postholes were related, since no floor levels could be seen, but if they were the structure was at least 7.5m long. It was unlikely the structure went much further east, since this would have encroached on the trackway, and it is assumed the building ran to the south. Running north from the possible entrance to Building 934 was a short fence (Cardwell 1995, 139–40). Little is certain about building 943, since the majority was south of the excavated area, but it was a relatively insubstantial building, with a yard to the north separating it from building 848 to the north, and this may indicate that the building functioned as a store or workshop, rather than having a more domestic function (Cardwell 1995, 146). Both Buildings 848 and 943 were

less substantial than all the other contemporary structures, consisting of timber posts and sill-beams, rather than stone foundation walls, and another similar structure in the southern area is suggested by post-pit 857 (Cardwell 1995, 146–7). The trackway between this section of the precinct and the chapel appears to have been renovated at the same time, being widened to 6.9m at the riverbank, relevelled, having potholes infilled, and then resurfaced with gravel (Cardwell 1995, 140).

The chapel underwent significant changes in the mid-14th century, with the western tower either collapsing or being intentionally demolished due to the inherent structural issues of the west wall, a problem almost certainly exacerbated by the addition of the tower and the insertion of the doorway through the southwest corner (Fig. 4.7) (Cardwell 1995, 140, 143–4). At the same time the western doorway into the tower from the chapel was blocked off, but it was not long before the west wall also either collapsed or was demolished and a replacement constructed slightly to the east, shortening the chapel length to 14.1m. That the foundations were understood to be a key part of the problem can be seen by the fact that the new wall had foundations twice as deep. This necessitated the southwest doorway to be moved slightly, and this reorganisation may have used the opportunity to rebuild

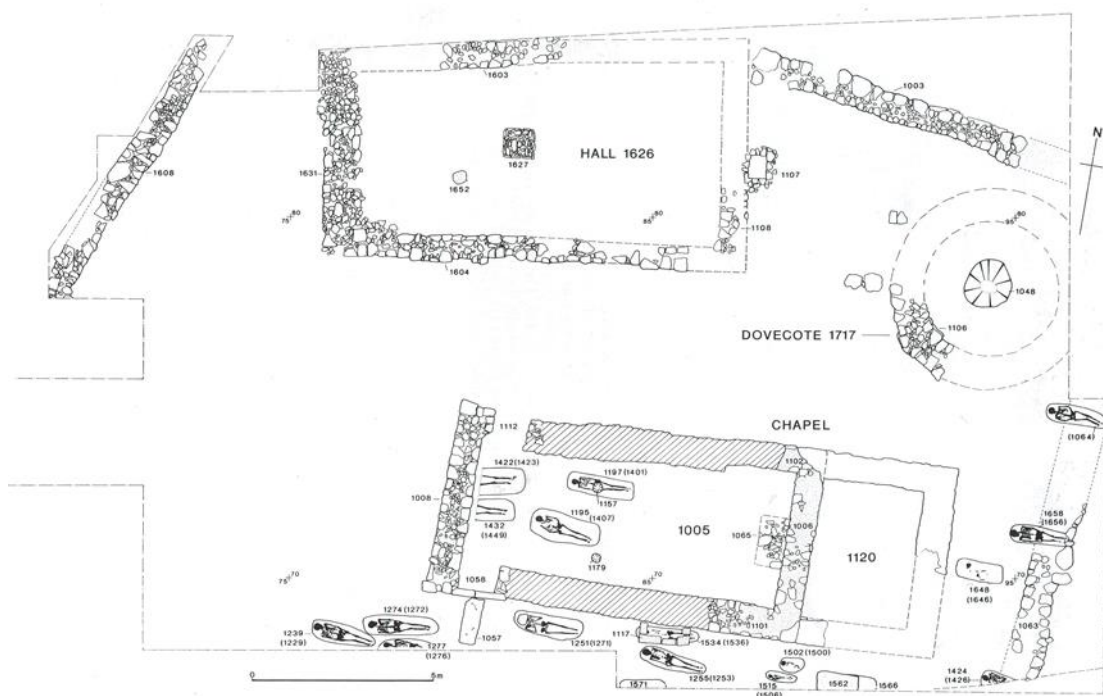


Figure 4. 7: St Giles, Brompton Bridge, Area 4: the late 14th -century buildings (chapel 1120, hall 1626 and dovecote 1717) and the alterations that comprised chapel 1005. Hall 1626 suggests that the eastern section of the precinct was turned into a new area of accommodation, possibly of a higher status to the western section given the associated garderobe and dovecote. Walls of earlier chapel are hatched (Cardwell 1995, 142, Illus.17). Reproduced with permission of Taylor and Francis and the Royal Archaeological Institute <https://www.tandfonline.com/loi/raij20>

parts of the north and south walls to key the structure together; it also provided an opportunity to insert a new doorway in the north wall at the western end, which provided access to the new hall, Building 1626, to the northwest (Cardwell 1995, 140–1, 144). This alteration also caused other damage to parts of the interior, such as the plaster work, which does not seem to have been repaired, and the possible gallery, which may have been replaced if that was the purpose of the two western postholes (Cardwell 1995, 144–5). The rest of the chapel appears to have undergone little change, apart from the chancel step possibly being removed at this point and some patching to the floor, especially at the west end where previous graves may have caused some subsidence.

Related to the new northern door for the chapel, a rectangular building (Building 1626), aligned east to west, was constructed to the north of the chapel (Cardwell 1995, 141). This was the first building, apart from the chapel itself, to be located in this eastern section of the precinct, and was constructed in the new manner also used for Building 217 at the very west of the precinct (Cardwell 1995, 145). The building measured 11.7m by 6.3m set into a slight terrace. The lack of significant foundations and the poor construction suggest the walls acted as support for a timber-framed structure, but it is unclear if it was base cruck or box-framed. The interior had a gravel floor with a stone hearth set into the floor in the centre of the building and a possible stone post pad to the southwest, but no other features, such as the position of doors, were observed (Cardwell 1995, 141). The central hearth would suggest a single-storey hall, possibly with a communal function (Cardwell 1995, 145). A square stone-lined pit was located on the projected exterior face of the east wall of the hall, probably an attached garderobe that would have had some form of timber structure that did not survive (Cardwell 1995, 143, 145). The quantity of animal bone found in the area suggests that this building also served a domestic function, although the lack of internal features hinders better interpretation. East of the hall were the remains of a circular stone dovecote, 5.8m in circumference, with a central post-pit and a possible entrance to the west (Cardwell 1995, 143).

The location of Building 1626 at the point closest to the road, the river-crossing, and the chapel suggest that this building served as a hostel or guesthouse, meaning that travellers could have accommodation and access to the chapel without entering the principal hospital area to the west (Cardwell 1995, 145). The construction of the hall so close to the chapel also indicates an added emphasis on providing hospitality to travellers from this point onwards. Since some of the burials in the earlier phases of the cemetery showed signs of leprosy this may be due to a decline in the disease and thus numbers in the

community. It may also reflect an increasing emphasis on the boundaries between permanent members of the community and guests, by moving them out of the western precinct. It was also suggested that this hall may have been the master's lodgings, reflecting wider trends for privacy and comfort during the this period (Cardwell 1995, 145). If the new hall had a solar it may have carried out both functions, with the master on the upper storey, and may explain the presence of a garderobe chute.

The End of the Hospital: the 15th Century

In the final phase of the hospital, from the 15th century until its closure, the chapel again underwent a remodelling, whilst in the western section of the precinct there were further changes to the layout. Building 848 was demolished and a yard surface of pebbles laid down, separated from the trackway through the hospital precinct by a gully (Cardwell 1995, 147). Building 567 was constructed south of Building 217, an east to west aligned stone-walled building that was heavily modified and disturbed by later activity (see Fig. 4.6). Only the southern wall was extensively located, the north wall mostly running under the baulk between Areas 2 and 3, and the east and west walls largely missing. The remains indicate an entirely stone-walled building 11.1m long by 6.1m wide and roofed in stone tile (Cardwell 1995, 147). The pebble yard surface also formed the internal surface for the structure, possibly sealed by a layer of clay, and a stone drain cut through the entire eastern end of the building, although the dating of this feature was unclear and could have been post medieval (Cardwell 1995, 147). Two internal post-pads suggest internal division, either to create an aisle 1.2m wide or as supports for partitions, with the second option perhaps explaining another three postholes and a short beam slot dated to his period. The only hearth associated with the building was in the southwestern corner, although again the dating was not certain, and may have been part of the later modifications (Cardwell 1995, 147). Building 567 may also have had an attached structure to the south that contained two hearths, defined on its east by wall 570, but which seems to have been open on the west side (Cardwell 1995, 147–8). The hearths were constructed differently but were of a similar size and had been used repeatedly, whilst to the east was a domestic refuse deposit, which could have been associated with the buildings nearby. As the only fully stone-built structure in the western section of the precinct, Building 567 was either a reflection of developments in construction methods on the site, the continuing nature of investment, or the high status of the building (Cardwell 1995, 151). The size is right for a hall but given that the few internal features that survived truncation by later occupation

were difficult to date, the actual function of the building remains unclear. Botanical evidence from the hearths to the south suggest they were used to dry grain, whilst floor deposits and the midden layer outside both indicate either domestic or service activity close by, leading to the tentative interpretation of the building serving as the refectory, possibly with an external kitchen to the south, although use as accommodation would also remain an alternative possibility (Cardwell 1995, 151).

Building 217 was also modified in this period (see Fig 4.6); the southern door was infilled relocated to the east, a new western wall butted up to the southwest corner of the building, and the interior was refloored with a new rough stone surface (Cardwell 1995, 148). Despite this, the purpose of the structure remained unclear. On the outside of the building, to the south and east, a pebble surface also seems to have been laid, cut by two postholes (220 and 233) in between buildings 217 and 567, either as a porch for one of the two buildings or supporting a covered walk between the two. The pebble yard surface was extensively worn in the western section, especially in the area of the entrance through the western precinct wall just south of building 217, resulting in a stone flagged surface being laid across the entrance and a pebble surface laid out to the west. There may also have been an additional entrance cut through the western precinct wall near building 567, and the area between the building and the wall was surfaced with angular limestone fragments, markedly different from the other surfaces found in the hospital (Cardwell 1995, 148). Structure 819, located to the west of the western boundary wall, appears to have gone out of use in this period. Given the lack of sealed interior layers the building was either kept clean or only used for a short period (Cardwell 1995, 148).

The pebble yard surface between buildings 217 and 567 went as far east as the trackway, and to the south was defined by a cut and levelling material that overlaid the now abandoned building 848 (Cardwell 1995, 148). The trackway appears to have attracted standing water and begun to silt over, especially at its northern end (Cardwell 1995, 148). Both the yard surface across the whole western precinct and the trackway appear to have had a fairly high level of use, given the wear patterns and evidence of repair (Cardwell 1995, 151–2). Building 934 was also demolished and replaced with another building that was set slightly to the south, the northern wall of which was only partially exposed in the excavation area but which could be seen to the south as an earthwork (Cardwell 1995, 148–9). The overall structure would have been around 12m in length, but the phasing was uncertain since the building continued in use into the post-medieval period. As another stone-built structure, in a location relatively close to the chapel, this may have been the

infirmery hall, or at least one of them, since there was no other clear evidence of an infirmery on the site for this period (Cardwell 1995, 151). North of this building and to the east of building 567 appears to have been a yard surface, and given the amount of erosion highly likely that another building was located to the north that has now been lost (Cardwell 1995, 151). Sample excavations to the south on the escarpment overlooking the hospital site revealed evidence of the home farm attached to the hospital, located slightly away from the main area (Cardwell 1995, 166–7). The remains of what appears to be a byre were located, dating to the 15th century, whilst another earthwork was undated but had similar features to the later post-medieval farm, and both buildings would have been accessible along the trackway and natural gully that ran from the site to the top of the escarpment (Cardwell 1995, 167–8).

During this period the east end of the chapel was demolished and the length reduced to 10.3m, with the north and south walls keyed into the new east wall (see Fig. 4.7) (Cardwell 1995, 149). The remodelling of the east end of the chapel reflected the final stage in the reduction of the building, and although this was probably tied to reduced finances and the reduced needs of the community, the requirement to remodel would have been necessary as a structural issue, although whether this was pre-emptive or occurred after some level of collapse was not ascertained (Cardwell 1995, 152). The southern door was also remodelled, with a new threshold inserted reusing a window sill, possibly from the east end of the chapel, with a large stone slab laid to form an external surface leading up to the door. The northern door was remodelled as well, with the west side being made narrower. At the new east end a single course of mortared stone possibly indicates the location of the new altar, the first time its location could be fixed due to the previous remodelling phases truncating the evidence, whilst the majority of the east half of the chapel appears to have been resurfaced (Cardwell 1995, 149, 152). Undecorated wall plaster found *in situ* on a section of the northern wall also suggest that part of the interior was replastered at the same time as these modifications were occurring, but it does not appear to have been decorated or an extensive refurbishment of the interior. Overall, this remodelling was of a higher quality than had been seen in previous periods, with higher quality stonework and the use of mortar, but it is unclear why the southern wall was widened and the northern one left as it was (Cardwell 1995, 152).

Also during this period a boundary wall that was later heavily robbed and truncated was constructed to the north and east of the chapel for the first time, from the northeast corner of Building 1626 running southeast and then south, over several earlier hospital

graves (Cardwell 1995, 149). Another section of wall to the west of hall 1626, this time running north east to south west possibly defined a northwestern boundary to the chapel area (Cardwell 1995, 151). The need to define these boundaries may suggest a reduction in the official precinct of the site and perhaps the sale of land to the east and south, with a collapsed wall 13m to the south of the chapel possibly an indicator of the full extent of the earlier precinct and cemetery (Cardwell 1995, 152). Building 1626 appears to have continued to function as it did in the previous period, either as a guesthouse or master's lodgings, but there was some ephemeral evidence that there may have been a division within the hall to create two rooms (Cardwell 1995, 151). The archaeomagnetic date of last use for the hearth was in the period 1395-1445, around the time the new bridge at Catterick was constructed in 1422 that would have reduced the number of travellers on the road through Brompton Bridge and before the supposed closure of the hospital, so it may have been abandoned or used for non-domestic purposes since the hospital could also not support a master by 1451 (Cardwell 1995, 152). The last indirect documentary reference to the hospital was in 1467, and from the archaeology it is unclear how many of, or in what order, the buildings were abandoned, but it seems clear that the hospital had entirely ceased to function around or soon after this date (Cardwell 1995, 154). This final phase of the eastern section of the hospital suggests a period of decline, with the reduced size of the chapel and the precinct, and the potential abandonment of some buildings, all corroborating the image provided by the documents (Cardwell 1995, 152-3).

Summary

St Giles saw virtually constant alterations to the layout and buildings of the hospital, in contrast to sites such as St Mary, Ospringe (Cardwell 1995, 233). Such changes were either a reflection of differing fortunes or of changes to the function of the hospital, but there appears to have been more alteration here than was experienced by other sites. The site layout maintained a clear separation into two halves for the entire existence of the hospital, split by the trackway and clearly influenced by the local topography, the road, and the river crossing (Fig. 4.8) (Cardwell 1995, 233). This split was both physical and functional, the eastern half of the site was dominated by the chapel, which for much of the medieval period was the only building in the area, joined later by the guest hall and/or the master's lodgings and dovecote (Cardwell 1995, 234). The western half of the site was more domestic in nature, with a refectory, dormitories or an infirmary hall, and other buildings that would have served ancillary functions both inside the excavation area but also to the

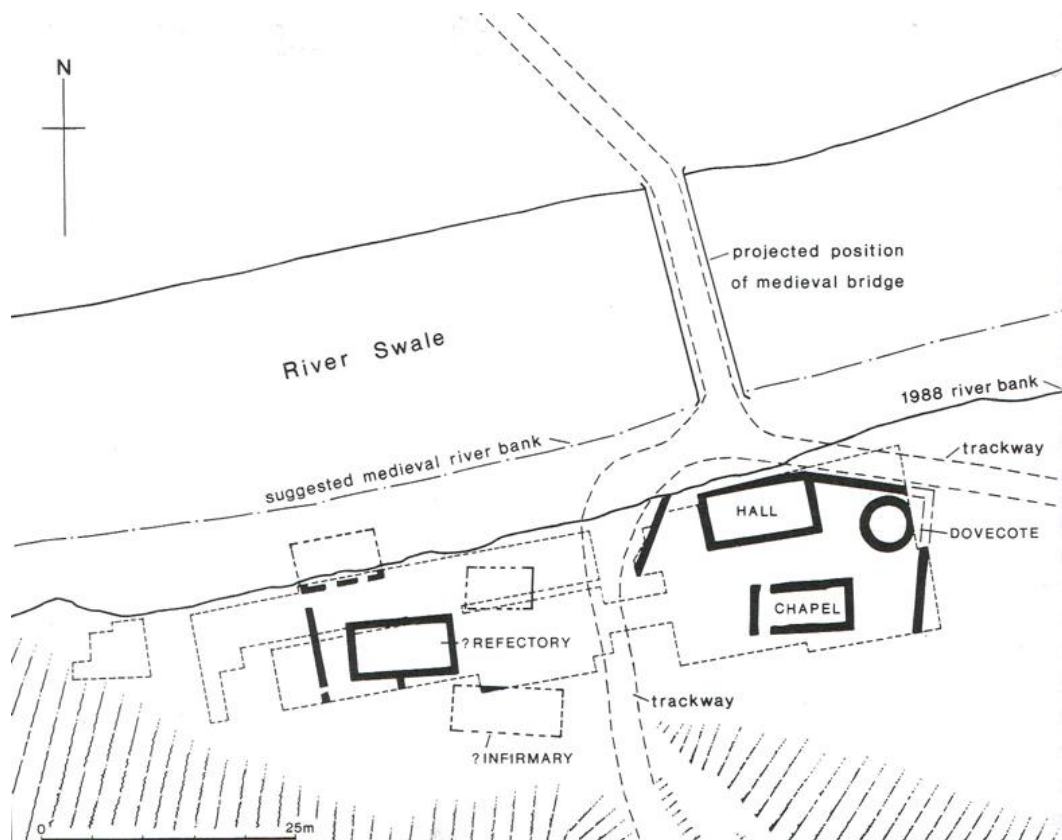


Figure 4. 8: Layout of the hospital of St Giles, Brompton Bridge, in its final phase in relation to the adjacent trackways and river crossing (Cardwell 1995, 234, illus.55). Reproduced with permission of Taylor and Francis and the Royal Archaeological Institute <https://www.tandfonline.com/loi/raij20>

north and south (Cardwell 1995, 234). Such a strong physical separation between the two halves of the site seems to reflect a functional separation between caring for the infirm of the community and providing hospitality to travellers, restricting mixing between the two to just the chapel (Cardwell 1995, 234). Even the entrances to the chapel, one to the north facing the guesthouse, and the other to the south connecting to the trackway, may indicate a separation of the two communities. The final part of the overall hospital complex was the home farm on the ridge to the south, providing much of the food for the community (Cardwell 1995, 234).

The chapel at Brompton Bridge remained separated for its entire life, more similar to the chapel at the leprosy hospital of St Mary, Ripon, which was also of a similar size and layout to the later phases of St Giles, Brompton Bridge, or, more generally, to parish churches than the expected development of hospital sites (Cardwell 1995, 235). The importance of the chapel is shown by it being one of the few buildings made in stone in the early phases, and also the use of superior construction techniques compared to the other buildings, and it was regularly modified to suit the needs of the community. It started small in the early phases when the hospital seems to have been quite restricted or it served more as a

wayside chapel or site of burial, before enlarging in the 13th and then shrinking in the 14th to 15th centuries associated with the changing fortunes of the site (Fig. 4.9) (Cardwell 1995, 235). Many of the changes were the result of underlying structural issues, however, and it is only in the final phase of the hospital that the reduction of the east end can be used as an indicator of decline.

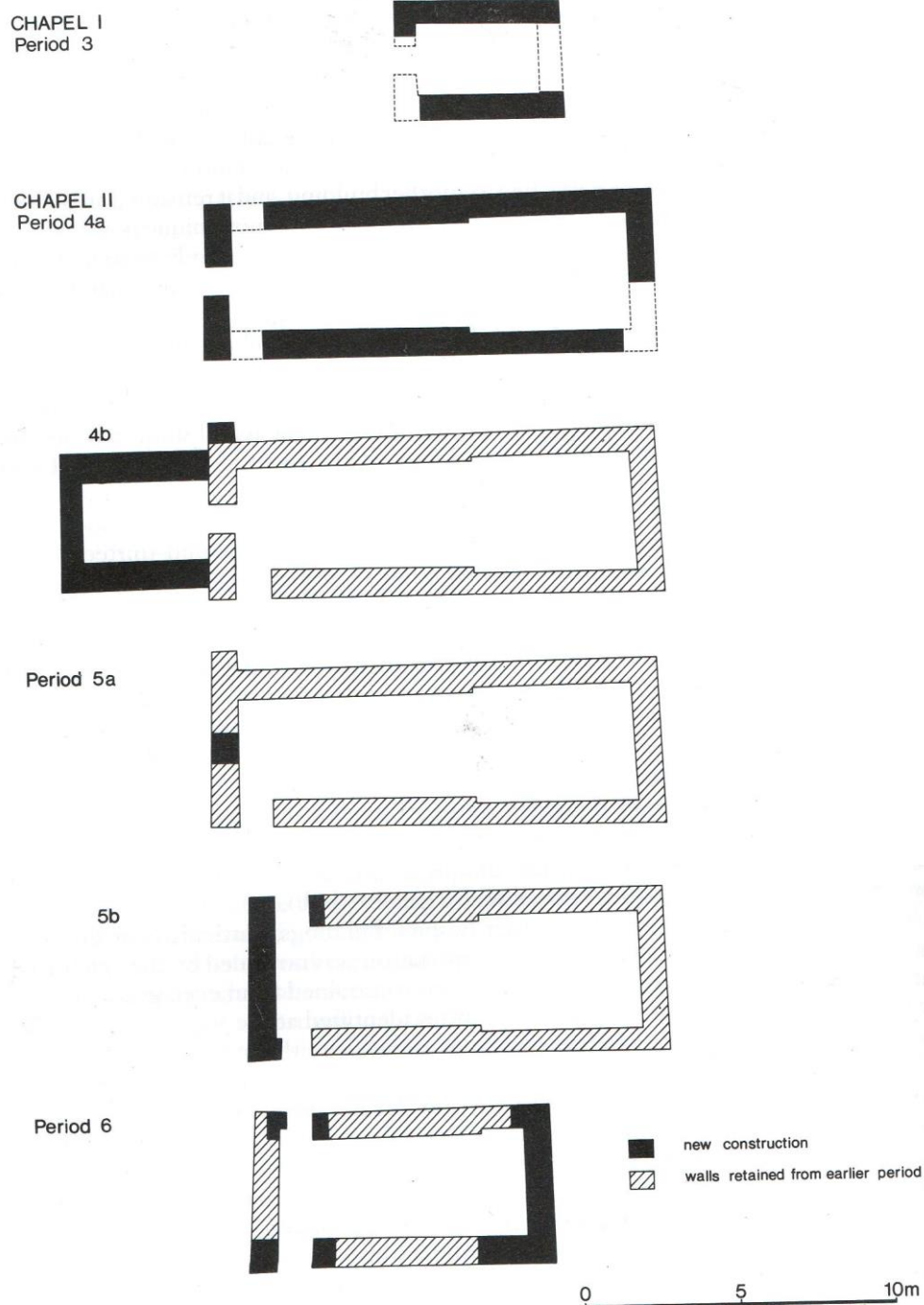


Figure 4. 9: Structural development of the hospital chapel at St Giles during the medieval period, showing the expansion up to the 14th century before the chapel was reduced in size (Cardwell 1995, 236, Illus.56). Reproduced with permission of Taylor and Francis and the Royal Archaeological Institute <https://www.tandfonline.com/loi/raij20>

The constant alterations throughout its life have also meant that most of the internal features of the hospital chapel have been lost, although the possible evidence of a gallery at the western end is of particular note, even if its purpose remains unknown (Cardwell 1995, 235). Due to the lack of domestic activities, or an associated kitchen, it is unlikely that the west end of the chapel and the possible gallery were used as an infirmary. The development to the west was less clear, especially due to the ephemeral nature of many of the remains and the fact that usable plans for only three of the seven buildings revealed could be established, the others either being out of the excavated area or having been eroded away (Fig. 4.10) (Cardwell 1995, 235). These issues meant that the function and

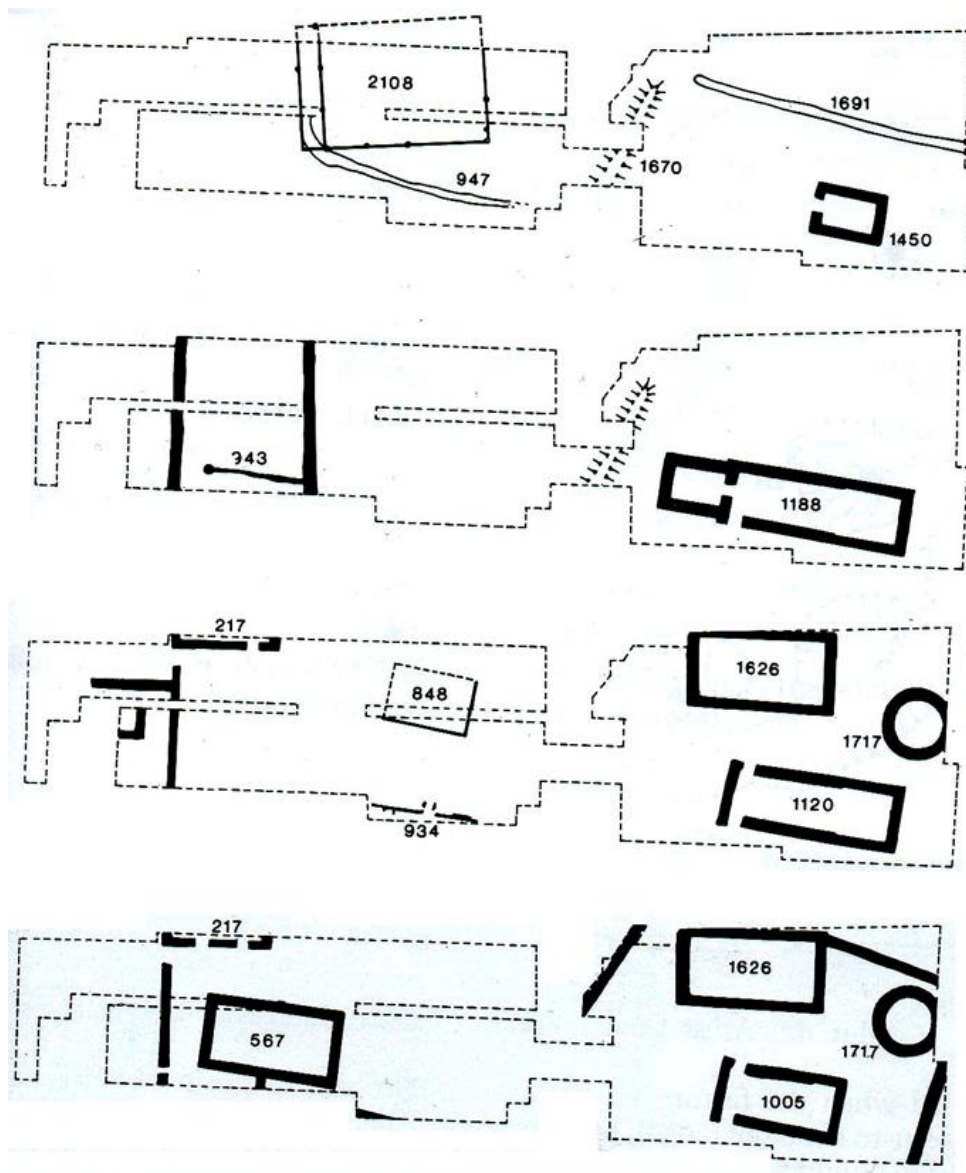


Figure 4. 10: Principal structures within the excavated areas of the medieval hospital of St Giles, Brompton Bridge (Periods 3 to 6 from top to bottom). The site is clearly separated into two halves for its entire life, with the eastern side comprising the chapel and the later hall and the west likely comprising the main hospital precinct (Cardwell 1995, 123, illus.5). Reproduced with permission of Taylor and Francis and the Royal Archaeological Institute <https://www.tandfonline.com/loi/raij20>

often relationships could not be accurately determined with any confidence, but the nature of the material recovered did suggest that they were predominantly domestic in function. The earliest hall, 2108, remained enigmatic in terms of plan and use, but the later structures in the same area, 217 and 567, were interpreted as accommodation and a refectory with attached kitchen respectively. Building 848 appears to have been a workshop or store, whilst much of the domestic waste and refuse seems to have been dumped in pits located at the western end of the site, outside the precinct wall. There was no obvious infirmary building, meaning that the stone-built building on the very southern edge of the excavation area is the best candidate (Cardwell 1995, 235).

Constant transformation and adaptation was a recurring characteristic of medieval hospitals, and St Giles clearly followed this pattern (Cardwell 1995, 237). The 13th century appears to have been one of expansion for the hospital, with the addition of female inmates to the hospital population, although it is unlikely the total number of inmates was large, perhaps 13 beds, which was a common number for smaller hospitals. With the addition of females to the site there would have been a need for segregated accommodation as a minimum, and may have resulted in some of the additional buildings evident in these middle phases of the hospital (Cardwell 1995, 237). This distinct layout also affected the arrangement of the constituent elements of the hospital complex, which were laid out in a more open form than the more usual quadrangular or courtyard layouts (Fig. 4.11) (Cardwell 1995, 234). The number of alterations to the site suggest changes to the role or size of the site, and given the documentary sources are not clear on the type of inmates admitted, this may actually reflect a changing community.

Taken together with the rural location and the dedication to St Giles, the spread out nature of the buildings, the isolation of the riverside chapel from the rest of the precinct, and the presence of at least one sufferer of leprosy in the cemetery, Peter Cardwell (1995, 237) makes the suggestion that either the site was partially established for sufferers of the disease or that some lepers were admitted. He supports this argument by noting that leprosy hospitals were often less structured in their development, and that this more dispersed and unusual layout that did not connect the infirmary hall or dormitory to an eastern chapel was more usual for the hospitals founded in the 12th and 13th centuries (Cardwell 1995, 234–5). The changing layout would then be related to the decline of leprosy from the 13th and especially from the 14th century, which seems to tie to the burial record at St Giles where no indicators of leprosy were found from around the mid-14th century, and may have resulted in an added focus on other infirm individuals and travellers



Figure 4. 11: A reconstruction drawing of St Giles, Brompton Bridge, from the east suggesting the appearance of the hospital in the late 14th century (Cardwell, 1995, 240, illus.57). Reproduced with permission of Taylor and Francis and the Royal Archaeological Institute <https://www.tandfonline.com/loi/raij20>

(Cardwell 1995, 237). Such a focus may be reflected in the construction of the hall to the north of the chapel in the 14th century, if it was a guesthouse, or at least indicating the rise in the wish for privacy and comfort in religious institutions if this was the master's lodgings.

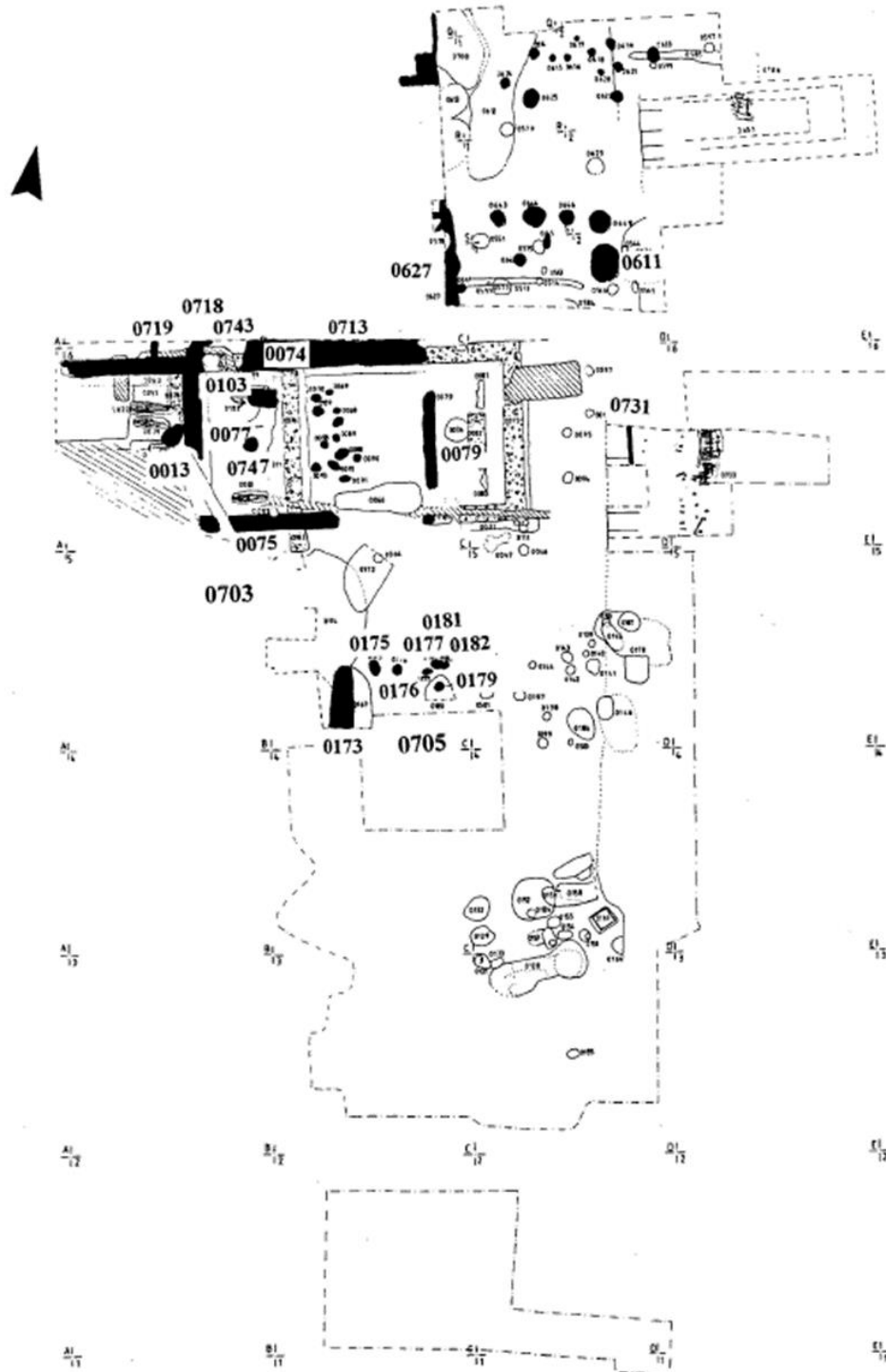
The changing role of the hospital probably led to the many rebuilding phases of the site, but there was also a gradual transition in the building types used (Cardwell 1995, 237). Other than the chapel, the earliest buildings were timber framed, although whether this was box-frame or base cruck was not established. The earliest hall, building 2108, used earth-fast posts, whilst after this most buildings had at least post pads. Later buildings, such as 217 and hall 1626, also had stone foundation walls with incorporated post-pads, and it

was only in the final medieval hospital phase that some domestic buildings were constructed entirely in stone (Cardwell 1995, 237–8). The stone-built domestic building, 567, seems to have been the refectory with attached kitchen and as such the choice may have been due to functional necessity as much as improved building techniques. It was also only in the final period that the stone-built chapel saw the use of mortar (Cardwell 1995, 238). The archaeological evidence also supports the ecclesiastical nature of the institution, all be it a relatively poor rural one of low status (Cardwell 1995, 238–9). None of the buildings appear to have been elaborate, the architectural elements were slightly out-of-date, and despite the larger decorated second chapel built on top of the first, it appears to have been the exception, almost certainly linked to a specific endowment from a benefactor. Only one piece of sculpture was found, and although elaborate, was isolated. It is clear that the nature of the remains at Brompton Bridge reflect a smaller, largely self-sufficient rural hospital that had to constantly adapt to meet contemporary needs, indicating a site of a character and development that is in many ways different to the more wealthy, and often urban, hospitals that have received the majority of attention (Cardwell 1995, 241).

The Hospital of St Saviour, Bury St Edmunds

The Initial Foundation: The Late 12th century

The foundation of the hospital of St Saviour, Bury St Edmunds, can be dated to the late 12th century, in the years around 1184, and it cared for 12 poor men and 12 poor women, with a staff of a master, 12 chaplains, and 6 clerks (Caruth and Anderson 1997, 107; Knowles and Hadcock 1971, 348). Archaeologically there were at least two buildings in this first phase (Fig. 4.12). The principal building was the chapel, measuring 28.5m long and 8.7m wide, divided into two chambers by the partition wall 0077, with a doorway located in the northern wall, and a possible round base for a staircase in the north wall next to wall 0077 (Fig. 4.13) (Caruth and Anderson 1997, 18, 21). The western room would have had an internal measurement of 15m by 6.8m and the eastern room measured 11.1m by 6.9m. The partition wall showed no obvious sign of a doorway communicating between the two halves and may suggest that the two halves served separate functions, with the east end certainly serving as a chancel (Caruth and Anderson 1997, 30). The partition wall may also not have been of full height, or at least not for the whole length, supporting a screen to allow those in the western section to still observe or be part of the service. The presence of



Phase II Plan

Figure 4. 12: The plan of 12th-century features at St Saviours, Bury St Edmunds. The main focus of activity is around the chapel and to the south, although areas to the west and northwest have been truncated by later disturbance (Caruth and Anderson 1997, Fig 6) © Suffolk County Council Archaeological Services

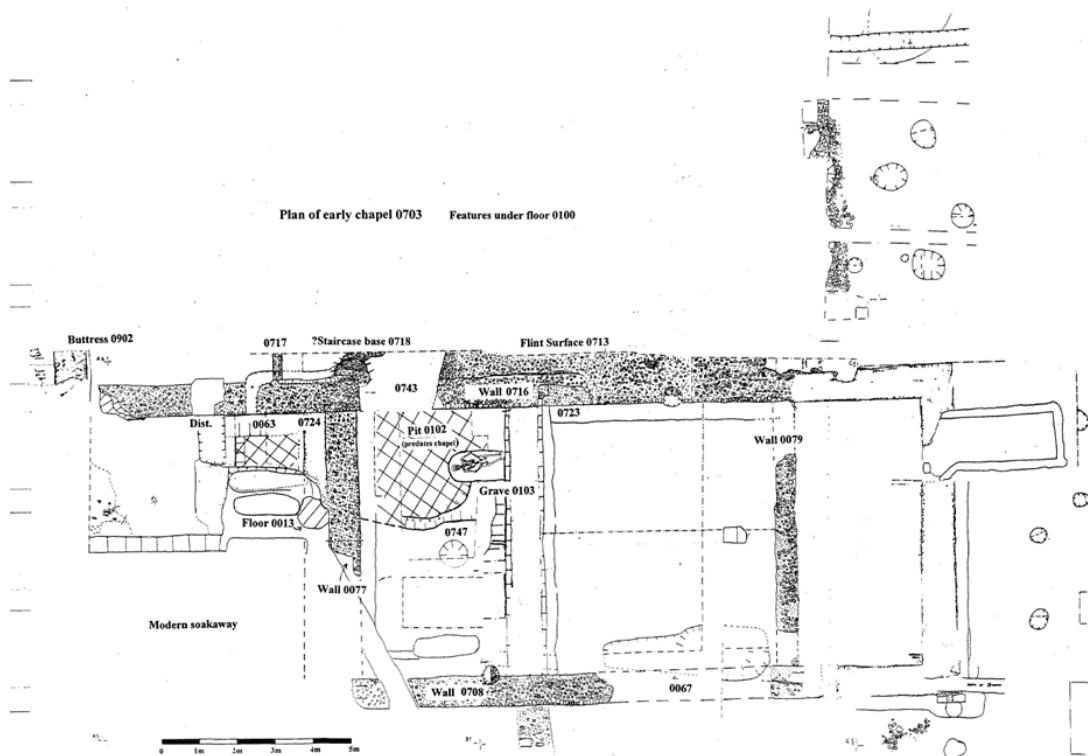


Figure 4. 13: The plan of the late 12th-century chapel of St Saviours, Bury St Edmunds. Note the crosswall cutting off the western third of the structure (Caruth and Anderson 1997, Fig. 14) © Suffolk County Council Archaeological Services

a staircase would suggest either a second storey or gallery to the chapel building or a two storey structure to the north, the presence of which is suggested by the partition wall 0717, and interestingly there was a height difference between the evident door at the west end of the chapel and the floor surfaces found in the eastern half, suggesting some steps down in the area not excavated (Caruth and Anderson 1997, 29–30). It was also suggested that the western half of the chapel had two storeys, with the chapel open to the roof so that those in the upper floor could participate in the mass (Rowland-Burden 1927, 283). The floor for this first phase appears to have been a mix of clay, sand, and gravel, and had been cut by a burial of a priest with a chalice and paten, possibly one of the early masters or chaplains or another equally important member of the community. There was evidence of other buildings north of the chapel, as well as two flint surfaces or structures, contexts 0627 and 0713, possibly showing the extent of these buildings or the surface of a possible courtyard or cloister (Caruth and Anderson 1997, 19–20).

North of the chapel two parallel series of postholes or pits seem to suggest a pathway or plot division, mostly 7m wide, but narrowing to around 5m at its western end, all of which may be associated with a flint spread at the western side of the excavation (Caruth and Anderson 1997, 43). Three postholes just to the southwest of this arrangement may be

associated with a late hospital structure, although its form could not be recovered (Caruth and Anderson 1997, 43–4). From documentary evidence it appears that the staff had individual rooms, and many of the buildings of the hospital formed a court, with the western range of this court, which seems to have been where the inmates dormitory and the refectory were located, fronting onto the street to the north of the chapel (Caruth and Anderson 1997, 97, 107). The presence of a possible spiral staircase in the chapel may have provided access to an upper storey of this range. This northern range was unlikely to be affected by the rebuild of the eastern section of the chapel, given the lack of modification to the outer walls of the western portion of the chapel (Caruth and Anderson 1997, 107). A small garden with paths was located behind the chapel, presumably running up to the pond (Caruth and Anderson 1997, 107–8). To the south was Building 0705, comprising a substantial clay footing for a north-south wall, with other walls seeming to head west, towards the road, and a series of postholes to the east, aligned on the same line as the eastern wall of the chapel, probably indicating a lean-to or later modification that measured 4.3m east to west (Caruth and Anderson 1997, 18, 37). The form of the wall footing matches other early medieval buildings in Bury St Edmunds, but it is assumed to be a part of the first hospital phase, rather than pre-dating the foundation. The wall was not observed in trenches to the south so it had a maximum north-south dimension of less than 8m. No interpretation was ascribed to the building. Another group of postholes and pits to the east of building 0705 may represent at least two phases of temporary sheds or shelters, perhaps associated with building 0705 since they are located due east of the structure, but there was no obvious structures formed and no function could be ascribed, although it can be assumed that they served a domestic, or at least non-noxious, purpose given the location close to the chapel (Caruth and Anderson 1997, 42–3, 108).

More widely the precinct of the hospital seems to have extended to the north and south of the chapel, with a substantial stone wall suggested by the stubs of demolished walls projecting off the chapel, but it was not clear how far in either direction the precinct ran, with buildings and features associated with the hospital extending to the limits of the excavation (Caruth and Anderson 1997, 20). Approximately 40m to the east of the road onto which the western façade of the chapel faced ran the river and eventual fishpond, defining a narrow strip of land for the site. The fishpond to the east of the chapel appears from boreholes and trenching to have extended over 110m north-south, parallel to the road, and perhaps extended 80m east-west (Caruth and Anderson 1997, 32). This may have been a water source for one of the abbey mills to the north, and there is a suggestion in the

documents for other ponds in the area. The series of revetments indicate at least three phases of man-made work to establish an edge to the pond, which was replaced each time the wood rotted away and collapsed (Caruth and Anderson 1997, 34). This western expansion of the pond over the hospital period was probably due to its slow silting up, and it seems that there were no other structures associated with the pond other than the revetments, but this does not mean the pond was ornamental, since although it was managed and kept free of plants it also served as a main focus of domestic rubbish disposal (Caruth and Anderson 1997, 36).

Developments in the 13th and Early 14th Century

In the 13th or early 14th century the chapel underwent minor modification, including a rebuild of the partition wall, that added about a metre to the eastern room at the expense of the western side, and a new clay floor was laid (Fig. 4.14) (Caruth and Anderson 1997, 18). This rebuild seems to have been caused by subsidence from being built on top of an

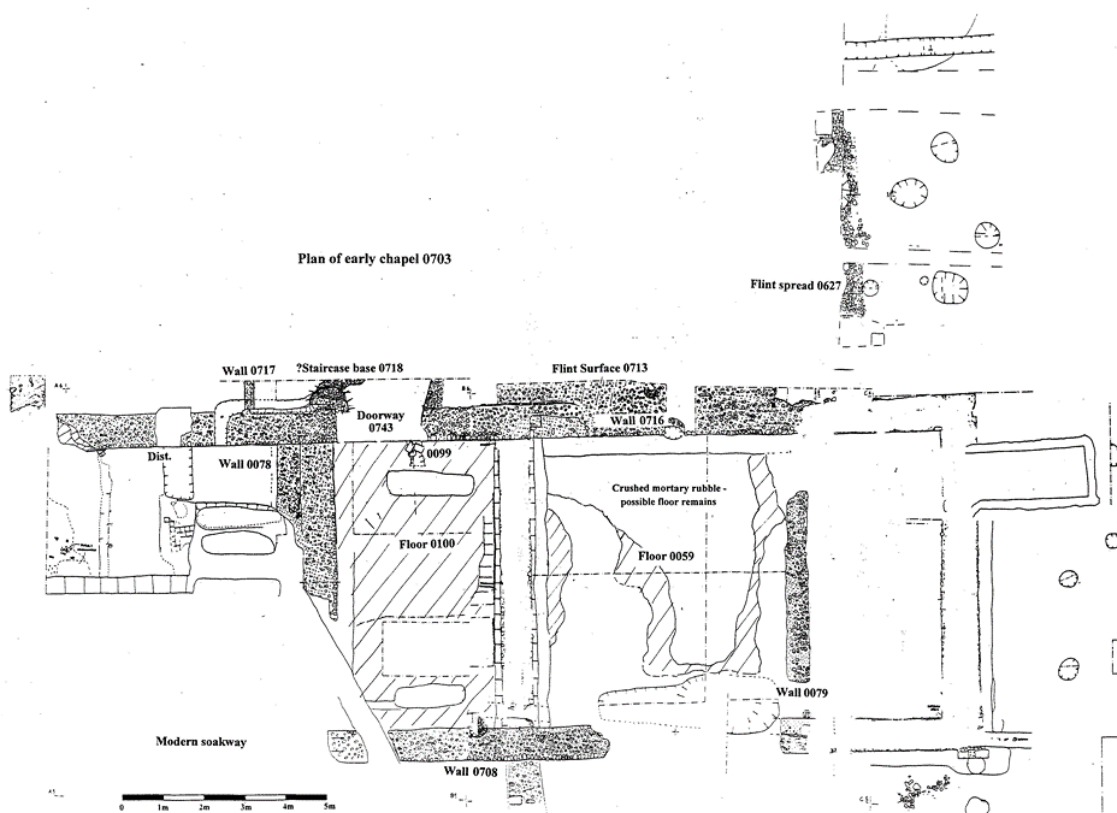


Figure 4. 14: Plan of the 13th to early 14th-century chapel at St Saviour, Bury St Edmunds. There is a shift in the internal layout, providing more space in the central bay, as well as a new floor (Caruth and Anderson 1997, Fig. 15) © Suffolk County Council Archaeological Services

earlier pit (Caruth and Anderson 1997, 30–1). Also at this time Building 0705 was demolished, and further south a group of features suggest the presence of a brewhouse or bakehouse, consisting of an oven 0120, a well 0161, a large pit, and a series of pits and postholes that could have made up the structure of the building, with associated burnt material (Fig. 4.15) (Caruth and Anderson 1997, 39). They were concentrated in an area measuring 7.5m by 5.5m and from the few postholes and slots, such as slot 0749 that may have held a wall line, it seems probable that these features were covered in some form, possibly with a wooden sill beam construction that left limited trace (Fig. 4.16) (Caruth and Anderson 1997, 41). The association of a well so close to the pond suggests the need for clean or readily accessible water, and the presence of an oven reinforces the suggestion this building served a domestic function, although the small size may argue against this being the main kitchen. This structure seems to go out of use at some point in the 14th century during the period the chapel was rebuilt, at a time when documentary records suggest the site had both a bakehouse and a brewhouse, implying these activities may have been moved to another building perhaps to the north where construction activity seems to continue into the 15th century (Caruth and Anderson 1997, 108).

Restructuring in the Late 14th to 16th Century

According to documentary evidence, the second half of the 14th century was a period where extensive rebuilding and remodelling were occurring on site (Fig. 4.17) (Caruth and Anderson 1997, 107). The east end of the chapel was demolished and the building extended 3m to the east, with a flint and mortar altar base built against the new wall (Fig. 4.18) (Caruth and Anderson 1997, 18). The later addition to the east appears to have made greater use of limestone, but only the original northern wall and partition wall had any footing trench, possibly due to the presence of a large pit that would have affected subsidence (Caruth and Anderson 1997, 29). The only door out of the chapel remained the one in the northern wall, although it was narrowed during this remodelling and the earlier staircase was removed. Another clay floor was laid down, covering the demolished old east wall and the earlier partition wall, whilst a lead melting hearth (0034), located just to the east of the new altar, indicates the reuse of the old lead for the rebuild, and pieces of lead came and fragments of stained glass from the post-Dissolution demolition phase suggest more than one decorated window (Caruth and Anderson 1997, 18–9, 21). The internal partition wall was rebuilt further to the east, possibly alleviating subsidence experienced

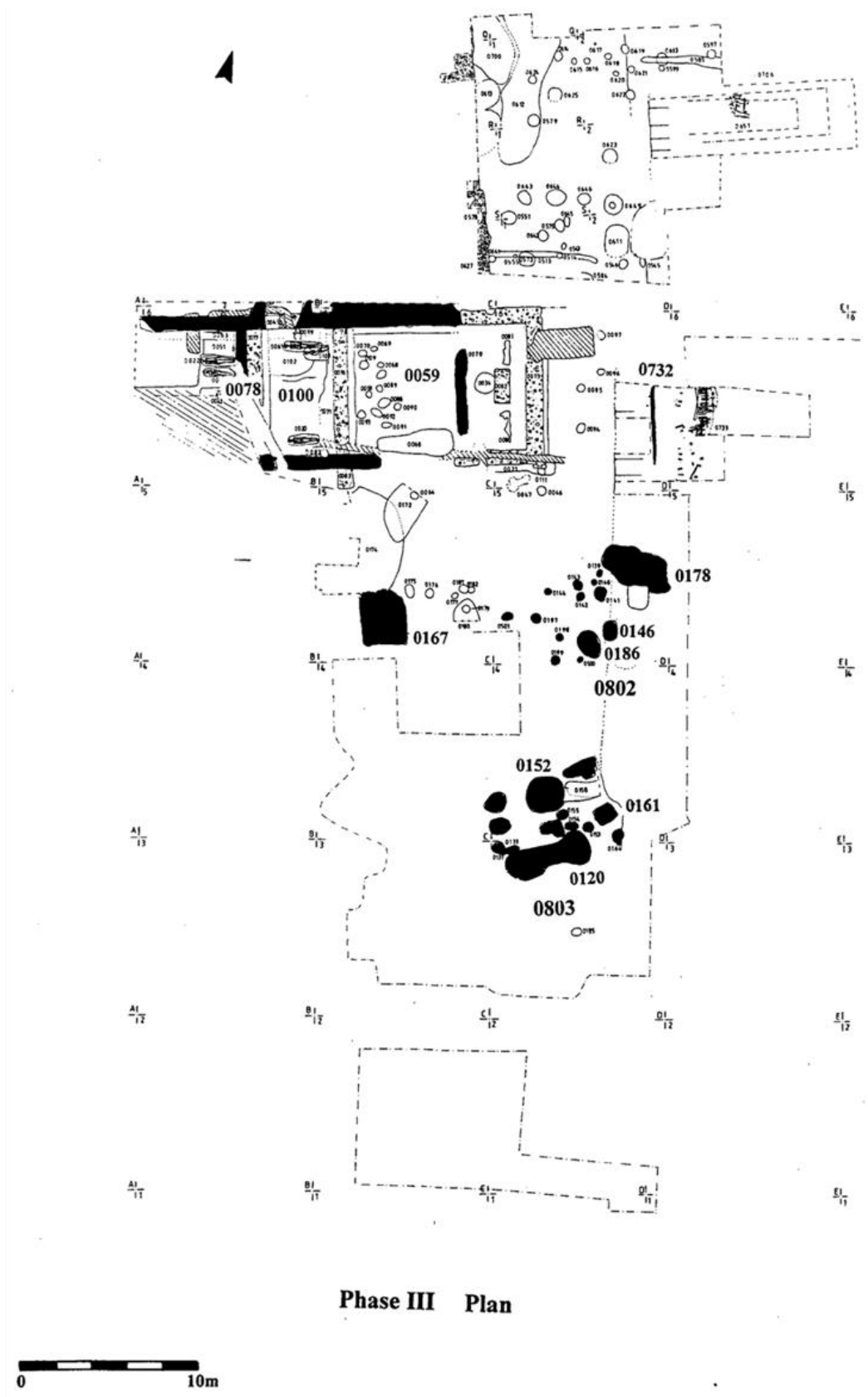


Figure 4. 15: A plan of new features to the south of St Saviours, Bury St Edmunds, dating to the late 13th to early 14th century. A large pit and a series of pits and postholes probably made up the structure of Building 803, south of the chapel, whilst other structures were possibly to the north in the area of 802 (Caruth and Anderson 1997, Fig. 7) © Suffolk County Council Archaeological Services

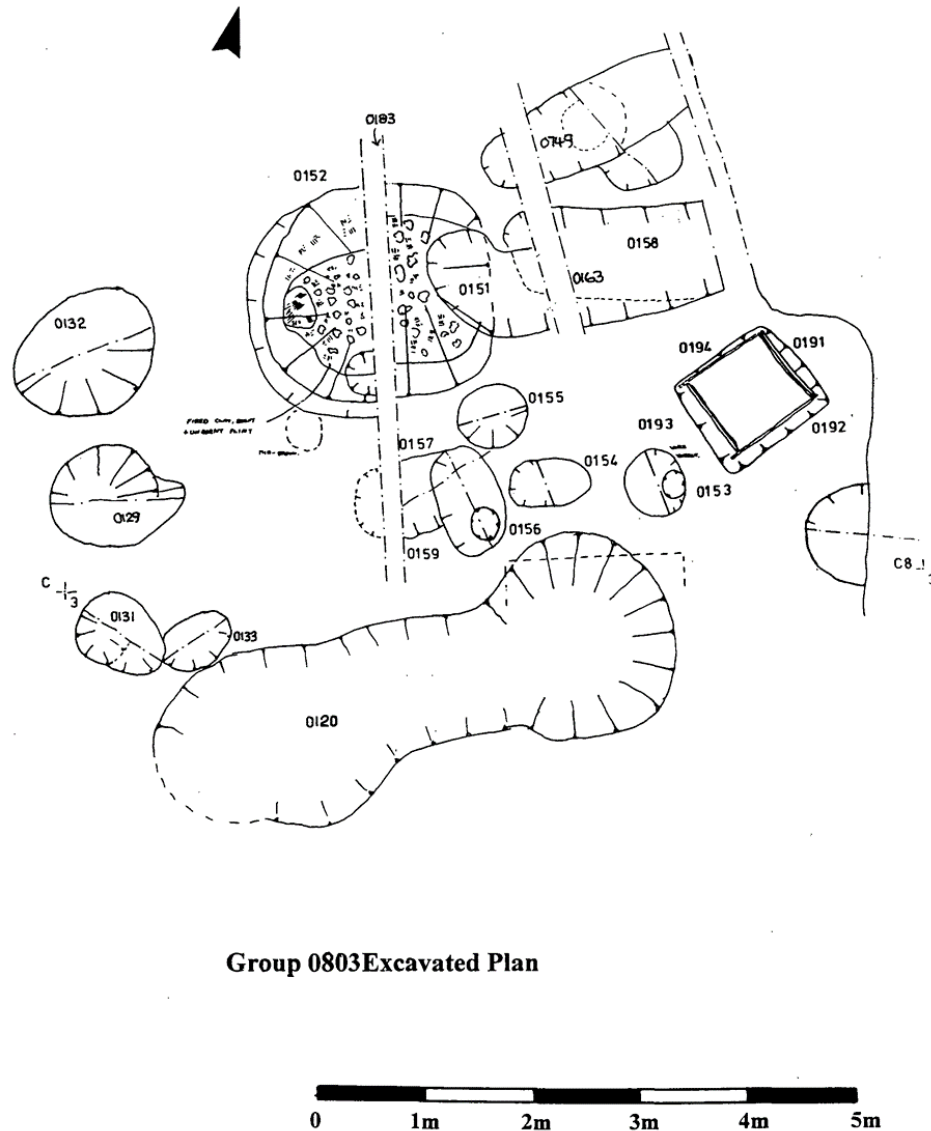


Figure 4. 16: A detail plan of Structure 803, from south of the chapel of St Saviours, Bury St Edmunds. The area measures 7.5m by 5.5m, and possibly represents a small bakehouse given the presence of the oven 0120 and proximity to water (Caruth and Anderson 1997, Fig. 30) © Suffolk County Council Archaeological Services

in the old location, leading to a western room 20m long, and an eastern room measuring 10m (Caruth and Anderson 1997, 30–1).

The new partition wall was more substantial and may have been load bearing and full height, and could have meant the western room was not considered part of the chapel or served a slightly different purpose. Documentary evidence is not specific enough to suggest that the chapel building served more than one function, such as a porch or entranceway into the northern domestic range, and the presence of burials dating from at least the 14th century means the western room continued to have a ritual significance until at least the 15th century (Caruth and Anderson 1997, 30, 107). A series of postholes associated with the

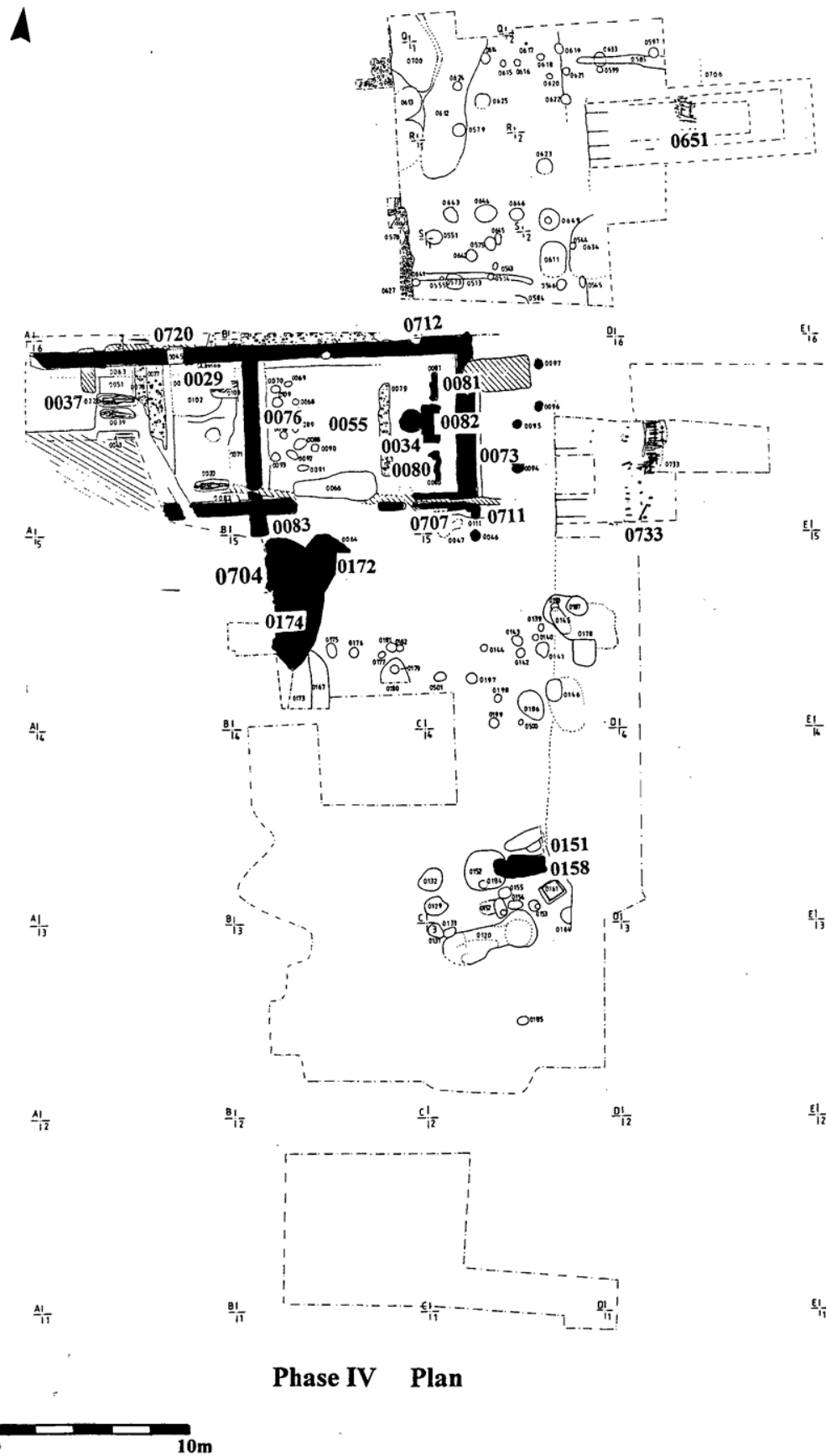


Figure 4. 17: The final phase plan of the Hospital of St Saviours, Bury St Edmunds, showing featured dating to the 14th – 16th century. Most of the construction was focussed around the chapel (Caruth and Anderson 1997, Fig. 8) © Suffolk County Council Archaeological Services

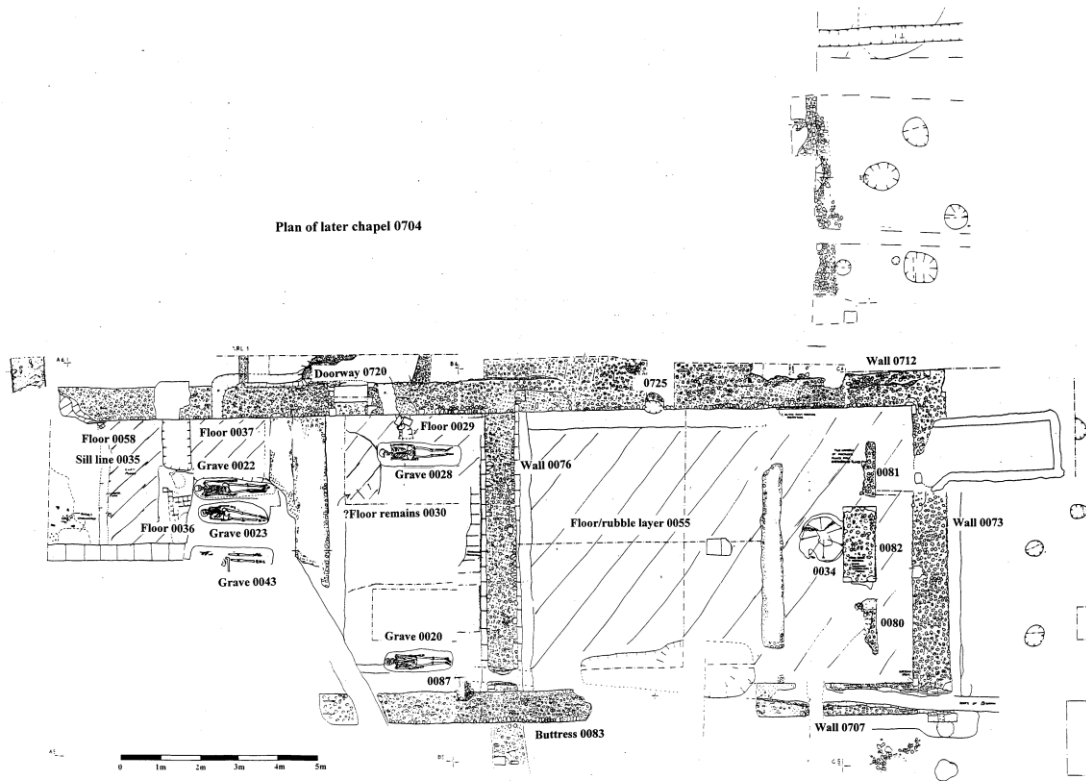


Figure 4. 18: Detailed plan of the final phase chapel at St Saviours, Bury St Edmunds. The east end of the chapel was demolished and the building extended 3m to the east, with a flint and mortar altar base built against the new wall (Caruth and Anderson 1997, Fig. 16) © Suffolk County Council Archaeological Services

second phase of the chapel may either be scaffolding or supporting a screen that sat atop the partition wall 0076 (Caruth and Anderson 1997, 32). The walls themselves do not seem to have been faced, but had bonding mortar spread over them to cover the majority of the exposed flintwork. The presence of white plaster was found on several of the internal walls and seem to have come from two phases of work, possibly for both chapel phases although the evidence was not conclusive (Caruth and Anderson 1997, 29). A few coloured floor tiles of yellow and green-brown suggest a chequered pattern being laid in the 15th century, but the chapel also continued to serve as a place of burial up to the Dissolution (Caruth and Anderson 1997, 19, 32).

An ancillary platform or structure built between the east end of the northern wall of the chapel and the revetment to the pond may have been the base of a tower noted in documentary sources (Caruth and Anderson 1997, 19, 30). To the east of the chapel the fish pond developed, comprising a wattle revetment to replace the previous barrier, whilst further north rubbish and demolition material was dumped along the edge of the pond. This formed part of the base for Building 0702 (Fig. 4.19), a structure dated to the 15th century located north of the chapel on the edge of the pond, comprising a southern wall

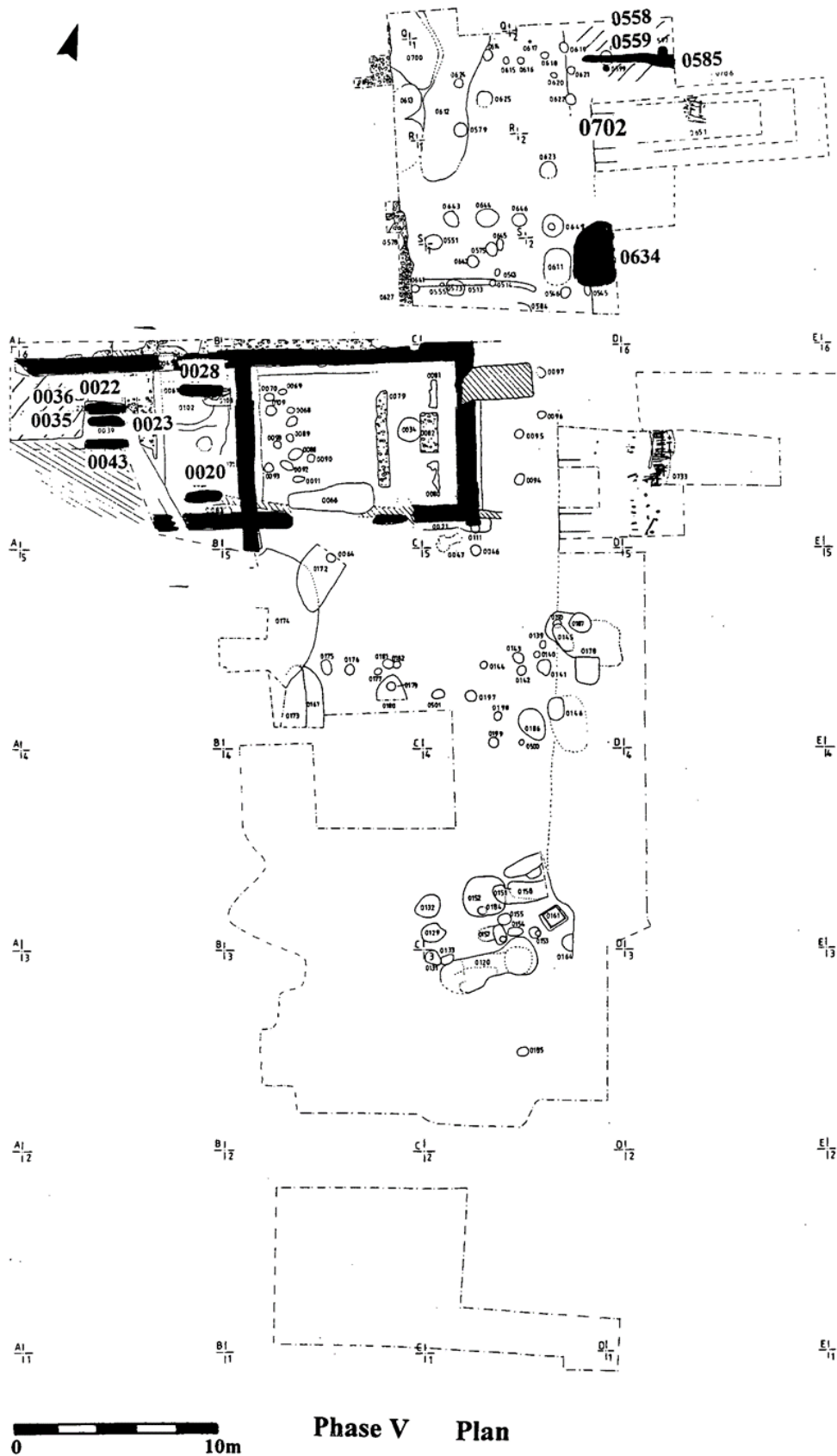


Figure 4. 19: Overview plan of the last features relating to the use of the site as St Saviour's hospital. To the northeast are the features that comprise Building 0702, a possibly covered work area, byre or shed (Caruth and Anderson 1997, Fig. 9) © Suffolk County Council Archaeological Services

footing (0585), a chalk surface and several flint surfaces, as well as two postholes that also seem to be associated (Caruth and Anderson 1997, 38). Another possible wall element may have been located 2m north of the southern wall footing, but several of the floor surfaces appear on both sides of 0585, suggesting either a surface both inside and outside the structure or that 0585 represents a central wall or structure support and the building had open sides (Caruth and Anderson 1997, 39). Its function was not clear but being located on the edge of the pond may suggest it was associated with the water, or may have served as a byre or shed. The site was still undergoing repairs in 1531 but was dissolved alongside the Abbey in 1539 (Caruth and Anderson 1997, 111).

Summary

At St Saviour the site also appears to have been split into two halves, with the southern section of the site having more identifiably ancillary buildings, especially away from the street-front, where higher status buildings may have been located (Fig. 4.20) (Caruth and Anderson 1997, 108). Unfortunately, despite the documentary rolls indicating a large number of other domestic and ancillary buildings associated with the hospital that might be located in this area, such as a dovecote, wood sheds, apple sheds, dairy, animal shelters, and multiple chambers for staff and visitors (Caruth and Anderson 1997, 108), none could be definitively located. It is unclear how densely built up the area was, especially if more of the ancillary structures were constructed like the bakehouse/brewhouse, with wooden sill beams that have left no physical evidence other than their activities (Caruth and Anderson 1997, 108). The northern section seems to have held more of the domestic arrangements, although the probable location of the main domestic range lies under modern buildings. Other elements of the precinct included a vineyard, several smaller gardens and a kitchen garden, as well as a Great Garden where animals pastured (Caruth and Anderson 1997, 109), and this may explain the presence of the possible byre in the northeast of the site where the courtyard lead onto a garden or rough area (Caruth and Anderson 1997, 108).

The pond was maintained and managed to some extent but a lot of rubbish was dumped into it. Interestingly, the dumped levels close to the chapel were spread thinner to cover them in water, whilst further north they were more concentrated and used to site an ancillary building. One of the buildings in the complex, most likely the chapel, had a lead roof, and coloured roof tiles suggest elements of colour to the more formal buildings compared with the thatch the documentary evidence indicates was normal for the other

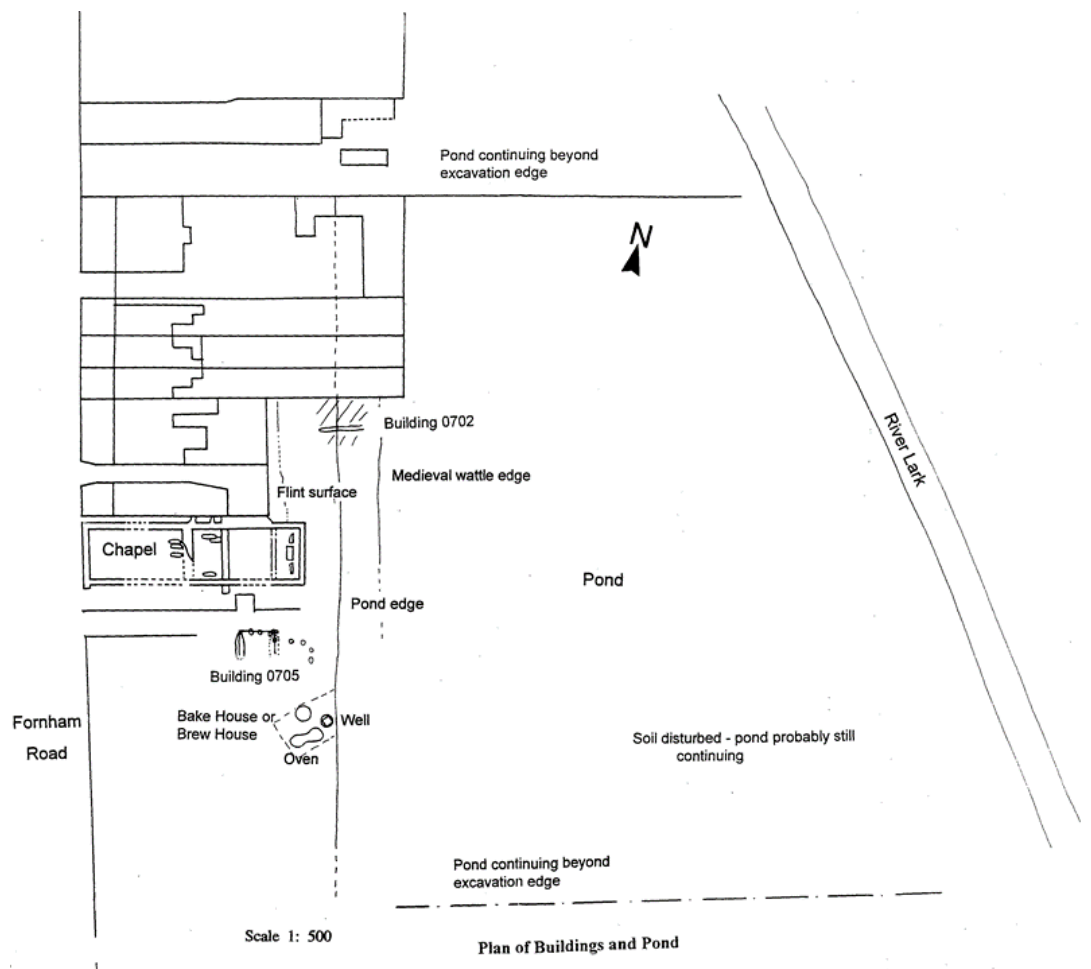


Figure 4. 20: An overview plan of structures and features associated with the hospital of St Saviours, Bury St Edmunds. Ancillary buildings appear to be located to the north and south of the chapel, along the edge of the pond, with more buildings probably facing onto Fornham Road (Caruth and Anderson 1997, Fig. 11) © Suffolk County Council Archaeological Services

structures, and the chapel and the domestic range also seem to have been constructed of flint with a mortar coating, whilst the lower-status buildings either went uncoated or were constructed of wood (Caruth and Anderson 1997, 108–9). These touches would have highlighting the chapel and elements of the domestic range as being of greater importance to the site, and reinforced the ordering of the site. Floors seem to have been of packed clay or rammed chalk, although some tile flooring was recovered from the later phase of the chapel.

Unlike St Giles, Brompton Bridge, St Saviour does not seem to have gone through as many phases of rebuilding and remodelling its main buildings, although there were certainly changes made. Given the narrow nature of the site the chapel sat more centrally, with the main domestic range to the north of the chapel, along the road and some of the ancillary structures to the south. The presence of Building 0705 to the south in the early period of the hospital raises the possibility of a more even layout of buildings to the south of the

chapel along the road, although there is no suggestion of this, unlike the northern domestic range. This may have been how the two sexes were separated, with individual domestic ranges north and south, but it would be expected that the area to the south of the chapel would have seen more evidence of a courtyard or yard surface if this were the case. By the 14th century almost all the evidence for construction and activity seems to be to the north, reinforcing the importance of this area for structuring the lives of the inmates and staff. It is still unclear how the chapel functioned, either as two separate rooms, or whether they were linked somehow, possibly via the upper storey of the chapel and domestic range, but the presence of continuing burial in the western room would indicate that the room was considered part of the chapel for the full life of the hospital. Whilst lacking in many important details, such as the location of the kitchen, information on where the staff resided, and where some of the other ancillary lands were located, this site does suggest that even when the opportunity to build south of the chapel was available the northern area was still preferred.

The Hospital of St Mary Magdalen, Colchester

The Hospital of St Mary Magdalen, Colchester was apparently founded at the request of Henry I by Eudo Dapifer, placing the foundation date somewhere between the king's accession in 1100 and Eudo's death in 1120 (Cooper 2004, 91). This was at the peak of hospital foundation in the medieval period, and St Mary Magdalen, Colchester, was one of several where Henry I and his two queens, Maud and Adeliza, played active parts in their foundation. Two of these other hospitals supported by Henry I were also dedicated to Mary Magdalen, one at Chichester and the other at Newcastle. The inmates were under the rule of a prior or master, also occasionally referred to as the chaplain, who was a priest appointed by St John's to conduct the services for the inmates in the hospital chapel (Cooper 2004, 91). This chapel also served as a parish church for the local community by 1237, and in 1254 the master of the hospital was also the rector of the church. The site was also affected by changes to its community, such as the admittance of women, with sisters being recorded on site in 1323, 1327, and 1394, although it is unclear whether they were sick or leprous inmates, or were employed to care for the inmates (Cooper 2004, 92). The hospital was set back from the road which led to the town's port at Hythe to the south east, a half-mile outside of the south gate of Colchester, and was originally outside the built-up area of the town, but by the late 12th century it seems that the hospital garden at

least had houses around it (Cooper 2004, 92–3; Crossan 2004, 95). The site was a conspicuous location and viewable by travellers on the Hythe Road as well as from the walls of the town. South of the hospital the land was open ground until the 19th century and appears to have been referred to as Magdalen Green.

The Foundation Buildings: 12th Century

The earliest building, Building 183a/183b, comprised two sets of heavily disturbed foundations, that seemed to form a section of the ground plan of an east-west aligned building, c. 6m wide and at least 15m long, 80m off the main road to Hythe Quay (Fig. 4.21) (Crossan 2004, 98). A poorly-preserved foundation for a cross wall was located 3.5m from the western end of the building, and inside the west room were traces of a silty clay floor with two large post-pits against the western wall (Crossan 2004, 98). Fragments of painted plaster from later foundation cuts probably came from this phase, and although too small to suggest much from the decoration they do indicate that the interior walls were coloured with at least yellow and both medium and dark red. Two further small foundations were added to the north-west and south-west corners of the building, the best-preserved being the northern one which was almost square at 1.5m by 1.6m (Crossan 2004, 98). The

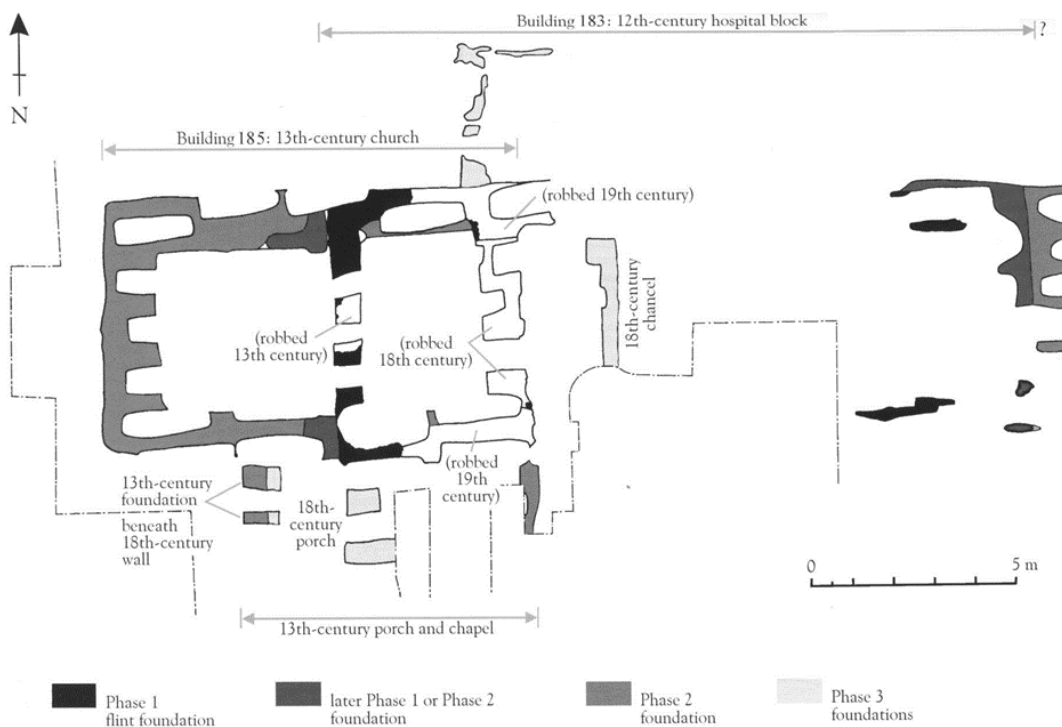


Figure 4. 21: The building sequence of Buildings 183 and 185, St Mary Magdalen, Colchester. Note how it is the western half that sees the more reuse (Crossan 2004, 99, Fig. 5). Reproduced with permission of the Colchester Archaeological Trust © Colchester Archaeological Trust and the Essex Society for Archaeology and History

phasing was uncertain, meaning they were either external decorative plinths or buttresses added to the west end during the initial foundation period or were associated with the conversion work carried out to the building slightly later (Crossan 2004, 98). That the cut for these elements was to the same depth as the foundations of the adjacent first phase flint foundations may suggest they were part of this initial phase. Building 183 appears to have been the hospital's main block, and if typical of other similarly sized buildings, consisted of the main dormitory with the chapel at the eastern end (Crossan 2004, 98). Building 184, a timber outbuilding interpreted as a possible barn, was constructed c. 25m to the north of Building 183, comprising a series of post-holes and pits, as well as a series of outlying features that may also be related (Crossan 2004, 98). West of this building were a series of waste pits containing domestic refuse and food waste, and exploratory excavations to the north also located waste pits that are associated with the site.

A Slowly Evolving Site: Mid-13th to 16th Century

The second phase of the hospital spanned several centuries, from the mid-13th century until 1610 when the site was formally refounded as an almshouse. The western end of Building 183 was extended by 5.5m to the west, with substantial foundations laid to support the walls, whilst at the same time the original north and south wall foundations for Building 183 were also enlarged on their interior side (Crossan 2004, 98, 103). The eastern wall of this new building, Building 185, was located c. 5m to the east of the old west wall, and although these foundations were heavily robbed in the post-medieval period it was either built to the same width as the new foundations, or if an original wall, had also been enlarged to the same width (see Fig. 4.21). The nature of these new foundations suggest that the entire western standing remains of Building 183 were demolished, rather than this work being just an addition that included some extra thickness bonded onto the walls, and this most likely marks the point when the building was converted into a free-standing church, rather than a mixed chapel and dormitory (Crossan 2004, 103). Building 185 only had a floor area of 38m², although it did have two short sections of small but badly disturbed foundations projecting from the south wall (Crossan 2004, 110). One was located on the southeast corner of the building, the other 3m to the east of the southwest corner, running south for at least 1.8m, and although investigation was hampered these remains seem to represent the church porch and also possibly the hospital chapel after the removal of Building 183b, although the situation was not clear as to whether Building 183b was

retained as the chapel, the porch served as the chapel, or even possibly Building 186 contained a chapel (Crossan 2004, 114–6).

Several later 18th-century illustrations suggest the presence of a substantial building with a porch entrance to the south of the church, and given it is unlikely to have been repeated artistic license, it may corroborate the presence of the second hospital chapel being attached to the southern wall of the church (Crossan 2004, 116). The earliest floor for the church was a silty clay, and there was no obvious distinction between the nave and chancel, apart from the suggestion of a chancel arch based on the recovery of a piece of roll mould limestone from a post-demolition grave fill. By the late 14th century a soakaway had also been cut through the nave, over which had been constructed a font. The floors had experienced considerable damage, but they seem to have included the use of relief-decorated tiles (Crossan 2004, 110). All were located in secondary contexts. Four burials were located in the church, and another three were recovered from the porch area (Crossan 2004, 110–1). The eastern section of Building 183 seems to have remained in use for some period of time, with the original foundations added to or partly replaced, probably due to their poor nature. It is uncertain when Building 183b was amended, but it seems to have occurred after burial started in the area, meaning that the few sections of foundation visible were heavily disturbed (Crossan 2004, 103). Another foundation, this one rubble-filled, was laid along the eastern side of this wall, but again had been heavily disturbed by later grave cuts. It is uncertain what function Building 183b served, since the hospital accommodation appears to have moved north, but it either served as the hospital master's residence since he was also acting as the parish rector, or that this building served as a separate hospital chapel (Crossan 2004, 103, 114).

With the changes to Building 183 can the associated loss of accommodation space, which appears to have been moved north to the newly constructed Building 186, a substantial structure covering an area of c.145m² (Fig. 4.22) (Crossan 2004, 103). Preservation was poor, with the best surviving section of wall being the north-west corner, but a 1610 map by Speed suggests a building with a west doorway, although caution should be taken with this interpretation given the lack of care for architectural details seen elsewhere in the map (Crossan 2004, 103). Little of the floor remained, other than part of a clay surface at the southern end, and further clay layers, walls, and hearths located within the building appear to date to after 1610, but potentially may have earlier origins. A piece of mid- to late-13th-century cusped window tracery from demolition deposits to the east of the building may be associated with either Building 186 or 187 (Crossan 2004, 103). Three stone-packed post-

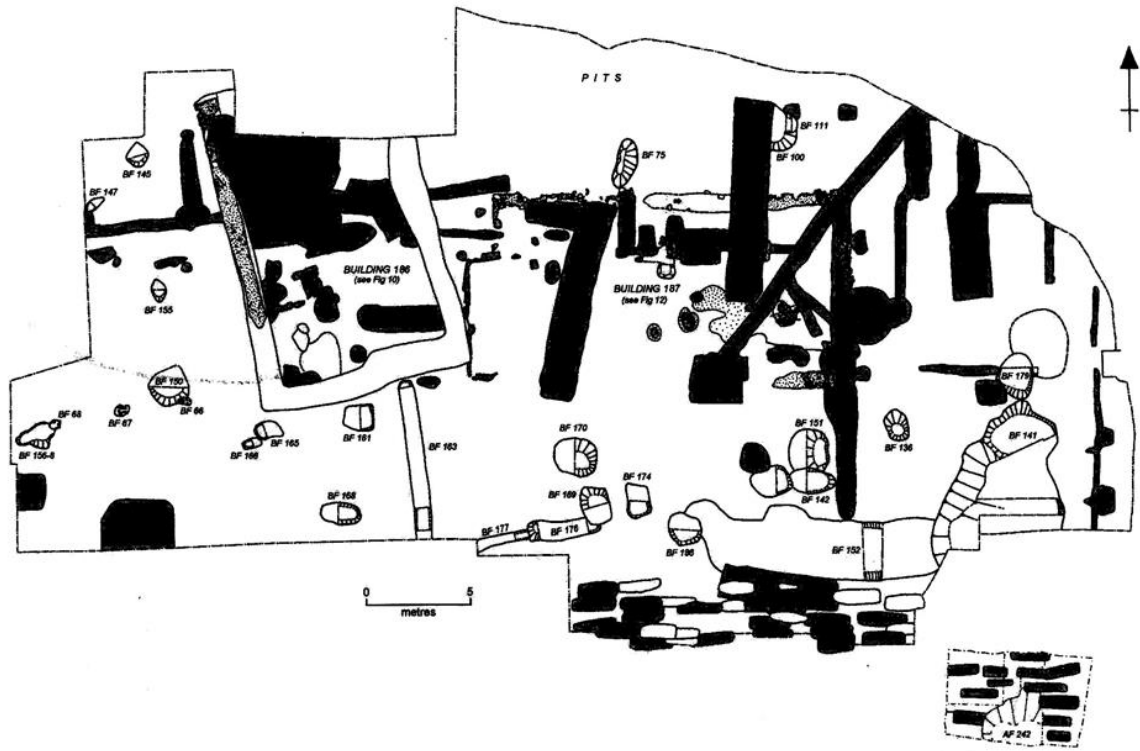


Figure 4. 22: A plan of features associated with Building 186 at the top left of the plan, located north of the chapel of St Mary Magdalen, Colchester (Building 183/185). Also visible are a number of postholes and ditches that seem to make up boundary markers (Crossan 2004, 106, Fig. 11). Reproduced with permission of the Colchester Archaeological Trust © Colchester Archaeological Trust and the Essex Society for Archaeology and History

pits, around 3-4m apart extended west from the south-west corner of Building 186, which alongside other pits and post-holes defined land boundaries for the area. A series of ditches, one running south from mid-way along the south wall of Building 186 (feature BF 163), and two others running what would have been perpendicular to this (BF 176 and 177), probably served as additional boundaries between the hospital grounds and the churchyard to the south, as well as discouraging cross traffic from Simons Lane to the grounds to the east (Crossan 2004, 103).

Building 187 was constructed shortly after the removal of Building 184, although the origins of this are unclear since only fragmentary wall foundations were preserved for the earliest exterior walls (Crossan 2004, 103). These enclosed a floor area of 140m² for a building that is suggested to date to the late 13th to early 14th century (Crossan 2004, 103, 107). Internally there were two large Kentish ragstone foundations in the north-east of the building, with eroded clay floors to the east and south. The best-preserved of these also contained a hearth made from peg-tile set on edge (BF49), whilst to the west was a shallow depression with lots of indications of burning, and a charcoal rich fill that also included flecks of slate that may have been a fragmented lining or cap (Crossan 2004, 107). Just to

the southwest were two fire pits that appear to have been used for lead melting, the larger of which (BF78) had a primary clay lining, relined with sandy clay that was also burnt and then filled with ash, burnt sand, charcoal, and droplets of lead. The smaller one (BF 81) was shallower with a thinner burnt clay lining and relining with the same ash, burnt sand, and lead fill. No floors survived at all in the western half of the building, and whatever the designed purpose at the beginning of the phase, it is unlikely to have been entirely for accommodation, with the eastern half housing a workshop for a period of time (Crossan 2004, 107). The other possibility is that these hearths represent a short period of refurbishment to the site, and that the entire hall could still have been used for accommodation. The mortar used on the site seems to have come from a lime pit and two sand-pits, all on the eastern side of the site (Crossan 2004, 107). There were several other pits to the south of Building 187 that contained domestic waste, but the main area for waste disposal was to the north of Building 187, where a series of intercutting pits were uncovered, with dumping continuing into the post-medieval period (Crossan 2004, 107, 109). The Reformation left the position of institutions such as St Mary Magdalen, Colchester, uncertain, but due to the parochial role the site played it was not dissolved alongside the monasteries, despite it being a hospital and thus considered a religious house (Cooper 2004, 93).

Summary

This initial structure, Building 183, seems to have represented a typical initial hospital foundation, with an entrance into a dormitory area and a chancel at the east end (Crossan 2004, 116). The addition of parochial activities was what probably led to a separation of buildings, but there is the suggestion that these parochial roles for the nearby area started at the hospital's foundation. The presence of the lepers' dormitory between the usual entrances and the chapel may have prompted the insertion of the western partition wall to create a small parochial chapel appended to the western end of a more traditional infirmary hall layout, rather than disturb the dormitory area of the hospital (Crossan 2004, 116). This may also explain why the later parish church did not reuse the old foundations, but shifted the whole structure to the west so they could maintain the parochial chancel rather than the leprosy hospital chancel (Crossan 2004, 116). Such an interpretation is highly speculative but given the nature of the restructuring of this building it seems that some form of symbolic choices were being made about what elements were important enough to reuse and which should be demolished. The presence of the two large halls to

the north from around the 13th or 14th centuries onwards is also unclear, especially as the inmate population does not appear to have been extensive, at some points amounting to only five lepers. One reason may have been the need or wish to segregate the different types of inmate on site, leprous and non-leprous, but also male and female (Crossan 2004, 116–7). Although it is not known if non-lepers were admitted to St Mary Magdalen, Colchester, it was an increasingly common occurrence across the country throughout the medieval period. It is clearer that the site did accept females after initially being male-only, although this changed again after 1423 when it was restricted to males only again, but the addition of a second hall would have provided the facilities to adequately keep the community segregated. Although very little of the internal features were recovered, these halls possibly comprised of an open communal space and a chamber block at one end for guests and staff, or else a hall that was subdivided up into private rooms (Cooper 2004, 93). It is also not clear how large the population or how much it fluctuated, but it may have been larger than realised, necessitating another large hall (Crossan 2004, 117). A fluctuating inmate population may also have led to the occasional use of Building 187 as a workshop at certain points in its life, although it is more probable that the lead-melting hearths are associated with repairs or modifications that have not been observable due to later disturbance. The prior or master appears to have had his own separate dwelling, and the site was also supplied with a barn and a brewhouse, although it is not clear where these were after the initial foundation.

As noted by Crossan (2004, 117) “St Mary Magdalen’s in many respects conforms to current perceptions of a small medieval leper hospital. In terms of its extra-mural location, original infirmary hall and gradual conversion to care of the long-term infirm and poor, it has many parallels”. Less usual was the way in which the parochial church took over the initial site of the hospital, shifting the hospital’s focus to the north apart from maintaining the location of the hospital chapel to the south (Fig. 4.23). It did occur on other hospital sites, such as St Thomas of Canterbury, Ramsey, but more commonly sites opened or shared their chapel with the wider community. Another case at a leprosy hospital was that of St Leonard’s, Northampton, where in 1281 it had been noted that the local people had used the chapel for a long time (Crossan 2004, 118). This highlights the way in which the leprosy hospital may not have been as excluded as previously contended. The later dispersed nature of the hospital buildings is also slightly reminiscent of St Giles, Brompton Bridge, where the hospital chapel was associated with those from outside the community, whilst the inmates were in their own area, separated by gullies, ditches, and trackways.

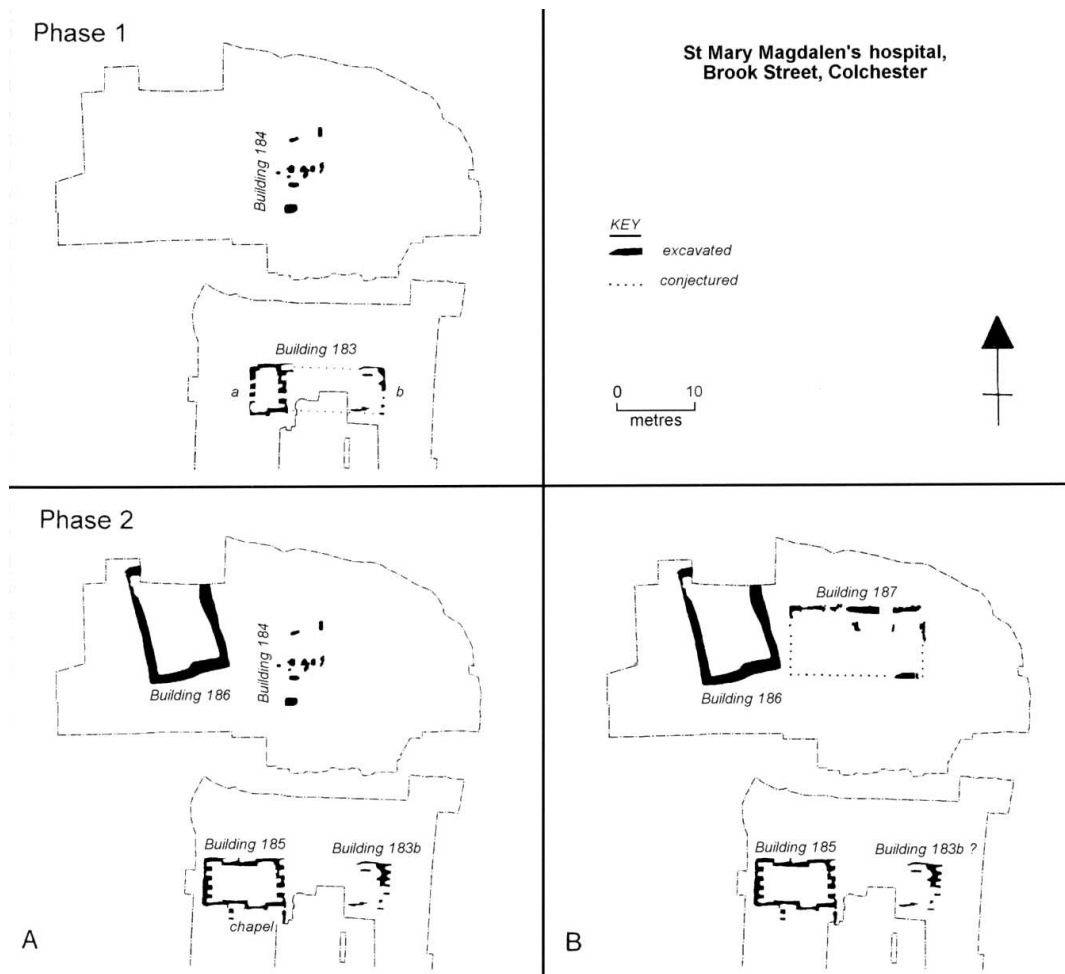


Figure 4. 23: The phase plan of the Hospital of St Mary Magdalen, Colchester. The focus of the hospital shifts north in phase 2 (mid-13th to 16th century), although the chapel is maintained in the south (Crossan 2004, 97, Fig. 4). Reproduced with permission of the Colchester Archaeological Trust © Colchester Archaeological Trust and the Essex Society for Archaeology and History

The Hospital of St John the Baptist, Oxford

St John the Baptist's Hospital, Oxford, was located outside the East Gate, initially established as a hospice for travellers, but was refounded in 1231 as a hospital for the sick and poor and moved to its current location, where Magdalen College now stands (Bond 1993, 63–4). The large scale of the quadrangle around which the site was organised appears to have been intentional from the refoundation in the 13th century, with the eastern range joined onto the southern range and construction moving from the south to the north (Fig 4.24) (Durham 1991, 62). The new quadrangle would have provided adequate space for the initial community, comprising three chaplains, six lay brothers, six lay sisters, up to 10 infirm inmates and up to eight corrodians, and it is probable the large size of Oxford and the greater potential number of pilgrims travelling the Canterbury road proved the deciding factor for the greater capacity (Durham 1991, 62–3). Construction of

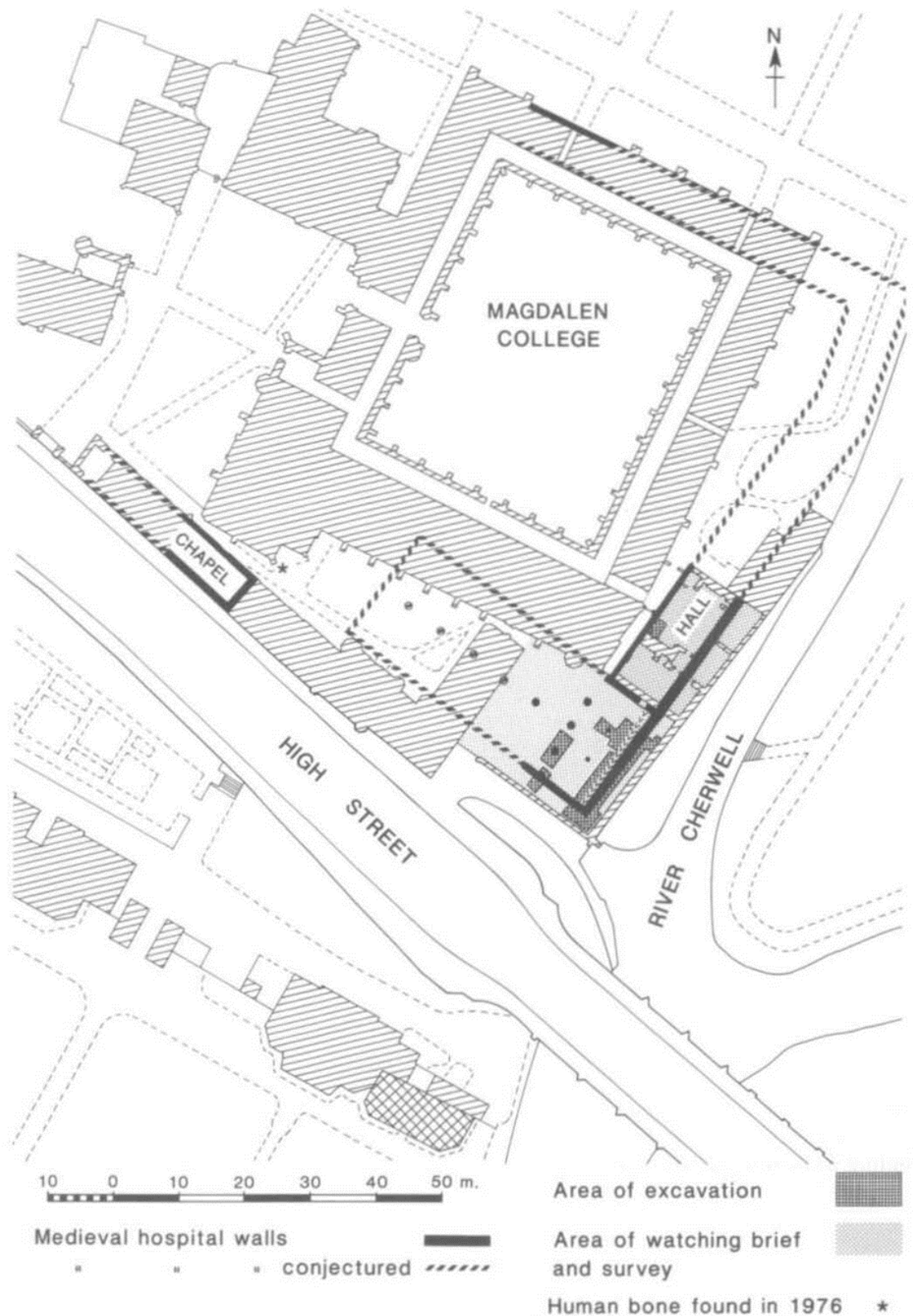


Figure 4. 24: The medieval core of St John the Baptist, Oxford (what would become Magdalene College), showing the location of trenches within the Survey Area, and the known and conjectured plan of the hospital. The hall running along High Street and stopping at the River Cherwell was the infirmary hall with a possible chapel and pools at the east end, with the kitchen and staff accommodation running to the north (Durham 1991, 27, Fig. 4). Reproduced with permission of the Oxfordshire Architectural and Historical Society and *Oxoniensia*

this new site was very soon after the refoundation in 1231, with a twin-hall infirmary forming the main element of the southern range. The twin-hall, with a single arcade, allowed the hall to be split in half, a useful means of dividing the sexes, and also a cheaper construction technique (Durham 1991, 65). The orientation of the infirmary hall located it along the length of the road and close to the ford (Durham 1991, 65). The change in the arrangements of pier bases in the easternmost two bays, which opened the chapel to both aisles without any impediments, may indicate the wish to create a unified chapel with a central eastern window that was not split by the central piers, combining the utility of the twin-hall with the benefits of a unified chapel at the east. It is unclear how far west the infirmary hall ran, but with another chapel on the street to the west, it stopped just short, providing space for a small cemetery (Durham 1991, 66).

The eastern wall widened to the north, indicating that it was constructed partially into the water, and also served as the support for the culvert arches and stairs that ran through this area, indicating that the culvert was an essential element of the initial construction, tied to the series of pier bases to support the walls, and were not a later extension (Durham 1991, 64). In 1246 the brethren of the hospital were permitted by the king to build an aqueduct from the 'Crowell' spring at the north-east corner of the town ditch, in the area of the initial hospital, which seems to have been used to supply the ashlar-lined culvert that then issued into the river (Bond 1993, 64). At some point in its life, the infirmary hall seems to have been split into roughly 3m (10ft) cubicles, and the floors both inside and outside these cubicles were grey with charcoal and ash from fires and braziers. However, the floors of the eastern two bays had not been stained by burning and ash, suggesting that they always served a different purpose to the rest of the hall (Durham 1991, 72). Running to the north from the eastern end of the northern wall of the infirmary hall was an open hall, constructed from very different materials, but with elements dating to between 1230 and 1250 (Durham 1991, 71). The hall survives as a standing structure, and although none of the floor levels were encountered during excavation, the small communicating door to the infirmary and the ornate doorway into the central courtyard suggests this may have been the residence of the wardens or the king's almoner (Durham 1991, 71–2). This would leave relatively little space between the courtyard door and the infirmary door for the kitchen and buttery if they were located to serve both ranges, but equally these elements may have been located to the west of the infirmary hall or in the northern range.

The culvert at the eastern end of the infirmary had steps down into it and was constructed with ashlar stonework, taken to suggest that clean water entered the infirmary at this

point, even if it was not clean when it left (Fig 4.25) (Bond 1993, 64; Durham 1991, 66). The construction would have kept the river water away from the culverted spring water, but its presence in the eastern section of the hospital raises questions as to whether this area could then function as a chapel. The potential that this culvert was for providing an area of ritual bathing or baptism seems most probable given the lack of clear separation from the infirmary area or the separation of the culvert into male and female sides, and the use of ritual washing and baptism for healing would be especially pertinent given the dedication to St John the Baptist (Bond 1993, 64; Durham 1991, 69). Hospital infirmaries were often located near water or with a connection to a spring or river, but excavation does not often elucidate how a hospital used and organised this necessary resource, other than to assume it was utilised for domestic and latrine purposes (Durham 1991, 69).

Ultimately, it is still unclear what purpose the culvert served, but a series of straight-joints in the west wall suggest that there may be a modular treatment to the culvert, broken into different sections for different purposes (Durham 1991, 70). Without more extensive excavation to the west of the culvert to better understand whether there was a chapel in this area the true function of the east end of the hall will remain conjectural, be it chapel, domestic cleaning, ritual baths, or a mix of several elements. At some point in the life of the hospital the culvert was abandoned and intentionally blocked off, possibly due to changes in the water supply when it began to share it with Merton College and may have utilised the ditch that ran to the south (Durham 1991, 73). This action was not after any noticeable neglect, however, as the culvert remained in good order and clean until its infilling. The hospital infirmary hall seems to have been demolished before 1474 when elements of the new college were being constructed in the area (Durham 1991, 73).

The planned nature of the hospital courtyard made maximum use of an awkward site, and suggested that regularity in the plan was important (Durham 1991, 74). Only the southeast corner of the complex was examined, but it indicated two phases of planned construction, very close in terms of years but with two different styles, forming an infirmary hall with a possible chapel and baths at the east end, and an open hall forming the start of an eastern range running north. Elements of the construction were relatively extravagant, and possibly represent the nature of these sites as forms of social display and Christian piety, and this would not detract from the function and role of the site (Durham 1991, 74–5). This also suggests that although the quadrangular design may reflect later almshouse architectural fashions, it was present from the 13th century in more traditional hospital settings. It also suggests that the quadrangle style was also well suited to the manner in which medieval

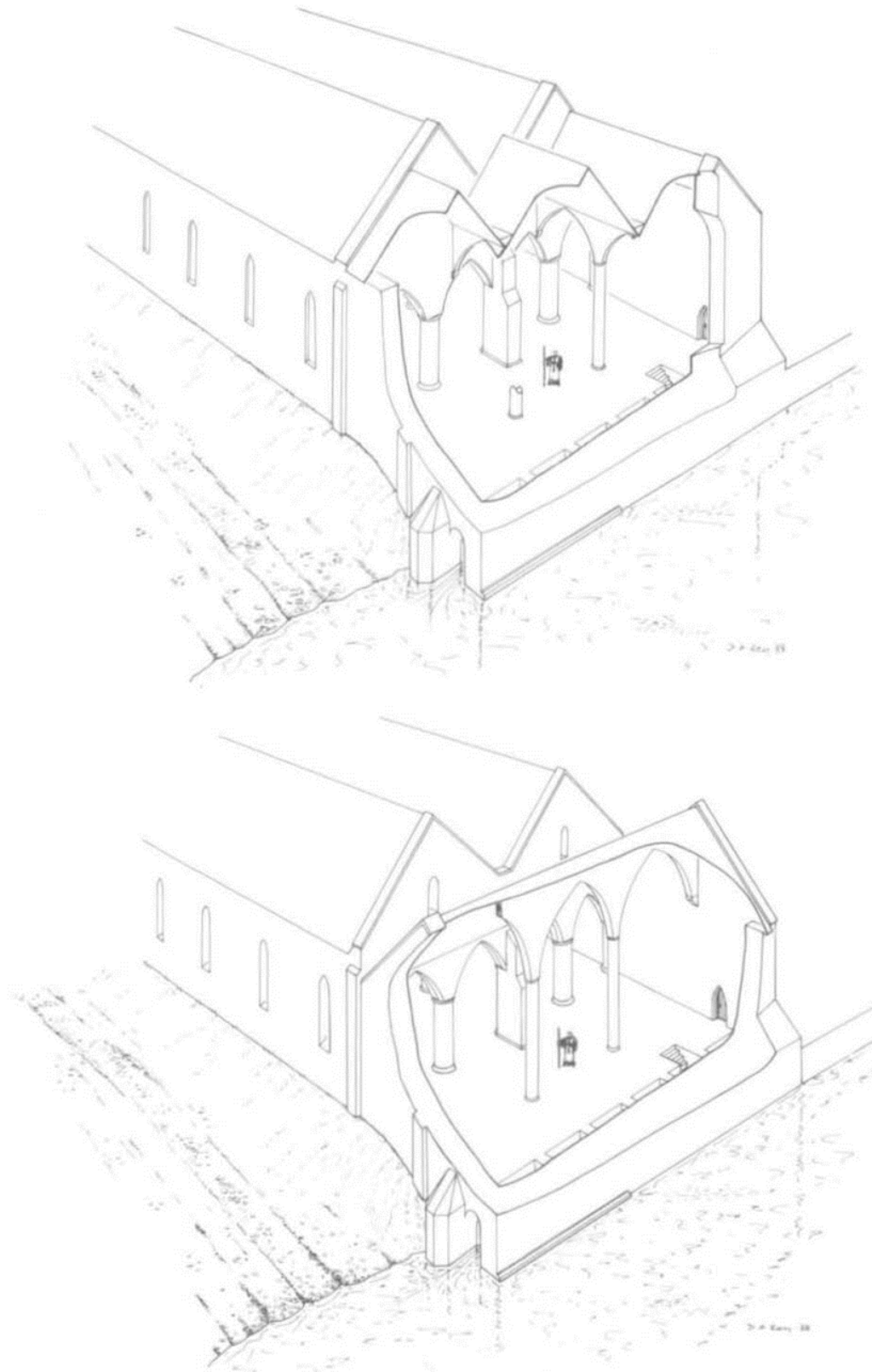


Figure 4. 25: Two alternative roof reconstructions of the infirmery east annexe at St John the Baptist, Oxford: above, the 'aisled' option; below, the cross-roof option (Durham 1991, 68, Fig. 18). Reproduced with permission of the Oxfordshire Architectural and Historical Society and *Oxoniensia*

hospitals appear to have been organised, with some similarity on those aspects that focus on structuring the essential elements of life. As will be discussed below, many of the later quadrangular almshouses that are often titled “secular almshouse” also mirror this organisational schema seen in many other hospital sites.

The Hospital of St Mary Magdalen, Partney

St Mary Magdalene Hospital, Partney, was established at some point before 1115, when the site was granted to Bardney Abbey, but after the death of Gilbert I of Gant, who re-established Bardney as a dependent priory of Charroux in France (Coppack 2010, 209–10). The site ceased functioning as a hospital in the early 14th century, and was recorded in 1318 as being a cell of Bardney (Coppack 2010, 212). Only the eastern elements of the hospital were within the excavated area, and there were more geophysical anomalies to the north and northwest, several of which were potentially part of further monastic buildings (Fig 4.26) (Atkins and Popescu 2010, 214). Parts of the northern and southern boundary ditch were located, whilst geophysics showed what appears to be the western boundary 50m outside the excavation area. The east was bounded by what was later known as Monks Lane, leading onto the Lincoln-Skegness road to the south (Atkins and Popescu 2010, 204, 214). Quarry pits were found to the east, some of which were cut by burials, and they seem to have been associated with the building of the chapel (Fig 4.27). This chapel was a single-storey single-room stone building measuring 12.6m long by 6.6m wide (Atkins and Popescu 2010, 214). Such small chapels were found scattered across the country, single celled with a screen to divide the antechapel from the presbytery, but there is relatively little extant information for the construction and division of the chapel in the hospital phase of the site due to the levels of truncation and robbing that had removed most of the walls and all the floors (Atkins and Popescu 2010, 253). At the western end of the chapel were two sub-rectangular and shallow pits, possibly forming a structure since one contained nine nails, to the north of which was a grave (Atkins and Popescu 2010, 217). A path leading to the east between the chapel and road is suggested by a 2m gap in the eastern cemetery, but it is not clear where the door into the chapel was located, although it was most likely in the northern or western walls.

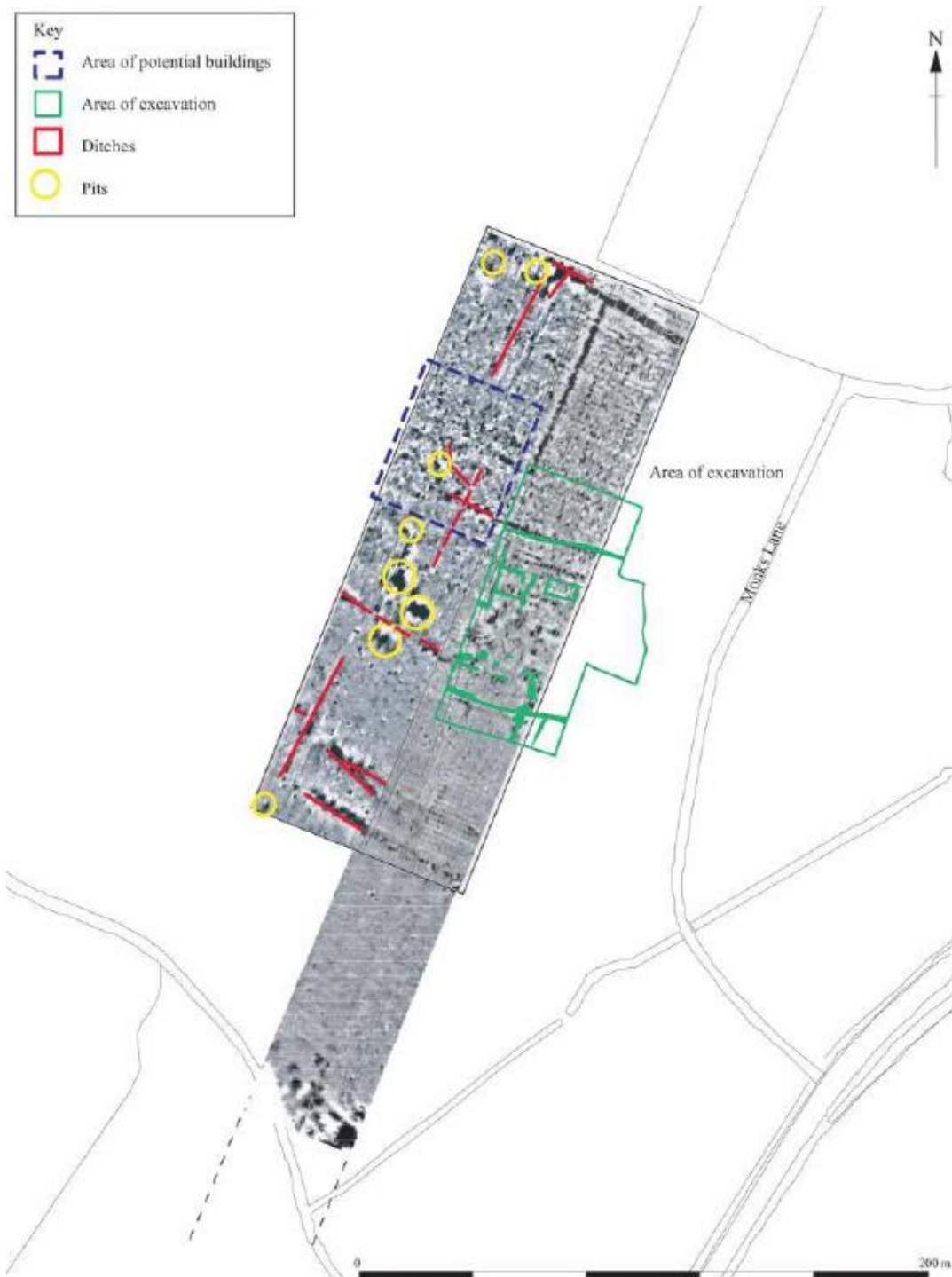


Figure 4. 26: Magnetometry survey of St Mary Magdalen, Partney, in relation to the excavated area (marked in green). The area set out by blue dashed lines may contain further structures associated with the hospital (Atkins and Popescu 2010, 215, Fig. 4). Reproduced with permission of Taylor and Francis and the Society for Medieval Archaeology <https://www.tandfonline.com/loi/ymed20>

More than 20m south of the chapel was Structure 1, an east-west aligned timber building consisting of sub-rectangular and sub-circular posts that formed a building c. 9m long and 6m wide, possibly for ancillary duties or serving as the home farm (Atkins and Popescu 2010, 223). The hospital grounds appear to have been kept quite open, with only a few pits that focus in the south disturbing the area. The most important of these was a possible

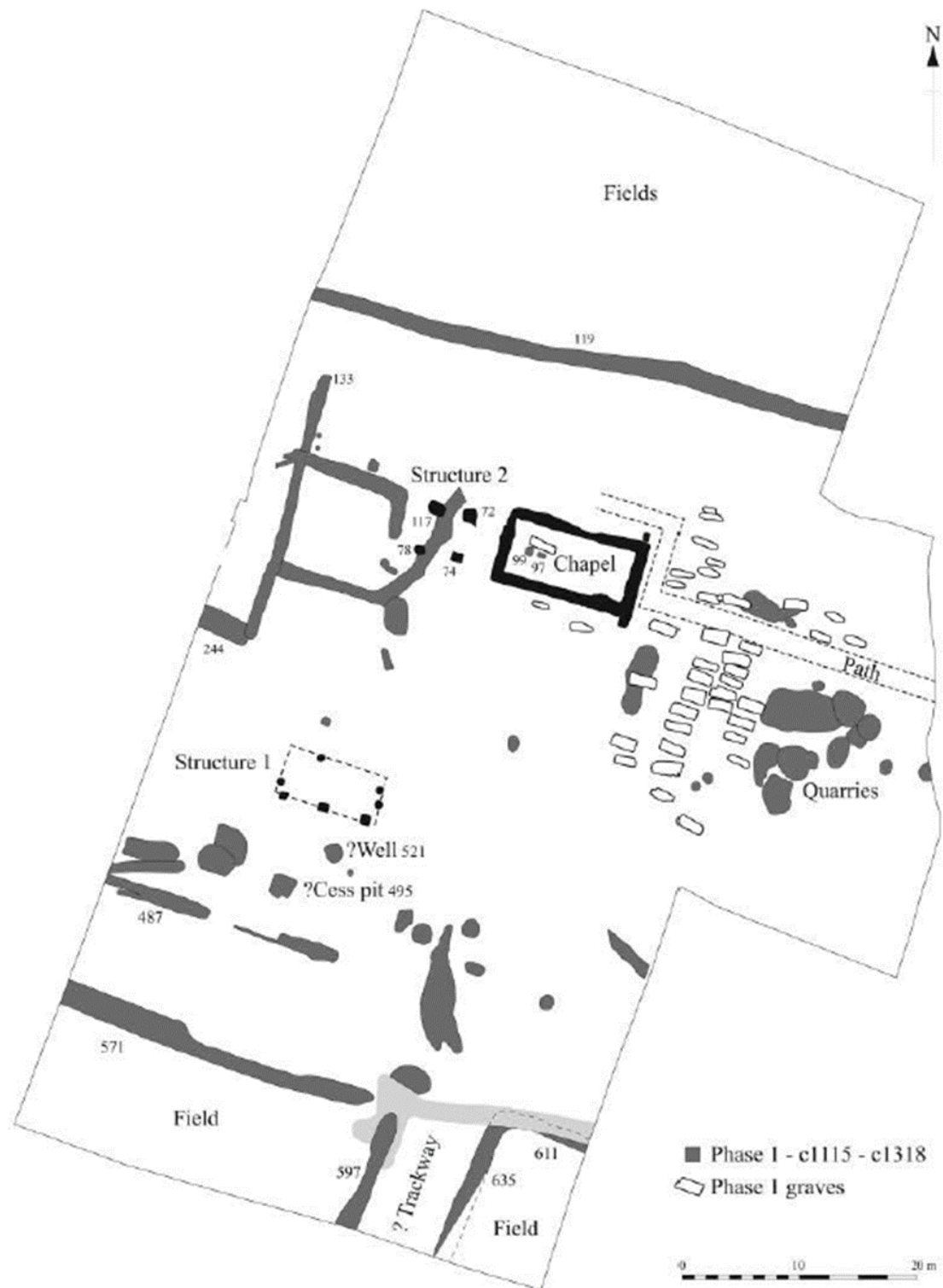


Figure 4. 27: Plan of the hospital phase (Phase 1, before c 1115 to c 1318) at St Mary Magdalen, Partney. Structure 1 to the south of the chapel may be a home farm for the site, associated with the fields to the south (Atkins and Popescu 2010, 216, Fig. 5). Reproduced with permission of Taylor and Francis and the Society for Medieval Archaeology <https://www.tandfonline.com/loi/ymed20>

well, Feature 521, that had been infilled sometime between the late 13th and 15th centuries. Feature 495, a sub-rectangular stone lined feature dating to the mid-12th to mid-13th century may have been a cess pit but the lack of primary fills suggest it was kept

clean (Atkins and Popescu 2010, 223). Two small enclosures were located to the west of the chapel, possibly for herb or vegetable gardens or acting as a paddock (Atkins and Popescu 2010, 223). The westernmost enclosure had an entrance from the north that led to the area of the geophysical anomalies that may have been other buildings in the precinct, whilst the smaller enclosure to the east had a possible entrance to the north-east. A 6m wide trackway leading south gave access to the fields, and it is highly probable that there were further fields to the north, beyond the extent of the hospital precinct. Post-dating the eastern small enclosure was Structure 2, four regular sub-square pits that may have been large postholes enclosing an area of 3.5m that dated to the mid- to late-12th century and may represent the remains of a small detached bell tower (Atkins and Popescu 2010, 223). The presence of a timber bell tower, even such a small one in comparison to others, such as the 12th-century example at Abingdon Abbey, Oxfordshire, would have a visible and audible indicator of the location of the site, and perhaps aided travellers in finding the site at night (Atkins and Popescu 2010, 254).

St Mary Magdalen, Partney, was evidently a hospital for poor travellers from the coast and for the mildly sick who would expect a quick recovery and continue on their way, similar to the hospital outside the gates at Battle Abbey and St Nicholas Hospital, Salisbury (Atkins and Popescu 2010, 251). It is particularly interesting since it was a very early site, the first in Lincolnshire and the only one apart from Alkington, Derbyshire, of those founded before the mid-12th century not associated with a medium to large town. Its location so close to a number of major travel routes was the most likely reason for its location (Atkins and Popescu 2010, 252). That being said the presence of an earlier Anglo-Saxon monastery at Partney which was no longer operational by the conquest may have been an influence (Coppack 2010, 208–9). This has already been discussed in relation to St Bartholomew, Bristol (in Chapter 3), based on the work of Pestell (2002) and Everson and Stocker (2011). It was also a small institution, with no more than 10 residents at any one time, with the master either being a resident priest or, if a chaplain was part of the community, one of the handful of resident Benedictine monks from Bardney (Atkins and Popescu 2010, 253). Such a small rural site is rare in the archaeological record, but the hospital precinct appears more dispersed than some of the urban examples, possibly in a similar manner to St Giles, Brompton Bridge, although it is unclear if the chapel served as the dormitory or if there was a separate infirmary hall amongst the buildings to the north and northwest. What does seem evident is that there was not a clear cloister or courtyard associated with the chapel, but the site lacks evidence for a number of other buildings that would aid interpretation,

such as the kitchen, bakehouse, brewhouse, infirmary hall, and storage and agricultural buildings like barns, stables, or granaries (Atkins and Popescu 2010, 253). Water was also an important resource, and one of the pits during the hospital phase may well have been a well, supplementing the only other nearby water sources, two streams running either side of the precinct (Popescu 2010, 262–3). St Mary Magdalen, Partney, serves as a good example of the frustrations of examining these sites, where a more expansive excavation may answer a number of important questions about its layout that might link it more firmly to a style of dispersed layout evident at St Giles, Brompton Bridge, one where the hierarchy of space from east to west, and from southeast to northwest, can still be observed even though they represent poorer, rural sites.

The Hospital of St Mary in the Horsefair, York

Restructuring the Old Friary: 13th to 14th Century

The Horsefair was an open space to the north of the Roman and medieval city defences of York, and excavations in the 1980s located extensive elements of the Hospital of St Mary (Richards *et al.* 1989, 3). Originally the site of a Carmelite friary founded in 1253, they were gifted new land inside the walls to the east of Fossgate in 1295, leading to the site becoming a chantry in 1314 (Richards *et al.* 1989, 5–6). In 1318 the foundation of St Mary was enlarged into a hospital, with a master, two assistant chaplains, and six aged and infirm chaplains, some of whom may have been blind. The original Carmelite friary consisted of a chancel in the east and a nave to the west, aligned east-west in a linear plan, with another room to the north that may have served as the dormitory, and a cemetery to the south (Richards *et al.* 1989, 13–5). When the site became the Hospital of St Mary in the Horsefair the division between the chancel and the nave was demolished and the floors in both rooms evened out to create one large chapel space (Fig. 4.28). At the western end of what had been the nave, around the original doorway in the southern wall, the area was broken up by a series of stone foundations that may represent stone sleeper walls with timber superstructures. These created a corridor that linked the southern door with a new doorway that was inserted opposite in the northern wall, evidenced by the stone and tile threshold, with a narrow room to the west of the corridor and two squarer rooms to the east.

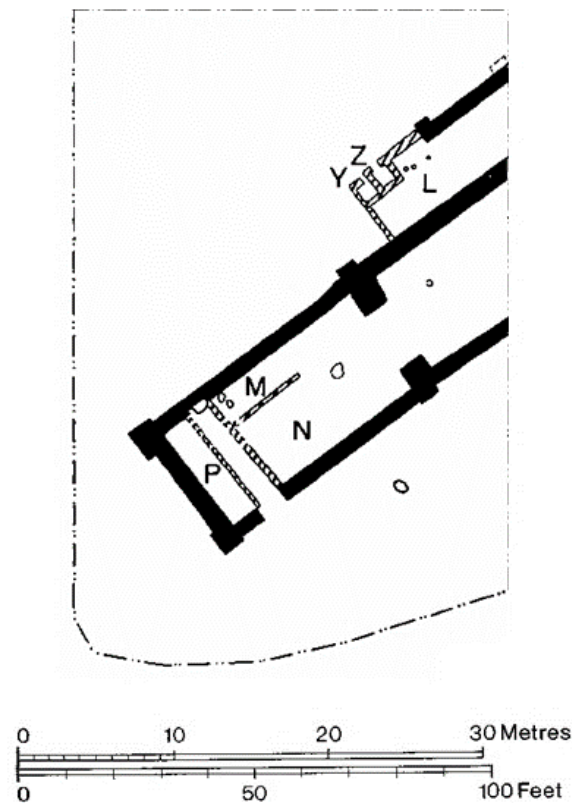


Figure 4. 28: Plan of the main structures from St Mary in the Horsefair, York, 13th – 14th century. Room P appears to be a domestic space, with accommodation areas in Rooms M and N, as well as in the main nave. Latrines were located at Y and Z (Richards *et al.* 1989, 10, Fig. 3). Reproduced with permission of York Archaeological Trust

These modifications appear similar to the floor plan of a medieval hall, and the corridor appears to have separated a service area in the west from the accommodation areas in the east (Richards *et al.* 1989, 15). To the east of this modification the rest of the old nave floor appears to have been covered in thick layers of charcoal that were repeatedly covered with thin mortar surfaces, and this may reflect more domestic activity like a kitchen or refectory. The area of the old chancel in comparison was kept clean and well maintained, and either served as accommodation or continued to function as a chapel. The room to the north of this building was extended to the west, and a rough mortar floor laid in both, and these are the more likely locations of a dormitory area. Into the northwest corner of this new room were set two latrines that appear to date to slightly after the hospital was initially founded since they cut early 14th-century deposits (Richards *et al.* 1989, 17). To the south of the hospital building was a well, formed of wooden barrels laid end on end with a possible stop topper.

Minor Modifications: Late 14th to Early 15th Century

The next phase of construction activity saw the southern of the small rooms to the east of the corridor at the west of the main building have a central tile hearth added, indicating that the hall was single storey (Richards *et al.* 1989, 17). A new floor was also laid at this point, this time of glazed tiles set diagonal to the walls, whilst the northern double room was extended further to the west (Fig. 4.29). The demolition of the old west wall of this room was used to add a third latrine to the complex, but this time the walls were drystone rather than mortared like the previous two latrines. Postholes in this new extension indicate internal features, although it was unclear whether the room was open-ended to the west or had a western wall that connected to the main chapel building. The northern door at the west end of the chapel appears to have been used frequently given the worn path observed crossing the yard area to the north and northwest, and a shell midden began to form just outside in the 15th century. Documentary evidence was lacking for the site,

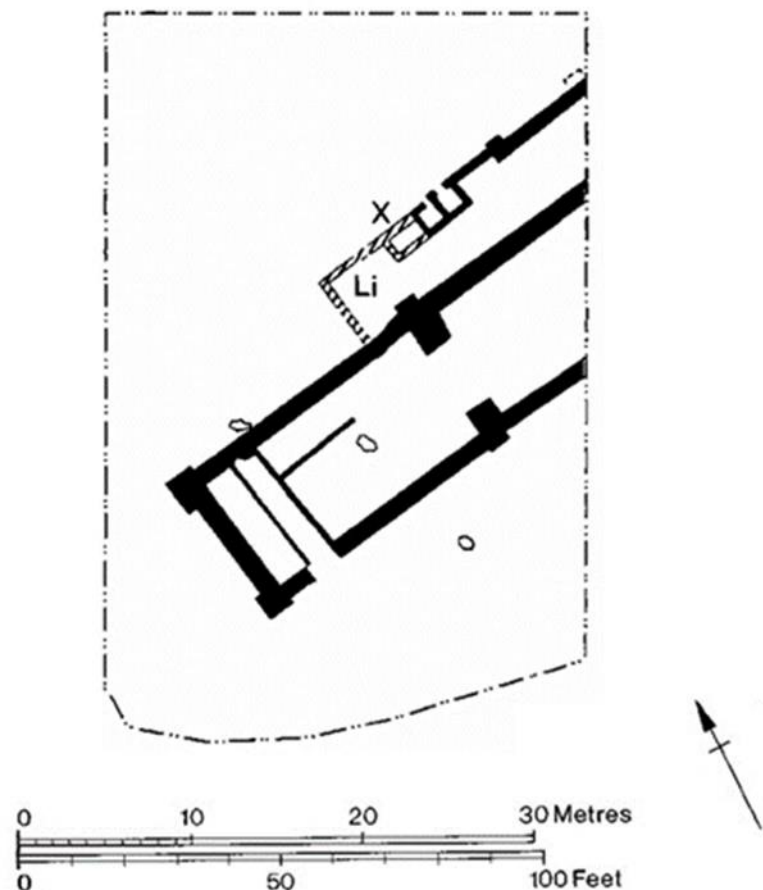


Figure 4. 29: Construction in the late 14th to early 15th century at St Mary in the Horsefair, York. Room X represents a third latrine for the site (Richards *et al.* 1989, 10, Fig. 3). Reproduced with permission of York Archaeological Trust

hindering a full understanding of the arrangement of the buildings. The building itself seems to be a single-storey hall, with the area at the east of the original building serving as the chapel for the community and the area to its west acting as the infirmary hall (Richards *et al.* 1989, 18). The rooms to the north served as a latrine block, although the amount of space left unused at the eastern end of this room might indicate it also served another purpose. One suggestion may be staff quarters, although this may also have been located at the western end in the small rooms created around the corridor, similar to the arrangement of the Hospital of St Anne, Ripon (Richards *et al.* 1989, 21). The linear layout of this complex of rooms is similar to St Mary, Chichester, and St John the Evangelist, Cirencester, however, this disregards the evidence of further buildings to the north across the worn path, probably comprising other facilities such as storerooms, a brewhouse, and a bakehouse.

A Significant Remodel: The Mid-15th Century to 16th Century

St Mary in the Horsefair underwent more drastic changes at some point between the mid-15th century and the 16th century, most likely in the late 15th century (Fig. 4.30). The majority of the old infirmary hall and the area around the two main doors into the building was demolished and replaced by a north-south oriented rectangular building with thin stone walls set on shallow footings, floored with red clay, and with a doorway to the south and another possibly to the north (Richards *et al.* 1989, 21). Around the outside of the new building walls was a cobble yard surface, and a drystone cess pit was built nearby. The northern wall of this new building to the west and the western ends of the rooms to the north of the chapel were connected by a small structure, either a porch or shed, although evidence of burning on the floor could also suggest the room was used to hang and smoke meat (Richards *et al.* 1989, 21). Just north of this new western end of the chapel building a new range was constructed, again with red clay floors. The large room to the east was certainly a kitchen, complete with hearth, food refuse, and charcoal, and the old barrel well to the south of the chapel was backfilled and a new stone-lined well, possibly reusing ashlar stone from the old infirmary hall, sunk just to the north of this new range (Richards *et al.* 1989, 21, 23). A beam slot was also found in one of the walls of the new kitchen, indicating that this room at least had a timber superstructure set on a sleeper wall. The room north of the chapel seems to have remained in use and a partition wall separated the latrine area from the space to the east. The chapel does not seem to have changed function, and over 30 burials were located there, predominantly elderly men, including a possible priest burial

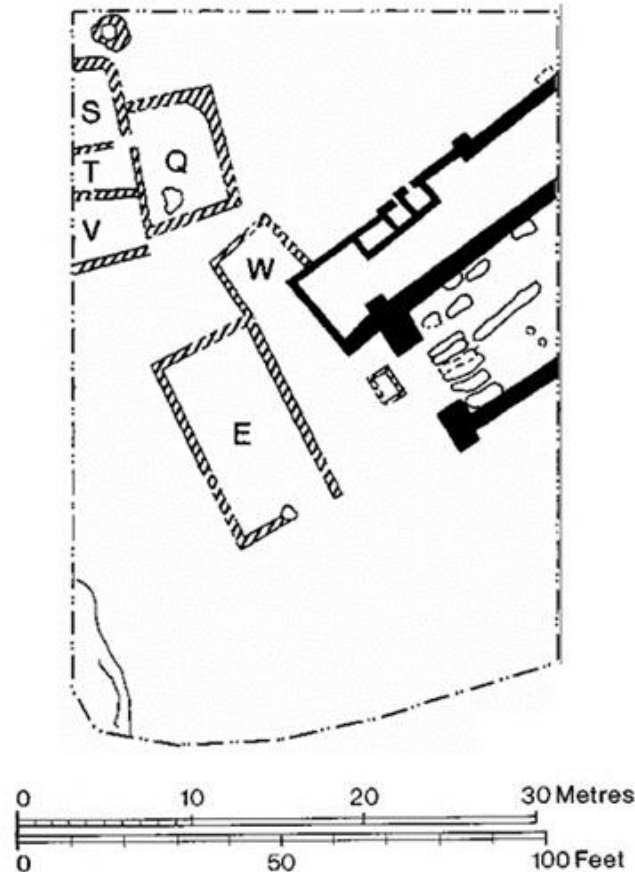


Figure 4. 30: From the mid-15th century into the 16th century St Mary In the Horsefair, York, saw an extensive modification to the infirmary hall, with a new entrance and two new rooms added to its west end (Rooms E and W). To the northwest a new domestic range was constructed (Richards *et al.* 1989, 10, Fig. 3). Reproduced with permission of York Archaeological Trust

with a chalice, and some women (Richards *et al.* 1989, 23–4). West of the main complex of buildings was a low-lying area, either a very broad ditch or a garden area and dumping area for domestic refuse, and even further west was an insubstantial timber structure with a tile hearth. The external cemetery for the hospital may also have been located in this area, since two burials were discovered, separated from the rest of the site by an east-west oriented wall.

Slightly after the new western room replaced the old infirmary hall a cellared room was constructed on its southern side, initially stone-faced, with a sloping entrance to the west that may have served as a barrel run, some form of internal partitioning, and a staircase leading up to the floor level of the room to the north (Fig. 4.31) (Richards *et al.* 1989, 23–4). At some point after 1420, but more likely in the early 16th century, this new cellared room was virtually robbed out apart from a fine square window at ground level and replaced. The cellar was backfilled, potentially due to issues with damp since this lower floor was below the modern water table, and the surrounding land raised by 0.3m. The main heart of the

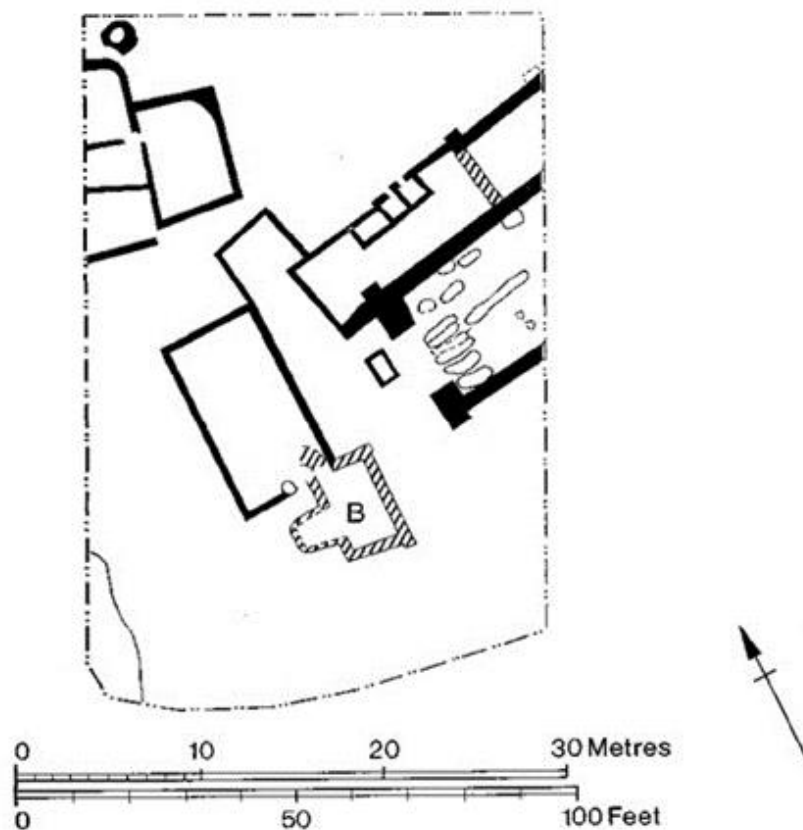


Figure 4. 31: The first phase of new construction in the early to mid-16th century at St Mary in the Horsefair, York, comprising the addition of Room B to the south of the new rooms at the west end of the chapel building (Richards *et al.* 1989, 10, Fig. 3). Reproduced with permission of York Archaeological Trust

room continued to be used at ground level, with a small extension added to the south (Fig. 4.32). It may also have been at this point that the area of the northern chapel room to the south of the latrines went out of use and an open cobble drain was dug from the southeast corner of the possible porch to a brick-built drain that ran to the northeast (Richards *et al.* 1989, 24).

In the final period of the hospital, from the early to mid-16th century the southeast corner of the old cellar building extension was joined to the southwest corner of the chapel, forming a new room to the southwest of the chapel (Fig. 4.33) (Richards *et al.* 1989, 24). East of this new room was a cobble surface that respected the southern wall of the chapel. The cess pit between the chapel and the rooms to the west was filled in and covered by another cobble floor that was also laid inside the chapel. The latrines in the northern chapel room may also have been backfilled and replaced by a new stone-lined latrine built against the northwest corner of the room, complete with square shelter (Richards *et al.* 1989, 24). The majority of the activity around the site still appears to have been domestic in nature, with several spreads of burnt material and food refuse, whilst to the west the 'ditch

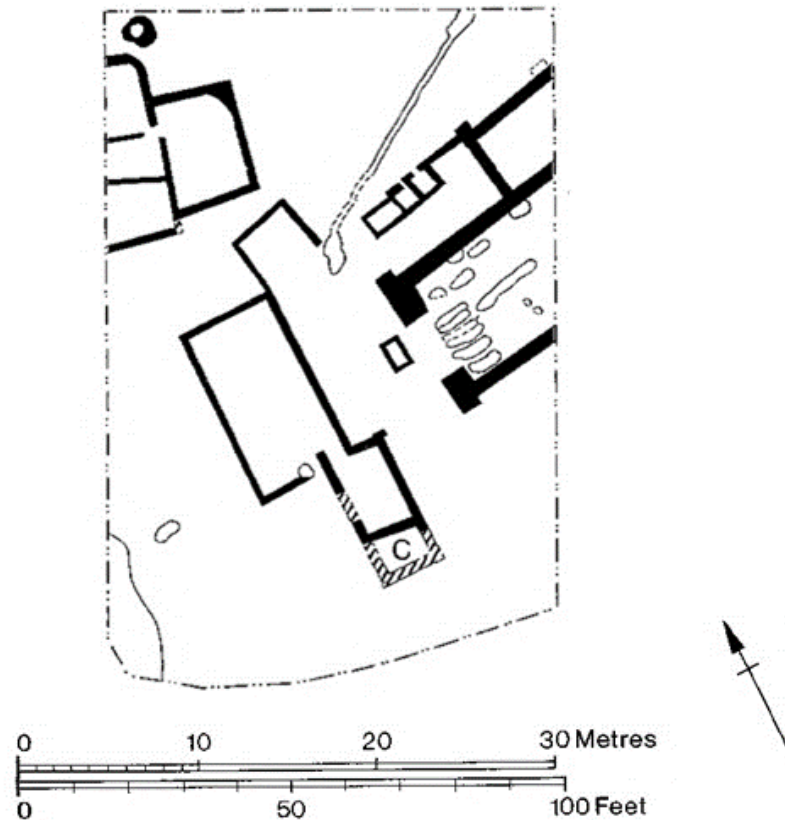


Figure 4. 32: The second phase of construction in the early to mid-16th century at St Mary in the Horsefair, York. Room B was further modified, including the removal of the cellar element (Richards *et al.* 1989, 10, Fig. 3). Reproduced with permission of York Archaeological Trust

area' was completely levelled by the beginning of the 16th century, with a hearth located in the upper layers. The modifications that occurred in this period appear to be aimed to improve the facilities of the site that from the burial evidence was still predominantly focussed on aiding aged clergy (Richards *et al.* 1989, 24). The presence of women and juveniles in the burials either indicate servants of the establishment, benefactors and their families, or that the burials were more open to the wider population. The changes more widely to the hospital also suggest an attempt to move from a linear plan to a quadrangular one, possibly reflecting the change from more communal living to an attempt at a more collegial establishment with more privacy (Richards *et al.* 1989, 24). Whilst this may have had some success up to the Certificate of Chantries of 1546, when the site is noted as having a hospital building with an associated close and orchard, it seems to have been severely affected by the Dissolution. In 1556 the majority of the site apart from the chapel were leased to John Dawson of Heworth, by which point the hospital seems to have been barely functioning and the majority of the buildings were derelict, and within a year had been dissolved (Richards *et al.* 1989, 7).

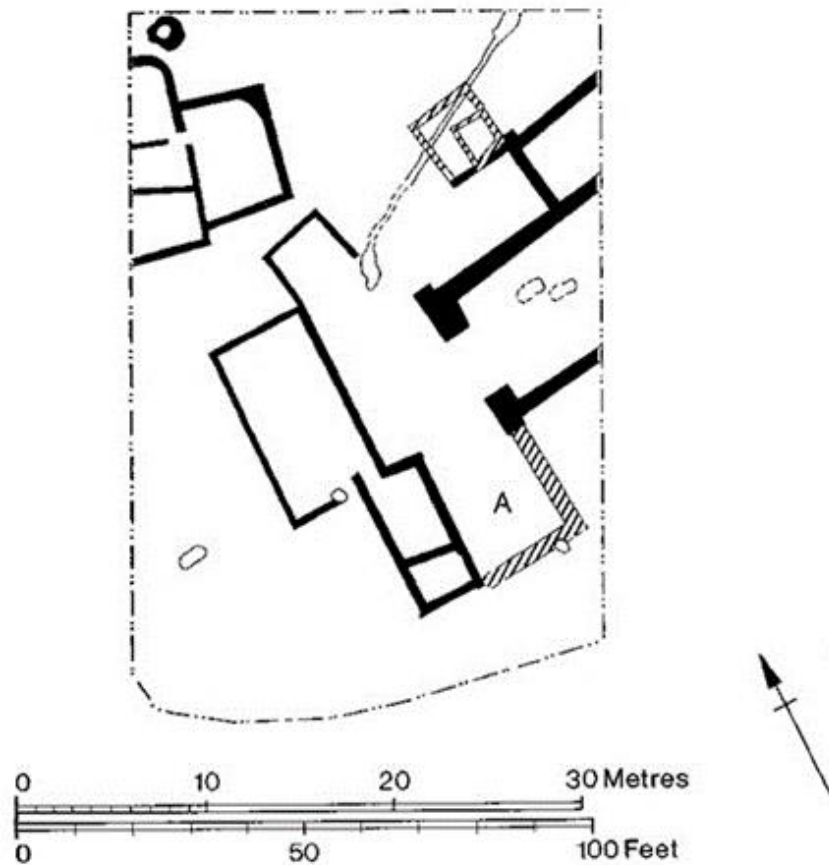


Figure 4. 33: The final phase of construction in the early to mid-16th century at St Mary in the Horsefair, York. At this point the open entrance to the south west of the chapel was enclosed and the old latrines were removed and replaced just to the north (Richards *et al.* 1989, 10, Fig. 3). Reproduced with permission of York Archaeological Trust

Summary

In the early phases of the site the excavators of St Mary in the Horsefair argued that similar to other medieval hospitals the site had grown with no definite plan, relying instead on the adaptation of existing buildings, in this case the old Carmelite friary and the focus on the infirmary hall and the attached chapel (Richards *et al.* 1989, 18). This ignores the room attached to the north of the chapel, for which little material could be recovered, hindering interpretation but which may have been a dormitory of some kind, perhaps for staff or guests, especially given the close connection to the latrines. The later extension to the northern chapel room to the west meant it would have connected on to the northern wall of the infirmary, and this may have been done to ease access to the latrine block. This concept of the hospital also ignores the well-worn path from the northern infirmary door to the north, seemingly indicating the presence of other buildings to the north and/or northwest of the main building. What is clear is that there was a clear link between the

spiritual element of the site and the material elements for the inmates, a core part of the medieval hospital (Richards *et al.* 1989, 18).

The site underwent a number of changes, the most significant occurring around the 15th century when the more linear plan was changed to a more ordered close or attempted quadrangle. This change could be argued to relate to fundamental changes in the idea of the hospital more generally, evolving from the more communal infirmary halls to the more private collegiate style dwellings where privacy was an increasingly important element (Richards *et al.* 1989, 24). Such changes were also argued to link to a more selective ethos in who was admitted to medieval hospitals, catering for defined numbers of worthy beneficiaries rather than providing care to any who sought aid (Richards *et al.* 1989, 25). The number of almshouses in the later period that either had less emphasised chapels or dispensed with them entirely and relied on local parish churches was seen as an increasingly more widespread trend (Richards *et al.* 1989, 25), yet this argument ignores many aspects of this site. Although a possible courtyard or quadrangle may have been attempted to the west of the chapel, this was a very small example given the size of the chapel. Most quadrangles also include the domestic range as an integral part, which at St Mary in the Horsefair is actually located to the northwest. What can be observed is the creation, or more accurately the recreation, of distinct activity zones: the chapel and possible staff quarters; the infirmary hall; and the domestic area. This concept may be reinforced by the idea that the structure that connected the new building to the west of the chapel and the room to the north of the chapel may have served as a porch or gateway to the domestic area to the north. This room was eventually replaced with a building to the south that may have served as the porch to the whole site and solidified an open close formed by the chapel to the south, the probable new infirmary hall to the east, and the kitchen and domestic range to the northwest and north.

Interestingly “[a] documentary source of 1556 describes the Hospital as consisting specifically of a pond, orchards and gardens, a mansion, lodging chamber and chapel” (Richards *et al.* 1989, 27), and although it is unlikely that all the grounds were located within the excavated area, the open ground to the west could be the orchard or garden, the southern structure would be the chapel, the kitchen and domestic range might be the mansion, and the rebuilt hall to the west of the chapel that was probably the new infirmary hall could be the lodging chambers. The separation of the infirmary hall and the chapel is a regular development of hospital sites more generally, both from foundation and during expansive redevelopments, as has been noted at St Mary Spital in the previous chapter and

in other examples from this chapter both above and below. The removal of the infirmary from the chapel area often accompanies a rise in burials in the chapel, and represents a widespread trend to garner increased income through burial and associated prayers. It is unclear at what point in the archaeological sequence reflects the end of the hospital period, but the laying of the cobble floor in the chapel might indicate the point when it went out of use in the mid-16th century, with the hospital in decline, the chaplains no longer living on site, and the grounds rented to laymen (Richards *et al.* 1989, 27).

Other Hospital Sites

This final section of the chapter will summarise the evidence from a range of other sites that have had some form of architectural or archaeological investigation that has allowed elements of the layout to be suggested or hypothesised. The information provided is often very limited or conjectural but the original publication or grey literature report has served as the basis for the descriptions. This has provided a number of other sites that reflect the suggested framework for how a medieval hospital organised itself, although there remains a great variety in the response taken to the issues of organising a quasi-monastic community. This section will begin with those sites that corroborate the hypothesis made in Chapter 3, before discussing those sites where the evidence is restricted to the infirmary hall and chapel or where there was no solid evidence to work from, before finishing on the few cases where the schema does not seem to have been followed. Whilst only a few sites, this last group are informative in what they show about the potential reasons for a different organisational layout.

Following the Plan

Although the largest medieval hospital in England, housing over 200 inmates and with an extensive staff, the full analysis of the standing remains and numerous smaller excavations at St Leonard, York, is still awaited. Of this latter site, from what can be seen of the standing remains in the Theatre Royal they consist of parts of the claustral range, although it is unclear whether the remains also constitute part of the church (Fig. 4.34) (Cullum 1993, 16). Until 1901 the Theatre Royal was the site of the partial remains of an undercroft, a minimum of seven bays long, four bays wide at one end and two bays at the other. Alterations to the theatre led to the destruction of all but two compartments, although records were made (Cullum 1993, 16–7). The site has been suggested to date to William II's

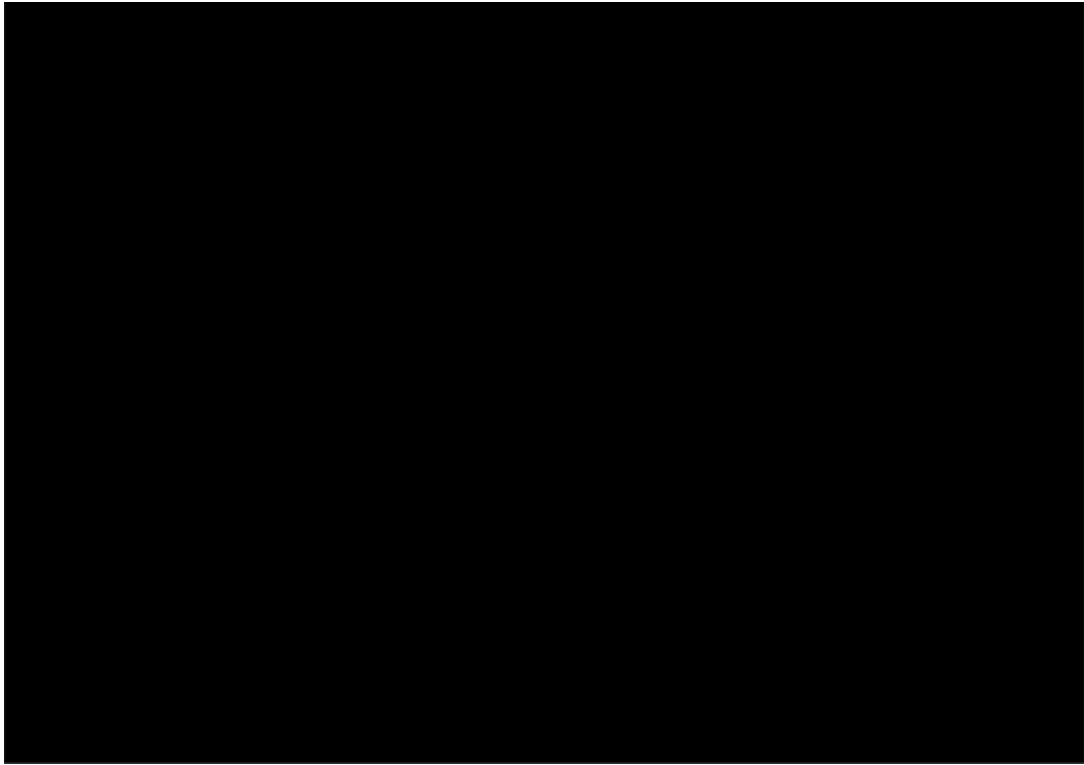


Figure 4. 34: Recorded remains of St Leonard's Hospital York. Note the proposed cloister to the west of the undercroft, with the chapel possibly to the south. The two extensions to the east of the infirmary were the attached chapels of the site (Cullum 1993, 17, Fig. 2.1)

reign, but the columns and remains were dated to the mid-12th century, close to 1150 on stylistic grounds, and influenced by Cistercian architecture, with a suggestion the undercroft is virtually identical to the west range of Byland Abbey and similar to the laybrothers' dormitory at Clairvaux (Cullum 1993, 17). Such an association may be due to the fact the master of the hospital between c.1130 and 1162, Master Robert, had close connections to the Cistercians (Cullum 1993, 17). Given the location of these remains and the nature of the strong associations with Cistercian examples, it seems that they represent a northern cloister to a church parallel to the road to the south (Cullum 1993, 17). The theatre was established in 1734 on the rectangular plan matching the proposed 12th-century hospital building, the first entrance to the theatre being through the original hospital gatehouse, and the 19th-century arcade possibly being constructed directly on the original medieval arcade of the cloister garth it sat upon. St Leonard's, York, developed into a church and cloister and a separate infirmary with its own chapels, which were located as eastern off-shoots to a north-south running infirmary hall (Cullum 1993, 18).

The Hospice at Llawhaden, one of the few Welsh medieval hospitals and the only one that has seen any significant archaeological work, consisted of at least a chapel building and an infirmary hall to the west (Fig. 4.35) (Crane 1995). The hall measured at least 28m long and

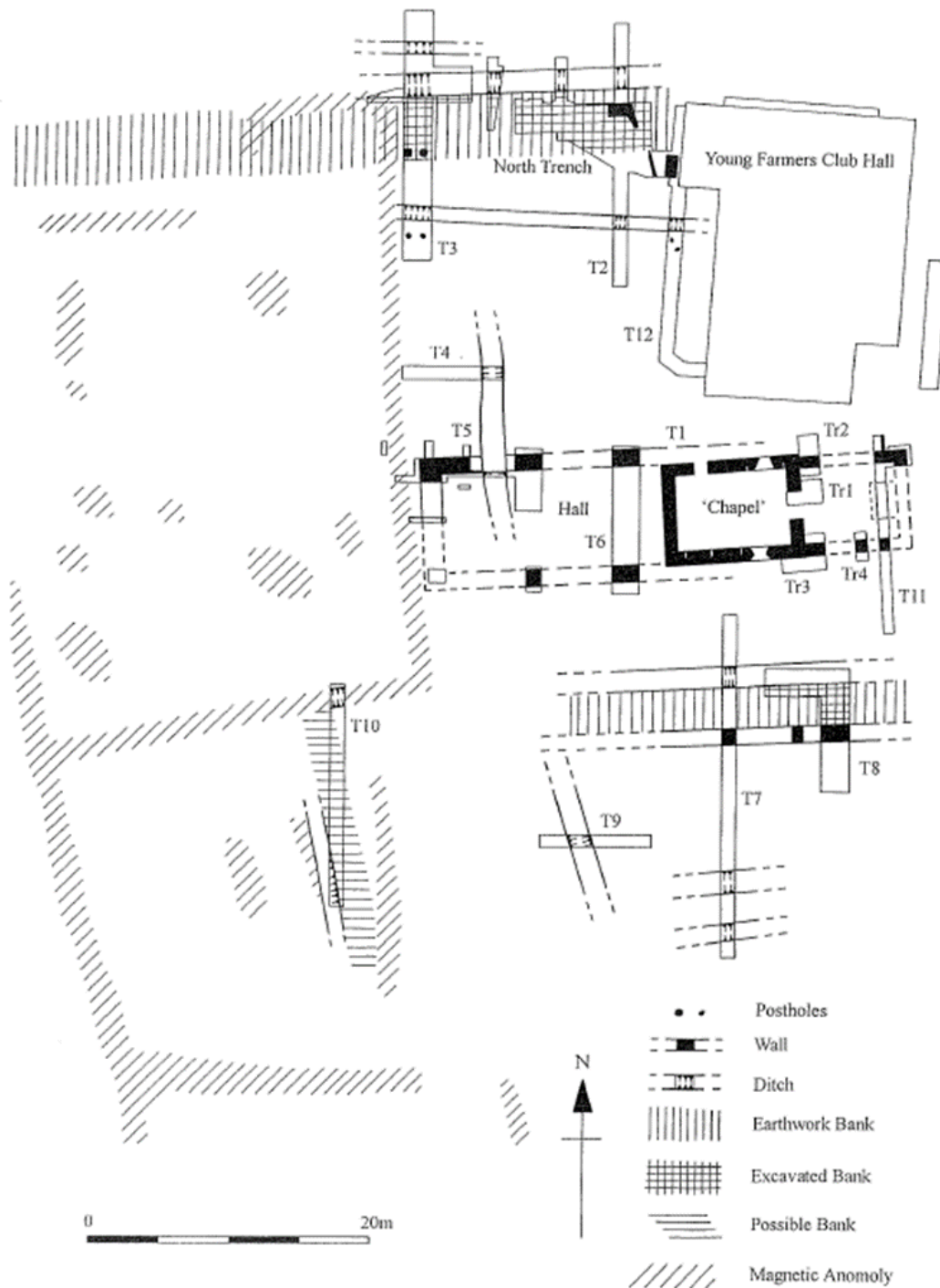


Figure 4. 35: The excavation and site plan of the hospital at Llawhaden. The chapel was to the east of the infirmary, and further structures may be located to the north (Crane 1995, Fig. 5). Reproduced with permission of Dyfed Archaeological Trust

9.5m wide, comparable to other sites such as the Hospital of St John, Cirencester, but the trenches could not ascertain if the hall was aisled or not, and none of the floor surfaces remained (Crane 1995, 7–8). The chapel area comprised a standing 'chapel' at the eastern end of the hall, measuring 10m long by 7.5m wide, with a northern doorway that appeared

to open into a courtyard and a possible gatehouse at the northern end of the site. To the east of the standing chapel was another building, also interpreted as a chapel, that was probably contemporary with the hall. This building was 7.5m long and 7.2m wide, and may have extended under the standing chapel (Crane 1995, 8). There was a possible southern doorway to this building, and a raised area at the very east of the building appears to have been an altar dais, with a possible sleeper timber for a rood screen or choir stalls to its west. Demolition material included a coin dating to 1344-51, but it was unclear how the standing building integrated with the two demolished elements to its east and west, since most of the outer corner stones were missing. The excavators concluded that it was most likely that the standing 'chapel' actually represented a shortened hall that had originally extended further to the west until the site was rebuilt, with the building attached to the east serving as the new chapel element (Fig. 4.36) (Crane 1995, 9). Some minor remains of walls to the north appear to have been the gatehouse, the only ancillary building located by the excavations, and there seem to have been several connected rooms or sub-buildings (Crane 1995, 8). No evidence of a kitchen, latrine, or staff quarters were located, unless some of these were in the gatehouse. Some buildings are suggested by demolition noted in the area of the Young Farmers Club Hall to the north of the chapel, and it could be concluded that the main court of the hospital was to the north of the chapel. That being said the possible southern door to the eastern chapel building may hint at staff quarters to the south, although no evidence of this was located.

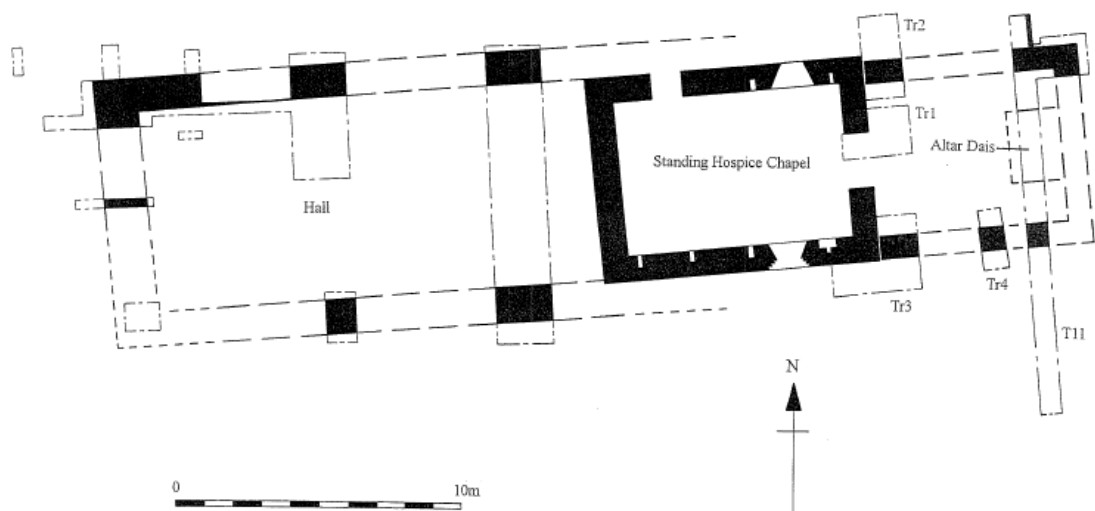


Figure 4. 36: A detail plan of the chapel and infirmary hall, indicating the movement of the chapel to the east and the increase in the size of the hospital (Crane 1995, Fig. 3). Reproduced with permission of Dyfed Archaeological Trust

The 1788 plan of St Mary Magdalen, Winchester, indicates a conscious design to the leprosy hospital, with a 3 aisled chapel and attached Master's house, with a separate row of 18 cells to the north (Leistikow 1967, 34). However, the earliest phase of the hospital dates to the few decades immediately after the Conquest and included the northeast corner of a building predating the later 12th-century chapel, with wooden buildings formed of beam slots and postholes to the north (Fig. 4.37) (Roffey and Marter 2014, 40–1). The site was rebuilt in the mid to late 12th century, probably the cause of an 1148 documentary reference that notes lepers on the hill outside Winchester. The phase comprised a substantial masonry stone aisled hall parallel and north of the rebuilt chapel (Fig. 4.38) (Roffey and Marter 2014, 41). A northern aisle or range was added to the infirmary at some later date. The two parallel buildings were constructed similarly of flint-faced walls with rubble cores and chalk footings, suggesting a level of contemporaneity to construction and

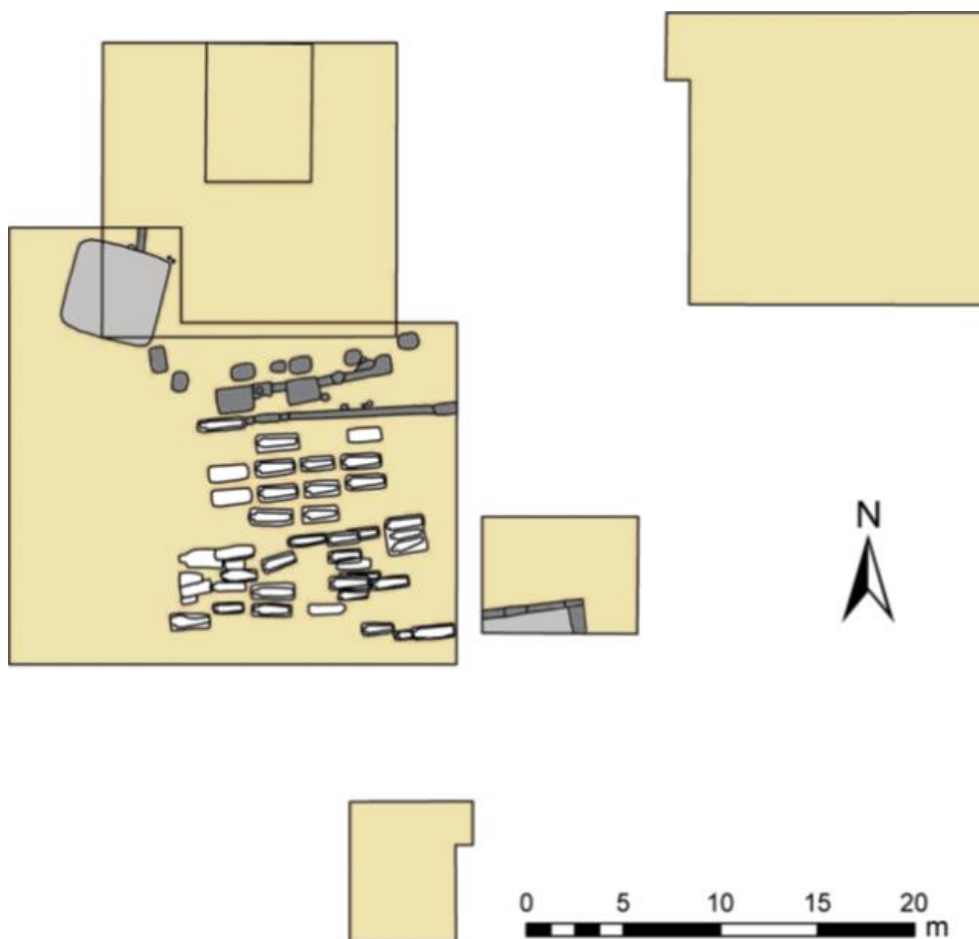


Figure 4. 37: St Mary Magdalen, Winchester. Phase 1, pre-c 1150. The small structure to the south of the cemetery in the middle of the site may be the pre-1150 chapel, although it is unclear what form of structure is comprised by the postholes and lines to the north. At the northwest corner is a cellared structure (Roffey 2012, 207, Fig. 2). Reproduced with permission of Taylor and Francis and the Society for Medieval Archaeology <https://www.tandfonline.com/loi/ymed20>

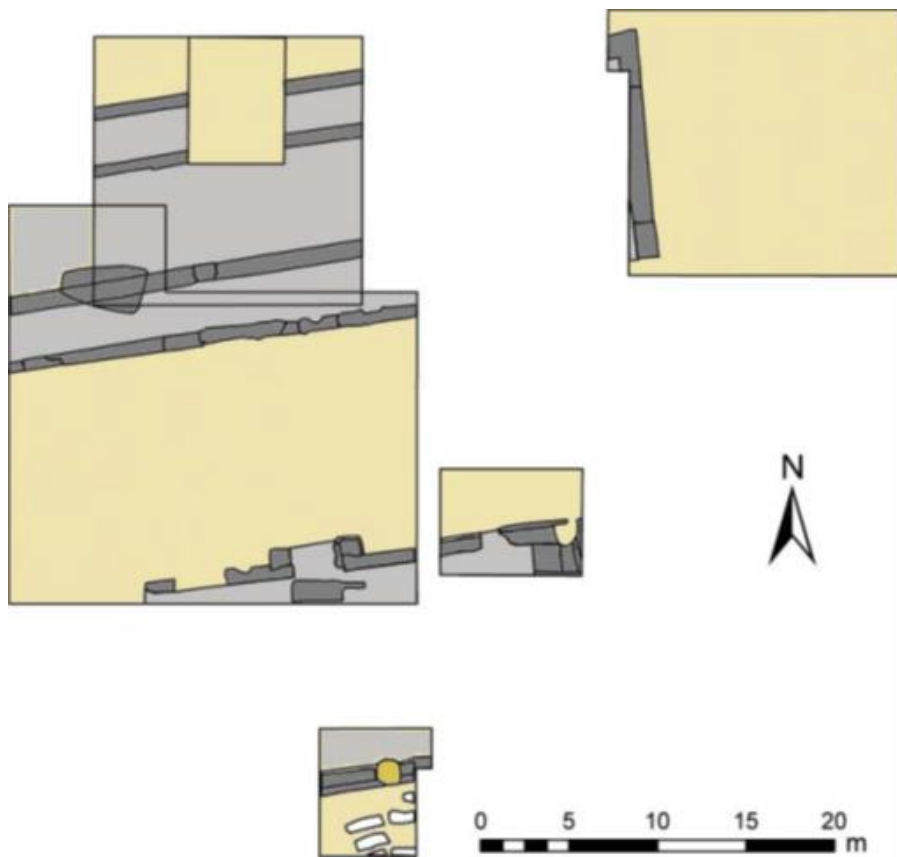


Figure 4. 38: The Phase 2 plan of St Mary Magdalen, Winchester, indicating features from the mid-12th century to the late 14th century. Clearly shown at the north is an aisled hall, parallel to the chapel in the south, with the cemetery further south (Roffey 2012, 208, Fig. 3). Reproduced with permission of Taylor and Francis and the Society for Medieval Archaeology <https://www.tandfonline.com/loi/ymed20>

use (Roffey and Marter 2014, 41–2). The fortunes of the site went through periods of decline and recovery, and was still caring for leprosy sufferers into the 14th century. It was sometime in the mid-14th century that the site was refounded as a *maison dieu*, reflecting more general hospital reform at the time and a greater focus on the poor, especially with the decline in leprosy (Roffey and Marter 2014, 42). This change may be reflected in the addition of the southern aisle with a tile hearth to the infirmary hall, as well as other structures to the southeast of the infirmary that may be the Master's lodging, and a number of rubbish and latrine pits north of the existing structures (Fig. 4.39) (Roffey 2012, 207). The site survived the Dissolution, being converted into a series of almshouses that still respected the earlier layout of the medieval hospital (Roffey and Marter 2014, 42). Further claustral ranges appear to be located to the north of the infirmary (Roffey and Marter 2014, 43).

The Hospital of St Mary Magdalene, Southampton, was a site for lepers that was founded in 1173 by the burgesses of Southampton, in an area that came to be known as Le Maudelyne (Tremayne 2010, 15). The appointment of the warden was controlled by the burgesses,

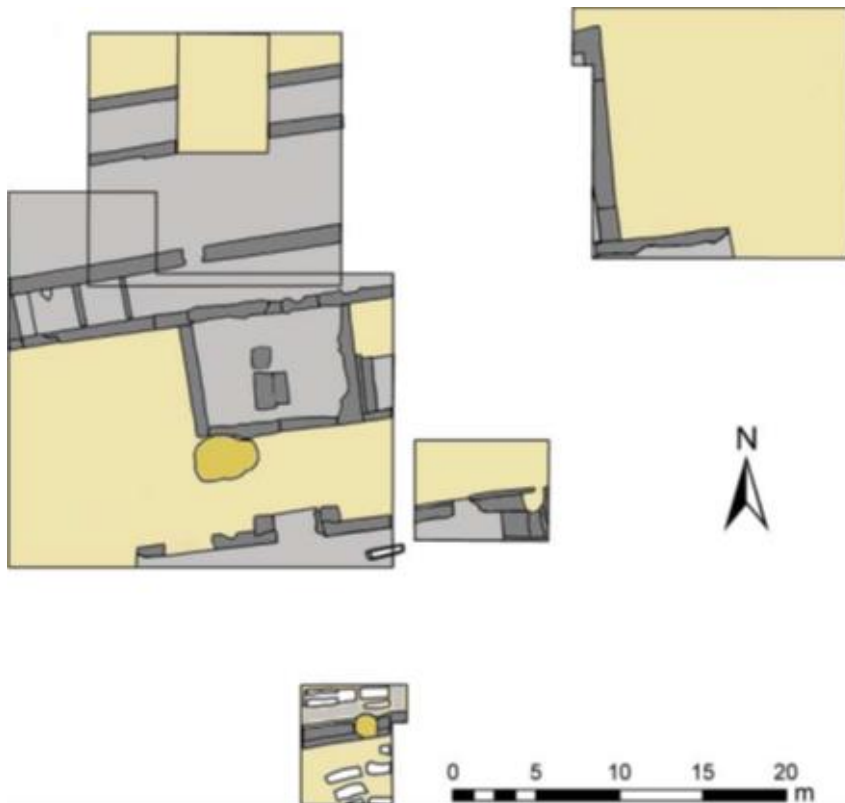


Figure 4. 39: Phase 3 of St Mary Magdalen, Winchester, dating from the 15th to mid-16th century. The plan shows the aisled infirmary, now with adjunct southern structure, possibly a medieval master's lodge (Roffey 2012, 209, Fig. 4). Reproduced with permission of Taylor and Francis and the Society for Medieval Archaeology <https://www.tandfonline.com/loi/ymed20>

who also funded the priest who held services on the site on specified days, but very quickly the hospital came under the remit of the Priory of St Denys, who seem to have provided the canon who carried out the service (Tremayne 2010, 15–6). It is uncertain if the hospital was always a mixed house, but men remained the focus of activity even when women were admitted as inmates at certain points in the later medieval period, (Tremayne 2010, 16). St Mary Magdalene was located on the King's Highway running from Winchester into Southampton through Bar Gate, in two of the town's central fields, known as East Field and West Field (Tremayne 2010, 19). Whilst the quality of buildings has not yet been ascertained, the amount of land held by the site was substantial, and it had a connected farm with gardens and land for chickens, pigs, and possibly sheep and cattle (Tremayne 2010, 20). Documentary sources, including the cartulary of St Denys, suggest that both sides of the hospital sat within their own enclosure ditch. The chapel was located in the south of the East Field section of the precinct, with a house, possibly for the chaplain, to the north and a garden north of that, whilst in the West Field precinct was the main hospital complex with its own garden (Tremayne 2010, 21). Although little of the hospital has been found archaeologically, an excavation in 2009 found evidence of medieval

occupation very close to the area of La Maudelyne, now referred to as the Marlands (Tremayne 2010, 22).

The location of the hospital implies that rather than exclusion to ramshackle outbuildings, the lepers of Southampton gained a careful provision of physical welfare and spiritual care, within an enclosed but large site, that provided a much better quality of life than that to be found travelling the highways of the kingdom (Tremayne 2010, 36). Unfortunately, squabbles over ownership between the Town and the Priory of St Denys, and the neglect and requisitioning of funds and bequests intended for the hospital by the priors led to the eventual halt to all care provision at the site by 1401, and if the site continued up to the eventual dissolution of St Denys in 1536, it was a ghost of its former self, with only one derelict building still standing (Tremayne 2010, 42). Similar to some of the other leprosy hospital that have undergone some excavation, St Mary Magdalene's layout, derived almost entirely from documentary sources, also suggests that they were at least in part organised along similar lines as other hospitals more widely, following the preference for having the chapel in the south east. It is a site that also corroborates the more complex position lepers held in society, especially when they were a resident of a hospital where their social status transcended to something only slightly below a vowed monastic. That leprosy hospitals share the same framework as other hospital sites could have implications for how the inmates were viewed versus how the same individuals might be perceived if they were not a hospital resident. This idea was already touched upon in Chapter 3, and will be discussed further below and in Chapter 7.

The hospital of St Giles, London, was founded around 1118 by Queen Matilda and overseen by the City of London, caring for a community of lepers, who by the early 13th century were noted in an Interdict of Pope Alexander IV as trying to live as a religious community (Mills-Whipp 1995). Elements of the layout were noted in various documents, indicating that the chapel of the site was probably under the present church of St Giles in the Fields, with the rest of the hospital buildings to the west, possibly with the lepers having their own houses, and a house for the master, in which the chaplain, clerk, and messenger each had a room. A map of 1562 does suggest that a small courtyard of houses and buildings was to the northwest of the chapel (Fig. 4.40) (Mills-Whipp 1995, Fig 3). The location of the chapel of the Hospital of St Leonard, Newark, was established when the hospital cemetery was discovered in the area to the southeast of the King's Sconce (Bishop 1983; Cuttler and Ramsey 2006). The northeast corner of the robbed out footings of at least one building in the St Leonard's Hospital complex were located to the west of the chapel, and they were

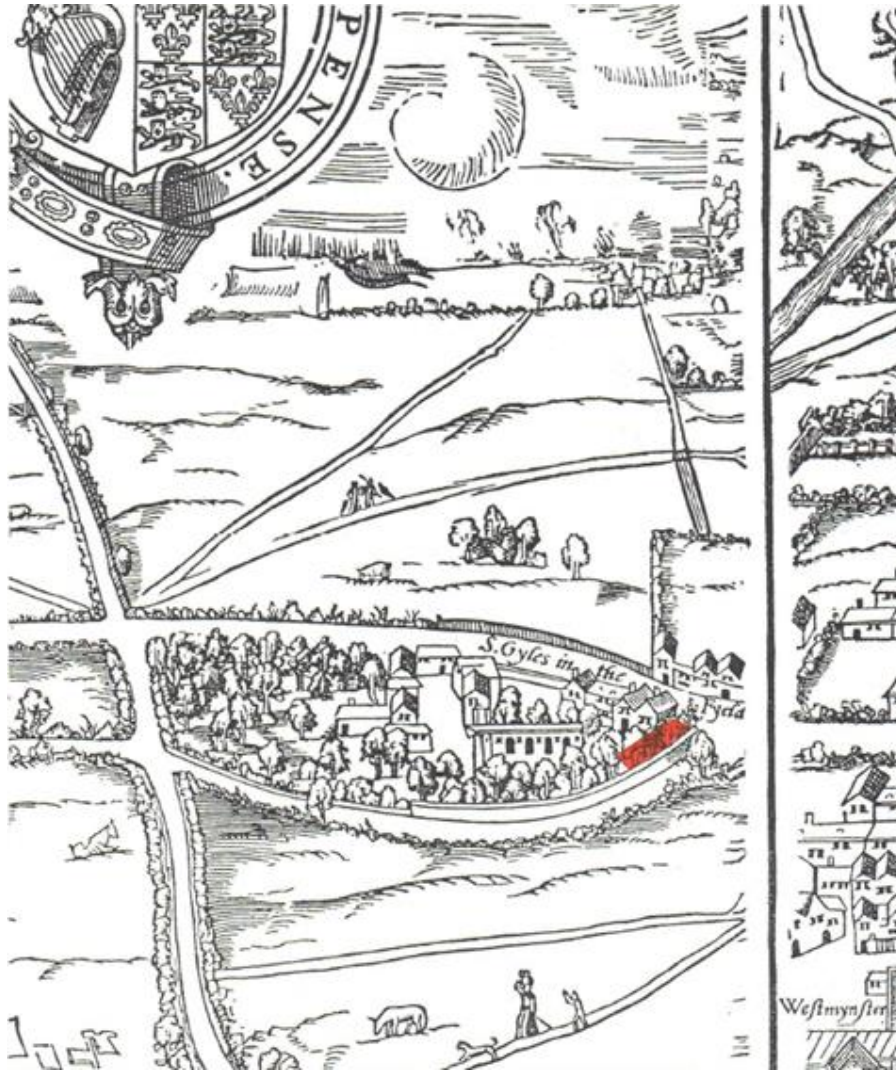


Figure 4. 40: The Agas Map of 1562, showing the precinct of St Giles Hospital, London. The area marked in red is the area of the chapel, with a courtyard of buildings to the northwest (Mills Whipp 1995, Fig. 3)

suggested to comprise elements of a courtyard or cloister extending northwards from the Fosse way (Fig. 4.41) (Cutler and Ramsey 2004, 27). In an area of heavy disturbance and with no associated floor levels, it is unclear what buildings these were, but the east-west alignment and proximity to the hospital chapel may indicate this is the area of domestic accommodation or ancillary structures. Time Team excavations at St John the Evangelist, Burford, located the northeast corner of one of the main hospital buildings, which aligned with the 13th-century arcade found in 1908 (Fig. 4.42) (Thompson 2010a, 20). Another wall was found further to the north, either representing elements of a large chapel at the east of the hospital, or the northern wall of the bedding area with a central arcade to the south and a small chapel. Also recovered in Trench 12 were remains of a possible medieval roadway entering the site to the north (Thompson 2010a, 21), suggesting that there may

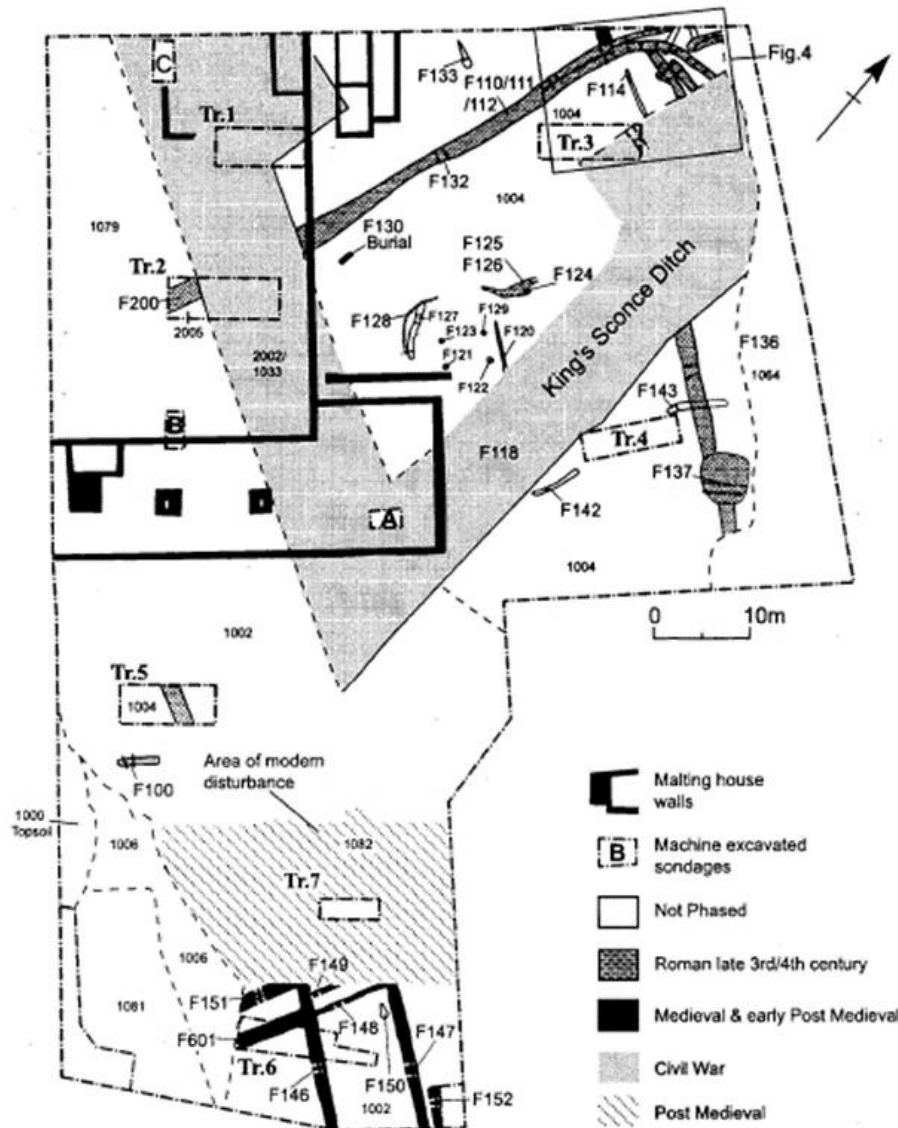


Figure 4. 41: Plan of excavations in the area of St Leonard's, Newark. The buildings associated with the hospital are at the south, including F601, F147, and F151. These may be the outlines of hospital buildings, with the chapel to the east (Cutler and Ramsey 2006, 50, Fig. 3). Reproduced with permission of The Thoroton Society of Nottinghamshire

have been other elements of the hospital complex under the current house to the north and west.

Although the chapel of the hospital St Edmund, King and Confessor, Gateshead, founded in 1248, remains standing, the infirmary range, believed to run north along the road frontage to the west, would have been heavily truncated by later buildings (Ryder 1997, 6–7), in a manner very similar to St Saviour, Bury St Edmund. It is also not clear if there was another range to the east, forming a court or cloister. The chapel itself was a single cell with a prominent western wall, facing onto the road, and although the northern wall was demolished in the late 19th century, documentary records suggest two doors in the north wall of the western bays opened into the adjacent range (Ryder 1997, 6). Also noted as

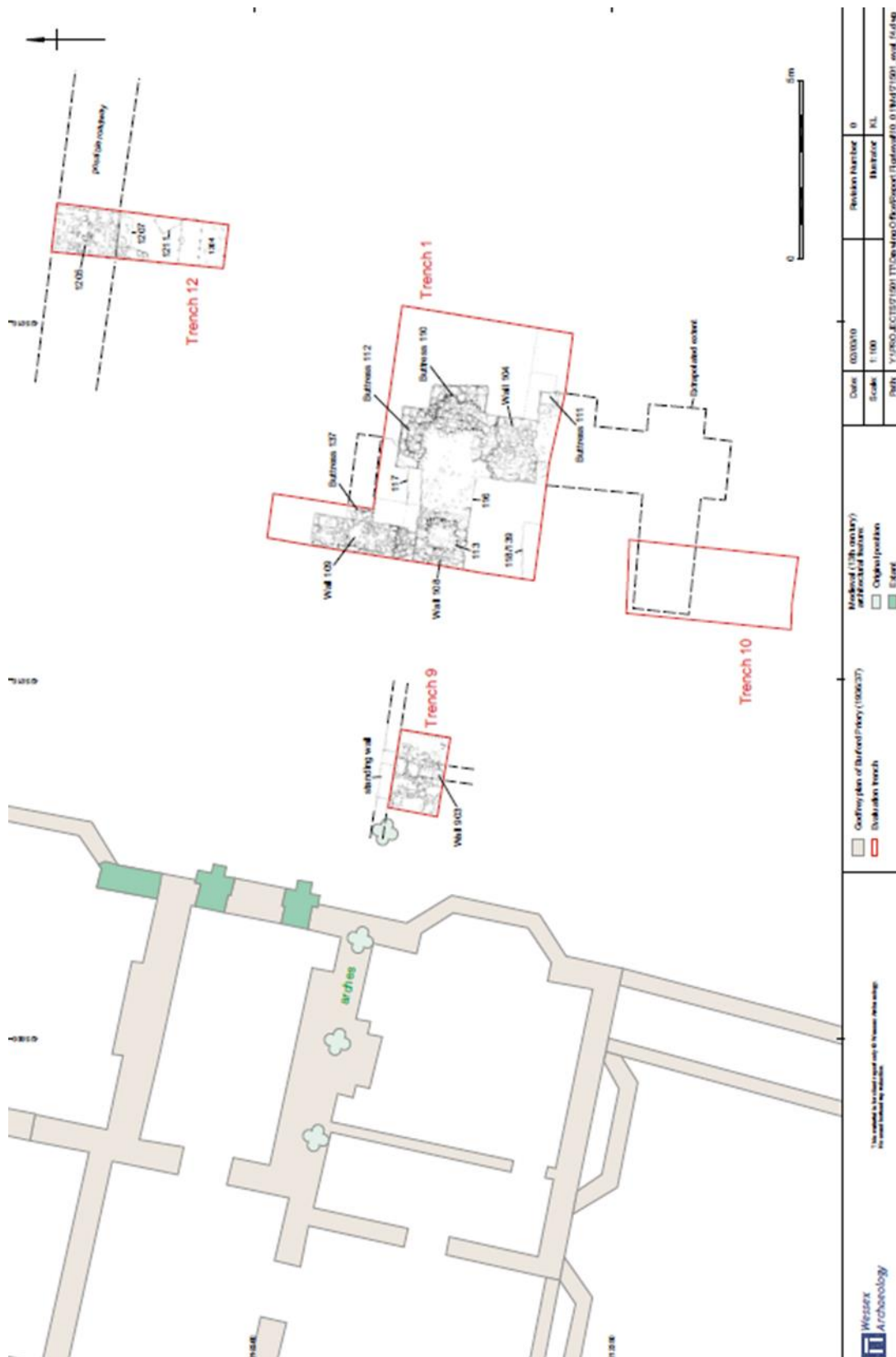


Figure 4. 42: Trench plans of Burford Priory. Elements of the Hospital of St John the Evangelist were located in Trench 1, possibly including a wall from the chapel in the east and parts of the infirmary to the west. To the north in Trench 12 was a trackway, possibly indicating the original entrance into the medieval hospital (Thompson 2010a, Fig. 4) © Wessex Archaeology, reproduced with permission

associated buildings was a buttery, a kitchen, a brewhouse, a granary, a byre, and a pigsty (Ryder 1997, 4). A similar arrangement to Gateshead can be seen at the hospital of St John the Baptist and St John the Evangelist, Sherborne, which dates from 1437 and was a two aisled hall with an upper and lower storey that both opened into the same rectangular chancel (Leistikow 1967, 30). The two floors allowed the separation of the sexes, the men in the lower hall, and the women on the upper, and a service wing connected to the western end of the infirmary hall and ran north, which in modern times contains the kitchen, staff quarters, and now the female dormitory (Carlin 1989, 28; Gibb 1983). Excavations at St Oswald's Almshouse, Worcester, revealed elements of the original east, north, and south walls of a rectangular building (Fig. 4.43) (Brown 1991). The walls were thicker in the northeast corner, possibly indicating a tower, and reinforces the limited evidence that this was a chapel (Brown 1991, 3–4). It was also noted that this was just one element of a wider complex that fronted onto the Tything to the west, the main road leading north, and may suggest other buildings to the west and north, in a similar fashion to the current buildings on site.

There is little now standing of the original priory at Wymondley, but elements of the layout may be of interest in this discussion. Initially founded as the Hospital of St Mary the Virgin

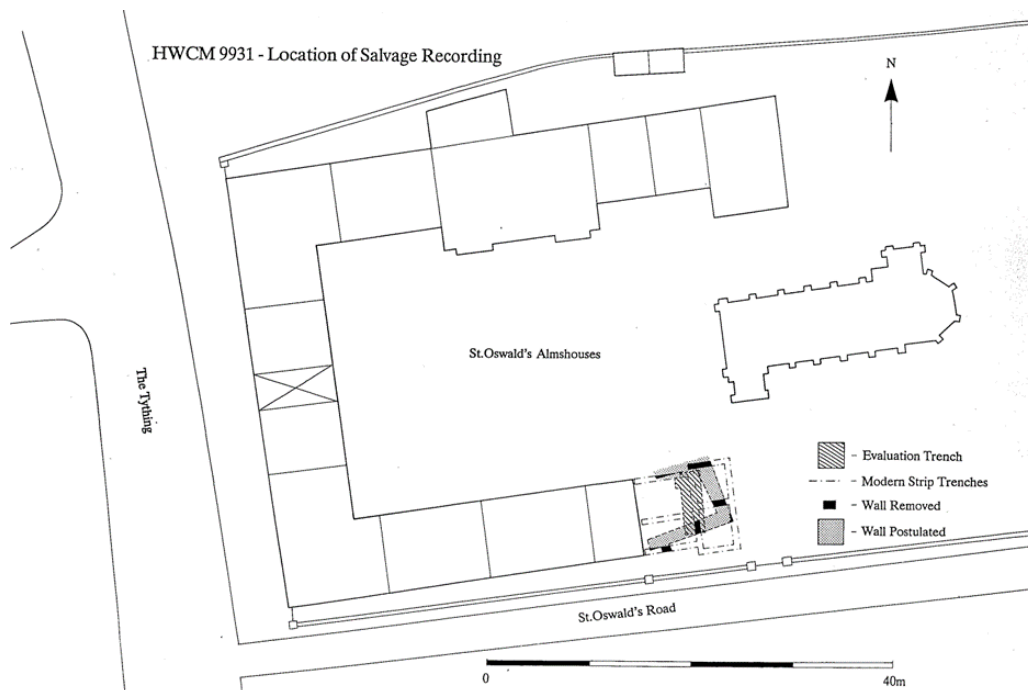


Figure 4. 43: The excavated are of St Oswald's, Worcester, are shown at the centre bottom of the plan, comprising the eastern end of a rectangular building. The northeast corner may also have been a tower. Note the ground plan of the current buildings, forming a courtyard (Brown 1991, Fig 3) © Worcestershire Archive and Archaeology Service, Worcestershire County Council

between 1203 and 1207, the hospital was converted to a small priory of only five canons on average before 1237, but which continued the hospital function, caring for a small group of infirm individuals up to the Dissolution (Burleigh *et al.* 1989). Only a few elements of the nave survive as part of a post-Dissolution house, as does the medieval tithe barn located to the south. This, in conjunction with an ornate medieval door in the northern wall of the nave and the manner in which the water flow appears to aim for a point to the northwest of the site, suggests that the priory was unusual for having a northern cloister, with the area to the south reserved for agricultural activity (Burleigh *et al.* 1989, 2 Fig 1, 3-4). Limited evaluation trenching suggested the presence of other masonry buildings to the south of the church and so a southern cloister may still be possible, although another suggestion was that these buildings were the original hospital infirmary or other agricultural buildings for the priory (Burleigh *et al.* 1989, 17). The suggestion was made that the unusual arrangement may have been caused by the original set up of the hospital itself, something that may tie to the proposed ordering of hospital sites to the north, that was maintained when the primary focus of the institution changed from the hospital inmates to the canons.

The restructuring of St Cross, Winchester, when it was refounded by Cardinal Beaufort in 1445 made full use of the quadrangle style, with the earlier church surrounded on three sides by the “Almshouses of the Noble Poverty”, terrace quarters on the west and south side, and the Master’s House, refectory and gatehouse on the northern side, with the church located in the southeast corner (Fig. 4.44) (Howson 1993, 58–60; Leistikow 1967, 69). An ambulatory on the east side contained wards that connected onto the northern transept of the church, whilst a secondary court contained auxiliary buildings and domestic offices. Excavation revealed a demolished southern range to the hospital, as well as another possible structure to the east of the church, suggested to be an early accommodation block (Wilson 2010, 8). There was also evidence of an enclosed garden or ‘paradise’ and an orchard to the south of the hospital buildings, which may have also included a domestic rabbit warren if the survey of 1401 was referring to *Coninger* when it described the area as *Connyger*.

The main building of St Katherine, Ledbury, comprised a linear chapel and infirmary, with a possible western room partitioned off (Fig. 4.45) (Hillaby 2003, 11). Also noted on site but in an unknown location is a service area with kitchen and brewhouse. The most likely location for these would be to the west and north (Hillaby 2003, 19–22). Excavation to the west of the hall and chapel revealed substantial walls of a second hall or private range (Fig.

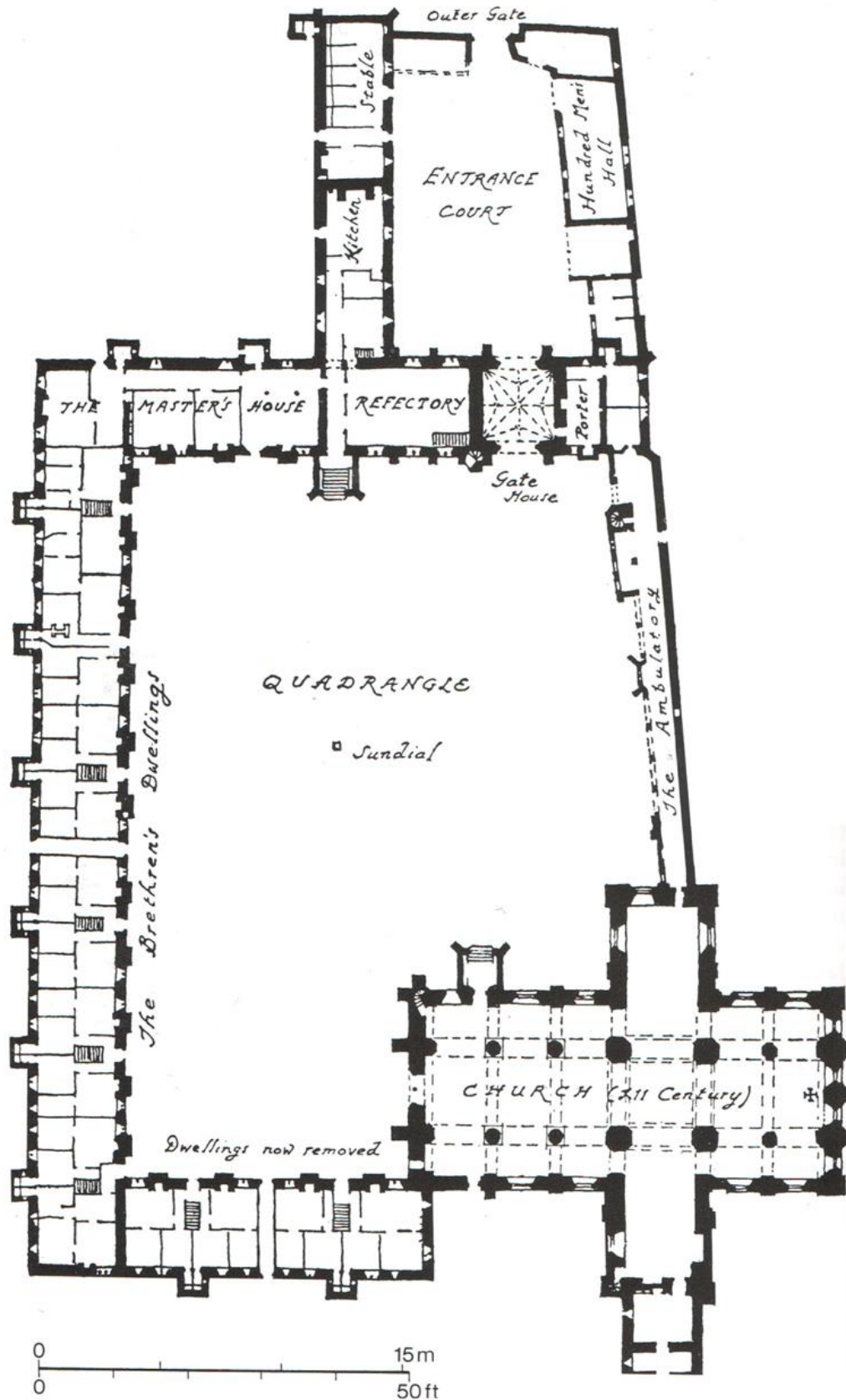


Figure 4. 44: The architectural plan of St Cross, Winchester. The chapel is located in the southeast corner, with almshouses forming the rest of the courtyard, and the domestic range to the north (Orme and Webster 1995, 140, Fig. 20). Nicholas Orme and Margaret Webster, *The English Hospital, 1070-1570*; © 1995 Yale University Press. Reproduced with permission of the Licensor through PLSclear



Figure 4. 45: Plan of St Katherine's Hospital, Ledbury, comprising a chapel at the east, the infirmary hall in the middle, and a partitioned-off room at the west, possibly staff quarters or specialist housing (Hillaby 2003, 11, Fig. 2.1)

4.46) (Miller and Potten 2008). The limited dating material indicates it may have been one of the original buildings from 1240. The hospital of St Stephen and St Thomas, New Romney, appears to comprise an east-west aligned chapel, with a timber-framed hall to the north (Fig. 4.47) (Rigold 1964, 51–7). A hall for staff located to the north ran parallel to the twin infirmary of St Nicholas, Salisbury, possibly connected by a small claustral walk (Fig. 4.48) (Godfrey 1955, 34; Orme and Webster 1995, 89, 91). The Hospital of St Giles, Norwich, also served as a parish church, the nave of which sat centrally in the chapel, with the infirmary hall to the west and the chancel to the east (Fig. 4.49) (Howson 1993, 46; Rawcliffe 1999). The service range was located to the north of the cloister, and included a bakery and storerooms (Rawcliffe 1999, 55–6). In the mid-15th century an extensive rebuild of the northern cloister was undertaken, with the refectory in the west range, the Master's lodgings in the northwest corner with its own extension, and the northern range was given over to the rest of the male staff (Rawcliffe 1999, 61, 63). The now lost east range probably held the chapter house and other important offices.

The Secular Almshouse: Continuing the Tradition

Whilst it has often been considered that the later secular almshouses broke from the earlier tradition of the medieval hospital, many of the sites maintained key elements of earlier hospital layout, namely the separation of activity areas, at hierarchy from east to west, and possibly from southeast to northwest, and the importance of the chapel. Ewelme Almshouse, Oxfordshire, founded in 1437, was an early quadrangle foundation, part of a complex of buildings including a parish church in the east, a hospital and almshouse in the central quadrangle, and a school to the west (Fig. 4.50) (Leistikow 1967, 69–70). The

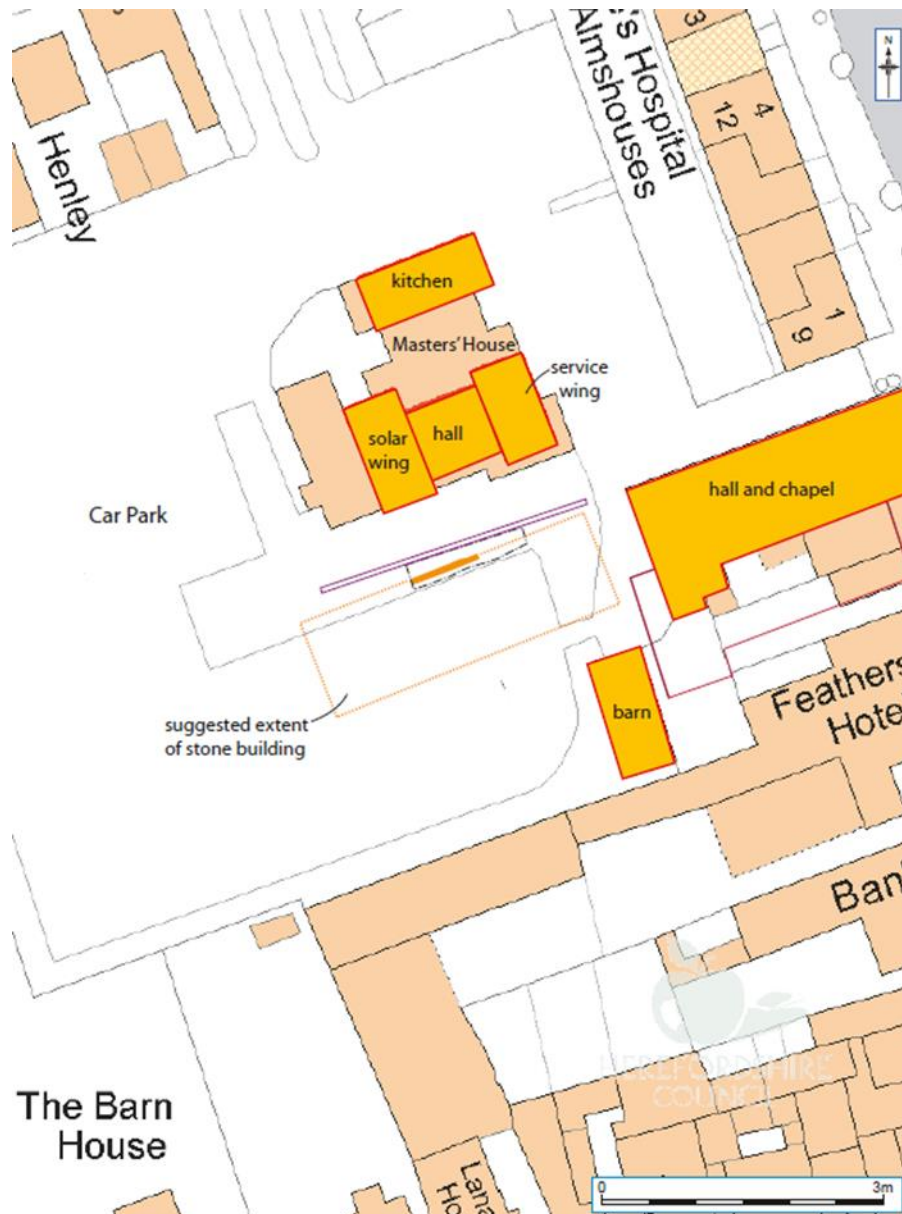


Figure 4. 46: The wider proposed plan of St Katherine's, Ledbury, with excavation revealing a substantial stone building to the west of the chapel, north of which was the Masters' House (Miller and Potten 2008, Fig. 4) © Worcestershire Archive and Archaeology Service, Worcestershire County Council

almshouse housed 13 inmates in separate chambers, linked by a timber ambulatory around the central courtyard, and the exterior view of the site included a large number of chimneys, a feature of this form of almshouse. There is a clear orientation of space, and the almshouse court links directly to the parish church to the east where prayers and services were carried out, whilst those outside the hospital community were at the very western end of the site at the school. Ford's Hospital, Coventry, founded in 1529 utilised a narrow court with two-storey dwellings on either side, and seems to tie to fashions that continued after the Reformation (Fig. 4.51) (Godfrey 1955, 47; Howson 1993, 63; Leistikow 1967, 70). The fact that the chapel was located on the west side of the courtyard on the second

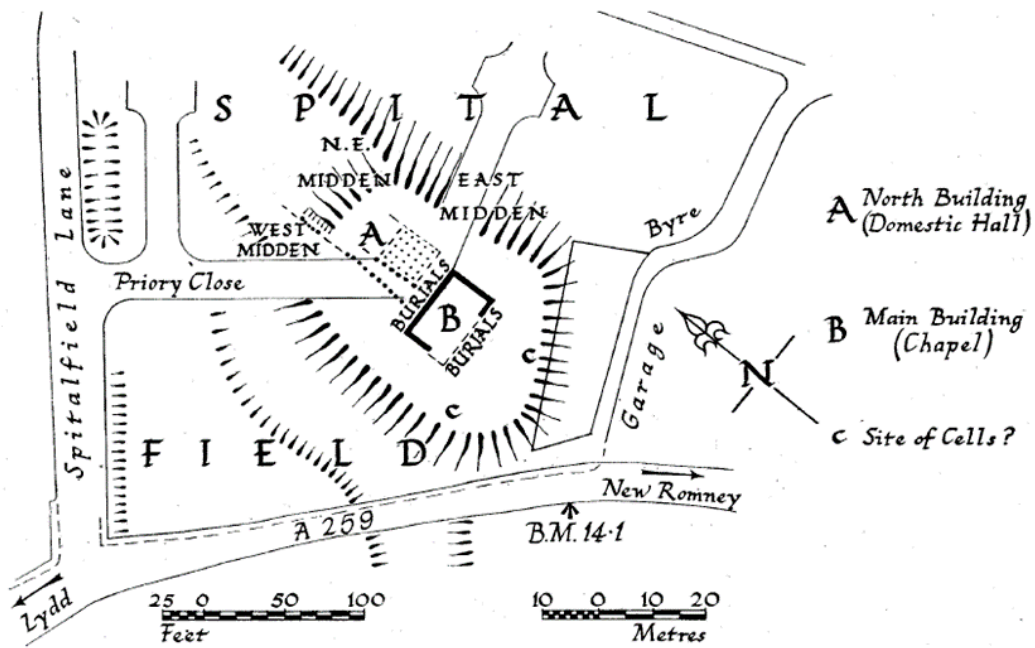


Figure 4. 47: The leper hospital of SS. Stephen and Thomas, New Romney. Building B appears to be the chapel of the hospital, with a hall to the north. The site is also located on a rise in the land, with several roads in the near vicinity (Rigold 1964, 52, Fig. 5). Reproduced with permission of Kent Archaeological Society

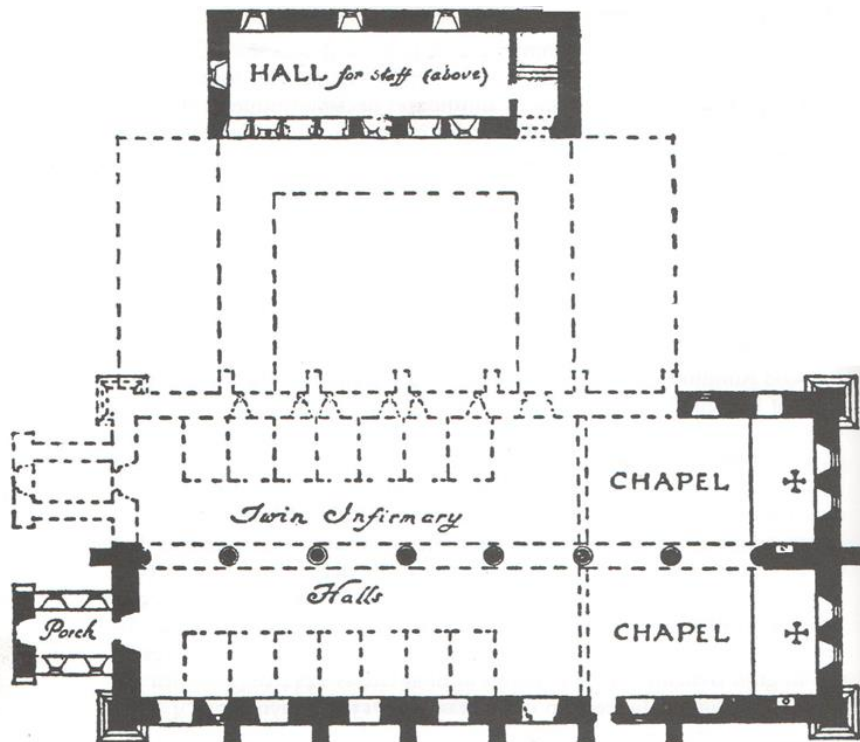


Figure 4. 48: The Hospital of St Nicholas, Salisbury, with a twin infirmary hall and double chapel and the staff hall to the north. It is also suggested there may be other structures forming a cloister between the infirmary and the staff hall (Orme and Webster 1995, 100, Fig. 13). Nicholas Orme and Margaret Webster, *The English Hospital, 1070-1570*; © 1995 Yale University Press. Reproduced with permission of the Licensor through PLSclear

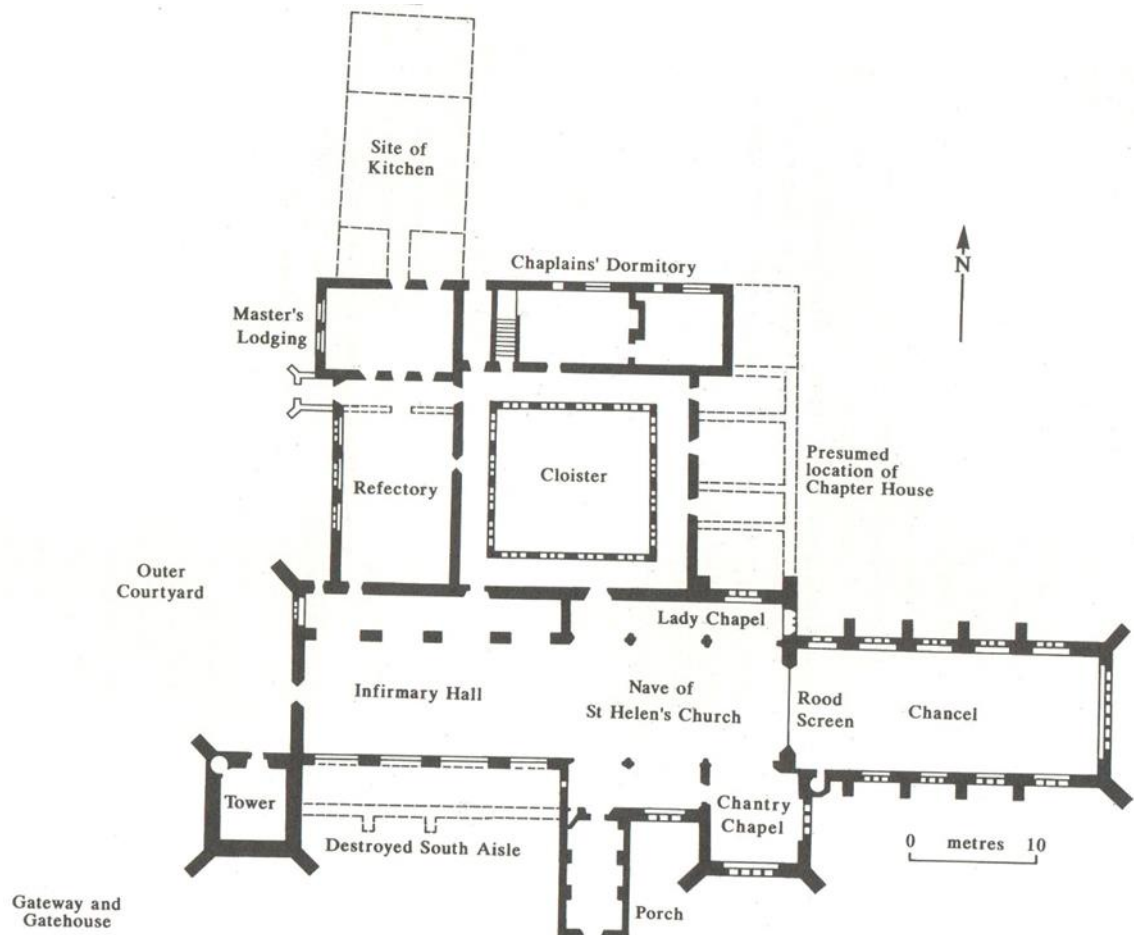


Figure 4. 49: Plan of the Hospital of St Giles, Norwich, showing the manner in which the nave of the parish church of St Helen sat between the chancel and the infirmary hall. Also note the claustral range to the north, housing the staff and domestic activities, with the kitchen running off to the north (Rawcliffe 1999, 62, Map III). Reused with permission of Carole Rawcliffe © Phillip Judge

floor highlights that the later secular almshouses did have a very different feel compared to the earlier hospitals.

Browne's Hospital, Stamford, founded in 1475 and then refounded in 1485, was a two storey structure, with the inmates of the hospital housed on the lower storey and the upper storey being the meeting room for the Guild of the St Katherine (Fig. 4.52) (Hill and Rogers 2013; Leistikow 1967, 30–1). The entire complex appears to have been constructed in one phase around 1475 with little alteration, and although the cloister buildings have undergone modification in the post-medieval period, elements of the cloister arcade are original, and indicate the presence of a northern cloister from the foundation (Hill and Rogers 2013, 30, 34). The infirmary hall on the ground floor held ten beds, separated by partitions and each with their own window, and the hall itself was open to the chapel. Since those unable to attend chapel were expected to say the prayers in their bed, it indicates that the main motivation was for the space to be connected but not necessarily

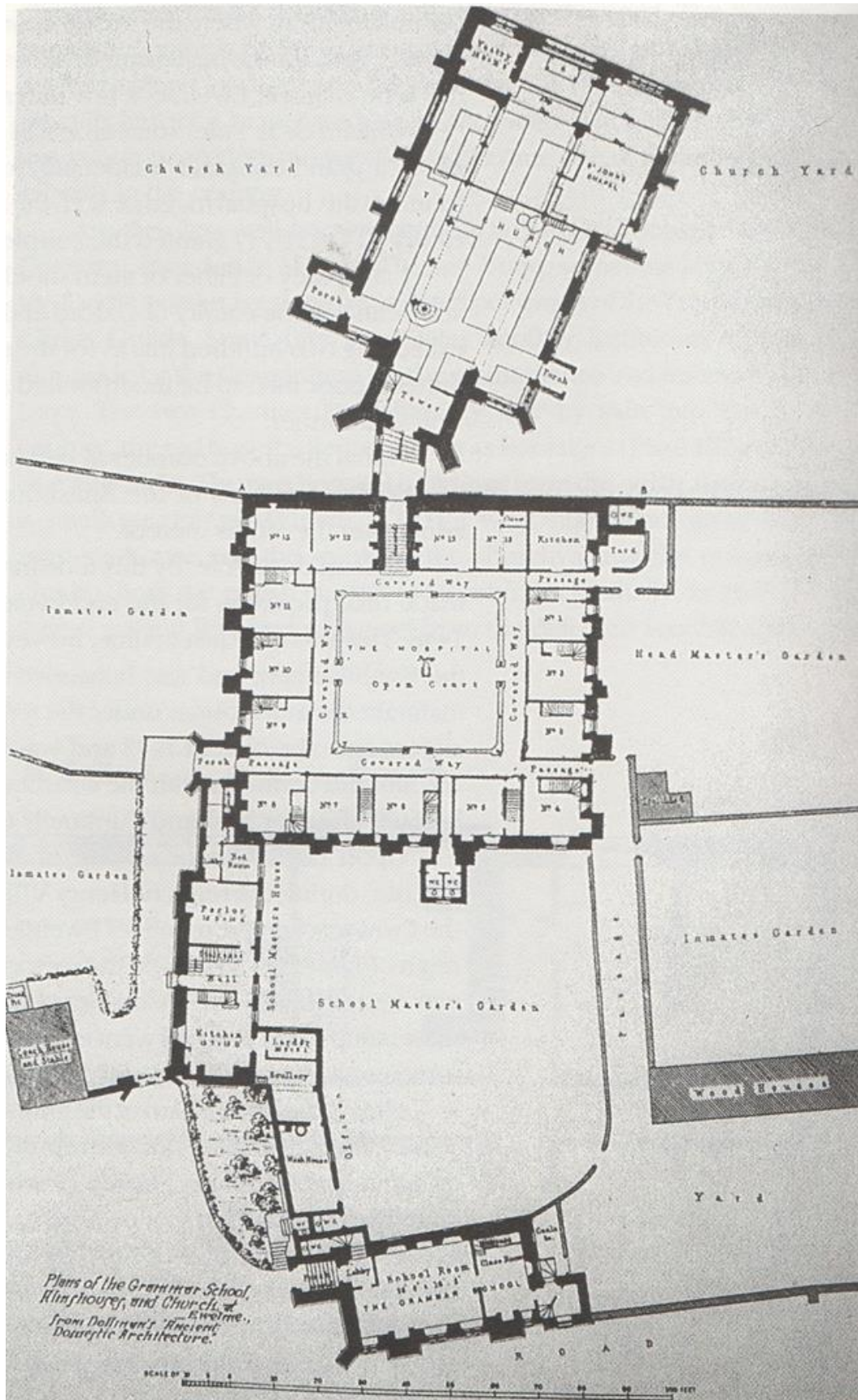


Figure 4. 50: Plan of Ewelme Hospital, Oxfordshire, with the church to the east (at the top of the page), and the grammar school to the west (at the bottom). The use of the quadrangle for the accommodation of the almspeople is one of the clearest instances of the secular almshouse. From Francis T. Dollman 1858, *Ancient Domestic Architecture*

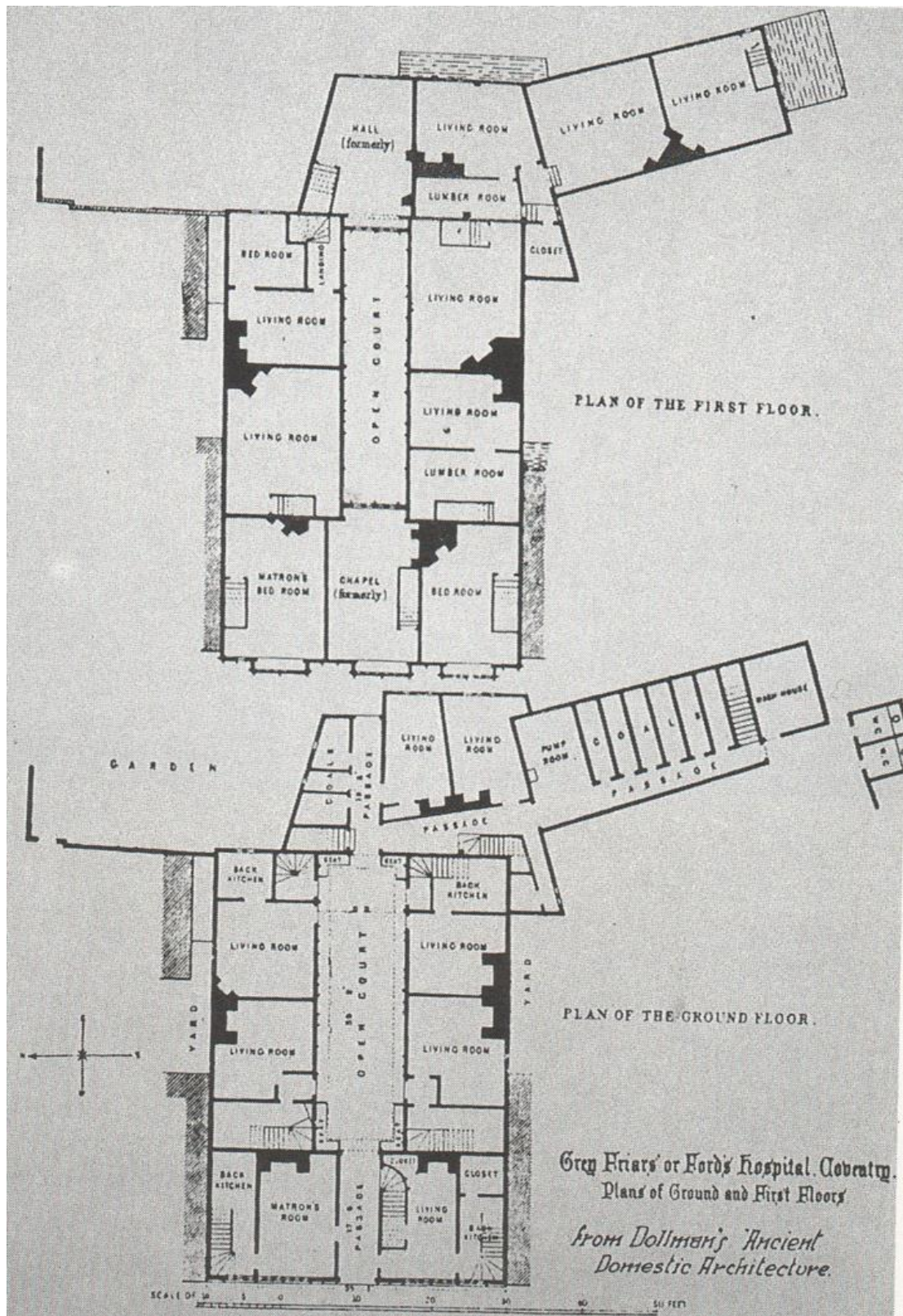


Figure 4. 51: A plan of Ford's Hospital, Coventry. Top: First floor plan; Below: Ground floor plan. The site was very small, but in this case the chapel was located at the west on the first floor, looking into the courtyard. From Francis T. Dollman 1858, *Ancient Domestic Architecture*

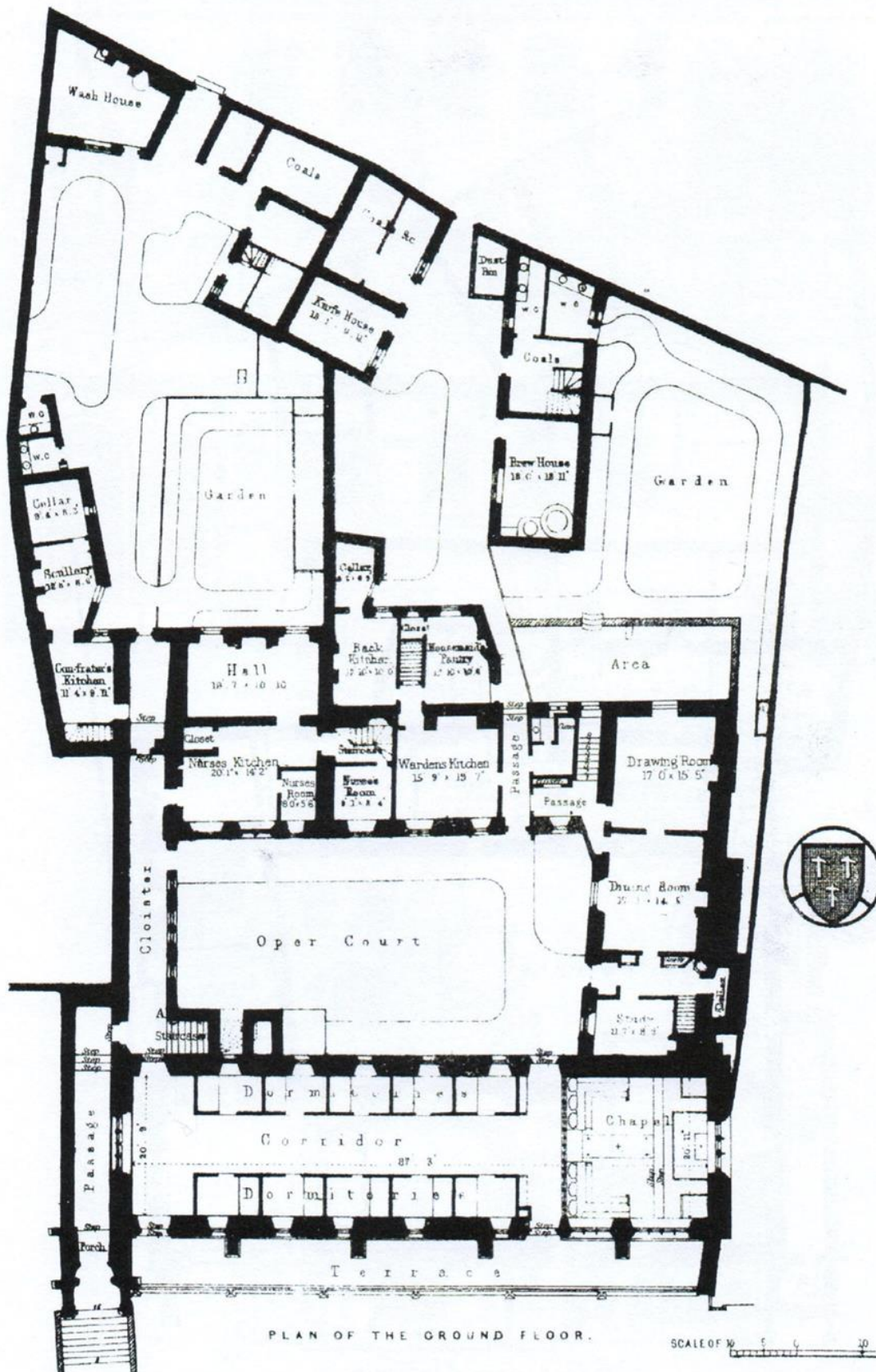


Figure 4. 52: The ground floor plan of Browne's Hospital, Stamford. This plan dates to 1858, but much of the layout was based upon the late medieval original, including the accommodation layout and location of domestic areas. The inmates stayed in the hall at the south, connected to the chapel by a cross-corridor. Staff and domestic rooms were located around the cloister to the north. From Francis T. Dollman 1858, *Ancient Domestic Architecture*

for direct participation (Hill and Rogers 2013, 34–5). The cross passage between the chapel and the dormitory seems to have served as the small nave for the bedesmen to attend service, with the chapel area being for the clergy and senior members of the guild. Increasing privacy was more usual in the 15th and 16th centuries than the more communal infirmary hall, although both types were built up to the end point of this study (Hill and Rogers 2013, 36).

T-shaped hospitals: Distinct but Similar

Whilst often discussed as a sub-sect of hospital architecture, the T-shaped infirmary hall and chapel layout fits very well into the proposed orientation of space in medieval hospitals. The hospital of St John the Baptist, Canterbury, one of Lanfranc's original hospital sites, consisted of a one aisled hall that had a centrally located two aisled chapel at right angles running to the east in a T-shape (Fig. 4.53) (Carlin 1989, 28; Leistikow 1967, 27). The dormitory range, running parallel to Northgate and the river, measured 62m by 8.45m, with a staircase in the northeast corner that may have led up to staff quarters or additional infirmary space, and the central chapel serving as the demarcation point between the male and female halves of the hall (Harrison 1969, 147; Parfitt 1991, 300). To the west of the dormitory were two masonry latrine blocks, again one to the north and one to the south to

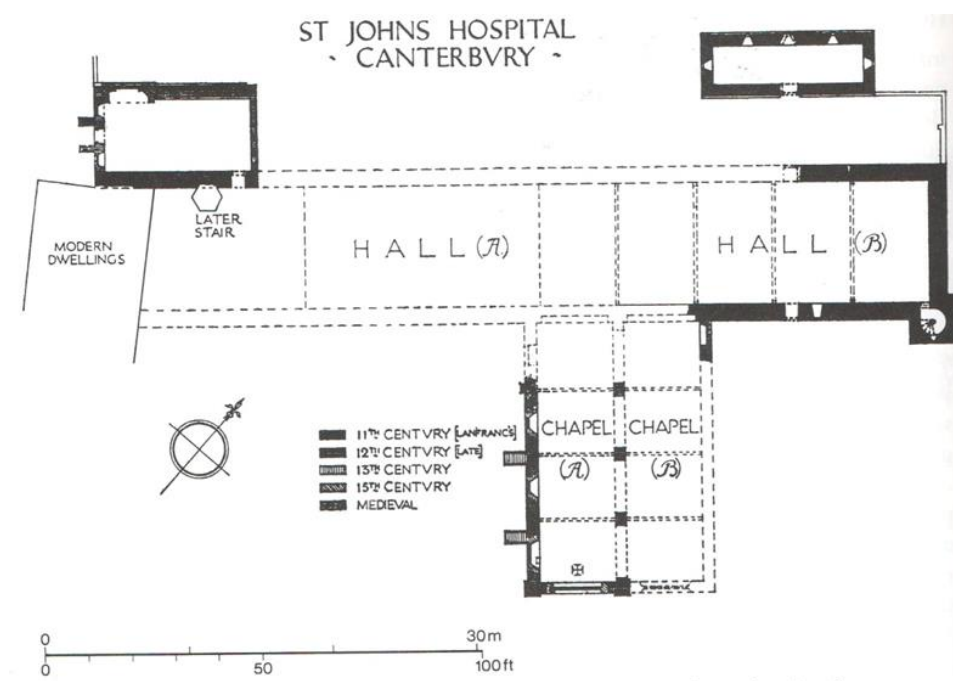


Figure 4. 53: Plan of St John the Baptist, Canterbury, showing the T-shaped arrangement between the chapel and the infirmary halls. The building to the north was a latrine, whilst the structure to the south west was probably domestic in nature (Orme and Webster 1995, 92, Fig. 10). Nicholas Orme and Margaret Webster, *The English Hospital, 1070-1570*; © 1995 Yale University Press. Reproduced with permission of the Licensor through PLSclear

maintain segregation, set 5m back, and to the northwest of the southern latrine was another substantial masonry building, possibly the kitchen. The construction phasing showed that the latrines had been constructed from the start as an integral element of the hospital foundation (Parfitt 1991, 302–3). The wall facing the river had a series of arches, suggesting some form of water management to flush the latrine system that had been established in the mid-1080s, tying into leats to the north that may have left through the easternmost arch. The ground floor was accessed by a door facing a similar doorway in the dormitory (Parfitt 1991, 304). Unfortunately, the arrangement for the northwest wall, utilising four narrow piers on river muds led to severe subsidence. This was only rectified after a fire caused severe damage to the whole site in the 14th century, and during the renovation later in the century a buttress was used to support the northwest wall and the internal latrine pit was relined with stone (Parfitt 1991, 304–5). Another possible T-shaped site is the hospital of St Giles, Maldon, founded in c.1164 to provide a refuge for local burgesses with leprosy (Fig. 4.54) (Nunn 1983, 1). The current remains suggest the presence of a chapel at least 5m long and approximately 3.5m wide running at right angles to a north-south running hall at least 13.5m long and 4m wide. The site has not been surveyed or investigated to ascertain what elements are associated with the medieval hospital.

Founded in 1194 by Bishop Gilbert de Glanville, excavations at St Mary hospital, Strood, uncovered evidence of the internal layout of the site (Fig. 4.55) (Harrison 1969). The chapel ran at right angles to the dormitory hall, measuring 10.6m long and 5.5m wide, with a vaulted ceiling and a plain tiled floor set on rammed chalk (Harrison 1969, 144). Graves have been repeatedly found to the south of the chapel. The altar was located just in front of the east wall, there was a recess into which two fragments of human bone were recovered, possibly indicating an aumbrey or sacred vessels or relics. The hall was at right angles, just under 7m wide and at least 13.7m but if symmetrical would have been almost 16m long (Harrison 1969, 144). It seems that the hall extended further south, and could have extended as far as High Street (Harrison 1969, 147). The hall and chapel communicated through an archway, which seems to have been split in half by a wall projecting into the hall, and another two doorways in the west wall of the hall, either side of the later wall in the doorway, led out of the hospital building (Harrison 1969, 144–5).

This arrangement is indicative of a mixed community, and clearly allowed the segregation of the sexes whilst still providing access to the chapel for both sides (Harrison 1969, 147). The site was established for a master and brethren, as well as poor travellers and indigents

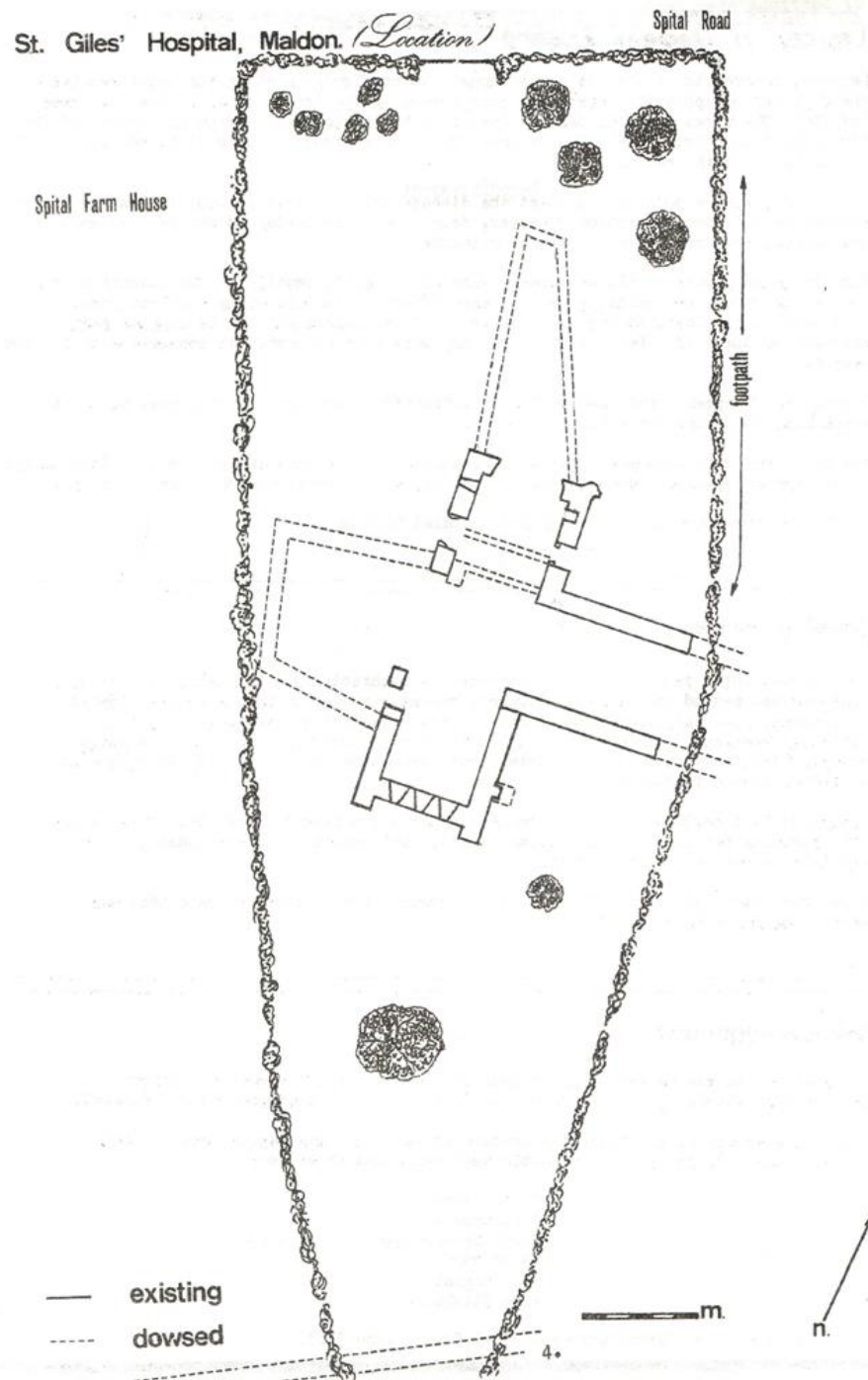


Figure 4. 54: The Hospital of St Giles, Maldon. Other than the standing remains almost no other investigation has been carried out at the site. From what is left it appears to have been a T-shaped hospital, with very short transepts/wards (Nunn 1983, 4). Reproduced with the permission of the Maldon Archaeological Group

(Knowles and Hadcock 1971, 395), and it may be the separation of the temporary community with the more permanent one that can be observed here. There appears to have been a stone bench running along the inside of the west wall that had later been robbed, and in the northeast corner was a wide plinth that may have served as the base of a staircase, suggesting at least a partial second floor, but this may have related to a later

ST. MARY'S HOSPITAL · STROOD

PLAN AS REVEALED BY PARTIAL EXCAVATION

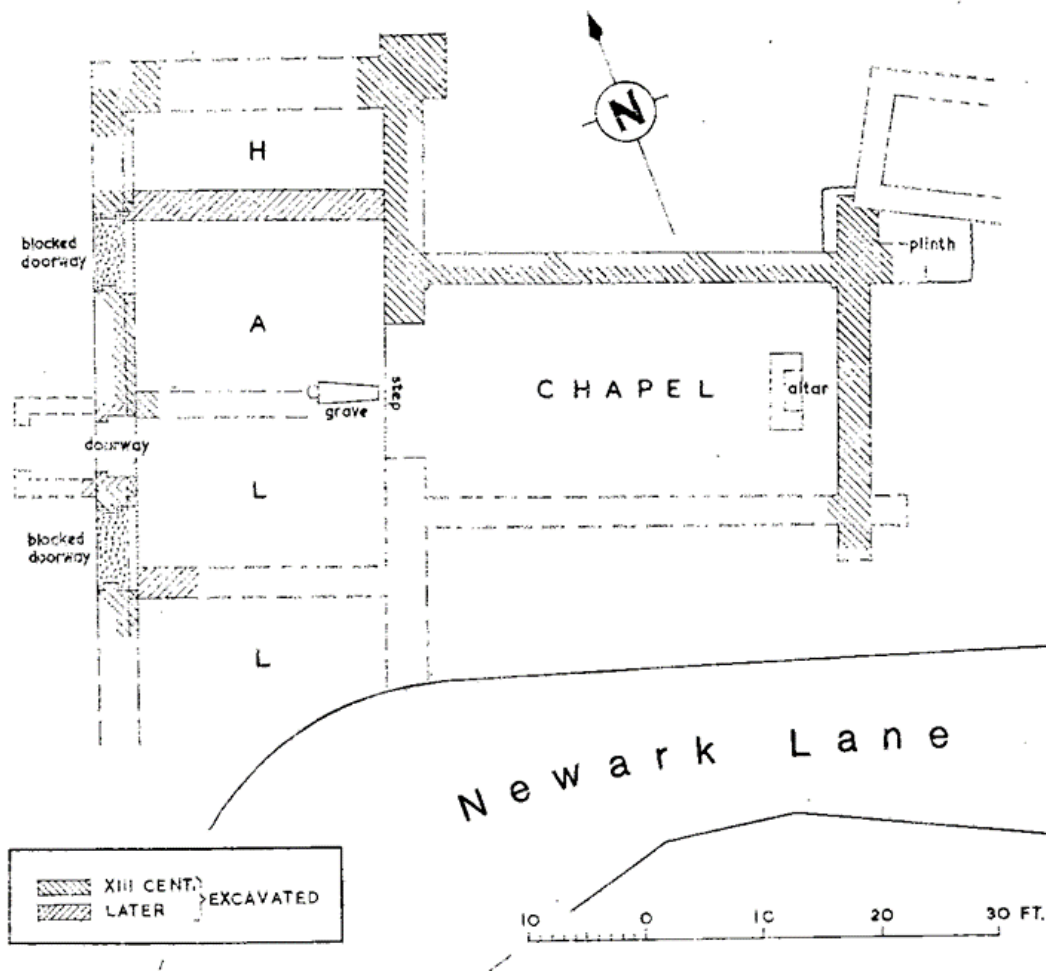


Figure 4. 55: The plan of excavated walls at St Mary's Hospital, Strood. The T-shaped building may have housed a mixed community within the arms of the hall, but it later underwent a series of modifications, as did the chapel, with the infirmary hall being significantly shortened (Harrison 1969, 143, Fig. 2). Reproduced with permission of Kent Archaeological Society

period of rebuilding. Such a shape is similar to St John the Baptists at Canterbury, although smaller, with a narrow aisle-less hall at right angles to the chapel (Harrison 1969, 146).

At some point in the history of the site the entire chapel was demolished and rebuilt in almost the exact same fashion, as was the eastern wall of the hall, and it may be at this time that the staircase was added as well as a new floor of plain tiles (Harrison 1969, 145). At a still later point the hall was cut down in length by two inserted walls, and the central section, now only 8.8m long, served as an ante-chapel (Harrison 1969, 145–6). The original two doors in the western wall were blocked up, the central divide removed, and a new entrance inserted into the western wall of the old hall. The bench was partially removed and a new floor of rubble and brown mortar laid down, possibly serving as a base for a tile

floor. The addition of a grave into what had been the hall indicates that this change removed the accommodation function from the hall, although it is unclear what purpose the narrow rooms left over to the north and south might have had (Harrison 1969, 147–8). A wall butted onto the southern portion of the western wall of the hall, indicating some buildings to the west, possibly a porch or something more substantial (Harrison 1969, 146). The shortening of the hall may have occurred at the same time as the rebuild of the chapel, since some of the reused stonework in the hall could have come from the chapel (Harrison 1969, 147). These changes, probably taking place in the late 14th century, would require new buildings to serve the community, and later documents note the demolition of a medieval building to the northwest of the chapel (Fig. 4.56) (Harrison 1969, 149–51). To the west of the hall, on the High Street, was the gate to the site. With the chapel to the east, at least one building to the north, and another possible structure attached to the southern end of the west wall of the chapel, this would have created a quadrangle or courtyard around which the site functioned, and it might be suggested that another range to the west served a domestic function.

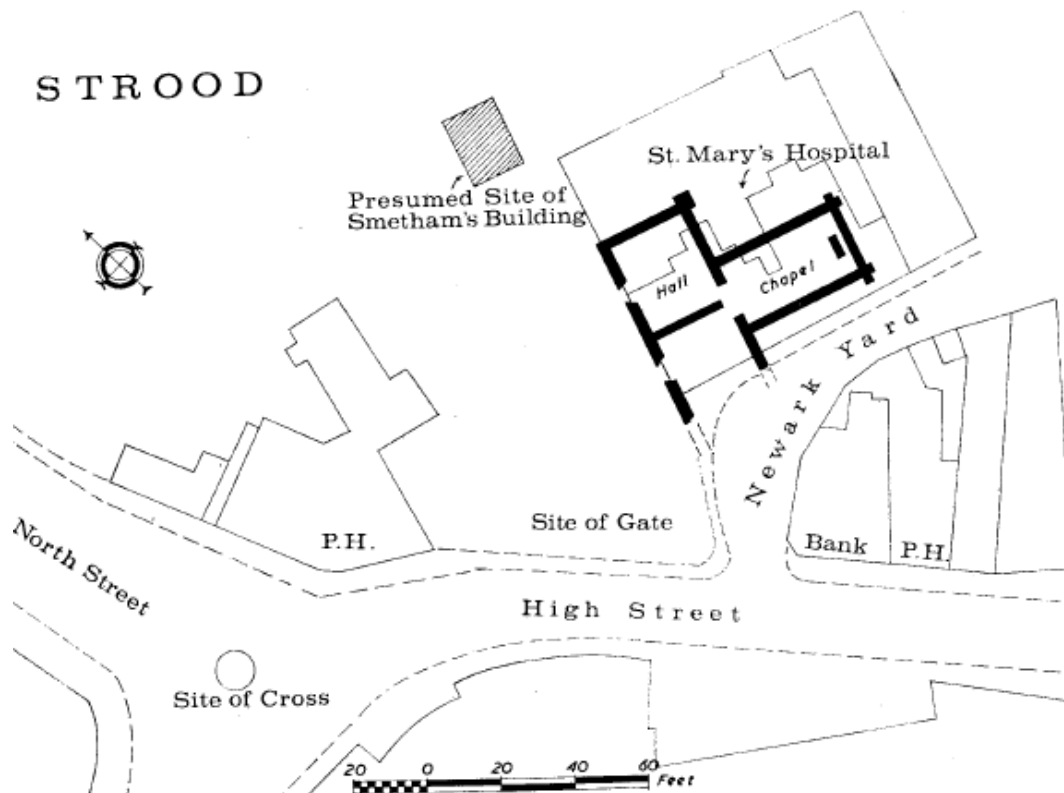


Figure 4. 56: An overview plan of the whole precinct of St Mary, Strood. The gate into the precinct was to the south, onto the High Street. The addition of Smetham's Building to the northwest and possible structures to the south may have formed a courtyard to the west of the chapel (Harrison 1969, 148, Fig. 10). Reproduced with permission of Kent Archaeological Society

Summary

Clearly there was an extensive mix of architectural forms utilised by the medieval hospital, from the linear infirmary halls to parallel halls and chapels, T-shaped layouts, or collegiate quadrangles, highlighting all the different subsets of hospital layout that are often used to divide sites. What is worthy of note is the consistent suggestion of western and northern orientations, courtyards, and claustral ranges. Although access to the chapel was important, being able to see into the chancel was not. Privacy could be considered a growing concern, but these rooms would still be arranged in rows or within a hall. All these sites either followed a hierarchy of space with the chapel to the east, southeast or south, and domestic arrangements to the west or north. Interestingly at St Mary, Strood, a similar process of site development seems to have occurred as at St Mary Spital, where the original T-shaped infirmary became a modified chapel and the inmates moved to the northwest of the site. It is also clear that the variations in orientation seen across these sites do not correlate to different categories of site or change over time. Groups like leprosy hospitals or secular almshouses, often held as being distinct expressions of hospital form, showed extensive variation between themselves. This is a key point to highlight, since it clearly implies that at their heart, whilst a specific category of hospital shared similar issues in terms of the providing care for those with leprosy or how to house the infirm, in terms of their layout they were all connected through a framework that allowed flexibility when organising space but which still intended to provide a spiritual, healthy, and healing environment to its residents.

Sites with Limited Evidence for only the Chapel and Hall

There were a relatively large number of sites that were predominantly of the linear plan of infirmary hall and chapel where no other information of the site layout could be gained. They highlight at the very least the almost ubiquity with which the chapel was placed east of the infirmary hall, as would be expected in a church building, but they also demonstrate how limited their data is for understanding how the wider site functioned. This focus on the infirmary and chapel is important for identifying hospital sites and for orientating activity, but the other buildings were vitally important to the daily routine and conceptual ordering. In some cases, their small size may indicate that this was the only structure of the hospital, and these may reflect how important spatial orientation was even in the most limited expressions of the hospital tradition. A site that is regularly used as an example for the linear infirmary style, and one that is still standing and in use, is St Mary's, Chichester (Leistikow 1967, 29). Founded around 1172, St Mary's consisted of an aisled hall originally

of six bays measuring 36.5m long and 13.7m wide, which was later subdivided by wooden partitions into two-room chambers, with a chancel of 13.7m length and 6.7m wide, separated by a wooden screen (Fig. 4.57) (Godfrey 1959, 134). The hall was divided into three aisles by the pillars of the roof, with the central aisle running into the chancel at the east (Leistikow 1967, 29). The large and high roof rests on the low outer walls and is partially supported by pillars.

Originally founded in 1133 by Henry I for the destitute and sick to pray for him and his descendants, St John the Evangelist, Cirencester, appears to have only gained its chapel after 1319 when an oratory was constructed according to a complaint by the townsmen in 1342 (Leech and McWhirr 1982, 191). At the same time as the oratory was noted another deed stated that no masses had occurred on the site, but from now on they would be held after mass in the parish church but that no private masses could be conducted. The hospital survived the Dissolution and elements were converted into tenements for almspeople. A series of excavations revealed elements of the hospital building, although there had been severe modern disturbance (Fig. 4.58) (Leech and McWhirr 1982, 193). These included a probable section of the outer boundary wall of the hospital precinct just to the south of the nave wall. The easternmost bay of the nave was slightly longer than the rest of the bays by about 0.7m, and although only four bays in total are known it was at least five, and more likely seven, bays, running along the frontage of Gloucester Street (Leech and McWhirr 1982, 201). Two blocked doorways gave access to the later chapel.

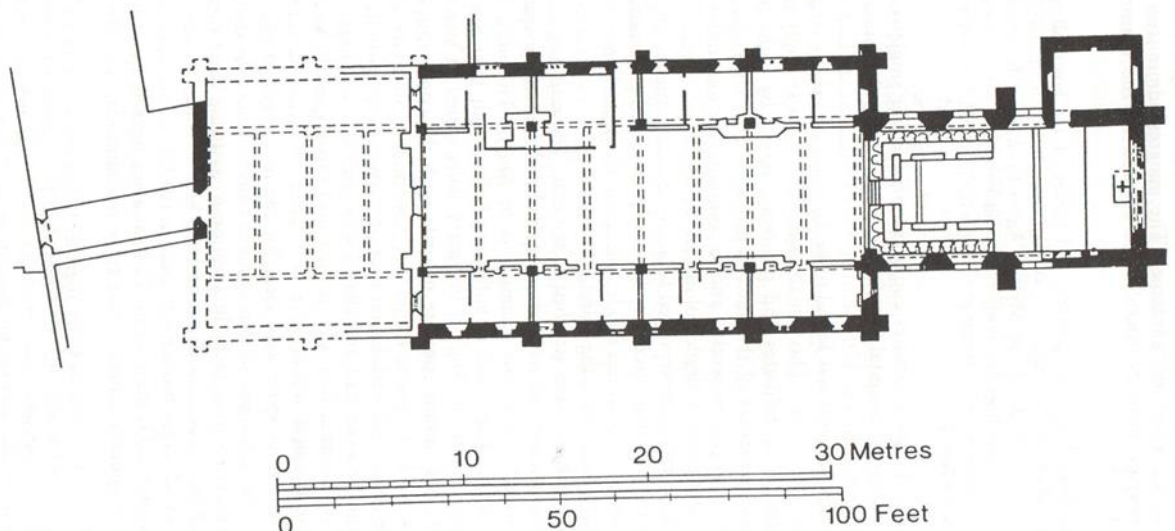


Figure 4. 57: The plan of St Mary's Hospital, Chichester. The site clearly demarcated space between the infirmarium hall and the chapel. The hall had small apartments inserted, adding privacy to the originally more open hall. The hospital was also shortened in the post-medieval period (Gilchrist 1995, 19, Fig. 3) © Roberta Gilchrist, 1995, *Contemplation and Action: The Other Monasticism*, Leicester University Press, used by permission of Bloomsbury Publishing Plc.

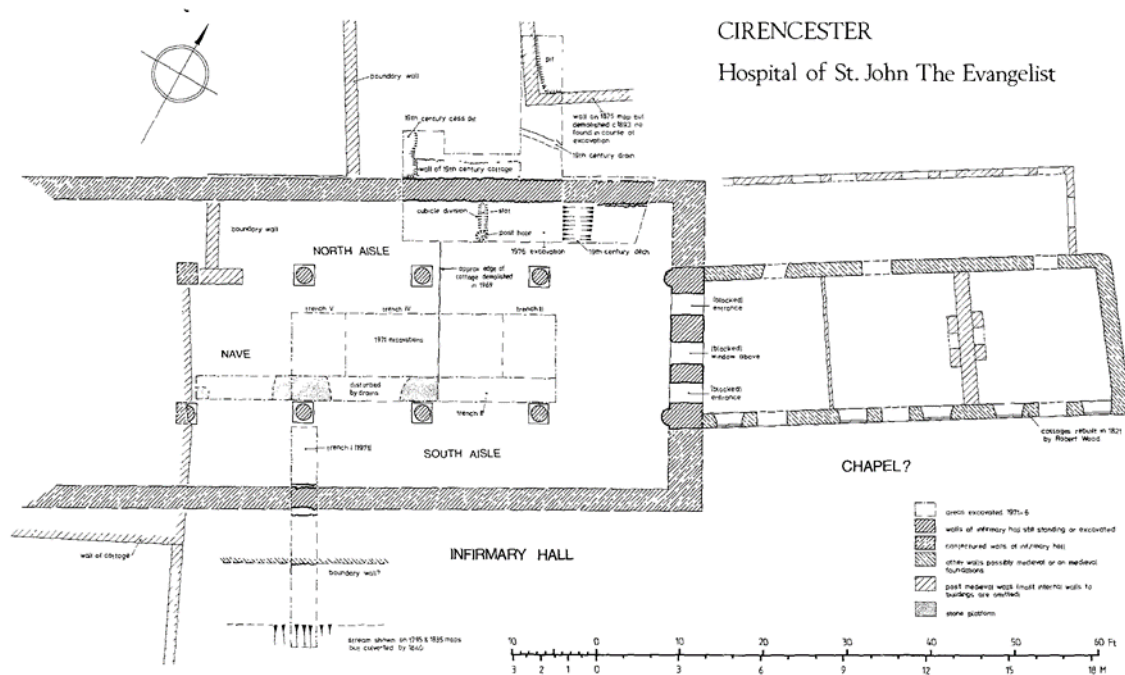


Figure 4. 58: The plan of the hospital of St John the Evangelist, Cirencester, based on excavations in 1971 and 1976. A thin chapel ran to the east from the three aisled hall to the west. Possible partitions may also indicate the breaking up of the internal space into small apartments or bedrooms (Leach and McWhirr 1982, 194, Fig. 2). Reproduced with the permission of Bristol and Gloucestershire Archaeological Society

The excavations also noted a posthole and beam slot near the northern wall, possibly representing the use of partitions to create living cubicles. This overall arrangement of a linear infirmary hall running into a chapel seems to have been a typical form, also seen at St John's, Northampton, founded c. 1138 (Leach and McWhirr 1982, 201).

Founded in the early 13th century to support the workmen on the nearby Westbrugge Bridge and a community of infirm men and women, the hospital of St Bartholomew, Gloucester, was located to the west of the city (Hurst 1974, 41–43). The prior of the hospital was even referred to as *custos pontis* in 1455, and held responsibility for its maintenance. The south range of the hospital was located on the north side of the road, comprising from east to west a two- or three-bay chancel, a two-bay church nave, and an infirmary hall of seven bays, built in one scheme of works, but possibly two phases (Fig. 4.59). The church was completed by 1232 when it was allowed to hold services (Hurst 1974, 43). The chancel was constructed in two phases, with the arch between the nave and chancel being constructed first, and then the walls of the chancel added after the northern arcade of the nave was constructed (Hurst 1974, 43, 44). The chancel was also divided in half between north and south by a wall that possibly supported sanctuary rails, with the southern element centred down the middle of the nave and the northern element orientated off the northern arcade. The piers running down the nave and infirmary were

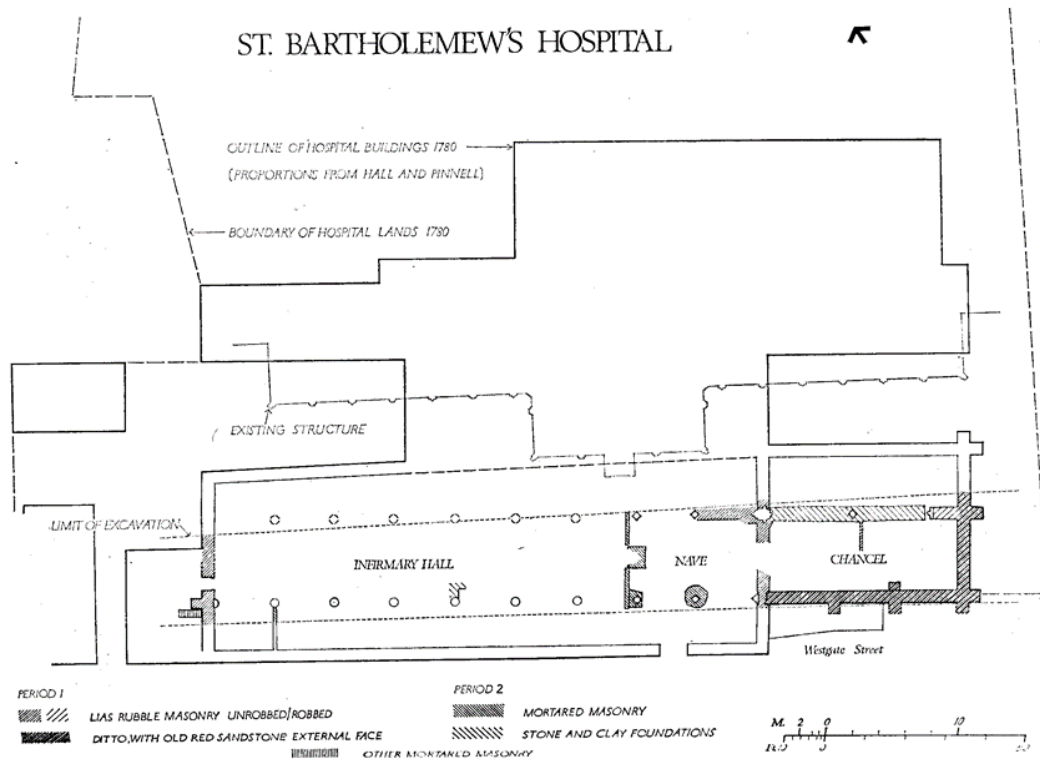


Figure 4. 59: Plan of St Bartholomew's Hospital, Gloucester, with the excavated remains marked by hatches. Only a limited amount of the chapel and hall were encountered, but it indicates that at times the chapel was split in half, possibly indicating a mixed community (Hurst 1974, 44, Fig. 16). Reproduced with permission of the Society of Antiquaries of London and the *Antiquaries Journal*

4.45m apart, but the northern arcade was walled, which taken alongside the previously mentioned phasing suggests a change in plan for the northern arcade, possibly to strengthen the structure, since the central chancel pier was seen to have sunk 0.15m after construction (Hurst 1974, 45). These changes, especially to the chancel, must have dated to after the work of the nave, since the south chancel wall was later in date than the east nave wall. In the early 16th century the floors were raised by 0.5m with clay capped by a mortar setting for a tile floor, possibly due to flooding from the Severn around the time of the Reformation. Due to the limits of the excavation, little of the internal arrangements for living were recovered, although the manner in which the northern aisle was split off with access to its own half of the chapel, whilst the southern half had access to the central and southern aisle might be argued to suggest a separation of sexes, with women to the north. The western end of the infirmary was also not investigated, which may have been the location for the kitchen and staff quarters, since there was no suggestion of buildings to the north of the chapel.

Newarke Hospital, Leicester, had a three-aisled hall measuring over 70m which still stands in a modified form (Fig. 4.60) (Leistikow 1967, 30). The hospital housed 30 short term patients or travellers in the body of the church, where they were purposefully placed to



Figure 4. 60: The Newarke Hospital, Leicester, measuring over 70m in length. Despite the length a small chapel was all that was deemed necessary for the community (Godfrey 1955, 30, Fig. 12)

observe the host and divine offices, whilst the staff and the permanent almspeople were placed in separate accommodation in the main hall or a specific staff quarters (Carlin 1989, 28). The hospital of Kingsthorpe, Northampton, had two chapels and three rows of beds for the poor or sick travellers to hear mass and pray (Carlin 1989, 28), and a similar arrangement has been suggested for the *hospitium* at the gates of Lewes Abbey, the hospital of St James, Lewes, and the hospital of St John the Baptist, Winchester, all dating to the 13th century, where they had two aisle halls, potentially using each aisle to house different sexes (Leistikow 1967, 27). Excavations at St John the Baptist, Winchester, revealed a long, nave-like infirmary split lengthwise into two with communicating doors, and each aisle having its own chapels at the eastern end, viewed by the patients through traceried openings (Fig. 4.61) (Carlin 1989, 28). The furnishings for hospitals are often hard to elucidate, but excavations also revealed possible cupboards along the northern wall of the northern infirmary at regular intervals, seemingly associated with a patient's bed, and providing a level of private storage (Carlin 1989, 29). The possible Hospitium of St Pancras

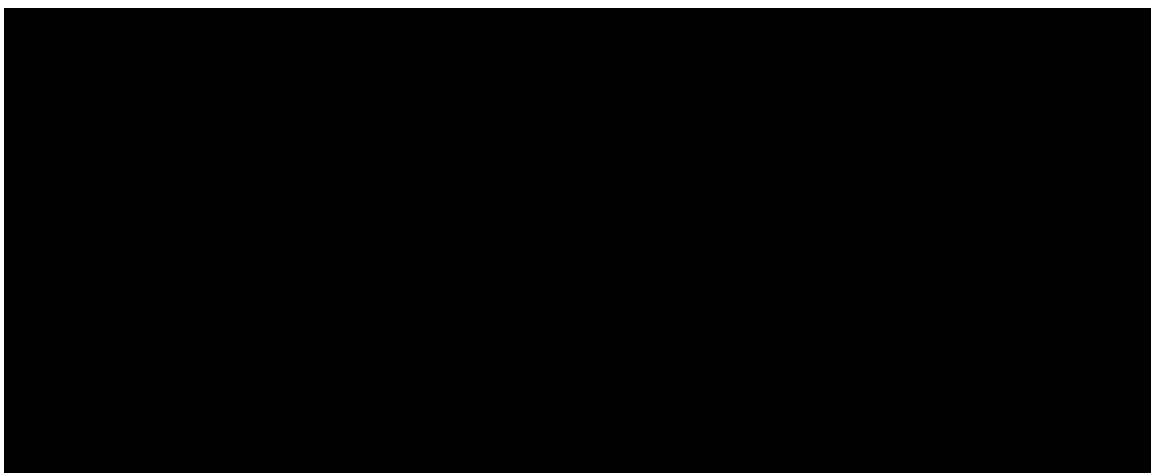


Figure 4. 61: The parallel halls of St John the Baptist, Winchester. Again, this seems to be linked to the segregation of the sexes. There were also possible cupboards located during excavation, implying a level of privacy for the residents at this hospital (Godfrey 1955, 34, Fig. 17)

Priory at Southover, Lewes may have been located where the current parish church of St John the Baptist now stands (Grant 2009). Excavation revealed an early phase of the church, consisting of rammed chalk footings of an east-west aligned structure, close to the gatehouse of the 12th-century Cluniac priory, that was later converted to a parish church in the 14th or 15th century, but the majority of the building appears to lie under the modern church.

The hospital of St Nicholas, Pickering, was possibly located by excavations in 1943, which revealed a rectangular, east-west aligned stone structure, 15.5m long and 5.5m wide (Fig. 4.62) (Fox 1943, 326). The nave took up the majority of the building, with the chapel being c.4m in length. Located at the west end of the chapel was a small room, assumed to be for the staff, above which may have been a belfry (Fox 1943, 326, 328). St Bartholomew's, Chatham, was founded before 1108 by Bishop Gundolf, with a rectangular building of modest dimensions, with an incorporated chapel and semi-circular apse (Fig. 4.63) (Leistikow 1967, 27). Founded in 1181 the Hospital of the Blessed Virgin and SS Lazarus, Martha, and Mary, Sherburn, County Durham, still retains many of its medieval elements, including a fortified gatehouse and parts of the heavily restored chapel that also includes a Norman tower that may be part of the original building (Leistikow 1967, 34). Although little of the medieval building is observable due to 18th- and 19th-century remodelling and

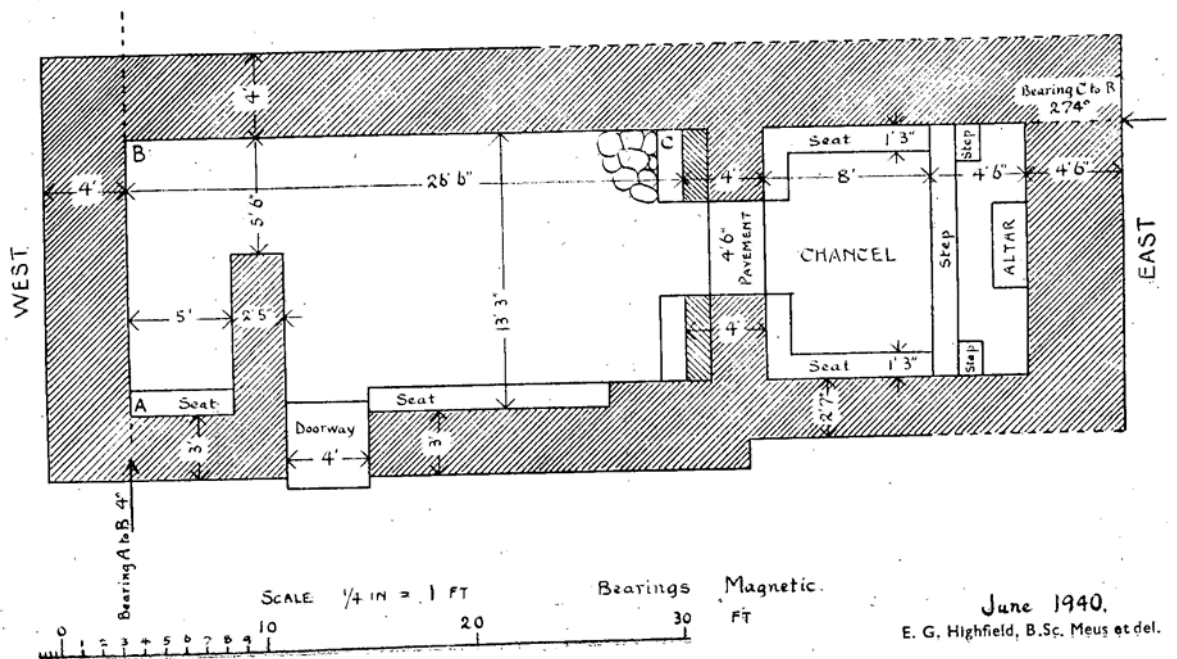


Figure 4. 62: The plan of St Nicholas Hospital, Pickering. The site comprised a chapel at the east, a central nave space probably for accommodation, and a partially enclosed room to the west, possibly for staff and cooking (Fox 1943, 327). Reproduced with permission of the Yorkshire Archaeological and Historical Society

St. Bartholomew's Hospital, Chatham.

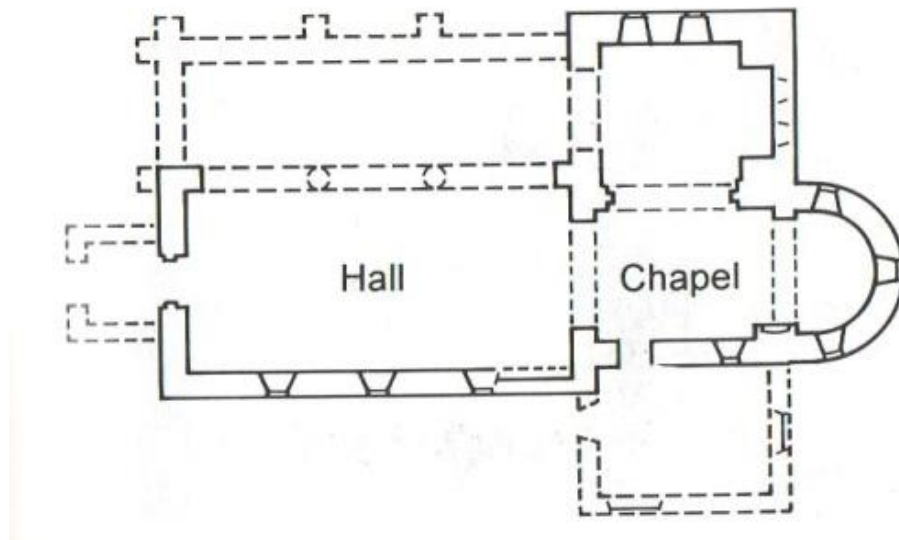


Figure 4. 63: The Hospital of St Bartholomew, Chatham, with an apse attached to the chapel. The hall may also have been wider, forming two unequal wards, similar to St Bartholomew's, Gloucester (Orme and Webster 1995, 89, Fig. 8). Nicholas Orme and Margaret Webster, *The English Hospital, 1070-1570*; © 1995 Yale University Press. Reproduced with permission of the Licensor through PLSclear

repairs, the presence of the lancet window in the lower element of the tower indicates a post-12th-century date, and that the chancel was constructed in the 13th century and remodelled in the 14th century (Ryder 2001). Despite a Lady Chapel being mentioned to the north of the great chapel, it is not certain if this was in the aisle or a separate building, and no other elements of the medieval hospital buildings were observed. Founded in the late 12th century, the known structures of St Mary Magdalene, Stourbridge (also written as Sturbridge), comprise a rectangular nave and a chancel (Fig. 4.64) (Jones 1927). The nave

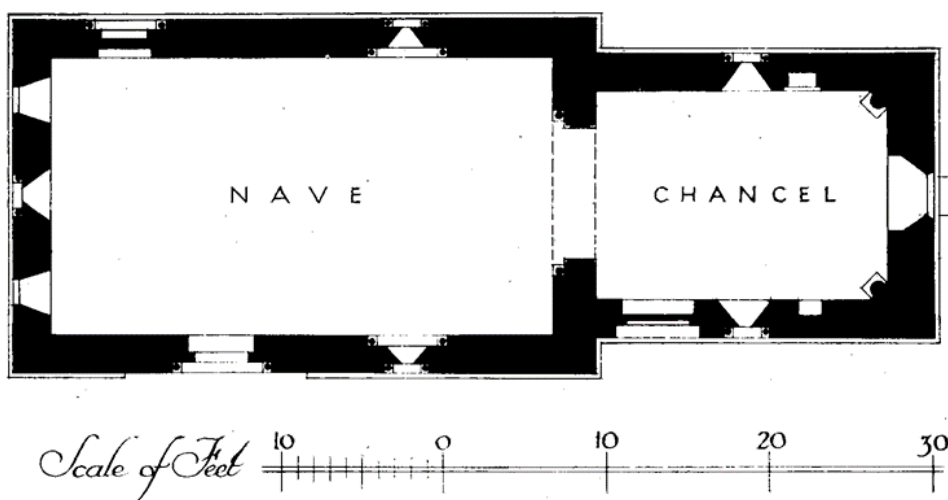


Figure 4. 64: The plan of the chapel of St Mary Magdalene, Stourbridge, showing the linear hall and chapel arrangement (Jones 1927, 139). Reproduced with permission of the Proceedings of the Cambridge Antiquarian Society

measured 9.5m by 5.1m, and the chancel measured 5.5m by 3.8m, communicating through a chancel arch (Jones 1927, 140). There were opposing doors in the north and south walls, the southern one being the larger and more ornate one (Jones 1927, 144). To the south of the causeway leading to the Stony Bridge and Waltham Grange, north of Waltham Abbey, appear to be the remains of the abbey hospital, in the area of a rectangular earthwork oriented east-west (Fig. 4.65) (Huggins 1970, 126, 127 Fig 51). At St John the Baptist and St John the Evangelist, Sherborne, two floors were used to separate the sexes (Fig. 4.66).

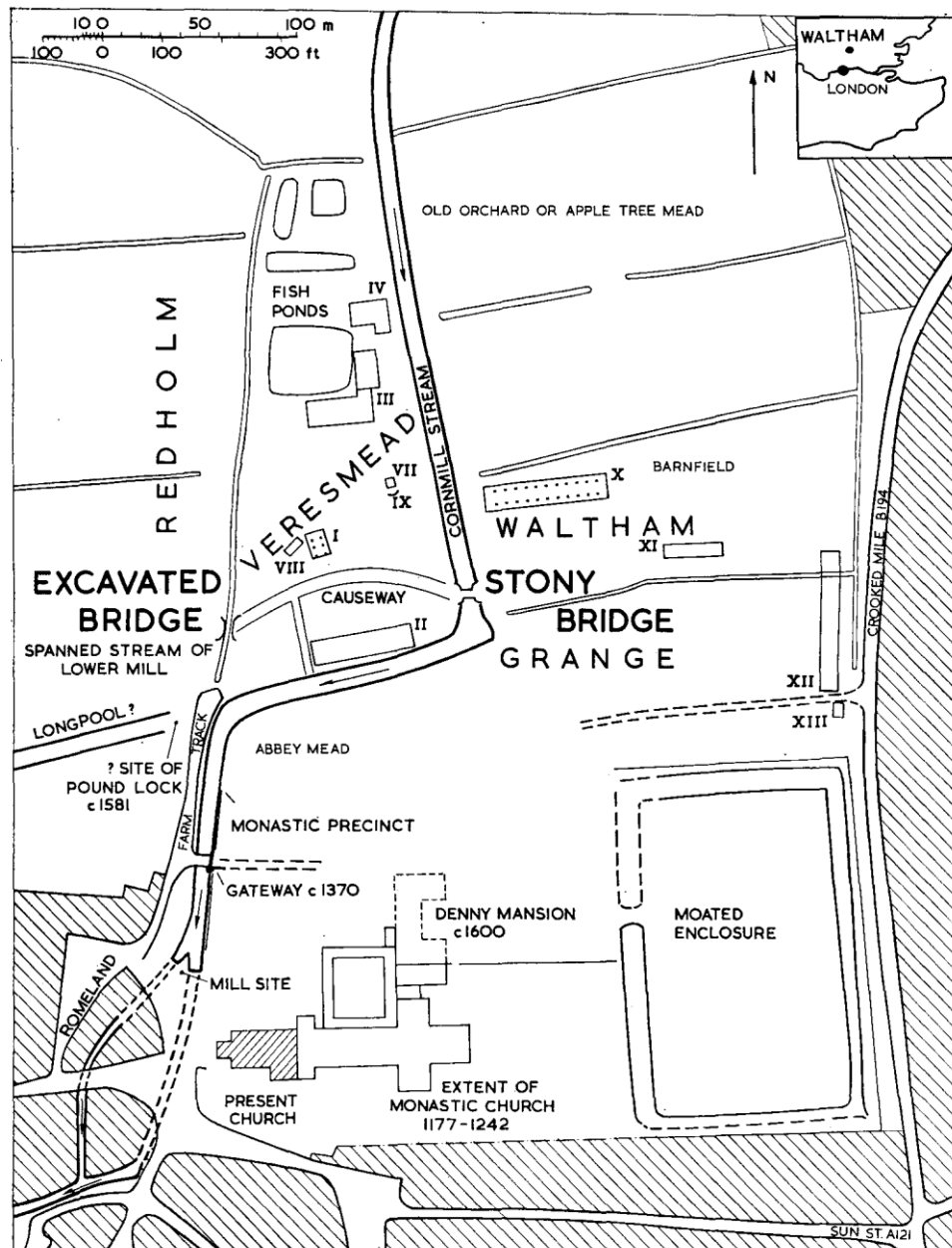


Figure 4. 65: The possible location of a hospitium for Waltham Abbey, Essex, is located at the point marked II, just below the causeway and one of the entrances into the northern precinct of the abbey (Huggins 1970, 127, Fig. 51). Reproduced with permission of Taylor and Francis and the Society for Medieval Archaeology <https://www.tandfonline.com/loi/ymed20>

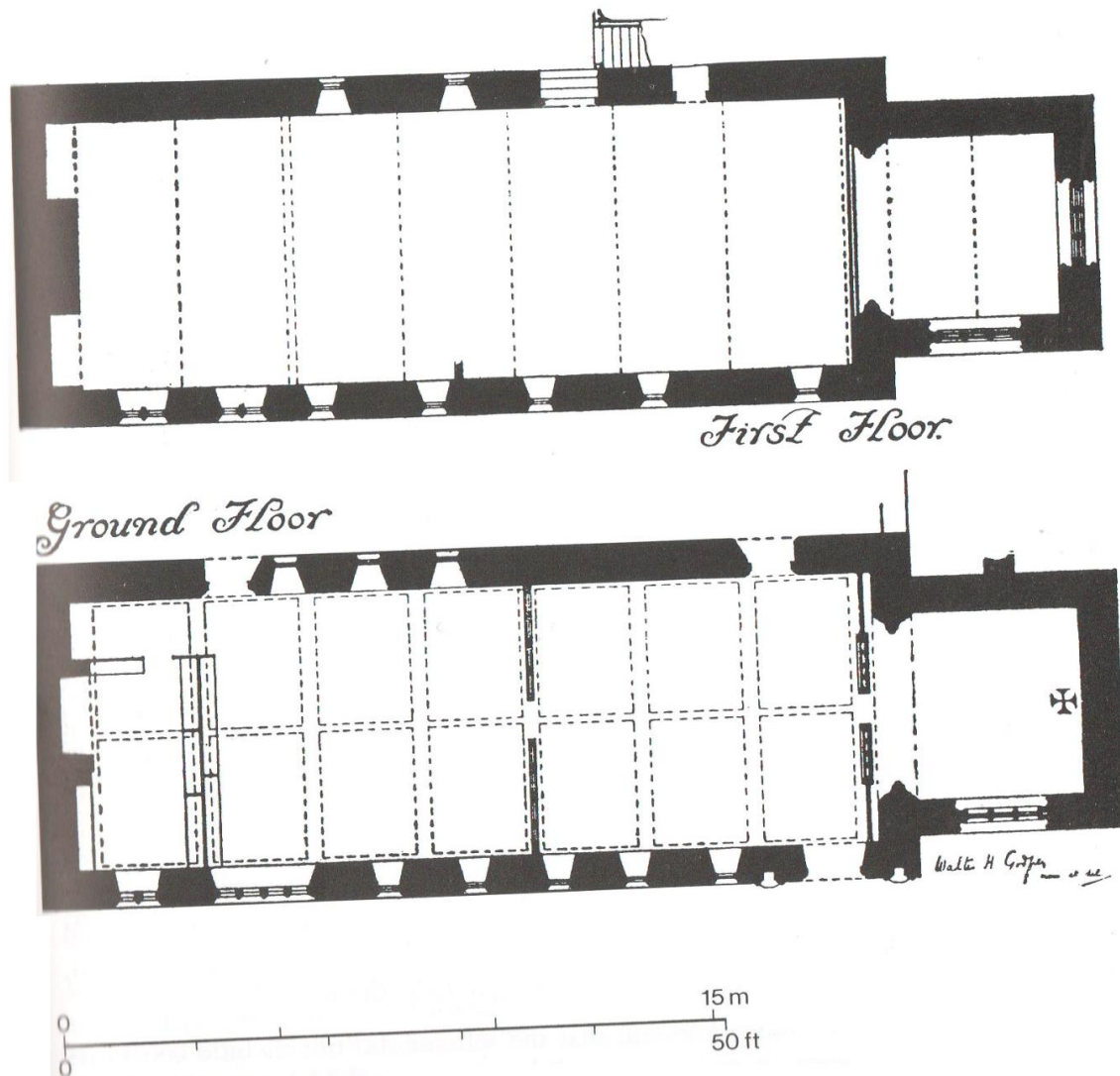


Figure 4. 66: The Hospital of St John the Baptist and St John the Evangelist, Sherborne, with the two floors opening into the chapel, allowing some element of participation in the service whilst keeping the sexes segregated (Orme and Webster 1995, 131, Fig. 18). Nicholas Orme and Margaret Webster, *The English Hospital, 1070-1570*; © 1995 Yale University Press. Reproduced with permission of the Licensor through PLSclear

Even into the 16th century, examples of linear infirmary halls with chapels to the east were being constructed and maintained, especially at smaller sites such as St Saviours, Wells, founded after 1424 (Fig. 4.67), the Bede House at Higham Ferrers, founded in 1423, which housed 12 people (Fig. 4.68), and St Mary Magdalene, Glastonbury, where the oldest sections date to the 13th century (Fig. 4.69) (Leistikow 1967, 30). The original hospital of St Mary Magdalene, Glastonbury, was in the north aisle of the parish church of St John the Baptist, functioning as a *hospitium* that housed pilgrims visiting the shrines of Glastonbury. Its addition to the parish church involved running a northern extension from the east end of the tower and creating another aisle for housing guests (Fig. 4.70) (Hollinrake 2014, 18, 19 Fig 17). The area provided for the hospitium included an area roughly 6m square north of the tower, which then ran the length of the nave, 21.6m to the west, in an aisle about

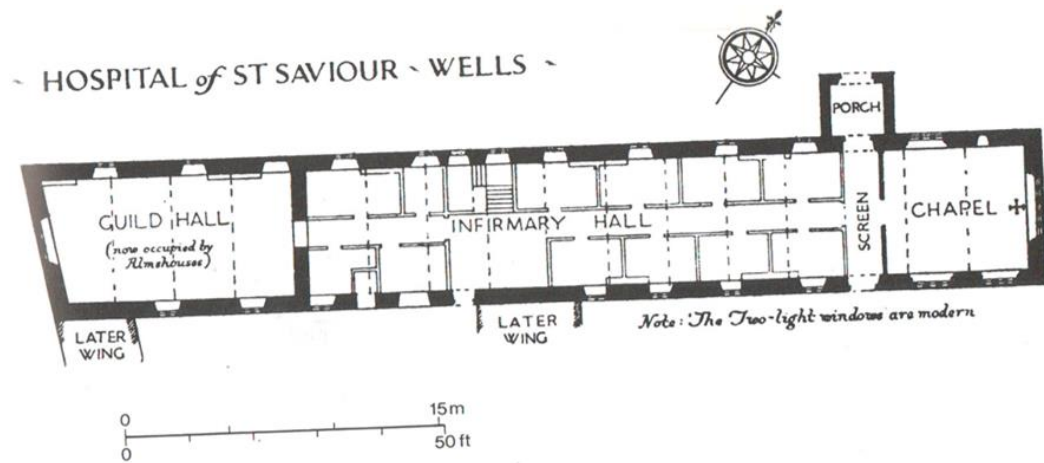


Figure 4. 67: The Hospital of St Saviour, Wells, with the linear ground plan. By the 16th century it was common to have individual bedrooms or alcoves. The hospital is also attached to the guild hall, and the members of the guild likely provided much of the financial support for the hospital (Orme and Webster 1995, 131, Fig. 17). Nicholas Orme and Margaret Webster, *The English Hospital, 1070-1570*; © 1995 Yale University Press. Reproduced with permission of the Licensor through PLSclear

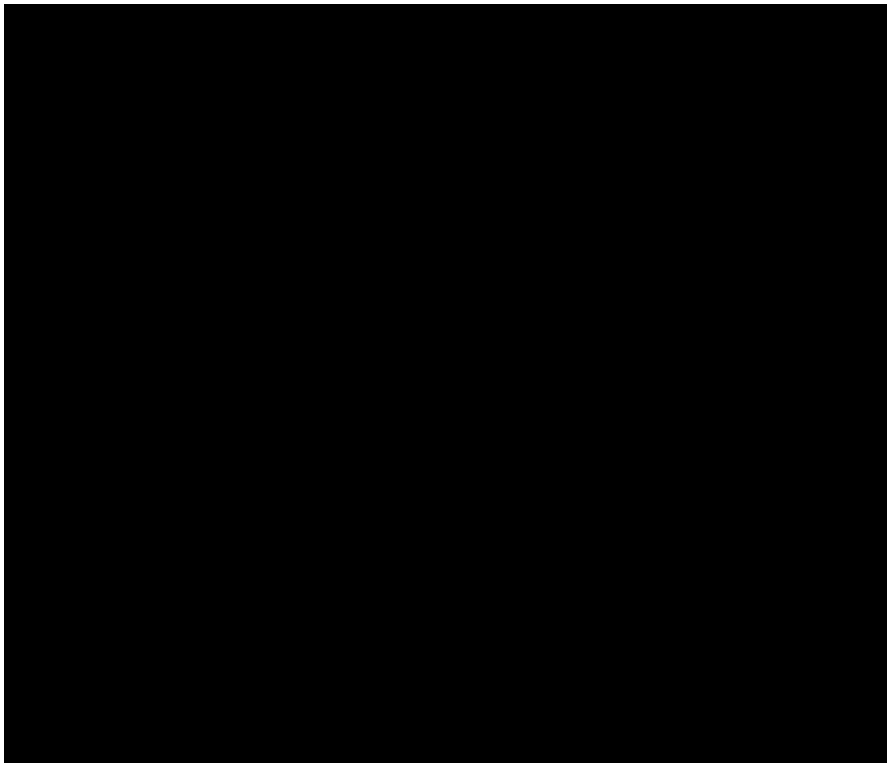


Figure 4. 68: The Bede House, Higham Ferrers. For the plan at the bottom, east is to the left of the page. Even at this late date, the creation of a church environment for the inmates was still popular (Godfrey 1955, 32, Fig. 14)

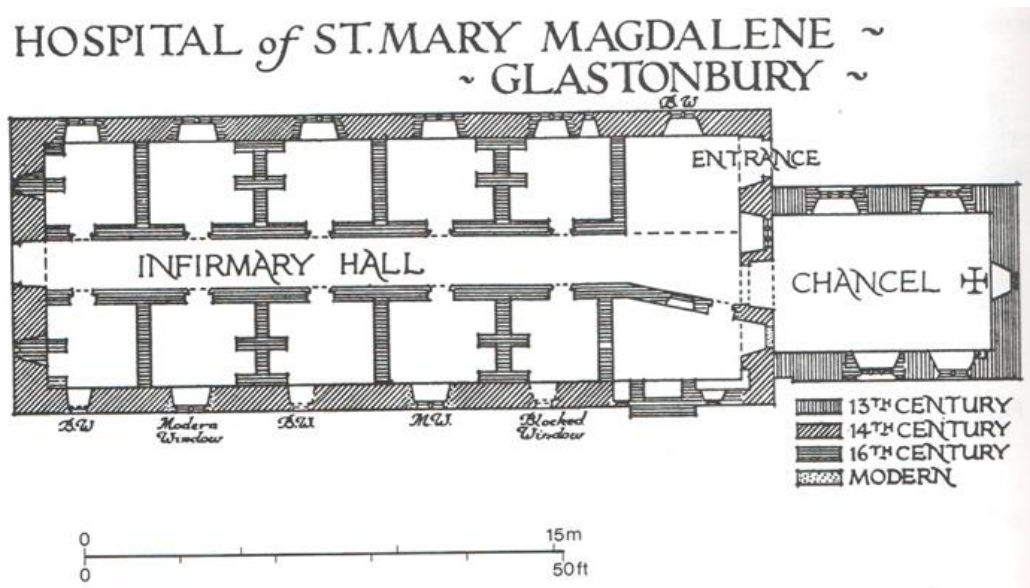


Figure 4. 69: Plan of the Hospital of St Mary Magdalene, Glastonbury. Again, another linear design, in this case modified to provide personal accommodation in the 16th century (Orme and Webster 1995, 90, Fig. 9). Nicholas Orme and Margaret Webster, *The English Hospital, 1070-1570*; © 1995 Yale University Press. Reproduced with permission of the Licensor through PLSclear

3m wide (Hollinrake 2014, 14 Fig 15). Due to the lack of excavation in the area to the north of the church little is known of the arrangement of space, such as kitchens or if there were other facilities, other than the hospital aisle communicated with the rest of the nave through a full arcade that was later rebuilt as the northern wall of the church when the hospital moved to a new site on the edge of the town in 1247 (Hollinrake 2014, 15). Geophysics suggests that the hospital of St John, Old Sarum, consisted of a single rectangular building, possibly comprising three main rooms, but no other buildings were obvious (Fig. 4.71) (Bartlett 2003). Anomaly C may represent a boundary of some form, or a narrow range running to the south. A standing hospital hall is the church of St Thomas of

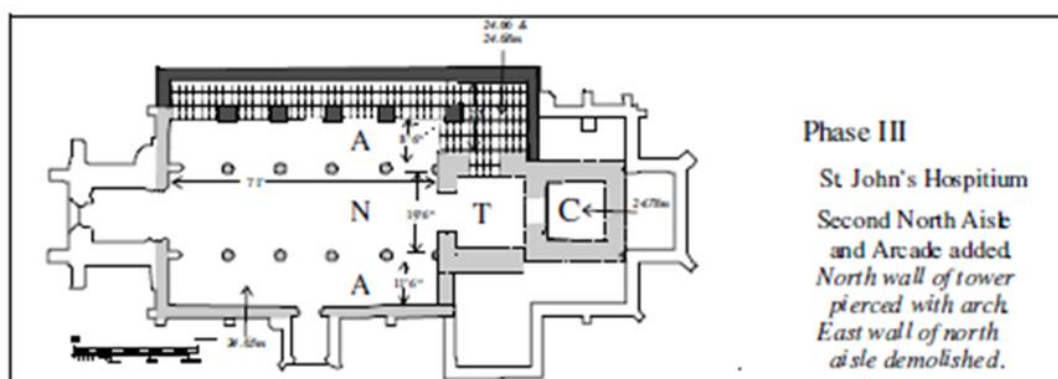


Figure 4. 70: The plan of St John the Baptist, Glastonbury, located during small scale excavation within the nave of the parish church. The hospital was constructed onto the northern aisle of the parish church, from the east end of the tower to the west. This created another aisle for housing of guests to the shrines of Glastonbury (Hollinrake 2014, 14, Fig. 15). Reproduced with permission of Hollinrake Archaeology Co-operative

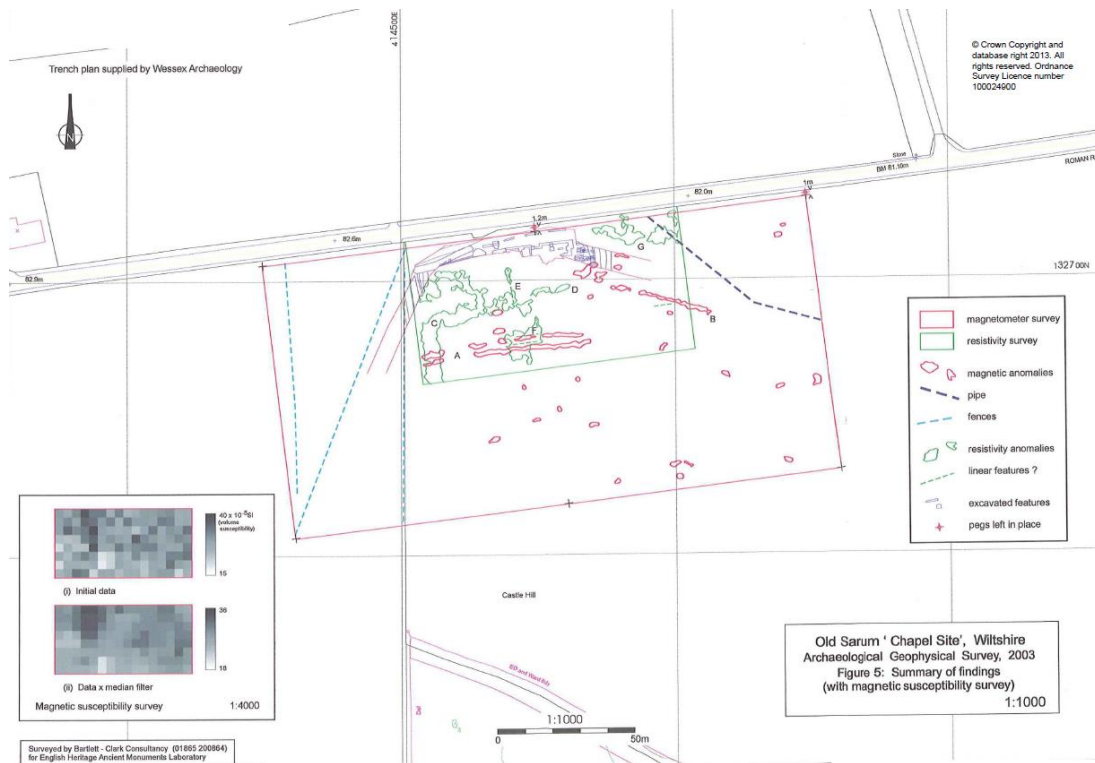


Figure 4. 71: Geophysics from the Hospital of St John, Old Sarum, Wiltshire. A possible structure is highlighted in green, with other associated areas of interest in red. The structure seems to consist of three rooms, and there may be a boundary or second range running to the south (Bartlett 2003, Fig. 5). Reproduced with permission of Alister Bartlett and Bartlett Clark Consultancy

Canterbury in Ramsey, Huntingdonshire, formerly the hospital of the monastery, which has seven arcades on each side of the hall and an adjoining chancel from the late 12th century (Leistikow 1967, 19-20).

Little of the hospitals of New Winchelsea survive, although they were all located at the southern side of the new town, alongside the Black Friars site. Founded in the late 13th century when the new town was laid down, only a medieval western gable wall with a vertical quoin for a small turret still stands on the site of St John the Baptist, suggested to be the chapel building, with foundation elements running to the west that may be the infirmary (Martin and Martin 2004, 91). The other two sites, the Hospital of the Holy Cross and St Bartholomew, were further south near the New Gate, with a possible courtyard observable at Holy Cross (Martin and Martin 2004, 92-3). Little is known of the possible Hospital of St Anthony, located outside the town to provide a light for the harbour, but it may also have been a hermitage and comprised a single house (Martin and Martin 2004, 93). Located outside Chilton, a modern house may contain part of the leprosy hospital of St Mary Magdalene, Wentworth, since it is an east-west aligned old chapel with no other structures nearby (Fig. 4.72) (Satchell 2003, 295). Only the chapel building still survives, but an original doorway leading to the north may suggest that the rest of the necessary

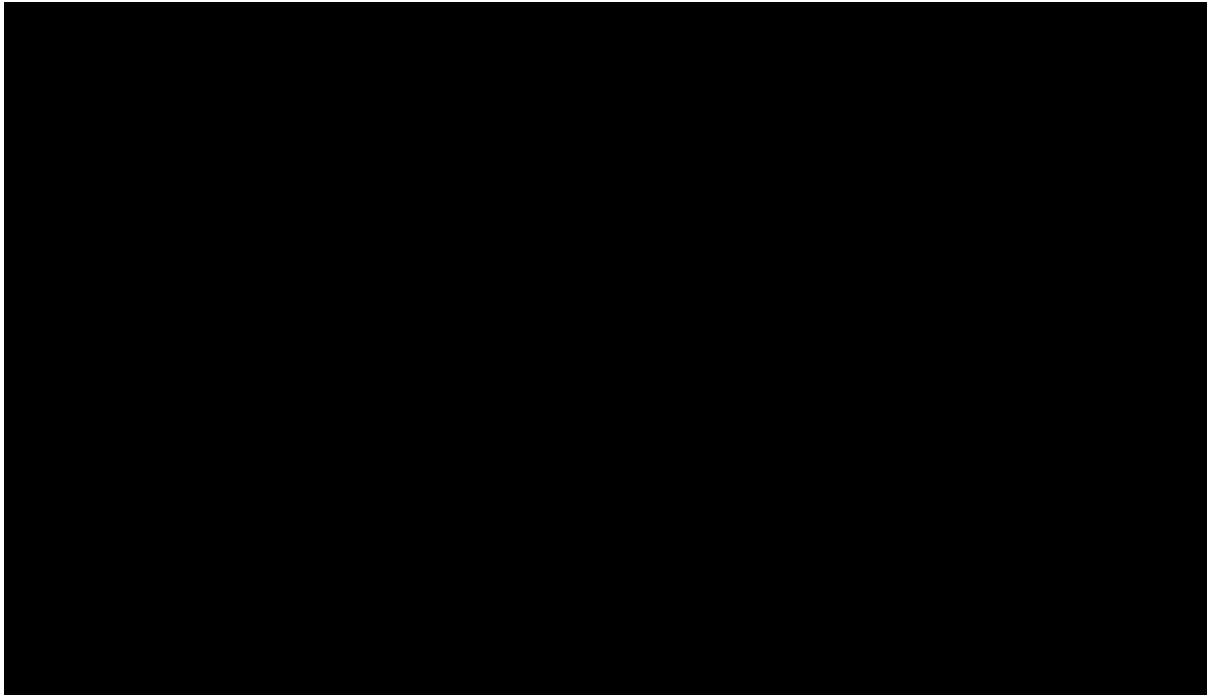


Figure 4. 72: A simplified plan of the ground floor of Old Chapel Cottage which may be St Mary Magdalene, Wentworth (Satchell 2003, 295, Fig. 65)

buildings would be to the north. The nature of the rafter couples suggests a 12th-century construction, and the location of the door is more central than would be usual for a chapel of this time, perhaps suggesting an area to the west that was blocked off or used differently (Satchell 2003, 296). Two windows in the eastern wall also would prove poor for providing light to the ground floor, but may have been intended for an upper storey, or more probably a western gallery (Satchell 2003, 297). St Mary Magdalene, Bath, was a leprosy hospital located outside the walls at Holloway to the south and appears to have been a previously private chapel gifted alongside the neighbouring private house by Walter Hussey at the end of the 11th century, which is suggested to be either attached to its west end or very nearby to the west if it occupied the same area as the current Magdalene House (Manco 1998, 22–4). The Holy Trinity Hospital, York, was located in the basement of the 14th-century Merchant Adventurers' Hall, with the chapel at the east end and a long undercroft given to supporting the poor and sick (Palliser 1993, 5).

At the Maison Dieu, Dover, a 14th-century hall was attached parallel to the older, still operational hospital (Fig. 4.73) (Leistikow 1967, 30). The original hospital of St Mary Magdalene, Durham, was founded by at least the mid-12th century, but after prolonged subsidence issues was moved in 1448 to the west (Jessop 1996, 119–21). The second hospital chapel was a single cell, 17m long and 7m wide, but no other elements of the complex are known due to later disturbance caused by the continued use of the chapel as a

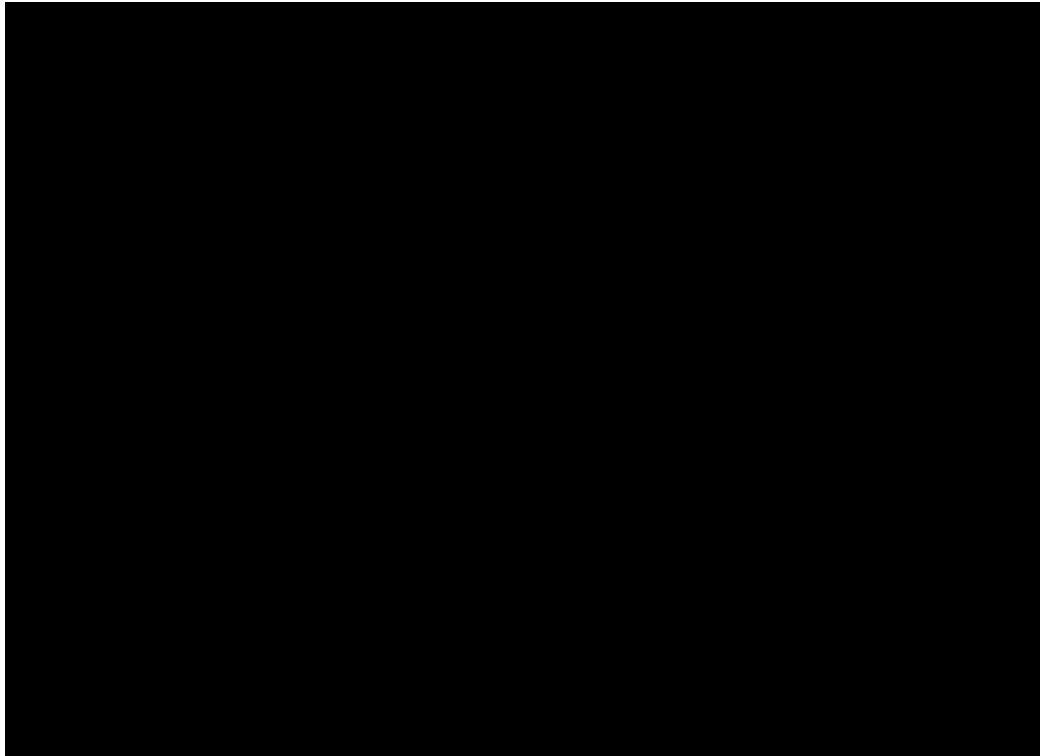


Figure 4. 73: The Maison Dieu, Dover, showing the possible layout of the infirmary hall between two aisles, which may have had their own chapels (Godfrey 1995, 36, Fig. 19)

parish church (Fig. 4.74) (Jessop 1996, 122). In some cases, excavation did not provide enough evidence to go on. For example the evidence recovered from excavations at the hospital of St John the Baptist, Lutterworth, mostly comprised of a series of metalled surfaces with a few probable ancillary structures set into them, as well as a cemetery (Priest and Chapman 2002). Truncated elements of the walls of two parallel buildings associated with the hospital of SS Peter, Paul, and Thomas the Martyr were located south of the hospital drain (Henderson and Knight 2013). Excavations by Time Team on the *Domus Dei*, Portsmouth, revealed little of the medieval hospital apart from one possible section of the precinct wall a partial remains of the kitchen (Thompson 2010b, 20). Excavations within the precinct of St John the Evangelist, Castle Donington, revealed a probable yard surface or path, a possible robbed-out wall, and a small workshop melting down and recasting lead waste (Trott 2011).

Examples of Sites that do not Follow the Plan

Whilst there are many examples of sites that conform well to the proposed scheme of a hierarchy of space in the medieval hospital, there are several cases where a site is orientated to the south or where there seems to be a lack of a coherent plan. These

THE CHAPEL OF SAINT MARY MAGDALENE, DURHAM

Existing structure - phase plan

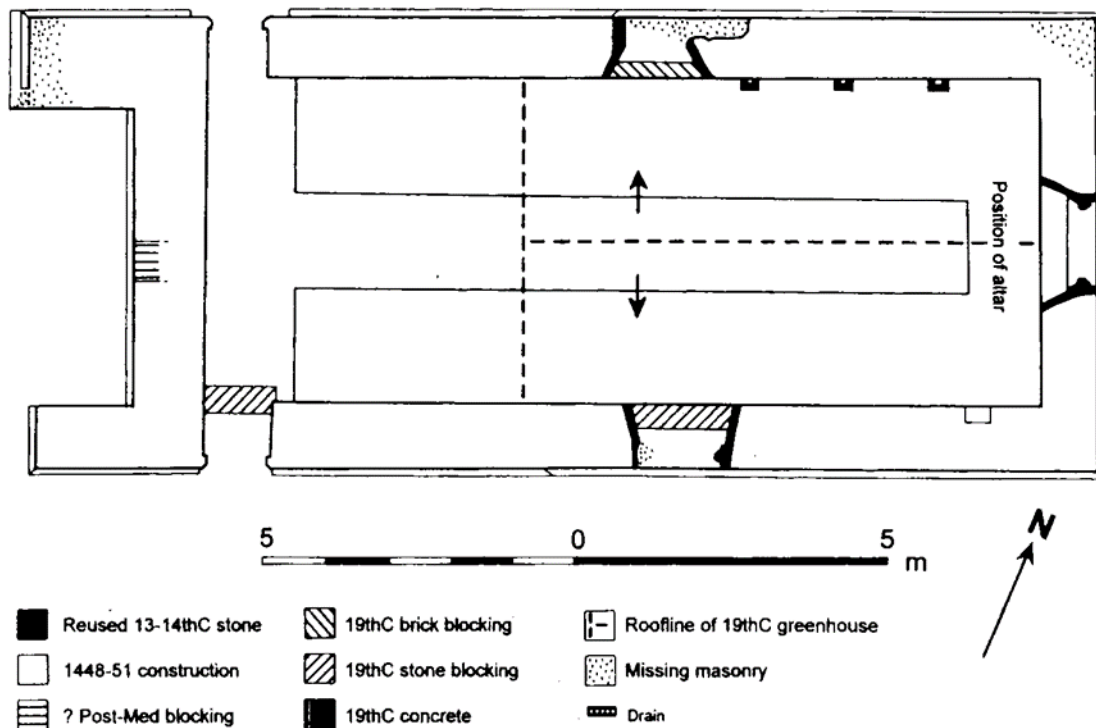


Figure 4. 74: The plan of the chapel of St Mary Magdalene, Durham. No other remains were located near the chapel, although entrances to the north and south does suggest a wider complex of buildings (Jessop 1996, 123, Fig. 2). Reproduced with permission of Oliver Jessop

examples are useful to highlight and discuss since in most cases there is either a clear reason for this deviation that can help inform future research. To date, none of the excavated sites have categorically proved to have had southern cloisters or courtyards, although in several cases the arrangement of the site, land ownership, or the location of roads indicates the only logical position for ancillary ranges would be to the south. For example, the hospital of St Mary Elsing, London, was found by Sir William Elsing in 1324 for 100 poor blind men and women on the site of an old nunnery (Milne 2002, 105). The arrangement of the standing remains indicates a chapel to the east of the tower, which may have been the earlier chapel of the nunnery, and an infirmary hall to the west, with at least two aisles split by an arcade, given the two doors in the western tower wall (Milne 2002, 108–9, 112–3). At least one spiral stair gave access to the upper sections of the tower, and another one set into the west wall of the tower in the area of the infirmary may also suggest the presence of a second floor to the infirmary hall (Milne 2002, 113–5). Since the residents of this hospital were blind, the relationship with the mass may have been

different, and elements such as the ringing of the bell and the songs and prayers would have been more significant. A chapel to St John the Baptist was also located off the vestibule to the north of the tower, and a recess for an altar or tomb was located in the east wall (Milne 2002, 111). If there were other ancillary buildings, given the site was located in an old nunnery and being located to the south of London Wall, the only available location for ancillary buildings and domestic ranges would be to the west or the south, but as yet no investigation has examined this area.

The hospital of St Nicholas, Lewes, was located outside of the medieval walls of the town, within the parish of St Peter and St Mary Westout, on a chalk ridge that runs west into the South Downs (Fig. 4.75) (Barber and Sibun 2010, 79). The foundation date is unknown, but it appears that the de Warenne family were the main founders, endowing the hospital with rents from their demesne manors at Falmer and Swanborough, to fund an infirmary for the poor, under the control of the prior of Lewes, who also controlled the other hospital in the town, St James (Barber and Sibun 2010, 81). The first mention of the hospital comes from contemporary accounts of the Battle of Lewes (1264), where the hospital is referred to as a leper-house, but the vast majority of later documents only mention poor residents (Barber and Sibun 2010, 81). It is possible that the hospital only took in lepers for part of its life, with a more general care for the poor or infirm of Lewes being the primary function, since several non-leper hospitals began to take lepers into their care from the late-13th century (Barber and Sibun 2010, 81). The site appears to have survived the Dissolution, at which time it had 13 residents, and after 1547 the site is referred to as an almshouse in several records, and before this date burial evidence may suggest that men and women were resident on site (Barber and Sibun 2010, 81–2), although the burial evidence from a hospital will in most cases include non-residents as well as members of the inmate population. Little of the buildings of the hospital fell within the excavated area. The majority of non-cemetery features comprised quarrying pits for chalk, associated with the construction of the hospital, and potentially remodelling phases, based on material culture and domestic waste included in the backfill that ranged into the 14th century (Barber and Sibun 2010, 82–3, 87). In the eastern edge of Area B in the west of the site two narrow sill walls were noted, comprising the southwest corner of a structure (Barber and Sibun 2010, 90–1). Both Wall 15 and Wall 17 faced onto a slight terrace cut into the chalk, the tops of the walls and the terracing coated in mortar to key the flint into the terrace cut, and a buttress supported the corner where the two walls met. Inside the walls was a steep-sided cut, possibly an undercroft or cellar for the building. This building appears to have been a



Figure 4.75: The trench locations and site overview of St Nicholas, Lewes. The hospital chapel seems to have been located in Area A, although was later truncated out. Domestic activity was associated with another structure in Area B. The infirmary hall is suggested to be under St Anne's School (Barber and Sibun 2010, 80, Fig. 1). Reproduced with permission of Sussex Archaeological Society and Archaeology South-East

later ancillary building, possibly a kitchen, constructed slightly after the main building in the 13th century and which went out of use by the 16th or 17th century, with the main hospital building seemingly in or around Area A (Barber and Sibun 2010, 93).

In Area A a lack of medieval features or graves may highlight the presence of a building which has later been truncated away by the later almshouses of the post-medieval period (Fig. 4.76) (Barber and Sibun 2010, 91). The lack of significant foundations in either area is explained by the fact that the chalk bedrock was just below the surface, thus providing a stable construction surface across the whole site. Stray finds of small and broken faced stone, including ashlar blocks and window mullions, suggest stone-built medieval structures in the area, as do significant quantities of slate from medieval deposits, the majority from Area B. The chalk extracted does not just seem to have been for lime-burning, since an end and corner of a chalk ashlar block with a tapering lewis hole for lifting was recovered, indicating the use of chalk for internal elements of construction (Barber and Sibun 2010, 91). The numerous chalk quarry pits in the area highlight that the 12th century

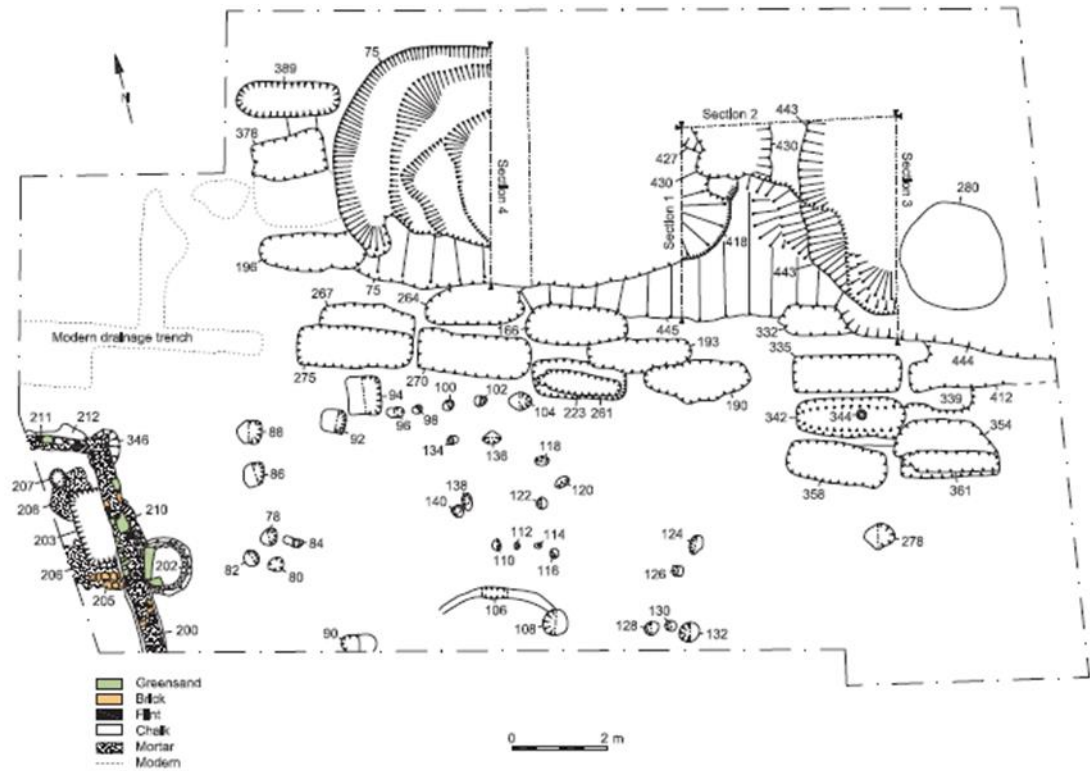


Figure 4.76: The plan of features in Area A, St Nicholas, Lewes. The chapel is suggested to have been in the area south of the graves, especially around the dog-leg in the run of burials, although the site has undergone heavy truncation and so no architectural features survive (Barber and Sibun 2010, 84, Fig. 4). Reproduced with permission of Sussex Archaeological Society and Archaeology South-East

seems to have been the main period of construction, centred on the area between the two excavation zones of Area A and Area B, and as such the main hospital building was not located. It seems to have comprised a linear hall and chapel constructed onto the surface of the natural chalk that was later demolished and truncated by the later almshouses. A gable wall recorded in the 18th century may have been the eastern wall of the hall, which would then have run up to 50 metres to the west under the main buildings of St Anne's School, with the chapel located in between this wall and running into Area A, in the area devoid of medieval features (Barber and Sibun 2010, 93). Alternatively, the wall was an internal feature between chapel and infirmary hall, or could be the western wall of the infirmary hall, meaning the hall was only c. 20m long, rather short for the period. In whichever manner the infirmary and chapel related, with the road located along the northern wall of these two buildings, if a courtyard existed it would have to be to the south.

Founded in 1396, the Maison Dieu at Arundel was run by the nearby College of the Holy Trinity, and this association appears to have influenced the plan of the hospital (Evans 1969, 65, 70). The site was set up to support elderly or infirm almsmen who had lived good

lives and could repeat the Lord's Prayer, Salutation, and Creed in Latin. The hospital was structured around the quadrangle, with the north range forming the chapel, the south range forming the hall, and the west range perhaps held the master's lodging, brethren's lodging, with the gatehouse in the southwest corner (Fig. 4.77) (Evans 1969, 68). The chapel seems to have had two facing doors in the north and south walls, just east of the centre line, and a cobble surface outside the north wall may be a path (Evans 1969, 70). The west range west wall had a series of embrasures, suggesting smaller rooms, but the relationships could not be ascertained (Evans 1969, 72). Further south, a cellar was noted, possibly in the region of the gatehouse although it seems to have gone out of use due to flooding from the nearby river and been filled with rubbish (Evans 1969, 72–4). It is not

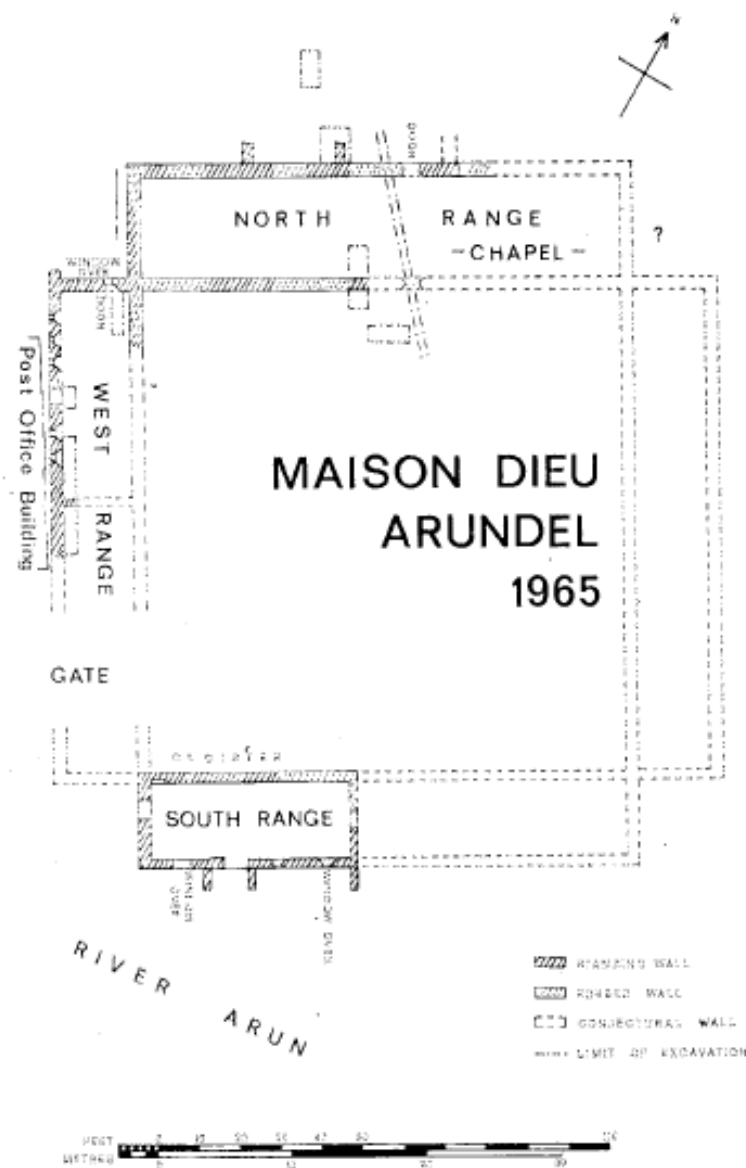


Figure 4. 77: Plan of the recovered structural elements of the Maison Dieu, Arundel. This site seems to copy the layout of the nearby College of the Holy Trinity (Evans 1969, 71, Fig. 1). Reproduced with permission of Sussex Archaeological Society

clear whether there was an east range, and elements such as the kitchen, bakehouse/brewhouse, and storerooms have also not been located within this plan, but they have been noted in other documentary references (Evans 1969, 68–9). What is interesting is that this layout mirrors the layout of the College of the Holy Trinity, founded by the same man, Richard, 4th Earl of Arundel, and this may have influenced the plan.

Another site that seems to have been laid out counter to the proposed scheme was the hospital of St John the Baptist, Bath, founded in the late 12th century and which made use of two of the nearby smaller thermal water baths that made the town famous (Manco 1998, 16–8). Although the arrangement of the site is not clear, the medieval chapel was in the same place as the current one, and since the land to the north was not under the control of the hospital until later in the medieval period, it is probable that the infirmary hall ran to the west (Fig. 4.78) (Manco 1998, 29). There is a suggestion that the chapel had a gallery, and this may also suggest that the infirmary hall with which it communicated was also two-storey. In the mid-13th century the hospital gained the land to the north of the chapel, and utilised it for cultivation and herb gardens, before having the field closest to the chapel consecrated as a cemetery in 1336 (Manco 1998, 34). Unfortunately, no other elements of the site can be fixed with any certainty, although it is clear that other buildings could only be located to the west and south. In the 1520s, a period of rebuilding after the site was taken over by Bath Priory led to the infirmary going out of use and almshouses being constructed for the six poor men of the house, running north from the chapel (Manco 1998, 48). Buildings like the storehouse also seem to have been renovated, and the hall may have been put to other uses.

Excavations for the A505 Bypass provided a firm location for the precinct of the hospital of St Mary Magdalene, Clothall, and gave some possible clues as to the arrangement of the site (Phillips 2009). Founded around 1220, the site was later moved in the early 14th century to be closer to Baldock (King 2009, 131, 133). An enclosure was located to the south of the A505 by a series of evaluation trenches that located graves in the western half and a latrine pit and postholes more centrally and to the east (Fig. 4.79) (Mallows and Phillips 2009). Geophysical survey and limited excavation also noted a possible entrance way into the site from the eastern side of the southern enclosure ditch, also suggesting that the main hub of the site was to the east of the enclosure. The vast majority of the site was not excavated. Legal issues over some of the roads and paths in the area that were altered by the hospital suggest that the chapel was located in the northwest corner of the enclosure, with the rest of the buildings to the south and east possibly with another small

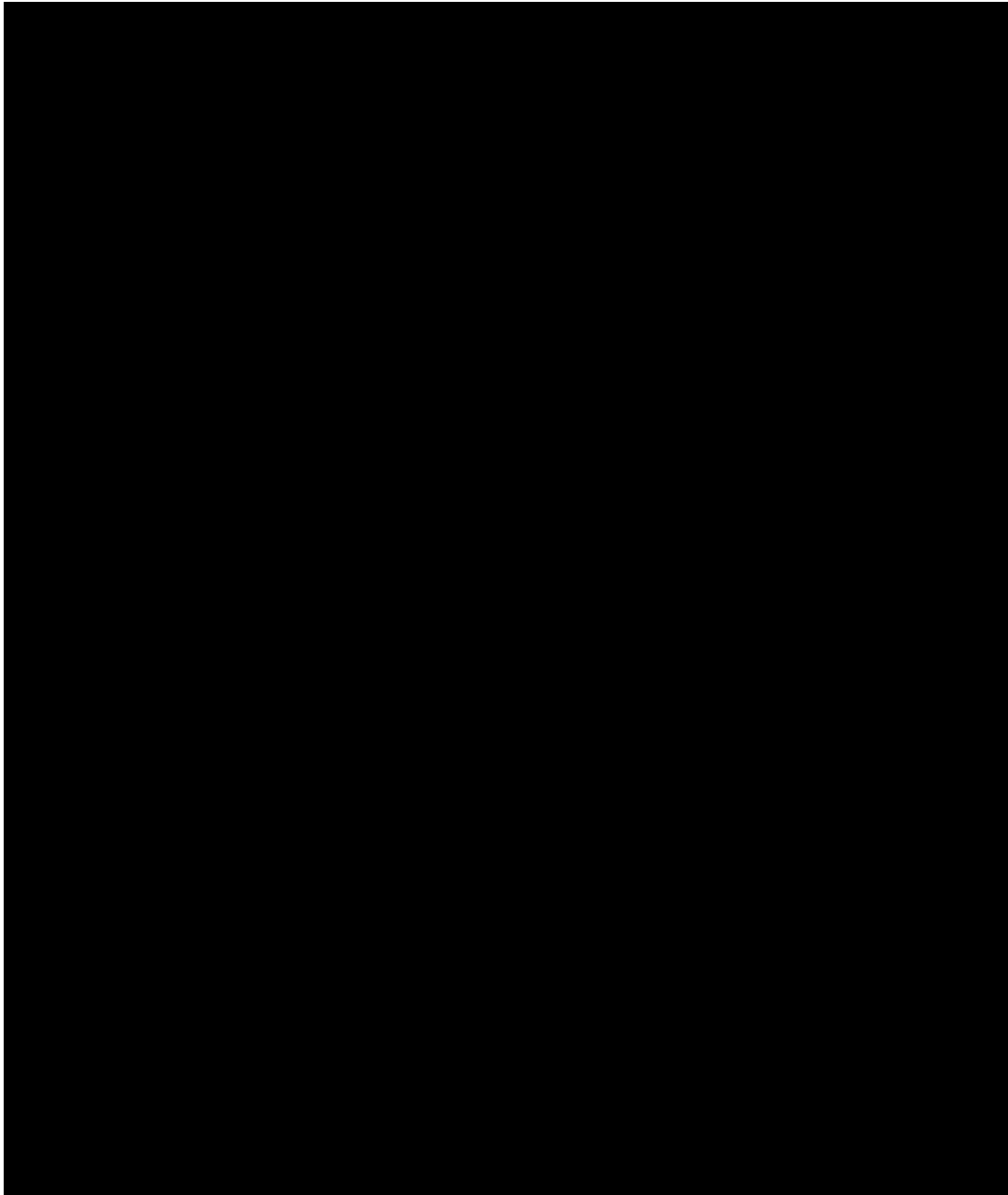


Figure 4. 78: A plan of the Hospital of St John the Baptist, Bath. The layout clearly orientates to the south, forming a courtyard with the chapel and infirmary hall as the northern range (Manco 1998, 31, Plan 2)

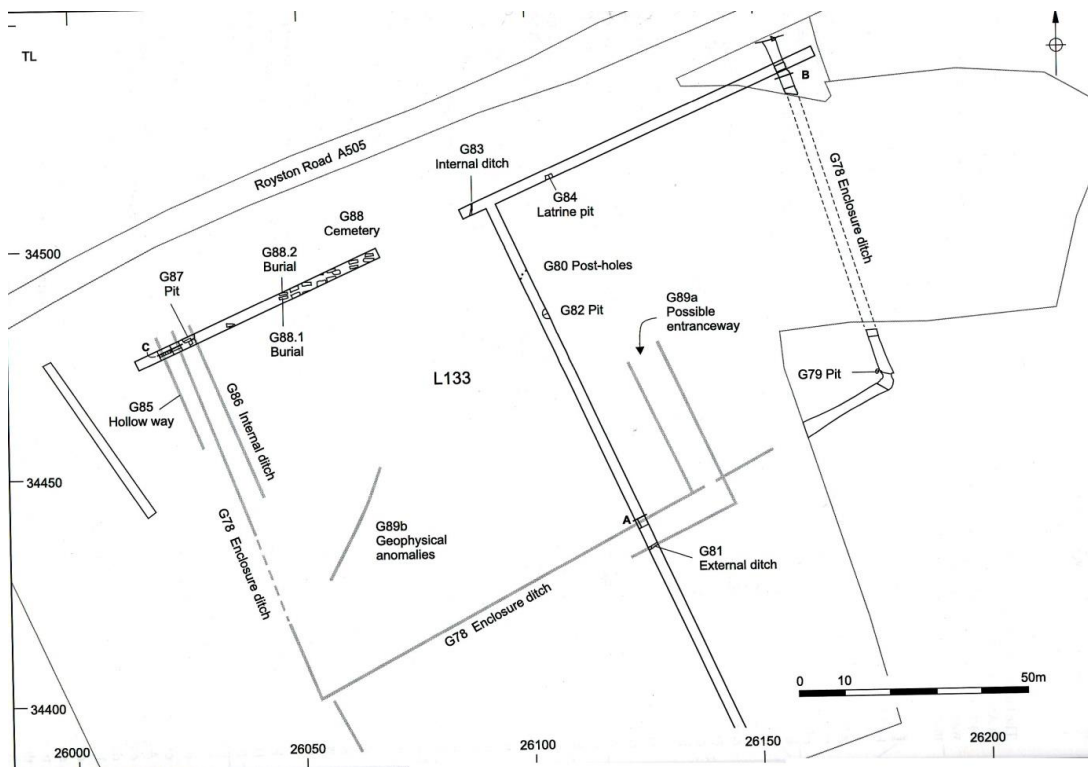


Figure 4.79: Plan of excavated features within the precinct of St Mary Magdalene, Clothall. The presence of burials in the northwest corner could suggest that this was the location of the chapel, whilst domestic waste in the eastern half of the compound suggests that this was accommodation (Phillips 2009, 126, Fig. 7.2). Reproduced with permission of Albion Archaeology

chapel associated with the accommodation for the lepers (King 2009, 134–5). However, without firm evidence of where the chapel and the rest of the site were anything little more can be concluded about the internal layout of the hospital.

The Hospital of St James, Horning, was located at the south of a causeway leading to the Abbey of St Benet, providing a location to house pilgrims outside the abbey walls (Emery 2013). Only the chapel building is still standing, dated to a mid-14th-century rebuild after a fire, and monitoring of groundworks in 2013 revealed a later medieval ditch running under the western end of the chapel, as well as possible post pads or robbed out wall foundations to the south, suggesting some restructuring to the site after the fire that damaged the earlier building in the 1340s, and the possible expansion westwards of the chapel (Emery 2013, 2). Although not conclusive the structural elements to the south of the chapel may hint at a wider complex of buildings to the south. An interesting case is the leprosy hospital of St Nicholas founded at Harbledown by Lanfranc in the 1080s on the pilgrim road two miles outside Canterbury, which appears to have consisted of a series of modest wooden houses, initially for 30 men and 30 women but eventually housing 100 sick people, grouped on a hillside near running water, with a church in the middle, the only building to remaining and still showing Norman elements (Leistikow 1967, 34). Being one of, if not the, first

leprosy hospital in England this description of St Nicholas and the 17th-century print of the site has often been used as the basis for describing the standard for early leprosy hospitals. In reality, none of the known or excavated early hospitals, including several leprosy hospitals, match this description and it may be that St Nicholas was atypical. The other issues may relate to a lack of large scale excavation on many of these sites, being restricted by either development area for commercial excavation, or by time and feasibility for research excavations.

One of the oldest hospitals with standing remains is St John the Baptist, Lichfield, Staffordshire, built in 1135, with a hall and chapel in a linear plan (Leistikow 1967, 27). The hospital was served by water from a conduit granted to the Lichfield Franciscans from Aldershall, 2.5km to the south-west of the town (Bond 1993, 60). The infirmary range is now known as the Master's House (Meeson 2000, 4), and it seems that the original nave served as the dormitory and ancillary activities occurred to the west, following a pattern more reminiscent of the linear infirmary hall and chapel. The east range, which runs south of the chapel, was a later addition when the hospital was refounded by Bishop Smith in 1495 to house 13 almsmen (Fig. 4.80) (Meeson 2000, 2). Other ancillary buildings could be located to the west of this east range but have not been located. The addition of the straight row of almshouses may indicate a changing attitude to the more individual almshouses where chapels were never part of the buildings.

An example of this from foundation is the Hospital of St Catherine, Bath, which was initially founded as four houses constructed in 1444 as part of the same range that grew in the century after to include three larger rooms to the south (Manco 1998, 42–4). The almspeople appear to have utilised a chapel in the nearby parish church rather than being provided with their own on site, and this style seems to reflect a later trend in almshouses that is more observable in the post medieval period. Possibly connected to this changing trend, and the final development of the medieval hospital hall in England, is Henry VII's Savoy Hospital in London, completed in 1517, with a ground-plan of a Latin cross that emulated the Renaissance hospitals of Italy but in a Gothic style (Fig. 4.81) (Leistikow 1967, 31). The building was destroyed in the 18th century, but the cruciform outline pointed towards modern hospital architecture, with the wards set at the heart of the site and the ancillary buildings surrounding them, in this case to the south and southeast, more in keeping with a monastery. Indeed, this European approach may highlight a potential difference between the English hospitals and the Continental examples: that a more

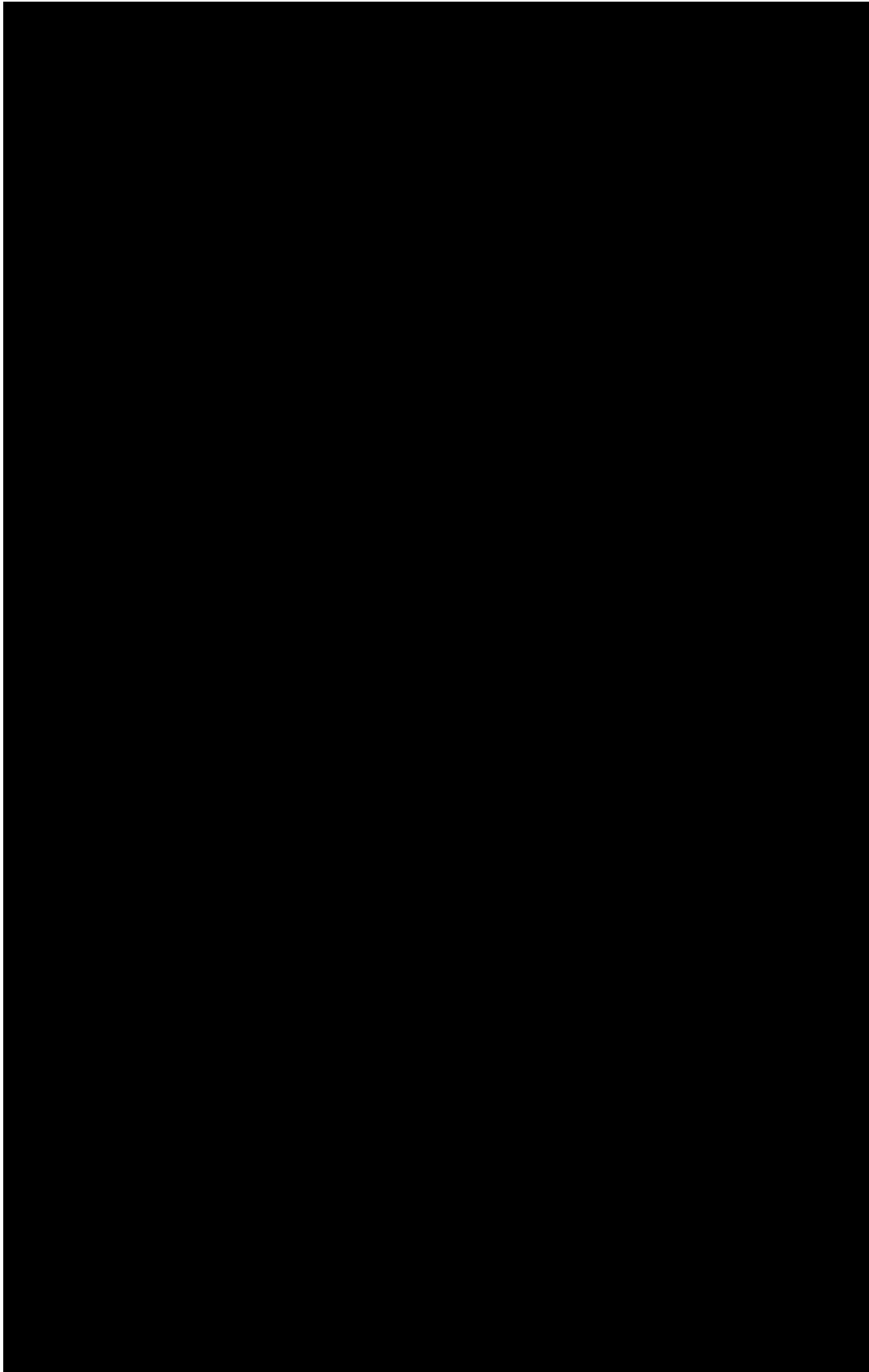


Figure 4. 80: The plan of St John the Baptist, Lichfield, showing the accommodation located in the east range, whilst the masters' house was located at the western end of the north range (Meeson 2000, 3, Fig. 1)

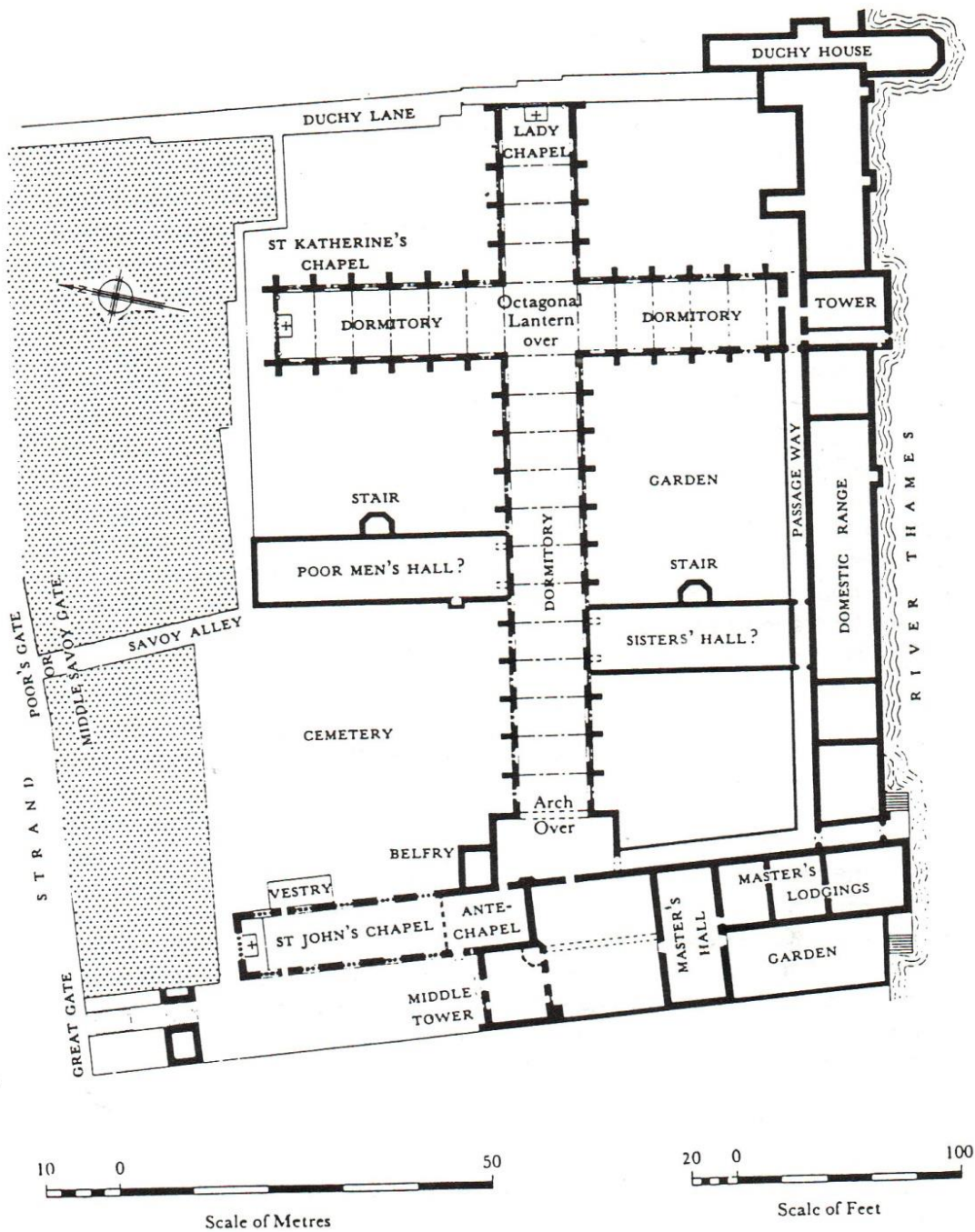


Figure 4. 81: The plan of the Savoy Hospital, London. This hospital, founded by Henry VII, was the only attempt at the Renaissance cruciform hospitals in England. It was only in operation for a few decades before it was closed at the Dissolution. The site still splits up space between the genders, as well as between inmate and staff, although there seems to be a less clear southeast to northwest orientation (Gilchrist 1995, 31, Fig.15) © Roberta Gilchrist, 1995, *Contemplation and Action: The Other Monasticism*, Leicester University Press, used by permission of Bloomsbury Publishing Plc.

traditional monastic plan with an emphasis to the south would be emulated if a plan was maintained in Europe, whereas in England the sites were more focussed to the north.

Discussion

The main conclusion drawn from this analysis is that there does appear to be a common trend to orientate the English medieval hospital on a north and northwest axis. The majority of cases that underwent significant archaeological investigation corroborated the theoretical model discussed in Chapter 3, and also highlighted that the traditional functional categorisation, either of architectural layout or of type of inmate cared for, does not provide a common thread that combines institutions. Instead there was an element of variability within categories such as secular almshouses or hospitals for lepers that reinforced the importance of investigating the similarities before examining the differences. Whilst there were some overall trends towards a larger site or moving infirmary halls into a separate building located to the west, northwest, or north of the chapel, other trends were less ubiquitous. Many sites indicated a desire for increasing privacy, with the additions of partitions or individual chambers, and by the 15th-century rows of individual almshouses were being added to hospital sites or even established on their own. Although different to the majority of sites that have been discussed in the previous two chapters, this approach to hospital provision was not rare; the rarity is finding extant evidence of them. For example, the number of hospitals associated with York in the medieval period is inflated by the number of small *maison dieu's* and other small almshouses founded by the local merchants and traders in houses and small halls (Knowles and Hadcock 1971, 407–9). The creation of rows of almshouses combined the longer running use of private houses for hospitals with the increased wish for privacy. Such sites did not require such strong elements of spatial organisation, however, since the onus was on supporting an individual, not a community. These almshouses are the actual secular almshouse, whereas sites such as Browne's Hospital, Stamford, or Ewelme Almshouse still orientated around an interaction with an on-site chapel or church.

There were examples where this system does not seem to have been fully utilised. In some cases this may have been due to pre-existing structures, and as shown at St Bartholomew, Bristol, this can impact on the site layout, although not always to the point of stopping all forms of intentional symbolically orientated layouts. The case of St Giles, Cripplegate, is an example of a site that does not appear to follow the intended pattern but which may have

still been organised along a monastic style, in this case through the reuse of elements of an old nunnery. In the case of the *Maison Dieu*, Arundel, the hospital appears to have been constructed to mirror another site, in this instance a secular college, but the use of the collegiate quadrangle was not unusual for a medieval hospital or almshouse. As shown by St John the Baptist, Oxford, the employment of the quadrangle was not inherently evidence of a move from the hospital tradition, since the organisational form could provide very similar results in terms of zones of activity and associated structures. In the case of St James, Horning, and St Nicholas, Lewes, it seems that the siting of the structures meant that a southern arrangement was the one chosen. More work on these sites would be hugely informative to establish which buildings were located where, and provide a much clearer picture of how the site broke down into zones of activity.

The case is sometimes made that a slightly different arrangement to a religious institution can be caused by the location of the water supply (Gilchrist 2005, 66; Ward 2006, 151). Water was a vital resource, especially to religious communities, and the management of water to supply all the necessary structures and remove waste would have been of considerable importance. Medieval hospitals were just as capable of creating long systems of water management to provide the water where it was needed. At St John's Hospital in Bridgwater, Somerset, a dyke one metre wide, and deep enough to maintain the flow, was cut through open land from the River Parrett, on the opposite side of the town, to the hospital latrines in the Eastover suburb and then back to the river, with the dyke covered by stone and earth back to ground level where necessary or wished (Bond 1993, 70). St John's Hospital, Redcliffe, Bristol, were allowed an extension to the water pipe granted to the church of St Mary Redcliffe, with the head at Rudgewell on Knowle Hill, the pipe to have the diameter of a 'medium-sized thumb' (Bond 1993, 63). St Mark's Hospital, Billeswick, Bristol, was supplied with a lead water pipe from the springs at Jacob's Well, on the west side of Brandon Hill by 1240. The pipe was larger than the one supplying St Augustine's Abbey, and the two pipes ran parallel to one another as far as St George's Road where they diverged, and the hospital pipe emptied into a tank at the corner of Unity Street (Bond 1993, 63). St Bartholomew's Hospital, London, gave an annuity of 6s 8d to the Prior of St Bartholomew's, Smithfield, in 1433 to be provided half the supply of pure water from the priory's spring at Canonbury (Bond 1993, 63). The water was transferred from the cistern in the priory grounds across the king's highway, now Duck Lane, and entered the hospital, which also provided the water for the prisons of Ludgate and Newgate. In 1297 St Bartholomew's Hospital gained permission to cover a watercourse running through their

precinct due to the smell, as long as the flow was unimpeded (Bond 1993, 70). Southampton's God's House Hospital was served by an extension of the Greyfriars water pipe from the Colewell spring in Shirley, a distance of 3km of piping (Bond 1993, 62). As such, the necessities of water do not seem to be affecting this northern association.

What is clear is that in most cases medieval hospitals were larger than just an infirmary hall, and the sites as a whole seem to orientate themselves to the north and northwest of the chapel. In the few examples where this was not the case it seems to have been influenced by existing buildings, another organisational layout based on a religious building, or in the case of St John the Baptist, Bath, possibly the personal choice of the founder and builders of the site. It should also be remembered that the layout or even physical remains of the vast majority of the medieval hospitals of England and Wales remain unknown. This survey of the material has brought together virtually every site for which elements of the layout can be deduced, and it represents less than ten percent of the total number of sites that operated during the medieval period. This indicates that there is still an extensive amount of material still waiting to be found. Yet, with the knowledge that these sites do appear to orientate in opposition to the more traditional monastic layout, it also raises a number of other questions and issues. It still is not clear where this concept originated, and a more comprehensive comparison with Continental examples, especially in those areas controlled by the English Crown, may be relevant. There are also the other religious institutions which may also be influenced or make use of this proposed scheme, such as the Gilbertines who operated double houses, the military orders who were also orientated around hospitality and a quasi-monastic establishment, and the friaries that were a pivotal part of the urban religious landscape. The use of the northern orientation highlighted the quasi-monastic nature of the hospital community, something that may even have been maintained at Wymondley Priory when the site technically transferred from a hospital to a house of canons, and other religious institutions or orders that were also not completely monastic may have looked to the north to highlight their similar but different approach to the religious life. In the next chapter similar questions concerning the ordering of space, suggestions of status and change, and reflecting upon the nature of care provided at these sites will be considered, focussing upon the material culture. Similarly to the buildings, whilst there has been some consideration about the material culture it has often not worked within the wider paradigms of hospital studies, instead focussing on specific questions. By combining these different material approaches together a more holistic understanding of these sites can be gained.

5. The Material Culture of the Medieval Hospitals

Introduction

As has already been argued in Chapters 3 and 4, medieval hospitals were complex institutions, serving a multitude of functions to support several social groups, and these sites do appear to have followed an organisational schema, with buildings, social groups, or activities associated with differing locations within the wider precinct. In several cases the actual function of a structure was not clear, and frequently material culture and associated features were required to allow for their interpretation. Unfortunately, this use of material culture purely in a supporting role to interpretation of other elements of the medieval hospital has left the artefacts themselves relatively invisible in wider discourse. In virtually all cases excavation reports compare artefactual material with local and regional assemblages, but very rarely with the material culture from other hospital sites. This has isolated the material culture from the wider discourse, especially given the lack of archaeological synthesis. When discussing the buildings, architectural historians have attempted to theorise or at least compare the organisational elements of hospital sites. In the case of the material culture, only Gilchrist has produced a synthesis that included the artefacts recovered from hospital sites (Gilchrist 1995), and to a lesser extent has provided some synthesis of the material culture from hospital burials (Gilchrist and Sloane 2005). However, these brief examinations served more to highlight the material from certain sites as possible signposts to further research, but as yet have not been examined more fully.

The ability for material culture to inform on varied aspects of life in the past has been widely theorised and exemplified in the discipline, such as the nature of materiality, the ability of artefacts to influence action, the role of symbols and artefacts as texts, and the symbiotic nature of function and symbolism (for example see Gerritsen and Riello 2015; Gosden 2005; Ingold 2007; Kristiansen 2004; Moreland 2010). Such concepts integrate with the suggested theory for the organisational framework for the medieval hospital outlined in Chapter 3, but there has been little application to medieval hospitals, especially in England and Wales. Virtually all approaches have focussed on the inherent 'function' of different artefacts. One of the few works on the material culture of English medieval hospitals was by Geoff Egan (2007; see Chapter 2 for a discussion on this work), and although it also examined some of the more symbolic or mystical traits of the material culture, the examination was inherently focussed upon traditional signs of medical practice.

Combined with a lack of wider synthesis, this left Egan's analysis rather adrift. That being said, there is still extensive scope for a more widespread analysis of the material culture of hospitals, especially from those sites that have thus far been overlooked. By synthesising the range and nature of the material culture of medieval hospitals, new research avenues will be opened up. At the most basic level, the material remains can aid assessment of apparent wealth of institutions, or the prevalence of items of religious significance. They can provide information on food preparation and consumption, subjects that have mostly been dominated by documentary evidence (but see Chapter 6 for further discussion). There is the potential for material culture to highlight areas of gendered space, given the relatively high number of hospitals with women present on site. Analysis could also begin to unpick any distinctive traces left by the different elements of the community and make a comment about similarities and differences inside the hospital and between hospitals.

That there is a need for such studies of the different materials recovered has been pointed out previously, such as by Stephenson and Spoerry (1997) in their brief analysis of the pottery remains from St Mary Spital. A major limiting factor was noted in their work, since any comparison was difficult to do because of a "lack of statistically viable pottery groups" (Stephenson and Spoerry 1997, 184). Such sentiments are echoed in the vast majority of the excavation reports that provided the information for this chapter. As such, a purely statistical approach to the archaeological record has not been utilised. Rather a more generalised overview has been undertaken, attempting to find trends within the conclusions made by different specialists for individual sites or artefacts types excavated. As such, this chapter will mark the first concerted synthesis on the material culture of medieval hospitals, addressing a major absence in the wider discourse. Rather than breaking down the artefacts by material type, they are discussed thematically and by use: the material culture of food preparation and consumption, religious items, clothing and dress, the material culture of buildings, and domestic activities. These themes echo those noted in the building layouts discussed in Chapters 3 and 4 and will allow any interpretations to build upon this work. The chapter will conclude with a general discussion on the material and the nature of the different sites.

Material Themes

Material Culture of Food Preparation and Consumption

This section will focus on the material culture associated with food and drink. Pottery comprises the vast majority of the material to be discussed, and given the geographical spread of the sites they will be discussed in turn, with a brief summation of the pottery overall. Also discussed are glass, stone, and metal vessels, although these are a much smaller group of artefacts. There are some important objects in this small group, however, especially when discussing food preparation and possible links to medical preparations.

Although the pottery analysis from St Mary Spital was limited to just dating evidence and broad trends across the site, rather than specific examinations of contexts or 'interesting' forms (Stephenson and Spoerry 1997, 184), some significant trends were uncovered. From the period after the refoundation in 1235 a pit containing hearth waste and pottery sherds was excavated, almost entirely consisting of local London ware jars, some quite highly decorated, and a few sherds of north French wares (Thomas *et al.* 1997, 37). From across the early period of the hospital there was one sherd of 13th-century South Hertfordshire grey/Limpsfield ware cooking pot, with the majority of cooking pots being Early Medieval sandy and sandy/shelly ware, normally thought to date to several centuries earlier. One suggestion for the continued use of out-of-date pottery types was economies in the hospital, utilising more robust and cheaper pottery to supply the needs of the large community (Thomas *et al.* 1997, 37). This assemblage from the early period of St Mary Spital was unusual for London at that time, due to the limited amount of Kingston ware recovered (Thomas *et al.* 1997, 41). As well as cooking pots, London ware jugs of differing styles were found, as were some sherds of Rouen-style jugs.

One of the features examined that is significant to this discussion was pit C1725, dating to around 1300, a large quantity of pottery was recovered that had been deposited in this single context over a very short period of time (Fig. 5.1 and Fig 5.2). It contained two smooth green-glazed Saintonge jugs, one a large pear-shape and the other a small rounded form with applied strips, roundels, and floral motifs, as well as a coarse London-ware pipkin and the base of a highly decorated Kingston-ware baluster jug (Thomas *et al.* 1997, 56). Also from the pit were a number of decorative types that seem to have gone out of use earlier in the 13th century, such as North French style jugs, and South Hertfordshire-type greywares, mostly cooking pots, that were also rare for this late date (Thomas *et al.* 1997, 56). Other pottery assemblages from the drain and sluice around the Sisters' Latrine, also

dating to around 1300, were similarly dominated by jugs, and also had the presence of old-fashioned pottery fabrics, especially South Hertfordshire greyware jugs and shelly/sandy-ware cooking pots (Thomas *et al.* 1997, 61). Such forms do not seem to have been residual but suggest the continued use of the more robust early vessels.

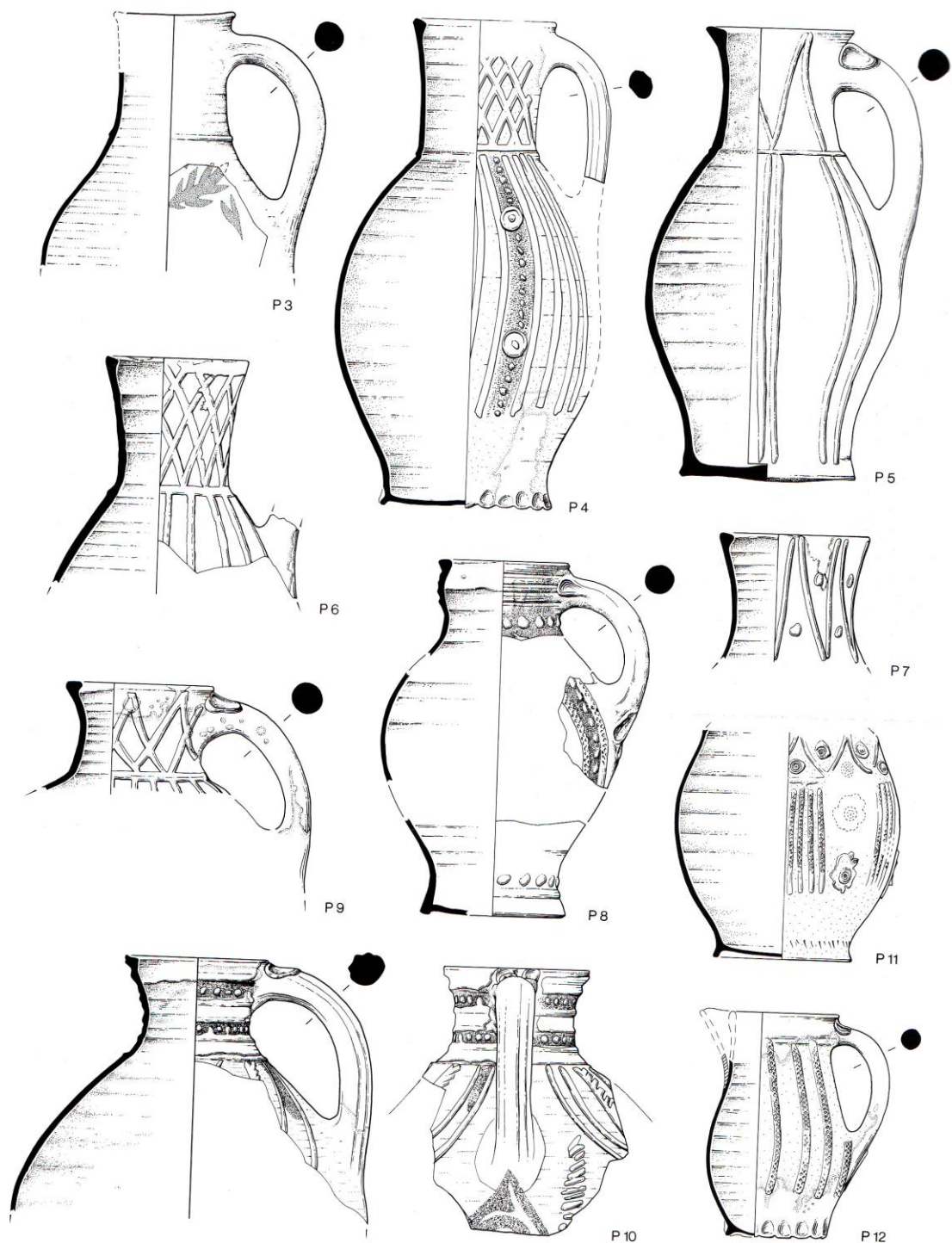


Figure 5. 1: Decorated London ware jugs recovered from the fill of pit C1725, St Mary Spital, London (Thomas *et al.* 1997, 57, Fig. 45). Reproduced with permission of Museum of London Archaeology

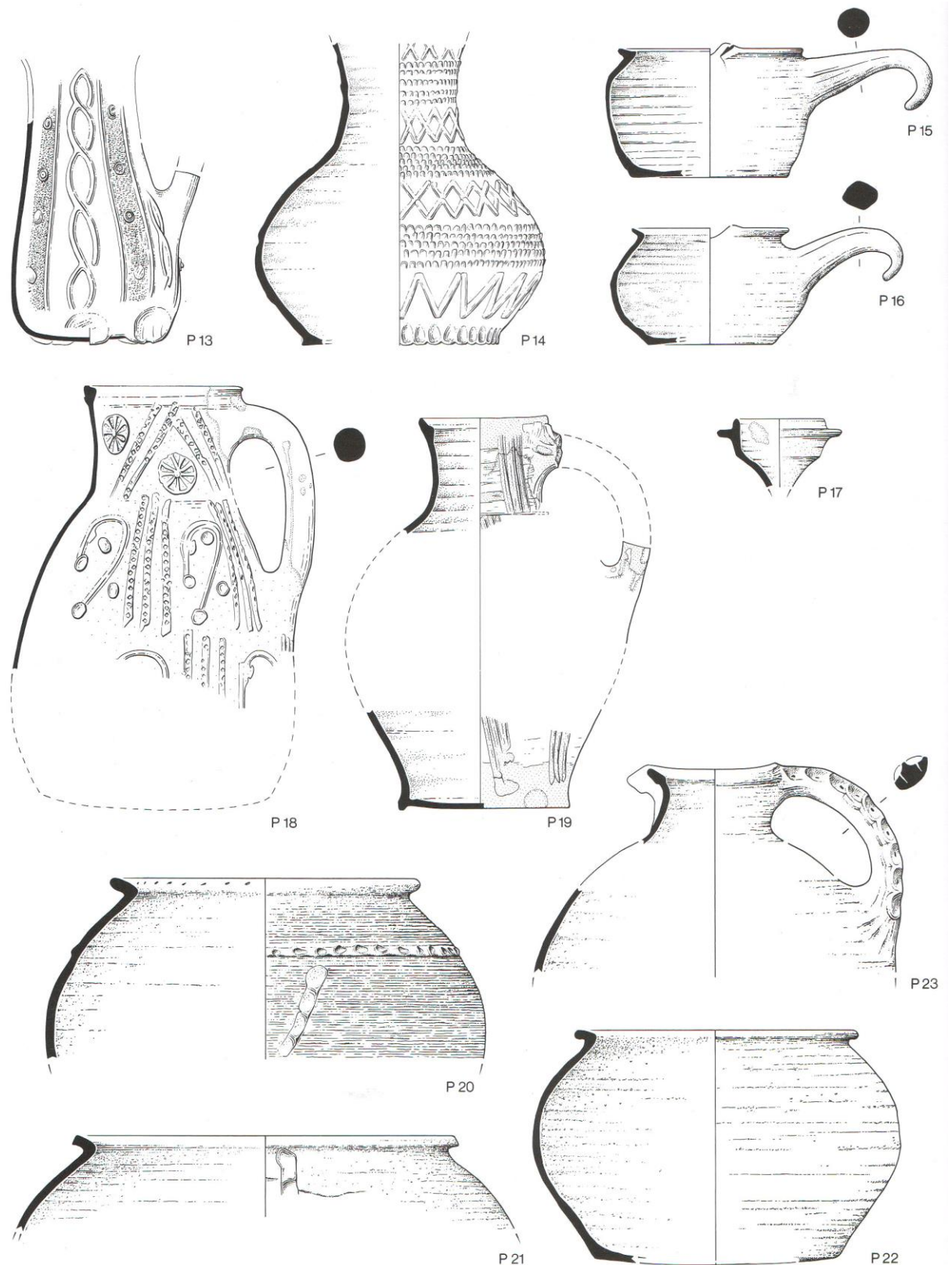


Figure 5. 2: Cooking pots and jugs from the fill of pit C1725, St Mary Spital, London. Images P13-16 are London ware; P17 is Late Medieval Hertfordshire Glazed ware; P18 is Kingston type ware; P19 is Mill Green ware; and P20-23 are South Hertfordshire grey ware (Thomas *et al.* 1997, 58, Fig. 46). Reproduced with permission of Museum of London Archaeology

Despite the absence of ceramic bowls, a group of 19 wooden table vessels were recovered from St Mary Spital, including five plain bowls, four footed bowls and two shallow dishes were made of alder, four plain bowls and one double bowl of ash, and two footed bowls of fruitwood (Fig. 5.3 and Fig 5.4) (Egan 1997, 203–4). This is an extensive collection, and included basic forms and styles similar to other wooden vessels, such as those recovered from Leicester Friary. Several of the St Mary Spital vessels were marked with identification symbols, possibly indicating distinctive owners, types of user, or area of use. Two of the shallower bowls were made in a similar form to pewter examples, and had been marked and scored by a knife in a manner suggesting the cutting of food or similar activities. The deeper bowls were not marked internally in the same way as the shallower bowls, but did seem to have an internal and sometimes external blackish deposit, sometimes greasy in nature, that may reflect the accumulation of residues of stews and soups (Egan 1997, 204). One of the wooden bowls, S68, was of an unusual form, comprising a double-sided form that had a wide rim. This example, and a further bowl S65 had high centres of gravity to reduce spillage that might have been particularly useful when feeding the infirm, although the pronounced feet of S68 may not have helped with stability. It is unclear how representative this collection of wooden tablewares is, given their rarity of survival in the archaeological record (Thomas *et al.* 1997, 61). That being said, it might be no coincidence that St Thomas, Southwark, was recorded as having given each of their inmates a wooden bowl, a wooden dish, and a cup upon admission to the hospital (Thomas *et al.* 1997, 63).

During the second half of the 14th century, the pottery assemblage comprised a large amount of London-wares, with some Kingston and South Hertfordshire greywares, including a Kingston-ware polychrome jug, and only limited amounts of Coarse Border ware (Thomas *et al.* 1997, 70–1). The nature of the assemblage, with limited examples of a more fashionable fabrics of the period, in this case the Coarse Border ware, and significantly more examples of fabrics that were in the decline across London, such as the South Hertfordshire wares, Kingston ware, and London-type wares, continues the trend for the long-term use of out of date pottery at St Mary Spital. There were some usual forms, such as a sherd from Siegburg Stoneware jug and a Kingston-ware biconical jug from the garden area west of the infirmary hall, and a sherd of Laverstock ware in a pit in the Sisters' Garden, unusual for a London assemblage, but these were rare for the assemblage as a whole (Thomas *et al.* 1997, 75–6). The rebuilding taking place at St Mary Spital during this half century may have caused some financial issues to the site, possibly explaining the

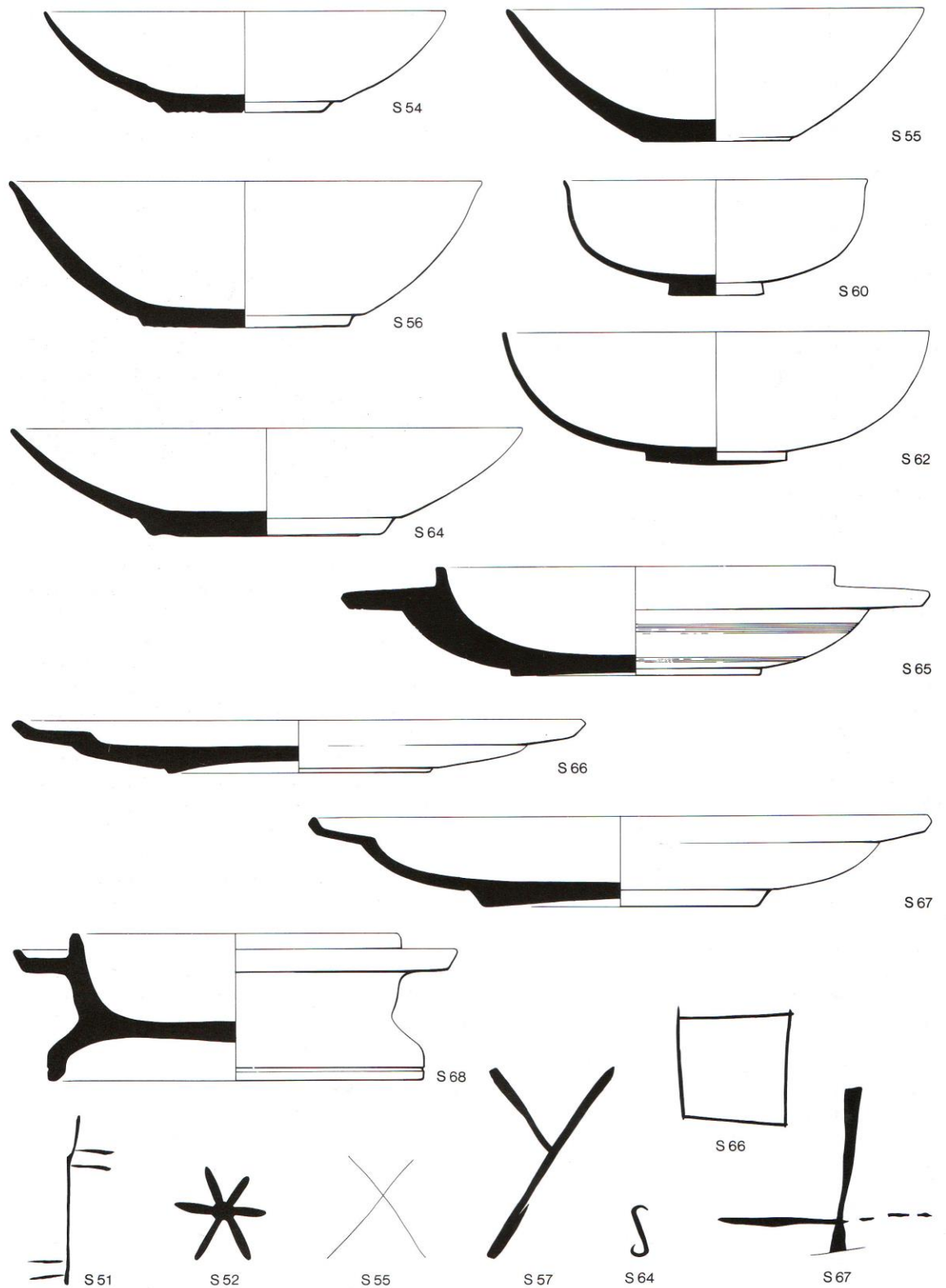


Figure 5. 3: Wooden vessels from the sluice pit, St Mary Spital, London. Of note is S68 a deep bowl that may also be reversable and may be better suited to aiding someone eat. Also depicted at the bottom are some of the individual markings found on the vessels (Thomas *et al.* 1997, 60, Fig. 47). Reproduced with permission of Museum of London Archaeology

dominance of pottery wares that had gone out of date, with even pre-1300 fabrics still in use up to 1400, such as Early Medieval sandy and shelly ware, and Early Surrey Ware, both fabrics that were more associated with the periods before the foundation of the hospital (Thomas *et al.* 1997, 77). Whilst some of these sherds may be residual, the large number found in association with more contemporary fabrics, such as Mill green ware and particularly the few Coarse Border ware sherds, suggest that they were still in use. Of these contemporary wares, the majority were jugs or biconical jugs rather than cooking pots. The majority of the pottery recovered from the final phase of St Mary Spital, dating to between 1400 and 1538 came from the Sisters' Garden, where a heavily disturbed garden soil produced pottery ranging from the 13th century, such as London-, Kingston-, and Mill Green wares, to the 15th century, with Late London-, Coarse Border-, and Late Medieval Hertfordshire glazed wares (Thomas *et al.* 1997, 85). There were even 16th-century wares

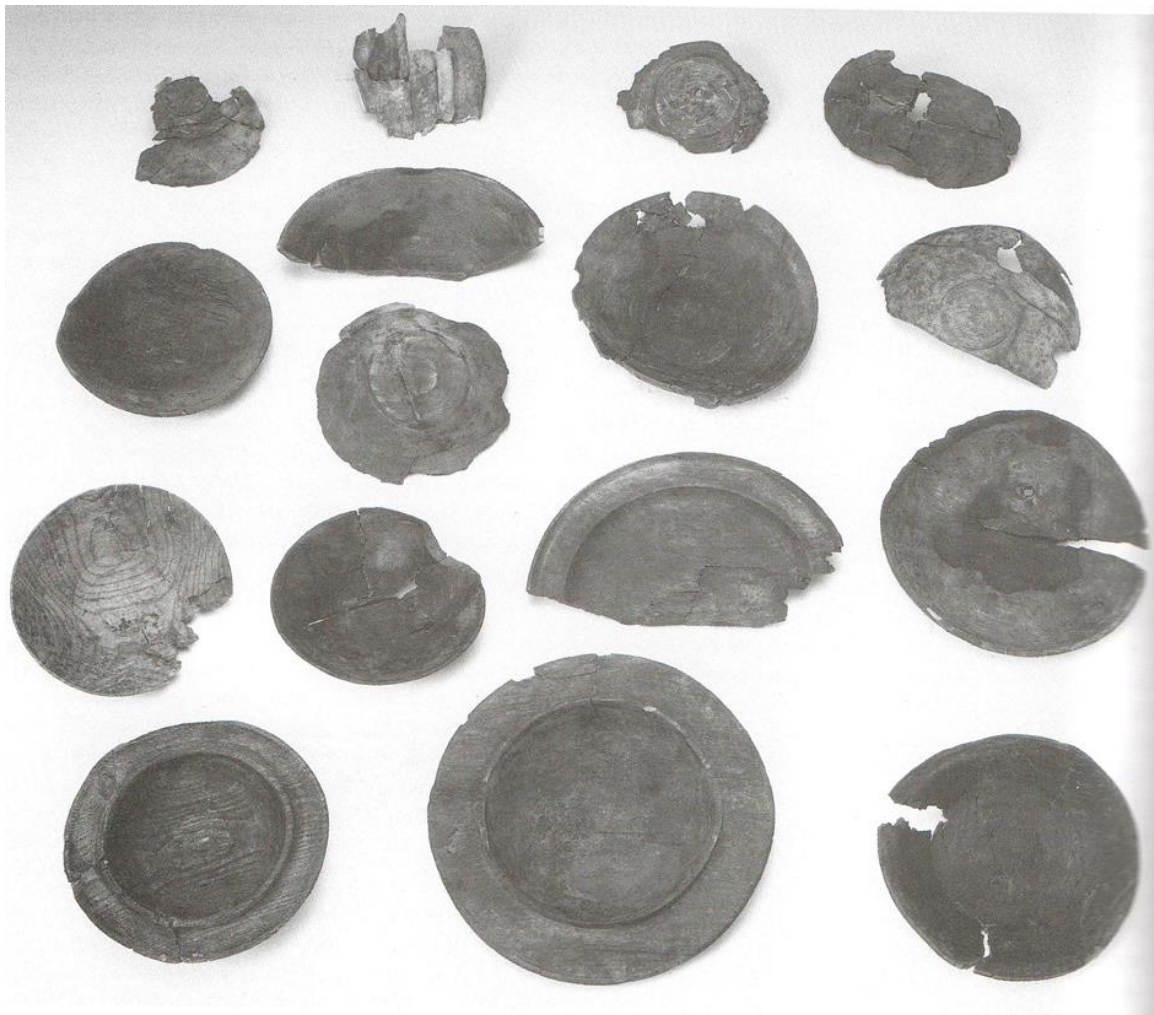


Figure 5. 4: The wooden vessels recovered from St Mary Spital, London (Thomas *et al.* 1997, 108, Fig. 73). Reproduced with permission of Museum of London Archaeology

recovered from this heavily disturbed soil, including a Tudor Green ware lobed cup, a Late London ware chafing dish, and Tudor Brown and Cheam wares.

Comparisons with other London sites such as Trig Lane and Swan Lane showed some significant differences, with some fabric types (especially Kingston ware) being less common at St Mary Spital than elsewhere in the city, (Stephenson and Spoerry 1997, 184). The difference with more traditional domestic assemblages were possibly caused by the provision of hospitality on a large scale, feeding in excess of 200 people per day when it was at maximum capacity and inmates and staff counted together. The most common pottery form recovered from St Mary Spital were jugs, with the larger forms for serving and some of the smaller forms possibly acting as drinking vessels (Stephenson and Spoerry 1997, 185–6). The presence of soot marks on several jug sherds indicates they were being heated (Thomas *et al.* 1997, 59), and this may indicate either the warming of drinks or even the preparation or warming of liquid foods, both activities from the hospitality provided by the site. Also of note was the under-representation of storage jars and cooking pots separately, with cooking pots only making up about 30% of the total assemblage, perhaps due to the use of vessels with dual purposes to minimise costs or storage issues. Taken together this indicates a trend away from fried and roasted foods in favour of boiling, although care must be taken with the use of negative evidence. That being said, there was also an unusual amount of ceramic ladles in the assemblage, all with external sooting, which indicates they had been used to cook small quantities of food or for preparing medicines and other remedies (Thomas *et al.* 1997, 59).

Pottery recovered from St Bartholomew, Bristol, was typical of the area, with little to set it apart (Price and Ponsford 1998, 84). One of the most interesting finds from the 13th and 14th centuries was a Saintonge jug with an incised “A”, speculated to have been a special jug for the measurement, or containing, of a specific item, possibly of a medicinal nature (Fig. 5.5). During the 14th- and 15th-century development of the refectory and kitchen building, the use of the cupboard in the eastern room as a pantry for serving and eating equipment was reinforced by the small amount of pottery recovered from the associated floor surfaces, including one sherd of local green-glazed pottery that was probably a cruet, a significant find given its location (Price and Ponsford 1998, 119). Later pottery assemblages were dominated by Malvernian wares, dating to the 15th and 16th centuries and were a cheap and common ware for the Bristol region (Price and Ponsford 1998, 120). The fact that the majority of pottery was found in and around the kitchen and refectory building highlights the domestic function of the range, and there is even a suggestion in the

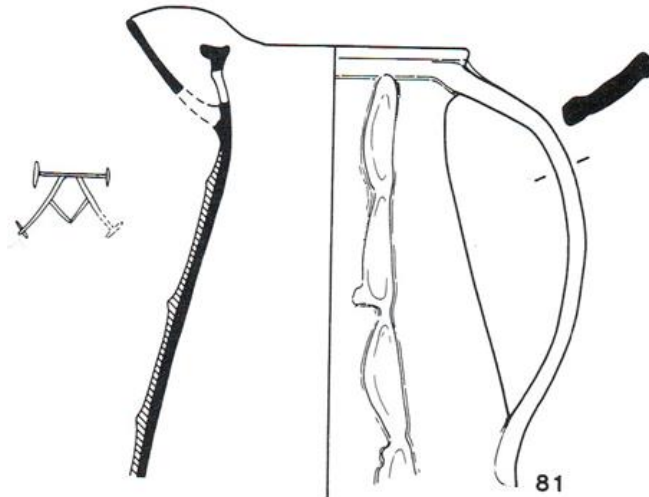


Figure 5. 5: A Saintonge green-glazed jug with a parrot-beak spout recovered from St Bartholomew, Bristol. To the left of the spout a Gothic 'A' (pictured above) had been incised through the glaze. This may mark the jug as containing specific liquids or be associated with a specific person or function (Price and Ponsford 1998, 149, Fig. 59.81) © Roger Price and Michael Ponsford

distribution to support the identification of the western room as the kitchen and the eastern room as the refectory (Fig. 5.6). In general the pottery from the hospital period was consistent with other Bristol sites, but was not extensive enough for a more in-depth ceramic analysis (Ponsford 1998a, 136).

The paucity was probably due to the excavation areas being located in the heart of the precinct where cleanliness can be assumed to have been relatively high, and little of the outer precinct was excavated where rubbish pits and dumping might be more common. Redcliffe-ware jugs, produced in Bristol between 1250 and 1500, made up almost a third of the total assemblage and were the most common pottery form on the site, but although there was a slightly higher frequency than usual for the 13th century, by the 14th century the relative ratios between jugs and cooking pots was as to be expected, a national trend of the replacement of the ceramic cooking jar with copper pots (Ponsford 1998a, 144–5; Willmott 2018). In the 14th and 15th centuries there were imports from a wider range of locales, including North Italian, Spanish, and German stonewares, and by the end of the hospital Tudor Green was also present on site, in the area of the refectory and kitchen (Ponsford 1998a, 144). The overall assemblage was not low status, but showed some fine local and import wares (Ponsford 1998a, 145).

Pottery from St Mary, Ospringe, also seemed to include a high number of jugs, with finds from the pond dating to the late 13th century, alongside a shallow wooden bowl or platter (Smith 1979, 99). Other than a few imports expected of being on the major road between

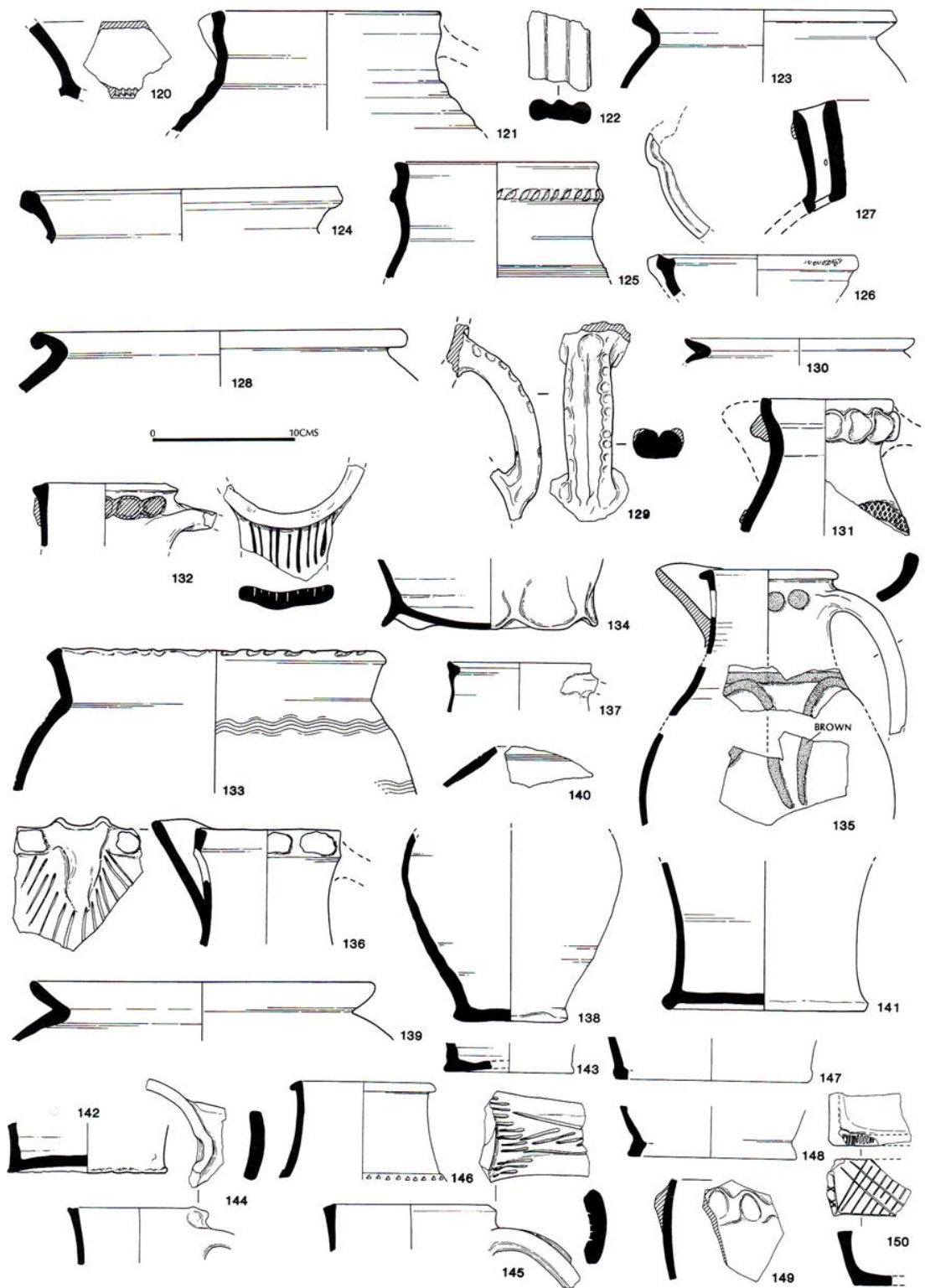


Figure 5. 6: Pottery recovered from the area of the kitchen, St Bartholomew, Bristol, including Redcliffe ware jugs, Ham Green ware cooking pots, and some Merida-type ware (Price and Ponsford 1998, 153, Fig. 61) © Roger Price and Michael Ponsford

Dover and Canterbury, including Saintonge ware jugs, some Northern French wares, imports from Merida and Malaga, Spain, and some imports from the Lower Rhineland, the majority of the pottery was to be expected for the area, being mostly made up of Tyler Hill wares (Fig. 5.7) (Raeman 2008b; Smith 1979, 106, 156, 182). The pottery assemblage from St Giles, Brompton Bridge, was dominated by Tees Valley ware from the late 12th century to late 14th century, predominantly jars, with jugs forming the next largest group but by the late 14th to 15th centuries green glazed jugs were dominating the assemblage (Fig. 5.8 and Fig. 5.9) (Maxwell 1995e, 169–179, 185). Most of the early pottery was distinctly grouped to the west end of the site, beyond the hall, with some found in the ditch to the northeast of the chapel (Maxwell 1995e, 186–7). This comprised jars, bowls, and jugs, with some skillets, representing a mixed domestic assemblage. The Tees Valley ware vessels were more spread out, being found in a number of levelling layers including some from inside the chapel and in the yard area to the west, which produced a number of jars and jugs. One of these groupings of sherds may represent an earlier building in the area of Building 217 which had been completely truncated by later buildings. A large number of bowls were found outside the precinct area, and it was suggested these may relate to begging (Cardwell 1995; Maxwell 1995e, 187).

A large collection of pottery was recovered from the hospital phases of St Mary Magdalen, Colchester, although there was only a small number of sherds recovered from the area of the church (Walker 2004). In the area of the hospital chapel and residential complex in the time just after the foundation, the majority of the pottery was Thetford-type ware, early medieval ware, and medieval coarse ware, as well as some shell-tempered ware (Walker 2004, 131). Coarseware cooking pots predominated the earlier assemblage, with some jugs and jars, suggesting it was from service areas (Fig. 5.10) (Walker 2004, 134–8). The pottery associated with the end of the hospital period and later almshouse did include a number of one-handled jugs that may suggest the presence of the infirm, and the relative proportion of jugs increased at the end of the medieval period. The dominance of cooking pots in the earlier period seems to relate to wider fashions in pottery production during the medieval period, a trend that is repeated in a number of hospitals that are established in the late 11th to 12th centuries. At St Mary Magdalen, Partney, the majority of the sherds representing 102 pottery vessels from the period of use of the site as a hospital were shell-tempered coarsewares from central Lincolnshire, although there also some example of Stamford finewares and other coarsewares imported from East Anglia, with coarse- and finewares from the East Midlands and Yorkshire increasing in number throughout the hospital phase

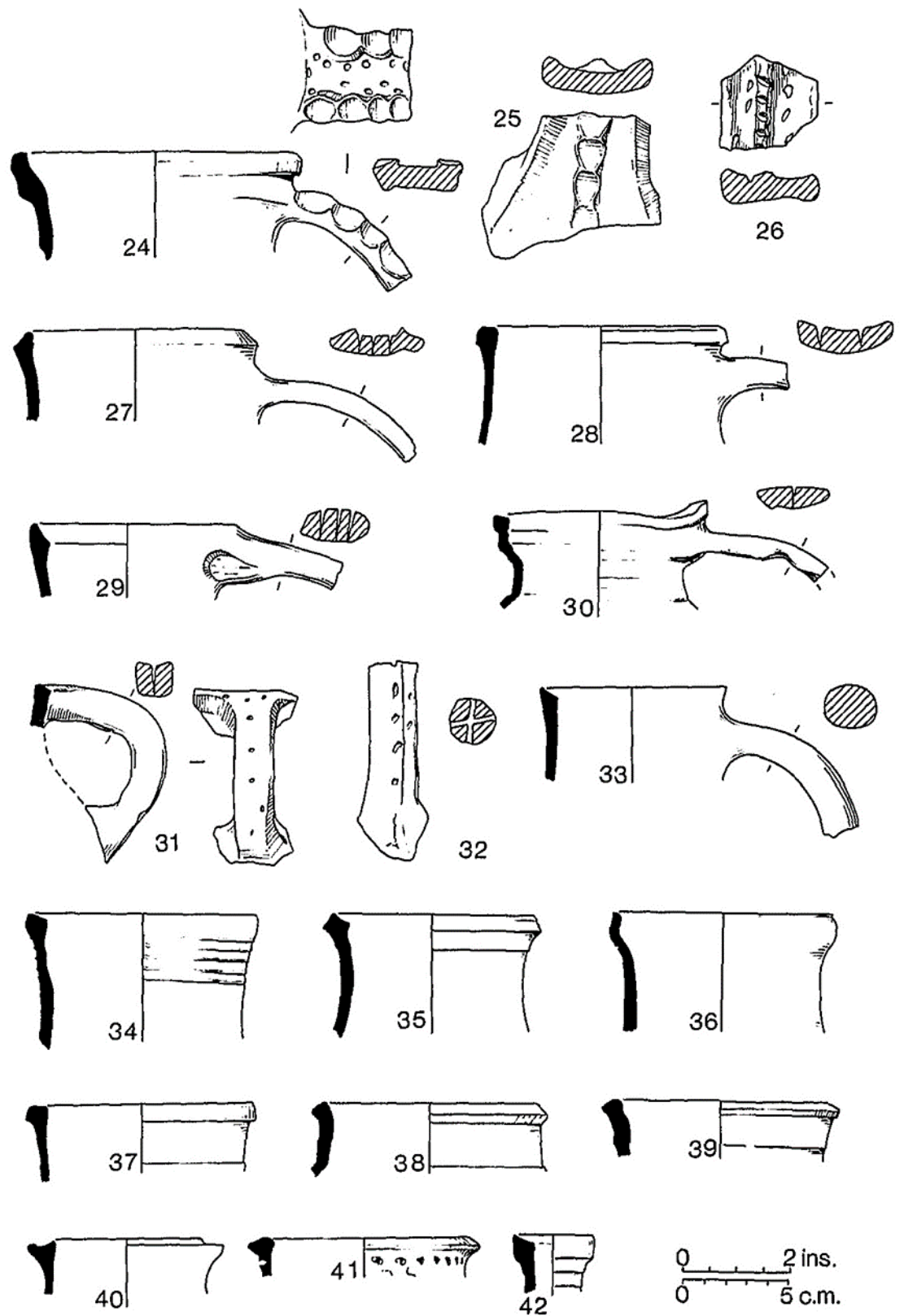


Figure 5. 7: A selection of Tyler Hill ware jugs from St Mary, Ospringe (Smith 1979, 164, Fig. 35). Reproduced with permission of Kent Archaeological Society

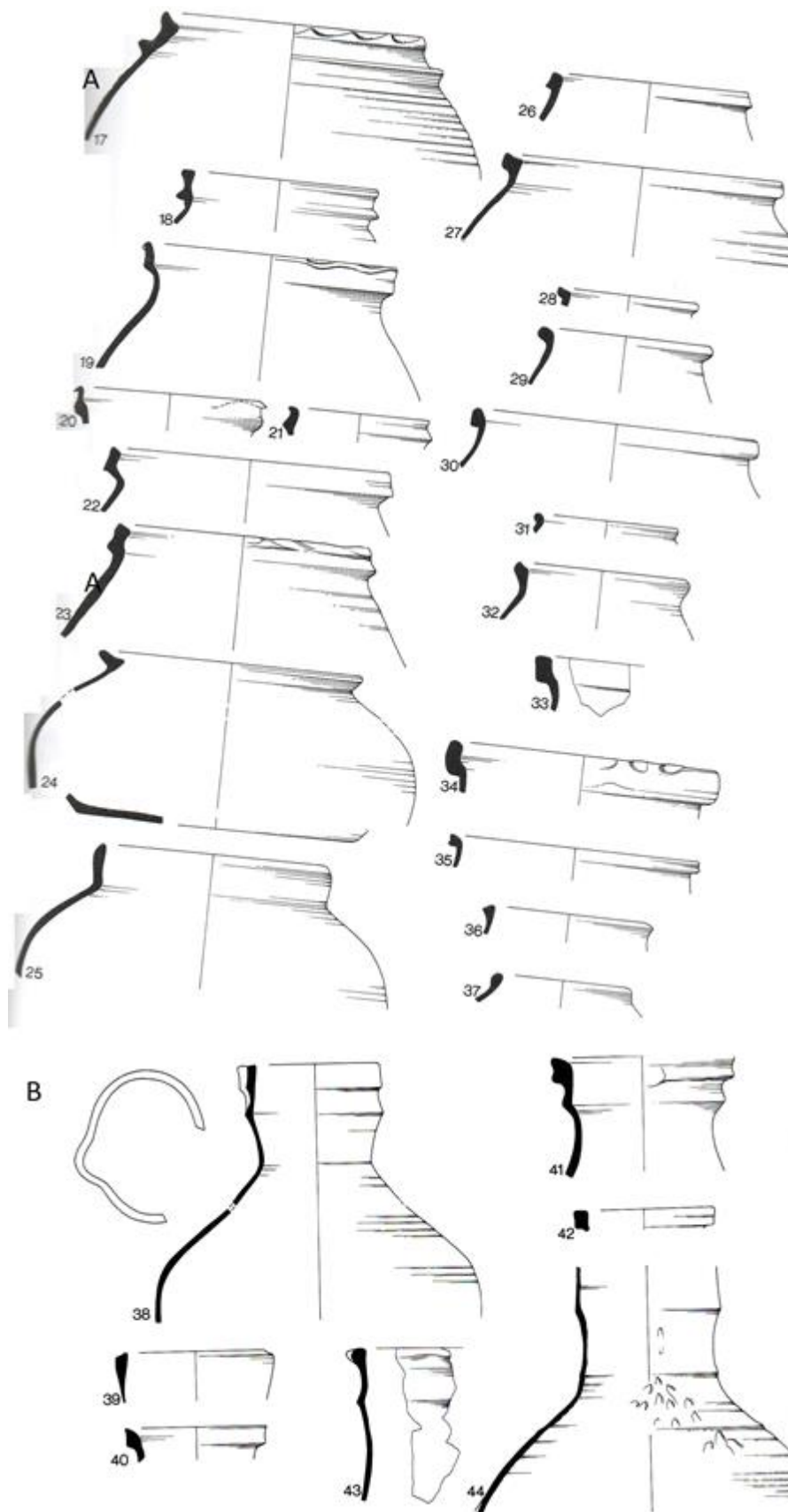


Figure 5. 8: Tees Valley ware jars from St Giles, Brompton Bridge (Cardwell 1995, 173-4, Illus. 31-32).
 Reproduced with permission of Taylor and Francis and the Royal Archaeological Institute
<https://www.tandfonline.com/loi/raij20>

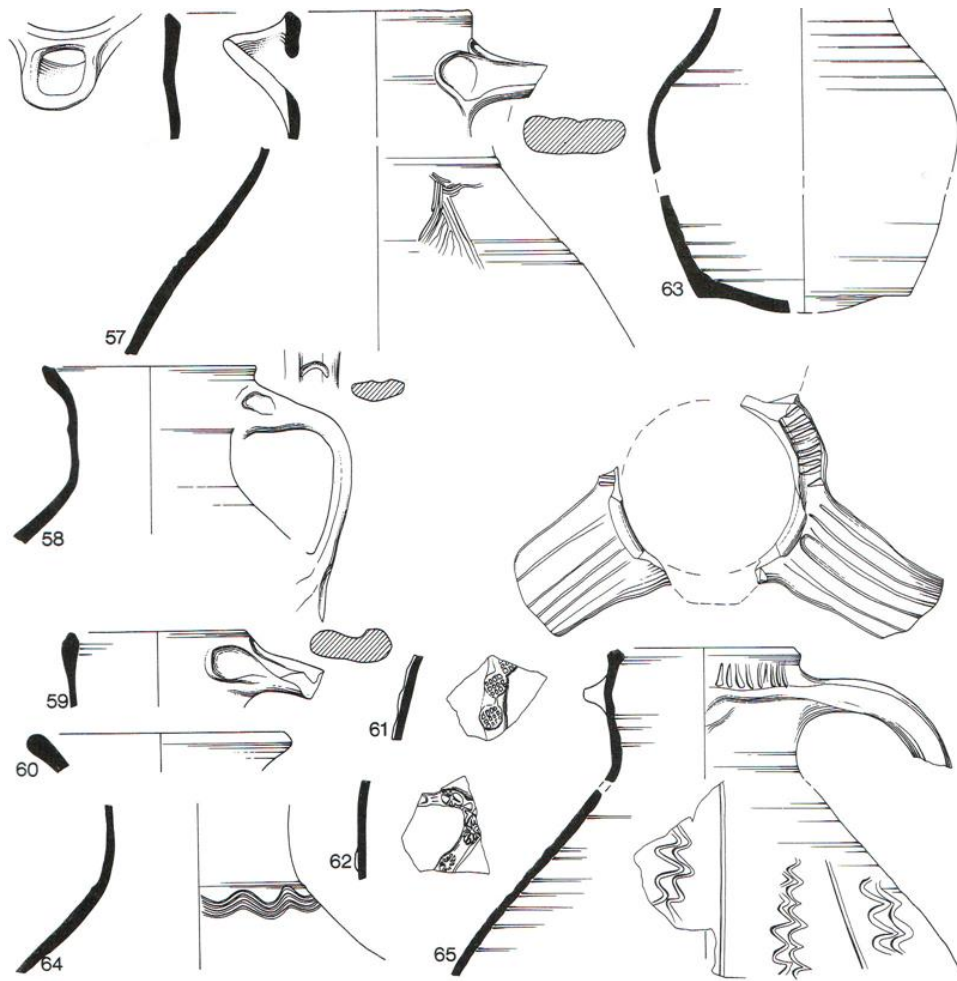


Figure 5. 9: Reduced green glaze ware from St Giles, Brompton Bridge (Cardwell 1995, 176, illus. 34). Reproduced with permission of Taylor and Francis and the Royal Archaeological Institute <https://www.tandfonline.com/loi/raij20>

(Young and Fletcher 2010, 236). Cooking pots dominated the assemblage, although towards the end of the hospital period and into the administrative cell period jugs were also seen in increasing numbers (Young and Fletcher 2010, 240).

At St John the Baptist, Lutterworth, despite the limited evidence for the buildings, the pottery fabrics appear to have been relatively typical for the area, apart from the absence of the local Potters Marston and Stanton Lyveden wares (Sawday 2002, 61). The forms of the assemblage are also unusual, including a possible part of an aquamanile, a Midland Purple mortar and skillet, and a large number of jugs and cups, all of which suggest the presence of a communal institution. Pottery from St Stephen and St Thomas, New Romney, comprised a mix of fabrics, including sandy coarseware cooking pots, a bowl, and a skillet, and grey sandy wares from west Kent and east Surrey, predominantly cooking pots (Fig. 5.11) (Rigold 1964, 61–66). Most of the jugs were Rye ware, forming roughly 20% of the

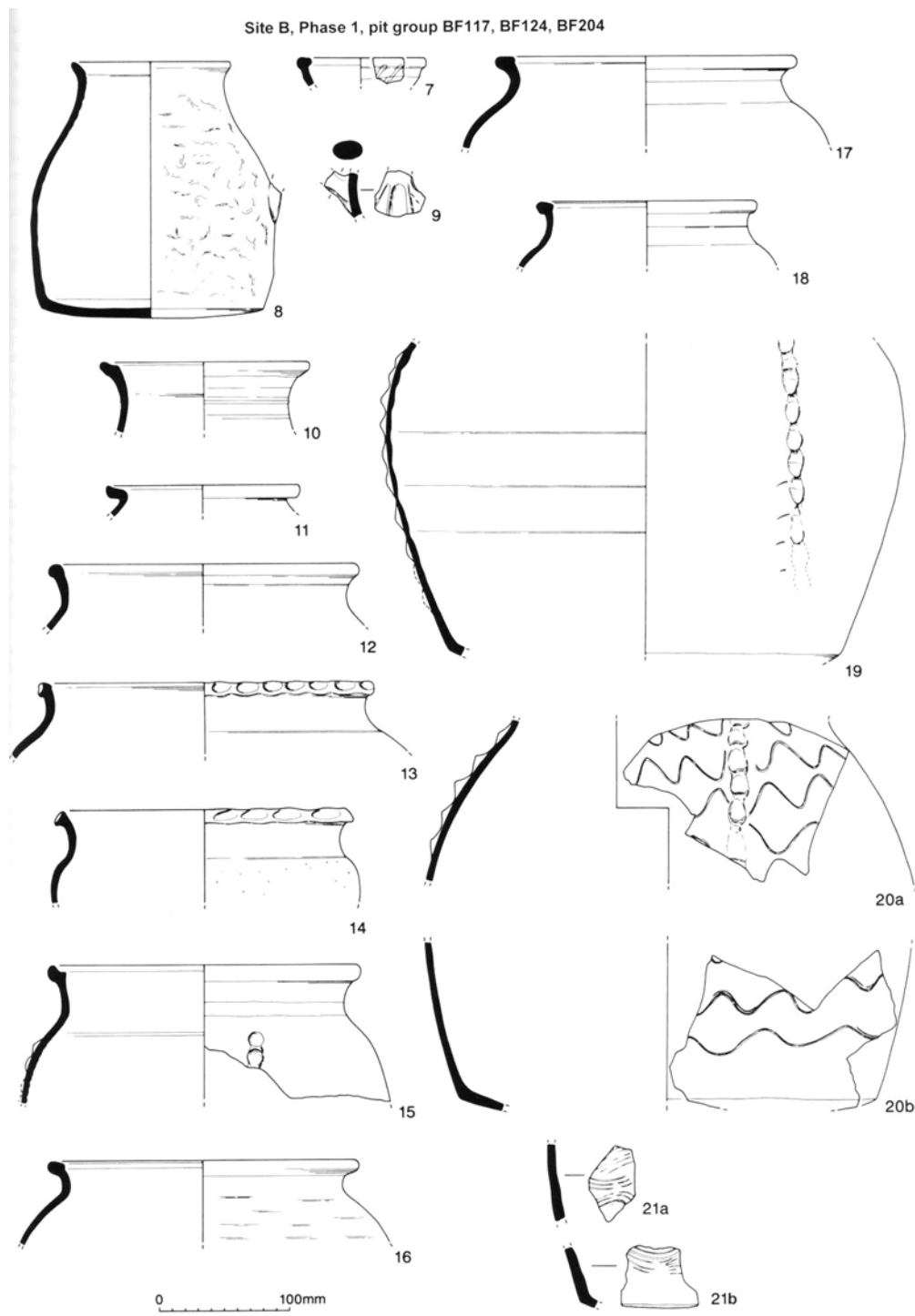


Figure 5.10: Medieval pottery from the first phase of St Mary Magdalen, Colchester (c. 12th century), from pit groups BF117, BF124, and BF204. The pottery comprises Thetford-type ware, Spare shell ware, early medieval ware, and medieval coarse ware (Crossan 2004, 135, Fig. 22). Reproduced with permission of the Colchester Archaeological Trust © Colchester Archaeological Trust and the Essex Society for Archaeology and History

assemblage, although there were a few fineware and imported jugs from early hospital layers. Jugs appear to become slightly more common from the later 13th century onwards, with a range of sandy wares, but cooking pots remained the dominant form, with a handful of bowls, skillets, and cisterns also present.

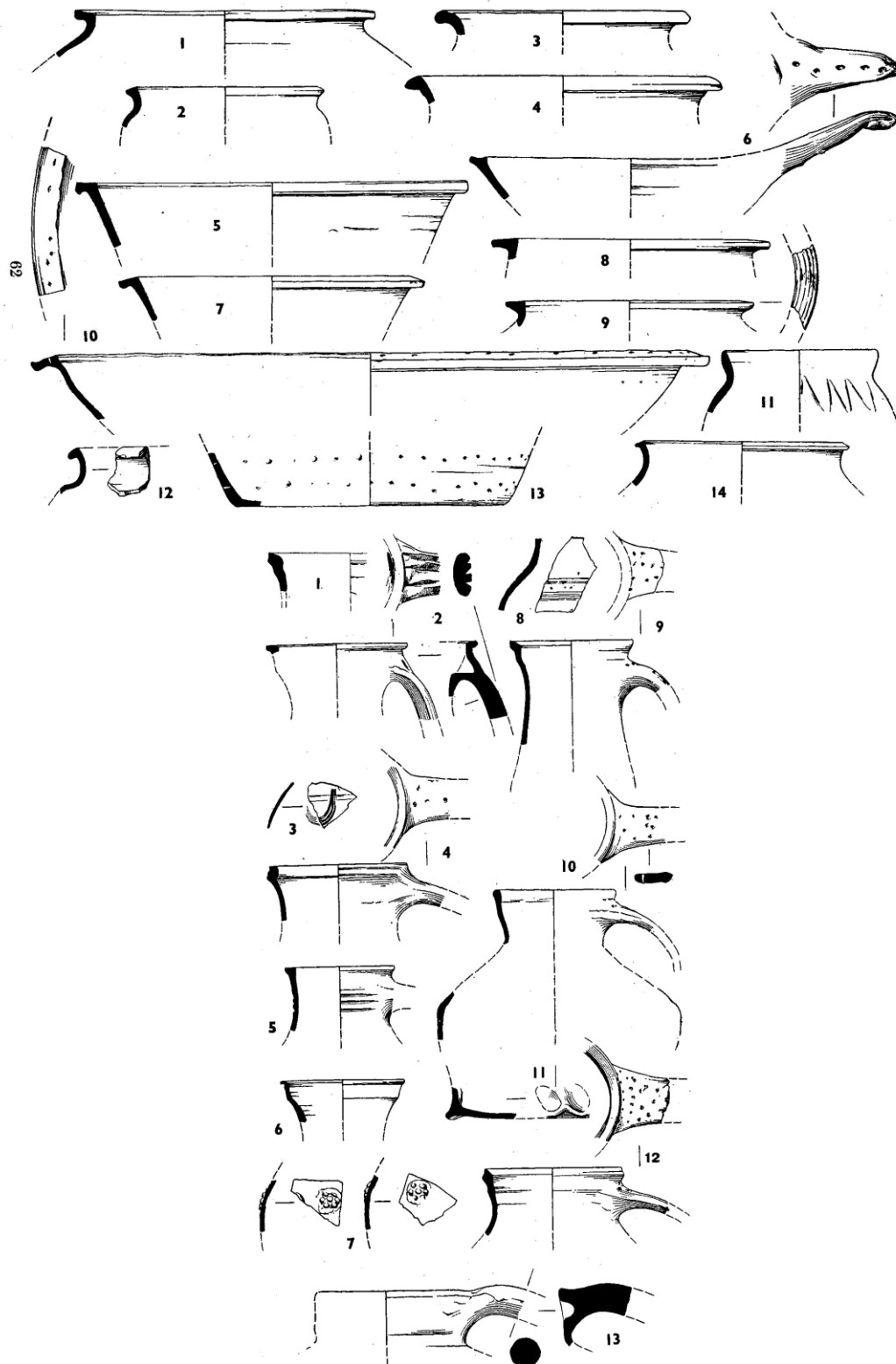


Figure 5. 11: A selection of the pottery assemblage from SS. Stephen and Thomas, New Romney. Sandy coarseware cooking pots and a skillet (no. 6 at the top of the figure) are amongst the examples at the top, with Rye ware jugs (at the bottom of the figure) making up 20% of the overall assemblage (Rigold 1964, 62, 64 fig 10-11). Reproduced with permission of Kent Archaeological Society

A small assemblage of pottery was recovered from St John the Evangelist, Cirencester, including Minety-type ware pitchers, cooking pot, and jugs (Fig. 5.12) (Vince 1982, 202–3). Limestone-tempered ware produced the most medieval pot, virtually all of which were cooking pots, many of which had soot on the outsides. A few sherds of large bowls were located, mostly unstratified, as well as a few glazed examples which represented three pitchers, one rectangular dish that had soot on the outside, and one jug. All these pottery elements seem to date to the 12th-13th century. A handful of other sherds from other wares, such as Malvern ware, flint-tempered ware, Ham Green ware, and Oxford late medieval ware were also recovered, being a mix of jugs and cooking pots with external sooting (Vince 1982, 204). Pottery from St Nicholas, Lewes, was mostly of a domestic nature recovered from refuse deposits in quarrying pits (Fig. 5.13) (Barber & Sibun 2010, 88–89). The largest deposits dated to the 12th and early 13th centuries, and up to this period there seems to be crossover between the older Saxo-Norman wares and the later medieval

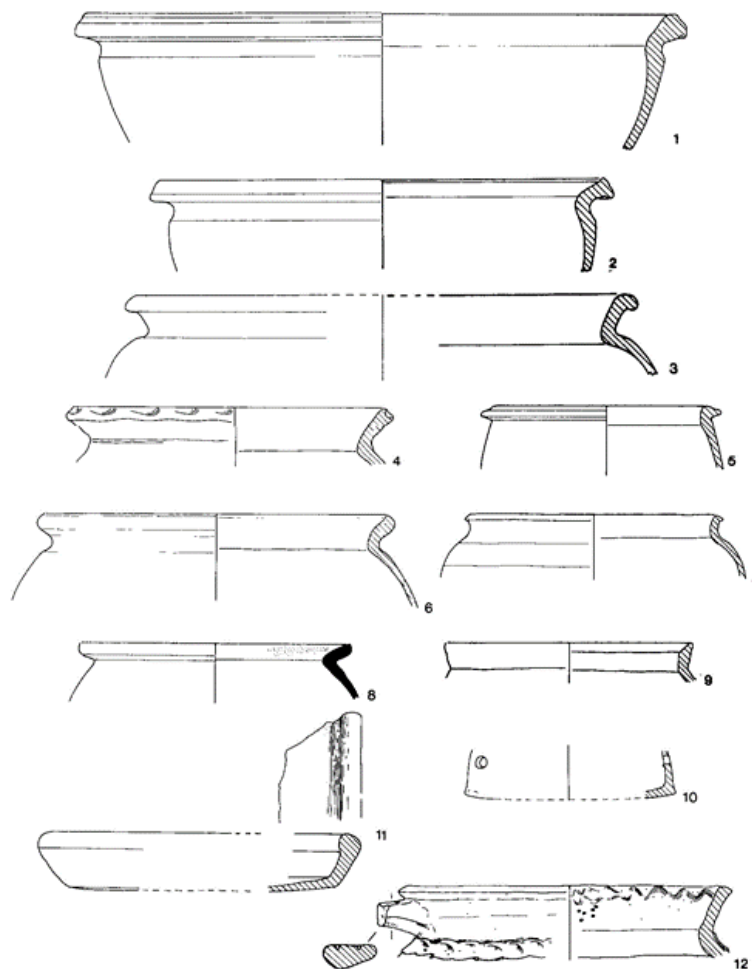


Figure 5. 12: A small assemblage of pottery recovered from St John the Evangelist, Cirencester (Leach and McWhirr 1982, 206, Fig. 6). Reproduced with the permission of Bristol and Gloucestershire Archaeological Society

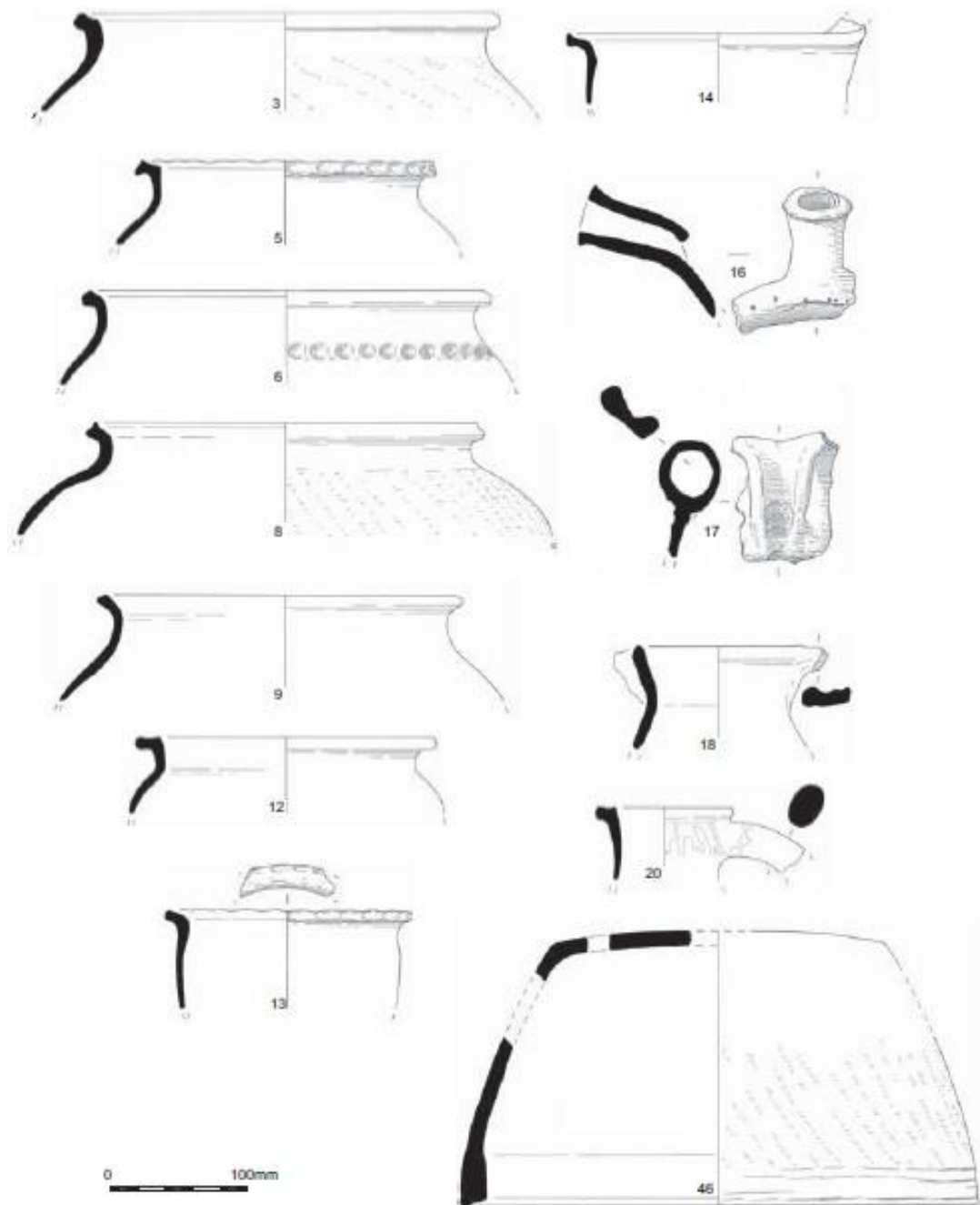


Figure 5. 13: Cooking pots and jugs recovered from Context 10 of St Nicholas, Lewes. Dating to the late 12th to early 13th century, it consisted of mostly undecorated cooking pots (Barber and Sibun 2010, 89. Fig. 10). Reproduced with permission of Sussex Archaeological Society and Archaeology South-East

types (Barber & Stevens 2010, 8). Most deposits were dominated by undecorated cooking pots, but glazed and unglazed jugs were found in small numbers, as were shallow bowls, storage vessels, and skillets. The majority of the pottery was of local origin, with only limited regional imports of Winchelsea Black-type ware and Rye wares. A few sherds of North French and Saintonge wares were also present. The limited number of jugs may indicate the assemblage was restricted to kitchen refuse with little tableware, or may

related either to the specialised role of the hospital in providing support to lepers in its early centuries or to the early date of much of the pottery, when jug forms were rarer, and only limited finds from the rest of the later medieval period when jugs in general become more dominant (Barber & Stevens 2010, 8).

The hospital layers associated with St John the Baptist, Oxford, contained East Wiltshire ware domestic pottery and tablewares, including cooking pots (Fig. 5.14) (Mellor 1991a, 50). From downstream of the culvert smaller cooking pots, a ceramic lamp, and a number of jugs were recovered, possibly suggesting loss or breakage when being filled with water. The dating seems to concentrate around the second half of the 13th century. Jugs and pitchers became more popular from the 14th century onwards, but there was no evidence they had been used for anything other than containing water. The pottery assemblage for St Saviour's, Bury St Edmunds, was dominated by coarsewares in the early centuries, with sandy coarsewares coming to be more dominant in later centuries (5.15) (Blinkhorn 1997). Jugs comprised the majority of identifiable vessels, and limescaling was noted inside many of them, either caused by water or use as urinals (Blinkhorn 1997, 58). At Llawhaden hospice, the majority of the pottery was Dyfed gravel-tempered ware and Llaustephan-type ware, as well as a few sherds of fabrics from further away, such as north Devon (Brennan 1995, 2). The small assemblage comprised mostly cooking pots and jugs, with jugs slightly

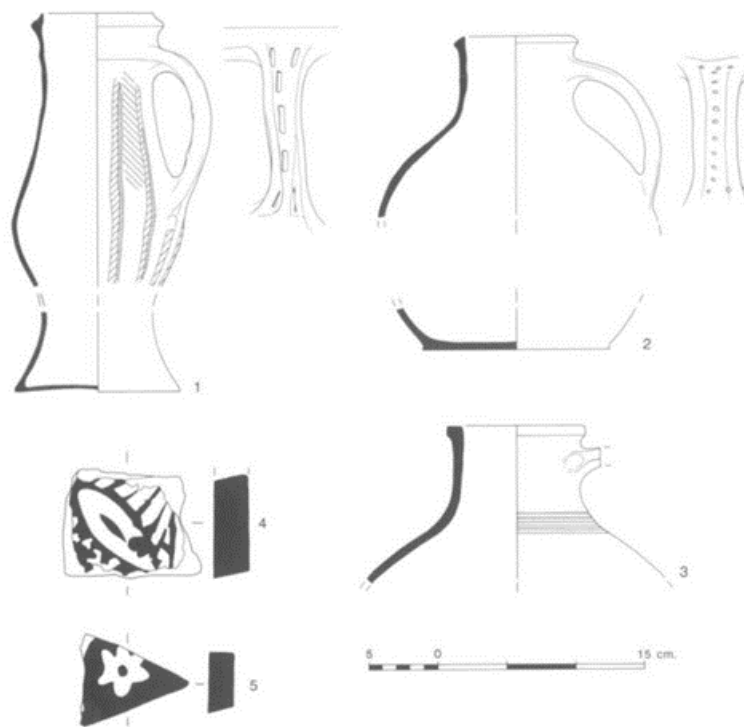


Figure 5. 14: Jugs and floor tiles from St John the Baptist, Oxford (Durham 1991, 51, Fig. 11). Reproduced with permission of the Oxfordshire Architectural and Historical Society and *Oxoniensia*

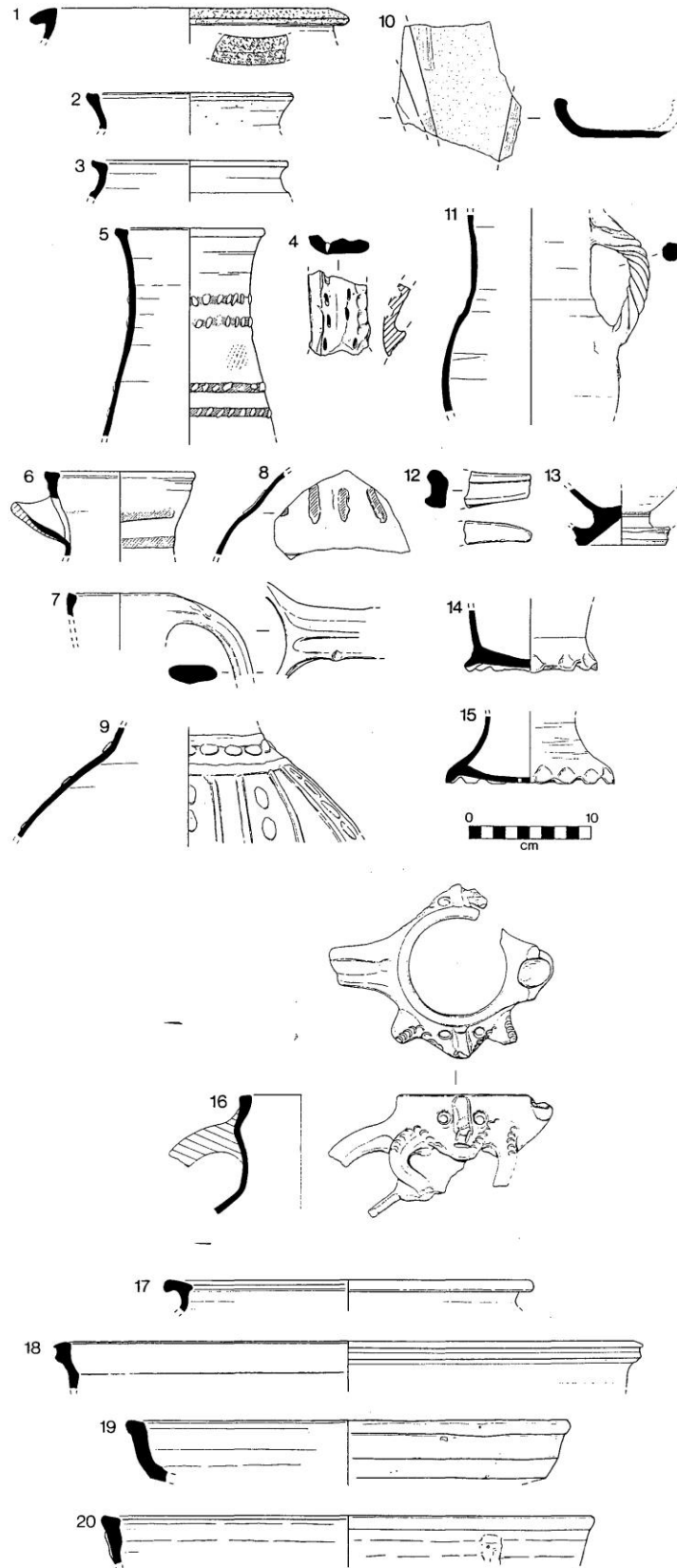


Figure 5. 15: Jars, jugs, and bowls from St Saviours, Bury St Edmunds, with examples of Grimstone ware dishes and jugs, early medieval coarsewares, and Hedingham ware jugs (Carruth and Anderson 1997, Fig 52-3) © Suffolk County Council Archaeological Services

more dominant in numbers. A limited pottery assemblage was recovered from St Mary Magdalene, Clothall, comprising 51 sherds from 29 vessels, although much could not be identified to form, cooking pots and jugs predominated (Wells 2009).

In summary, the pottery assemblage of medieval hospitals seems to mirror wider fashions in the change from cooking pots dominating assemblages to jugs and other tablewares becoming more popular. The preponderance of cooking pots may indicate domestic activities, there are cases where they have been associated with garderobes and so may not have been for food preparation but as chamber pots (Mellor 1991a, 50). Out-of-date pottery forms were relatively common on hospital sites, even when pottery chronologies were expanded through new evidence, and coarsewares were the most common set of fabrics. This may relate to a more robust construction or to the fact they were cheaper. The number of sites where jugs were, or became, the dominant pottery form is also clear, and other than wider fashion trends another suggestion could be made for the utility of this form, given its ability to be used to store and pour liquids, and at St Mary Spital there was evidence of them having been heated up. Given the relative proportion of inmates and guests to staff, particularly domestic staff, and the absence of forms for frying and roasting, most food would have been boiled or stewed. This would ease serving up, and whilst a number of sites lacked clear evidence of bowls, the example of St Mary Spital and St Mary, Ospringe, where wooden bowls were recovered, suggests that many tablewares were probably wooden. As such jugs may have been particularly suited to this institution, where large numbers of liquid meals were being produced and there were a large number of people requiring drinks. The use of small ceramic ladles to cook small amounts of food and the warming of jugs in hearths, both evident at St Mary Spital, may signpost possibly different approaches to food preparation and serving than were usual for the secular or monastic domestic routine.

It can also be seen that hospitals often had a more restricted suite of fabrics and often fewer foreign or regional imports than other nearby sites. Of the standard imports, Saintonge ware was the most ever-present, due to the ubiquity of their presence in assemblages that have been associated with their passage on trade ships as a by-product of the wine trade (Willmott 2018). Otherwise, the majority of sites utilised a limited subset of the fabrics in the nearby area, particularly favouring older coarsewares. One other potential observation concerning the preference for certain ceramic vessels concerns the few sites where cooking pots were clearly dominant for substantial amounts of time, especially St Mary Magdalen, Colchester, St Stephan and St Thomas, New Romney, and St

Nicholas, Lewes, all of which were initially leprosy hospitals. This might suggest that there was something distinctive about food preparation at these sites where more cooking pots were required. Since St Mary Magdalen, Partney, which was not a leprosy hospital, also seems to have had a similar pottery trend, any suggestions are tentative, and may be an avenue of interest in future investigations. The final point of significance relates to the number of bowls recovered from areas of St Giles, Brompton Bridge, which were suggested not to be associated with food. Given the hospital's location on a river next to a major road, begging would have been an important source of income, and some of these bowls may have been used by members of the community in the pursuit of alms. If true, then the number of ceramic bowls at other sites may not be entirely associated with food.

Only limited evidence for other artefacts associated with food and drink were recovered. Some indication of larger cooking items from St Mary Spital came in the form of a high-lead copper alloy cast vessel foot for a tripod cauldron (Egan 1997, 203). An inventory of 1303 from St Bartholomew, Bristol, included a large number of cauldrons on site, possibly for the boiling and stewing of meat, and it may have been that some of them were also used for laundry (Barber 1998, 183; Price and Ponsford 1998, 83). Also noted in the inventory were three trestle tables for the refectory, each one supplied with a basin and ewer for washing hands, and table clothes and towels, suggesting the meals were eaten in a more formal manner. An iron skillet handle and a number of fragments of metal vessels were recovered from St Mary, Ospringe, particularly the Dissolution phase layers (Smith 1979, 132, 142). Another possible example of a copper alloy vessel was recovered from St Mary Magdalene, Clothall (Duncan 2009), whilst further fragments of a possible copper alloy vessel were recovered from hospital layers at St John the Baptist, Oxford (Rogers 1991, 57). Very little medieval vessel glass was recovered from any hospital site. At St Mary Spital much of it was from highly fragmented vessels probably of post-Dissolution date, but there were a few fragments of beakers or a tazza with a metal handle and a loop attached, as well as some possible later medieval bottles (Brehm *et al.* 1997). Glass was also rare at St Bartholomew, Bristol, and heavily fragmented, the only identifiable piece from the hospital period was part of the foot of a 15th-century goblet (Good 1998, 163–4).

There was more evidence for stone mortars, which may have served either a culinary or medicinal role, or more likely both given the connectedness of diet and health. A 13th-century stone mortar was recovered from St Bartholomew, Bristol (Fig. 5.16a) (Price and Ponsford 1998, 83), and another from St Saviour's, Bury St Edmunds, made from limestone and with a lug, which may suggest it was also designed for pouring (Fig. 5.16b) (Caruth and

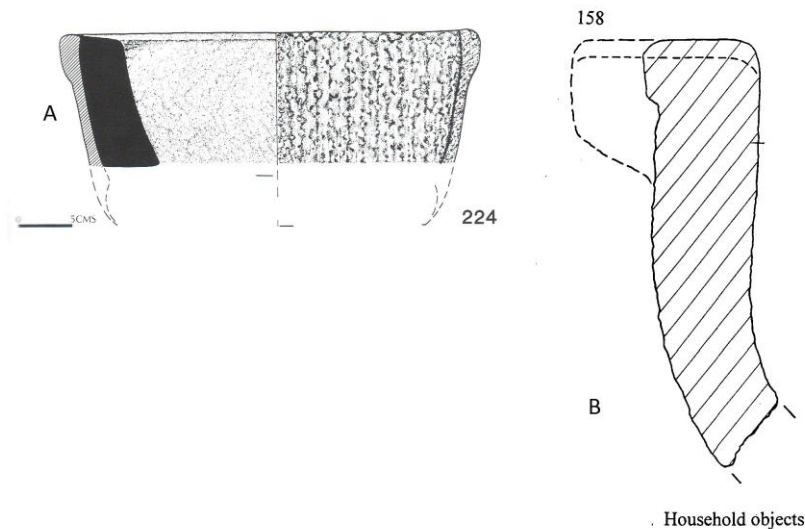


Figure 5. 16: A: Stone mortar from St Bartholomew's, Bristol; B: Stone mortar with lug from St Saviours, Bury St Edmunds (Image A from Price and Ponsford, 1998, 167, Fig. 68, obj 224; image b from Carruth and Anderson 1997, Fig 51, obj 158) © Roger Price and Michael Ponsford; © Suffolk County Council Archaeological Services

Anderson 1997, 55). Two mortars were recovered from St Mary, Ospringe, one from the foundations of the kitchen and measuring 0.6m in diameter, whilst the second was recovered from a later floor surface in the kitchen, with a truncated conical form, 0.35m in diameter, and seems to have been heavily used (Fig. 5.17) (Smith 1979, 154). Another mortar was recovered from a 19th-century wall, but may have been of a more medicinal use, since it was smaller and made from a block of greensand, 0.2m square and 0.16m deep, with the internal bowl being cylindrical, and there were significant amounts of wear to the bottom of the sides. At least three stone mortars were recovered from refuse dumps at the west of St Nicholas, Lewes, each made of Purbeck Marble, and the two rim fragments had lugs (Barber 2010a).

Overall, there was much less evidence for metal, glass, and stone food-related material culture. The glass provided some evidence for drinking ware, although these probably related to either the religious brothers at St Mary Spital or some of the corrodians, since it would be unusual with the out-of-date and robust pottery to provide inmates with fragile and expensive beakers. It is also clear from documentary sources that metal food preparation vessels were widely used and very important, but were more vulnerable to recycling after they finish their useful life, rather than being dumped like broken ceramic vessels. As such a small but important piece in understanding food preparation at hospital sites is missing, especially if the majority of foods were soups, stews, and other boiled meals which would necessitate cauldrons. Having a more accurate idea of the larger vessels

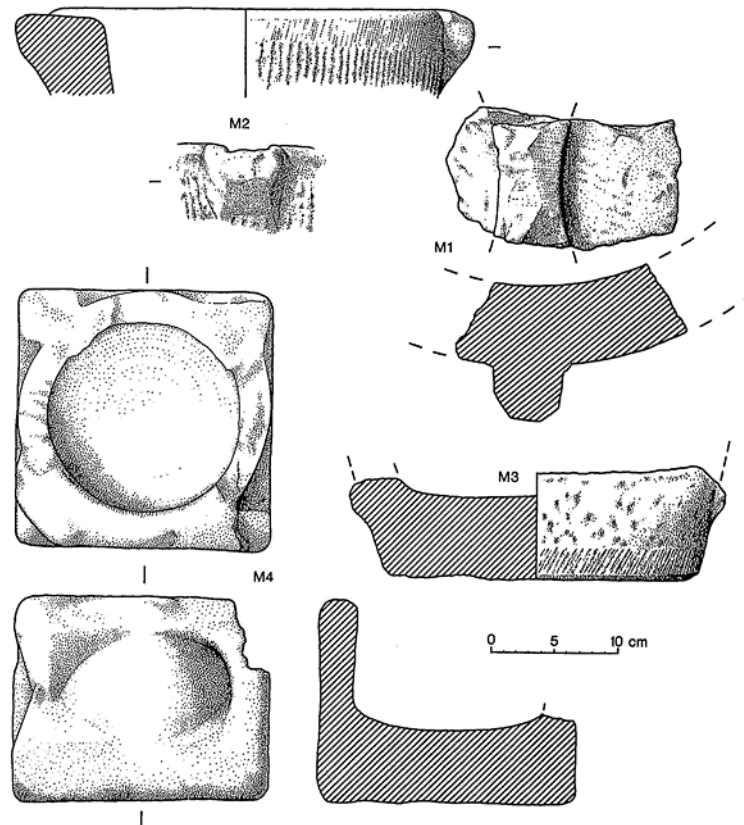


Figure 5. 17: Stone mortar from St Mary, Ospringe, recovered from the floor levels of the kitchen (Smith 1979, Fig 32). Reproduced with permission of Kent Archaeological Society

may also help with understanding the role of smaller cooking pots, whether they were for smaller portions with specific ingredients aimed at certain members of the community or provided a means of transporting the meals from the kitchens to the infirmary hall or refectory, since in most cases these buildings were not connected (see Chapter 3 and 4).

Religious Artefacts

As hospitals were quasi-monastic institutions it would be expected that excavation would recover a range of religious artefacts. This section will review a range of artefact types that can be said to have functioned in a broader spiritual context, and not just those with obvious liturgical functions or associations. Also included in this section are pilgrim badges, as emblems of religious practice and piety, and although they could also be associated with clothing and dress, given they were usually worn whilst the pilgrim travelled between shrines, their role as an emblem of pilgrimage and saints also gave them associations of healing, miracles, and pious self-expression (Bredehoft 2006; Garcia 2003).

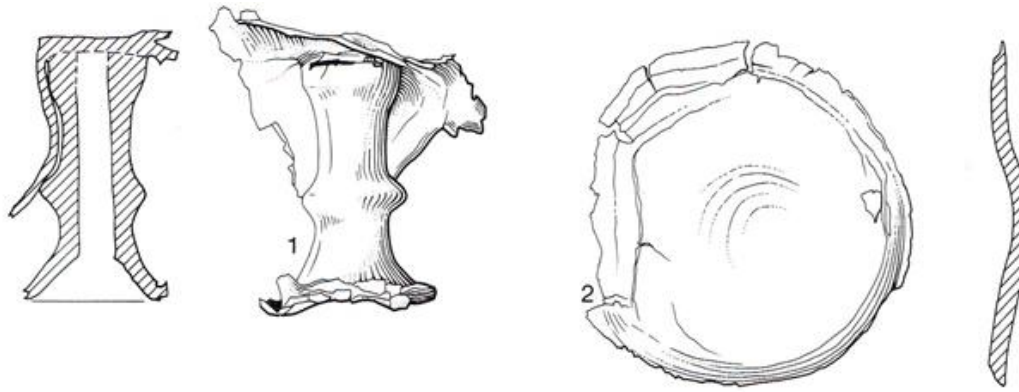
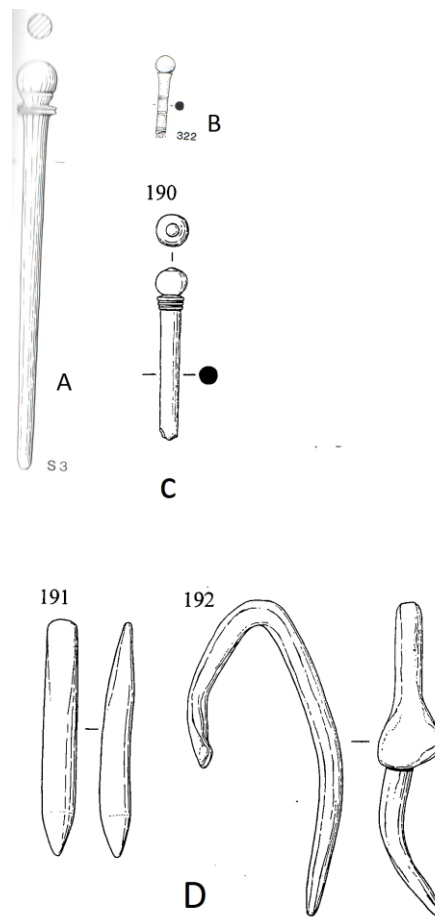


Figure 5. 18: A lead chalice and paten from the 14th-century burial at St Giles, Brompton Bridge (Cardwell 1995, 202 Illus 43, 1-2). Reproduced with permission of Taylor and Francis and the Royal Archaeological Institute <https://www.tandfonline.com/loi/raij20>

One of the most clearly religious items found on hospital sites are pewter chalices and patens associated with the burial of priests. Chalices and patens were recovered from two burials at St Giles, Brompton Bridge, one dating to the early 13th century, the other to the 14th century (Fig. 5.18) (Egan 1995). A chalice was also recovered from a burial dating to the operation of the hospital of St Mary Magdalen, Colchester, although it was in very poor condition when recovered (Crummy 2004b, 142). At least four pewter chalices were recovered from burials at St Mary Magdalen, Partney, although all of them were highly fragmented and if the patens were also present they were indistinguishable (Crummy 2010a, 228). Another chalice and paten, again in poor condition, were recovered from a grave in the chapel of St Saviour's, Bury St Edmunds (Caruth and Anderson 1997, 69). It has been suggested that the chalices were buried standing upright on the chest of the priest, with the paten on top, and they may have contained consecrated wine and bread (Crummy 2010a, 228). Given the clear religious function of these sites, the link with priests would be unsurprising. The number of such burials at St Mary Magdalen, Partney, on the southern side of the path seems to suggest that this area of the cemetery was associated with the religious.

Items of material culture associated with literacy are occasionally recovered from hospital sites. A turned bone stylus for writing on a wax tablet was recovered from St Mary Spital (Fig 5.19a) (Egan 1997, 201), and bone parchment prickers were recovered from deposits dating to around 1300 from St Bartholomew, Bristol (Fig. 5.19b), from St Mary in the Horsefair, York, and an unstratified example came from St Saviour's, Bury St Edmunds (Fig. 5.19c) (Caruth and Anderson 1997, 61; Price and Ponsford 1998, 85; Richards *et al.* 1989, 27). A possible iron stylus was recovered from 13th- to 14th-century deposits in the kitchen of St Bartholomew, Bristol (Good 1998, 171), and six lead styli were found in various



writing equipment All 1:1.

Figure 5.19: Writing implements and material culture: A – a bone stylus from St Mary Spital, London; B – a bone parchment pricker from St Bartholomew’s, Bristol; C – bone stylus from St Saviours, Bury St Edmunds; D – lead styli from St Saviours, Bury St Edmunds (Image A from Thomas *et al* 1997, 111, Fig 76, S3; Image B from, Price and Ponsford 1998, 172, Fig. 72, obj. 322; Images C and D from Carruth and Anderson 1997, 61, Fig 55, obj 190-2). Image A reproduced with permission of Museum of London Archaeology; Image B © Roger Price and Michael Ponsford; Image C and D © Suffolk County Council Archaeological Services

contexts, again at St Saviour’s, ranging from the 13th century into the post-medieval period (Fig. 5.19d) (Caruth and Anderson 1997, 61). A handful of book fittings were also recovered, including one from St Mary, Ospringe (Fig. 5.20a), and another from St Giles, Brompton Bridge, comprising two copper alloy plates rivetted together appears to have been a book fastener (Fig. 5.20b) (Maxwell 1995a, 190–2; Smith 1979, 139). A book clasp, comprising two rectangular plates rivetted together, one end hooked, was recovered from St John the Baptist, Oxford (Fig. 5.20c) (Rogers 1991, 57). A more explicitly liturgical item was also recovered from St Giles, Brompton Bridge, in the form of a silver plated copper alloy censor still sooted from use, located in the area of the chapel precinct to the east (Fig. 5.21a) (Maxwell 1995a, 188). An ivory altar cross, partly hand carved and partly turned, was found at St Mary, Ospringe, although it was found in modern disturbance and so it is not clear whether it was from the hospital or not (Fig. 5.21b) (Smith 1979, 152). A lead pilgrim

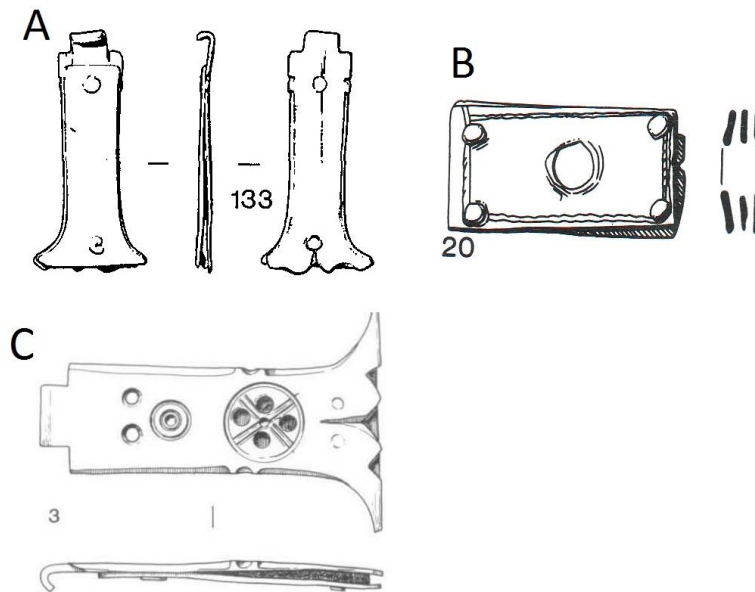


Figure 5.20: Copper alloy book fittings: A – Book fitting from St Mary, Ospringe; B – Book fastening from St Giles, Brompton Bridge; C- Book clasp from St John the Baptist, Oxford (Image A from Smith 1979, 140, Fig. 25, obj 133; Image B from Cardwell 1995, 190, illus. 39, obj 20; Image C from Durham 1991, 56, Fig 15, obj 3). Image A reproduced with permission of Kent Archaeological Society; Image B reproduced with permission of Taylor and Francis and the Royal Archaeological Institute <https://www.tandfonline.com/loi/raij20>; Image C reproduced with permission of the Oxfordshire Architectural and Historical Society and *Oxoniensia*

badge, originating from Amiens, was recovered from the floor layers of the hospital kitchen at St Mary, Ospringe, and may not reflect accidental loss but a purposeful deposit as a means of protection (Fig. 5.21c) (Smith 1979, 145, 147). The badge itself dates from the first half of the 15th century, and reflects the distances covered by medieval pilgrims. Two lead pilgrim badges were recovered from St Giles, Brompton Bridge, both from the same grave (Pritchard and Spencer 1995); one was from St Peter and St Paul, Rome, and the other from The Holy Face, Lucca (Fig. 5.21d). Three pilgrim badges from St Saviour's, Bury St Edmunds, were recovered, one of a scallop shell associated with the shrine of St James at Santiago de Compostela (Caruth and Anderson 1997, 49). Another was more fragmentary, but may depict a human figure in a dress or robe, tentatively associated with Walsingham, Norfolk, whilst the last one was damaged and incomplete, hindering identification.

As has already been shown, burials often contained a range of material culture. Part of a late medieval burial shroud was recovered from St Mary Spital, find S1, comprising a tabby weave of z-spun yarn, which was typical for the period (Egan 1997, 201). Five copper alloy shroud pins or needles were recovered from the cemetery excavations at St James and St Mary Magdalene, Chichester, some with textile still adhering (Kenny 2008). Shroud pins were also recovered from some of the burials of St Nicholas, Lewes, sometimes in

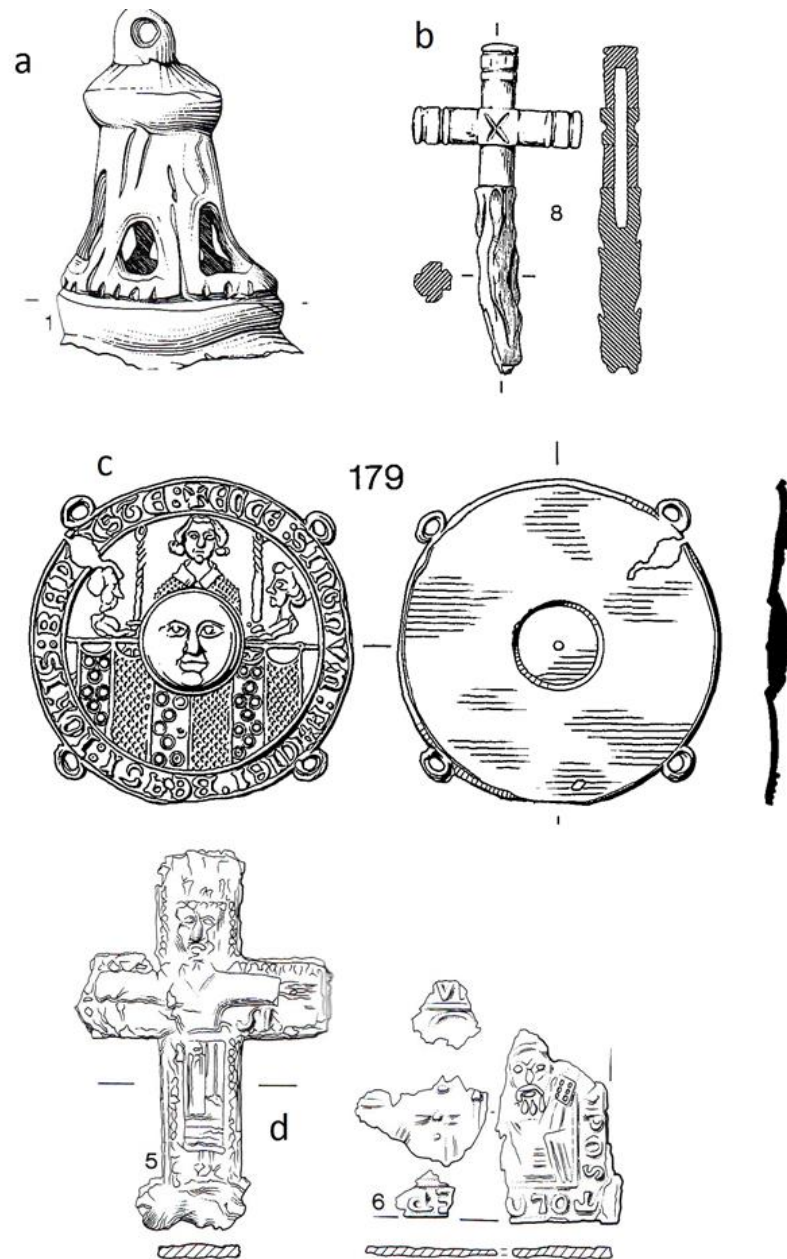


Figure 5. 21: Religious material culture: A – Copper alloy incense censor from St Giles, Brompton Bridge; B – Ivory altar cross from St Mary, Ospringe; C – A lead pilgrim badge from the floor levels of the kitchen at St Mary Ospringe; D – Two lead pilgrim badges from St Giles, Brompton Bridge, possibly showing the Holy Face of Lucca (left) and St Peters and St Pauls, Rome (right) (Image A from Cardwell 1995, 189, fig 5.45b, obj 8; Images B-C from Smith 1979, 153 and 146, Fig. 31 and 29, respectively; Image D from Cardwell 1995, 202 illus 43.5-6). Image A and D reproduced with permission of Taylor and Francis and the Royal Archaeological Institute <https://www.tandfonline.com/loi/raij20>; Image B and C reproduced with permission of Kent Archaeological Society

association with the minimum of 19 coffins that were part of the cemetery (Barber 2010c, 14). Also found in a grave in the north transept at St Mary Spital was a lead papal bulla (Fig. 5.22), dating to Pope Urban VI (1378-1389) (Egan 1997, 201; Thomas *et al.* 1997, 69). Another papal bulla, which was heavily worn, was found unstratified close to the chapel of St Mary Magdalen, Partney, dating to Pope Gregory VIII (1187) (Crummy 2010b, 231). A



Figure 5. 22: Papal bulla recovered from a grave in the north transept of St Mary Spital, dating to Pope Urban VI (1378-89). The inclusion of bulla in graves was not uncommon from this century onwards (Thomas *et al.* 1997, 69, Fig 54). Reproduced with permission of Museum of London Archaeology

papal bulla of Gregory X was recovered from St Saviour's, Bury St Edmunds (Caruth and Anderson 1997, 61). Other examples have been found, often dating to the 14th and early 15th century, and they have been suggested to be included within grave fills as charms or totems, or even still attached to Papal indulgences of forgiveness for sin (Crummy 2010b, 231). Unusually one of the burials associated with the monks or priests at St Mary Magdalen, Partney, seems to have been locked inside a coffin with a crude barrel padlock, with two hinge fittings that probably date from the 11th or 12th century (Crummy 2010a, 227–8). Similarly, a burial at St Nicholas, Lewes, was intentionally interred with a manacle around the leg (Fig. 5.23) (Barber 2010c, 14). This may be an indicator of an inmate who needed restraining, and there were records of chains and manacles on site for this in the 14th century. This may also be a rare indication of the presence of criminals at a hospital, linking it to the only Comfortable Act not covered by the everyday activity of the hospital, although there was no indication of execution or other trauma.

At the cemetery of St John the Evangelist a copper alloy cruciform pendant was found associated with a charnel bundle dated to the 13th or 14th century, and may have been attached to a cord used to secure the wrappings of the bones (Fig. 5.24a) (Cessford 2015, 80–2). The pendant was originally a piece of horse harness mounted by a pin onto a copper alloy mount attached to a leather strap, but after becoming detached was probably reused due to its form and already-present suspension loop. A cruciform pendent of Whitby jet

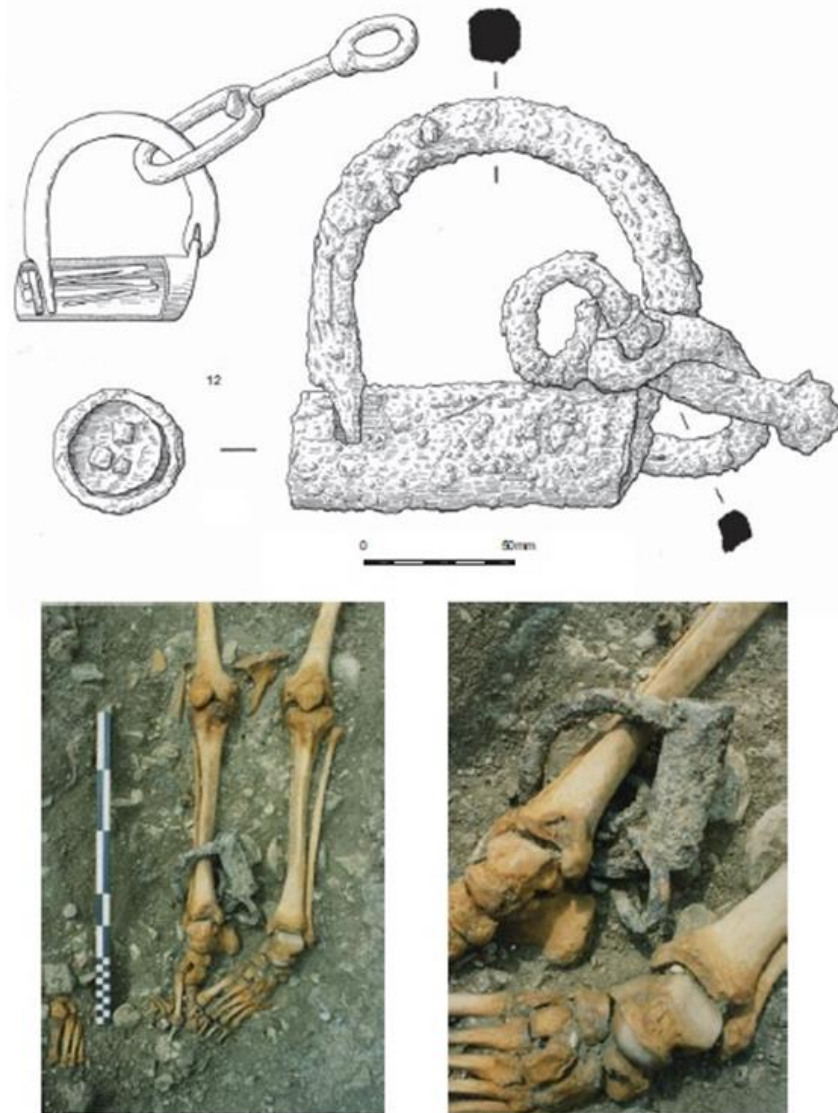


Figure 5. 23: Skeleton 249 from St Nicholas, Lewes, with attached manacle (Barber and Sibun 2010, 98, fig 17). Reproduced with permission of Sussex Archaeological Society and Archaeology South-East

31mm high by 26mm, with a slightly flared crosspiece was found associated with a 15th-century burial of an adult male (Fig. 5.24b) (Cessford 2015, 82). The pendant had been damaged to the base and the right hand of Christ, and had been suspended through a hole drilled into the upper arm. The damage appears to have occurred very soon before its deposition, and may explain why it was buried. Jet was often believed to have mystical or occult natural powers, and there are a handful of other examples recovered from burials across England (Cessford 2015, 82).

From this review it is clear that religious artefacts are present on most hospital sites, but in small numbers. The presence of writing and books on a whole range of hospital sites reinforces the religious or even quasi-monastic nature of the sites, especially given the wider lack of overtly religious iconography or items more generally. Religious finds were

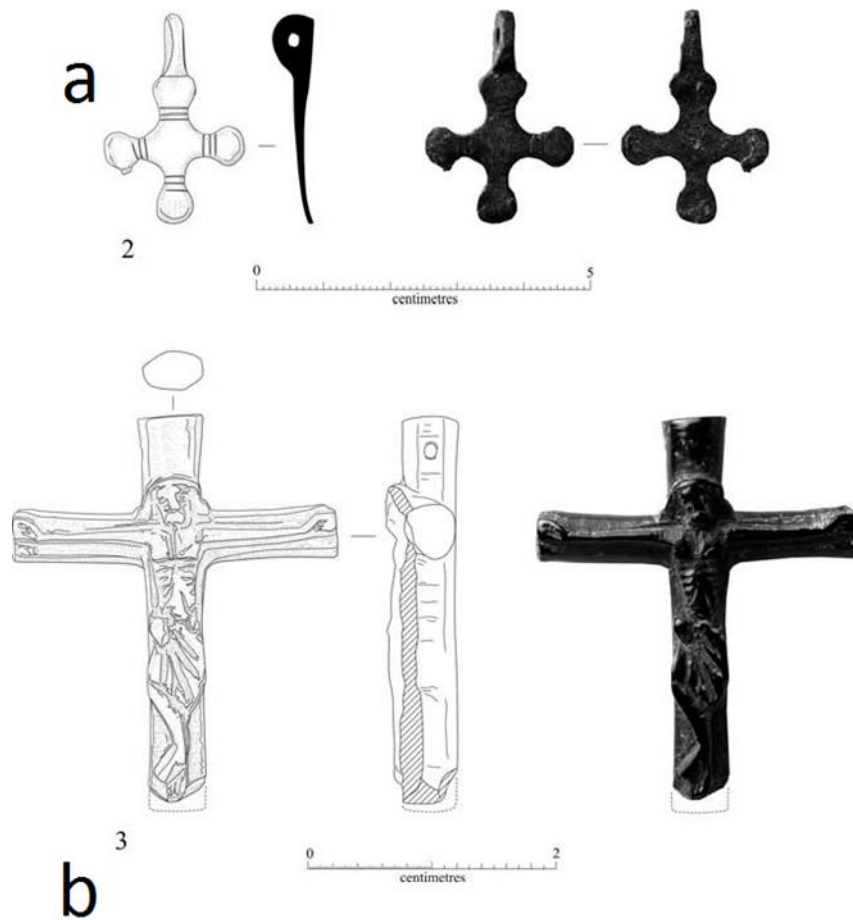


Figure 5. 24: Religious finds from the cemetery of St John the Evangelist, Cambridge: A: Jet crucifix pendant found associated with the burial of an adult male, dating to the 15th century; B: Copper alloy cruciform horse harness pendant found associated with a charnel bundle, dated to the 13th or 14th century (Image a and b from Cessford 2015, 81, fig 11, obj 2 and 3). Reproduced with permission of Taylor and Francis and the Royal Archaeological Institute <https://www.tandfonline.com/loi/raij20>

more frequently associated with burials, either being items of grave furniture or items placed with the body, or were finds found around the chapel or cemetery area. The placement of chalices and patens in burials, and the inclusion of papal bullae in graves link to wider traditions. The possibility of bulla being seen as amulets or protective emblems would heighten the meaning of these items that in essence function as intercessory grave goods. This fits with Gilchrist's (2008) work on magic and the dead, especially the concept that death may have been viewed as a harrowing journey requiring protective emblems. Whilst items like brooches and other dress accessories have been included in the clothing and dress section below, the small but significant number of them that are recovered from burials in hospital cemeteries suggests that there was some variation in the clothing the deceased were buried with, although it is not clear whether those with dress accessories were members of the community or those from outside who chose the hospital cemetery over other sites.

One element that has fallen outside the scope of this research, but which has been touched on here, is the manner in which burial was one of the core pillars of many hospitals' charitable actions, but it is rare for the character of burial and the way this relates to the rest of the hospital and its activities to be considered as part of the hospital's function. It will usually remain unclear throughout a hospital cemetery population who was actually a resident of the hospital and who was outside the community but chose to be buried there. One of the few exceptions are sufferers of leprosy with clear osteological markers of the disease, buried in the cemetery of a leprosy hospital. The manner of their burial, how they were dressed, what items were buried with them, the use of shrouds, coffins, or in some cases both, and the layout of the cemetery could all be included as part of the hospitality provided by the hospital for its community, in this case the community of the dead who co-habit the precinct with the living. In Chapter 6 the concept of hospitality for the living is discussed, looking at food, potential medical plants, and the wider environment, and taking a similar holistic approach to the hospital cemeteries would be an important complementary study. Examining this 'hospitality for the dead' would help better understand whether there are unique facets to hospital cemeteries, be it through the material culture of the burials, the layout or associated buildings and features, or the health, diseases, traumas, and life histories of the individuals themselves. This will be discussed further in Chapter 7, but the large number of hospital cemeteries that have undergone excavation is extensive and the number of burials recovered more generally from hospital sites burials are an extensive dataset that has, as yet, received little attempt to fully evaluate as a unified dataset.

Clothing and Dress Accessories

The majority of the material culture of clothing are dress accessories, many of which were recovered from burials. The hospital sites themselves were relatively clean of items of personal adornment, and this is almost certainly a reflection of the provision of habits or other elements of standardised clothing as members of a quasi-monastic institution, as well as the cleanliness encouraged by the provision of hospitality. For example a burial from St Mary Spital in the period between 1235 and 1280 contained two buckles, one of the few indicators of clothing from this period (Fig. 5.25a), whilst in rubbish pits in the area of the cemetery contained another buckle, as well as a pin (Thomas *et al.* 1997, 38–9). In the 13th century few indicators of personal adornment were recovered from St Mary Spital, although a finger ring was found (Thomas *et al.* 1997, 35). Some items that seem to be

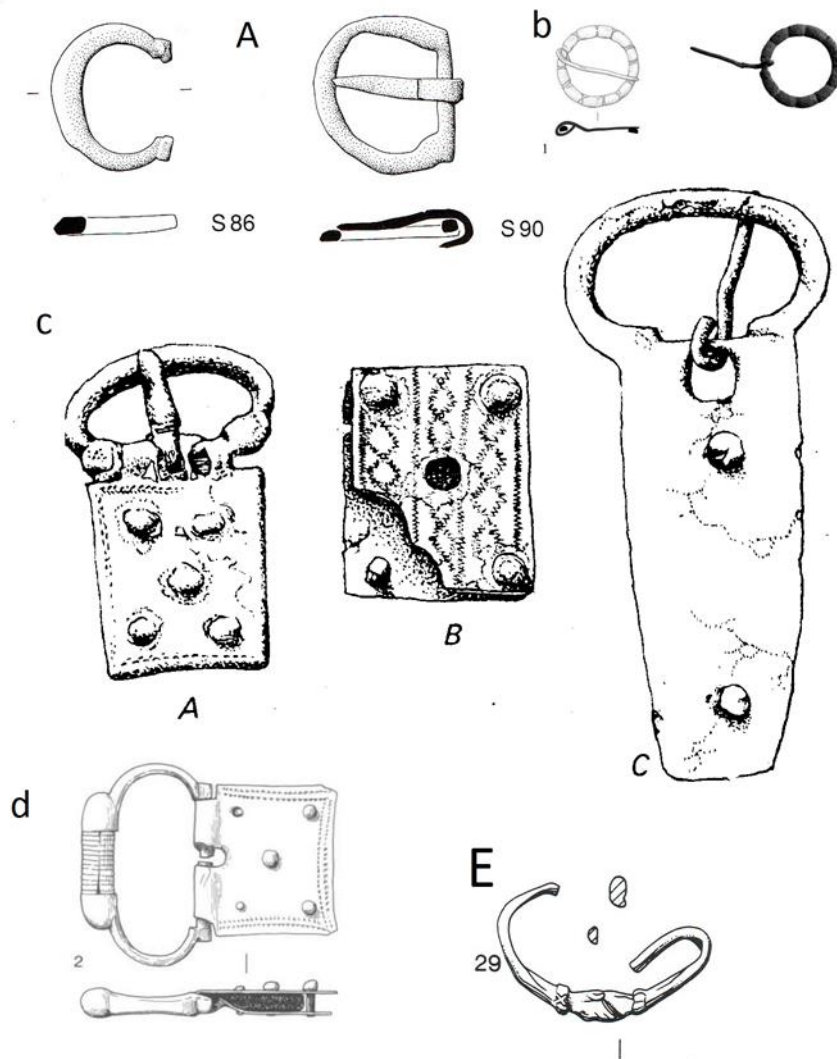


Figure 5. 25: Copper alloy dress accessories: A – Two buckle from St Mary Spital, London; B – An annular brooch from the cemetery of St John the Evangelist, Cambridge; C – Bronze belt fittings from St Mary’s, Strood; D – a buckle from St John the Baptist, Oxford; E – a finger ring from St Giles, Brompton Bridge (Image A from Thomas *et al.* 1997 38, fig 28; Image B from Cessford 2015, 8, fig 11, obj 1; image C from Harrison 1969, 154, fig 6; Image D from Durham 1991, 56, fig 15, obj 2; Image E from Cardwell 1995, 191, Illus 39, obj 29). Image A reproduced with permission of Museum of London Archaeology; Image B and E reproduced with permission of Taylor and Francis and the Royal Archaeological Institute <https://www.tandfonline.com/loi/raij20>; Image C reproduced with permission of Kent Archaeological Society; Image D reproduced with permission of the Oxfordshire Architectural and Historical Society and *Oxoniensia*

associated with the sisters were located in and around Building 19, the Sisters’ Refectory, as well as the garden area to the north, including a copper alloy pin, possibly from a head-dress, and a copper-alloy dress pin and a worked bone needle, further tentative suggestions of association with the laysisters (Thomas *et al.* 1997, 73, 76). Another buckle was located from a cesspit to the west of the infirmary hall dating to between 1350 and 1400 (Thomas *et al.* 1997, 75). Further evidence of the laysisters came from the final phase of the hospital, with a pin, strap end, and several buckles being recovered from the Sisters’ Garden area (Thomas *et al.* 1997, 86–7), and since these finds were recovered from a

heavily disturbed garden soil they may have been residual from the 14th century when the lay sisters had more direct access with these open areas.

In burials at St John the Evangelist, Cambridge, an adult female was buried with a copper alloy annular brooch, which given later truncation may have been one of a pair (Fig. 5.25b) (Cessford 2015, 80). One copper alloy buckle of slightly unusual form was recovered from a burial at St Mary Magdalen, Partney, suggesting the individual was buried in a belted robe or habit rather than a shroud (Crummy 2010a, 228). One plain buckle was recovered from the burial in the chapel of St Mary, Strood, whilst a strap-end buckle, which had originally been gilded, and a decorated belt ornament were recovered from demolition associated with changes to the first chapel (Fig. 5.25c) (Harrison 1969, 154). A copper alloy buckle with two lines of rouletting was recovered from St John the Baptist (Fig. 5.25d) (Rogers 1991, 57), whilst a total of 32 medieval dress accessories were recovered from St Saviour's, Bury St Edmund, mostly copper alloy buckles and belt mounts, with a few strap loops, strap ends, and chapes (Caruth and Anderson 1997, 46–48). Several of the items were decorated, including a D-shaped buckle with gilding, a number of buckles with ornate edging, and several belt mounts with decorative borders or a fleur-de-lys. There were also a number of pins present.

Similar items were recovered from St Bartholomew, Bristol, including a few pins, buckles, and rings (Good 1998, 163). Most of the buckles from Bristol were dated to the 14th or 15th century, with one being particularly plain (Good 1998, 166). Evidence of dress was limited at St Mary, Ospringe, mostly dating to demolition material from after the dissolution of the site, but which did include spurs, buckles, and pins (Smith 1979, 106). Most of the iron buckles appear to have been from belts, one being highly decorated with incised decoration, whilst the rest were plainer (Smith 1979, 132, 139). Also recovered were three strap-ends and a couple of belt plates, as well as a functional brooch pin. The excavations at the cemetery of St James and St Mary Magdalene, Chichester, uncovered hair pins associated with a handful of graves, possibly indicating an element of care over the appearance of those buried, or even the burial of religious women in their formal attire, as well as a number of other dress accessories such as buckles and lace tags (Kenny 2008). Two belt buckles were recovered from St Giles, Brompton Bridge, one with slight decoration on and both dating to the 14th century (Maxwell 1995a, 190). There were also two strap ends, one from a burial, dating to the 14th and 15th centuries, as well as two wire twist loops for fastening clothes, also from the same period (Maxwell 1995a, 190, 192).

A possible decorated copper alloy buckle plate, dating to the 12th to 14th centuries, was recovered from St Mary Magdalen, Colchester, as was a possible bone toggle and several copper alloy pins and lace ends, although more of these were associated with the parish church than the hospital's domestic area (Crummy 2004b, 142). Buckles were also recovered from nine burials at St Nicholas, Lewes, either from the belt or shoe, and all but one were copper alloy, the other being iron (Barber 2010c, 14). Dress accessories were also found in the quarry to the west where domestic refuse was dumped. A misshapen copper alloy finger ring was recovered from St Giles, Brompton Bridge, comprised of a band that displayed two clasping hands with cuffs around the wrists (Fig. 5.25e), whilst three finger rings were recovered from St Saviour's, Bury St Edmund, one made from pewter that had false stones set around it (Caruth and Anderson 1997, 49; Maxwell 1995a, 193). A silver ring was recovered from Llawhaden hospice, decorated with a chiselled zigzag pattern, dating from the 13th to early 15th centuries (Brennan 1995, 35).

A collection of adult leather turn-shoes were recovered from cesspit C1725 at St Mary Spital, dating to around 1300, the majority of them being drawstring boots (Nailer 1997; Thomas *et al.* 1997, 61). A matching pair (L5) showed signs of uneven wear (Fig. 5.26), concentrated on the outside heel and across the inside and centre of the ball, whilst the left was more even down the centre, possibly indicating a shuffling gait. Both had been repaired at least once. Another shoe, L6, had been cut-up for reuse but the original owner had walked pigeon-toed. The nature of repairs and reuse suggest the maintenance of a collection of shoes by a single person rather than the work of a cobbler or shoemakers



Figure 5. 26: Leather boots from St Mary Spital, London (Thomas *et al.* 1997, 61, fig 48). Reproduced with permission of Museum of London Archaeology

workshop (Thomas *et al.* 1997, 61). Leather shoes were also recovered from two distinct phases of the fishpond at St Saviour's, Bury St Edmunds, reflecting occasional cobbling debris (Mould 1997). The late 14th- to 15th-century finds comprised turn-shoe pieces and repair pieces, many of the pieces having wear on the soles, especially the outer edges of the sole. A later 16th-century deposit included medieval and post-medieval shoe pieces, so may be related to the very end of the hospital's life. This assemblage also contained other leather waste, such as harness straps, secondary trimming waste and other repair pieces.

As mentioned at the beginning of this section, burials were the main source for dress accessories, but for those items of clothing and dress that were recovered from burials and where dates can be suggested, their relative frequency seems to increase towards the 14th and 15th centuries. This may be related to a number of factors particular to the institution of the hospital, be it increasing privacy and so the maintenance of more personal items, or an increase interest in caring for the infirm and deserving poor, who may already have small personal items that they would keep or whose benefactors might provide more decorated clothing, as well as the increasing presence of corrodians, who would certainly have had personal effects. It may also relate to how open a hospital site was to the outside world, and whether many of these items were lost not by members of the community but guests or visitors. The evidence of shoe repair on site is also interesting, corroborating some of the documentary sources which noted the provision of clothes to inmates that in also included shoes; the small scale of repair work at both St Mary Spital and St Saviours suggest they were the occasional activities of single individuals to maintain the hospital stock. Also interesting was the manner in which the St Mary Spital shoes in particular indicated distinctive wear patterns and strides, possibly relating to the infirm nature of some of the residents. The collection of hair pins from St Mary Spital also highlights the opportunity for certain items to highlight areas associated with certain people, in this case helping to understand the gendered space of the hospital. Whilst the available evidence is restricted, this also reinforces previous discourse on the nature of clothing in medieval hospitals, one lacking adornment and which was recycled and reused.

The Material Culture of Buildings

Whilst many elements of the material culture of buildings have been noted in Chapters 3 and 4, a more focussed study will add depth to this discussion. By appreciating the influence these elements had on the wider precinct environment and on the residents of

the hospital within a wider discourse of material culture the disconnect between the buildings and the residents often inherent in excavation reports can be lessened. It also serves to highlight certain features of the different buildings which would have provided visual information concerning their use and status. Through such an approach patterns of activity, status, and associations with different elements of the community will be more noticeable. The material culture relates to the fixtures and fittings of the buildings, such as flooring, roofs, windows, wall paintings, and religious statuary and architectural elements. Stonework that was more structural in nature was discussed in relation to the buildings in Chapters 3 and 4 where relevant.

The floors of several areas of St Mary Spital were laid with Westminster tiles, a type found across the southeast and up to the Midlands, such as Bermondsey Abbey, London, Leicester Abbey, and Dunstable Priory. In particular the chapter house, frater, and chapel seem to have been thus floored in the period 1280-1320 (Crowley 1997, 195–6). These tiles were often stamped and coloured with slips or glazes of white, yellow, green, or dark green, but the quality seems to have been poor and even overfired examples were used. Production of these tiles seems to have been in the mid-13th century. Also found on site were Chertsey/Westminster tiles, which were of a much better quality, with more care taken over slips, glazes, and stamps, seeming to be produced by Chertsey Abbey from the 1250s to the early 14th century (Crowley 1997, 197). The motifs found at St Mary Spital include the lion and griffon motif, popular in the late 13th century, and thus possibly dating the laying of this floor. Sometime in 1350-1380s tiles from the Penn industry in Buckinghamshire were being used on the site (Fig. 5.27) (Crowley 1997, 198). These tiles were of a slightly lower quality in comparison to the Chertsey tiles, but seem to date to the period where production ceased at Chertsey following the Black Death. The popularity of these tiles seen in the middle Thames Valley and the Chilterns may be due to the fact that they could be laid to form a floor design without special instructions, and were thus cheaper. At St Mary Spital, the Penn tiles were used to patch or replace earlier tiled floors in the later 14th century. From 1380 onwards imported Flemish tiles became popular at St Mary Spital, initially being the same size as the earlier tiles, but by the late 15th century they had increased to usually twice the size (Crowley 1997, 198–9). The Flemish tiles were double fired, the first firing after the application of white slip, the second after being glazed. The few fragments recovered were from later period pits, and suggest they were associated with refurbishments of the church or associated buildings in the late 15th to 16th century.

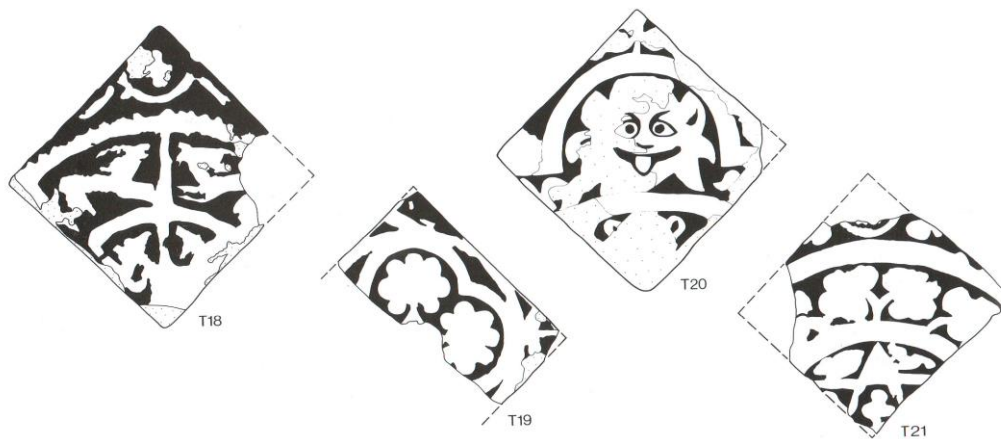
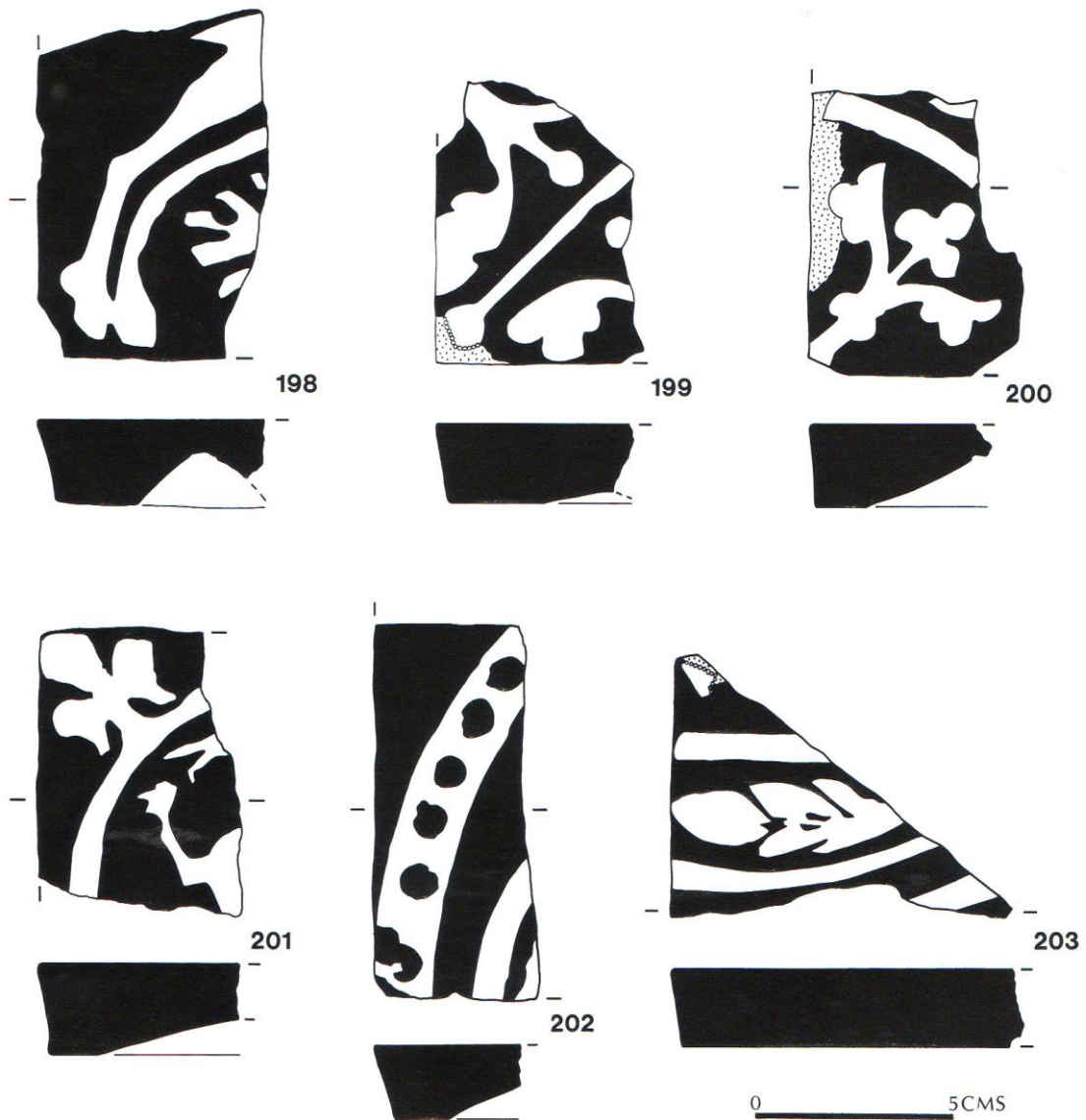


Figure 5. 27: Decorated Penn floor tiles from St Mary Spital. Note the variety of patterns utilised (Thomas *et al.* 1997, 76, fig 59). Reproduced with permission of Museum of London Archaeology

At St Bartholomew, Bristol, a small amount of floor tile was recovered, most associated with the east end of the chapel (Fig. 5.28) (Williams 1998). One of the tiles originated in the Seville region of Spain from the second quarter of the 16th century, although this was not unusual for Bristol, whilst the majority were from Bristol or the local region. They ranged in date from the late 13th century to the 16th century, and many showed heavy levels of wear. At St Mary, Ospringe, some of the floors of buildings in the eastern half of the site, such as the *camera* and the possible religious brothers' refectory, appear to have been initially tiled with roof tiles, some of which were decorated, with later patching and replacement with tiles of the Tyler Hill fabric (Fig. 5.29) (Smith 1979, 125–6). The lack of decoration on later patching tiles suggests that the monetary decline of the house also affected these replacements, especially from the early 14th century onwards. A number of 13th- to 15th-century glazed tiles, the majority of white slip under a pale green glaze, were located at the south-eastern corner of the infirmary hall (Raeman 2008a, 9).

Almost all the floor tile from St Mary Magdalen, Colchester, was recovered from the area of the church, the majority of the glazed and plain tiles originating in England, although there were some late medieval glazed Flemish imports recovered as well (Crummy 2004a, 121). Of the 93 decorated examples, virtually all of them fell within four design motifs: a four-petalled floret; a six-petalled floret; a fleur-de-lys; and a shield bearing a cross (Crummy 2004a, 121–2). Most of the glazes were a dark to mid-brown, although some were greener or had been partially decorated with white or yellow slip to produce a two-colour tile. This slip work was used to highlight the decorative elements of some of the tiles which would not have been so clear otherwise. Dating these tiles was uncertain, as few were found *in situ*, but apparently date to when this chapel served as the parish church with the hospital chapel attached to it (Crummy 2004a, 123).



Medieval floor tiles

Figure 5. 28: Medieval floor tiles recovered from St Bartholomew's, Bristol (Price and Ponsford 1998, 158, Fig. 64) © Roger Price and Michael Ponsford

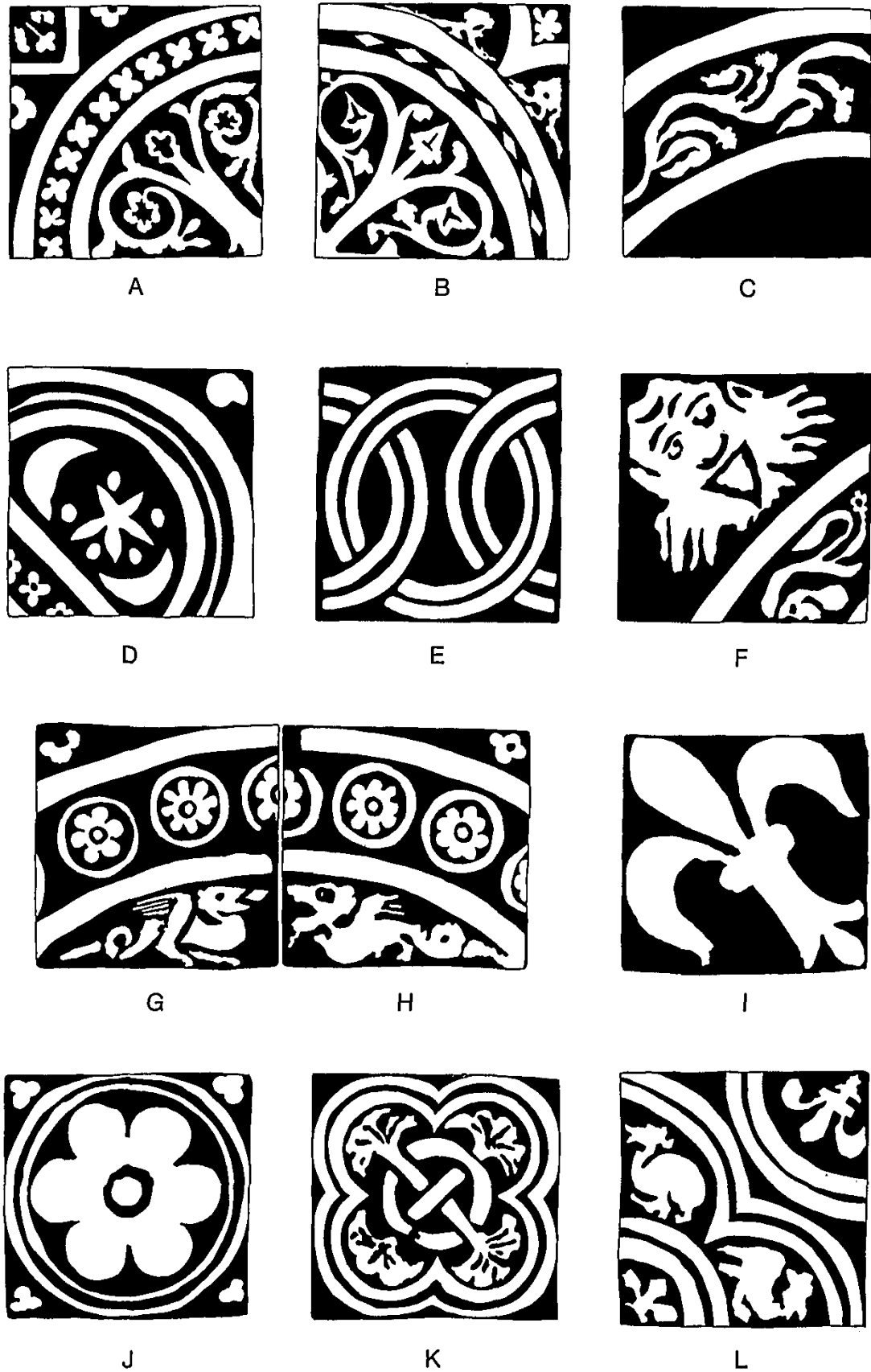


Figure 5. 29: Decorated floor tiles recovered from St Mary, Ospringe. They were found exclusively in the eastern half of the hospital, associated with the *camera* and the possible brothers' quarters (Smith 1979, 118, fig 14). Reproduced with permission of Kent Archaeological Society

Over 70 fragments of medieval floor tile were recovered from St John the Baptist, Oxford, but they had all been reused when the site was converted into a college (Mellor 1991b). Only 17 were decorated, and the majority were standard designs seen elsewhere in Oxford. All but two were of the Stabbed Wessex tradition, dated to 1280-1320, and they came in a mix of glazes, including green and yellow. Despite the limited excavations at St Oswald Almshouse, Worcester, several decorated and monochrome floor tiles were recovered, with three different designs types, as well as yellow, brown, and green glazed tiles, which may suggest that not all of them were originally from the site (Fig. 5.30) (White 1991). In contrast four glazed floor tiles from the *maison dieu*, Arundel, were all glazed with white and red decoration, some with a green glaze added, indicating a more unified look to the floor (Evans 1969, 75).

Tiles from the chapel of St Mary, Strood, were coloured with white slip and green or brown glaze, and seem to have been well worn (Harrison 1969, 151). Other coloured tiles were recovered from a grave in the chapel, which had been coloured with green, yellow, or brown glaze, and two were pierced to allow putrefaction from the corpse to drain from the grave. A number of worn glazed tiles from St John the Baptist, Lutterworth indicate the presence of a well-used floor for a building somewhere near the excavation area (Sawday 2002, 65). The designs used seem to originate in the Westminster-Chertsey-Surrey group of tile manufacturers, dating to the second half of the 13th century or the first half of the 14th century (Fig. 5.31) (Sawday 2002, 66–7). All the floor tiles from St Saviour's, Bury St Edmunds, were Flemish imports, all plain glazed either yellow with a slip or dark green/brown without, indicating a 15th- or 16th-century chequered floor in the chapel area (Caruth and Anderson 1997, 66).



Figure 5. 30: Decorated floor tile from St Oswald's Almshouse, Worcester (Brown 1991, Fig 7) © Worcestershire Archive and Archaeology Service, Worcestershire County Council

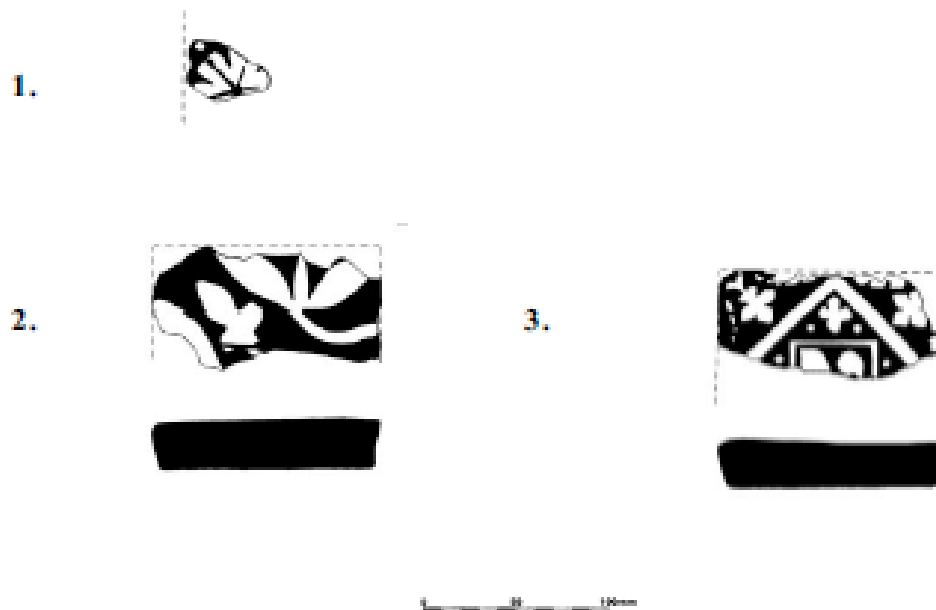


Figure 5. 31: Decorated floor tile from St John the Baptist, Lutterworth. Although very little remained of the buildings, these tiles indicate the presence of a building in the vicinity which was decorated to some level (Priest and Chapman 2002, 68, fig 20). Reproduced with permission of the University of Leicester Archaeological Services

In most cases, tiles produced locally provided the majority of the floor tiles for medieval hospitals, although some imports may make up a limited portion of the assemblage. Only in the case of Bury St Edmunds were imports the dominant fabric, and this may be due to the influence of St Edmunds Abbey who founded the hospital. In almost all cases these tiles were associated with the chapel area and male staff quarters, and the preponderance of contrasting colour schemes, such as the red and black of the *maison dieu*, Arundel, or the yellow and dark green/brown of St Saviour's, Bury St Edmunds, would have created distinctive chequered patterns. Several of the sites, such as St Mary Magdalen, Colchester, and possibly St Oswald's, Worcester, had a large variety of decorative motifs that seem to not relate clearly to each other, either implying long-term patching with unsuitable designs, evidence that the floors have been heavily disturbed meaning their original layout is unknowable, or that such variety of designs were chosen for, possibly as a sign of expenditure or as a cheaper collection of dissimilar elements.

The manner of roofing seems to reinforce the concentration of decorative or expensive elements around the chapel area. Roof tiles from St Mary Spital were recovered from all periods of the hospital, many with a clear lead glaze on the lower halves to protect them from the elements (Crowley 1997, 199). Tiles from St Bartholomew, Bristol, suggest that the rebuilding that occurred during the 1340s to 1400 was accompanied by the addition of tiled roofs to the new buildings, with very limited evidence for slate tiles before this

(Ponsford 1998b, 157). At St Giles, Brompton Bridge, roofing materials were not always clearly associated with medieval buildings, but a few ceramic tiles definitely from the medieval period were associated with the chapel and only showed limited amounts of glazing, suggesting they were generally plain (Maxwell 1995g, 213). Also associated with the chapel were lead sheets, some with iron nails through them, many used to hold stone roof tiles in place (Maxwell 1995b, 203–5). A large quantity of lead melt and sheet scraps were recovered from all phases of the hospital of St Saviour, Bury St Edmunds, in association with ceramic roof tiles, highlighting construction, remodelling, repair, and destruction activities at the site (Caruth and Anderson 1997, 62–4; Cowgill 1997). The majority of the material dated to the destruction of the first chapel and its enlargement in the late 14th to 15th century, with a lead hearth in the area of the altar providing a covered location for melting and casting lead sheets. The majority of the discarded lead from this phase was located to the northeast of the chapel, including sheets with nails through, rather than directly to the east, possibly due to modifications to the fish pond to the northeast or the need to keep the path between the chapel and the fishpond clean and stable (Cowgill 1997, 72). The concentration of lead deposits focussed around the chapel, and suggest the roof had at least leaded elements.

There may have been some ceramic roof tiles at St Mary Magdalen, Colchester, although they seem to have been used in the foundations of the later church rather than being from roof collapse (Crummy 2004a, 123). That being said a large number of slate tiles were recovered where the rest of the hospital buildings were to the north. A number of roof tiles from St Mary Ospringe, in the area of the southeast corner of the infirmary hall, had mortar attached to them (Raeman 2008a, 9). Both slates and ceramic roof tiles were recovered from St Stephen and St Thomas, New Romney (Rigold 1964, 58). Ceramic and slate roof tiles were also recovered from Llawhaden (Brennan 1995, 32–3, 45–6). Elements of the hospital at St Nicholas, Lewes, appear to have been roofed with stone, but there was also a considerable amount of fragmented medieval ceramic roof tile (Barber 2010a; Sibun and James 2010). The ceramic tiles may date to the 13th century at the earliest, so probably represent later modifications to the buildings, the majority of which lay outside the excavation area. There is a clear association between ceramic tiles and higher status buildings, such as the chapels and occasionally infirmary buildings, whilst slate tiles were usually recovered in relation to infirmary or dormitory buildings. This would create clear evidence of the relative importance of different buildings, and in association with the

nature of the wall construction, would add to a sense of a hierarchy of space that was visually appreciable.

Fragments of window glass were recovered from most sites, although the total amount varied greatly. Painted window glass was recovered from the final phase of St Mary Spital and some of the later demolition layers, particularly in the area of the chapel, the Sisters' dormitory and refectory, and the infirmary, with vine leaves and gothic script amongst the decorative motifs (Fig. 5.32) (Thomas *et al.* 1997, 83). Window glass fragments from the area of the *camera* at St Mary, Ospringe, were decorated with grisaille, whilst more glass was located in the western area of the site (Fig. 5.33) (Smith 1979, 115–6). The initial window glass was of a high quality and probably not local, but a later insertion after 1330 is implied by the presence of later lower quality glass, reflecting the decreasing fortunes of the hospital. All the medieval window glass at St Giles, Brompton Bridge, related to the chapel, but only two pieces may have been decorated (Maxwell 1995c, 206). The majority of the glass dated to the initial construction of the chapel and the rebuild during the 14th century.

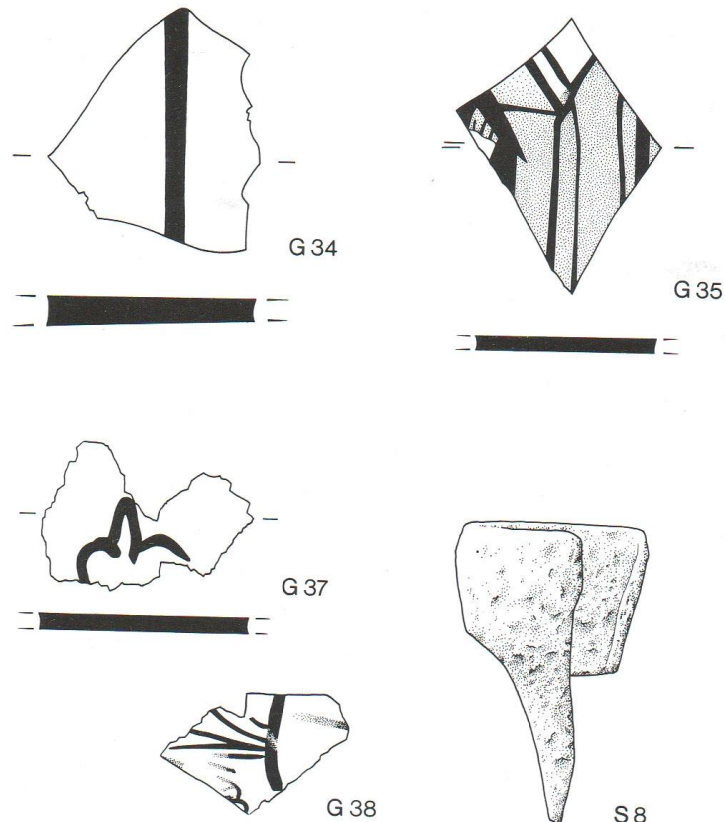


Figure 5. 32: Decorated medieval window glass from St Mary Spital, London (Thomas *et al.* 1997, 83, Fig 64). Reproduced with permission of Museum of London Archaeology

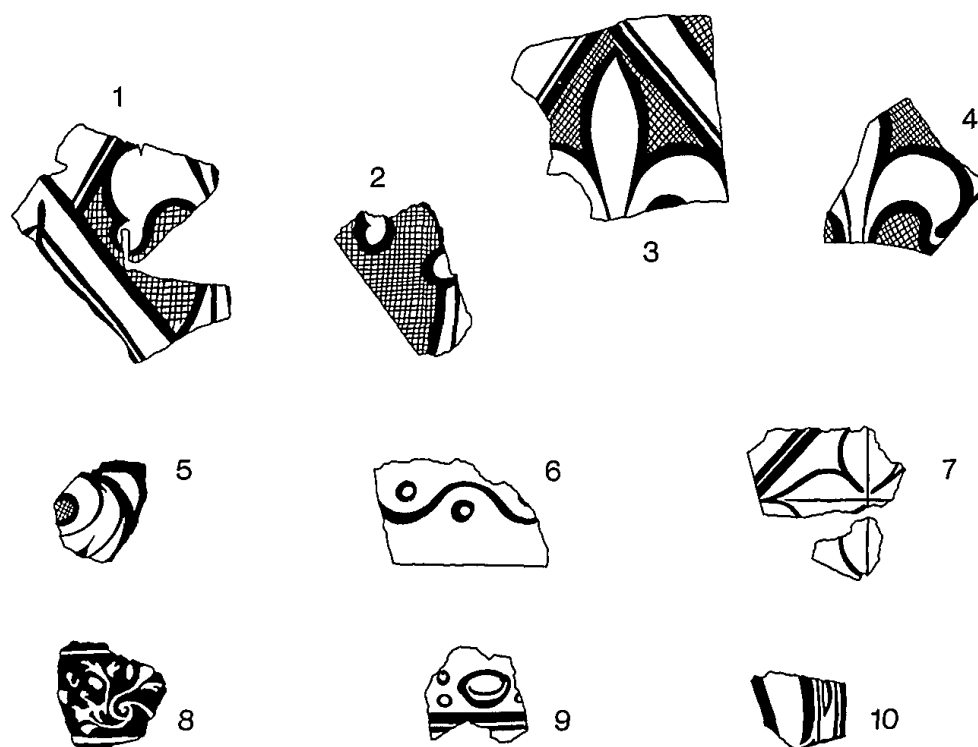


Figure 5.33: Decorated window glass from St Mary, Ospringe (Smith 1979, 116, fig 13). Reproduced with permission of Kent Archaeological Society

Although the majority of the window glass from St Mary Magdalen, Colchester, was recovered from 19th-century contexts, the material appears to have come from at least one late 13th- to early 14th-century window that was retained by the later church (Fig. 5.34) (Graves 2004). The glass was decorated with grisaille work, which by this period was becoming less popular, and so may represent either the purchase of a slightly less fashionable window or the translation of the window from elsewhere. The window glass was heavily fragmented and seems to have been edges to a more decorated core element that was later removed. There is the suggestion of a bird motif, possibly chainmail, and a series of lined and foliated borders. Painted window glass and lead window came were also recovered from the domestic range of St Mary in the Horsefair, York (Richards *et al.* 1989, 29). A small selection of window glass was recovered from St John the Baptist, Oxford, with the majority of the glass being initially white and dating to the late 13th to early 14th century (Fig. 5.35) (Graves 1991). One piece was not corroded, unlike the others, and was dated to the around the 15th century. Only five pieces of the glass were painted, mostly with cross-hatching, some double borders, and a possible trefoil, all in the grisaille style, and probably date to the mid- to late 13th century. One strange item was a small glass roundel that had been painted more carefully, possibly due to it being a 'jewel' on imagery in the window, such as a crown or drapery (Graves 1991, 59).

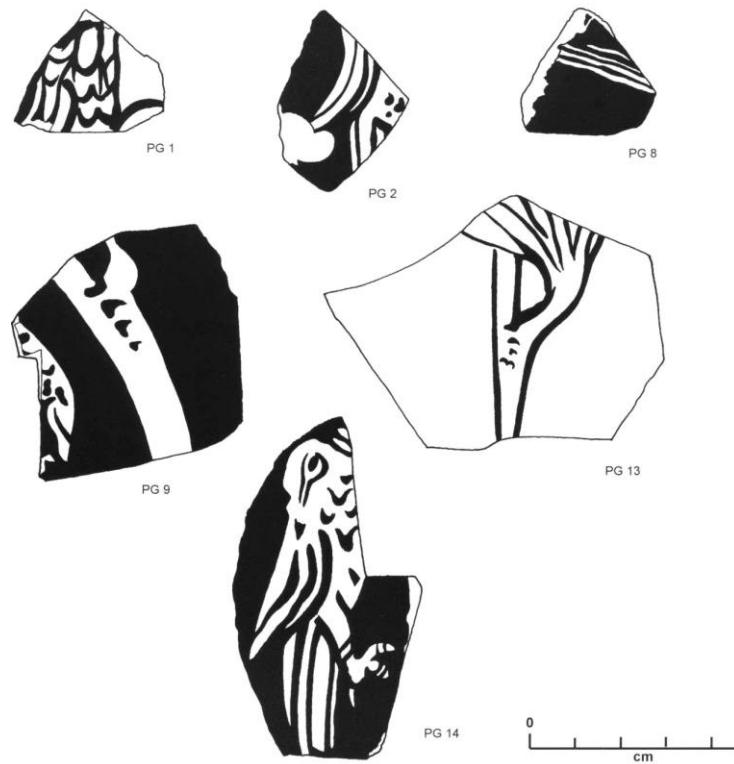


Figure 5. 34: Decorated window glass from St Mary Magdalen, Colchester, some of which depicts animals and hint at other motifs (Crossan 2004, 125, fig 20). Reproduced with permission of the Colchester Archaeological Trust © Colchester Archaeological Trust and the Essex Society for Archaeology and History

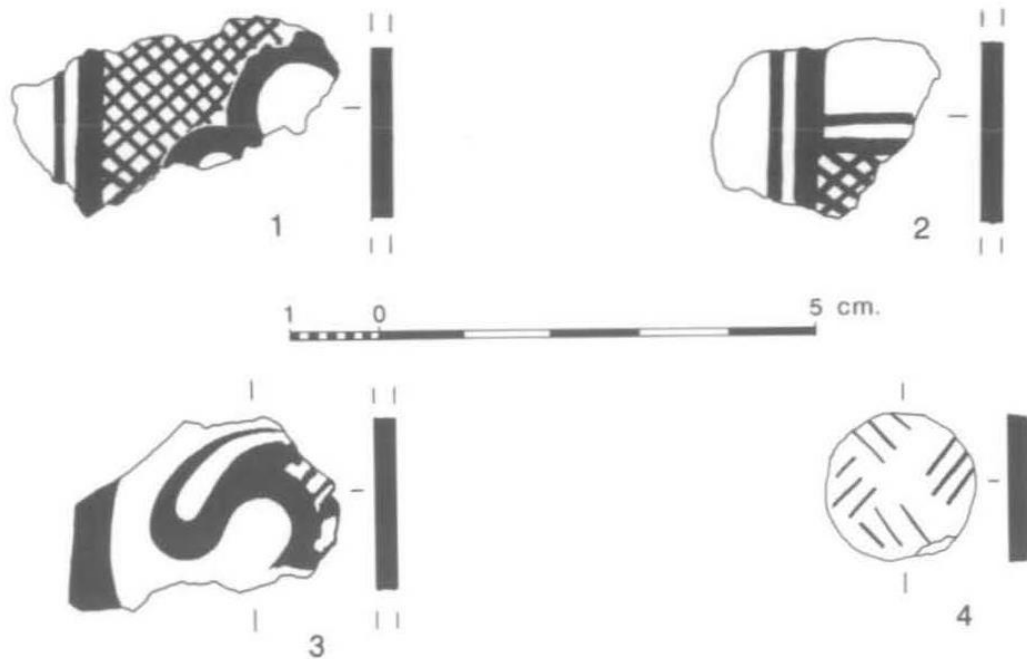


Figure 5. 35: Decorated window glass from St John the Baptist, Oxford, including a decorative roundel that may have been applied to a scene (no. 4) (Durham 1991, 59, fig 16). Reproduced with permission of the Oxfordshire Architectural and Historical Society and *Oxoniensia*

A considerable amount of window glass, some stained and others painted, were recovered from a Dissolution-period pit at St Saviour's, Bury St Edmunds, which were also associated with several fragments of melted lead and came, as well as some iron objects (Caruth and Anderson 1997, 66–7). Such an assemblage would represent the stripping of the chapel windows when it was demolished. The vast majority of the window glass was painted, and when partially reconstructed showed a number of window panels of irregular or rectangular shape. Where design could be interpreted they comprised foliate, architectural, figurative, or geometrical motifs or comprised inscriptions (Fig. 5.36, 5.37, and 5.38). These fragments represent at least two different windows 50 years apart in age (Caruth and Anderson 1997, 69). The majority seem to date to the late 14th or early 15th century, at the time the chapel was rebuilt, although some of the thicker pieces may be earlier. Window lead and painted window glass were recovered from Llawhaden (Brennan 1995, 35). Several fragments of badly degraded window glass were found at St Nicholas, Lewes, indicating at least some glazed windows in the hospital precinct (Barber 2010b). In general, the lead window comes were cast, such as at St Mary Spital (Egan 1997, 201), whilst the came from St Giles, Brompton Bridge, was of a distinctive H-shape (Maxwell 1995b, 203). Yet again the building material culture concentrated in the region of the chapel, indicating the presence of at least some painted window glass in virtually every chapel. Grisaille work was the most common form of decoration, and border elements and foliate designs seem to have been the most common imagery, with little in the way of figurative or inscribed work.

A few pieces of religious sculpture or worked stone were recovered from demolition deposits at a handful of sites, although it would be probable that there would have been statues or religious imagery at every hospital. A sandstone sculptural element was recovered from St Giles, Brompton Bridge, depicting a crucifixion scene, although it had been damaged (Fig. 5.39) (Hall 1995, 207–8). The piece dates to the first half of the 14th century, and the lack of wear suggests it was an internal element of the chapel, although it was found to the south of the later post-medieval farmhouse to the west. The majority of the architectural stone was rather plain, and of good quality when the hospital was founded. Much of it was retained and reused repeatedly during the numerous rebuilds, meaning many elements of the church stonework were out-of-date by the time the site closed and signalling the poor financial situation of the hospital (Fig. 5.40) (Hall 1995, 208). One of these pieces was a stone cross, the only other worked stone that suggests an ecclesiastical presence. The majority of the architectural stone from St Mary Magdalen,

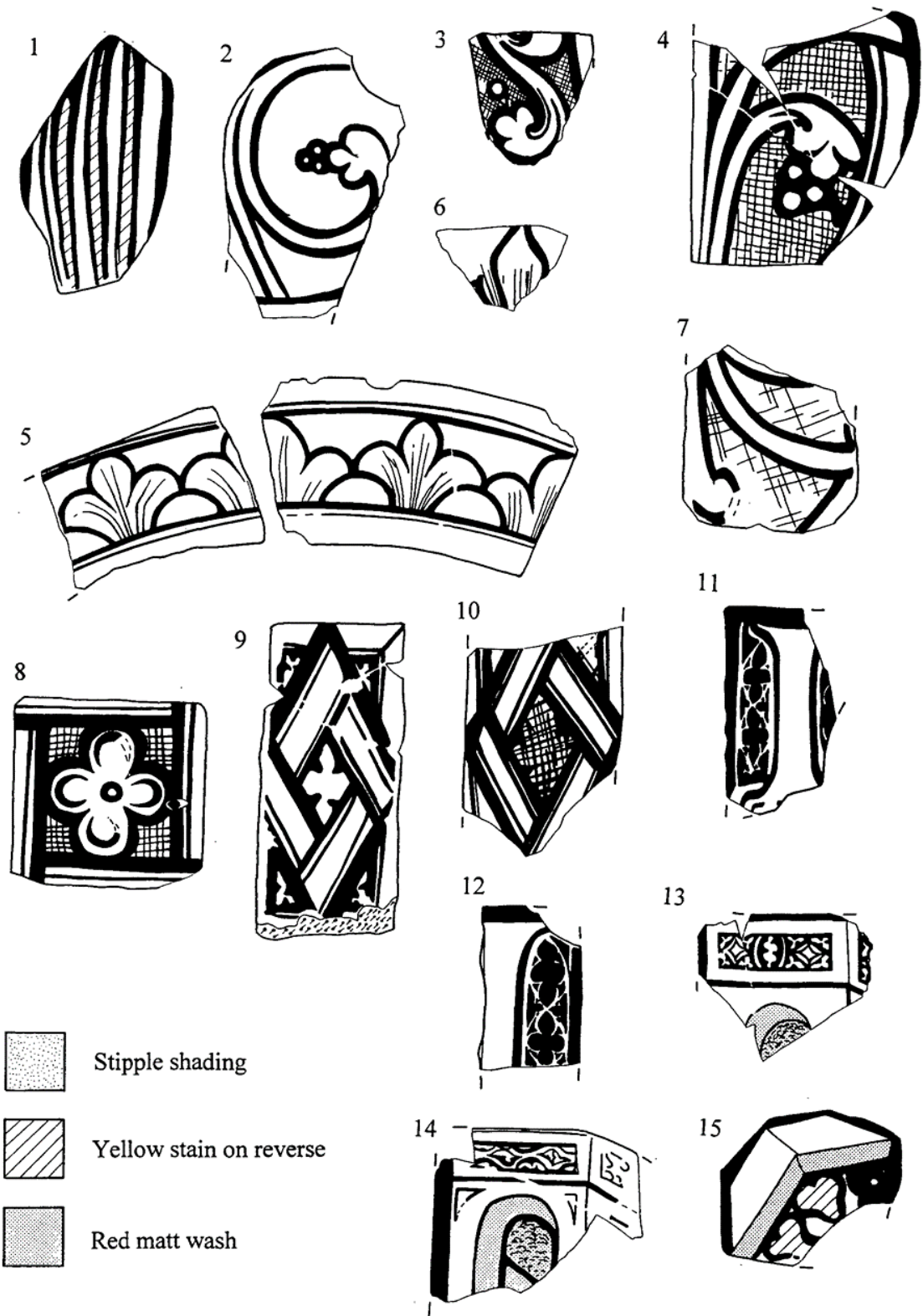


Figure 5.36: Decorated window glass from St Saviours, Bury St Edmunds. Depicted are a range of geometric and floral designs, although at the bottom (no.11) is a possible letter, as well as the possible depiction of architectural elements (nos 12-15) (Caruth and Anderson 1997, fig 56) © Suffolk County Council Archaeological Services

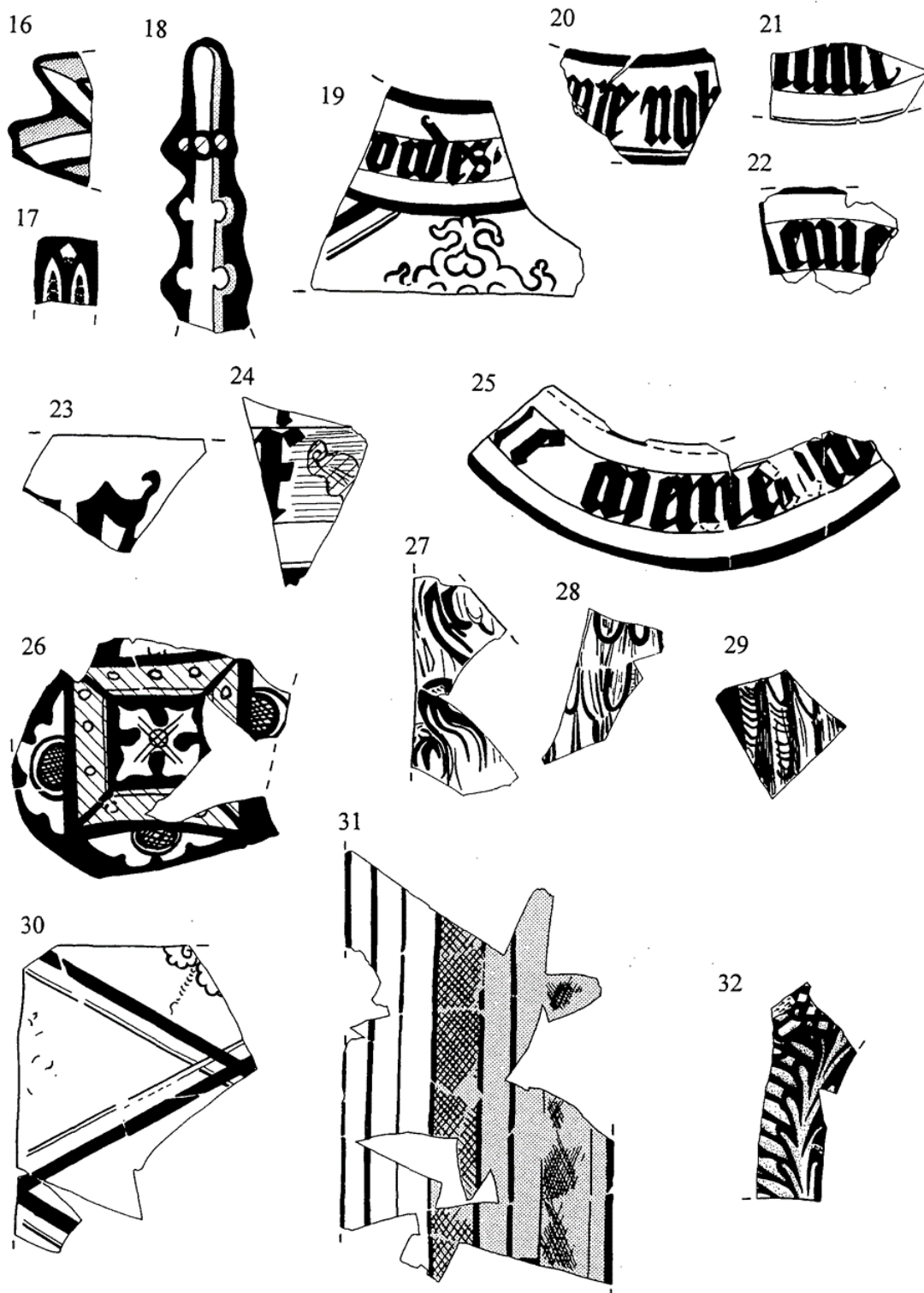


Figure 5. 37: Decorated window glass from St Saviours, Bury St Edmunds. Depicted are clear examples of writing (at the top), as well as border elements (below) (Caruth and Anderson 1997, fig 57) © Suffolk County Council Archaeological Services

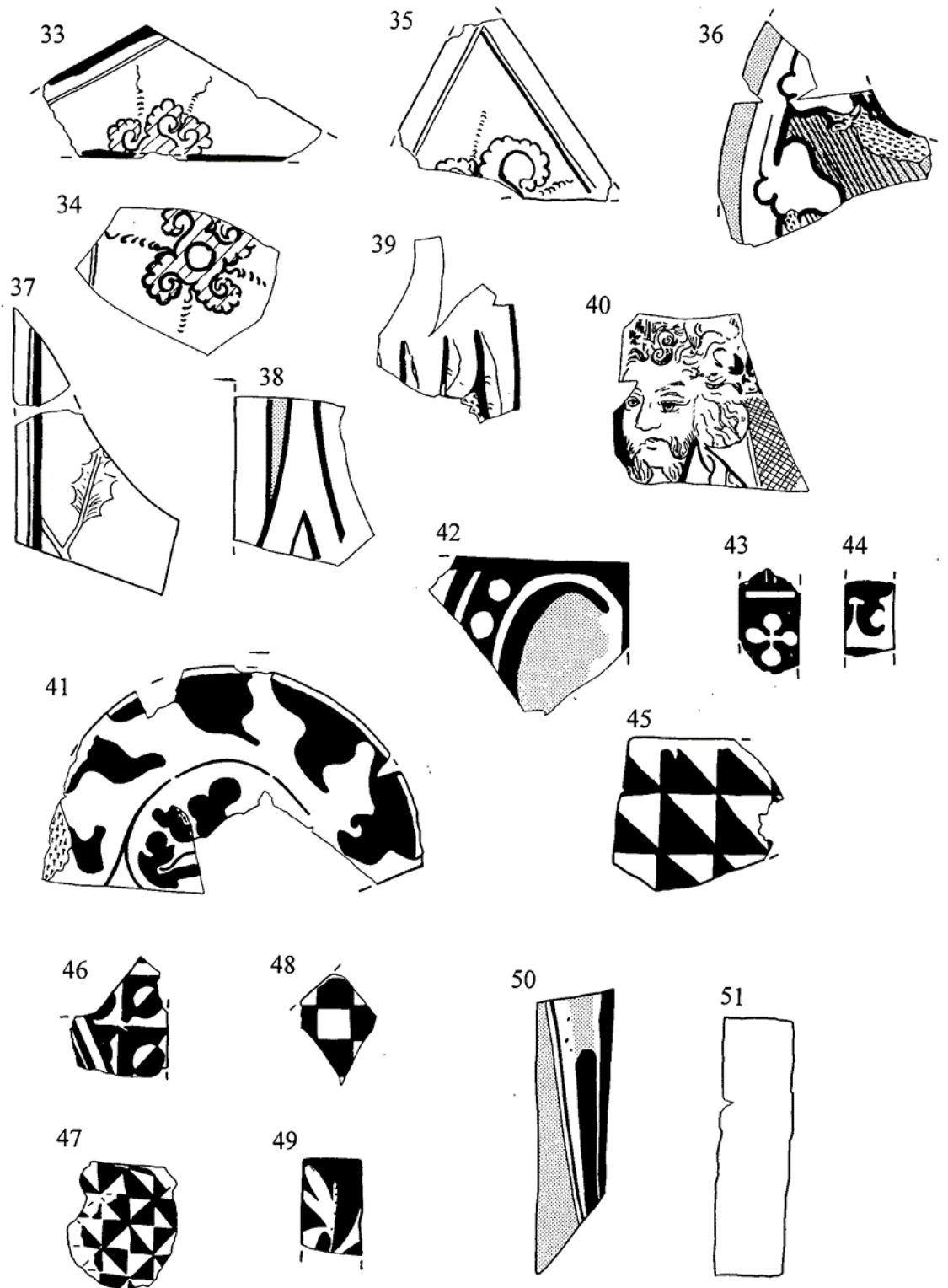


Figure 5. 38: Decorated window glass from St Saviours, Bury St Edmunds, this time showing some depictions of men (nos 36 and 40), as well as border elements and geometric symbols (Caruth and Anderson 1997, fig 58) © Suffolk County Council Archaeological Services

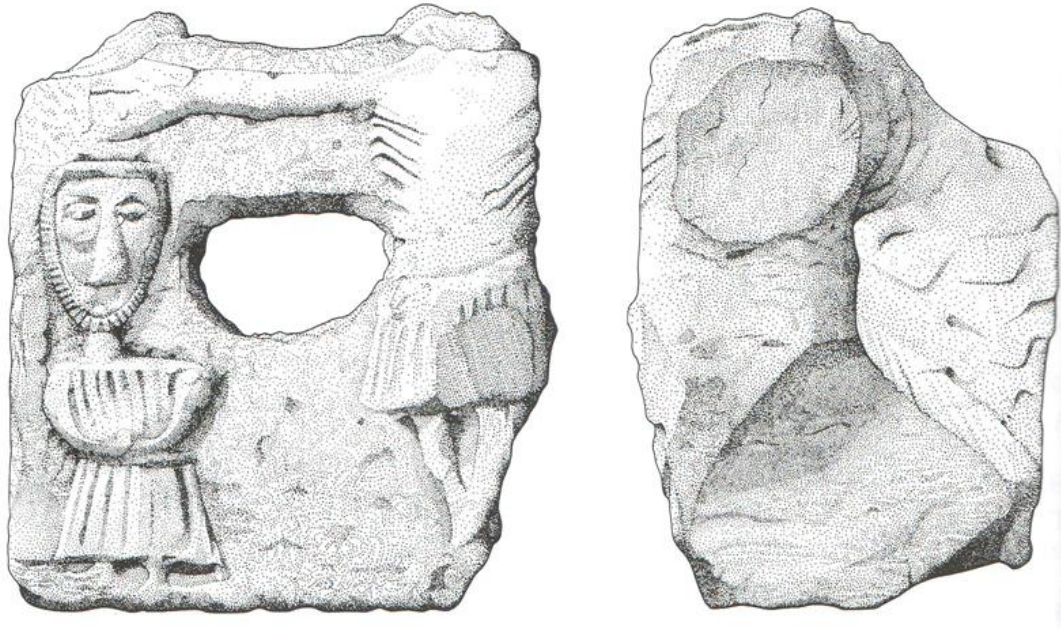


Figure 5. 39: Sculpted crucifixion scene recovered from St Giles, Brompton Bridge. The piece probably dates to the 14th century and given its lack of wear was likely an internal element, most likely in the chapel (Cardwell 1995, 208, Illus. 46). Reproduced with permission of Taylor and Francis and the Royal Archaeological Institute <https://www.tandfonline.com/loi/raij20>

Colchester was recovered from the area of the church, and was of a quality and type typical for a multi-phase church, encompassing date ranges from the known life of the building (Harris 2004, 120–1). To the north there was significantly less material recovered, almost all of it from the medieval period, indicating that the hospital buildings saw little modification after their construction. Fragments of statuary were also recovered from St Bartholomew, Bristol, one piece from the area of the refectory, and reinforces documentary sources that suggest mealtimes were frequently carried out in a religious tone, with lessons and readings being common (Price and Ponsford 1998, 84).

Painted wall plaster was also recovered from a few sites, although mostly as small fragments. The most extensive assemblage was recovered from the chapel at St Giles, Brompton Bridge, predominantly coloured with a red earth colour, although blue was also noted (Fig. 5.41) (Stewart 1995). The painted decoration seems to have comprised straight and curved lines, possibly forming a masonry design, commonly used in the 13th century. The line work usually comprised single or double lines, with occasional five-lobed rosettes, as well as other possible foliate designs. There may also have been a red and black drapery design, possibly relating to a later modification of the internal plasterwork (Stewart 1995). A series of other colour elements were also noted on three pieces, utilising green earth, lime, white, ochre, and red, and may relate to a third decorative scheme that has been lost.

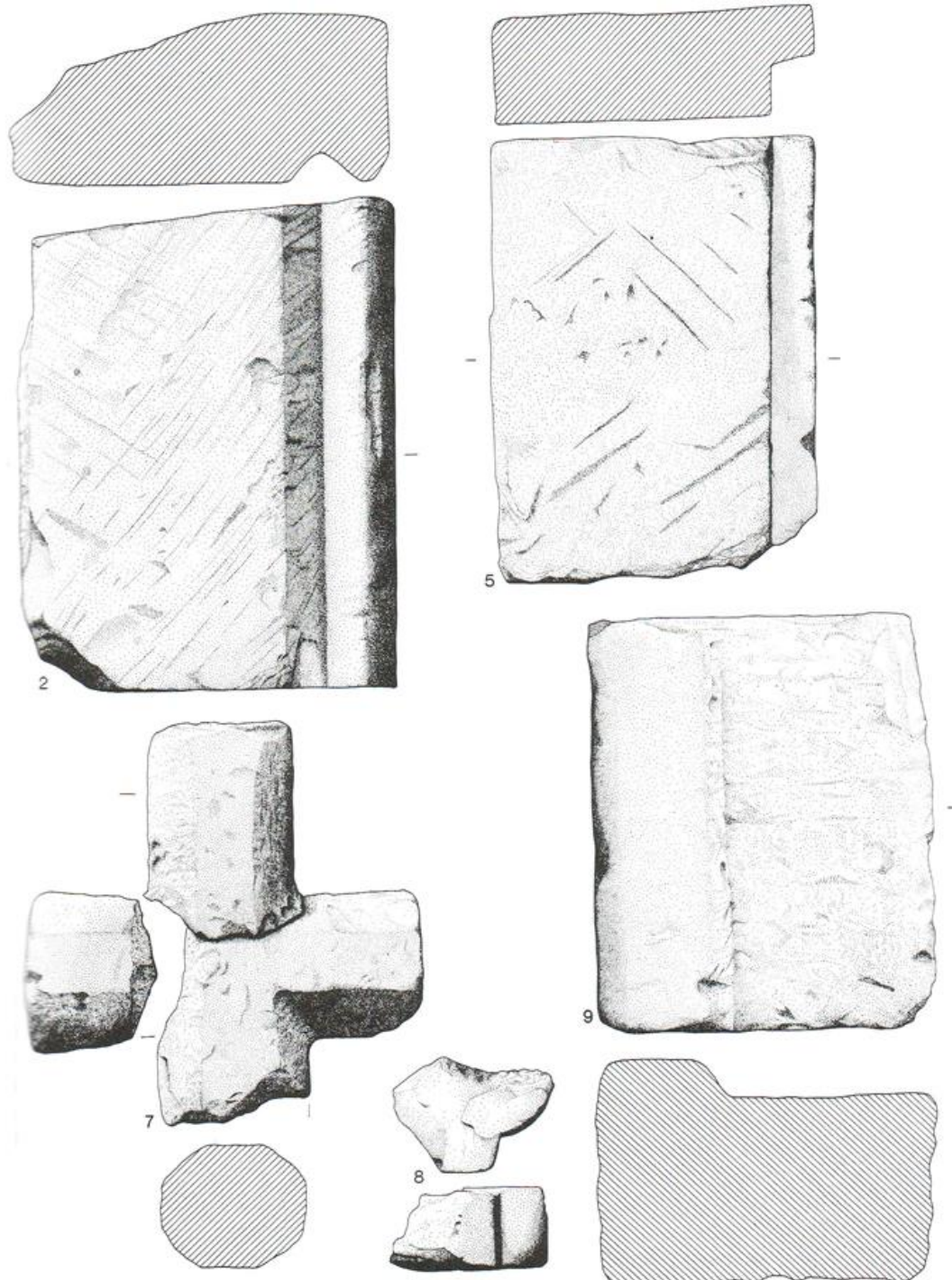


Figure 5. 40: Architectural stone from St Giles, Brompton Bridge. Much of the stone was reused in later rebuilds of the hospital, suggesting limited funds. No. 7 comprises elements of a stone cross (Cardwell 1995, 209, Illus. 47). Reproduced with permission of Taylor and Francis and the Royal Archaeological Institute <https://www.tandfonline.com/loi/raij20>

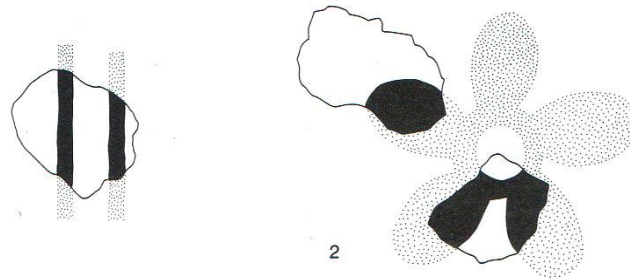


Figure 5. 41: Painted wall plaster fragments from the chapel of St Giles, Brompton Bridge. The pattern on the right formed a five-lobed rosette. Much of the decoration was red earth in colour, although some blue was also used (Cardwell 1995, 214, illus. 50). Reproduced with permission of Taylor and Francis and the Royal Archaeological Institute <https://www.tandfonline.com/loi/raij20>

Thus, there were high quality elements of painted wall plaster at St Giles, although the majority was of a relatively common style from the 13th century. The walls of St Mary, Strood, seem to have been plastered but with no signs of decoration (Harrison 1969, 151). Painted wall plaster was recovered from Llawhaden hospice, mostly comprising red straight lines and some possible patterns formed of red and black (Brennan 1995, 43).

In general, these different elements of the material culture from buildings focus on the hospital chapels. This may be due to excavation bias, but as the spiritual heart of the site and one of the most open buildings to outsiders at the majority of sites, this was where much of the benefactor's wealth appears to have been concentrated. The floors were tiled, in comparison to the earth or mortar floors observed in other buildings of the hospital precinct, with painted window glass that was decorated with simple motifs, geometric patterns, and basic borders. Carved religious iconography would also have added to the imagery present, and imagery would have been very important for aiding religious dialogue and contemplation amongst a quasi-monastic community comprising some of the poorest members of society who were not literate. The internal walls of the chapels were plastered and were probably decorated with simple borders, mostly red, but other colours could also have been used. There appears to have been a clear hierarchy concerning the roofing of the buildings, with the chapel always having the most expensive roofing on site. As such, if the rest of the site was thatched the chapel would be roofed with slate, if the others had slate then the chapel would have ceramic tiles that were often glazed, and if other buildings were roofed with ceramic tile, usually only the infirmary or staff areas, then the chapel would have lead elements. The quality of the buildings, something mentioned in Chapter 3, also adds to the sense of a hierarchy established in the fabric of the built environment. That these elements of material culture appear to reinforce the perception

seen more generally in the layout of buildings about the hierarchy of space is an area that demands further examination and argues for greater analysis of these associations.

Domestic Items

Given the hospitality function of these sites this group of artefacts will comprise a wide range of material culture. This includes artefacts of privacy and security, furnishings and mobile elements within the buildings, tools and objects associated with domestic activity, artefacts that may have served a medicinal function, and other items indicative of individuals and personal actions. Within this broad category, the area that has received the most consideration to date are items associated with privacy and security, in particular a relatively large number of keys and lock fittings that have been recovered from hospital contexts. St Mary Spital produced the largest number of keys and locks, including one assemblage of at least 33 keys that were recovered from several contexts all associated with the move of the infirmary from the chapel transepts to the new infirmary building attached to the northwest (Fig. 5.42) (Egan 1997, 202–3). One of these groupings of keys comprised ten laying in a pattern that indicated they had been bound together (Thomas *et al.* 1997, 34). Whilst most of the keys recovered at St Mary Spital were iron, more generally the styles used suggest that iron and copper alloy could be interchangeable during the later medieval period. This is especially true for rotary keys, which were the most common key at St Mary Spital. The low-quality finish to the keys also suggest the locks were not of the highest precision but did include some variation in mechanism and case, possibly indicating non-functional variation to impress customers. Despite the variety of forms and materials the majority seem to have been for small cupboards or lockers, similar to those suggested for the mid-13th-century phase of St John the Baptist, Winchester (Thomas *et al.* 1997, 34–5).

A large collection of keys were also noted at St Bartholomew, Bristol, particularly from the period of the major rebuild in the late 13th and 14th century (Price and Ponsford 1998, 84; Thomas *et al.* 1997, 34). Although the numbers were not extensive as St Mary Spital, they were also associated with padlocks, and were probably associated with clothing lockers, or the locking of doors and controlling access between the various elements of the community. Other keys found on the site include a large iron example that would be more usual for an external or large door (Thomas *et al.* 1997, 35). The keys at St Bartholomew were also found throughout the life of the hospital and were usually of iron, although a

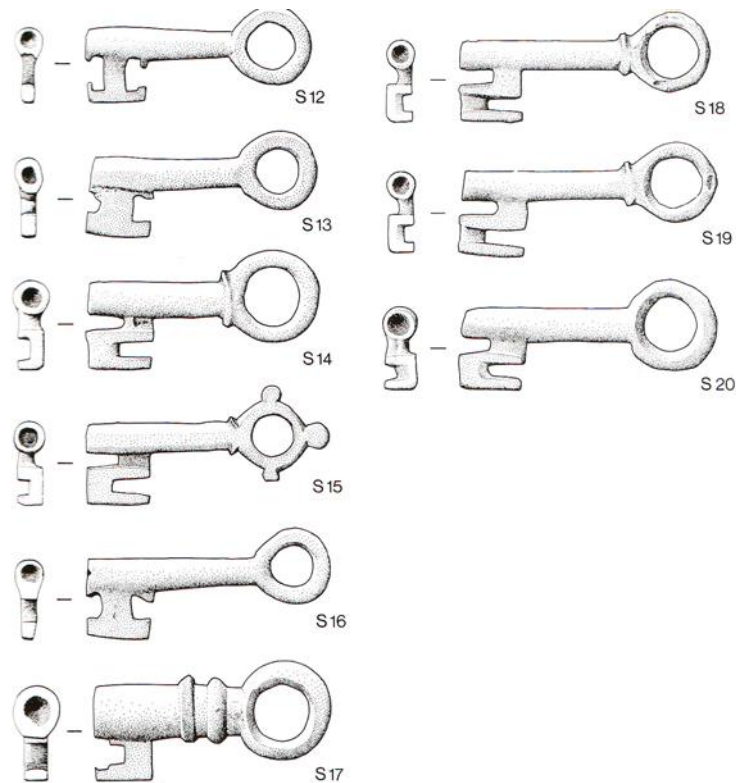


Figure 5.42: Small copper alloy keys for small cupboards, recovered from contexts dating to the period 1235-80 in the north transept of St Mary Spital. In total 33 keys were recovered from this area alone, suggesting the wide-spread use of cupboards, perhaps to store personal items whilst a member of the quasi-monastic community (Thomas *et al.* 1997, 36, fig 26). Reproduced with permission of Museum of London Archaeology

copper alloy catch-plate suggests the use of other materials as well (Price and Ponsford 1998, 120). Although keys are not unusual, the numbers found at these two sites are, with only singular examples found at other ecclesiastical sites such as the Dominican Friary, Chester, and the Carmelite Friary, Perth.

Wallhooks and a number of chest hinges were also found, suggesting elements of storage, and six keys and several portions of locks and padlocks were also recovered that may have been associated with storage and security, although these came from Dissolution phases, and so may not relate to the hospital (Smith 1979, 129, 132). At least two keys were recovered from medieval deposits at St Giles, Brompton Bridge, one a barrel padlock key, and the other for an oval or kidney shaped bow lock, as well as a spring for a barrel lock (Maxwell 1995d, 196). Fragments of a spring possibly from a barrel lock were recovered from St John the Baptist, Oxford (Rogers 1991, 54), and a key was recovered from dumped soils in a quarry pit at St Nicholas, Lewes, possibly dating to the 14th or 15th century (Barber 2010c, 15). Another indicator of added privacy came from the infirmary area of St Mary Spital, where two copper alloy rings (S6 and S7) were recovered, possibly for hanging curtains (Egan 1997, 202). Other items that may have come from lockers or chests, or

equally other interior furnishings include a copper alloy furnishing mount with possible Saracen's head imagery, showing high levels of workmanship unusual for St Mary Spital, particularly in the later phases of the site in the 14th and 15th centuries (Egan 1997, 202). Decorative copper alloy objects were also recovered from St Mary, Ospringe, including two with heraldic decorations and a number of decorated sheets that may have been attached to wood (Smith 1979, 139). A small U-shaped staple from the domestic hospital buildings at St Mary Magdalen, Colchester, was probably from some of the hospital furnishings (Crummy 2004b, 141–2). A number of iron hinges and sheet fragments recovered from St John the Baptist, Oxford, also probably relate to internal furnishings of the hospital (Rogers 1991, 54).

From these finds it is clear that keys and locks were found at many hospital sites, sometimes in extensive numbers. The current interpretation focusses on the probable presence of chests or lockers where personal items could be stored. Such activity highlights the quasi-monastic nature of these sites, with inmates frequently arriving with their own items but only being allowed limited access to them in favour of items provided for them by the hospital. This would create a community more on the lines of a monastic one, where the individual surrendered personal wealth to the communal wealth of the site, but in the case of the hospitals these personal items were locked away to be returned when the individual left the community and returned to the secular world. If this is the case, then there may be differences in the supply of personal lockers for those sites where inmates were only present on a temporary basis, in comparison to those sites where inmates resided permanently. At the moment the data is not extensive enough to fully interrogate this concept, but the quantity recovered from St Mary Spital, a very large hospital where the vast majority of residents were present for short periods of time serves as a potential starting point for further analysis. The level of decoration on some of the furnishing mounts, particularly at St Mary Spital and St Mary, Ospringe, may also relate to this temporary nature of residence, indicating personal items that were either damaged and lost or were retained by the hospital for more prolonged use.

A few items for lighting the buildings were also recovered, including an iron candle holder from the infirmary area of St Mary Spital of a style common across London in the 13th and 14th century, as well as a rim of a glass lamp dating to a similar period (Brehm *et al.* 1997, 214; Egan 1997, 202). Other artefacts associated with light included an unusual Grimstone ware lamp and a small nine-sided limestone cresset lamp from St Saviour's, Bury St Edmunds (Caruth and Anderson 1997, 60), and an iron candlestick recovered from one of

the quarry pits at St Nicholas, Lewes, probably dating to the last centuries of the hospital (Barber 2010c, 15). There would have been many more lamps across the site but the range of materials and form may suggest the use of different lamps in different circumstances, although with so few examples little more can be added.

A wide range of tools were recovered from many of the hospital sites. Two knives were recovered from St Mary Spital, as were three whetstones, one of which was of Norwegian schist (Egan 1997, 205). Whetstones and three knives were recovered from a number of contexts at St Bartholomew, Bristol (Good 1998, 163, 171). At St Mary, Ospringe, a blacksmith's set hammer and two augur bits were recovered, as well as an awl and broken needles, indicating more domestic metal- and leather-working activities on site (Fig. 5.43) (Smith 1979, 129). A small number of knives dated to between the 13th century and the closure of St Giles, Brompton Bridge, some of whittle-tang and some of scale-tang (Maxwell 1995d, 194). Two Norwegian Ragstone hones from St Mary Magdalen, Colchester, may date to the construction activities of the hospital, since they were fragments of larger stones used for tools rather than knives (Crummy 2004b, 141). An iron chisel was recovered from layers associated with St John the Baptist, Oxford (Rogers 1991, 55). Two knife blades and a bone handle were recovered from 13th- or 14th-century layers of St Saviour's, Bury St Edmunds, as was a bone spatula (Fig. 5.44) (Caruth and Anderson 1997, 54). A knife, an iron rod, and an iron bradle or awl with a bone handle were recovered from the large western quarry pit at St Nicholas, Lewes, whilst several more knives, as well as some whetstones and a spoon bit for wood-working, were located in soil accumulations to the south of the quarry (Barber 2010c, 15; Barber 2010a).

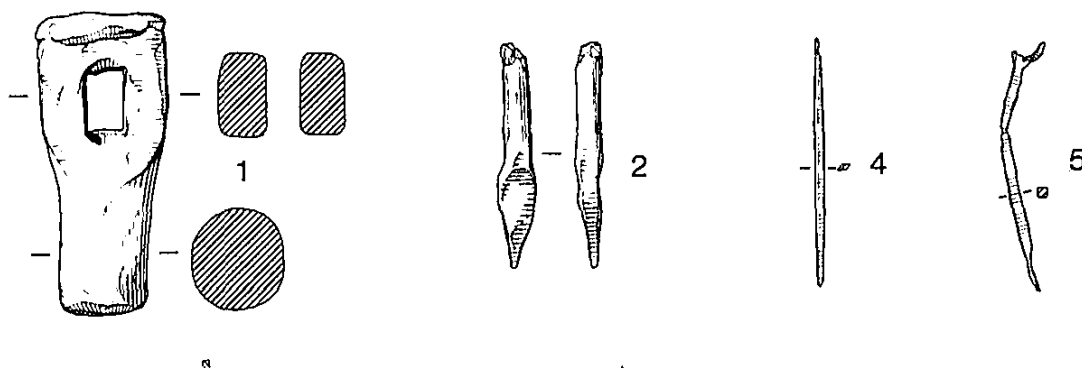


Figure 5. 43: Iron objects from St Mary, Ospringe, including a blacksmith's hammer (1), augur bits (2), and an awl and broken needle for leather working Objects (Smith 1979, 130, fig 130). Reproduced with permission of Kent Archaeological Society

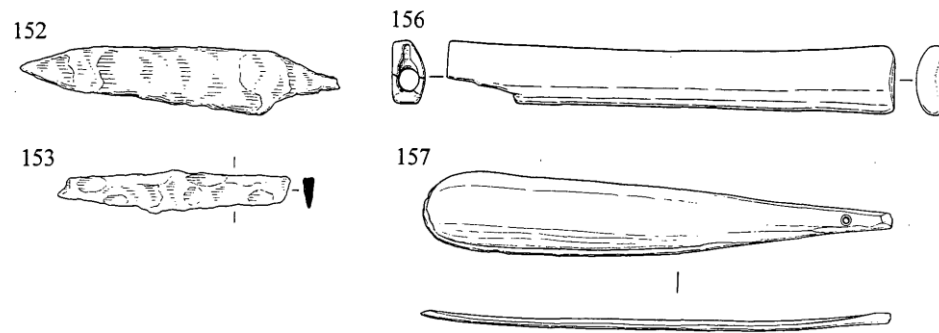


Figure 5. 44: Two knife blades (152 and 153), a bone handle (156) and a bone spatula (157), recovered from St Saviours, Bury St Edmunds (Caruth and Anderson 1997, fig 51, obj 152,3,6 and 7) © Suffolk County Council Archaeological Services

The floor layers of Building 16 of St Mary Spital, located to the west of the garden area north of the infirmary, contained charcoal, slag, and iron, including an iron chain swivel for animals, indicating the use of this building as a stable with associated smithy (Thomas *et al.* 1997, 67). Horseshoes and possible iron horse fittings were also recovered from several later contexts of St Bartholomew, Bristol (Good 1998). At St Mary Magdalene, Clothall, a horseshoe was recovered from the eastern enclosure ditch (Duncan 2009). At St Giles, Brompton Bridge, a copper alloy shield-shaped pendant decoration for a horse harness was recovered dating to the 13th or 14th century (Maxwell 1995a, 193). The pendant was damaged and had been heavily corroded. Also recovered from the site were 13 horseshoes, ten of the earlier 'Norman' style that continued in use until the mid-13th century, and three from after this period (Maxwell 1995d, 198). An iron buckle possibly from a horse harness, and an iron rowel spur were excavated from domestic refuse dumps in quarry pits at St Nicholas, Lewes (Barber 2010c, 15). A haematite polisher was found in dumping layers over the earlier cemetery of St Mary Spital, dating the find towards the end of the refoundation period of 1250 to 1280, an object usually used for polishing gold during fine metalworking (Thomas *et al.* 1997, 39). A similar tool of worked lava was recovered from St Mary Magdalen, Colchester, suggested to be for smoothing or polishing bone, wood, or leather items (Crummy 2004b, 142). Fragments of a lava quern were located at St Saviour's, Bury St Edmunds, and may represent small-scale malting taking place on site (Caruth and Anderson 1997, 73).

At St Bartholomew, Bristol, tools for spinning and weaving were recovered from the hospital phases, including weaving tools, spindle whorls, and copper alloy pins with twisted heads that date to the later phases of the hospital and might be part of wool-cards (Good 1998, 163). Such craftworking activities might have been carried out by the inmates or the servants. A lead spindle whorl was recovered from the western precinct area of St Giles,

Brompton Bridge, dating to the late 13th to 14th century, and a stone example was also recovered associated with the hospital (Maxwell 1995b, 203; Maxwell 1995f). At St Mary Magdalen, Colchester, a small bone pin from the area of the domestic area appears to have been a pin beater for a warp-weighted loom, a form of weaving that was going out of fashion at the time when the hospital was founded in favour of the much faster horizontal loom (Crummy 2004b, 142), and its use at Colchester may relate to a less financially able institution utilising older and cheaper technology. At least two chalk spindle whorls were recovered from burial soils at the east end of St Nicholas, Lewes, one of which may have been unfinished or only poorly formed before use, or was actually a loom weight (Barber 2010d, 20).

Four copper alloy thimbles were recovered from St Mary Spital, one from an early grave on the site and the others from the area of the Sisters' Garden, one from the period of the refoundation of 1235, and the other three from the 15th- and 16th-century layers (Egan 1997, 205). The earliest one had uneven drilled pits, spiralling on the top half and vertical on the bottom, while the later ones appeared to be spiral drilled or one possibly vertically. Alongside these two bone needles were also recovered (Egan 1997, 206). Also associated with domestic chores was a broken glass linen smoother for the bedsheets (Brehm *et al.* 1997, 214; Thomas *et al.* 1997, 35). This tentatively suggests that many of the domestic chores relating to the inmates and the beds were occurring in the buildings around the Sisters' Garden, possibly reflecting the wider ordering of space and activities observed in the buildings. A crudely made thimble and a number of sewing pins were recovered from Dissolution phase contexts at St Mary, Ospringe, but may related to hospital activities (Smith 1979, 142). Only one thimble possibly dated to the period of the hospital of St Giles, Brompton Bridge, although it was unstratified (Maxwell 1995a, 188).

It is clear that a variety of domestic activities and occasional craftworking was carried out on some of the hospital sites. Such material reflects similar activities being carried out at religious institutions more generally, but unfortunately much of the material was not securely located or was recovered from rubbish pits or demolition layers that hinder integrating them into a more spatial identification of work areas. St Mary Spital is the main site where activity areas can be observed, such as the stable in the building to the west of the Sisters' Garden, and other domestic chores such as sewing and smoothing of bedsheets occurring in the same courtyard. This area around the garden seems to tie the domestic activities to both the lay servants and the inmates, reinforcing the separation of activity and sections of the community already observed in the layout more generally. The

potential presence of leatherworking, weaving, and even some metalworking may reflect activities to repair and maintenance of existing items in the hospital, attempting to reduce expenditure by recycling or mending broken items, tying into the trend with the pottery for cheaper and more robust fabrics. The presence of weaving may even reflect limited commercial enterprise, or simply production for the house in providing bedding and clothing.

Alongside the artefacts of trade were a number of items potentially relating to medicinal practice or leisure activities. Of the possible medical items recovered, the clearest example was a fragment of a urinal base dating to the end of the medieval period of St Mary Spital (Fig. 5.45a) (Brehm *et al.* 1997, 215). A pair of 14th-century tweezers from St Giles, Brompton Bridge (Fig. 5.45b) (Maxwell 1995a, 190), and a wooden comb was recovered from 16th-century deposits of St Saviour's, Bury St Edmunds, with widely-spaced teeth on one side and narrow-gapped teeth on the other (Fig. 5.45c) (Caruth and Anderson 1997, 52) may also have been used for medicinal purposes. As noted by Egan (2007) items of medical practice are rare, and this summary of the material culture revealed only three items that might even be tentatively associated with health care. Furthermore, two of these were also items of personal grooming and so may simply reflect individual cases of personal hygiene on site.

The presence of a series of weights could be associated with either medicine preparations or the weighing of food items for controlling diet, especially a small cup weight dating to the refoundation in 1235 of St Mary Spital (Fig. 5.45d). These cup weights were usually for valuable materials and accounting purposes, although in this case possibly for medicinal ingredients (Thomas *et al.* 1997, 33–4). Two lead weights were recovered from St Mary, Ospringe (Smith 1979, 145), and another possible medieval lead weight was recovered from post-medieval deposits at St Mary Magdalen, Colchester, although the lack of wear suggests it was barely used (Crummy 2004b, 142). Two suspended medieval lead weights were recovered from St Saviour's, Bury St Edmunds, one circular with a flat base, and the other a pointed oval, forming a lozenge in section, whilst a small collection of other lead weights may have been for fishing nets rather than relating to the measuring of substances (Caruth and Anderson 1997, 61, 73). The evidence for medicine is very tentative indeed, and in most cases these items served multiple purposes, of which use in medical practice may have been one. The presence of weights would also be understandable for more financial or mundane purposes, since each hospital would have been trading and procuring a range of items that might necessitate the use of measures.

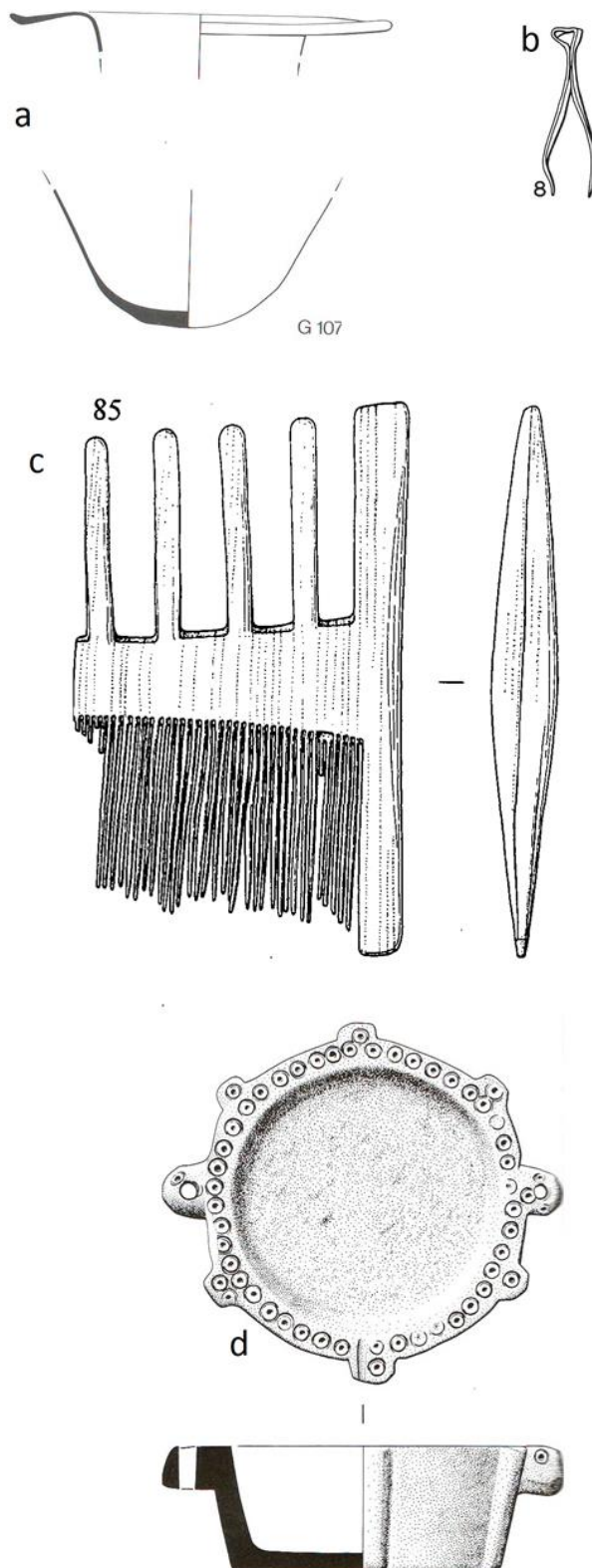


Figure 5. 45: Material culture possibly associated with medical practice: A – a fragment of a glass urinal from St Mary Spital, London; B – Tweezers from St Giles, Brompton Bridge; C – a comb from St Saviours, Brompton Bridge; D – a cup weight from St Mary Spital, London (Images A and D from Thomas *et al.* 1997, 36, Fig 26, and 111, Fig 76; Image B from Cardwell 1996, illus 38, obj 8; Image C is from Caruth and Anderson 1997, fig 30, obj 85). Images A and D reproduced with permission of Museum of London Archaeology; Image B reproduced with permission of Taylor and Francis and the Royal Archaeological Institute <https://www.tandfonline.com/loi/raij20>; Image C © Suffolk County Council Archaeological Services

A small collection of coinage was also found from some sites, although only in one case does the assemblage represent an intentional deposit. An odd cache of coins found in the floor layer associated with the 14th-century infirmary addition to the north wall of the chapel at St Bartholomew, Bristol, reinforces the use of this space as a dormitory for inmates, but also indicates that the area may not have been used for the poorest members of the community (Price and Ponsford 1998, 118). It may also indicate the presence of corrodians living alongside the poorer infirm members of the community. Interestingly only one coin, dating to the early 13th century, was recovered from St Giles, Brompton Bridge (Mays 1995). This is slightly surprising given that begging for alms would have been a beneficial source of income and as such dropped coinage might be expected, but the absence may be linked to the fact the road area near the bridge was not part of the excavation area. A range of coinage was recovered from St Saviour's, Bury St Edmunds, totalling 37 different coins, most either halfpennies or pennies, ranging from Henry II to Henry VIII, and also include a Scottish halfpenny of Robert II (Caruth and Anderson 1997, 52–3). They were located across the site, and so were not the result of a deliberate deposition, as was seen at St Bartholomew.

The last three items may suggest less religious activities occurring in the hospital precinct. Two bone dice were recovered, one from St Mary, Ospringe, and the other from St Mary Magdalen, Colchester, dating from the 13th to 16th centuries, although was found in the wall foundation of a post-medieval building (Crummy 2004b, 142; Smith 1979, 152). Also recovered from St Mary Magdalen, Colchester was a section of a bone whistle, made from a sheep tibia. These finds indicate less religious activities, but the sheer scarcity of these kinds of artefacts do suggest that leisure activities were highly restricted, reinforcing the impression of a controlled religious community.

Discussion

The assessment of the material culture of medieval hospitals has reinforced many of the impressions already reached in the previous chapters. Economies in the pottery assemblages indicate that cheaper and more robust coarsewares were preferred in almost all cases. Finewares were present on most sites, but in small numbers and often comprised of imports. In about half of the assemblages jugs and pitchers were the dominant pottery form, especially from the 13th century onwards, with the other sites dominated by cooking pots. It is unclear from the current evidence if this was related to changing fashions in

pottery and food consumption more widely, or if rural and leprosy hospitals may have followed a different pattern. Local pottery was also preferred in most cases, and whilst the sites generally followed the pattern of their wider regions, there were usually distinct differences; often fabric types that were absent or the assemblage was dominated by atypical vessel forms. The focus on economy may also be observed with the repair and recycling of shoes from St Mary Spital and St Saviour's, Bury St Edmunds. Other trades were also present, with some sites showing the presence of weaving within the precinct, and in the case of St Mary Magdalen, Colchester, using an old-fashioned technology. The presence of pins and needles, as well as several thimbles, indicate repair activities, possibly for the clothing of the hospital community.

The material culture of the hospital community itself is relatively limited. The majority of finds of a personal nature seem to be associated with burials, and virtually all items of a religious nature being recovered from cemeteries. Items such as the cross pendants from St John the Evangelist, Cambridge, or the range of papal bullae and pilgrim badges express spiritual beliefs that could link to concerns about the afterlife or that reflected an aspect of that person's identity in the hospital or wider society, such as a fervent pilgrim or a long-serving lay sister. Very little was evident of personal clothing and dress outside of the cemeteries, and this would support the fact that most hospital communities provided habits or other standardised clothing to those joining the community. The presence of lockers or other elements of privacy and security may be found at those sites more associated with temporary residence and transient populations who would be arriving with personal possessions, and this difference between permanent and temporary resident may explain why keys were recovered from some sites and not others, or they may simply reflect the increased storage requirements associated with hospitality on a large scale. The fact that burials provided more information on personal adornment, coupled with the quantity of evidence on health, disease, demography, and burial customs highlights the urgent need to carry out a broad examination of the cemetery material. Such an examination would need to take account of the 'hospitality for the dead' that is inherent in the provision of burial by the medieval hospital as one of the physical manifestations of the Comfortable Acts of Christ.

Whilst personal adornments seem more linked to burial, the main religious artefacts associated with the rest of the sites comprised artefacts associated with books and writing, much of it recovered from St Saviour's, Bury St Edmunds, and a few Christian sculptural elements. Most of the finer and more detailed architectural elements, such as roof tiles

and window glass, were associated with the hospital chapels, although those from St Bartholomew, Bristol, may have been associated with the refectory, and reflect the monastic practice of book readings and prayers at mealtime. In the case of a potentially more illiterate religious community the visual iconography may have taken part of the place of more traditional book-based religious practice. It is clear from the material culture of the buildings more widely that the hospital chapel was the focus of attention, invariably provided with a tile floor, painted window glass, and plastered walls. Although a rather obvious point, by assessing the location of this material relating to the different buildings found on a hospital site, then this can aid interpretations for sites where the presence of a hospital is less clear. The issue remains that these sites would look very similar to small monastic priories or cells, but a more informed understanding of the archaeological signature of the medieval hospital may highlight some element of difference, given the mixing of monastic and secular elements on site. Where the excavations are extensive enough and where the site was large enough to need specialised buildings, such as St Mary Spital, the material culture associated with the different areas can indicate function and associated sections of the community. This can be seen in the case of the stable and the activities associated with the Sister's Garden at St Mary Spital. The tentative evidence for the range of domestic and craft activities carried out on hospital sites indicates that there may be much wider scope to interpret buildings via this form of material culture. This will be another important element when examining previously unknown hospital sites or those that have experienced significant disturbance that may make the building evidence less reliable.

The material culture of the medieval hospital is not necessarily indicative of its function; as noted in relation to the small finds of St Bartholomew, Bristol, there was little to identify the site specifically as a hospital (Good 1998, 163). Another issue arises from the swift changes that could take place to the function of these sites, as seen in the case of St Mary Magdalen, Partney. Here the vast majority of finds dated to the period when the hospital had been converted to a cell of Bardney Abbey, and so although often still of a religious nature, little could be accurately tied to the hospital phase of activity (Crummy 2010b). On other sites, the nature of the inmate population changed over time, such as St Mary Magdalen, Colchester, where the initial male leper community slowly transformed to a mixed poor hospital, possibly returning to being a solely male institution towards the end of the medieval period. The lack of tightly datable finds and the limited focus of the developer-led excavation hampers wider understanding of how changes in the material

culture and community interact. What is clear is that items of an individual nature or of personal adornment increased in frequency during the later medieval period. For example, the late 14th- to early 15th-century phase of St Saviour's, Bury St Edmunds, produced a large amount of finds, including dress accessories, leather offcuts, coins, and a range of household items (Caruth and Anderson 1997, 75–6). Before this, finds were more limited, mostly small assemblages of courseware or remnant early medieval wares. It is possible that this trend is associated with the changing fashions of the medieval period, including increased privacy, but also may relate to the changing focus of the medieval hospitals in general, where the deserving poor became the dominant recipient of medieval charity and corrodians were more common.

Ultimately the material culture of the medieval hospital reinforced the ideas observed in the architectural layout. There were hierarchies to the buildings and certain parts of the site were associated with different activities. The majority of sites were relatively poor, but carried out rebuilds where necessary to tailor the site to the needs of the community. The chapel was the most important building and was often the most decorated, although due to the general poverty of the sites, complete replacement of features was rare and instead floors were patched, windows recycled, and walls only simply decorated. The personal items of the cemetery community are more evident than the items of the living community, although the presence of dice and a whistle may suggest that some leisure activities were allowed on some sites. The lack of standardisation to the buckles and other dress accessories found on hospital sites may also be another slight indicator of individuals on a site that in general has kept the living community, and especially the inmates, relatively invisible. The religious staff are occasionally observable through items of reading and writing, although whether these were merely for administration or involved the creation of religious texts will remain unknown, but the fact that John Mirfield wrote the *Breviarium Bartholomei* in the late 14th century whilst at the Hospital of St Bartholomew, London, would suggest that some hospitals may have produced or copied a range of their own texts. What is also clear is that integrating material culture into the wider setting of medieval hospitals is an important and necessary step in furthering our understanding of these sites. It is also clear from the range of associated medical texts and medical theories that more emphasis needs to be given to elements of archaeological remains such as animal bones and seeds, something that has often not been well integrated into wider discussion of medieval hospitals. Chapter 6 will overview this material and provide an

overview of how much evidence is available and what it can currently tell us about the manner in which the medieval hospital operated.

6. Hospitals and Hospitality for the Living

Hospitality for the Living

The medieval hospital was principally a place of Christian charity, founded on an ethos that placed hospitality and religious devotion at the heart of its actions. Whilst the main focus of this research has been on the built environment of these sites, and to a lesser extent the material culture associated with the residents, an examination of environmental and zooarchaeological material is also required. As yet there has been no monograph or paper that has focussed specifically on the environmental remains from across different hospital sites, and when the material is mentioned in excavation reports rarely do these comparisons look to other medieval hospitals. The evidence is often fragmentary, sparse, or missing entirely, and the situation is not helped when advances in how hospitals are understood are not fully integrated into the archaeological debate. This is to be expected when much of the available material is being produced by commercial developer-led excavation, which will reduce the scope of comparative work due to the nature of the funding and timescales imposed by clients, but in the case of the zooarchaeology and archaeobotanical evidence this absence in the wider literature has reinforced a viewpoint that there is a lack of comparable material or excavated sites.

This lack of discussion is understandable but also problematic. The nature and quality of the hospitality provided is clearly important in helping to understand how the medieval hospital functioned and was viewed by both its residents and the wider community outside the walls of the precincts. Whilst the open spaces that may have constituted elements of the hospital environment have been discussed in Chapters 3 and 4, their nature and the potential plants that were growing there have not been. Also missing has been a discussion on the specifics of diet that have been uncovered at these sites. These aspects can be considered the final elements of hospitality for the living, and the following discussion will focus upon the environmental archaeology, especially the zooarchaeological and archaeobotanical material. This will be carried out through a synthesis of the available reports to highlight some of the common trends and differences between the sites as noted by the individual specialists. This will be integrated into some of the wider debates concerning the function and operation of hospital sites, although as noted above the sparse and incomplete nature of much of the data has hindered tying the evidence to specific

groups within the hospital community. Instead a more generalised approach has been taken, providing a critique to the more theoretical discussions about medical practice within the hospitals. This will provide the first application of these theoretical models to the physical remains from these sites and highlight new avenues for further work. It is also hoped that the following chapter will question the assumption that there is not enough material to analyse and make the argument that archaeology can begin to ask the necessary questions to move the discussion forward, or at least to warrant a specific re-examination of the material by specialists.

The Archaeology of Hospitality for the Living

The lack of investigation into the material remains of the hospitality provided by medieval hospitals is surprising on several levels. Historical debates concerning hospitals have repeatedly highlighted the role of the hospital in providing food and drink to the inmates (Carlin 1989; Dainton 1976; Gilchrist 1995; Henderson 2006; Rawcliffe 1999), and more recent work has begun to indicate the importance of diet and regimen to health and medicine in the hospital (see Chapter 2). Elements of material culture associated with food, such as pottery and wooden tableware, have already been discussed, as have the few material remains deemed medical that have been found in hospital contexts (see Chapter 5), but the animal bones, seeds, and other plant remains recovered from these sites have yet to be discussed.

Attempting to understand the cooking habits of hospital kitchens, and the manner of the diet experienced, no matter how general the discussion may be, is a key action in advancing discussion from theoretical application of medieval medical theory to appreciating the practical application of these positions, including how other influences, such as financial decline or regional location, impacted the provision of hospitality. Assessing change over time would also allow a better appreciation for the lived experience and potentially highlight any changes in food theory, the provision of hospitality, or the overall management of these religious sites. Medieval dining theory more generally has understood that there were positive influences in food and consumption, the Eucharist being the most obvious, but the dark parallel of this positive consumption was gluttony (Hadley 2005, 105). Although it is unlikely that sites that frequently struggled to fund themselves would fall foul of this accusation, some of these hospitals also saw considerable mismanagement, and with the potential presence of unusual food for improving the health of individuals, having an appreciation for what was generally present on these sites would

aid wider discussion. The two main meals of the day during the medieval period appear to have been dinner around noon and supper in the early evening, which fits with the monastic schedule where the main meals were taken after Nones and Vespers (Willmott 2005, 122). Such a schedule was present at most, if not all, hospitals given their quasi-monastic nature, but it is the manner of the food provided that has seen limited discussion. In general scholarship it is noted or assumed that the poor were fed bread and pottage or soup (Bettey 2009, 29).

Historical sources imply that the diet was mainly based on cereal, particularly wheat, and meat and fish was consumed to varying degrees depending on social group. Fasting, the abstinence from meat, was a frequent activity in the church calendar, accounting for nearly half the days of the year, especially Friday, Saturday, and most Wednesdays, as well as entire blocks of the year such as Lent and Advent (Müldner and Richards 2005, 41). Given this, fish was an important protein source in the diet of the wealthy, and both inland and coastal marine species appear to have been heavily exploited. For the lower levels of society the diet was mostly based on cereals, with boiled pottage utilising grains or pulses and supplemented with a variety of vegetables being a ubiquitous dish (Müldner and Richards 2005, 41). Although meat was available to peasants and labourers, it would have been in smaller quantities and probably of lesser quality, with milk, cheese, and eggs serving as the most important source of protein until the late 14th century, when meat became more affordable (Müldner and Richards 2005, 41). These dairy products were also used as a substitute on fast days for fish, although salted herring and some marine molluscs seem to have been cheap enough to have been common commodities for all. The differences between urban and rural communities appears to have been subtle, but generally the urban living standards were higher and there was a greater variety of foods available through the markets (Müldner and Richards 2005, 41). Rather than discussing the impact of the food on the health and lifestyle of the residents, it has been more usual to place these elements within the other aspects of the medieval hospital, such as the practice of gifts and donations to charitable institutions (Sweetinburgh 2004). The ability to use foodstuffs as a form of donation, and the moral, social, and religious benefit such gifts could bring, has been an enduring concept in the past (Woolgar 2011), although the ability for archaeology to impact on this discussion has been severely limited. Elements of these ideas have already begun to appear in the wider archaeological literature as a general consideration (such as Sykes 2014), and it is hoped that given the pivotal role of food and

environment to the medieval hospital, such approaches will be brought to bear on the full range of material available.

The Zooarchaeological Evidence

The faunal remains from medieval hospitals form a significant, but underappreciated, resource in hospital studies. Virtually all of the excavations, including some very limited commercial watching briefs, have produced some zooarchaeological evidence, and although many have not contributed enough material to be useful for examination, even a preliminary investigation of the evidence can note clear areas of further study. The following section will provide brief discussions of the material available at a range of sites, starting with the three case studies of St Mary Spital, London, St Bartholomew, Bristol, and St Mary Ospringe, since they have produced some of the largest assemblages that will allow further discussion. Following this the material from other sites where enough evidence has been recovered will be discussed. In many cases, for example St John's Hospital, Cirencester, whilst excavations were relatively extensive no animal bone was noted in the published report, and these have not been included or noted, but it does mean there may well be more material to work with than is noted here.

The Three Case Studies: St Mary Spital, St Bartholomew, and St Mary

The animal bone assemblage from St Mary Spital was relatively extensive and could also be associated with the different developmental phases. During the initial foundation period, between 1197 and 1235, the animal bones recovered appeared to have been a mixture of primary butchery waste, waste from domestic consumption, and disposal of domestic animal carcasses (Pipe 1997, 232). The predominant species was cattle, making up about 83 percent of the total animal bone weight, 12 percent from sheep/goat, and 5 percent from pig (Fig. 6.1). Chicken and domestic goose was also present in small amounts, and overall there seems to have been a slightly higher meat quality than the period before, and less industrial waste. In period M3, dating from the refoundation in 1235 and 1280, cattle again predominated but made up only 68 percent of the assemblage, with sheep accounting for 22.4 percent of the weight, and pig bones also increased in prevalence, although overall less animal bone was found for this period (Pipe 1997, 232).

Outside of the main three domesticates, the remaining species only made up 2 percent of the total weight, with several new species observed, such as hare, rabbit, and sturgeon.

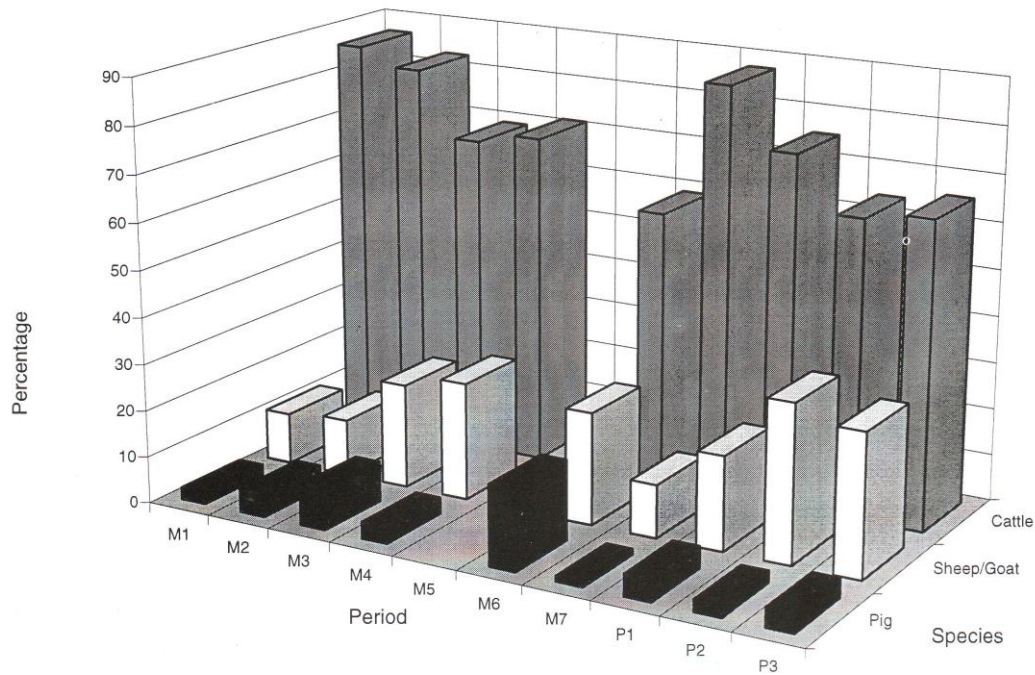


Figure 6. 1: A histogram of animal species present in the assemblage of St Mary Spital, London, by period as a percentage of total recovered bone weight. This clearly indicates the reliance upon cattle for meat at this site (Thomas *et al.* 1997, 233, Fig 114). Reproduced with permission of Museum of London Archaeology

Rabbits were not common and possibly an elite foodstuff, whilst sturgeon, normally quite a large fish, appears to have been present in the Thames during the medieval period and, although regarded as property of the Crown, finds from across London suggest that they were being eaten by some of the lower classes (Pipe 1997, 232). The butchery pattern for the main domesticates seems typical of medieval practice, comprising decapitation, splitting the carcass and skull, and then the breaking down of the meat and limbs for consumption (Pipe 1997, 232–3). Most of the cattle appear to have been adults, the sheep bones suggest a mixed flock of lamb and mutton, and the pigs appear to have been slaughtered in their second year. Primary butchery waste was still part of the assemblage, as were a few horn cores, the majority of which was found in the cemetery area to the west of the new chapel and may represent some residual material from earlier periods (Pipe 1997, 233).

Animal bones recovered from Period M4, 1280-1320, showed similar levels of diversity and abundance, although there was a lower proportion of pig and resultant higher preponderance of sheep/goat, especially in site C, the area of the infirmary and women's garden (Pipe 1997, 233). There was also a greater level of fragmentation of the bones, and a greater diversity of animals, with red deer and hare also being present, as were higher amounts of chicken. The carcass parts present were similar to earlier periods. Cattle

remains included horncores, as well as head, vertebrae/ribs, lower limbs, metapodials, and phalanges being the most frequently recovered, sheep and goat were most represented with the head, vertebrae, upper and lower limbs, and metapodials, whilst some goat horncores were also recovered. Pig remains were mostly the head and upper and lower limb fragments, areas that provided good quality meat (Pipe 1997, 233). There was a change in the observed age of the sheep, with adults over 4-6 years making up the majority, with some killed in their second year.

No bones could be dated to period M5 (1320-1350), but significant amounts of animal bone were recovered from Period M6, correlating to 1350-1400. No cattle horncores were recovered, in contrast to the earlier phases, and most cattle bones were vertebrae and ribs, as well as some heads and upper limbs, areas that provided good quality meat (Pipe 1997, 233). Only one context contained a small number of sheep or goat horncores, and the main parts of these species recovered were the vertebrae, ribs, head, and upper limb fragments, again representing good meat quality. Pig bones were sparse and mostly consisted of heads and limb bones except the phalanges, despite the fact they were accounting for 17 percent of the animal bone weight for the period (Pipe 1997, 233). In Period M7, from 1400 until the Dissolution, cattle bones were once again a much greater proportion of the total, just under 90 percent of the bones recovered, compared with just below 60 percent in Period M6 (Pipe 1997, 233). The bones were almost all on food-related parts of the body, with cattle, sheep, and pig mainly represented by heads, vertebrae, ribs, and upper limbs. Mallard bones were the only wild bird species found (Pipe 1997, 234). The assemblage represents good quality, but not high status, domestic food refuse, and there was much less primary butchery waste compared to the earlier hospital phases (Pipe 1997, 234).

The fish bone evidence was restricted to only a few contexts and sizeable assemblages were rare. During the hospital period the material was dominated by herring and plaice/flounder, and there seems to have been more cyprinids than the post-Dissolution material, which was dominated by eel (Locker 1997, 234). The only high status fish found was sturgeon in the earliest hospital phase, and white fish, i.e. cod, haddock, ling, and whiting, were not well represented, in slight contrast to the pre-hospital period where cod was present in significant numbers (Locker 1997, 234; Pipe 1997, 232 Table 65). The fish observed would have been seasonally available to the general public, representing fisheries in the Thames, the estuary, and the North Sea (Locker 1997, 234). Interestingly, Locker suggests that the change from herring and plaice/flounder to eel was not an indicator of

the changed status of the site, since both were readily available during both the medieval and post-medieval period (Locker 1997, 234), although this clearly indicates a preferred choice during the hospital phases. Duck eggshell was mostly recovered in small quantities from Periods M4 and M6, as well as some chicken eggs in Period M4 (Sidell 1997, 248).

Taken as a whole, despite some variations in relative proportions, cattle was the most significant meat element of the diet for all periods. The increase in fragmentation from around 1300 may indicate issues with finances, but may also be indicating changes to the nature of the food being prepared, such as an increase in stews and soups. There also seems to have been a clear choice on what fish was being eaten at the site, with a preference for haddock and plaice over cod and eel, and again may indicate a clue to dietary choices occurring at the site. The low abundance of almost all other species apart from the main domesticates, chicken, and goose during the hospital periods, with the possible exception of brown hare and some rabbit from periods M3 to M6 may also be significant, since whatever choices that can be observed over diet, the range of animals that formed a regular part of meals was restricted. Thus, the quality of meat and how it was prepared may be the most formative aspect of understanding diet at these sites. Unfortunately, the analysis only gave overall weight of the animal bone recovered, not numbers of bones or even minimum number of individuals, which makes comparison difficult, although the relative importance of cattle for meat is quite clear.

The full analysis of animal bones from St Bartholomew, Bristol, concentrated on specific groups of contexts and remains to answer certain questions, rather than being analysed as one large group (Barber 1998, 181). A more complete study would be highly advantageous to provide a more complete picture, and to see whether small amounts of other species were also part of the hospital diet and where this material was disposed of. The majority of animal bones found during the life of the hospital were sheep and goat, followed by cattle bones, then chicken, pig, goose, and rabbit, with a handful of deer and hare bone (Barber 1998, 183). There was little presence of gnawing during any of the periods, which is unusual for food waste but may be due to the lack of dogs and other scavengers on site, as well as possibly indicating a level of cleanliness. Given the lack of time and the material excavated, sieving and extensive sampling was not undertaken, meaning a strong recovery bias against smaller bones (Barber 1998, 182). The main area for animal bones in the primary foundation period of 1234-1280 was the courtyard area (Fig. 6.2), from which were recovered 246 sheep/goat bones, five of which were definitely goat, amounting to at least

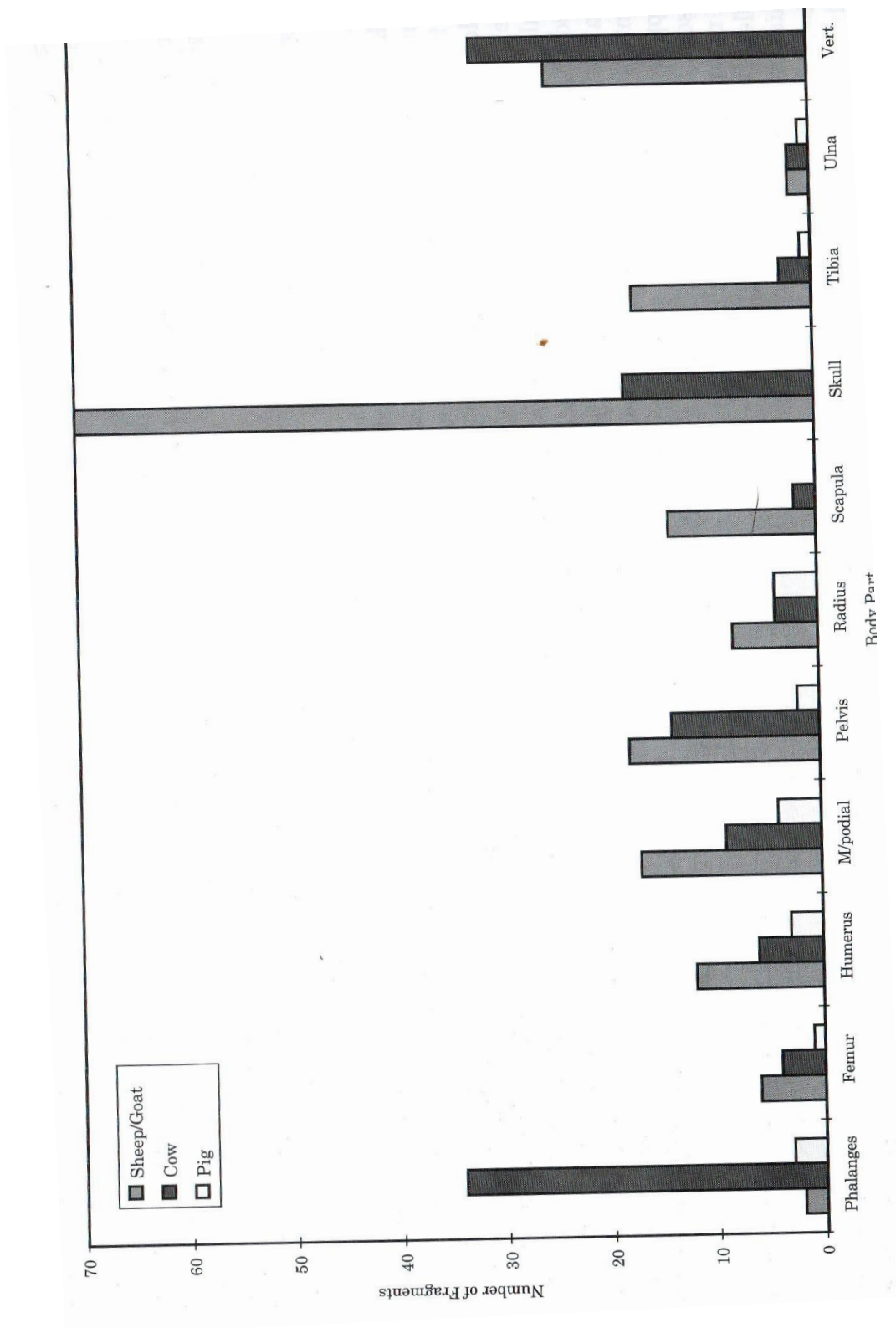


Figure 6. 2: Animal bone part representation for the period 1234-1280 at St Bartholomew's, Bristol. Cattle would still be the dominant supply of meat, but sheep is much more represented than at St Mary Spital (Price and Ponsford 1998, 188, Fig 74) © Roger Price and Michael Ponsford

39 individuals, 134 cattle bones from 26 individuals, and 22 pig bones, as well as one fragment of fallow deer bone (Barber 1998, 187). The sheep/goat and cattle assemblages contained a higher proportion of good-quality meat producing bones than had been seen in the pre-hospital phases, with several fragments of humeri, femurs, and tibiae. There were also higher levels of bone fragmentation and cut marks, and there were more young animals, some less than 10 months old. The majority of pig bones were feet and lower limbs of young animals, and 57 chicken and 26 goose bones were recovered from this period, none displaying cut marks (Barber 1998, 187). The contexts in the courtyard dating between 1280 and 1340 produced a small collection of animal bones, a result of food-production waste, whilst during the same period in the kitchen and refectory range another small assemblage of highly fragmented material was recovered, although none were identifiable (Barber 1998, 187, 189).

Contexts in the west end of the north aisle of the rebuilt chapel from the period between 1340 and 1400 produced a large quantity of material (Fig. 6.3). A total of 682 bone fragments were recovered, of which 239 were identifiable to species, and 89 were ribs (Barber 1998, 189). Sheep/goat made up 53 percent of the identified bones, cattle 23 percent, and pig 6 percent, as well as a small collection of 29 chicken bones and 12 goose bones. At least 29 individual sheep/goats were identified, one of which was definitely an adult goat and the majority of the rest being younger animals, at least five less than 30 months old at death. A minimum of 17 cows were recovered from this area of the site, and although this time the majority seemed slightly older, over 24-48 months, there were some younger individuals (Barber 1998, 189). The most prevalent bones from both species were ribs, skulls, and vertebrae, and only 14 percent of the total sheep/goat bone total were the upper legs. The pig bones were from at least 6 individuals, all immature animals of less than 24 months, but almost all the bones recovered were trotters (Barber 1998, 189).

Material dumped into the well outside the rebuilt refectory and kitchen building during the same period included remains of at least three cows, two sheep/goat, and one pig, as well as a handful of geese bones, a bone from a deer, and one from a dog (Barber 1998, 189). The sheep/goat and cattle bones comprised fragments of skull and flat bones, such as the scapula and pelvis, mostly from older sheep, at least 36-48 months, and younger cows, mostly under 6 months (Barber 1998, 189-90). In the kitchen floor levels and drain of the western room of this new range were an assemblage of around 150 highly fragmented animal bones. Over half displayed cut marks, but only 20 percent were identifiable, the

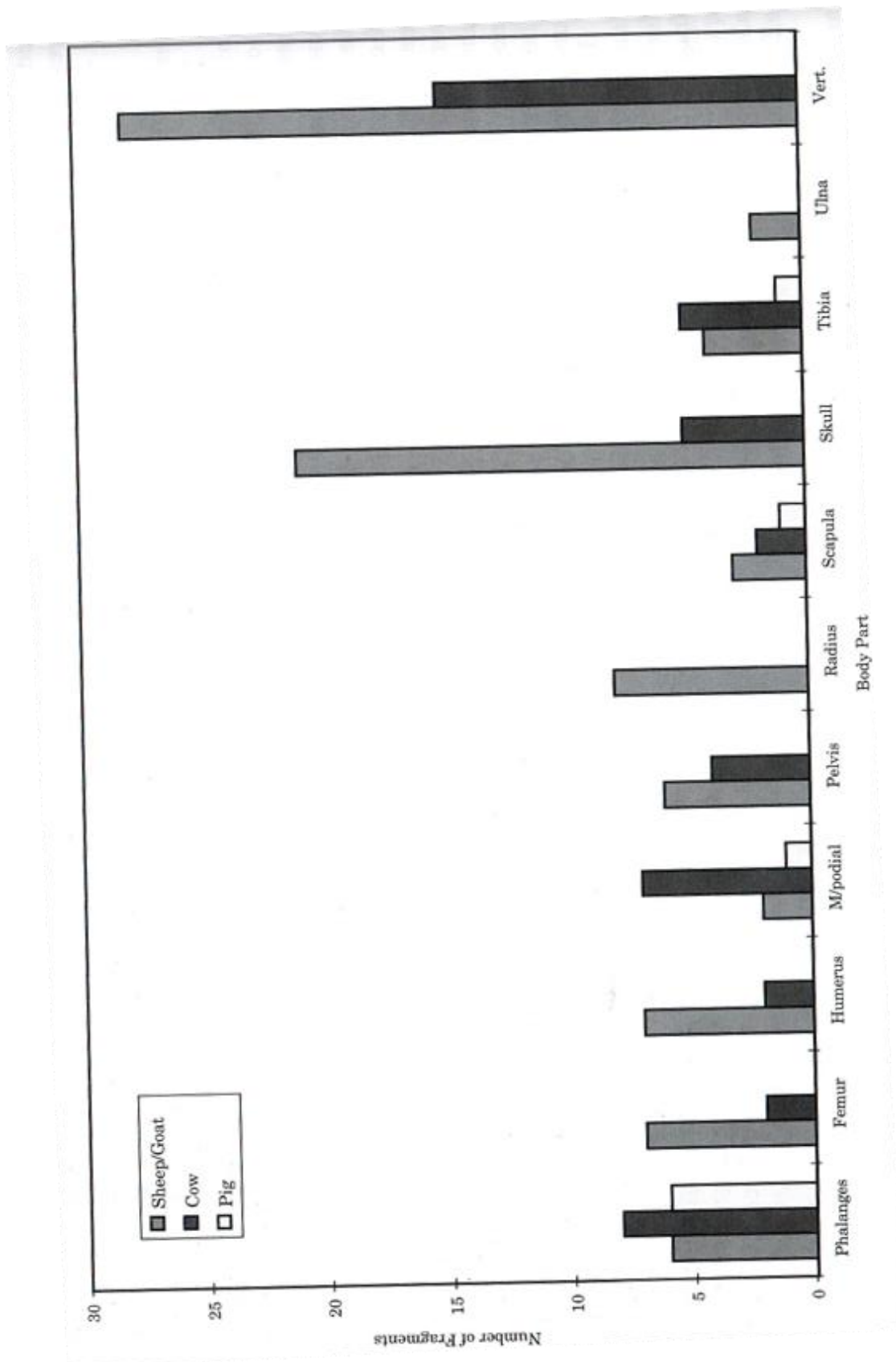


Figure 6. 3: Animal bone part representation from the floor of the remodelled chapel (Building 1B), from the period 1340-1400, at St Bartholomew's, Bristol. This area seems to have served as a short-term infirmary hall, and the animal bones suggest that a lot of sheep was consumed (Price and Ponsford 1998, 188, Fig 75) © Roger Price and Michael Ponsford

majority being sheep/goat, with some cattle and pig bones (Barber 1998, 190). From the floor, fifteen fragments of sheep/goat bone from at least nine individuals were identified, mostly skull, vertebrae, and feet, as well as two fragments of femur, whilst more fragments of skull, scapula, vertebrae, and lower limbs were found in the drain. The few fragments identifiable as cattle bones came from at least 4 animals, including mandible and a femur, and the only age defining bone was a proximally unfused femur, indicating an age under 42 months (Barber 1998, 190). In the eastern refectory room of Building 2B a small assemblage of highly fragmented sheep/goat and cow bones were found, mostly rib and scapula fragments (Barber 1998, 190).

In the final phase of the hospital, between 1400 and 1532, the western room of the domestic range (Building 2B) reinforced the interpretation that it remained a kitchen until the hospital was closed, with another 292 fragments of bone recovered, almost 30 percent rib and vertebrae fragments (Fig. 6.4) (Barber 1998, 190). Almost all of the 56 sheep/goat bones recovered, amounting to at least 11 individuals, and 40 cattle bones from at least 14 individuals, were skull, feet, or vertebrae, with many of the latter having cut marks or chopped in half, especially the lumbar vertebrae (Barber 1998, 190). Only 11 pig bones were recovered but there were at least nine individuals, all of which were from young animals (Barber 1998, 190–1). Although a relatively large number of bones they were highly fragmented, and indicate if this room remained as the kitchen it was kept relatively clean (Barber 1998, 191). In the refectory yet more fragments of cattle and sheep/goat skulls and vertebrae were recovered, as well as cattle feet and a sheep femur, many of which had cut marks on (Barber 1998, 191). Only three fragments of pig bone were found, all from young animals, as well as eight fragments of chicken and ten of goose. This material appears to have been rubbish that ended up being trod into the floor, while more bone was brought in with the material used to resurface the room, all of which were ribs, vertebrae, skulls, radius, or foot fragments from sheep/goat, pig, and cattle (Barber 1998, 191). Fragments of ribs and vertebrae, as well as three fragments of cow femur, and fragments of pelvis, radius, tibia, and phalanx were also found in the courtyard area mostly, all with cut marks and one gnawed by animals (Barber 1998, 191).

In summary, the most common animal bones were sheep/goat bones, and the most prevalent of both sheep/goat and cattle bones were skulls (including mandibles), vertebrae, and feet, traditionally waste material from food production, whilst the bones associated with better-quality meat, such as humeri and femurs, were relatively rare

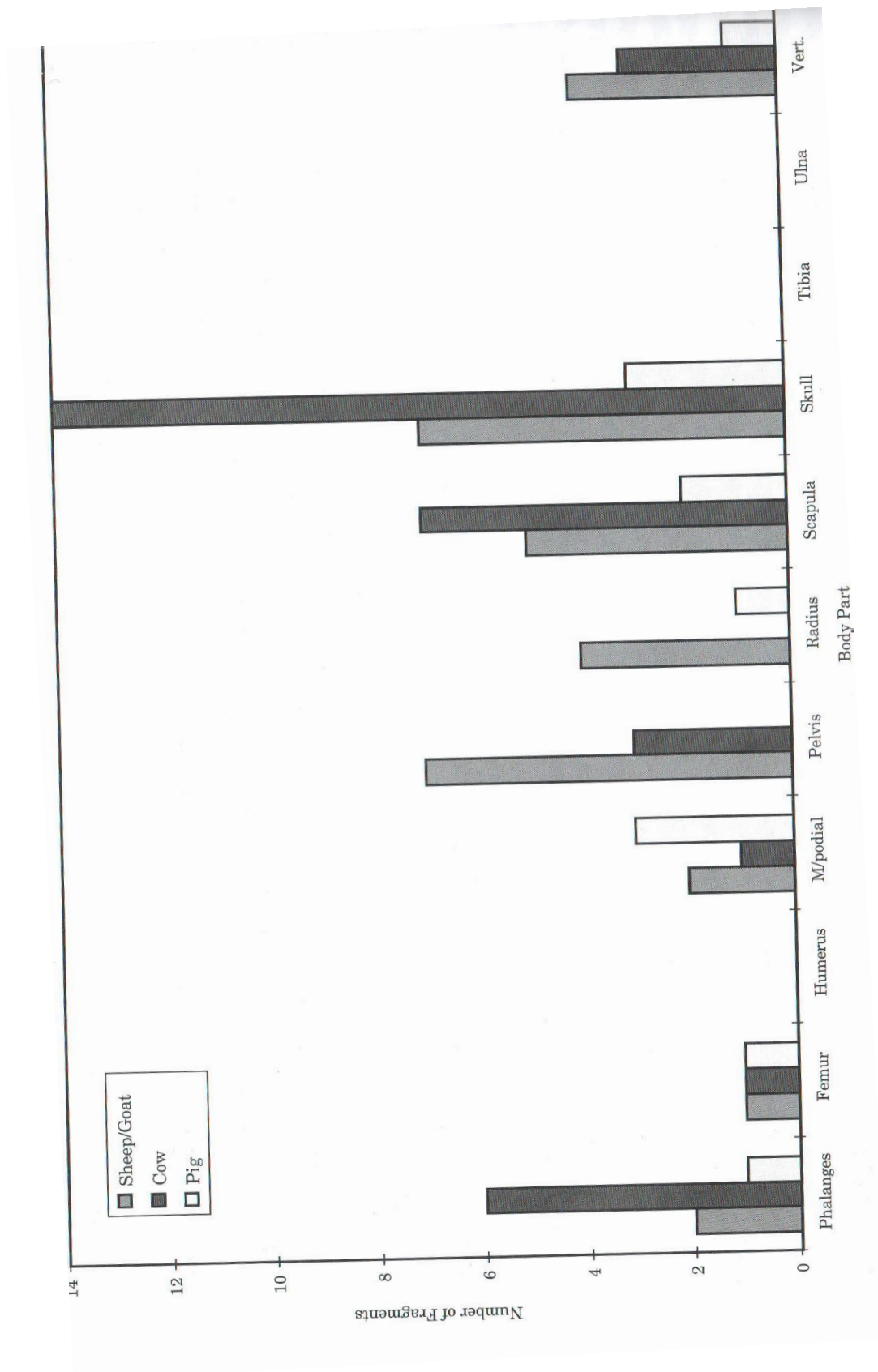


Figure 6. 4: Animal bone part representation for the kitchen floor surfaces in the period 1400-1532 at St Bartholomew's, Bristol. Meat from cattle would still predominate, possibly to a greater degree than earlier periods, although sheep and pig still made significant contributions to the diet (Price and Ponsford 1998, 192, Fig 76) © Roger Price and Michael Ponsford

(Barber 1998, 183). Of the 760 sheep and goat fragments, 35 were positively identified as sheep and six as goat, whilst in age the majority were, on the evidence of tooth eruption and wear and fusing patterns in the tibiae and femurs, in the range of 18-36 months, making the meat consumed mutton, roughly comparable with other urban sites in the south-west at this date, such as Exeter (Barber 1998, 183, 192). It does seem that from 1320 younger sheep were more present than before this date, especially in the north aisle of the chapel, averaging under 30 months (Barber 1998, 192). The cattle found on site were also mostly under 30 months, and although there were fewer bones overall, when considering the overall meat-weight provided from the bones present then cattle were as important a food animal as sheep/goat (Barber 1998, 183, 192).

More parts of the pig carcass were represented in the assemblage, although this may have been caused by the reduced need to butcher young pigs due to the smaller portions of the animal since all of the bones were from sub-adults, with age consistently ranging between 12 and 24 months, a typical age for culling during the medieval period (Barber 1998, 184, 192). Three fallow deer bones were found, in general rare for urban sites in this part of the country during the medieval period, whilst the handful of rabbit and hare bones found were all from adults, but do not seem to have contributed in a significant way to the diet of the community (Barber 1998, 184). All the bird bones were located in the 13th- and 14th-century contexts of the kitchen and refectory hall or at the west end of the north aisle of the chapel, with adult chickens making up the majority of these bones (Barber 1998, 184). The bones of younger chickens, as well as adult and young goose bones and one pheasant bone, concentrated in the 14th-century contexts at the west end of the north aisle of the church, an area that produced a large quantity of animal remains. Given the excavation bias against smaller bones, the quantity recovered indicated that chicken and goose “were a fairly important element of the diet”, although one that seems to have reduced in importance over time (Barber 1998, 184, 192). Although some fish bones were recovered, their numbers were limited and none could be identified by species.

A large number of the bones of the three main domesticates bore cut marks, especially sheep and cattle vertebrae, humeri, feet, and pelvises, indicating filleting, and most of the vertebrae had been chopped in half down the dorso-ventral axis to form T-bones, a manner of butchery that is alleged to be unusual before the post-medieval period (Barber 1998, 192–3). Seven sheep skulls from the earliest phase of the hospital had been split in half possibly to remove brawn, a healthy food for invalids, although there was little evidence for

this in the later periods (Barber 1998, 193). The assemblage was also mixed and highly fragmented, representing food-production and cooking waste from cheaper waste- or low-quality meat areas rather than actual served joints, and given the lack of burning on the bones, most, if not all, meat was cooked off the bone and boiled or stewed (Barber 1998, 189, 192). Some higher quality meat was also prepared, but it was not prevalent, and the majority of animals consumed were older ones. Whilst they were cheaper they also suited the more prolonged cooking of the stews and soups that both from documentary sources and contemporary practice seem to have been preferable for the infirm, sick, and needy.

The excavations at Ospringe resulted in the recovery of 11,856 bones, identified to 11 species of mammal, 12 of bird, and 10 of fish, with 7,178 mammal bones identified to species and anatomy (Wall 1980, 227). Only 516 mammal bones were recovered from the Foundation and Occupation levels, compared with 6,732 from the Dissolution and demolition phases (Wall 1980, 230 Table 2, 231 Table 3), hindering discussion about food practices relating to the majority of the hospitals life. The Dissolution phase, from c.1483-1516, was when the site was in decline financially and experienced periods of poor management, before finally being closed in 1516, with the buildings being rented in the 1550s (Wall 1980, 260). During the Foundation and Occupation phases sheep made up almost 50 percent of the total, with cattle making up 28 percent, pig 19 percent, horse 1 percent, cat 2 percent, and rabbit, hare, and deer making up 1 percent between them (Wall 1980, 261 Table 15). In the Dissolution and destruction phases cattle and sheep were more even, with 42-43 percent each, pig 12 percent and horse, dog, cat, rabbit and hare, and deer individually making up less than 1 percent of the total remains (Wall 1980, 261 Table 15).

As an assemblage there were few changes between the periods, and butchery practices appear to have been similar between sheep and pigs, possibly reflecting conservative traditions in butchery (Wall 1980, 234). All parts of the carcass of the main domesticates were represented in varying quantities, suggesting that some meat arrived as whole carcasses slaughtered on site rather than as separate joints brought in from a butcher, but while all the major limb bones were present for the main domesticates, sheep limb bones far exceeded the proportions of other bones present, such as mandibles and skulls (Wall 1980, 228). Poleaxing was the most common manner of slaughtering cattle in the medieval period but no indications of this were found on the few cattle skulls recovered at the site. The skulls had been processed, with the horns cut off at the base, and there were frequent

butchery marks on the mandibles, possibly resulting from the removal of cheek meat and tongues (Wall 1980, 234). Some, but not all, vertebrae were split along the line of the spinal column, usually associated with the splitting of the carcass while hanging, a practice common from the medieval period, but may also relate to food preparation, such as boiling bones for broth.

Limbs were invariably chopped through the articulation point as well as mid-shaft, possibly as part of secondary processes for cooking or the removal of marrow, as were metapodials, and given the lack of real meat on the bone this was highly likely to be for marrow extraction (Wall 1980, 234). There were also potential skinning marks on metatarsals below the proximal articulation as well as on first phalanges, indicating skinning from different starting points (Wall 1980, 239). Sheep skulls were split sagittally, common on medieval sites and possibly for removal of the brain, and the horns removed with part of the frontal bone attached, protecting the base of the horn sheath (Wall 1980, 239). The sheep were butchered with knives and choppers, but to a lesser extent than the cattle, and there was no indication of skinning. It should be considered that calves and pigs' heads may have been brought in as a joint on their own, meaning it remains difficult to assess how much meat was brought in as whole carcasses and how much from separated joints (Wall 1980, 228, 234).

The main domesticates fell within the size ranges expected for the period, but due to the paucity of evidence, age was only discussed for the Dissolution and later phases (Wall 1981, 242-3). Cattle age-at-death peaked at 3-4 years, correlating to the optimum time for slaughter when animals were kept for beef, with older animals being those fattened and slaughtered after a working life, which according to contemporary writing would last from around 3 until 6-10 years old. From measurements, the cattle at St Mary Ospringe were slightly small for the medieval average, and probably kept primarily for draught and milk purposes, with meat a secondary product (Wall 1980, 262). Sheep were the dominant species, if only just, with the majority slaughtered at 2½-3½ years, representing animals primarily kept for wool or milk, and there were very few attributed goat bones, and most from later phases (Wall 1981, 243, 262). It is highly likely that the pigs at St Mary Ospringe were domesticated and kept for their meat rather than wild animals, killed at 1-2 years and their bones heavily fragmented, possibly to make the most of the animal (Wall 1981, 243, 262). The horse bones present on the site probably represent working animals and there was no indication of butchery (Wall 1980, 263). Such a pattern is very similar to that seen at

St Bartholomew, Bristol, although the cattle seem to have been a bit older. Given the issues with differing sample sizes for each period, especially from the earliest phases, comparison is difficult, but in general there was relatively equal numbers of cattle and sheep, in contrast to other sites in the south of England (Wall 1980, 265). This may represent the relative importance of sheep farming in Kent, and hint at the impact of regional factors, as may the fact that the proportion of pigs is similar to other sites in southern England (Wall 1980, 265).

Whilst the three main domesticates contributed the majority of food animals, there was a greater number of other species present at St Mary Ospringe than at the previous two sites. The majority of the deer bone came from Dissolution and destruction layers and included three species, red, fallow, and roe (Wall 1980, 264), and their presence and prevalence at this royal site might indicate some improved level of diet compared to other hospitals sites. It is uncertain how important birds were for the overall diet of the site, but they included the domestic fowl, duck, and goose, as well as several wild species that were hunted for consumption (Wall 1980, 264). Generally during the medieval period chicken was rivalled in importance by goose, which has been frequently found on medieval sites to contribute more to diet, by number of fragments, than fowl (Wall 1980, 254). The finds from St Mary Ospringe do not follow this trend, with domestic fowl being consistently the most prevalent bird, and there were other sites, such as Portchester Castle and Exeter that have also produced more domestic fowl, possibly relating to differing regional practices in poultry keeping (Wall 1980, 254). There was a large size range in the domestic fowl remains, possibly suggesting selective breeding, whilst the geese were larger in relation to the medieval average, more comparable in size to the modern geese, although again this probably shows regional variation across the country (Wall 1980, 254). Butchery was infrequently found, probably as a result of extensive butchery being unnecessary for animals of such small size. Two male fowl tarsometatarsi had the tips of the spurs cut off, as well as having pathological symptoms of tendon ossification, and this may have been connected to one individual who had been used in cock-fighting (Wall 1980, 255). The presence of a dovecote on site suggests that the pigeon and stock dove bones were domesticated or semi-wild, and presumably kept for their meat and eggs (Wall 1980, 255). The presence of teal, woodcock, snipe, and heron were also probably caught for their meat, and may have come from the local area.

The fish recovered from the site comprised both marine and euryhaline species, those which could be caught in the sea, estuarine waters, or rivers (Wall 1980, 259). Of the marine species the herring was caught with floating nets as well as shore seines, whilst conger eel, cod, haddock, and turbot would most likely have been caught on a hook and line, and given that both cod and haddock are only inshore seasonally or rarely respectively, would have necessitated fishing offshore. Roker can either be line caught or taken in shore-line traps, whilst the grey mullet, flounder/plaice, eel, and salmonids were caught with kiddle nets, made of wood and set up between the tide lines to catch species utilising tidal flat food sources or migrating along the coast (Wall 1980, 259). The salmonids and eels could also have been caught in local waterways like the River Swale and other nearby streams leading to the nearby coastline. It is probable that fish contributed a large amount to the diet of the site, and especially herring, with 16 yearly entries in the Hundred rolls starting in 1277 noting purchases of 4,000 herring per annum at 8s. 4d. per thousand for the hospital at Ospringe (Wall 1980, 264). More recent commercial excavations at St Mary Ospringe also retrieved a small amount of animal bone, mostly from the lower legs of sheep, but also some cattle and pig, and three fragments from a right metatarsal of a horse (Driver 2008, 11), whilst another evaluation in 2013 recovered a whelk shell, three cockle shells, and 15 lower and 21 upper valves from oyster shell, just under half of which were immature and five showing signs of parasitic activity (Cussans 2014b, 23). Three contexts from the 2013 evaluation produced only a very small assemblage of nine pieces of animal bone, including a sheep metacarpal, a sheep metapodial, two sheep molars, a bovine rib fragment, two fragments of bovine long bone, a pig canine, and a fragment of pig maxillae (Cussans 2014a, 23). Given the small nature of the collections little extra can be added to previous analyses of the site, but they do not serve to contradict the view of animal resource exploitation suggested in 1980, other than to add the exploitation of marine molluscs.

As a royal establishment “[t]he king during his visits would have been fed in a suitable style, and the staff of the hospital as well as the royal corrodians would have been fed quite sumptuously, while the diet of the permanent almspeople would have been less grand” (Wall 1980, 260). Records of gifts to the hospital include the king giving 50 hogs in 1235, possibly to establish a herd, and in 1485 60 ewes were gifted by Stephen Randolph, possibly to rebuild the flock (Wall 1980, 260). The herds and flock would have been supported on the hospital’s land, surveyed in 1571 as consisting of 36.3 acres of arable and 27.7 acres of pasture, but given that the hospital was valued considerably higher and also

included the manor of Headcorn in 1510 it was possible they held lands of over 500 acres (Wall 1980, 260). The discrepancy may have its origins in royal enquiries that at several points during the 15th century note bad management and misuse of funds since various lands had been unlawfully sold or disposed of to pay off debt (Wall 1980, 260–1). The hospital also received a number of gifts of land, money, and rents in kind, especially barley, during its life (Wall 1980, 261). With the likelihood of considerable lands behind them the hospital was at least partially self-sufficient, feeding the inhabitants from its own land, possibly supplemented by using profits from wool production. This seems to have taken a similar form to St Bartholomew's and to a lesser extent St Mary Spital, with cattle providing the majority of meat, supplemented by considerable amounts of sheep and some pig. Just as at the other two sites, fragmentation was generally above average, and there was clear evidence for the breaking of bones for marrow and brawn, both of which were used to produce nutritional foods like broth and stew. St Mary Ospringe also produced the best evidence for the range of fish that could be exploited, although the numbers were relatively limited and were more varied than the documentary sources would suggest given the quantity of herring bought in. What is also interesting is that the lack of gnawing and the general paucity of material from periods of clear hospital occupation from all three sites suggest that domestic areas were kept clean and much of the material was disposed of outside the excavation areas.

From these three sites it can be noted that there are some clear similarities. Fragmentation of the bones, especially skulls, vertebrae, ribs, and metatarsals, was usually higher than expected, and seemed to decline over time. This fragmentation would appear to be related to the types of food being cooked, especially as few bones had signs of burning. Such a lack would suggest that the majority of meat was cut off the bone or that the meat and bones were boiled or stewed, with bones broken to allow marrow extraction. The possibility that the skulls were split to make brawn, coupled to the splitting of bones and boiling of meat, would suggest that meals revolved around stews and soups. This would be both nourishing and also cheaper, allowing greater utility of food resources. Cattle was the primary meat provider, even when sheep outnumbered cattle, and older animals predominated, especially in later periods, or to have been used for other products like wool, milk, or eggs, especially sheep/goat and some cattle and domestic fowl. Some cattle and all the pigs were slaughtered around the best time for meat yield, so a range of choices can be seen to be made about meat quality, although the joints or portions of the animals being used seems to focus on the less meaty and lower quality. This food also seems to have been

supplemented by domestic fowl, goose, and duck, with some wild species, especially deer, rabbit, and hare, as well as some wild birds, providing a very small but consistent element of the diet. Fish resources were less prevalent than expected, but where they were present marine and coastal resources were more prevalent than riverine. What seems apparent is that although food was a key part of the hospital provision it may have been highly reliant upon the finances of the individual institutions or the ability of the hospital to provide its own meat, hence the consumption of older sheep who may have been part of the hospital's wool flock first as a means of financial support.

Other Hospital Assemblages

At St Giles, Brompton Bridge, the animal bone assemblage suggests a self-sufficient unit, with very little to differentiate it from the later post-medieval farm, but given the presence of the home farm and the rural character of the hospital this is not entirely surprising (Cardwell 1995, 239). All three main domesticates were present, i.e. cattle, sheep, and pig, and although animal bone was found across the site the largest concentrations were from the mid-13th to the late 15th centuries in Area 4, possibly relating to an increased domestic presence near the chapel with the introduction of the guesthouse or master's house (Fig. 6.5) (Stallibrass and Locker 1995, 220). Unfortunately, out of 2,063 bones relating to the medieval period the Minimum Number of Individuals (M. N. I.) were only 14 sheep, 8 cattle, and five pigs, for a period of around 300 years, indicating that either the majority of

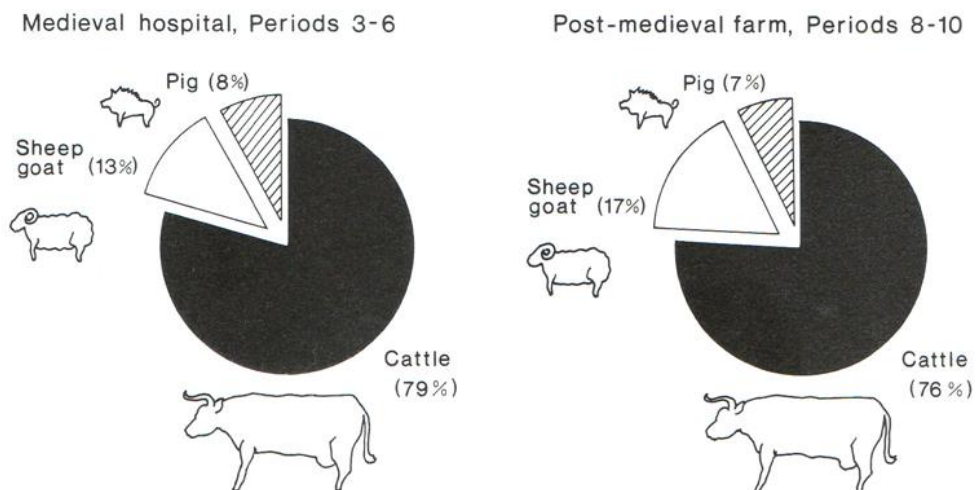


Figure 6. 5: The estimated contribution of meat to the diet of St Giles, Brompton Bridge, by species, comparing cattle, sheep/goat, and pig. On the left is the hospital period, and on the right the post-medieval farm. Cattle was the dominant species, providing over three quarters of all meat (Cardwell 1995, 220, Illus. 53). Reproduced with permission of Taylor and Francis and the Royal Archaeological Institute <https://www.tandfonline.com/loi/raij20>

organic refuse was deposited outside the excavation area or that meat was rarely eaten during the hospital periods (Stallibrass and Locker 1995, 221). The percentage of fragments for cattle and sheep were similar, 23 percent and 19 percent respectively, with pig making up 6 percent, whilst of the other species birds were the most common, including pigeon, domestic fowl, and goose, and horse and dog bones were also present (Stallibrass and Locker 1995, 220). All parts of the body were present, other than the smallest ones, possibly due to preservation and recovery biases. Ageing data was limited but a variety of ages were present from new-born to adult, and suggesting that the animals were raised on site (Stallibrass and Locker 1995, 220–1). Fragmentation was high, with half the material retaining 25 percent or less of its original length, but this was observed in the hospital phases and the post-medieval farm period (Stallibrass 1993, 5).

Of the wild game there was no deer present, and only 3 bones each of hare and rabbit. Given that the majority of rabbits were privately owned for luxury consumption, their presence may represent a gift by a benefactor (Stallibrass and Locker 1995, 222). It was unknown if the duck and geese bone was wild or domestic, but the main elements recovered were associated with the wings (Stallibrass and Locker 1995, 222). This may be indicative of disposal bias when trimming the carcass, or the use of goose wings for brushes or feathers for quills, since the pigeon and chicken bones did not see this same bias of disposal. The pigeon bones recovered ranged in age from very young to almost adult, and nearly all were from the later periods of Area 4, especially in the area of the structure interpreted as a dovecote (Stallibrass and Locker 1995, 222). The wild bird bones, such as those of thrush, sparrow-sized birds, jackdaws, crows, and ravens, may have been consumed as a supplement to the main avian sources or have been wild and scavenging locally, although there was a strange lack of indicators of having been eaten by cats, dogs, or foxes, and there were strangely no cat bones found at all. A very small sample of fish bone was recovered, and despite being next to the River Swale only a few freshwater species were recovered, such as eel, salmonids, dace, bullhead, and perch (Stallibrass and Locker 1995, 222). The majority of the fish appear to have been cod and other fish from the cod family, as well as haddock, with some ray, roker, and herring, possibly indicating salted, smoked, or dried fish from North Sea fishing ports like Hartlepool and Scarborough (Stallibrass and Locker 1995, 222). Eggshells of domestic fowl were recovered, being particularly numerous in Period 5, whilst three species of edible marine mollusc, oyster, cockle, and mussel, were recorded from all periods but especially Periods 5 and 6 (Mills and

O'Connor 1995, 224). The marine and bird shell were found in areas associated with domestic activity, suggesting the shells were disposed of as part of food preparation.

The assemblage from St Giles resembles food refuse produced by a modest farming establishment that was providing its own supply of meat from domestic livestock. There was no suggestion of high status use or trade in meat, nor an indication of processing for industrial purposes, apart from perhaps the geese wings (Stallibrass and Locker 1995, 222). Bird and fish bones were relatively rare, despite being a religious institution next to a river, and apart from the abundance of fish at St Mary Ospringe, the assemblages were similar, as well as being similar to that of the deserted medieval village of Thrislington, County Durham (Stallibrass and Locker 1995, 223). Although a small sample, if these proportions were representative then it would indicate that cattle provided the vast majority of meat, and the contribution from birds, wild game and fish would have been small to minimal (Stallibrass and Locker 1995, 222). Butchery marks were observed on 12 percent of the bone collection, and 22 percent had gnawing, mainly from dogs and some small rodents. Although Stallibrass and Locker (1995, 224), conclude that the bone assemblage would not indicate the presence of a hospital at all, but rather a self-sufficient farming establishment, such as the later post-medieval farm, there are some similarities in the limited evidence to other hospitals, especially St Mary, Ospringe and St Bartholomew, Bristol.

The animal bone assemblage from St Nicholas Hospital, Lewes, was mostly recovered from one quarry pit, Quarry 7 in Area B, dating from around 1200 to the late 13th century. Much of the material was highly fragmented and unweathered, indicating it was deposited rapidly, and with some fragments showing signs of burning and gnawing (Browne 2010a, 37). Only one context of the quarry pit, context 10, was given a detailed quantification, although it was taken as indicative of the other contexts. Of 871 fragments examined 346 (40 percent) were identifiable to species, and another 350 were vertebrae and ribs, with the final 85 fragments coming from long-bones of large and medium sized animals i.e. cattle- and sheep/goat-sized mammals (Browne 2010a, 37). The assemblage was mostly cattle, pig, and sheep/goat, with 82 percent of the bones, including a few of the fowl bones, bearing butchery marks of the types associated with food preparation, such as the removal of extremities, separation of hind legs from the pelvis, and jointing of the upper legs (Browne 2010a, 37). Several mandibles were chopped at the ramus or corpus, many ribs and vertebrae had also been purposefully chopped and broken, and a number of crania and sheep/goat vertebrae were split down their midline.

That elements of all parts of the skeletons of cattle, pig, and sheep/goat were found on site suggests that carcasses were butchered on or very near the site (Browne 2010a, 37). The cattle bones indicate at least 3 adults and two calves were present, whilst the jaws of at least one mature sow and five immature pigs and longbones for four others, including a new-born piglet and a foetus (Browne 2010a, 37). The sheep/goat mandibles were from six adult and three immature animals, two of which were very young, and distal humeri indicate another 20 animals that were at least partially skeletally mature (Browne 2010a, 37). Horn cores attached to cranial fragments were all from sheep, and the only separated horn core that had been sawn off was from a goat, and may have been brought in from outside the site. The variation in longbones may suggest that some goats were present on site or that the bones were from both sexes and from at least two genetically distinct flocks of sheep (Browne 2010a, 37). The horse bones found were all adult limb bones of horses the size of New Forest ponies, whilst a distal portion of a fallow deer was also recovered (Browne 2010a, 38). Both the horse and deer bones had butchery marks, indicating they were from food preparation waste, as were some adult hare bones. The presence of cat bones may indicate the animals use to reduce the presence of vermin on the hospital site (Browne 2010a, 38). There were bones representing four adult and two immature fowl, of a size similar or slightly larger than jungle fowl, as well as a number of geese bones, some of which may have been from wild species as well as domesticated ones (Browne 2010a, 38).

One of the contexts in the quarry pit was sampled, and 504.2g of fish bone was recovered, heavily fragmented and with no intact head bones (Browne 2010b). Roker, eel, fish from the herring family, cod and other Gadidae, haddock, tub gurnard, thick-lipped grey mullet, mackerel, and flatfish were all recovered. The eel was netted or trapped in rivers and lakes nearby to Lewes, but otherwise there was a general absence of freshwater fish, especially given the pseudo-monastic nature of the site (Browne 2010b, 38). All the other species are marine fish, that would have been caught inshore (Browne 2010b, 38). Grey mullet favours estuaries and sandy bays, and tub gurnard and flatfish also favouring shallow waters. Herring and mackerel, although usually deep-water fish, do move into shallower waters seasonally, and so could have been caught locally. The non-local fish were the cod and haddock, both of which favour deep water, and were frequently caught off the east coast and salted or dried and then distributed along extensive trade routes. A selective sample of the mollusc shells from the quarry pit was also carried out, where the majority of the assemblage were oyster and mussel shells, although winkle, saddle oyster, and carpet shell

were also recovered from the medieval contexts (Somerville 2010, 38). The oysters appear to be on average larger (average range 7.7-8.2cm) than the supposed average for the medieval period (6.4cm), and analysis of the age of the oysters suggests that harvesting and sale was based on length, not age, since the data revealed a skewed population with a long tail of older shells (Somerville 2010, 39). There was limited evidence for infestation in the shells of the oysters, and “taken with the good size of the oysters, does indicate that, in this aspect of their diet, the inhabitants of the Lewes Hospital site were well provided for” (Somerville 2010, 39). A small sample of mussels were recovered from two of the medieval contexts, and were smaller than modern commercial mussels (Somerville 2010, 39). Since mussel shell rarely survives archaeologically there is little to compare it with (Somerville 2010, 39, 41).

Despite the numerical superiority of sheep/goat bones in the assemblage cattle would have provided the majority of meat (Browne 2010a, 38), a continuing trend in the hospital assemblages. The presence of butchered horse on a hospital site is very interesting given that it is often assumed that horse meat was low-status and often fed to dogs (Browne 2010a, 38). Poultry was an element of the diet, as were the eggs they produced, since eggshell was also found on site, as well as their meat, whilst the presence of wild species of animal, as well as possible wild greylag goose, raises the question of whether these animals were to supplement the diet of the inmates or were meant for the table of the ecclesiastics (Browne 2010a, 28, 38). The fish bone evidence indicates clear links to the coast and marine fishing sources, and could perhaps be coupled to the evidence from the marine molluscs which suggest a relatively wealthy site acquiring larger and healthier specimens than the nearby friary and priory (Somerville 2010, 41). Significant elements of this assessment of the animal remains seems to match conclusions from other sites, especially in terms of fragmentation, the reliance on cattle for meat, the exploitation of marine rather than freshwater fish, and the similarity in bird and wild species exploited. That being said, the limited scope of the material and the focus on just a few contexts raises questions of how representative this analysis is for the whole site, especially given that much of the hospital precinct was not excavated.

Excavations at St Saviour’s, Bury St Edmunds, recovered 1,162 animal bones from all three phases of the hospital (Baxter 1997, 84). A horse hoof bone, some cattle bones, and some duck wing bone fragments were recovered from the earliest phase of the hospital, dating to the late 12th century. The majority of the medieval animal bone came from the 13th to

14th century, particularly in the area of the fishpond. The relative frequency of cattle and sheep/goat bone fragments was the same for the medieval period, around 15.5 percent, but the larger number of large mammal fragments indicates that cattle was under-represented (Baxter 1997, 85). The larger size of the cattle also results in greater fragmentation during butchery and other taphonomic processes, although interestingly the post-medieval period saw a larger amount of fragmentation. As such, cattle would have provided the majority of meat, supplemented in the main by sheep/goat, but with pig also accounting for just under 10 percent of the total fragments. Also observed in the medieval layers from the 13th to 15th centuries was domestic fowl and goose, but no duck (Baxter 1997, 85 Table 18). The cattle on site seem to have averaged between 18 months and 3 years at time of death, indicating the butchery for prime beef (Baxter 1997, 85–6). The majority of the sheep/goat bones appear to have been sheep, although very low-level presence of goat is possible (Baxter 1997, 86). Where the sex of the sheep could be interpreted, three females and one male or wether (castrated) were seen, and the age of the sheep seem to suggest that wool production was the primary focus.

The pigs, aged roughly between 1 and 2 years at death, seem to have been kept and slaughtered on or near the site since the number of mandibles recovered was significantly higher than in the post-medieval period (Baxter 1997, 86). Domestic fowl remains made up over a third of the bird bone fragments recovered in the medieval period, almost all of which were smaller bantam-sized birds (Baxter 1997, 87). Goose accounted for 50 percent of the medieval bird assemblage, significantly higher than the 21 percent from the post-medieval period (Baxter 1997, 87). In the 13th to 14th centuries contexts there was twice the amount of goose bone when compared to domestic fowl, although some are suggested to have been from wild species as well as domestic. The finds from the fishpond suggest that beef shin was the favoured joint, followed by shank and trotter of mutton, and sheep metapodials are more present on site than cattle, but there was no sign of skinning on site (Baxter 1997, 87–8). Mandibles were the most prevalent pig bones, possibly as a result of boiling or stewing the heads, followed by hand and spring of pork or forehock of bacon. Meat in the medieval period appears to have been a luxury and comprised of cheaper cuts, supplemented by domestic and wild goose and domestic fowl (Baxter 1997, 88). Over 200 oyster shells were recovered from the pond deposits, as were some cockle and mussel shell (Caruth and Anderson 1997, 94).

Excavations at St Bartholomew's Hospital, Oxford, recovered around 3,000 animal bone fragments, of which less than a quarter were identifiable (Hamilton 2013). Fragmentation was evident, although not all of it had been for the extraction of marrow or to allow easier boiling for soups and stews. The majority of the medieval bone was from sheep, with cattle making up a significant minority and pig and deer also present in small numbers. Ribs and skulls were under-represented, meaning that they were probably bringing in carcass pieces from off-site (Hamilton 2013). Butchery marks were evident on 23 percent of cattle bone, but lower proportions on the other species, both for dividing the carcass and also for the removal of meat. Cattle seems to have made up a higher proportion of the meat consumption in the medieval period compared to the later 19th-century farm, and given the larger nature of cattle would have provided the majority of the weight of meat. Bone survival was good, so the large number of unidentified bone was the result of fragmentation, which resulted in all the average fragment size in weight from the medieval period clustering around the 10g mark, whereas the 19th-century material was much more varied and seem more related to the initial size of the animal (see Hamilton 2013 Fig 3). Few of the medieval bones had been burnt, and there was gnawing on around 10 percent of the fragments, suggesting that food waste was not disposed of in sealed contexts immediately.

Discussion

In general, every hospital site where there were large enough animal bone assemblages to allow full analysis, showed the presence of all the main domesticates: cattle, sheep/goat, and pig. There was a generally similar pattern as to that seen in the initial three case studies, with cattle either being the main animal present or, given that a cattle carcass produced ten times the meat as a sheep carcass (Baxter 1997, 85), was by far the dominant source for meat. This seems to match wider trends during the medieval period (Albarella 1999, 868; Albarella 2005, 134), but the parity or slight dominance of sheep in terms of MNI at hospital sites may suggest a slight difference. Although some younger sheep were part of the assemblage, where age could be assessed, they were usually older, of the right age for wool exploitation. The evidence of them being consumed suggests either the purchase of cheaper mutton or the dual utilisation of flocks owned by the hospitals as a means of both making money and feeding the community, especially as the wool trade became more important from the mid-14th century with secular and monastic accounts noting flocks in the thousands (S. J. M. Davis 1997, 414–6; Grant 1988, 151).

Cattle in all archaeological contexts make up a far larger component of the excavated material (Grant 1988, 149). The cattle also seemed to have been of mixed ages, although there was a stronger correlation towards the age where they were primarily herded for meat, which seems to differ from the normal where there may be a slight trend towards older animals who had also provided traction (Grant 1988, 155; see Albarella 2005 for discussion on issues with this suggestion). Some sites also indicated that veal was being eaten, and the consumption of younger animals may either represent the food of the staff or possibly be one of the signs of diets intended to heal or reinvigorate the inmates, but veal seems to have become more common in the wealthier urban setting of the later medieval period (Albarella 2005, 136). Virtually all the pigs were between one and two years old, and were clearly for meat, and the butchery and presence of skull and mandibles possibly suggesting they were kept or slaughtered on site. Due to the lack of sexing at many of the sites it is unclear to what extent pigs were raised on site, but it does seem that the urban environment could be home to many pig producers as well as bringing them in from rural farms (Albarella 2005, 141–2). The exploitation of the animals at hospitals does seem to corroborate wider trends of pig being kept for meat, and sheep and cattle being used for meat after other useful lives (Grant 1988, 161), although perhaps to a lesser extent in the case of cattle.

There does seem to have been a trend towards poorer cuts of meat, such as the lower leg, ribs, and skull, and this goes counter to the nature of late medieval refuse dumping where little selection of joints is apparent overall in any of the later medieval settings (Albarella 2005, 137), indicating that the presence of poorer quality meat joints may be a better indicator of the kinds of food being consumed. Fragmentation was particularly prevalent, although in some cases it was similar to local evidence of animal exploitation, but this also hindered discussion of size and demography of the assemblage. However, evidence of burning on bones was rare. The analysis carried out at St Bartholomew's, Oxford, indicated that all the bones of the different species were broken down to the same sized fragments, and this may also be another avenue to examine, as this similarity would indicate purposeful processing for boiling and marrow extraction. This would have also allowed the removal of maximum nutrition from lower quality, bony, or older meat. The splitting of skulls and vertebrae, possibly for the removal of brawn and marrow, and to allow the boiling of bones, may also relate to standardised butchery practices occurring in urban settings, where the splitting of the complete carcass was an easy means of organising meat distribution across the urban population (Albarella 2005, 138). It should also be considered

that although in general urban sites had a higher level of diet, there were still plenty of the urban populace that were very poor and must have relied upon second-rate food, or could not afford a kitchen or quality food and survived on cheap 'fast food' (Albarella 2005, 140). Urban cooks could produce food of such low quality as necessitating legislation, such as the ordinances set out for the pastellers London in 1380 to stop the making of pasties of rabbit, geese, and offal, or the use of beef in venison pasties, indicating that although not clear evidence of wholesale corruption, sometimes other meats made their way into the urban diet. The presence of low quality meat or small amounts of other animals may just indicate usual practice for those with less available wealth.

The other typical species observed, where recovery was good enough, were poultry, and the exploitation of chicken and goose seems to match the general trend for the later medieval period, with chicken more prevalent at some sites and goose at others (Grant 1988, 163). There is a possibility that goose was more prevalent in urban settings, although the evidence is not conclusive, but may be supported by the assemblages at hospitals, where goose is slightly more common. Some fish, as well as shellfish, in particular oyster, were recovered, but it was not present at all sites, possibly due to recovery bias. However, extensive sampling at St Giles, Brompton Bridge, recovered little fish, especially freshwater fish. The consumption of freshwater fish appears to have been marketed as an elite activity, and their prices were often far above what would be expected, corroborating archaeological evidence that marine was exploited over the riverine (Grant 1988, 170). This may explain the use of marine fish resources, despite the fact that hospitals may have had some access, through their own fishponds or benefactors, to freshwater resources. Oysters and other marine molluscs were also a common food in the medieval period (Grant 1988, 173), archaeological recovery from hospital sites seems low or unrecorded. Wild, or semi-managed, species such as rabbit, hare, deer, and wild bird species, including goose and duck, as well as occasionally horse were also part of the diet. The exploitation of wild species may be one avenue for further work when examining diet, given the different species and even different portions of the carcass had different associations in dietary theory. Venison and other wild resources were utilised across medieval contexts, but not significantly and they would hardly have found their way onto a peasants table (Albarella 2005, 144). Given the small amounts of these wild resources at hospital sites they do not seem to have had the ability to reliably or consistently exploit wild or managed animals. The preserving of meat from all animals, such as smoking pork for bacon or salting beef and fish, may have been prevalent (Albarella 1999, 871), but in reality little from the hospital

remains can help with discussing how quickly the meat was used and whether it was preserved.

The Archaeobotanical and Other Environmental Evidence

Then environmental data from medieval hospitals has been one of the least utilised groups of evidence, despite the enormous potential for informing on the local environment, of key interest in assessing the presence of gardens and other contemplative areas. Excavations at the Hospital of the Holy Trinity, Soutra, Lothian and the Borders set out the justification for these approaches in the 1980s and 1990s (Moffat 1986; Moffat and Fulton 1988; Moffat et al. 1989), and sampling has occurred on a number of hospital sites. This evidence has been used to look for the types of medicinal plants used at the hospital sites or the kinds of plant food utilised, and although the wider environments are sometimes noted, this is often a secondary importance. Unfortunately, the evidence produced is often limited or has not been compared to other hospital sites. For example, freshly brewed ale would have been a major source of nutrients to many across medieval England, but despite jugs usually associated with beer consumption being found at St Mary Magdalen, Partney, no plant evidence for the brewing of beer was found, nor the brewhouse (Popescu 2010, 262). No environmental information was recovered from St Mary Ospringe, and in general the majority of sites that have any data is severely limited. Investigative techniques analysing the soil for the presence of haemoglobin were trialled at Holy Trinity, Soutra, with some success (Moffat and Fulton 1988). Haemoglobin was located in the soil filling the hospital drain, perhaps suggesting the practice of bleeding at the site. A similar analysis was attempted at St Giles, Brompton Bridge. Samples only found limited presence, all of which came from grave fills, in marked contrast to the amounts found at Soutra (Cardwell 1995, 238). There is some more extensive environmental evidence from three sites, St Giles, Brompton Bridge, St Saviour's, Bury St Edmunds, and a site that seems to be located within the precinct of St Nicholas, York. These indicate that more extensive archaeobotanical and environmental sampling on hospital sites can produce good results if the right contexts are available, but also the necessity for a full description of the recovered material. What will be needed in the future are more sites where extensive archaeobotanical and environmental remains can be located and examined.

The plant remains from St Mary Spital indicated that the hospital inhabitants "seem to have eaten a fairly mundane diet as far as fruit and vegetables are concerned, with no exotic fruit or spices" (A. Davis 1997, 238). Fig and blackberry/raspberry seeds were found

throughout the periods, as were apple seeds, although less frequent. Hazelnut shells were found in contexts from the early 13th century and from the late 13th to early 14th century, but not after (A. Davis 1997, 238). In general the diversity of food plants increased from 1300 onwards, with grape, plum, cherry, and strawberry appearing (A. Davis 1997, 238, 244). Also present were single cases of pea, fennel, and white mustard, all from contexts dating to the decades around 1300. From the foundation of the hospital until the middle of the 14th century, the vegetation appears to represent waste ground, with nettle beds, and standing water with muddy banks, as well as grazing animals (A. Davis 1997, 245). The period around 1300 also saw plants associated with disturbed ground, gardens, and summer crops, such as root vegetables and beans. There was also a lack of insects associated with humans in the environmental samples, suggesting that the area was kept relatively clean, in stark contrast to the post-medieval samples (Smith 1997, 247). The presence of high concentrations of parasite eggs in a third of the samples, as well as parasite eggs in all samples outside of graves, indicates there was a mild infestation of human whipworm and human roundworm in most individuals (de Rouffignac 1997, 247–8). At St Bartholomew, Bristol, fig was found in a courtyard deposit, dated c. 1250-80, just outside Building 7, as was the fruit of a whitebeam, the former indicating imported fruit, and the later either indicating a plant common in the vicinity of the hospital or possibly from the source of the stone paving used to create the courtyard path associated with the clay deposit (Jones 1998, 194).

The presence of pits for the storage and processing of cereal at St Mary Magdalen, Partney, suggests that the hospital was making extensive use of the fields around the hospital precinct (Popescu 2010, 262). Wheat was the main crop in evidence, and was well suited to the heavier boulder clays in the local area, but the level of processing on site is unclear (Fryer 2010, 250). Some may have been arriving from further afield already part-processed, with some arriving as prime grain. Although the soil samples from St Mary Magdalen, Colchester, contained some burnt cereal grain, mollusc shells, and fish and mammal bones, it was deemed too small to study further but typical of medieval urban sites (Murphy 2004, 150). At St Nicholas, Lewes, very few seeds were recovered from a sample of the quarry pit, but wheat, oats, broad or field bean, pea, common mallow, hairy or smooth tare, and cleavers were present (Hinton 2010, 41). Although the majority of the plants were edible, apart from the last three which are weeds common to fields or open spaces, there can be no conclusions made about diet. At St John the Evangelist, Castle Donington, pit 128, associated with a possible lead workshop, produced relatively large amounts of cereal,

dominated by wheat, with little chaff or weeds, indicating the material was produced from hearth waste or storage refuse rather than processing (Trott 2011, 5). The sample also included oat, barley, and rye, as well as what appear to be pea and field bean seeds, although they did not have intact testa or hilum so definite identification was not possible (Fryer 2011, 15). Weeds were scarce, with one possible grass fruit, and the rest being vetch or indeterminate legumes (Fryer 2011, 16). The mix of species suggest that wheat was the dominant crop, with the presence of the other seeds being contaminants or relicts of earlier crop regimes. The relative abundance of legumes parallels other medieval sites where it is assumed that they were grown to improve depleted soils as part of a scheme of crop rotation (Fryer 2011, 16).

A sample taken from below the infirmary chapel of St John the Evangelist, Burford, recovered charred plant material dating to the 12th to 13th century, predominated by free-threshing wheat, and some hulled barley and oats, the latter possibly present as a weed rather than as a crop (Thompson 2010, 18). One fragment of pea or bean was also found, as were a fragment of hazelnut shell, both representing some level of food exploitation (Thompson 2010, 18). Weed species present included orache, corn gromwell, runch, dock, black bindweed, vetch/wild pea, knotted hedge parsley, stinking mayweed, and sedge, indicating that the site was cultivating a range of soils, from the lighter calcareous loam favoured by gromwell, to the heavier clays of stinking mayweed and wetter areas favoured by sedge (Thompson 2010, 18). The overall lack of weeds indicate that the material represents processed sheaves of crop. Comparison to the grange of Abingdon Abbey at Cumnor shows marked similarities, indicating this was a relatively typical assemblage for the medieval period in the area, especially with the mix of rivet-type and bread-type wheat, the former more productive but producing inferior flour (Thompson 2010, 18). Environmental sampling in the vicinity of the chapel of St Bartholomew, Oxford, particularly Test Pit 1, may have evidence of a Roman or medieval corn drying kiln, with a mixed grain assemblage of wheat, barley, and oat, associated with oak and hazel wood and a large collection of large grassy field weeds and vetch (Alldritt 2013). Samples from two graves encountered at St Mary Magdalene, Clothall, included barley and traces of wheat and oat, whilst pit G82, located in the middle of the precinct and to the southwest of a latrine pit, also contained barley, with traces of wheat and oat (Martin 2009, 142). The presence of some germinated grains may have been from spoiling rather than associated with malting for beer. There was also an appreciable difference between the contexts sampled in relation to the ration of weed seeds to grain present, possibly explainable if the material

was mixed from several activities associated with crop processing and food preparation (Martin 2009, 142). The presence of stinking mayweed may tenuously suggest the exploitation of heavier soils, but otherwise the weeds were typical of cultivation in the area. Mollusc fauna indicates that in the area of the hospital itself were open country grassland (Rackham 2009).

At the first of the sites where extensive environmental sampling was carried out, St Giles, Brompton Bridge, the area to the west of the chapel in the domestic and work zone of the site, Area 3, had the most botanical evidence, 53 percent of the samples being accounted for by cereal and 10 percent chaff (Huntley 1995, 225–6). Only the four commonly grown cereals made up the identified cereal count, with the most abundant being bread wheat, accounting for 42 percent, and with a large amount of bread wheat chaff found in only a few contexts, it was probably locally grown and processed. Oat was the next most abundant, making up 37 percent of the identified grains, and floret bases indicate the presence of both wild and cultivated oat. Rye represented 14 percent of the identified grains, and much like the wheat and oat, large numbers of rachis internode fragments were recovered, suggesting local production. Although the rye may have been grown on its own, historically it was often grown as a maslin crop, mixed in with another cereal such as wheat, and the co-dominance on site and the presence of chaff fragments of both species may corroborate this (Huntley 1995, 226–7, 232). A small amount of barley was recovered, probably grown locally and used for animal feed, malted for beer, or ground for flour, and appeared to be mostly hulled barley, with only two grains identified as naked barley (Huntley 1995, 227). A small amount of seeds of other economic plants were found, notably peas and Celtic beans, but as legumes were picked after they had dried naturally they did not require the use of a fire and so preservation was limited (Huntley 1995, 227). Small legumes were also present, particularly common vetch, a plant introduced to Britain as a fodder crop in the early 13th century, and fed unthreshed to horses and threshed to working cattle. They were also grown in conjunction with cereal, in a manner similar to some pea cultivation, and known as bullimong or brotcorn, and this may explain their presence at St Giles (Huntley 1995, 227). Flax seeds were found in small numbers, and could have been processed to provide linen and linseed oil, both useful in a hospital setting, and possibly grew locally naturally.

Several species of herbs were found in the Brompton samples, including dill, flax, and henbane (Cardwell 1995, 238). All these plants were included as medicinal ingredients in a

range of medieval herbals, such as the use of henbane for toothache, but since they also had other uses and occurred naturally in the surrounding vegetation, it is not clear whether they were intentionally gathered or not. Their presence in small numbers suggest it was not widely utilised by humans on site, if at all, and other Ruderal species, such as nettles, burdock, thistle, dock, dead nettles, speedwells, and nipplewort, indicate manure heaps, rank waste ground, and recently abandoned cultivation (Huntley 1995, 228). One of the plants found which was not native to Britain was dill, used during the medieval period as a charm against witchcraft but more importantly forming an oil extract thought to be a stimulant, with aromatic, carminative, and stomachic properties, and possibly a plant used for its medicinal qualities (Huntley 1995, 227). The presence of heather and crowberry suggest the utilisation of the nearby moorland, and commonly are used for bedding, thatching, or as kindling (Huntley 1995, 228). Cherry and damson were also recovered, but in very small numbers, as were hazelnuts, and the seeds of sloes, elderberry, blackberry, rowan, and apple/pear, representing the utilisation of trees, woodland, and shrubs planted or growing in the vicinity by the local community for food products (Huntley 1995, 227–8). Thorns from roses and blackthorns were also found, either indicating scrub thickets or hedges in the area or possible remnants of threshing flails as noted from documentary evidence. Other ground taxa include sedges, kingcup, ragged robin, and spikerush, indicative of herb-rich wet fen meadows. Their presence in the carbonised record is unusual but may indicate some of these plants being used for hay or bedding (Huntley 1995, 228). Of the charcoal at St Giles the majority were from trees typical of the area, including oak, ash, hazel, alder, birch, heather, and possibly gorse, suggesting it was locally sourced (Huntley 1995, 226).

Analysis of the Brompton samples indicate that this assemblage reflects cereal processing on site throughout the period of the hospital, but the low number of seeds from layers demonstrate that floors were kept clean (Huntley 1995, 230). The majority of mid-13th to late-14th-century contexts included few plant remains, and in Area 4 near the rebuilt chapel only one contained various taxa, predominantly rye, wheat, and barley. Pit 315 in Area 2 was backfilled and contained a moderate amount of cereal and weed taxa in the top fill but considerable numbers of seeds from numerous taxa in the lower fill, particularly bread wheat, rye, and oat, and chaff of rye and bread wheat. This indicates that this was probably not a storage pit, but reflects burnt rubbish associated with the destruction of a nearby timber hall (Huntley 1995, 230–1). During the 14th century, Area 4, where the guesthouse or master's house was constructed, did not produce any distinctive botanical evidence,

other than small grasses from a lead smelting furnace, either deliberately disposed of or used as kindling (Huntley 1995, 231). Hearth 715 in Area 3 was the only notable feature, with large quantities of oats, as well as wheat grain and chaff and a small amount of barley recovered, suggesting the use of large amounts of oats in the nearby area, probably in food preparation.

The 15th century contained a particular group in layer 715, associated with hearth 635, where large numbers of rye grain and bread wheat were recovered with little chaff, as well as a large amount of heather twigs, possibly indicating an area where cereal was being dried before milling or storage, with the heather used as kindling (Huntley 1995, 231). Pollen analysis indicated that the local vegetation was relatively open, comprising damp to wet grassland, with tree pollen less abundant, indicating that there was some separation from woodland (Huntley 1995, 232). Although many of the local plants do include those mentioned in herbals as medicinal plants, such as henbane and flax, the concentrations were relatively low and so could just reflect natural local plant growth, especially as many of them occur naturally in the disturbed ground regularly associated with long term human occupation. Areas 2 and 3 were the main locations for cereal use, but only in a restricted number of contexts and mostly from the 14th-15th centuries, whilst Area 4, the chapel area, had virtually no plant material recovered for all periods (Huntley 1995, 232). Although much of the material was not concentrated the samples did indicate that cereals were present for all periods, and interestingly the botanical evidence also did not show any major difference when the hospital turned into a farm, except perhaps that the post-medieval period may be under-represented in terms of volume of material analysed, and with one third the seed concentrations (Huntley 1995, 232).

Samples dating to the 12th- to 13th-centuries from the fishpond at St Saviour's, Bury St Edmunds, recovered small amounts of barley and wheat grain, as well as seeds of *Brassica* sp. (cabbage/mustard/turnip), bramble, and elderflower, although these may have been from local flora (Fryer and Murphy 1997, 88–89). Also recovered were a low to medium density of weed seeds, such as the segetal weeds corn cockle, stinking mayweed, parsley piert, orache, cornflower, fat hen, black bindweed, cranesbill, indeterminate grasses, nipple wort, hawkbit, poppy, knotgrass, wild radish, wild mignonette, dock, black nightshade, campion, common sowthistle, chickweed, stinging nettle, small nettle, vetch, and pansy. A few ruderal species were recovered, including hemlock, henbane, and silverweed, whilst a surprisingly limited amount of aquatic or wetland species were also noted, including water

plantain, wild celery, sedge, rush, mint, buttercup, crowfoot, bur-reed, and horned pondweed. Other plant species noted from macrofossils included willow, bracken, and a range of indeterminate tree, bush, and moss species. The predominance of segetal species over aquatic or wetland was surprising given the pond location, although this may have been from cereal processing (Fryer and Murphy 1997, 89). Another suggestion or contributor may have been an open meadow or wild garden. Information from molluscs suggested that during the earliest period of the pond the water was flowing, and only later did the pond become still. Pollen samples from the pond indicate that the wider landscape was one of herb-rich grassland and waste ground, with oak and hazel growing closer to the buildings and hawthorn and sloe growing closer to the pond (Wiltshire 1997, 91, 93). Ferns were also present in all the samples. Cereals were grown and/or processed close to the pond, and the presence of flax may have been caused by the process of retting in water, although the evidence was not clear (Wiltshire 1997, 93). The arable weed pollen may have been caused by the dumping of plant refuse or derived from animal dung, and the presence of intestinal parasite eggs indicates that either animal or human faeces was finding its way into the pond. Later on the water level seems to have dropped and more marginal plants emerging, with willow and elder establishing themselves nearby, and the lack of pollen from aquatic plants suggests the water was fairly barren (Wiltshire 1997, 93). This implies the pond was managed and kept clear, possibly as a duckpond or watering hole for animals, rather than as a purely ornamental feature.

Excavations in what may have been the southwestern area of St Nicholas, York, located a possible oven and a series of ditches dating the hospital period (Evans 2003). From different sections of the possible oven environmental sampling found that the majority of the charcoal was oak, as well as hazel and willow/poplar, and modest amounts of cereal grain, including barley, oats, bread/club wheat, and brome grain (Evans 2003, 51, 53). Since all the grains had begun to germinate and sprout it seems this material had been burnt during the malting process, and provides good evidence for brewing practices on site. The oven may have been heated by peat, given the presence of heather root/basal twig, sedge nutlets, and herbaceous detritus, but the presence of charred lentil could not be explained. Backfill of a medieval barrel well nearby indicated taxa of neglected waste ground and marginal to woodland or scrub, such as cow parsley, stinging nettle, burdock, and hogweed (Evans 2003, 51–2). Elder and ash seed were found, as were parts of poplar/aspen and willow. Also present was a single burnt grain of bread wheat and a pod of woad, a highly unusual find for the later medieval period. Insect remains in the barrel indicate an occupied

area, but one not intensively occupied to allow the presence of semi-natural habitats. Samples from one of the large boundary ditches recovered evidence of food species, such as fig, apple, cherry, and plum, possibly originating from human faecal matter (Evans 2003, 53). Corncockle may also have originated from milled cereal foods, although cereal bran was not observed. A pea hilum seems to corroborate that cess was entering the ditch, since it is usually only observed in the best-preserved waterlogged cess-pits. The rest of the plants suggest a neglected waste ground close to a riverbank and hedgerows, with cow parsley, hemlock, weld or dyer's rocket, and woundwort.

Discussion

As noted above, the available evidence for diet and environment is slim and restricted to only a few sites where the quantity allows comparison. Some variation in the types of cereal present can be seen, although this mostly relates to nearby processes, such as the higher quantity of barley in the vicinity of an oven possibly used for malting at St Nicholas, York, or the signs of processing cereal in the yard area at St Giles, Brompton Bridge. Wheat does seem to be the most prevalent, although rarely observed alone, suggesting that hospital sites were making use of a wide range of grains. This may be caused by the more rural nature of some of these sites, meaning that they were processing the crops from the fields around them, rather than bringing in just what was needed for the community. It could be suggested that this use of all four cereal grains may also reflect a broader diet, or the use of differing grains for their associated health benefit. Again, just as with the zooarchaeological material, this may be an avenue that would reward further examination. Many of the sites also show that grain was not the only crop, with peas, beans, and vetch, either as a supplement to the diet or fodder for animals. Some possible medicinal herbs were found, for example at St Mary Spital or St Giles, Brompton Bridge, including henbane, dill, mustards, fennel, and mint, but these may have been naturally occurring or only utilised to a small degree. It is the question of exploitation that means much of the material recovered cannot be integrated with wider discussion. Whilst in several samples intestinal parasites were present, it also seems clear from plant and insect evidence that most areas were kept clear of waste or cess, implying an appreciation for cleanliness, as does the fact that where drains were located they either rarely had material to sample or if they did it was from later periods or was relatively sterile.

It is in the area of reconstructing the local environment that this material may be particularly helpful. In all cases where the sampling produced good results, the local

environments were shown to be relatively open, with water, trees or woodland, and scrub in close proximity. Fruits in very small quantities were another common occurrence, probably indicating the presence of orchards, especially apple, cherry, damson, and plum, and it seems that hawthorn, blackthorn, hazel, and elderflower were also common in the precincts or at least very close to the hospitals. The open grasses or disturbed ground that encouraged many of the species of weed may indicate sporadic cultivation or the purposeful creation of open but relatively untended spaces for wild flowers. It does not fit the pattern for more formal or maintained gardens associated with monasteries, but given the limited staffing and the inherently weakened nature of the majority of inmates, serious gardening may be too much to expect. Such areas could still contribute as areas for contemplation, and if following the case of St Saviour's, Bury St Edmunds, possibly with trees to provide shade. Many of the sites had access to water features, and although it is probable that they were not simple garden features but also acting as the home for fish or aquatic birds for the table, or as a source of water for the animals, but this also does not mean it could not have been an area of calm or relaxation. The care apparent in the lack of aquatic plant species at St Saviour's indicates that the water was intended to be open, even if the banks were left to be more overgrown and wild. Ultimately, more work is required to contextualise the manner in which archaeobotanical and environmental evidence can support discussion on diet, lifestyle, and environment. This brief examination of the material does highlight that there is great potential to work from, however, and there may already be some indicators about choices relating to diet and environment.

Hospitals, Diet, and the Environment

From these brief examinations of the available evidence some general points can be made concerning the environmental information. These observations serve as a starting point, highlighting the potential of a more developed examination of environmental and zooarchaeological material in relation to medieval hospitals. Unfortunately, the resolution of the archaeological data as it currently stands does not allow the breakdown of the material in a way that reflects the more zoned approach to space in the hospital precinct. In particular it is rarely possible to see any evidence of specific groups within the precinct, since in almost all cases the evidence provided came from rubbish pits, the source of which could not be ascertained. In the few cases where food remains were recovered from specific surfaces they were usually not in large enough quantities to provide a detailed

analysis or were discussed as part of a more generalised analysis. In many cases there was also selective analysis of specific contexts or the published reports were brief or generalised to phases rather than locations. This means that the discussion provided below rarely examines specific groups within the hospital, or even specific areas, since this was not always observable. As such, this examination should serve as the starting point of further detailed analysis of the material recovered from hospitals.

It is also possible that in many cases the nuanced approach may not be possible with the archaeological evidence. This chapter has served to indicate that important information is still available, especially in setting out the wider non-built environment of the hospital, such as gardens and water, as well as tie into the more generalised discussion about the nature of the food and drink consumed at hospital sites. By still examining the material, even if on a site-wide scale, it can serve to critique documentary sources and provide generalised trends of activity, even if specifics may be difficult to observe. These are still of vital importance to prove and define when examining the hospital as a non-natural environment, where areas of gardens and water can serve a multitude of purposes such as areas of contemplation, elements for cleaning, drainage, and cleansing, and as a source of fresh food. They can also begin to highlight the use possible use of food as medicine, the presence of medical treatments, in the form of residue analysis or archaeobotanical evidence, and the practical implementation of what has previously been more theoretical understandings of hospital medical practice. As such they also tie into the discussion on *intent* and *result* (see Chapter 3), with current scholarship aware of the potential impact of ideas such as non-natural theory, but as yet with no clear understanding of how this may have looked in reality. By bringing this information together it is clear that whilst the evidence can be limited or problematic, a more nuanced and sympathetic approach can add to the wider debate.

Some of the problems in the evidence can be seen in the similarities observed across sites, as well as the differences. Rural sites appear to have their home farms located close to their precincts and have more space for open areas, gardens, orchards, and fish ponds. This may have clear implications for the ability for these sites to maintain a higher level of consumption of fresh produce, as noted in relation to the possible presence of the home farm to just to the south of St Mary Magdalen, Partney (Popescu 2010, 261), or as can be seen at St Giles, Brompton Bridge, where earthworks suggest the farm was to the south on the ridgeline (Cardwell 1995). This would have allowed more regular access to eggs,

chicken, pigs, and geese, and possibly cattle. The Dissolution inventory of the contemporary foundation of the Maison Dieu at Dover listed livestock kept, including 1600 sheep, 119 cattle (including three milk cows), and 29 horses, as well as one boar, three sows, and 16 young hogs, with another 17 young hogs kept at Whitfield (Wall 1981, 261-2). Such a list may indicate the nature of the farm capacity supporting some of these hospitals, and it may have been that many of the hospitals discussed could maintain large enough flocks and herds to allow some level of self-sufficiency.

As the zooarchaeological evidence suggests, access to such foods may not have been as restricted at urban and suburban hospitals either, although some of the produce may have arrived preserved. The possibility of the preserving of meat at hospitals is supported by the quantities of salt that could be provided for inmates: an annual allowance of two bushels per person, given out once a year, was distributed at St Julian's Hospital, near St Albans (Popescu 2010, 262). At Sherburn salt was provided with meals involving fresh meat, eggs, or fish. Although the site produced little zooarchaeological or environmental evidence, some of the fired clay from St Mary Magdalen, Partney, indicates some may have been associated with the importation of salt to the site (Popescu 2010, 262). The more spacious, or at least less exclusive nature of, hospital precincts seems to have encouraged the keeping of livestock by most hospitals, and if so would have played a vital part of these institutions economy (Popescu 2010, 261). Indeed, it does seem highly suggestive that there was an element of planning in providing open space within the precinct, for cultivation, orchards, and the keeping of some livestock, which may also have provided space for inmates to contemplate and meditate on the world around them. It should also be pointed out that given some of the evidence the environment may not have always been pleasant, if the presence of human or animal faecal matter in some of the ditches and open water areas, or the possible suggestion of retting flax, a very noxious smelling process (Wiltshire 1997, 91), are indicative of the quality of some of the water features.

Whether the food was fresh or preserved, the material recovered from excavation in some way corroborates some of the historical sources. Documentary evidence from the hospital of Sherburn, near Durham, indicated that each inmate of the *leprosaria* was provided with a loaf of bread and a gallon of beer a day, meat three times a week, and fish 4 times a week, with seasonal provision of butter, eggs, cheese, apples, and beans, and milk was regularly provided apart from during the winter (Popescu 2010, 261). Beer was an important element of the diet in religious institutions, and the brewing of it seems to have

been under the control of the cellarer in monasteries, aided by assistants (Bond 1993, 69). Cider and wine were also consumed alongside beer, although beer was the staple, often produced on site in different strengths, such as *bona cervisia* and *debili cervisia*. Malted barley was a regular crop of monastic houses and sold for great profit, but the majority appears to have been used for beer-production on site. Documentary records suggest that a gallon of good beer and sometimes a gallon of weak beer were offered to corrodians supported at medieval hospitals (Bond 1993, 69). Whilst the quantities may not be visible in the archaeological record, there is evidence across the sites to suggest that all locations could have provided this level of food. The presence of apples may also relate to the production of cider, but so far there has been no evidence of wine archaeologically, apart from possible fruit wine.

Other approaches, such as stable isotopes may help unpick some of the choices being made about food and remove some of the reliance upon documentary sources. Understanding diet has long been seen as important to the study of the medieval period but stable isotopes have rarely been used widely, often focussing on specific sites or very specific questions, such as the use of marine foods or the age of weaning (Müldner and Richards 2005, 39). The diets of religious communities were initially strictly regulated through the number of meals and the types of food allowed, such as the rule of St Benedict, which prohibited the consumption of quadruped flesh except for the sick, a word that was often skilfully interpreted to bend the regulations (Grant 1988, 174; Müldner and Richards 2005, 41). Only horse was banned, although this clearly was not always adhered to at some of the hospital sites, but this also explains the diversification of food resources to include birds and fish. Grains and vegetables still made up the majority of the food consumed, but it must be borne in mind that, given the scathing attacks of writers such as Wireker and Gregory, these dietary restrictions were not always maintained in even highly religious communities (Grant 1988, 175). This meant that most of the more well-off religious communities could be expected to be eating diets similar to the wealthiest in secular society, although perhaps with closer observances of fast days. Isotopic analysis of burials from St Giles Hospital, Brompton Bridge, Austin Friary Warrington, and the mass grave from Towton, showed little variation, with nitrogen values suggesting a diet where plant protein was not as considerable as the historical documents suggest and where marine protein must have played a part since they are too high to be explained by the consumption of terrestrial herbivore protein alone (Müldner and Richards 2005, 42). The carbon values seem to argue against the significant presence of marine input and that the

majority were consuming a terrestrial C₃-based diet. The values for these three sites also differ from those encountered in the Wharram Percy population, but are similar to a late medieval monastic community in Western Flanders (Müldner and Richards 2005, 42).

What is also interesting is that there was little apparent variation between the different perceived social classes at the three sites. “No convincing case for social variation in diet can nevertheless be made by comparing isotopic data with archaeological and anthropological data”, and it was inconclusive whether gender or burial inside versus outside the church affected the results, although this may be worth further study (Müldner and Richards 2005, 42). Comparing the results with values from animal remains corroborates the suggestion that the variation seen in the human remains is related to dietary variation rather than social, regional, or diachronic fluctuations in the isotopic baselines for the food consumed, nor can the observed results be solely explained by extensive utilisation of a single high nitrogen food type, such as freshwater fish or pigs fed on animal products, but possibly a more balanced or varied approach (Müldner and Richards 2005, 44–5). The results do seem to reflect the impact of fasting on communities, and the resultant shift in the diets of later medieval society, some to more aquatic resources, but also possibly some, such as the residents of Wharram Percy, to the use of dairy products as a substitute for meat, which may explain the different isotope values. This also suggests that despite the continuing question over how good the diet was at medieval hospitals, the evidence from St Giles, Brompton Bridge, a not especially large or rich site, was that the diet was comparable to some of the wealthiest in the country.

Another potential avenue is the examination of food residues, such as those carried out in a preliminary study on pottery recovered at the Hospital of Santa Maria della Scala, Siena (Central Italy), indicating that in both pots and pans animal products, probably those from ruminants, had been cooked, as had some vegetal matter (Pecci and Grassi 2016). Given that many of the animals eaten in the medieval period were older, the meat would have been harder and required longer and/or several cooking episodes, sometimes with the mixing of boiling and roasting (Pecci and Grassi 2016, 191). In comparison with documentary sources from the site, it seems that some animal fats and lard were used as a condiment, as were oils and vinegars, and animal fats and vegetable oil were indeed noted in some of the archaeological samples. Also observed were vegetable waxes from some of the colanders, probably caused by the filtering of leafy vegetables that had previously been boiled. One of the colanders examined also contained animal product that may have been

from dairy products, such as to drain cheese. Furthermore, also present were residues of *Pinaceae*, and these may have resulted from the use of the colanders to filter pitch or resin, which were often ingredients in medicines for the wealthy (Pecci and Grassi 2016, 192).

Both the faunal evidence and archaeobotanical studies showed some similarities in the food types available and even hint at possible food preparation. Cattle provided the majority of meat, with mutton from flocks associated with the hospital farms and pigs that may have been kept on site or been brought in providing much of the rest. Bones were broken up, and although this may be related to butchery and taphonomic processes, the uniformity of size at St Bartholomew, Oxford, may just hint for the intentional breaking to extract marrow and boil to add nutrition to soups and stews. Domestic birds, fish, and marine molluscs, on current evidence, provided an important but secondary source of protein behind the three main domesticates. It is unclear what may be behind the differences seen between sites as to whether domestic goose or fowl were the dominant bird species, but this may be another element, similar to the overall quantity of sheep in relation to cattle, that may be associated with regionality. Marine fish seem to have been utilised far more widely than freshwater species, possibly highlighting the comparative difference in price, even for hospitals located next to rivers. Given the stable isotope evidence and the consistent under-representation of fish more generally on hospital sites, it may be that the relevant rubbish deposits have yet to be found. Either way, the choices on what fish were being consumed deserves further investigation. The consumption of wild species was a consistent but minor component of the overall animal bone assemblages. Their use may hint at selective diets, although the fairly consistent presence of deer, rabbit, hare, wild goose, and wild duck may argue against this.

Wheat was the dominant cereal grain, although there is the possibility that oat, rye, and barley were all utilised in some manner as part of the diet, and malting grains, especially barley, was probably carried out on site for the brewing of the different varieties of beer common on monastic sites. The presence of fruits may also have made small but important additions to the hospital diet for some residents, and the presence of apples may have been for the making of cider, although the extremely low numbers of seeds recovered makes any suggestion suspect. Other plants such as peas, beans, and vetch also indicate secondary foodstuffs and the production of foods for livestock. In some cases, the nature of the plant material produced indicates the clear farming function associated with hospital institutions, especially rural sites. Given the often-open nature of the sites, and the

quantity of disturbed and waste ground around the hospital precincts, this quasi-agrarian role may also be carried out to some extent in the more urban and suburban hospitals. The open garden spaces expected from medical ideas such as non-natural theory may also be spaces of cultivation to produce plants that could be food, medicine, or elements of a wilder, more natural environment. It is also highly likely, given the ideas of *intent* and *result* that with limited staff and a less mobile or able inmate community, the ability to maintain the garden may be lacking and areas would be left to turn to waste, where useful plants could be left to grow naturally alongside less useful weeds. Such an action could still provide a contemplative space, and given that some care was evident in the maintenance of drainage, ponds, and waterways, it cannot be assumed that care was not taken on other areas of open space.

The use of other scientific techniques, such as stable isotope or food residue analysis, may help to provide other sources of information on how to interpret the archaeological remains. The suggestion that plant material may be of less importance to the medieval diet than previously assumed may be highly significant in further scientific studies, as is the appreciation for how religious observance of food laws and customs will affect diet. The medieval hospital combines elements of monasticism where such observances would be common or usual, with the rules of the monastic infirmary, where food customs were eased to allow meat and other undesirable foods to aid recovery. Attempting to unpick how these issues combine will be of great importance, but on the preliminary information from St Giles, Brompton Bridge, the medieval hospital diet was not a poor diet, but one which could be compared favourably to other religious institutions. As such this would have provided a significant improvement to the usual diet of sufferers of leprosy, the poor, travelling pilgrims, the sick, or the infirm. Food residue analysis has highlighted the use of fats and oils for condiments, and suggested other ways in which food may be eaten. It has also highlighted, in the case of the colander used to filter pitch or resin, that items associated with food preparation could at the same time be items for the preparation of medicine, reinforcing the idea that in the medieval mind they were both very similar processes. In the end, although there are very few answers from this section, it has raised several key avenues for further work, and highlighted that a better understanding of the diet of the medieval hospital and the nature of the environment of the hospital precinct are of great importance for pushing forward debates about this institution.

7. Discussion and Conclusions

Conceptualising the Hospital

This thesis had the central aim of carrying out the first widespread synthesis of the archaeology of medieval hospitals in England and Wales in twenty years. It also aimed to assess the archaeological evidence of the hospital with the hypothesis that these were a planned religious precinct, focussed on quasi-monastic ideals influenced by social attitudes to charity, poverty, and piety, for which a conceptual framework would be in action to structure daily life through buildings and material culture. This research was supported by a broad and holistic approach to the archaeological material, attempting to collate and interrogate as much of the published evidence as possible. The principal focus was on the architectural layout (Chapters 3 and 4), supplemented with a survey of the material culture (Chapter 5), zooarchaeology, archaeobotany, and other scientific approaches (Chapter 6) that have been conducted on hospital material. Due to the sheer scale of the undertaking the cemetery material was not included, apart from the material culture, although this is a key avenue of future research, as will be discussed below. Previous work had also dealt significantly with regionalism and general distributions, especially Roberts (2007), but also studies like Bottomley (2002) and Cullum (1989) for Yorkshire, Orme and Webster (1995) for the southwest, and Sweetinburgh (2004) for Kent, have provided both vital new appreciations for the material but also serve to highlight some of the limitations.

The choice to focus on the architectural layout, material culture, fauna, and flora was with the express aim of tackling the quandary of an institution held to be quasi-monastic and structured by religious practice but which did not appear to have an underlying principal to the layout. This issue arose from the division of the hospital into a series of categories introduced early on in the scholarly discourse, particularly by Clay (1909), whose seminal work is still influential. This breaking apart of the idea of the hospital occurred before a solid grasp of several of the fundamentals, about what unified such a visibly disparate collection of sites, were understood. Only recently has this been countered in the historical arena, for example by Watson (2006) on the constitution of the English hospital, and Horden (2007) on the medical underpinnings of the hospital. This thesis was structured by an approach that sought to examine and understand what unified the concept of the medieval hospital, since without this any consideration of the variations had nothing with which to compare. This necessitated looking at the hospitals as a single dataset, as broad as

possible, to find the elements that provided the underlying conceptual framework upon which the layout and daily practice was laid.

The Hospital as a Redemptive Environment

The new approach this thesis has undertaken has provided evidence that the concepts of non-natural theory are applicable to the physical remains of the English medieval hospital. It has also highlighted the indivisibility of the physical and the spiritual, as well as the complex and often ambiguous identity the hospital inmates could hold. It has also shown the manner in which these ideals were articulated through the physical buildings that structured daily life, and begun to do the same with the other material evidence, where the data was available. By appreciating that the hospital held a position of redemption and salvation to those who lived there, the quasi-monastic elements become even more understandable. Any inmate, whether temporary or permanent, was seeking to cleanse the soul of any possible indicator of God's judgement, or to maintain a righteous lifestyle even when unable to live the full monastic routine. This appreciation may also help to explain the prevalence of dedications to St Mary the Blessed Virgin, St John the Baptist, and St Mary Magdalene noted by Roberts (2007, 253–5), three important redemptive saints closely associated with purity, transformation, and cleansing. As Krautheimer (1942) had noted, dedication was another way in which architectural copies could be associated, and the limited naming conventions for the majority of the medieval hospitals may reflect this tacit association with the creation and maintenance of a redemptive environment to counter negative emotion and influence.

Locating medieval hospitals on the edges of the town, such as at gates and on main roads, or along major transit routes, bridges, and at ports fulfilled a number of functions. It served as a mechanism for social display for the benefactors and the visibility could help the hospitals through the collection and provision of alms. Yet there is a paradoxical aspect to this location, being an important element in the townscape for display and wider visibility, but yet rarely physically central in the town geography. This liminality also related to the residents, being both religious and secular, and to the association with death, rebirth, and judgement, both as a place of burial but also as a location of cleansing and absolution. They also kept the elements of society that make up the hospital population outside the heart of the town, the lowest and potentially least desirable, such as lepers, the sick, travellers, and the idle or undeserving poor. These people would hold the greatest potential to corrupt those around them, both spiritually and physically, either through their afflictions, their

actions, judgement by association, or due to the fact that they were strangers and outsiders, dangerous unknown entities. By providing spiritual housing the hospital would separate out those worthy of support and care, the inmates, from those unworthy of care, those who would choose to live outside the hospital precinct. The hospital served to mix liminality with centrality in terms of geography but also function and symbolic message. It held apart undesirables and those deserving of pity, but by doing so included those residents into the deserving and righteous community of the area and highlighted those who were undeserving and worthy of suspicion. This paradoxical attitude to its location and residents also held to its relationship with the world outside the hospital precinct, being a means of segregation and protection between the outside and inside, but also requiring and open to people crossing that boundary, be they residents, guests, benefactors, or passers-by.

As such, the provision at most hospitals before the 15th century of guest quarters, even at leprosy hospitals, provided spiritually safe housing for religious travellers and separated out these outsiders from other, more unknown entities. Indeed, the assumption that the leprosy hospital was more dangerous or unwanted than the other types is easy to overemphasise, especially given the noted ambiguity of their identity (Rawcliffe 2001; Rawcliffe 2006). The rules and statutes of these sites provide numerous indications that the sanctity of the precinct was of grave importance, but that it was the inmates, of all types, be they leprosy or poor, who were the main worry of disrupting the community. If the aim was simply segregating the worst social ills for the rest of the town then the focus on the purity of the inmate would be counterproductive. By strictly controlling who could be admitted, the hospital authorities attempted to ensure the best possible community; the medieval hospital was a mechanism that actively segregated those who wished to be cleansed and kept out those simply looking for a meal and a bed.

Examining the medieval hospital from this perspective of redemptive medical and religious practice indicates that those who chose to enter the hospital and were admitted should be rightly termed inmates. They were voluntarily paying penance for perceived or potential sins of the soul, and for the elderly, leprosy, or infirm, who were more likely to be permanent members of a hospital community, to have the best chance for a good death, free of sin and without the fear of judgement. Thus, the role of prayer in the daily routine was of central importance for the hospital, both financially, but also conceptionally, since it was through prayer that the penance was paid and thanks given, not just to the founders and benefactors, but also to God. By the inmates gaining this purity through their voluntary

submission to the lifestyle the founders gained truly pious prayers of the poor to aid their soul, making sure that the prayers would have the efficacy expected if the poor were to hold the keys to heaven.

As such the roles of the master, as the means of maintaining the purity of the community, and the priests of the chapel and other elements of the religious community were critical to the operation of the site, and so should be clearly emphasised in its layout and the material remains. The inmates were obviously important, and much of the reason for the charitable provision during the medieval period was clearly concerned with providing them with food, shelter, warmth, and cleanliness, in line with the Seven Comfortable Acts of Christ. Their position in the hospital regimen would hold a secondary importance, however, to the overall sanctity of the environment. Thus, the chapel would serve as the central focus, with staff areas in close association, the infirmary close by, and other service areas beyond that in a diminishing sphere of conceptual importance.

It is also clear that this theoretical approach to the function of the medieval hospital reflects the *intent* of the site, not necessarily the *result*. The numerous stories of corruption or abuse at hospital sites, such as Peter the Taverner at St Mary Bethlehem, London, or Joan Fulwyth living in sin in St Thomas Southwark (Carlin 1989; Rawcliffe 1984), the rise and fall of benefaction (Roberts 2007, 22–54) and the conversion of some these sites to monasteries or chantries, such as Wymondley Priory (Burleigh *et al.* 1989), highlight that the benefits associated with these sites did not always materialise or were deemed as important as other choices to be made in the spiritual economy. The increasing care provided for the deserving poor and infirm also highlights that this group eventually came to be seen as the most important to support, possibly due to lower costs, fewer issues over admission, and the increased chance that those voluntarily joining the hospital were fully invested in the nature of the community. It may also reflect a growing concern over vagrancy and idle workers after the population crash of the 14th century (McIntosh 2012).

Structuring Space in the Medieval Hospital

It is clear that the physical layouts of medieval hospitals in England and Wales were not identical. Sites did not always have clear cloisters, and not all infirmaries were directly attached to the chapels. It was also clear that of the few definite and potential leprosy hospitals excavated, none showed the potential layout suggested to be based on St

Nicholas, Harbledown, of individual dwellings around a chapel (as suggested by Clay 1909; Leistikow 1967; Prescott 1992), but instead looked similar to other hospitals which were also located in similar positions outside of towns. There was a noticeable structure to the way that space was utilised, as it was in all hospitals. This organisation focussed on associations of use and social groups, locating activities and people in relation to the most important building of the site: the chapel. It is clear that this building was the most important, not only from its location in the most religiously significant position, but also through the extra care and money invested in the building. It was the building most likely to contain painted window glass and wall plaster, in all cases it appears to have been constructed with the most expensive roofing and wall material, as would be expected for the focus of religious activity on site. On many sites the chapel was also located close to staff quarters and guest ranges, usually to the north, whilst the infirmary halls would be located either to the west, or northwest, of the staff area. Rather than locating the majority of the main activity to the south of the chapel, as was usual at a typical male monastic site, the focus of activity was located to the north and west, more in keeping with traditions at nunneries and mixed houses where northern cloisters were also located (Gilchrist 1994). Closes or courtyards were regularly associated with this northern and western focus and the material culture, zooarchaeological, and environmental evidence all suggest the northern and western areas were the location of domestic and living activity.

At St Mary Spital this was clearly demonstrated by the positioning of the religious canons' cloister to the north of the chapel, and the location of the canons' infirmary to the northeast, whilst to the northwest was another courtyard around the Sisters' Garden, comprising the domestic areas for the female servants, the infirmary, the stable and workshops, and potential storage and lay-brethren range, clearly separated from the eastern range by the kitchen (Thomas *et al.* 1997). Whilst this is the largest and clearest example, a similar double arrangement can be seen at St Mary Ospringe and St Bartholomew, Bristol (Price and Ponsford 1998; Smith 1979). A similar separation between the religious to the east and the domestic and inmates to the west is seen at St Giles, Brompton Bridge (Cardwell 1995), St Mary in the Horsefair, York (Richards *et al.* 1989), and potentially at St Mary Magdalen, Partney (Atkins and Popescu 2010), whilst a more south-north division is evidenced at St Mary Magdalen, Winchester (Roffey 2012; Roffey and Marter 2014), and St Mary Magdalen, Colchester (Crossan 2004). A number of sites only had one cloister or courtyard, such as St Giles, Norwich (Rawcliffe 1999), Browne's Hospital, Stamford (Hill and Rogers 2013), St John the Baptist, Oxford (Durham 1991), St Mary,

Strood (Harrison 1969), or St Saviour, Bury St Edmunds (Caruth and Anderson 1997), but again the area to the east seems to have been repeatedly associated with the male staff, the west with the infirmary, and the northwest with domestic functions and any female servants. In nearly all cases where there was enough evidence to judge the wider layout, domestic activities were located to the west and north of the chapel.

This clearly argues for a planned intent to locate the majority of the hospital activity to the north of the chapel, with more religious and elite activity located directly to the north or northeast of the chapel, and secular or low status individuals to the west and northwest. This would create a hierarchy of space, embedding symbolically a social order into the physical fabric of the site. This hierarchy was evident in the different materials and construction methods for the varying buildings, with the purely domestic often smaller and constructed of sleeper walls or with purely from timber. At several sites, such as St Giles, Brompton Bridge (Cardwell 1995), the nature of many of these buildings were difficult to untangle due to the multiple phases of ephemeral structures that overlay and cut each other, whilst the development of the chapel was better understood, despite four phases of rebuilding or renovation, due to the larger and more permanent structural elements. After the chapel the buildings associated with the religious staff appear to have had the most expense spent upon them, although the number of these buildings that have been excavated is limited. However, the presence of decorated tiles in the canons' cloister at St Mary Spital (Thomas *et al.* 1997), the water pipe leading to and from the western building that was only observed as an eastern wall at St Bartholomew, Bristol (Price and Ponsford. 1998), the presence of a possible garderobe in the hall north of the chapel at St Giles, Brompton Bridge (Cardwell 1995), and the quality of the possible *camera* and presence of decorated tiles to the north of the chapel of St Mary Ospringe (Smith 1979), all support this suggestion.

The infirmary was the next most important building, constructed to a better standard than the domestic ranges, but still with beaten earth floors, and, if present, simple plain plastering. This potentially represents the social and religious difference in status between the activities of the chapel and the inmates, and it appears that this division was visually defined and clarified through poorer construction and more limited decoration, especially where infirmaries were separate from the chapel. The prevalence of the linear form of chapel and infirmary hall suggests that this was also a popular form, especially seen in many of the hospitals that survived the Reformation and stayed in use, such as St Giles, Norwich (Rawcliffe 1999), Browne's Hospital, Stamford (Hill and Rogers 2013), St John the

Baptist, Bath (Manco 1998), and St John the Evangelist, Sherburn (Ryder 2001). The archaeological evidence indicates that despite the suggestions of some earlier literature (Prescott 1992), the occurrence of the so-called 'linear hall' was actually the exception, and that attached infirmaries could be relocated away from the chapel, as happened at St Mary Spital (Thomas *et al.* 1997), and St Mary, Strood (Harrison 1969). The infirmary seems to have been regularly located between the chapel and the domestic ranges, very similar to the layout of the monastery, with the dormitory located in the eastern range between the chancel and the rest of the cloister. This is both a very functional layout, to ease access to the different areas of the site, but could also be argued to be more symbolic, locating those in the dormitory between the spiritual and physical world. This would add even more symbolism to the difference in building materials, and reinforces the importance in recovery and understanding of the material culture of buildings to aid in the appraisal of relative status on a site.

Hospitality for the Living

The artefactual evidence from hospital excavations also highlights the pivotal role of hospitality to the functioning of site. The most common material culture recovered were ceramics and animal bone, reflecting the central daily task of feeding a community who may not always be able to feed themselves. From the evidence reviewed in this thesis, it is not quite clear whether jugs were typically more prevalent on hospital sites than cooking pots, and whether or not this was associated with wider trends in medieval society, but a large number of jugs would have been necessary to provide water, beer, and possibly even food for a large number of people, many of whom may have been bed-ridden. In some cases, there was clear evidence for a refectory, such as at St Bartholomew, Bristol, but the vast majority of sites do not appear to have had one.

This indicates the majority of meals were eaten in the infirmary, and the sheer logistics of serving and transporting meals is something that has received little consideration in previous studies. In the case of St Mary Spital, for example, the kitchen was separate from the infirmary building, necessitating the mass transferral of meals for up to 180 inmates twice a day, with only six female servants being noted as caring for the residents (Thomas *et al.* 1997, 105–6). One possibility is the majority of food was soups and stews supplemented by bread then jugs may have been useful for transporting the food. There were a few sites where cooking pots dominated the early periods of the hospital, such as St

Mary Magdalen, Colchester, and each of these sites were associated with lepers during the same period, possibly suggesting there was a difference to the manner of cooking taking place. Further excavations are required before this trend can be looked at further, but there seems to be a great deal of potential in the future for examining consumption trends to look for distinctive patterns.

One of the few distinctive pottery assemblages recovered that is suggestive of specialised changes to the diet of the residents was from St Mary Spital, London. The use of small ceramic ladles for cooking, which are very rarely found on other sites, may indicate the preparation of particular portions of food or medicine for specific people, something to be expected if these institutions were providing the limited physical medical practice implied by non-natural theory (Horden 2007), such as changes to diet and daily routine, and occasional medicines. A further defining characteristic of many hospital ceramic assemblages is that these institutions maintained and used older or out of date pottery forms and fabrics, especially amongst the coarsewares. There were a few imports on most sites, either from the region or Continental Europe, and with the exception of Saintonge ware, when these were present they were usually from the 14th- and 15th-century phases. These coarsewares and out of date fabrics were usually more robust but also probably cheaper, both of considerable utility in a medieval hospital where income was not always plentiful. These fabrics may also have played to the sentiment of poverty at these quasi-monastic institutions, with a visible humility expressed through the use of plain pottery with limited decoration. At this stage such conclusions can only be tentative, and more extensive excavations on staff quarters, especially refectories, and in the outer areas of precinct hospitals to find more of the rubbish pits would be incredibly useful for furthering the discussion on consumption and pottery usage.

The food itself seems to have been wholesome and nutritious, although the quality of the meat consistently decreased over time at all sites, often with the presence veal and other younger meats in the early phases of the hospital being replaced with older meat at a later date. There was a variety of meats, although only the main domesticates, cattle, sheep, pig, chicken, and goose, were consistently present across a number of sites and time periods. Cattle provided the majority of meat on all sites, although at St Mary, Ospringe, the proportion of sheep to cattle was higher than was usual for the rest of the country, probably due to their extensive sheep flocks (Wall 1980). The majority of this meat may have come from farms owned by the hospitals, as evidenced by the known presence of home farms on the ridge to the south of St Giles, Brompton Bridge (Cardwell 1995), and to

the south of St Mary Magdalen, Partney (Atkins and Popescu 2010), although many smaller, less prosperous hospitals must have brought meat in. It is unclear whether the meat arrived on the hoof, but almost all sites have evidence of butchery occurring on site with the majority of the skeletal elements being present in the assemblages, thus implying that if they were not arriving alive hospitals were receiving carcasses that had been split in half. The level of fragmentation of vertebrae and skulls may be related to these butchery techniques and the manner of how the meat arrived on site, but it was also highly likely that the bones were split for marrow and boiled to make broths. At St Bartholomew, Oxford, the nature of the fragmentation suggested that all the bones were broken to the same size, almost certainly as a result of their preparation during cooking. At some sites there was limited evidence of more exotic animals, such as deer and rabbit, that may have been utilised to vary diets to respond to specific medical conditions, although their relative scarcity may be explained by the poverty of the sites, reducing the ability for hospitals to greatly vary diet to the extent documentary regimens suggest. It has also been hinted at by the accounts of St Anthony, London, that these exotics might be aimed for the master and staff, and not to the rest of the community, whether needed for health reasons or not (Bonfield 2013). Such medicinal use of more diverse meats would have been limited to the wealthier inmate, although the presence of small numbers of more exotic animals like duck, rabbit, hare, deer, and some wild birds at some of the sites may provide some limited evidence. The presence of such foods may actually reflect the more exclusive diet of the master, staff, and corrodians, although such interpretations are limited due to the lack of a complete excavation of any hospital site and the different rubbish pits associated with the various social groups present.

The lack of extensive and viable environmental sampling on hospital sites has also hampered a full understanding of fish and seafood exploitation, which seems to be hugely under-represented in the excavated samples. Fish would be expected to be a major component of the diet at hospital sites, something hinted by Müldner and Richards (2005) at least in respect to St Giles, Brompton Bridge, although the diet was clearly more varied, since the distinctive isotopic signal of heavy marine or riverine resource exploitation was missing. From the archaeological evidence, marine resources were the most extensively utilised, possibly due to the artificially high price of freshwater fish, and documentary resources suggest similar (Wall 1980). The lack of environmental sampling also hinders the reconstruction of the wider environment of hospitals, although what evidence that is available indicates they were a mixed environment, often waste- or scrubland, trees, open

water, and some cultivation, probably for kitchen, medical, and recreational use (Davis 1997; Huntley 1995; Wiltshire 1997). Orchards are also suggested by both the pollen and seed evidence, although whether this was directly on site or nearby is not certain (Davis 1997; Wiltshire 1997).

It is highly likely that all these elements were encouraged to provide space for light work but also places to contemplate and walk, although the evidence from St Saviours, Bury St Edmunds indicates that little of the open area was tended and instead abounded with wild plants, so the management may have been light (Wiltshire 1997). This questions how intentional the arrangement was but given the restrictions in space and staffing they may have allowed more wild garden areas to reduce work and to provide a number of native plant species that had uses as visual plants, as food items, and as medicinal plants. In terms of plants definitely associated with food, wheat dominated, although on almost all sites where cereal grain was recovered at least barley and either oat or rye was also recovered, suggesting a very mixed approach to grains (Alldritt 2013; Davis 1997; Fryer 2010; Fryer and Murphy 1997; Hinton 2010; Huntley 1995; Jones 1998). Again, the suggestion is that this might be related to the relative medical associations food could have, but it would be too early to provide a definite answer to this. Also present were various fruits and berries, and a range of other plants such as vetch, peas, and other legumes, that all may have contributed to the diet of the residents. The range of definite and possible food plants, the suggestions from the animal bones, and the importance of fish that are not represented on site, coupled to the interesting conclusions from the pottery assemblage, all highlight that the physical evidence for diet at the medieval hospital is an area of research that will reward more extensive examination in the future.

Residents and Activity

Beyond the archaeological evidence for food, and the burial evidence (discussed below), there is only limited further evidence for the inmates of the medieval hospital. Little can be seen of what they wore other than a few simple dress accessories, many of them from the burials. There was some evidence for religious practice, although again it was limited to one censor from St Giles, Brompton Bridge, some crucifix pendants from the cemetery at St John the Evangelist, Cambridge, and some fragments of statuary. The presence of books and writing were consistently encountered across those sites that had been more extensively excavated, and it can be assumed that there would have been some religious

texts available to the staff of the site (Rawcliffe 2002), even if the writing implements may have more likely been for the keeping of accounts and records. The range of keys and lock pieces found at several hospital sites, probably relates to the control of space and access, with some of the larger keys being to lock certain doors in the precinct. The large number of smaller keys, especially at St Mary Spital, London, and St Bartholomew, Bristol, were almost certainly for chests and cupboards for the inmates, locking away personal items.

This is interesting for two reasons, the first of which is that this would suggest that inmates were allowed to bring personal possessions in with them when they entered. The second is that access to these possessions would then be controlled, since there would be no need for keys if the inmates were allowed to access their own possessions when they wanted. This is another, more personal, indication of the control over activity, use, and association inherent in the medieval hospital, and speaks of the clear tension between the religious lifestyle, which sought to distance itself from the outside world and the distractions of personal possessions, and the often-temporary secular nature of many of the residents. Ultimately, these sites seem to have been kept relatively clean, limiting the amount of material left in association with the domestic and religious buildings.

Hospitality for the Dead

As mentioned in the introduction, the one main element that is missing from this thesis is the burial evidence from medieval hospitals. There have been a large number of excavations within the cemeteries of these sites, and any attempt to synthesise the data available is outside the scope of this thesis. Such a synthesis would be of incredible use when looking at the manner in which the medieval hospital functioned within wider medieval society. Whilst this is not the place to provide an in-depth analysis of the data, there is scope for a brief summary to introduce some of the ways in which the cemetery data and this thesis would benefit from further integration, and highlight one of the most important avenues for future research. The burials at medieval hospitals were not just of the residents, but could include others who chose to be buried there (Gilchrist 1992). There were several institutions associated with death and burial in the medieval world, amongst them the parish church, other religious institutions, and social groups such as guilds, and there was a keen interest in the gaining of cemeteries, which remained restricted to larger churches, cathedrals, and monasteries until the 13th century (Barrow 1992). The medieval hospital played a part in the process of burial in the medieval period, although not all

hospitals gained a cemetery, often relying on local parish churches or other hospitals to take their dead (Gilchrist 1992, 103–4). There were a large number of hospitals which did have their own cemeteries, and these are a potentially vital resource in discussing the health and lifestyle of the residents of the hospital sites. There was a choice of burial location available that was usually expressed through wills or by surviving family (Harding 1992), and so this factor must be kept in mind when discussing the burials at hospital cemeteries. For example, St Mary Spital came to an agreement with the parish church of St Botolph Bishopgate in 1362 that parishioners could be buried in the hospital but half the oblation was to go to the rector of St Botolph's (Harding 1992, 124). The parish was the main focus of burial throughout the period, but even so there was a high likelihood that not all those buried in a hospital cemetery were members of the community.

This issue with not being able to directly link burials in the cemetery directly with the hospital is sometimes mitigated by other factors. In the case of leprosy hospitals, the physical or DNA evidence of the disease in the bones can provide some indication of some of the members of the community. At St James and St Mary Magdalen, Chichester, although there were some complications over the dating of phases of the burials, it seemed that the earlier burials favoured locations to the southwest, with later burials to the northeast (Fig. 7.1) (Lee and Magilton 1989; Magilton *et al.* 2008). Of those buried in Area A1 to the southwest just over 61% showed physical evidence of leprosy, with 43% shown in Area A2, and 15% from Areas B1 and B2. From the datable evidence from the burials it is also clear that the earliest burials at the hospital were not within the excavated area, whilst those burials in Areas B1 and B2 probably represent the last few centuries of the hospital's life when the focus had shifted to the local sick poor. However, the presence of leprosy would tie those burials to the primary function of the hospital as a hospice for leprosy sufferers. Another interesting case can be noted from the burials at St Mary Magdalen, Partney, where burials to the south of the path were all adult males, whilst to the north was a small mixed population of men, women, and some children (Fig. 7.2) (Anderson 2010; Atkins and Popescu 2010). Some of the southern burials were also in stone-cut anthropomorphic graves, and it is highly likely that these burials represent the religious staff of the site, who were all members of Bardney Abbey who ran the site. An interesting similarity might be suggested by recent excavations of the hospital of St James at Thornton Abbey, where burials close to the chapel seem to consist of male adults and children, whilst there was a more mixed burial population to the north in an area that was later added to

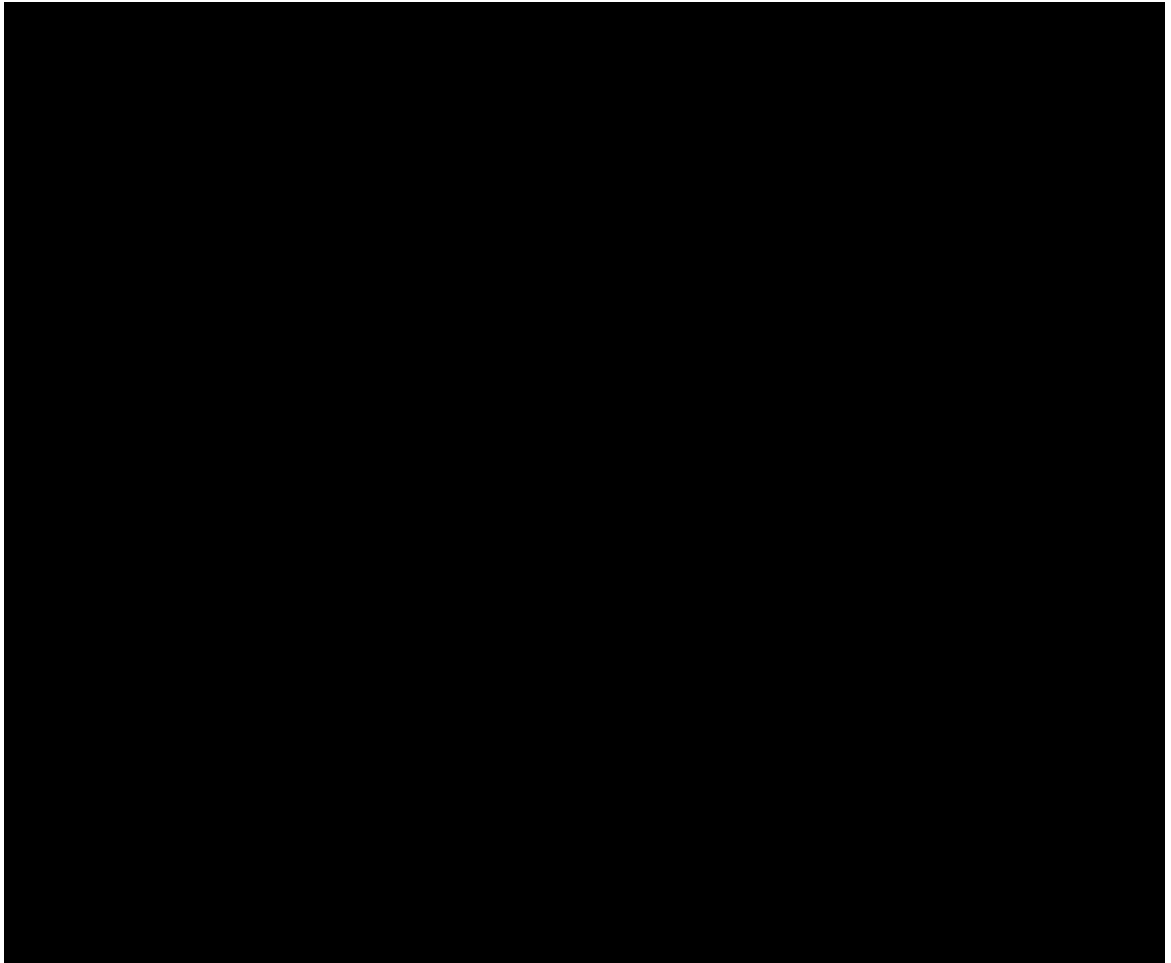


Figure 7. 1: Distribution of individuals with leprosy buried in the cemetery of the hospital of St James and St Mary Magdalene, Chichester. Using sites such as this more comparative work is needed to understand the choices and processes evidenced in the burial record. By examining these sites, it may be possible to better understand concepts such as hospitality for the dead (Magilton *et al.* 2008, 105, Fig 7.20)

the hospital precinct by adding a section of the southwest corner of the Abbey precinct. This northern burial group included an unusual mass grave where bodies seem to have been closely laid side by side in a natural hollow that was then filled in, but there was no evidence of them being stacked in any way (Willmott *et al.* forthcoming).

This raises another potential area of interest since the mass grave at St James, Thornton Abbey, has provided samples that include the DNA of Black Death, *Yersinia pestis*. Another Black Death cemetery has recently been located during the Crossrail excavations at Charterhouse Square, in unused land owned by St Bartholomew's Hospital, London, that was referred to as West Smithfield (Pfizenmaier 2016). At Charterhouse Square the burials were not in a mass grave but individual ones (Fig. 7.3), the lowest of which definitely dated to the period of the Black Death, and the second also possibly related. This arrangement of individual burial or mass graves without any stacking can be seen most clearly at East Smithfield, London, where the majority of burials were individual grave cuts with

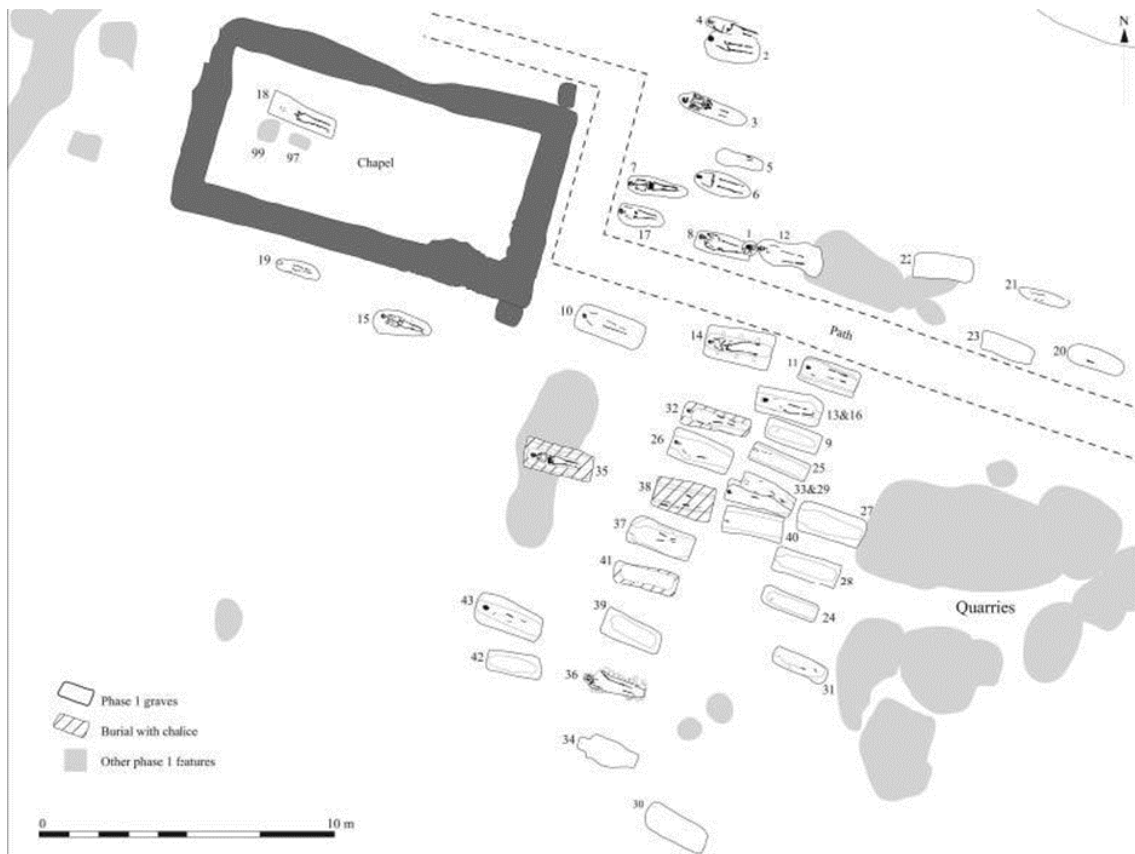


Figure 7. 2: Detail plan of the hospital-phase cemetery at St Mary Magdalen, Partney. The burials to the south of the path were overwhelmingly adult males, whilst to the north of the path and around the chapel the population was more mixed, including the presence of children. Such a distribution may indicate segregated or at least controlled space in the cemetery areas of hospitals (Atkin and Popescu 2010, 219, Fig 8). Reproduced with permission of Taylor and Francis and the Society for Medieval Archaeology <https://www.tandfonline.com/loi/ymed20>

occasional single row long trenches where bodies were placed individually side by side (Fig. 7.4) (Grainger *et al.* 2008). After the Black Death there was a reduction in the pressure on burial space, but the documentary sources were not clear on how society dealt with this or other periods of population crisis (Harding 1992, 121). It can now be suggested that observing burials associated with the Black Death may be incredibly difficult without extensive DNA analysis, and explain why it has been hard to see cemetery evidence for this catastrophic event in medieval Europe more widely. It also indicates that in this case there may be an observable difference between reactions to this event and other catastrophic mortality events and warfare, since more usual mass graves have been found in small numbers across England, such as the mass grave at Towton (Fiorato *et al.* 2000). The sheer scale and the religious connotations of the disease as a scourge from God may have necessitated a social response that attempted to provide the most normal burial possible to aid the soul. It may also suggest that hospitals were a location associated with these

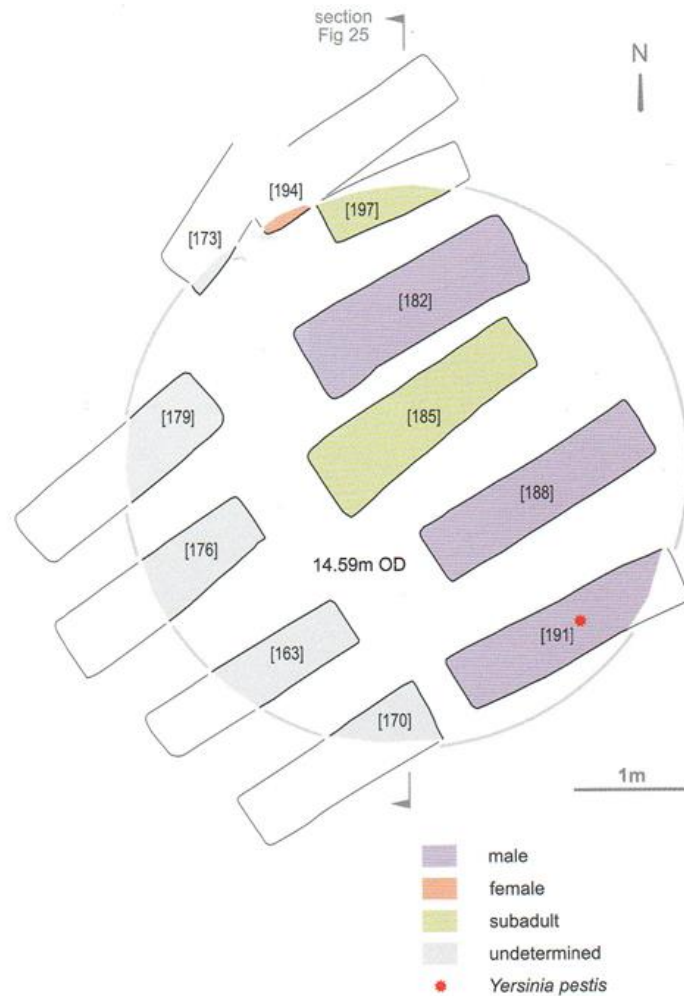


Figure 7. 3: Phase 1 burials, associated with the Black Death, excavated from a shaft into the cemetery on the land of St Bartholomew's Hospital, London. *Yersinia pestis* was detected in the aDNA of at least one adult male, yet all the bodies were buried in single graves (Pfizenmaier 2016, 31, Fig 16). Reproduced with permission of Museum of London Archaeology

periods of catastrophe and societal stress. The cemetery at St Mary Spital had 175 large burial pits or mass graves, dating to both before and after the Black Death, suggesting that it too may have been made use of during periods of mass mortality (Connell *et al.* 2012).

What is clear is that the cemeteries of medieval hospitals are a clear subject for a much larger examination. The cemetery of St Mary Spital, containing over 10,500 burials, is very difficult to contextualise given its size, but also suffers from the lack of wider synthesis with other hospital cemeteries. Where discussion has taken place, such as by Gilchrist (1992) or Gilchrist and Sloane (2005), it has not taken into account the full number of burials that have been recovered at hospital sites. Other than those already mentioned can be added the burials at St Bartholomew, Bristol (Price and Ponsford. 1998), St Giles, Brompton Bridge (Cardwell 1995), St John the Evangelist, Cambridge (Cessford 2015), and St Saviour, Bury St Edmunds (Caruth and Anderson 1997). The cemetery at St Mary Magdalen, Colchester

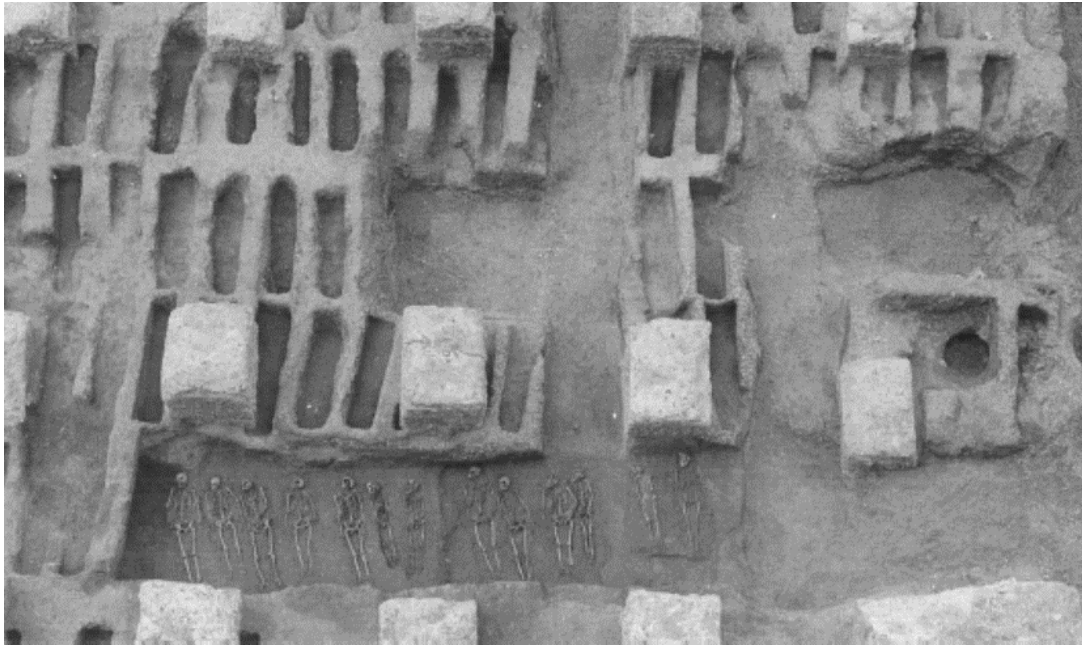


Figure 7. 4: Overview of the long trench burial at East Smithfield, London, one of the main cemeteries operated during the Black Death. Although a long trench was dug, each body was placed individually, with no stacking and very little evidence of bodies touching. Together with the Crossrail excavation in Charterhouse Square and excavations at Thornton Abbey, Lincolnshire, it indicates that Black Death cemeteries may look very similar to 'normal' cemeteries, with little evidence of traditional mass grave stacking (Grainger et al., 2008, 14, fig 13). Reproduced with permission of Museum of London Archaeology

(Crossan 2004), is slightly problematic as it was taken over as the main parish cemetery whilst the hospital still functioned, but leprosy is still observable, indicating that some of the community are part of the assemblage. Burials were also recovered from a range of other sites including St Leonard, Newark (Bishop 1983), St George, Shrewsbury (Watson and Phillpotts 2015), St Nicholas, Lewes (Barber and Sibun 2010; Browne 2010), St Mary, Strood (Harrison 1969), SS Peter, Paul, and Thomas the Martyr, Maidstone (Henderson and Knight 2013), St John the Baptist, Lutterworth (Priest and Chapman 2002), St Mary, Ospringe (Smith 1979), St Bartholomew, Newbury (Clough 2006; Clough and Witkin 2006), St Leonard, Grantham (Trimble *et al.* 1991), and St Giles, Lincoln (Pirainen and Allen 2012). There are a number of cemeteries associated with leprosy hospitals for which comparison might help clarify whether the high prevalence noted at St James and St Margaret, Chichester, is representative. These include St Margaret, Huntingdon (Mitchell 1993), St Margaret, High Wycombe (Farley and Manchester 1989), St Mary Magdalen, Winchester (Roffey 2012; Roffey and Marter 2014; Roffey and Tucker 2012), St Bartholomew, Racheness/South Acre (Wells 1967), and St Mary Magdalene, Bawtry (McIntyre and Hadley 2011). The cemetery and chapel of St John the Baptist, Newcastle-under-Lyme, may have been revealed by excavation, but due to poor bone preservation comparison to other sites would be incredibly difficult (Duncan 2008). Another possible hospital cemetery may have

been located at Berkhamstead, associated either with the parish church of St James or with the hospital of St John the Baptist (Maher 2014). By comparison with the wider corpus of material these possible cemeteries may well fall within the pattern observed at these other sites.

One significance of such a broad examination of hospital cemeteries is the greater clarity with which these sites can be used to discuss aspects of medieval life such as relative growth, disease, the effects of poverty and nutritional stress on populations, and the societal use of hospital cemeteries. A lot of interest has revolved around leprosy, including genome sequencing (Mendum *et al.* 2014; Taylor *et al.* 2013), showing that leprosy DNA is detectable in bones with no observable pathology for the disease (Taylor *et al.* 2006), the examination of inflammatory bone change (Boocock *et al.* 1995; Lewis *et al.* 1995), and the possibility that leprosy may have led to an increased chance of fractures caused by falls (Judd and Roberts 1998). Also of interest has been the examination of bio-cultural markers and differences between cemetery populations, for example that those suffering from leprosy buried at St James and St Mary Magdalene, Chichester, had reduced growth in height and weight in comparison to the multi-phase cemetery at Fishergate, York, the earliest portion representing a parish population and the later phases from the period when the site served as the cemetery for the Gilbertine priory (Schweich and Knüsel 2003). It has also been shown that outside of hospitals, leprosy is found in very small numbers across a wide range of medieval cemetery populations (Roberts and Cox 2003, 270–2), especially religious institutions such as the Dominican friary, Ipswich (Mays 2009).

Hospital cemeteries have also been used to study trauma and treatment, such as the significant but well-healed cranial trauma found on a skeleton at St Mary Spital, indicating that significant wounds and soft tissue complications could be survived (Powers 2005). Another case included the examination of an individual possibly crippled and relying on crutches buried at St James and St Mary Magdalene, Chichester (Knüsel and Göggel 1993). Elements of the probable cemetery associated with St John the Baptist, Canterbury, was compared to St Gregory's Priory, which was opposite the hospital and supplied the staff for the site (Miszkievicz 2012). This suggested that those buried at the priory, the more exclusive burial site, showed lower signs of linear enamel hypoplasia and a higher age-at-death than those buried in the cemetery associated with the hospital. This indicates that there was a clear health difference between the two populations, reflecting the different opportunities and health crises associated with different social groups. There is the clear potential for this material to be used on a much broader scale to assess health, disease,

trauma, and possibly diet through such a broad range of material. Of note is that many of these more thematic or specific studies are focussed on a restricted number of sites, namely St Mary Spital, London, St Mary Magdalen, Winchester, and in particular St James and St Mary Magdalene, Chichester. Using the material from other sites will help expand these initial studies and begin to unpick how these cemeteries relate to the hospital communities they are located within.

An area that deserves far more interest is the identification of migrants and the movement of people in the later medieval period, most likely to be observable through isotope analysis such as has been carried out by Kendall *et al.* (2013). The results showed that food may also complicate some of the results, reinforcing the importance of understanding diet when looking at populations. The important supporting nature of medieval hospitals for pilgrimage and travelling has been noted by Locker (2015), and although in many cases the network of such sites does not seem to be extensive enough to provide adequate support for the majority of journeys, they do seem to correlate to important routes when located away from urban centres. It is still unclear how much travel was physically occurring. In the case of those suffering from leprosy the theoretical expulsion from the parish would suggest some movement away from the local area, although possibly not enough to be noticeable in isotope studies. That being said, a burial at St Mary Magdalen, Winchester, of a sufferer of leprosy with a scallop shell, associated with Santiago de Compostela, Spain, may show the potential for travel observable in hospital environments (Roffey and Tucker 2012).

One manner in which to locate all these varying elements of burial is through the conception of hospitality for the dead, a point raised in Chapter 5. This concept would move past the issues inherent in directly associating burials with the actual residents of the site, by instead approaching the burials as representative of another social group within the hospital community. Burial of the dead represented one of the Seven Comfortable Acts that appear to have served as the grounding for the medieval charity expressed at hospital sites. The role of the hospital was both hospice for the living and a chantry for the souls of both the living and the dead, and as such the dead were a significant presence in the daily routine of the hospital community. Medieval death involved three stages: separation; liminality; and reintegration (Dinn 1992). At the point of reintegration, the physical body of the deceased was placed within the cemetery, representing the manner in which the soul had moved on to a new community of those who had died before. In many ways this mirrored the process undergone by inmates to the hospital, with the three stages being

pertinent for those joining and leaving the community, with status changing from secular to religious and then back to secular, each time entering a liminal stage between both identities.

The hospital cemeteries often producing larger assemblages of material culture of dress and religious practice, which also cannot always be directly tied to the living residents of the site. This examination as a separate community would at least provide an element of context to these finds which are in danger of being ignored because of the quandary over their relevance to the wider hospital assemblage. By examining the burial population as a segment of the community of the hospital the defining aspect lies not with who they were before their death but with the choice to be buried at the hospital. In this way the various cemetery populations can more easily be compared, both between each other and with other forms of cemetery site to see if there are distinctive elements to the social and physical make-up of hospital cemeteries. Gilchrist and Sloane (2005) touched upon this, comparing different cemeteries within different categories of hospital. With a broader dataset and by setting aside categories until a basic baseline has been examined questions such as overall health, potential change over time, and demographic differences might be unpicked.

It is already clear that there are some differences, probably tied to the type of inmates allowed in, such as the high percentage of adult males in the cemetery population of St Leonard, Newark (Bishop 1983), and the effects of leprosy will have a distinct mark on the health of those populations. Yet comparisons do not always include more than one or two other cemeteries and not always hospital cemeteries, meaning it may be unclear how distinctive some of the populations might be. Such a project to investigate the hospitality of the dead would be very large, but the production of a comprehensive synthesis of hospital cemeteries as a distinct community of the dead would provide a series of benchmarks against which future hospital cemeteries could be compared and integrated. It might also highlight other potential health markers that are more prevalent than is usual, such as the linear enamel hypoplasia at St Gregory's Priory, Canterbury. Other diseases or skeletal markers of interest might be cribia orbitalia, syphilis, tuberculosis, Black Death, height differences, gender or age variation, prevalence of osteoarthritis (especially in hospitals associated with the infirm), or other indicators of infirmity or restricted movement, to name a few.

With both of these broad studies, one on the living elements of the hospital and the other on the dead, it would then be possible to return to the question of the categories of residents that have usually structured how the medieval hospital is examined and provide a more informed basis for examining differences. With most sites these differences may also relate to regions with distinctive styles, such as the T- and L-shaped hospitals suggested to be distinctive of Kent (Prescott 1992, 11–2). Several large-scale excavations may also add the extra material that could clarify pottery trends, especially concerning the leprosy hospital. The limited presence for women in specific areas of the site points to forms of site-wide control of movement and activity, but the limited evidence provided from the more rural sites does not allow such a detailed breakdown. Increasing the number of sites available for the analysis would be hugely beneficial, especially excavations on a large scale that exposed the whole site, including rubbish disposal areas. It is also hoped from this research that some of the materials often ignored or least integrated into the site narratives of the hospitals function, such as elements of the building material culture or environmental materials, is seen as just as important, often because more of it is available to examine. By including a great variety of material evidence, a more holistic picture can be built up and queried, something vital for advancing knowledge about these sites.

The Medieval Hospital in Context: Avenues for Further Work

This research has focussed on England and Wales, attempting to contextualise the archaeological evidence within this geographical region. A number of considerations raised during this work can serve as avenues for further research. One of these would be examining the material from Scotland and Ireland. There were at least 149 hospitals in Scotland during the later medieval period (Cowan and Easson 1976), and a minimum of a further 202 in Ireland (Gwynn and Hadcock 1970). It is striking that a very high proportion of hospitals in Ireland, where a specific function could be identified, were for leprosy sufferers, over 60% in total (Gilchrist 1995, 11). Of particular interest would be further comparative work on the Scottish material, and Hall (2006) has produced an excellent summary of Scottish hospitals. In general, however, the archaeological evidence is relatively limited and would require a programme of survey and excavation to produce more extensive comparative material.

One exception is the hospital of the Holy Trinity, Soutra, the most heavily investigated medieval hospital in Scotland, with an extensive project examining medical practice and the

presence of evidence of phlebotomy (Moffat 1986; Moffat and Fulton 1988; Moffat *et al.* 1989; Moffat 1992; Moffat 1995; Moffat 1998), although not all the results have been published yet. Potential evidence of medicinal plants has been recovered, including poppy, and tests for haemoglobin in the soils around the hospital drain indicated the presence of blood, which may link to blood-letting on site. The hospital of St Nicholas, just outside St Andrews, has also seen some limited excavations (Fig. 7.5) (Hall 1995; Hamilton and Toolis 1999). From the evidence it seemed to be similar to St Giles, Brompton Bridge, with a larger precinct of open areas with a few separated buildings within. Excavations associated with the kirk and cemetery at Kirk Ness, North Berwick, located a very small portion of what may have been the pilgrim hospice, given the prevalence of evidence for domestic activities, although very few structural elements were located (Addyman *et al.* 2013, 99–105). Given the breadth of interest in leprosy shown in England, those cases found in Scotland, such as the individual dating to the 13th-14th century in Orkney (Taylor *et al.* 2000), may help understand some of the connections about the spread of the disease and the nature of the individuals afflicted. Following on from this, comparative work with Ireland would also be of value, especially in relation to the possibility of a distinctly Irish approach to hospital foundation and layout, as well as if any influence can be seen for English immigrants on hospital foundation. This may also be indicative of a different approach to the medieval hospital, with less clearly-defined residents and a broader interpretation of charitable hospitality. If so then this would serve as an excellent comparative dataset.

Given the potentially distinctive English form of hospital layout, with northern and western foci of activity, some comparative analysis with Continental hospitals would also be informative. Henderson's (2006) work serves as an excellent introduction to the Renaissance hospital, and he similarly notes the important role the cloister carried out at these sites. Brodman (1998) has provided a similar discussion for Catalonia, whilst edited volumes such as those of Bonfield *et al.* (2013), Scheutz *et al.* (2008), Bowers (2007), and Grmek (1998) have provided comparative work, all be it almost entirely historical rather than archaeological. From the available information it does appear that Continental hospitals more directly retain elements of traditional monastic architecture, favouring southern cloisters where the original medieval details can be recreated (Leistikow 1967), although it would be of interest to see the wider development during the Reformation and the impact of the Counter Reformation. This also applies to the post-Dissolution evidence in England since the retention of the quadrangular style of architecture may not necessarily equate to a complete break from medieval architectural forms.

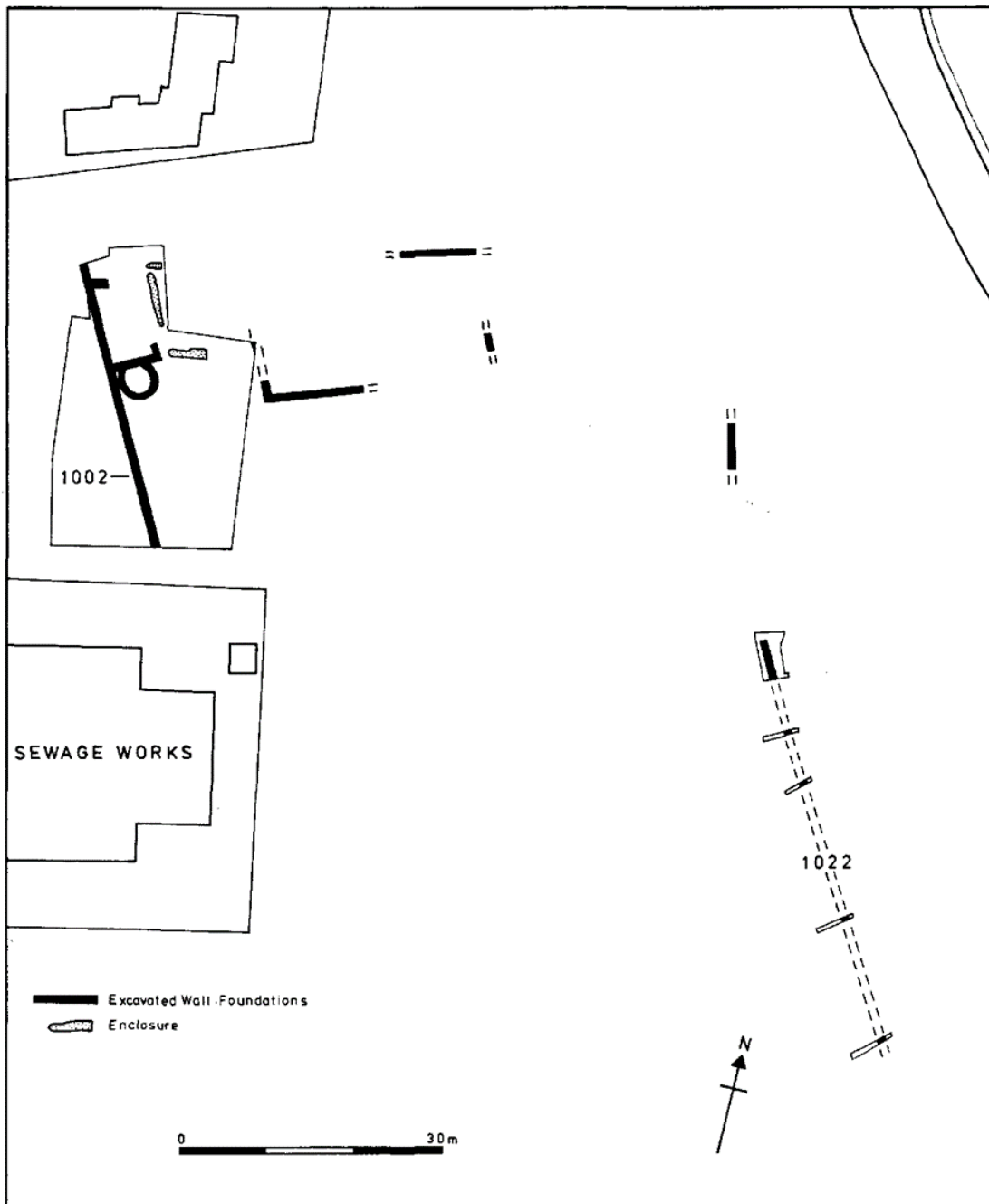


Figure 7. 5: Plan of excavated features associated with the leprosy hospital of St Nicholas, St Andrews. Very little was located that could be directly tied to the hospital, although it seems to have had a large and relatively open precinct (Hall 1995, 57, fig 8). Reproduced with permission of Derek Hall

A full survey of what happened to the sites that were dissolved in the 16th and 17th centuries would also be of relevance for building a fuller picture of the impact of the Dissolution upon the English landscape, especially the townscape. Given the location of the majority of these sites in suburban locations their removal would provide fewer opportunities to redevelop in comparison to the more rural monasteries, and so may also fall into the hands of the urban traders and craftsmen rather than the more aspirational gentry. It will also be important to test the links to the Anglo-Saxon period and earlier

monasticism. Whilst there do not seem to have been hospitals as they were defined from the late 11th century onwards, it is highly likely there were informal hospices and communities of quasi-monastics who were carrying out similar practices. Locating some of these and investigating the layout and material remains may shed some light on the origin of this northern association or serve to reinforce the possible inspiration from the double houses of the Anglo-Saxon period, although such data may be hard to locate or identify given the issues still encountered addressing Anglo-Saxon monastic practice.

A final area for examining the influence of the medieval hospital more widely would involve contextualising the medieval hospitals and the military orders within the same framework. The military orders were founded to protect pilgrims on the way to the sites of the Holy Land, and all of them originated from or were tasked with defending hospitals and pilgrims (Forey 1992; Gilchrist 1995). Although there is a significant body of scholarship on the historical evidence for the orders in England, much of the archaeological focus has been on the Latin East, best summarised by Boas (2006). A recent edited volume by Piana and Carlsson (2014) covering the archaeology and architecture of the military orders across Europe and the Latin East did not discuss the British Isles or Ireland at all, although recent work from Ireland was published in Browne and Clabaigh (2016). The close connection with hospitals and the functions they carried out would imply some sharing of styles of layout, but this may be countered by the quasi-monastic nature of the military orders themselves, comprising elements of secular elites, who formed the heart of the fighting force alongside the sergeants and turcoples who were drawn from the lower social orders. However, they lived by a rule that contained significant elements of monastic routine and practice, but may have also been influenced by the hospital function they supported.

An important question would be to untangle these influences and clarify which influence was greater. It would also be of interest to investigate whether the English sites also maintained this northern association, with a chapel in the south or southeast, and more domestic areas ranging to the north, west, and northwest, or if the traditional pattern of buildings to the south of the chapel was followed. Although archaeological remains are limited in England, the Templar preceptory at South Witham locates its chapel at the south of the courtyard (Fig. 7.6) (Mayes 2002), and the headquarters of the Hospitaller Order in England, the priory of the Order of St John of Jerusalem, Clerkenwell, London, appears to locate conventual buildings to the north of the church until 1280, and possibly later (Fig. 7.7) (Sloane and Malcolm 2004). This at least hints at the possibility of a further extension of the trend seen in the hospitals, and certainly requires further investigation.

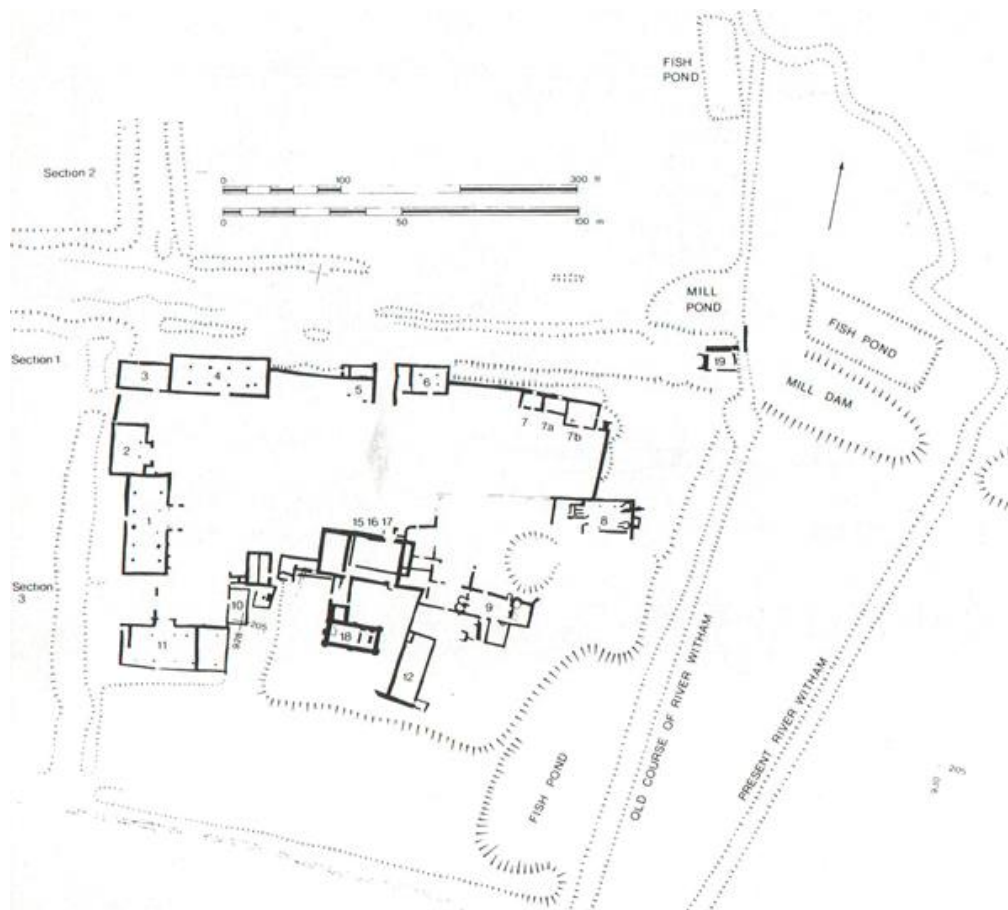


Figure 7. 6: The Templar preceptory at South Witham, Lincolnshire, excavated between 1965 and 1967. The chapel is located to the south of the central hall in the middle of the plan, forming a large courtyard to the north around which the rest of the necessary buildings for the community are located. The chapel may also be serving to separate the site into two halves, although without further sites to compare to such suggestions must remain tentative (Mayes 2002, 4 Figure 1.3). Republished with permission of Philip Mayes and the Society for Medieval Archaeology, from *Excavations at a Templar Preceptory. South Witham, Lincolnshire 1965-67*, Philip Mayes, The Society for Medieval Archaeology Monograph 19, 2002; permission conveyed through Copyright Clearance Center, Inc.

Conclusion

The archaeological evidence for hospitals in the later medieval period is highly varied and much has been overlooked. By integrating all the evidence into a broader synthesis, this thesis highlighted important new developments in understanding the functional principles that underpinned the layout and use of these sites. This research represents the first synthesis of the archaeology of medieval hospitals in over two decades, and has set out a framework for understanding the nature in which these sites structured daily life and social interaction. In addition to analysing their architecture and plan, integrating an appraisal of the material culture also emphasised the centrality of the chapel, whilst the infirmary was located in a secondary role, on a par or below the level of the staff quarters. This provides a strong basis for development, integrating new sites into the overall scheme to formulate a more holistic understanding. There is still much that can be done to provide an even better

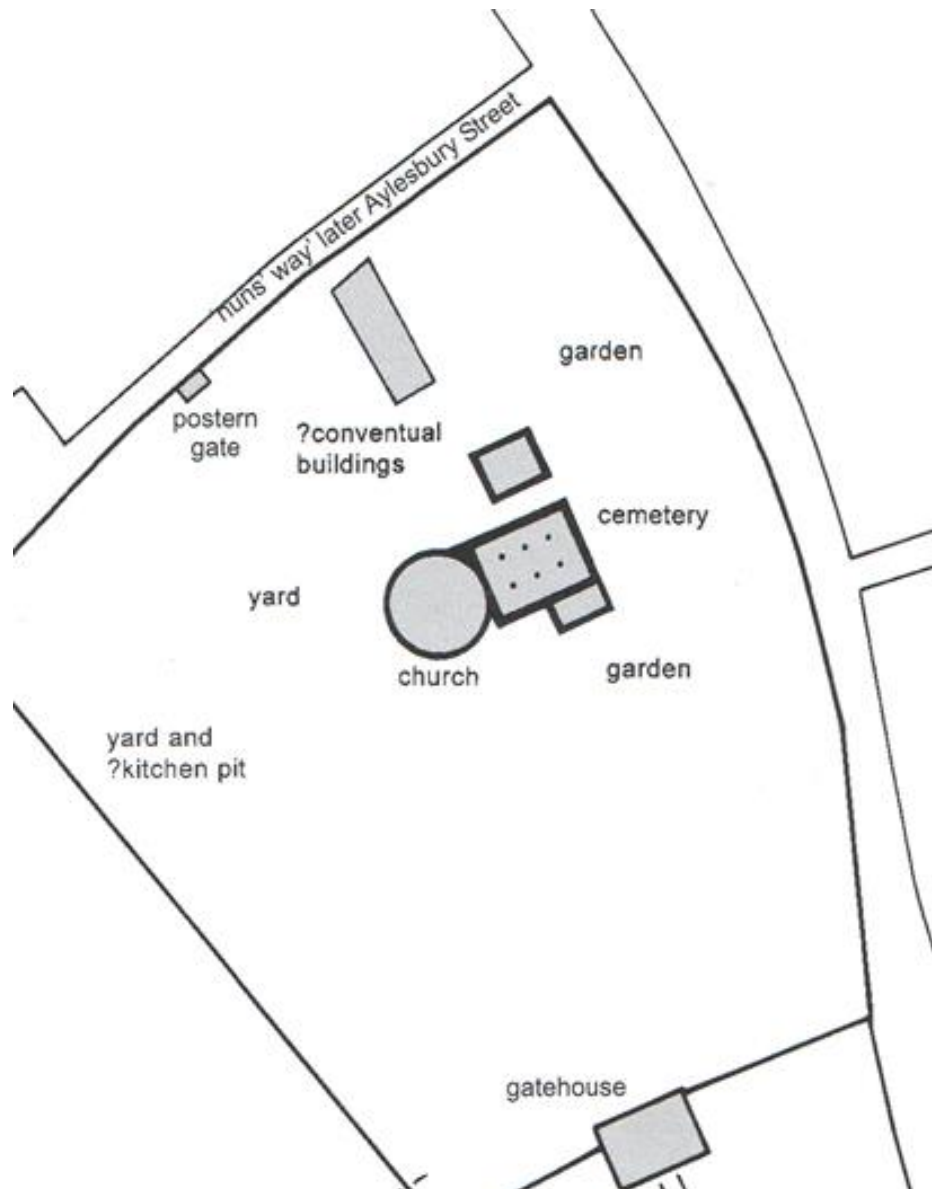


Figure 7. 7: An overview plan of the Priory of St John of Jerusalem, Clerkenwell, London, the headquarters of the Hospitallers in England, as it was in the period 1185-1280. The site experienced much disturbance and was later modified into a more conventional monastic layout with a southern cloister, but at this early stage much of the domestic and conventual buildings appear to be located to the north of the church. The possible influence of English hospitals upon the order's structures is worthy of further consideration (Sloane and Malcolm 2004, 62, Fig 47). Reproduced with permission of Museum of London Archaeology

appreciation of these sites, including the integration of the osteological evidence, expanded use of aDNA and residue analysis, and emphasising the importance of the finds assemblages to provide information on activity areas and dietary choices. The twin concepts of hospitality for both the living, through pottery, food, and environmental evidence, and hospitality for the dead, through the burial record, reflected the emphasis on community rather than individuality, something in keeping with the quasi-monastic nature of the medieval hospital.

This would have emphasised communality, poverty, the suppression of the individual for the benefit of the community, and the focus on daily prayer, contemplation, and cleansing. The inmates themselves could be seen as liminal, either temporary residents who for a brief part of their life participated in a form of monastic experience, or permanent inmates who were participating in a religious lifestyle only available through other forms of monasticism that required more binding vows, and which would have provided secure warmth, food, cleanliness, and shelter as long as they abided to the pious lifestyle and were accepted by the master and the rest of the community. Food was nutritious and seem to have comprised of soups, stews, and bread, with some fruits and wild meat, possibly to cater for individual needs. The community of the living were also joined and interacted with the community of the dead, which would have comprised not just of residents but also locals, travellers, and benefactors who wished to be associated with the site or required a good burial.

These sites were not carrying out the practical medicine associated with hospitals in the post-medieval period, instead focussing on the creation of a positive religious environment to treat the accidents of the soul. The lack of medical equipment is also far more understandable in the archaeological record now that the nature of the medical regime being undertaken is becoming better understood. The medieval conception of medicine and health was more complex since it may also have integrated societal conceptions of poverty and infirmity as well, suggesting medicine was not simply concerned with disease and the body. This medicine utilised the diet, daily routine, and wider environment to support the physical and spiritual wellbeing of the residents. Whilst this was not always carried out in practice, it does seem to have ordered the intent of the sites, which utilised a modified form of monastic layout that might have its origins in the Anglo-Saxon period. This links to the inherent focus on the practical uses of religion and the connection of the body and the soul. While some of these medical practices and theories may seem dubious in the modern world, by appreciating the focus on these ideas then the hospital can be seen more holistically. The environment of the medieval hospital and almshouse can only be truly understood when the perceived beneficial influence is kept in mind, either cleansing and purifying the living or providing a calm and good death for others.

There is also the tentative suggestion that hospitals had a further connection to disease, especially Black Death, and this role as sanctuaries of piety and cleansing may have encouraged people to look to the hospitals as one of the places for help during times of crisis, even if it was simply for a good death and burial in a community that prayed for

everyone within the precinct. These were sites of liminality and tension, with the religious and secular purposefully mixed, male and female on the same site, and the sick or diseased alongside the healthy, poor, or infirm. This environment was organised by a framework in which the hospital, just like monasteries, nunneries or any other religious institution, should be treated as a complex, where the hierarchy of space and a northern orientation need not be functional or due to restrictions of space, but an intentional ideological choice. The form reflected the purposeful *result* of the *intent* to organise a religious and healing environment for those admitted to benefit from the charitable care provided, highlighting the quasi-monastic nature of the inhabitants.

That this care was often corrupt, impoverished, or carried out in buildings with structural failings only reflects that the *result* need not match the *intent*. The nature of this intent provides a link between the physical evidence recovered from excavations and the wider historical discourse that has not been discussed before. This may explain the steady reduction in emphasis on religious staff, especially canons, from the 14th century, but these sites were still ambiguous and conflicting institutions based on religious practice. The charity provided was not open, but restricted to those deemed worthy to receive it, if they were even allowed in without paying a fee. The inmates were seeking to cleanse and purify themselves from the ailments of their lives, and poverty seems to have been every bit as problematic spiritually as leprosy or infirmity. The later focus on poverty and infirmity was driven from a more focussed approach to keep vagrants and undesirable beggars out and to provide help for known entities who had not fallen on hard times due to negative, spiritually damaging reasons. It was also possibly tied to the charitable provision for visible social ills. In the earlier period this was leprosy, suggesting a relatively high prevalence. As cases of leprosy decreased the visible social concern was urban poverty and the problems of good people going destitute and not being able to support themselves. To save these good people more hospitals for the poor and infirm were founded to provide them the safe pious environment necessary.

The hospital may still remain an institution of confusions, ambiguities, intents and realities, but it has also become less “spectral”, to use the words of Sethina Watson (2006, 77). By taking a broader look at the medieval hospitals of England and Wales, this research has highlighted several of the physical and material links that tie these sites together as an institution, building on the more theoretical and historical ties that have been known for several decades. This physical signature may help to interpret other sites where the identity of a hospital is less certain, and perhaps even allow for those sites that are not

known to be hospitals to be correctly identified. This architectural symbolism may even have served as an influence on the military orders and hospitals and almshouses in the post-medieval period, both topics worthy of future research. The potential that this marker in the layout was partially signifying the quasi-monastic nature of the site may have relevance more widely with other religious institutions where physical layout is also less formalised. It can now be coherently argued that the medieval hospital was an intentionally planned site, not always to an identical plan, but based on known associations that allowed for the variety inherent in the nature of support and residents they could expect. This looser approach allowed for the integration of standing buildings, or the loss or acquisition of new lands.

This approach also gave the secular poor, sick, and infirm, some of the most vulnerable of society, in particular the highly pious amongst them, a lifestyle unlike any other outside a monastery or friary, and not requiring years of being a novice to train into. For the staff this served as an outlet for both male and female spirituality that was more active and charitable than most other forms of religious experience. Given the sheer number of hospitals, and thus inmates and staff, these sites would have been well known and understood, and the architectural layout, with the chapel in the southeast, the infirmary to the west or north, and a series of courtyards or claustral ranges associated with both, would have provided an appreciable order to the site that would have been reinforced by the differences in construction, roofing, windows, plaster and painting, flooring, and activities. This framework helps engage with the seemingly disparate material in a manner that both ties into the nature of these sites and the intended care they were designed to carry out. The medieval hospital may have grown dependent upon finances and opportunity, but there was an intent behind the structuring of daily life. To the medieval resident, the hospital was not spectral but as visible and understandable as the dead buried nearby, the daily prayers for the souls of those around them, and the purity and cleansing that they had walked through the hospital gatehouse to find. It is only after there is an understanding of what threads unified these sites that the differences can begin to be unpicked.

Bibliography

- Addyman, T., Romankiewicz, T., Macfadyen, K., Ross, A., & Uglow, N. 2013. *The Medieval Kirk, Cemetery, and Hospice at Kirk Ness, North Berwick: The Scottish Seabird Centre Excavations 1999-2006*. Oxford: Oxbow.
- Albarella, U. 1999. 'The mystery of husbandry': medieval animals and the problem of integrating historical and archaeological evidence. *Antiquity* 73(282): p.867–875.
- Albarella, U. 2005. Meat production and consumption in town and country. In K. Giles & C. Dyer (eds) *Town and Country in the Middle Ages: Contrasts, Contacts and Interconnections, 1100-1500*, 131–148. Leeds: Maney Society for Medieval Archaeology Monograph 22
- Alfrey, J. 2008. 'The habitations of wretchedness'? Clom buildings in Wales. *Vernacular Archaeology* 39: p.71–77.
- Alldritt, D. 2013. St Bartholomew's Chapel (Bartlemas), East Oxford, BC11: Carbonised plant macrofossils and charcoal. In J. Harrison (ed) *Archeox Excavations at Bartlemas Chapel and Leper Hospital Site, Autumn 2011*, unpaginated. Oxford: Archaeology of East Oxford Unpublished Report
- Amouroux, M. 1999. Colonization and the creation of hospitals: The eastern extension of western hospitality in the eleventh and twelfth centuries. *Mediterranean Historical Review* 14(1): p.31–43.
- Anderson, S. 2010. Human skeletal remains, in R. Atkins and E. Popescu, Excavations at the Hospital of St Mary Magdalen, Partney, Lincolnshire, 2003. *Medieval Archaeology* 54: p.242–249.
- Arbesmann, R. 1954. The concept of 'Christus Medicus' in St Augustine. *Traditio* 10: p.1–28.
- Ashby, M. 2005. *The Hellard Almshouses and other Stevenage Charities, 1482-2005*. Caxton Hill: Stephen Austin Hertfordshire Records Publications Volume 21.
- Aston, M. 2001. The expansion of the monastic and religious orders in Europe from the eleventh century. In G. Keevil, M. Aston, & T. Hall (eds) *Monastic Archaeology: Papers on the Study of Medieval Monasteries*, 9–36. Oxford: Oxbow

- Atkins, R., & Popescu, E. 2010. Excavations at the Hospital of St Mary Magdalen, Partney, Lincolnshire, 2003. *Medieval Archaeology* 54: p.204–270.
- Austin, D., & Thomas, J. 1990. The ‘proper study’ of medieval archaeology: a case study. In D. Austin & L. Alcock (eds) *From the Baltic to the Black Sea: Studies in Medieval Archaeology*, 43–78. London: Routledge
- Barber, G. 1998. Animal bone. In R. Price & M. Ponsford (eds) *St Bartholomew’s Hospital, Bristol: The Excavation of a Medieval Hospital: 1976-8*, 181–193. York: CBA Research Report 110
- Barber, L. 2010a. The geological material, in L. Barber and L. Sibun, The medieval hospital of St Nicholas, Lewes, East Sussex: Excavations 1994 Supplement. *Sussex Archaeological Collections* 148 (Supplement): p.20.
- Barber, L. 2010b. The glass, in L. Barber and L. Sibun, The medieval hospital of St Nicholas, Lewes, East Sussex: Excavations 1994 Supplement. *Sussex Archaeological Collections* 148 (Supplement): p.19.
- Barber, L. 2010c. The metalwork, in L. Barber and L. Sibun, The medieval hospital of St Nicholas, Lewes, East Sussex: Excavations 1994 Supplement. *Sussex Archaeological Collections* 148 (Supplement): p.13–19.
- Barber, L. 2010d. The worked chalk, in L. Barber and L. Sibun, The medieval hospital of St Nicholas, Lewes, East Sussex: Excavations 1994 Supplement. *Sussex Archaeological Collections* 148 (Supplement): p.20–22.
- Barber, L., & Sibun, L. 2010. The medieval hospital of St Nicholas, Lewes, East Sussex. *Sussex Archaeological Collections* 148: p.79–109.
- Barber, L., & Stevens, S. 2010. The pottery, in L. Barber and L. Sibun, The medieval hospital of St Nicholas, Lewes, East Sussex: Excavations 1994 Supplement. *Sussex Archaeological Collections* 148 (Supplement): p.1–13.
- Barrow, J. 1992. Urban cemetery location in the high Middle Ages. In S. Bassett (ed) *Death in Towns: Urban Responses to the Dying and the Dead, 100-1600*, 78–100. London: Leicester University Press
- Bartlett, A.D.H. 2003. *Old Sarum ‘Chapel Site’, Wiltshire: Report on Geophysical Survey 2003*. Centre for Archaeology Report 60/2003.

- Baxter, I. 1997. Animal bone. In J. Caruth & S. Anderson (eds) *St Saviour's Hospital, Bury St. Edmunds (BSE 013): A Report on the Archaeological Excavations 1989-1994*, 84–88. Ipswich: Suffolk County Council Archaeological Services Report No. 97/20
- Belfield, G. 1982. Cardinal Beaufort's Almshouse of Noble Poverty at St Cross, Winchester. *Proceedings of the Hampshire Field Club and Archaeological Society* 38: p.103–111.
- Bell, A.R., & Dale, R.S. 2011. The medieval pilgrimage business. *Enterprise and Society* 12(3): p.601–627.
- Bell, A.R., & Sutcliffe, C. 2009. Valuing medieval annuities: were corrodies under-priced? Unpublished Working Paper
- Bellal, T. 2004. Understanding home cultures through syntactic analysis: The case of Berber housing. *Housing, Theory and Society* 21(3): p.111–127.
- Betty, J. 2009. *The Medieval Friaries, Hospitals and Chapelries of Bristol*. ALHA Books No. 1.
- Bifulco, M., Marasco, M., & Pisanti, S. 2008. Dietary recommendations in the medieval Medical School of Salerno. *American Journal of Preventative Medicine* 35(6): p.602–3.
- Bishop, M.W. 1983. Burials from the cemetery of the Hospital of St Leonard, Newark, Nottinghamshire. *Transactions of the Thoroton Society* 87: p.23–35.
- Blinkhorn, P. 1997. Pottery. In J. Caruth & S. Anderson (eds) *St Saviour's Hospital, Bury St. Edmunds (BSE 013): A Report on the Archaeological Excavations 1989-1994*, 55–59. Suffolk County Council Archaeological Services Report No. 97/20
- Bloch, M. 1995. People into places: Zafimaniry concepts of clarity. In E. Hirsch & M. O'Hanlon (eds) *The Anthropology of Landscape*, 63–77. Oxford: Oxford University Press
- Boas, A.J. 2006. *Archaeology of the Military Orders: A Survey of the Urban Centres, Rural Settlements and Castles of the Military Orders in the Latin East (c. 1120-1291)*. London: Routledge.

- Bond, C. 1993. Water management in the urban monastery. In R. Gilchrist & H. Mytum (eds) *Advances in Monastic Archaeology*, 43–78. Oxford: Tempus BAR British Series 227
- Bonfield, C. 2006. *The Regimen Sanitatis and its Dissemination in England, c. 1348-1550*. University of East Anglia. Unpublished PhD Thesis
- Bonfield, C. 2013. Therapeutic regime for bodily health in medieval English hospitals. In L. Abreu & S. Sheard (eds) *Hospital Life: Theory and Practice from the medieval to the modern*, 21–48. Oxford: Peter Lang
- Bonfield, C., Reinartz, J., & Huguet-Termes, T. 2013. *Hospitals and Communities, 1100-1960*. Oxford: Peter Lang.
- Boocock, P., Roberts, C.A., & Manchester, K. 1995. Maxillary Sinusitis in Medieval Chichester, England. *American Journal of Physical Anthropology* 98: p.483–495.
- Bottomley, F. 2002. *Medieval Hospitals of Yorkshire*. Unpublished Report Available at: <http://dryfish.org.uk/~medieval/>.
- Bourdieu, P. 1970. The Berber house or the world reversed. *Social Science Information* 9(2): p.151–170.
- Bowers, B.S. 2007. *The Medieval Hospital and Medical Practice*. Aldershot: Ashcroft AVISTA Studies in the History of Medieval Technology, Science and Art.
- Bredehoft, T.A. 2006. Literacy without letters: Pilgrim badges and late medieval literate ideology. *Viator* 37: p.433–445.
- Brehm, B., Shepherd, J.D., & Thomas, C. 1997. The glass. In C. Thomas, B. Sloane, & C. Phillpotts (eds) *Excavations at the Priory and Hospital of St Mary Spital, London*, 210–215. London: MoLAS Monograph 1
- Brennan, D.F.M. 1995. *Llawhaden Hospice: Excavations 1992 and 1993 The Finds Volume 2*. Llandeilo: Dyfed Archaeological Trust Unpublished Archive Report.
- Brenner, E. 2010. Recent perspectives on leprosy in medieval western Europe. *History Compass* 8(5): p.388–406.

- Brodman, J.W. 1998. *Charity and Welfare: Hospitals and the Poor in Medieval Catalonia*. Philadelphia: University of Pennsylvania Press.
- Brodman, J.W. 2007. Religion and discipline in the hospitals of thirteenth-century France. In B. S. Bowers (ed) *The Medieval Hospital and Medical Practice*, 123–132. Aldershot: Ashcroft AVISTA Studies in the History of Medieval Technology, Science and Art
- Brown, D.L. 1991. *Salvage Recording at St Oswald's Almshouse, Worcester*. *Archaeology Section*, Hereford and Worcester County Council Unpublished Report 83.
- Browne, M., & Clabaigh, C.Ó. 2016. *Soldiers of Christ: The Knights Hospitaller and the Knights Templar in Medieval Ireland*. Dublin: Four Courts Press.
- Browne, S. 2010. The human bone, in L. Barber and L. Sibun, The medieval hospital of St Nicholas, Lewes, East Sussex: Excavations 1994 Supplement. *Sussex Archaeological Collections* 148 (Supplement): p.22–37.
- Browne, S. 2010a. The animal bone, in L. Barber and L. Sibun, The medieval hospital of St Nicholas, Lewes, East Sussex: Excavations 1994 Supplement. *Sussex Archaeological Collections* 148 (Supplement): p.ADS 1-42.
- Browne, S. 2010b. The fish bone, in L. Barber and L. Sibun, The medieval hospital of St Nicholas, Lewes, East Sussex: Excavations 1994 Supplement. *Sussex Archaeological Collections* 148 (Supplement): p.38.
- Buklijaš, T. 2008. Medicine and society in the medieval hospital. *Croatian Medical Journal* 49: p.151–154.
- Bullough, V.L. 1961. A note on medical care in medieval English hospitals. *Bulletin of the History of Medicine* 35: p.74–77.
- Burleigh, G., Matthews, K., & Went, D. 1989. *Wymondley Priory, Hertfordshire: An Archaeological Evaluation*. North Hertfordshire District Council Museums Field Archaeology Section Unpublished Report.
- Cardwell, P. 1995. Excavation of the hospital of St Giles by Brompton Bridge, North Yorkshire. *The Archaeological Journal* 152: p.109–245.

- Carlin, M. 1989. Medieval English Hospitals. In L. Granshaw & R. Porter (eds) *The Hospital in History*, 21–39. London: Routledge
- Caruth, J., & Anderson, S. 1997. *St Saviour's Hospital, Bury St Edmunds (BSE 013): A Report on the Archaeological Excavations 1989-1994*. Ipswich: Suffolk County Council Archaeological Services Report No. 97/20.
- Cessford, C. 2015. The St John's Hospital cemetery and environs, Cambridge: Contextualising the medieval urban dead. *Archaeological Journal* 172(1): p.52–120.
- Clay, R. 1909. *The Medieval Hospitals of England*. Kessinger Legacy Reprints.
- Clough, S. 2006. Excavations at the Litten medieval cemetery, Newbury, Berkshire. *Church Archaeology* 10: p.105–108.
- Clough, S., & Witkin, A. 2006. *Excavations at the Litten Medieval Cemetery, Newbury, West Berkshire: Archaeological Excavation Report*. Oxford Archaeology unpublished report.
- Connell, B., Jones, A.G., Redfern, R., & Walker, D. 2012. *A Bioarchaeological Study of Medieval Burials on the Site of St Mary Spital: Excavations at Spitalfields Market, London E1, 1991-2007*. London: MoLA Monograph 60.
- Cooper, J. 2004. History of St Mary Magdalen's Hospital, in C. Crossan, Excavations at St Mary Magdalen's Hospital, Brook Street, Colchester. *Essex Archaeology and History* 34: p.91–95.
- Coppack, G. 2010. The Origins, foundation and development of the Partney hospital and cell, in R. Atkins and E Popescu, Excavations at the Hospital of St Mary Magdalen, Partney, Lincolnshire, 2003. *Medieval Archaeology* 54: p.208–214.
- Courtenay, L.T. 2007. The Hospital of Notre Dame des Fontenilles at Tonnerre: medicine as misericordia. In B. S. Bowers (ed) *The Medieval Hospital and Medical Practice*, 77–106. Aldershot: Ashcroft AVISTA Studies in the History of Medieval Technology, Science and Art
- Covey, H.C. 2001. People with leprosy (Hansen's disease) during the Middle Ages. *The Social Science Journal* 38: p.315–321.

- Cowan, I., & Easson, D. 1976. *Medieval Religious Houses of Scotland*. London: Longman.
- Cowgill, J. 1997. Lead. In J. Caruth & S. Anderson (eds) *St Saviour's Hospital, Bury St. Edmunds (BSE 013): A Report on the Archaeological Excavations 1989-1994, 70–73*. Suffolk County Council Archaeological Services Report No. 97/20
- Crane, P. 1995. *Llawhaden Hospice: Excavations 1992 and 1993 Volume 1*. Llandeilo: Dyfed Archaeological Trust Unpublished Archive Report.
- Crossan, C. 2004. Excavations at St Mary Magdalen's Hospital, Brook Street, Colchester. *Essex Archaeology and History* 34: p.91–154.
- Crowley, M. 1997. Ceramic building material. In C. Thomas, B. Sloane, & C. Phillpotts (eds) *Excavations at the Priory and Hospital of St Mary Spital, London, 195–201*. London: MoLAS Monograph 1
- Crummy, N. 2004a. The building materials, in C. Crossan, Excavations at St Mary Magdalen's Hospital, Brook Street, Colchester. *Essex Archaeology and History* 34(121–124).
- Crummy, N. 2004b. The small finds, in C. Crossan, Excavations at St Mary Magdalen's Hospital, Brook Street, Colchester. *Essex Archaeology and History* 34: p.141–142.
- Crummy, N. 2010a. Finds from the burials, in R. Atkins and E. Popescu, Excavations at the Hospital of St Mary Magdalen, Partney, Lincolnshire, 2003. *Medieval Archaeology* 54: p.227–230.
- Crummy, N. 2010b. Other metalwork, in R. Atkins and E. Popescu, Excavations at the Hospital of St Mary Magdalen, Partney, Lincolnshire, 2003. *Medieval Archaeology* 54: p.231–234.
- Cule, J. 1977. Some early hospitals in Wales and the Border. *National Library of Wales Journal* 20(2): p.97–130.
- Cullum, P.H. 1989. *Hospitals and Charitable Provision in Medieval Yorkshire, 936-1547*. University of York. Unpublished PhD Thesis

- Cullum, P.H. 1991. *Cremetts and Corrodies: Care of the Poor and Sick at St Leonard's Hospital, York, in the Middle Ages*. York: Borthwick Papers 79.
- Cullum, P.H. 1993. St Leonard's Hospital, York: the spatial and social analysis of an Augustinian hospital. In R. Gilchrist & H. Mytum (eds) *Advances in Monastic Archaeology*, 11–18. Oxford: Tempus BAR British Series 227
- Cussans, J. 2014a. Animal bone. In P. Wilkinson (ed) *Archaeological Evaluation of Land at the Barkaway Site, 20-22 Ospringe Street, Ospringe, Kent, 23*. Faversham: SWAT Archaeology unpublished report
- Cussans, J. 2014b. The shell. In P. Wilkinson (ed) *Archaeological Evaluation of Land at the Barkaway Site, 20-22 Ospringe Street, Ospringe, Kent, 23*. Faversham: SWAT Archaeology unpublished report
- Cuttler, R., & Ramsey, E. 2004. *Trent Lane, Newark, Nottinghamshire: An Archaeological Strip, Map and Record, A Post-Excavation Report*. Birmingham: Birmingham Archaeology Unpublished Report.
- Cuttler, R., & Ramsey, E. 2006. The excavation of Roman, medieval, and Civil War remains at Trent Lane, Newark, Nottinghamshire. *Transactions of the Thoroton Society* 109: p.47–67.
- D'Aronco, M.A. 2007. The Benedictine Rule and the care of the sick: the plan of St Gall and Anglo-Saxon England. In B. S. Bower (ed) *The Medieval Hospital and Medical Practice*, 235–251. Aldershot: Ashcroft AVISTA Studies in the History of Medieval Technology, Science and Art
- Dainton, C. 1976. Medieval hospitals of England. *History Today* 26(8): p.532–538.
- Davis, A. 1997. The plant remains. In C. Thomas, B. Sloane, & C. Phillpotts (eds) *Excavations at the Priory and Hospital of St Mary Spital, London, 234–245*. London: MoLAS Monograph 1
- Davis, A.J. 2010. Preaching in thirteenth-century hospitals. *Journal of Medieval History* 36(1): p.72–89.
- Davis, S.J.M. 1997. The agricultural revolution in England: Some zoo-archaeological evidence. *Anthropozoologica* 25, 26: p.413–428.

- Dawtry, A. 1982. The Modus Medendi and the Benedictine Order in Anglo-Norman England. *Studies in Church History* 19: p.25–38.
- de Rouffignac, C. 1997. Parasite remains. In C. Thomas, B. Sloane, & C. Phillpotts (eds) *Excavations at the Priory and Hospital of St Mary Spital, London*, 247–248. London: MoLAS Monograph 1
- Demaitre, L. 2003. The art and science of prognostication in early university medicine. *Bulletin of the History of Medicine* 77(4): p.765–788.
- Dinn, R. 1992. Death and rebirth in late medieval Bury St Edmunds. In S. Bassett (ed) *Death in Towns: Urban Responses to the Dying and the Dead, 100-1600*, 151–169. London: Leicester University Press
- Dollman, F.T. 1858. *Ancient Domestic Architecture in Great Britain*.
- Donoghue, H. et al. 2005. Co-infection of Mycobacterium tuberculosis and Mycobacterium leprae in human archaeological samples: a possible explanation for the historical decline of leprosy. *Proceedings of the Royal Society B* 272: p.389–394.
- Driver, G. 2008. Animal bone. In A. Margetts (ed) *Archaeological Investigations at Fairways, Ospringe, Near Faversham, Kent: Post-Excavation Assessment and Project Design for Publication*, 11. Portslade: Archaeology South-East Unpublished Report 2008046
- Duncan, H. 2009. Other artefacts. In M. Phillips (ed) *Four Millennia of Human Activity Along the A505 Baldock Bypass, Hertfordshire*, 140–141. Bedford: Albion Archaeology East Anglian Archaeology Report 128
- Duncan, M. 2008. A medieval hospital graveyard? Excavations at Stoke City General Hospital, 2001. *Transactions of the Staffordshire Archaeological and Historical Society* 42: p.35–49.
- Durham, B. 1991. The infirmary and hall of the medieval hospital of St. John the Baptist at Oxford. *Oxoniensia* 56: p.17–75.
- Dyer, C. 2003. The archaeology of medieval small towns. *Medieval Archaeology* 47: p.85–114.

- Egan, G. 1995. Chalice and patens, in P. Cardwell, Excavation of the hospital of St Giles by Brompton Bridge, North Yorkshire. *Archaeological Journal* 152: p.200–201.
- Egan, G. 1997. Non-ceramic finds. In C. Thomas, B. Sloane, & C. Phillpotts (eds) *Excavations at the Priory and Hospital of St Mary Spital, London, 201–210*. London: MoLAS Monograph 1
- Egan, G. 2007. Material culture of care for the sick: some excavated evidence from English medieval hospitals and other sites. In B. S. Bowers (ed) *The Medieval Hospital and Medical Practice*, 65–76. Aldershot: Ashcroft AVISTA Studies in the History of Medieval Technology, Science and Art
- Emery, G. 2013. *Archaeological Monitoring at St. James' Hospital Chapel, Horning, Norfolk*. Norwich: Norvic Archaeology unpublished report no. 32.
- Etkin, N.L. 2006. *Edible Medicines: An Ethnopharmacology of Food*. Tucson: University of Arizona Press.
- Evans, D.T. 2003. *Former D.C. Cook Site, Lawrence Street, York: Archaeological Excavation Assessment Report*. York: York Archaeological Trust Report Number 2003/4.
- Evans, K.J. 1969. The Maison Dieu, Arundel. *Sussex Archaeological Society Collections* 107: p.65–77.
- Everson, P., & Stocker, D. 2011. *Custodians of Continuity: The Premonstratensian Abbey at Barlings and the Landscape of Ritual*. Sleaford: Heritage Trust of Lincolnshire, Lincolnshire Archaeology and Heritage Report 11.
- Farley, M., & Manchester, K. 1989. The cemetery of the leper hospital of St Margaret, High Wycombe, Buckinghamshire. *Medieval Archaeology* 33: p.82–89.
- Fiorato, V., Boylston, A., & Knüsel, C. 2000. *Blood Red Roses: The Archaeology of a Mass Grave from the Battle of Towton AD 1461*. Oxford: Oxbow.
- Forey, A. 1992. *The Military Orders: From the Twelfth to the Early Fourteenth Centuries*. Basingstoke: MacMillan.

- Fox, G.E. 1943. The Hospital of St Nicholas, Pickering. *Yorkshire Archaeological Journal* 35: p.326–329.
- Fryer, V. 2010. Plant macrofossils and other remains, in R. Atkins and E. Popescu, *Excavations at the Hospital of St Mary Magdalen, Partney, Lincolnshire, 2003*. *Medieval Archaeology* 54: p.250.
- Fryer, V. 2011. Appendix 5: Palaeoenvironmental Report. In K. Trott (ed) *Archaeological Strip, Plan and Sample: 56 The Spittal, Castle Donington, Leicestershire*, 15–17. Allen Archaeology Limited Unpublished Report Number 2011007
- Fryer, V., & Murphy, P. 1997. Macrofossils. In J. Caruth & S. Anderson (eds) *St Saviour's Hospital, Bury St. Edmunds (BSE 013): A Report on the Archaeological Excavations 1989-1994*, 88–89. Ipswich: Suffolk County Council Archaeological Services Report No. 97/20
- Furniss, D.A. 1968. The monastic contribution to mediaeval medical care: Aspects of an earlier welfare state. *Journal of the Royal College of General Practitioners* 15: p.244–250.
- Gale, B.G. 1967. The Dissolution and the revolution in London hospital facilities. *Medical History* 11(1): p.91–96.
- Garcia, M. 2003. Medieval medicine, magic, and water: the dilemma of deliberate deposition of pilgrim signs. *Peregrinations* 1(3): p.1–13.
- Gardiner, M. 2015. Conceptions of domestic space in the long term-the example of the English medieval hall. In M. S. Kristiansen, E. Roesdahl, & J. Graham-Capmbell (eds) *Medieval Archaeology in Scandinavia and Beyond: History, Trends, and Tomorrow*, 313–333. Aarhus: Aarhus University Press
- Gerritsen, A., & Riello, G. 2015. *Writing Material Culture History*. London: Bloomsbury.
- Gibb, J.H.P. 1983. Sherbourne Almshouse. *Archaeological Journal* 140: p.20.
- 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*, 101–118. London: Leicester University Press

- Gilchrist, R. 1994. *Gender and Material Culture: The Archaeology of Religious Women*. Abingdon: Routledge.
- Gilchrist, R. 1995. *Contemplation and Action: the Other Monasticism*. London: Leicester University Press.
- Gilchrist, R. 2008. Magic for the Dead? The archaeology of magic in later medieval burials. *Medieval Archaeology* 52(1): p.119–159.
- Gilchrist, R., & Sloane, B. 2005. *Requiem: the Medieval Monastic Cemetery in Britain*. London: MoLAS.
- Gittos, H. 2013. *Liturgy, Architecture, and Sacred Places in Anglo-Saxon England*. Oxford: Oxford University Press.
- Godfrey, W.H. 1955. *The English Almshouse: with some account of its predecessor, the Medieval Hospital*. London: Faber.
- Godfrey, W.H. 1959. Mediaeval hospitals in Sussex. *Sussex Archaeological Collections* 97: p.130–136.
- Good, L. 1998. Other finds. In R. Price & M. Ponsford (eds) *St Bartholomew's Hospital, Bristol: The Excavation of a Medieval Hospital: 1976-8*, 163–173. York: CBA Research Report 110
- Goose, N. 2010. The English almshouse and the mixed economy of welfare: medieval to modern. *Local Historian* 40(1): p.3–19.
- Gosden, C. 2005. What do objects want? *Journal of Archaeological Method and Theory* 12(3): p.193–211.
- Grainger, I., Hawkins, D., Cowal, L., & Mikulski, R. 2008. *The Black Death Cemetery, East Smithfield, London*. London: MoLAS Monograph 43.
- Grant, A. 1988. Animal resources. In G. Astill & A. Grant (eds) *The Countryside of Medieval England*, 149–187. Oxford: Blackwell
- Grant, K. 2009. *An Enhanced Archaeological Watching Brief at St John the Baptist Church, Southover High Street, Southover, Lewes, East Sussex*. Archaeology South-East Unpublished Report Number 2009017.

- Grauer, A.L., & Roberts, C.A. 1996. Paleoepidemiology, healing, and possible treatment of trauma in the medieval cemetery population of St Helen-on-the-Walls, York, England. *American Journal of Physical Anthropology* 100: p.531–544.
- Graves, C.P. 1991. Window glass, in B. Durham, The infirmary and hall of the medieval hospital of St. John the Baptist at Oxford. *Oxoniensia* 56: p.58–59.
- Graves, C.P. 2004. Medieval decorated window glass, in C. Crossan, Excavations at St Mary Magdalen's Hospital, Brook Street, Colchester. *Essex Archaeology and History* 34: p.124–127.
- Green, M. 1989. Women's medical practice and health care in medieval Europe. *Signs* 14(2): p.434–473.
- Greene, J. 1992. *Medieval Monasteries*. London: Leicester University Press.
- Grmek, M. 1998. *Western Medical Thought from Antiquity to the Middle Ages*. London: Harvard University Press.
- Gwynn, A., & Hadcock, R.N. 1970. *Medieval Religious Houses of Ireland*. London: Longman.
- Hadley, D.M. 2005. Dining in disharmony in the later middle ages. In M. Carroll, D. M. Hadley, & H. Willmott (eds) *Consuming Passions: Dining from Antiquity to the Eighteenth Century*, 101–120. Stroud: Tempus
- Hall, D. 1995. Archaeological excavations at St Nicholas Farm, St Andrews, 1986–87. *Tayside and Fife Archaeological Journal* 1: p.48–75.
- Hall, D. 2006. 'Unto yone hospitall at the tounis end': the Scottish medieval hospital. *Tayside and Fife Archaeological Journal* 12: p.89–105.
- Hall, J. 1995. Worked stone, in P. Cardwell, Excavation of the hospital of St Giles by Brompton Bridge, North Yorkshire. *Archaeological Journal* 152: p.207–211.
- Hamilton, J. 2013. Excavation at Bartlemas Chapel BC11: September–November 2011 - Report on the Animal Bone. In J. Harrison (ed) *Archeox Excavations at Bartlemas Chapel and Leper Hospital Site, Autumn 2011*, unpaginated.

- Oxford: Archaeology of East Oxford Unpublished Report Available at: <http://archeox.net/investigations/archeox-excavations-bartlemas-chapel-and-leper-hospital-site-autumn-2011.html> (Accessed 16th June 2014).
- Hamilton, J., & Toolis, R. 1999. Further excavations at the site of a medieval leper hospital at St Nicholas Farm, St Andrews. *Tayside and Fife Archaeological Journal* 5: p.87–105.
- Harding, V. 1992. Burial choice and burial location in later medieval London. In S. Bassett (ed) *Death in Towns: Urban Responses to the Dying and the Dead, 100-1600*, 119–135. London: Leicester University Press
- Harris, A. 2004. Architectural materials, in C. Crossan, Excavations at St Mary Magdalen's Hospital, Brook Street, Colchester. *Essex Archaeology and History* 34: p.118–121.
- Harrison, A.C. 1969. Excavations on the site of St Mary's Hospital, Strood. *Archaeologia Cantiana* 84: p.139–160.
- Hawkins, J. 2011. *The Blind in Later Medieval England: Medical, Social and Religious Responses*. University of East Anglia. Unpublished PhD Thesis
- Henderson, J. 1989. The hospitals of late-medieval and Renaissance Florence: a preliminary survey. In L. Granshaw & R. Porter (eds) *The Hospital in History*, 63–92. London: Routledge
- Henderson, J. 2001. Healing the body and saving the soul: hospitals in Renaissance Florence. *Renaissance Studies* 15(2): p.188–216.
- Henderson, J. 2006. *The Renaissance Hospital: Healing the Body and Healing the Soul*. London: Yale University Press.
- Henderson, M., & Knight, H. 2013. 'Le Newerk of Maydeston': Excavations at St Peter's Wharf, Maidstone, Kent. London: MoLA Unpublished Report.
- Hill, N., & Rogers, A. 2013. *Guild, Hospital and Alderman: New Light on the Founding of Browne's Hospital, Stamford, 1475-1509*. Bury St Edmunds: Abramis.
- Hillaby, J. 2003. *St Katherine's Hospital, Ledbury c.1230-1547*. Logaston: Ledbury and District Society Trust, and Logaston Press

- Hinton, P. 2010. The carbonized seeds, in L. Barber and L. Sibun, The medieval hospital of St Nicholas, Lewes, East Sussex: Excavations 1994 Supplement. *Sussex Archaeological Collections* 148 (Supplement): p.41.
- Hollinrake, N. 2014. *Archaeological Investigations in St John the Baptist, Glastonbury*. C. and N. Hollinrake Ltd Unpublished Report Number 486.
- Hopewell, P. 1995. *Saint Cross: England's Oldest Almshouse*. Chichester: Phillimore.
- Horden, P. 1988. A discipline of relevance: The historiography of the later medieval hospital. *Social History of Medicine* 1(3): p.359–374.
- Horden, P. 2001. Religion as medicine: Music in medieval hospitals. In P. Biller & J. Ziegler (eds) *Religion and Medicine in the Middle Ages*, 135–154. Woodbridge: Boydell Press. York Studies in Medieval Theology III
- Horden, P. 2005. The earliest hospitals in Byzantium, Western Europe, and Islam. *The Journal of Interdisciplinary History* 35(3): p.361–389.
- Horden, P. 2007. A non-natural environment: medicine without doctors and the medieval European hospital. In B. S. Bowers (ed) *The Medieval Hospital and Medical Practice*, 133–145. Aldershot: Ashcroft AVISTA Studies in the History of Medieval Technology, Science and Art
- Huggins, P.J. 1970. Excavations of a medieval bridge at Waltham Abbey, Essex, in 1968. *Medieval Archaeology* 14: p.126–147.
- Huntley, J.P. 1995. Carbonized seeds and pollen, in P. Cardwell, Excavations at the hospital of St Giles by Brompton Bridge, North Yorkshire. *Archaeological Journal* 152: p.225–233.
- Hurst, H. 1974. Excavations at Gloucester, 1971-1973: second interim report. *Antiquaries Journal* 54(1): p.8–52.
- Hyacinthe, R. 2007. De Domus Sancti Lazari milites leprosi: Knighthood and leprosy in the Holy Land. In B. S. Bower (ed) *The Medieval Hospital and Medical Practice*, 209–224. Aldershot: Ashcroft AVISTA Studies in the History of Medieval Technology, Science and Art

- Ingold, T. 2007. Materials against materiality. *Archaeological Dialogues* 14(1): p.1–16.
- Jessop, O. 1996. The medieval hospital of Saint Mary Magdalene, Durham. *Archaeologia Aeliana* 5th Series: p.119–127.
- Jones, C.H. 1927. The chapel of Saint Mary Magdalene at Sturbridge, Cambridge. *Proceedings of the Cambridge Antiquarian Society* 28: p.126–150.
- Jones, J. 1998. Plant and insect remains. In R. Price & M. Ponsford (eds) *St Bartholomew's Hospital, Bristol: The Excavation of a Medieval Hospital: 1976-8, 193-4*. York: CBA Research Report 110
- Judd, M.A., & Roberts, C.A. 1998. Fracture patterns at the medieval leper hospital in Chichester. *American Journal of Physical Anthropology* 105: p.43–55.
- Kaplan, D.L. 1993. Biblical leprosy: an anachronism whose time has come. *Journal of the American Academy of Dermatology* 28(3): p.507–510.
- Kendall, E., Montgomery, J., Evans, J.A., Stantis, C., & Mueller, V. 2013. Mobility, mortality, and the Middle Ages: Identification of migrant individuals in a 14th century Black Death cemetery population. *American Journal of Physical Anthropology* 150: p.210–222.
- Kenny, J. 2008. Non-ferrous metallic small finds. In J. Magilton, F. Lee, & A. Boylston (eds) *'Lepers outside the gate': Excavations at the Cemetery of the Hospital of St James and St Mary Magdalene, Chichester, 1986-87 and 1993*, 138. York: CBA Research Report 158 Chichester Excavations Volume 10
- Kerr, J. 2001. Monastic hospitality: the Benedictines of England, c.1070-c.1245. *Anglo-Norman Studies* 23: p.97–114.
- Kerr, J. 2008. Health and safety in the medieval monasteries of Britain. *History* 93 (309): p.3–19.
- King, B. 2009. Documentary evidence. In M. Phillips (ed) *Four Millennia of Human Activity Along the A505 Baldock Bypass, Hertfordshire, 131–135*. Bedford: Albion Archaeology East Anglian Archaeology Report 128

- Knowles, D., & Hadcock, R.N. 1971. *Medieval Religious Houses: England and Wales*. London: Longman.
- Knüsel, C., & Göggel, S. 1993. A cripple from the medieval hospital of Sts James and Mary Magdalen, Chichester. *International Journal of Osteoarchaeology* 3: p.155–165.
- Krautheimer, R. 1942. Introduction to an 'iconography of mediaeval architecture'. *Journal of the Warburg and Courtauld Institutes* 5: p.1–33.
- Kristiansen, K. 2004. Genes versus agents. A discussion of the widening gap in archaeology. *Archaeological Dialogues* 11(2): p.77–99.
- Lee, F., & Magilton, J. 1989. The cemetery of the hospital of St James and St Mary Magdalene, Chichester - a case study. *World Archaeology* 21(2): p.273–282.
- Leech, R., & McWhirr, A.D. 1982. Excavations at St John's Hospital, Cirencester, 1971 and 1976. *Transactions of the Bristol and Gloucestershire Archaeological Society* 100: p.191–209.
- Leistikow, D. 1967. *Ten Centuries of European Hospital Architecture: A Contribution to the History of Hospital Architecture*. Ingelheim am Rhein: C. H. Boehringer Sohn.
- Lepine, D. 2011. Cathedrals and charity: Almsgiving at English secular cathedrals in the later middle ages. *English Historical Review* 126(522): p.1066–1096.
- Lewis, M.E., Roberts, C.A., & Manchester, K. 1995. Inflammatory bone change in leprosy skeletons from the medieval hospital of St James and St Mary Magdalene, Chichester, England. *International Journal of Leprosy* 63(1): p.77–85.
- Locker, A. 1997. The fish bones. In C. Thomas, B. Sloane, & C. Phillpotts (eds) *Excavations at the Priory and Hospital of St Mary Spital, London*, 234–5. London: MoLAS Monograph 1
- Locker, M. 2015. *Landscapes of Pilgrimage in Medieval Britain*. Oxford: Archaeopress.

- Magilton, J., Lee, F., & Boylston, A. 2008. *'Lepers outside the Gate': Excavations at the Cemetery of the Hospital of St James and St Mary Magdalene, Chichester, 1986-7 and 1993*. York: Council for British Archaeology Research Report 158 Chichester Excavations 10.
- Maher, S. 2014. *300 High Street, Berkhamstead, Hertfordshire: Excavation Summary*. Pre-Construct Archaeology unpublished report 11614.
- Mahood, H. 2015. The liminality of care: Caring for the sick and needy on the boundaries of monasteries. *The Reading Medievalist: A Postgraduate Journal* 2: p.50–70.
- Mallows, C., & Phillips, M. 2009. Area 1. In M. Phillips (ed) *Four Millennia of Human Activity Along the A505 Baldock Bypass, Hertfordshire*, 125–131. Bedford: Albion Archaeology East Anglian Archaeology Report 128
- Manchester, K. 1984. Tuberculosis and leprosy in antiquity: an interpretation. *Medical History* 28: p.162–173.
- Manchester, K., & Roberts, C. 1989. The palaeopathology of leprosy in Britain: a review. *World Archaeology* 21(2): p.265–72.
- Manco, J. 1998. *The Spirit of Care: the Eight-Hundred Year Story of St John's Hospital, Bath*. Bath: The Hospital of St John the Baptist with the Chapel of St Michael Annexed with St Catherine's Hospital.
- Margetts, A. 2011. The medieval hospital of St Mary the Blessed Virgin, Ospringe (Maison Dieu): Further details of its original layout revealed by excavations at the Fairways. *Archaeologia Cantiana* 131: p.129–142.
- Martin, D., & Martin, B. 2004. *New Winchelsea, Sussex: A Medieval Port Town*. King's Lynn: Heritage Marketing and Publications on behalf of University College London Field Archaeology Unit Monograph 2.
- Martin, G. 2009. Archaeobotanical remains. In M. Phillips (ed) *Four Millennia of Human Activity Along the A505 Baldock Bypass, Hertfordshire*, 142. Bedford: Albion Archaeology East Anglian Archaeology Report 128
- Maxfield, D.K. 1993. St Mary Rouncivale, Charing Cross: The hospital of Chaucer's Pardoner. *The Chaucer Review* 28(2): p.148–163.

- Maxwell, R. 1995a. Copper alloy objects, in P. Cardwell, Excavation of the hospital of St Giles by Brompton Bridge, North Yorkshire. *Archaeological Journal* 152: p.188–193.
- Maxwell, R. 1995b. Domestic objects, in P. Cardwell, Excavation of the hospital of St Giles by Brompton Bridge, North Yorkshire. *Archaeological Journal* 152: p.201–205.
- Maxwell, R. 1995c. Glass, in P. Cardwell, Excavation of the hospital of St Giles by Brompton Bridge, North Yorkshire. *Archaeological Journal* 152: p.206–7.
- Maxwell, R. 1995d. Iron objects, in P. Cardwell, Excavation of the hospital of St Giles by Brompton Bridge, North Yorkshire. *Archaeological Journal* 152: p.193–200.
- Maxwell, R. 1995e. Medieval and post-medieval pottery, in P. Cardwell, Excavation of the hospital of St Giles by Brompton Bridge, North Yorkshire. *Archaeological Journal* 152: p.168–187.
- Maxwell, R. 1995f. Miscellaneous objects, in P. Cardwell, Excavation of the hospital of St Giles by Brompton Bridge, North Yorkshire. *Archaeological Journal* 152: p.207.
- Maxwell, R. 1995g. Tile, in P. Cardwell, Excavation of the hospital of St Giles by Brompton Bridge, North Yorkshire. *Archaeological Journal* 152: p.212–213.
- Mayes, P. 2002. *Excavations at a Templar Preceptory, South Witham, Lincolnshire 1965-67*. Leeds: Society for Medieval Archaeology Monograph 19.
- Mays, M. 1995. Coins, in P. Cardwell, Excavation of the hospital of St Giles by Brompton Bridge, North Yorkshire. *Archaeological Journal* 152: p.187.
- Mays, S. 2009. A scapula deformity in two burials from medieval England. *International Journal of Osteoarchaeology* 19: p.642–651.
- McEwan, E. 1911. The leprosy of the Bible in its medical aspect. *The Biblical World* 38(3): p.194–202.
- McIntosh, M. 1988. Local responses to the poor in late medieval and Tudor England. *Continuity and Change* 3(2): p.209–245.

- McIntosh, M. 2012. *Poor Relief in England, 1350-1600*. Cambridge: Cambridge University Press.
- McIntyre, L., & Hadley, D.M. 2011. *Archaeological Excavations at Bawtry Masonic Hall, South Yorkshire, July 2010: The Cemetery of the Hospital of St Mary Magdalene*. Department of Archaeology, University of Sheffield unpublished report.
- Meeson, B. 2000. *St John's Hospital, Lichfield: Archaeological Watching Brief*. Bob Meeson, Historic Buildings Consultant Unpublished Report Number 00/18.
- Melhuish, C. 2005. Towards a phenomenology of a concrete megastructure: Space and Perception at the Brunswick Centre, London. *Journal of Material Culture* 10(1): p.5–29.
- Mellor, M. 1991a. The pottery, in B. Durham, The infirmary and hall of the medieval hospital of St. John the Baptist at Oxford. *Oxoniensia* 56: p.49–54.
- Mellor, M. 1991b. The tiles, in B. Durham, The infirmary and hall of the medieval hospital of St. John the Baptist at Oxford. *Oxoniensia* 56: p.57–58.
- Mendum, T.A. et al. 2014. Mycobacterium leprae genomes from a British medieval leprosy hospital: towards understanding an ancient epidemic. *BMC Genomics* 15(270): p.1–8.
- Metzler, I. 2011. Disability in the middle ages: impairment at the intersection of historical inquiry and disability studies. *History Compass* 9(1): p.45–60.
- Miller, D., & Potten, S. 2008. *Archaeological Evaluation at St Katherine's Precinct, Ledbury, Herefordshire*. Historic Environment and Archaeological Service, Worcester County Council Unpublished Report 1630.
- Mills, A., & O'Connor, T.P. 1995. Molluscs, in P Cardwell, Excavation at the hospital of St Giles by Brompton Bridge, North Yorkshire. *Archaeological Journal* 152: p.224–225.
- Mills-Whipp. 1995. *Archaeological Desktop Assessment of Endeavour House, 179-199 Shaftesbury Avenue, London WC2*. Mills Whip Partnership Unpublished Report.

- Milne, G. 2002. *Excavations at Medieval Cripplegate, London: Archaeology After the Blitz, 1946-68*. Swindon: English Heritage.
- Miszkievicz, J.J. 2012. Linear Enamel Hypoplasia and age-at-death at medieval (11th-16th centuries) St Gregory's Priory and cemetery, Canterbury, UK. *International Journal of Osteoarchaeology* 25: p.79–87.
- Mitchell, D. 1993. *A leper cemetery at Spittal's Link, Huntingdon*. Cambridgeshire County Council Archaeological Field Unit unpublished report A20.
- Moffat, B. 1986. *SHARP Practice 1: The First Report on Researches into the Medieval Hospital at Soutra, Lothian Region*. Edinburgh: SHARP.
- Moffat, B. 1992. *SHARP Practice 4: The Fourth Report on Researches into the Medieval Hospital at Soutra, Lothian Region, Scotland*. Edinburgh: SHARP.
- Moffat, B. 1995. *SHARP Practice 5: The Fifth Report on Researches into the Medieval Hospital at Soutra, Lothian Region, Scotland*. Edinburgh: SHARP.
- Moffat, B. 1998. *SHARP Practice 6: The Sixth Report on Researches in to the Medieval Hospital at Soutra, Scottish Borders/Lothian, Scotland*. Fala: SHARP.
- Moffat, B., & Fulton, J. 1988. *SHARP Practice 2: The Second Report on Researches into the Medieval Hospital at Soutra, Lothian Region, Scotland*. Edinburgh: SHARP.
- Moffat, B., Thomson, B.S., & Fulton, J. 1989. *SHARP Practice 3: The Third Report on Researches into the Medieval Hospital at Soutra, Lothian/Borders Region, Scotland*. Edinburgh: SHARP.
- Moreland, J. 2010. *Archaeology, Theory and the Middle Ages*. London: Duckworth.
- Mould, Q. 1997. Leather. In J. Caruth & S. Anderson (eds) *St Saviour's Hospital, Bury St. Edmunds (BSE 013): A Report on the Archaeological Excavations 1989-1994*, 49–51. Suffolk County Council Archaeological Services Report No. 97/20
- Müldner, G., & Richards, M.P. 2005. Fast or feast: reconstructing diet in later medieval England by stable isotope analysis. *Journal of Archaeological Science* 32: p.39–48.

- Murphy, E., & Manchester, K. 1998. 'Be Thou Dead to the World': Leprosy in Ireland, Evidence from Armory, Co. Antrim. *Archaeology Ireland* 12(1): p.12–14.
- Murphy, P. 2004. Environmental assessment of soil samples, in C. Crossan, Excavations at St Mary Magdalen's Hospital, Brook Street, Colchester. *Essex Archaeology and History* 34: p.150.
- Nailer, A. 1997. The leather. In C. Thomas, B. Sloane, & C. Phillpotts (eds) *Excavations at the Priory and Hospital of St Mary Spital, London, 215–217*. London: MoLAS Monograph 1
- Nicoud, M. 2008. Food consumption, a health risk? Norms and medical practice in the Middle Ages. *Appetite* 51(1): p.7–9.
- Nunn, S.P. 1983. *St Giles' Leper Hospital, Maldon: Historical Research (including Dowsing Survey)*. Maldon: Maldon Archaeological Group Unpublished Report.
- Orme, N. 1988. A medieval almshouse for the clergy: Clyst Gabriel Hospital near Exeter. *Journal of Ecclesiastical History* 39(1): p.1–15.
- Orme, N., & Padel, O. 1996. The medieval leper-house at 'Lamford', Cornwall. *Historical Research* 69: p.102–107.
- Orme, N., & Webster, M. 1995. *The English Hospital, 1070-1570*. London: Yale University Press.
- Palliser, D.M. 1993. The topography of monastic houses in Yorkshire towns. In R. Gilchrist & H. Mytum (eds) *Advances in Monastic Archaeology*, 3–9. Oxford: BAR British Series 227
- Palmer, R. 1982. The Church, leprosy and plague in medieval and early modern Europe. *Studies in Church History* 19: p.79–99.
- Parfitt, K. 1991. St John's Hospital Reredorter, Canterbury. *Archaeologia Cantiana* 109: p.300–308.
- Parker Pearson, M., & Richards, C. 1994. Ordering the world: perceptions of architecture, space and time. In M. Parker Pearson & C. Richards (eds)

- Architecture and Order: Approaches to Social Space*, 1–37. London: Routledge
- Pecci, A., & Grassi, F. 2016. Preliminary study of food residues and cooking practices in the Medieval Hospital of Santa Maria della Scala in Siena (Central Italy). *Munibe Antropologia-Arkeologia* 67: p.185–197.
- Pestell, T. 2002. *Landscapes of Monastic Foundation: The Establishment of Religious Houses in East Anglia, c.650-1200*. Woodbridge: Boydell Press.
- Pfizenmaier, S. 2016. *Charterhouse Square: Black Death Cemetery and Carthusian Monastery, Meat Market, and Suburb*. London: MoLA Crossrail Archaeology Series 7.
- Phillips, M. 2009. *Four Millennia of Human Activity Along the A505 Baldock Bypass, Hertfordshire*. Bedford: Albion Archaeology East Anglian Archaeology Report 128.
- Piana, M., & Carlsson, C. 2014. *Archaeology and Architecture of the Military Orders: New Studies*. Farnham: Ashgate.
- Piirainen, M., & Allen, M. 2012. *Archaeological Watching Brief Report: 5 Auden Close, Lincoln, Lincolnshire*. Allen Archaeological Associates unpublished report 2012020.
- Pipe, A. 1997. The animal bone. In C. Thomas, B. Sloane, & C. Phillpotts (eds) *Excavations at the Priory and Hospital of St Mary Spital, London, 231–234*. London: MoLAS Monograph 1
- Ponsford, M. 1998a. Pottery. In R. Price & M. Ponsford (eds) *St Bartholomew's Hospital, Bristol: The Excavation of a Medieval Hospital: 1976-8*, 136–156. York: CBA Research Report 110
- Ponsford, M. 1998b. Roof furniture. In R. Price & M. Ponsford (eds) *St Bartholomew's Hospital, Bristol: The Excavation of a Medieval Hospital: 1976-8*, 156–157. York: CBA Research Report 110
- Popescu, E. 2010. Environment and economy, in R. Atkins and E. Popescu, *Excavations at the Hospital of St Mary Magdalen, Partney, Lincolnshire, 2003. Medieval Archaeology* 54: p.260–263.

- Postles, D. 2001. Small gifts, but big rewards: the symbolism of some gifts to the religious. *Journal of Medieval History* 27: p.23–42.
- Powers, N. 2005. Cranial trauma and treatment: A case study from the medieval cemetery of St Mary Spital, London. *International Journal of Osteoarchaeology* 15: p.1–14.
- Prescott, E. 1992. *The English Medieval Hospital 1050-1640*. London: Seaby.
- Price, R., & Ponsford, M. 1998. *St Bartholomew's Hospital, Bristol: The Excavations of a Medieval Hospital, 1976-8*. York: CBA Research Report 110.
- Priest, V., & Chapman, S. 2002. *An Archaeological Excavation at the Site of St. John the Baptist's Hospital, Mill Farm, Lutterworth, Leicestershire (SK 547 840)*. Leicester: University of Leicester Archaeological Services Report No. 2002/135.
- Pritchard, F., & Spencer, B. 1995. Pilgrims souvenirs, in P. Cardwell, Excavation of the hospital of St Giles by Brompton Bridge, North Yorkshire. *Archaeological Journal* 152: p.201.
- Rackham, J. 2009. Molluscan remains. In M. Phillips (ed) *Four Millennia of Human Activity Along the A505 Baldock Bypass, Hertfordshire*, 141–142. Bedford: Albion Archaeology East Anglian Archaeology Report 128
- Raeman, E. 2008a. The ceramic building material. In A. Margetts (ed) *Archaeological Investigations at Fairways, Ospringe, Near Faversham, Kent: Post-Excavation Assessment and Project Design for Publication*, 9–10. Archaeology South-East Unpublished Report 2008046
- Raeman, E. 2008b. The pottery. In A. Margetts (ed) *Archaeological Investigations at Fairways, Ospringe, Near Faversham, Kent: Post-Excavation Assessment and Project Design for Publication*, 9. Archaeology South-East Unpublished Report 2008046
- Rawcliffe, C. 1984. The hospitals of later medieval London. *Medical History* 28: p.1–21.
- Rawcliffe, C. 1995a. *Medicine and Society in Later Medieval England*. Stroud: Sutton.

- Rawcliffe, C. 1995b. *The Hospitals of Medieval Norwich*. Norwich: Centre of East Anglian Studies, University of East Anglia. Studies in East Anglian History 2.
- Rawcliffe, C. 1999. *Medicine for the Soul: The Life, Death, and Resurrection of an English Medieval Hospital*. Stroud: Sutton.
- Rawcliffe, C. 2001. Learning to love the leper: aspects of institutional charity in Anglo Norman England. *Anglo Norman Studies* 23: p.231–250.
- Rawcliffe, C. 2002. 'Written in the Book of Life': Building the libraries of medieval English hospitals and almshouses. *Library* 3(2): p.127–162.
- Rawcliffe, C. 2006. *Leprosy in Medieval England*. Woodbridge: Boydell Press.
- Rawcliffe, C. 2008. 'Delectable sightes and fragrant smelles': Gardens and health in late medieval and early modern England. *Garden History* 36(1): p.3–21.
- Richards, J.D., Heighway, C., & Donaghey, S. 1989. *Union Terrace: Excavations in the Horsefair*. The Archaeology of York 11/1. London: Council for British Archaeology.
- Richards, P. 1977. *The Medieval Leper and His Northern Heirs*. New York: Barnes and Noble.
- Riddle, J.M. 2007. Research procedures in evaluating medieval medicine. In B. S. Bowers (ed) *The Medieval Hospital and Medical Practice*, 3–18. Aldershot: Ashcroft AVISTA Studies in the History of Medieval Technology, Science and Art
- Rigold, S.E. 1964. Two Kentish hospitals re-examined: S. Mary, Ospringe, and SS. Stephen and Thomas, New Romney. *Archaeologia Cantiana* 79: p.31–69.
- Roberts, C.A., & Cox, M. 2003. *Health and Disease in Britain: From Prehistory to the Present Day*. Stroud: Sutton.
- Roberts, J. 2007. *An Investigation of Medieval Hospitals in England, Scotland and Wales 1066-1560*. University of Wales, Newport. Unpublished PhD Thesis
- Roffe, D., & Roffe, C. 1995. Madness and care in the community: a medieval perspective. *British Medical Journal* 311(7021): p.1708–1712.

- Roffey, S. 2007. *The Medieval Chantry Chapel: An Archaeology*. Woodbridge: Boydell Press.
- Roffey, S. 2008. *Chantry Chapels and Medieval Strategies for the Afterlife*. Stroud: Tempus.
- Roffey, S. 2012. Medieval leper hospitals in England: An archaeological perspective. *Medieval Archaeology* 56: p.203–233.
- Roffey, S., & Marter, P. 2014. Excavations at the medieval leprosy hospital of St Mary Magdalen, Winchester, 2008-2013. *Church Archaeology* 16: p.39–44.
- Roffey, S., & Tucker, K. 2012. A contextual study of the medieval hospital and cemetery of St Mary Magdalen, Winchester, England. *International Journal of Paleopathology* 2: p.170–180.
- Rogers, N. 1991. The metal finds, in B. Durham, The infirmary and hall of the medieval hospital of St. John the Baptist at Oxford. *Oxoniensia* 56: p.54–57.
- Rowe, J. 1958. The medieval hospitals of Bury St. Edmunds. *Medical History* 2(4): p.253–263.
- Rowland-Burden, E. 1927. St Saviour's Hospital, Bury St Edmunds. *Proceedings of the Suffolk Institute of Archaeology and History* 19(3): p.256–285.
- Rubin, M. 1987. *Charity and Community in Medieval Cambridge*. Cambridge: Cambridge University Press.
- Rubin, M. 1989. Development and change in English hospitals, 1100-1500. In L. Granshaw & R. Porter (eds) *The Hospital in History*, 41–59. London: Routledge
- Rubin, M. 1992. *Corpus Christi: the Eucharist and in Late Medieval Culture*. Cambridge: Cambridge University Press.
- Ryder, P.F. 1997. *St Edmund's Chapel, Gateshead*. Peter F Ryder Historic Buildings Consultant Unpublished Report.

- Ryder, P.F. 2001. *The Chapel, Sherburn Hospital, Durham: An Archaeological Assessment*. Peter F Ryder Historic Buildings Consultant Unpublished Report.
- Satchell, A.E.M. 1998. *The Emergence of Leper-houses in Medieval England*. University of Oxford. Unpublished DPhil Thesis
- Satchell, M. 2003. A new Suffolk leper chapel? The lepers of Wentworth and the chapel of St Mary Magdalene, Chilton. *Proceedings of the Suffolk Institute of Archaeology and History* 40(3): p.289–300.
- Sawday, D. 2002. The ceramic finds. In V. Priest & S. Chapman (eds) *An Archaeological Excavation at the Site of St. John the Baptist's Hospital, Mill Farm, Lutterworth, Leicestershire (SK 547 840)*, 58–69. University of Leicester Archaeological Services Report No. 2002/135
- Scheutz, M., Sommerlechner, A., Weigl, H., & Weiß, A.S. 2008. *Hospitals and Institutional Care in Medieval and Early Modern Europe*. Wien: Oldenbourg.
- Schweich, M., & Knüsel, C. 2003. Bio-cultural effects in medieval populations. *Economics and Human Biology* 1: p.367–377.
- Sibun, L., & James, R. 2010. The ceramic building material, in L. Barber and L. Sibun, *The medieval hospital of St Nicholas, Lewes, East Sussex: Excavations 1994 Supplement*. *Sussex Archaeological Collections* 148 (Supplement): p.22.
- Sidell, J. 1997. The eggshell. In C. Thomas, B. Sloane, & C. Phillpotts (eds) *Excavations at the Priory and Hospital of St Mary Spital, London*, 248. London: MoLAS Monograph 1
- Shapland, M. 2013. Meanings of timber and stone in Anglo-Saxon building practice. In M. D. J. Bintley & M. G. Shapland (eds) *Trees and Timber in the Anglo-Saxon World*, 21–44. Oxford: Oxford University Press
- Sloane, B., & Malcolm, G. 2004. *Excavations at the Priory of the Order of the Hospital of the Hospital of St John of Jerusalem, Clerkenwell, London*. London: MoLAS Monograph 20.

- Smith, D. 1997. Insect fauna. In C. Thomas, B. Sloane, & C. Phillpotts (eds) *Excavations at the Priory and Hospital of St Mary Spital, London, 245–7*. London: MoLAS Monograph 1
- Smith, G.H. 1979. The excavation of the hospital of St Mary of Ospringe, commonly called Maison Dieu. *Archaeologia Cantiana* 95: p.81–184.
- Somerville, E. 2010. The marine molluscs, in L. Barber and L. Sibun, The medieval hospital of St Nicholas, Lewes, East Sussex: Excavations 1994 Supplement. *Sussex Archaeological Collections* 148 (Supplement): p.38–41.
- Stainton, T. 2001. Medieval charitable institutions and intellectual impairment c.1066-1600. *Journal of Developmental Disabilities* 8(2): p.19–29.
- Stallibrass, S. 1993. *Animal Bones from Excavations at a Medieval Hospital and a Post-Medieval Farmstead at St Giles by Brompton Bridge, North Yorkshire, 1989-1990*. Ancient Monuments Laboratory Report 95/93.
- Stallibrass, S., & Locker, A. 1995. Animal bone, in P. Cardwell, Excavation of the hospital of St Giles by Brompton Bridge, North Yorkshire. *Archaeological Journal* 152: p.220–224.
- Stephenson, R., & Spoerry, P. 1997. The Pottery. In C. Thomas, B. Sloane, & C. Phillpotts (eds) *Excavations at the Priory and Hospital of St Mary Spital, London, 184–186*. London: MoLAS Monograph 1
- Stewart, S. 1995. Painted wall plaster, in P. Cardwell, Excavation of the hospital of St Giles by Brompton Bridge, North Yorkshire. *Archaeological Journal* 152: p.213–214.
- Stopford, J. 1994. Some approaches to the archaeology of Christian pilgrimage. *World Archaeology* 26(1): p.57–72.
- Sweetinburgh, S. 2002. Supporting the Canterbury hospitals. *Archaeologia Cantiana* 122: p.237–258.
- Sweetinburgh, S. 2003. Joining the sisters: female inmates of the late medieval hospitals in East Kent. *Archaeologia Cantiana* 123: p.17–40.
- Sweetinburgh, S. 2004. *The Role of the Hospital in Medieval England: Gift-Giving and the Spiritual Economy*. Dublin: Four Courts Press.

- Sykes, N.J. 2014. *Beastly Questions: Animal Answers to Archaeological Issues*. London: Bloomsbury.
- Tabuteau, B. 2007. Historical research developments on leprosy in France and Western Europe. In B. S. Bowers (ed) *The Medieval Hospital and Medical Practice*, 41–56. Aldershot: Ashcroft AVISTA Studies in the History of Medieval Technology, Science and Art
- Taylor, G.M. et al. 2013. Detection and strain typing of ancient *Mycobacterium leprae* from a medieval leprosy hospital. *PLoS ONE* 8(4): p.e62406.
- Taylor, G.M., Watson, C.L., Bouwman, A.S., Lockwood, D.N.J., & Mays, S. 2006. Variable nucleotide tandem repeat (VNTR) typing of two palaeopathological cases of lepromatous leprosy from Mediaeval England. *Journal of Archaeological Science* 33: p.1569–1579.
- Taylor, G.M., Widdison, S., Brown, I.N., & Young, D. 2000. A mediaeval case of lepromatous leprosy from 13th-14th century Orkney, Scotland. *Journal of Archaeological Science* 27: p.1133–1138.
- Thomas, C., Sloane, B., & Phillpotts, C. 1997. *Excavations at the Priory and Hospital of St Mary Spital, London*. London: MoLAS Monograph 1.
- Thompson, S. 2010a. *Burford Priory, Burford, Oxfordshire: Archaeological Evaluation*. Salisbury: Wessex Archaeology Unpublished report 71501.1.
- Thompson, S. 2010b. *Governor's Green, Portsmouth, Hampshire: Archaeological Evaluation Report*. Salisbury: Wessex Archaeology Unpublished report 71502.01.
- Tremayne, V. 2010. *A Brief History of Southampton's Medieval Leper Hospital*. Southampton: Vincent Tremayne.
- Trimble, D., Unsworth, S., & Hurley, T. 1991. Excavation of a medieval hospital cemetery in Grantham. *Lincolnshire Past and Present* 5: p.10–11.
- Trott, K. 2011. *Archaeological Strip, Plan and Sample: 56 The Spittal, Castle Donington, Leicestershire*. Allen Archaeology Limited Unpublished Report Number 2011007.

- Vince, A.G. 1982. Post-Roman pottery, in R. Leech and A. McWhirr, Excavations at St John's Hospital, Cirencester, 1971 and 1976. *Transactions of the Bristol and Gloucestershire Archaeological Society* 100: p.202–207.
- Walker, H. 2004. The medieval and later pottery, in C. Crossan, Excavations at St Mary Magdalen's Hospital, Brook Street, Colchester. *Essex Archaeology and History* 34: p.127–141.
- Wall, S.M. 1980. The animal bones from the excavation of the Hospital of St Mary of Ospringe. *Archaeologia Cantiana* 96: p.227–266.
- Ward, J. 2006. *Women in England in the Middle Ages*. New York: Hambledon Continuum.
- Watson, B., & Phillpotts, C. 2015. *The Old Welsh Bridge, Shrewsbury: Excavations at the Severn Theatre Venue, Frankwell, Shrewsbury, 2006-7*. Shrewsbury: Shropshire History and Archaeology: Transactions of the Shropshire Archaeological and Historical Society Volume XC.
- Watson, S. 2006. The origins of the English hospital. *Transactions of the Royal Historical Society* 16: p.75–94.
- Wells, C. 1967. A leper cemetery at South Acre, Norfolk. *Medieval Archaeology* 11: p.242–248.
- Wells, J. 2009. Pottery. In M. Phillips (ed) *Four Millennia of Human Activity Along the A505 Baldock Bypass, Hertfordshire, 137–139*. Bedford: Albion Archaeology East Anglian Archaeology Report 128
- White, H.A. 1991. Appendix 2: the decorated floor tiles. In D. L. Brown (ed) *Salvage Recording at St Oswald's Almshouse, Worcester, 7*. Archaeology Section, Hereford and Worcester County Council Unpublished Report 83
- Wilkinson, P. 2014. *Archaeological Evaluation of Land at the Barkaway Site, 20-22 Ospringe Street, Ospringe, Kent*. Faversham: SWAT Archaeology unpublished report.
- Williams, B. 1998. Floor tiles. In R. Price & M. Ponsford (eds) *St Bartholomew's Hospital, Bristol: The Excavation of a Medieval Hospital: 1976-8*, 157–159. York: CBA Research Report 110

- Willmott, H. 2005. Tudor dining: object and image at the table. In M. Carroll, D. M. Hadley, & H. Willmott (eds) *Consuming Passions: Dining from Antiquity to the Eighteenth Century*, 121–142. Stroud: Tempus
- Willmott, H. 2018. Cooking, dining, and drinking. In C. Gerrard & A. Gutierrez (eds) *The Oxford Handbook of Later Medieval Archaeology*, Oxford: Oxford University Press
- Willmott, H., Townend, P., Huggon, M. Forthcoming. The Hospital of St James, Thornton Abbey, Lincolnshire.
- Wilson, M. 2010. *Archaeological Recording at 33 Cripstead Lane, St Cross, Winchester, Hampshire*. Souterrain Archaeological Services Unpublished Report.
- Wiltshire, P.E. 1997. Palynological assessment of medieval pond deposits. In J. Caruth & S. Anderson (eds) *St Saviour's Hospital, Bury St. Edmunds (BSE 013): A Report on the Archaeological Excavations 1989-1994*, 90–94. Ipswich: Suffolk County Council Archaeological Services Report No. 97/20
- Wiseman, W.G. 1987. The medieval hospitals of Cumbria. *Transactions of the Cumberland and Westmorland Antiquarian and Archaeological Society* 87: p.83–100.
- Woolgar, C.M. 2011. Gifts of food in late medieval England. *Journal of Medieval History* 37(1): p.6–18.
- Yearl, M.K. 2007. Medieval monastic customaries on *minuti* and *infirmi*. In B. S. Bowers (ed) *The Medieval Hospital and Medical Practice*, 175–194. Aldershot: Ashcroft AVISTA Studies in the History of Medieval Technology, Science and Art
- Young, J., & Fletcher, C. 2010. Pottery, in R. Atkins and E. Popescu, Excavations at the Hospital of St Mary Magdalen, Partney, Lincolnshire, 2003. *Medieval Archaeology* 54: p.235–240.
- Ziegler, J. 2001. Religion and medicine in the Middle Ages. In P. Biller & J. Ziegler (eds) *Religion and Medicine in the Middle Ages*, 3–14. York: York Medieval Press. York Studies in Medieval Theology III

Ziegler, T. 2011. The Hospital of Saint John: Exploring charitable distribution in High Medieval Brussels. *Eä Journal of Medical Humanities and Social Studies of Science and Technology* 3(2): p.1–32.

