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postclassicalarchaeologies

volume 2/2012

CONTENTS	PAGES

DOSSIER - PUBLIC ARCHAEOLOGY IN EUROPE

RETROSPECT

PROJECT

REVIEWS

GIS, archaeology and neighbourhood assemblages in Medieval York

GARETH DEAN

University of York, Department of Archaeology, King's Manor, York, *gd519@york.ac.uk*

This paper presents preliminary findings from the study of medieval urban space in York. The concept of neighbourhood has not been fully explored by archaeologists and its influence on the use and character of urban space. To understand neighbourhood it is necessary to understand the development of urban space through the cartographic and historical sources in conjunction with the archaeological evidence. A methodology using GIS for integrated analysis of archaeological deposits, historical and cartographic sources is outlined, shedding new light on the topography of medieval York.
Keywords: urban archaeology, neighbourhood, GIS, York

Il contributo presenta i risultati preliminari di una ricerca sullo spazio urbano medievale di York. Il concetto di quartiere e della sua influenza sulla formazione dello spazio urbano non è stato ben indagato fino ad ora dagli archeologi. Per comprendere il quartiere è necessario uno studio comprensivo della città, attraverso le fonti cartografiche, storiche, archeologiche. L'uso del GIS permette un'analisi integrata che fa nuova luce sulla topografia di York in età medievale.
Parole chiave: *archeologia urbana, quartiere, GIS, York*

Geographical Information Systems (GIS) provide a powerful tool for the analysis of deeply stratified urban archaeology and for integrating a wide range of sources. Within a GIS it is possible to attempt to use assemblages of archaeological material to chart the changing character of 'neighbourhoods' and so move beyond descriptive analysis of building forms and craft/domestic activities to the impacts these have on the evolution of the medieval streetscape and its social interactions. This paper explores such neighbourhood assemblages from medieval York, in the Swinegate area of the city, so revealing a pattern of spatial development of over a *longue durée*, between the 7th-16th centuries. Within this

period, initially the interior of the former Roman fortress in York was evidently sparsely populated, and may have been more like a rural estate or parish, but later, historical and archaeological sources from the late 11th century reveal a large-scale reorganization took placein this same area at the time of the Norman Conquest. Subsequently further detailed archaeological evidence of tenements and their associated buildings for the period between the 14th and 16th century's shows are-planning and shaping occurred in Swinegate on a large scale. These neighbourhood transitions in York are only made visible through assimilating the 'neighbourhood assemblages' built up through unpublished and published excavations in the city over the past forty years or so. Adopting the use of GIS to examine the spatial and temporal relationships between this excavated material in York's Swinegate area in the Middle Ages yields interesting insights into the multi-layered nature of complex urban neighbourhoods (e.g. Soja 2000; Lester 2010).

1. 'Neighbourhood assemblages' and unpublished archaeologies of medieval York

Scholars working on cities from a range of periods have attempted to address defining the use of neighbour and neighbourhood (e.g. Garrioch, Peel 2005; Wrightson 2007, p. 23; Rothschild 2008, pp. 18-20, 67-68; Laurence 2010, pp. 39-40; Lester 2010, pp. 135-139). Neighbourhood, often equated with community, is usually applied to specific areas of towns and cities. These areas can be defined and imposed based on administrative boundaries, but these institutional divisions compete with local definitions of identity based on proximity to a topographical feature or basic amenities. Neighbour on the other hand is taken to have a specific sense of belonging and conferred identity through membership of localised group; this includes acquaintances and friends known to a person who interact on a relatively frequent basis around communal activities, shared services and facilities.

For this archaeological study of York, three principles underpin the idea of 'neighbourhood assemblage'. Firstly, neighbourhoods are spatial-they form within an area defined not only by streets or buildings, but also influenced by resident's perceptions of space and points of social interaction. Secondly the boundaries are not constrained or easily defined; this is despite a desire by scholars to ascribe boundaries, either official or arbitrary, which could miss the boundaries and spaces important to the residents -their 'mental map' that connects where they live in to the wider city. Finally, neighbourhoods are multi-layered made up of overlap-

ping and intersecting spaces; private vs. public, daily routines, civic routines, visitors, differences of age, sex or profession. These patterns themselves are closely bound into the creation of a residents' 'mental map' of the city.

To study these themes in the context of medieval York the 'Neighbourhood Assemblages' project was part of a collaborative project between the University of York and the York Archaeological Trust, funded by the Arts and Humanities Research Council. The 'Neighbourhood Assemblage' project integrated archaeological, cartographic and historical sources using GIS with the aim of not only mapping changes in urban space and land use but also considering social space; of particular interest was the theme of what constitutes neighbourhood and the extent to which it is visible in the archaeological record. One key objective was to develop a methodology to draw upon unpublished archaeology, in conjunction with the historic and cartographic sources, to build up a detailed understanding of the development of a particular neighbourhood of medieval York: Swinegate. The challenge was to use excavations from York which have remained unpublished or partially published from the late 1980s and early 2000s, referred to as back log or grey literature. One of the major problems facing archaeological projects in the UK is funding publication after excavation, resulting in often a large body of unpublished archaeological data ("grey literature") in the archives of archaeological units or museums. In the case of the 'Neighbourhood Assemblages' project unpublished excavations from York were used as a case study to shed important light on the development of Swinegate — an intra-mural area of medieval York — using GIS as an integrative tool.

2. The Swinegate Excavations in York and the Integrated Archaeological Database

Over the last 40 years there have been few opportunities to excavate within the historic core of York, an area defined by the former Roman fortress. The largest-scale excavation to occur in this area took place during 1989-1990 following the clearance of light industrial buildings and warehouses as part of the regeneration of an area called Swinegate; the excavations were funded by the developers and York Archaeological Trust. The Swinegate area comprises four streets known to have been in existence in the later medieval period; Grape Lane, Swinegate, Back Swinegate and Little Stonegate. With the exception of Grape Lane, the present street names are post-medieval; Swinegate in the medieval period was Patrickpool; Back Swinegate and Little Stonegate were
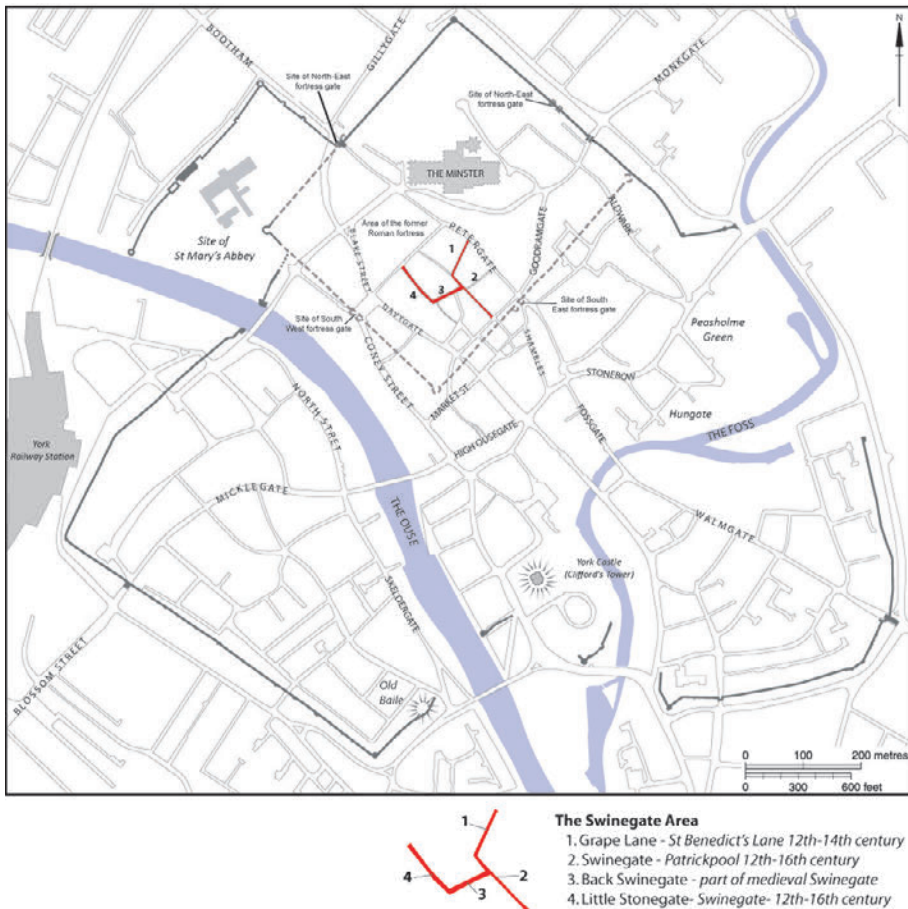
Fig. 1. Plan of York showing the Swinegate study area. The modern streets and their me-
dieval names and the area of the former Roman fortress.

Swinegate-this paper will use the modern street names (fig. 1).

A total of sixteen trenches were excavated; three trenches were ex-
cavated to the Roman levels (fig. 2), but the majority of data related to
the period from the 11th-16th century. The archive from the excavations
consisted of 2,300 individual context records, c.2000 hand drawn plans
and c.3000 artefacts. The post-excavation archive consisted of a print-
out of a descriptive report of the archaeological deposits, spot dating for
pottery and basic artefact reports. There was an electronic archive con-
sisting of 5¾ inch disks and computer tape – the data from these
sources was deemed irretrievable. Some of the artefacts from the
Swinegate excavations have been published in more detail as part of the
York Archaeological Trusts fascicule series (Monaghan 1997; Mould,

Carlisle, Cameron 2003; Ottaway, Rogers 2002). The notable find of wax writing tablets dating to the fourteenth century have also had partial publication and analysis (O'Connor 1989, pp. 36-39; 1990, pp. 30-37; Tweddle 1990, pp. 25-34). The burials recorded from the excavations have also received analysis and publication (Buckberry 2004 and 2007).

The methodology developed to analyse the excavation data needed to be able to allow the study of information from multiple trenches, but also had to be able to integrate historic and cartographic sources. This was considered important because it is necessary to move beyond the excavated boundaries (usually arbitrary relating to the area being developed), to allow analysis that relates to entities that existed in the past, such as individual properties, blocks of land or the whole town (Cessford 2009, p. 312). Using the York Archaeological Trusts Integrated Archaeological Database (IADB) was key to providing digital versions of the excavation records held within the York Archaeological Trust (YAT) archive.

As an easily accessible integrated resource for use in post-excavation analysis, the IADB is a web-based resource that holds stratigraphic diagrams, digital context cards, photographs and finds data (fig. 3). Moreover because it uses SQL language the IADB allows queries to be run on the content of the database and has the capacity to allow publication to the internet. The context data from the Swinegate excavation site was entered into the IADB, as was the artefact information reviewed by the finds staff of YAT. The IADB allows analysis of the site with the creation of context groups (e.g. the elements of a building or a series of contemporary features) which form the basis for the phases of the site. While the descriptive report produced in 1991 had placed the context data
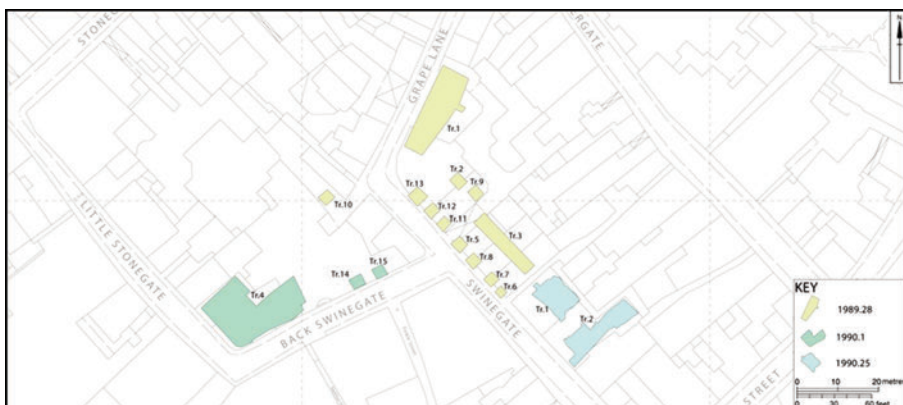
Fig. 2. Location of the excavation trenches.
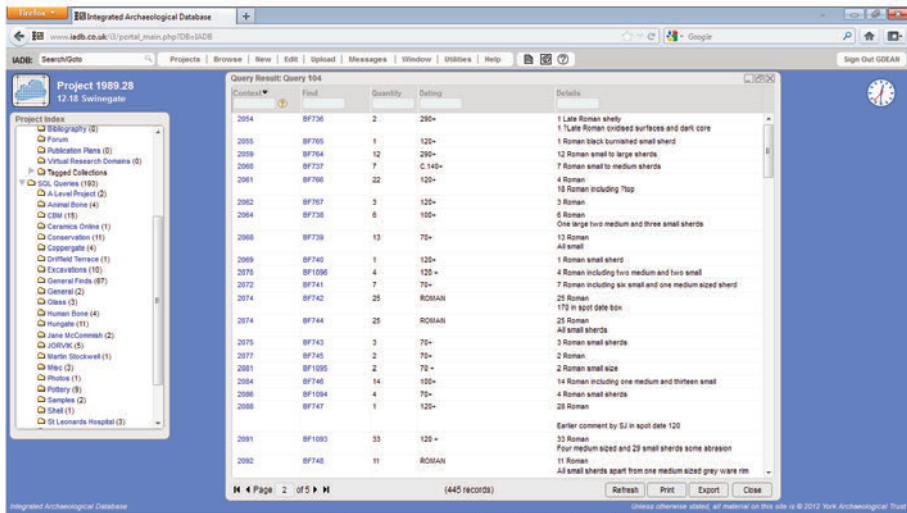
Fig. 3. The IADB finds records. This is an example of the pottery database.

into feature groups, having all the excavation data in a searchable database allowed for the checking of the stratigraphic sequence and refining of the dating of the feature groups and phases. With the archaeological data organized and managed within the IADB, it was possible to run SQL queries to isolate particular elements of the site data set which were exported as CSV or Excel files which can be joined to the spatial data from the excavations in the GIS.

The Swinegate excavations had produced a large quantity of hand-drawn plans of deposits and features. Whilst the IADB allows the digitisation of site plans which are held as part of the context record, they are not located on a geographical map and are located in relation to the excavation. These drawings have to be exported to other computer illustration packages for the production of publication drawings and an alternative means for managing the spatial data was needed to move beyond the constraints of the excavation trenches. Traditionally plan data in archaeology is produced through digitising the site drawings in AutoCAD; the excavation drawings from Swinegate plans had been digitised in the c.1990-91 in early versions of AutoCAD and stored on the 5¾ inch disks. The site phasing would be used to isolate plans in AutoCAD to produce phase plans; AutoCAD is not the only computer illustration package used and sometimes the drawings produced would be redrawn or modified in other desk top illustration packages for use in reports or publications. The types of drawings produced for publications could vary from plans showing the archaeological phases within a trench divorced from its surrounding landscape (or

townscape), to the other extreme of these trench phase plans imposed on Ordnance Survey maps of a town or the countryside. The actual analysis of the archaeological data is often done separately from the historical and cartographic data. When GIS is used, it is often used to plot site distributions, or distributions of artefacts within a site. GIS however has the potential to be a powerful tool in the interpretation of deeply stratified urban excavations. The 'Neighbourhood Assemblage' project developed a methodology integrating archaeological, historical and cartographic data through GIS which was used as an analytical database that allows the production of plans or maps. This is an approach to intra-site analysis of deeply stratified urban excavations that has yet to be widely explored or discussed in publications on the use of GIS in archaeology (e.g. Conolly, Lake 2006).

Due to the fact the original AutoCAD drawings were deemed irretrievable, the original site drawings had to be re-digitised. The original site drawings from the Swinegate excavations were scanned and saved as high resolution JPEG files identified by their context and trench number.
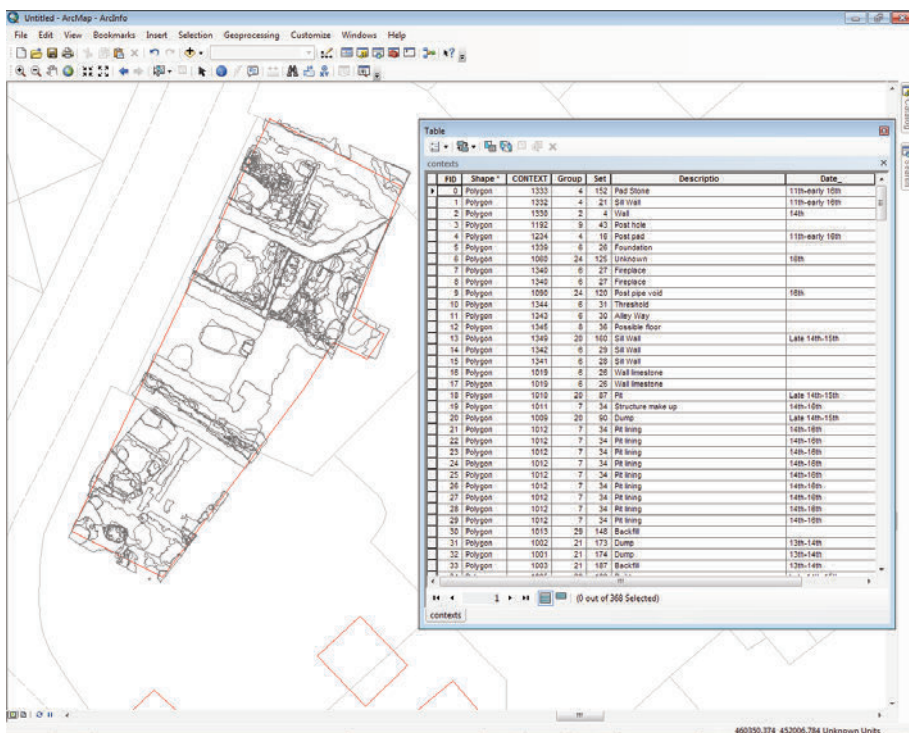
Fig. 4. Example of the spatial data and the attribute data extracted from the IADB. The fields in the attribute data allowed for the analysis of the spatial data across multiple trenches.

Each trench plan was then digitised directly into the GIS. Once the digitisation was complete a master shape-file was created which contained the digitised polygons of all the deposits and features recorded in the sixteen excavated trenches and geo-referenced to a digital map of York. The context descriptions and spot dates were then exported from the IADB and joined by context number to the spatial data in the GIS (fig.4). This allowed analysis of the artefact and archaeological data across multiple trenches which enabled the identification of broad trends and changes in land use that were not apparent in a trench by trench analysis. The GIS was used to geo-reference and digitise a section of the 1852 Ordnance Survey map of York, which is the first detailed map of the streets and plot boundaries of the city. The historical tenement boundary data for the area (Rees Jones 1987) was digitised using the rectified 1852 Ordnance Survey map. This allowed the archaeological data to be analysed in association with the historic land boundaries. The GIS therefore formed an integral part of the analysis of the excavation, aiding in drawing together a range of sources that allowed analysis to occur at the micro-level of a tenement within a trench to the macro-scale of how that property fitted into the streetscape. The following discussion of some of the findings from this work highlights the potential of using GIS that combines archaeological, historical and cartographic data in the analysis of the medieval city.

3. Mapping neighbourhood assemblages in post-Roman York

The Roman fortress at York had a lasting influence on the topography and development of the city in the post-Roman period. However, the development of the fortress area of York in this period is poorly understood largely due to the limited opportunities for excavation; the emphasis of excavation in the last 30 years has been the area to the southeast of the fortress (Hall 2004, p. 493). It is suggested in this paper that throughout the 7th-11th century the remains of the fortress wall at York remained upstanding, forming an ecclesiastical and possibly royal enclosure (Spall, Toop 2008, pp. 17-18). Indeed the north-western quadrant of the Roman fortress was dominated by the Minster, founded in the early 7th century (Norton 1998). While very little is known of the use of the fortress outside the area of the Minster, more is known of the settlement patterns beyond it, with a focus of early settlement at the confluence of the Ouse and Foss from the 7th-mid-9th century (Kemp 1996; Spall, Toop 2008), followed by a relocation and setting out of regular plots and buildings associated with a trading and craft community which grew up around the fortress (e.g. Hall 1984; McNab, McComish 2004).

Fig. 5. The 1852 Ordnance Survey Map showing the location of St Benedict's Church and Benet's Rents at the junction of Grape Lane, Swinegate and Back Swinegate (map provided by John Oxley, City Archaeologist, City of York Council).

It has been suggested that it is at this time that the fortress defences begin to fall out of use and the interior set out with streets as part of the developing town, even if some areas are not yet heavily settled (Norton 1998; Tweddle, Moulden, Logan 1999; Hall 2004, p. 494).

The 1989-90 excavations at Swinegate provided the opportunity to shed important light on the development of the interior of the fortress at York in the area outside the Minster enclosure. The earliest post-Roman activity recorded in the excavations related to one of York's medieval churches that was closed and demolished in the late 13th or early 14th century dedicated to St Benedict. The position of the church was broadly known from the documentary sources recording its closure and the fact the site of the church was developed as housing called Benet's Rents (Rimmer 2007, p. 33). These houses and their name arerecorded on the 1852 Ordnance Survey map (fig. 5). The excavations found no certain evidence for the church although there is tentative evidence to suggest it may have reused part of a Roman building. This reuse is based on the remodelling of a section of Roman wall and its association with the earliest
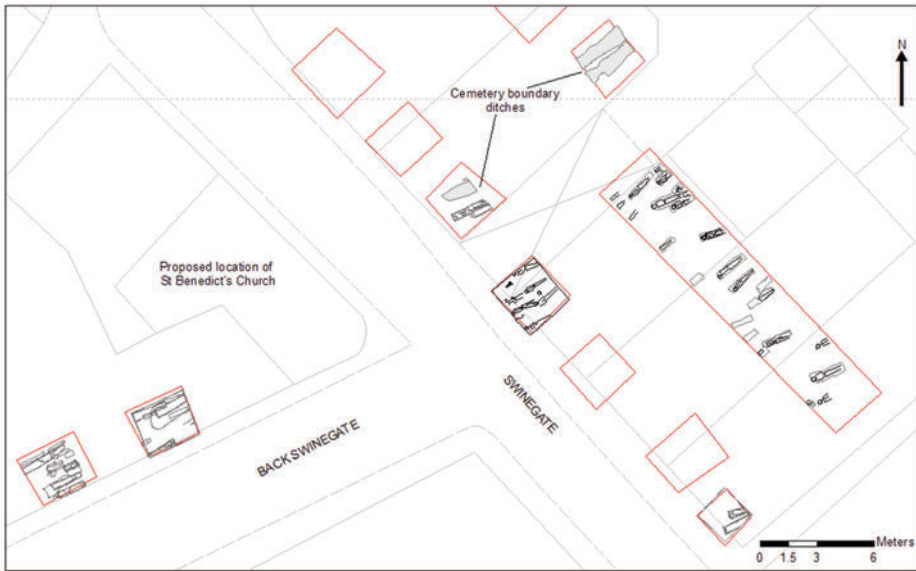
Fig. 6. The extents of the cemetery identified in the excavations.

phases of a cemetery recorded in Trench 14. A concentration of inhumations in this trench appeared to indicate they were focussed near the church (Buckberry 2004, p. 219). The reversed 'L' of Back Swinegate and Little Stonegate was thought to demark the boundaries of the cemetery of the church. However, the burials showed the cemetery was not within the reversed 'L' of the streets as expected but extended to the north-east of modern Swinegate (fig. 6). Part of the boundary of the cemetery in this area was marked by boundary ditches set out parallel to Grape Lane, but the north-east side boundary was not identified. The other extents of the cemetery can be inferred from the absence of burials to the southeast of an alley known as Lund's Court, and in Trench 4 at the corner of Back Swinegate and Little Stonegate. If the reversed 'L' of Back Swinegate and Little Stonegate do not reflect the boundaries of the cemetery, this implies that the street pattern contemporary with the church was different from that recorded in the later medieval historical documents and cartographic sources from the early 17th century.

Examination of the topography of the area raises the possibility that St Benedict's and its cemetery were set out in relation to Grape Lane, first recorded in 1276 as '*Venella Sancti Benedicti*' (the lane of St Benedict: Palliser 1978, p. 10; RCHME 1981, p. 146), and that Swinegate was not yet established. The 1852 Ordnance Survey map shows Grape Lane marks
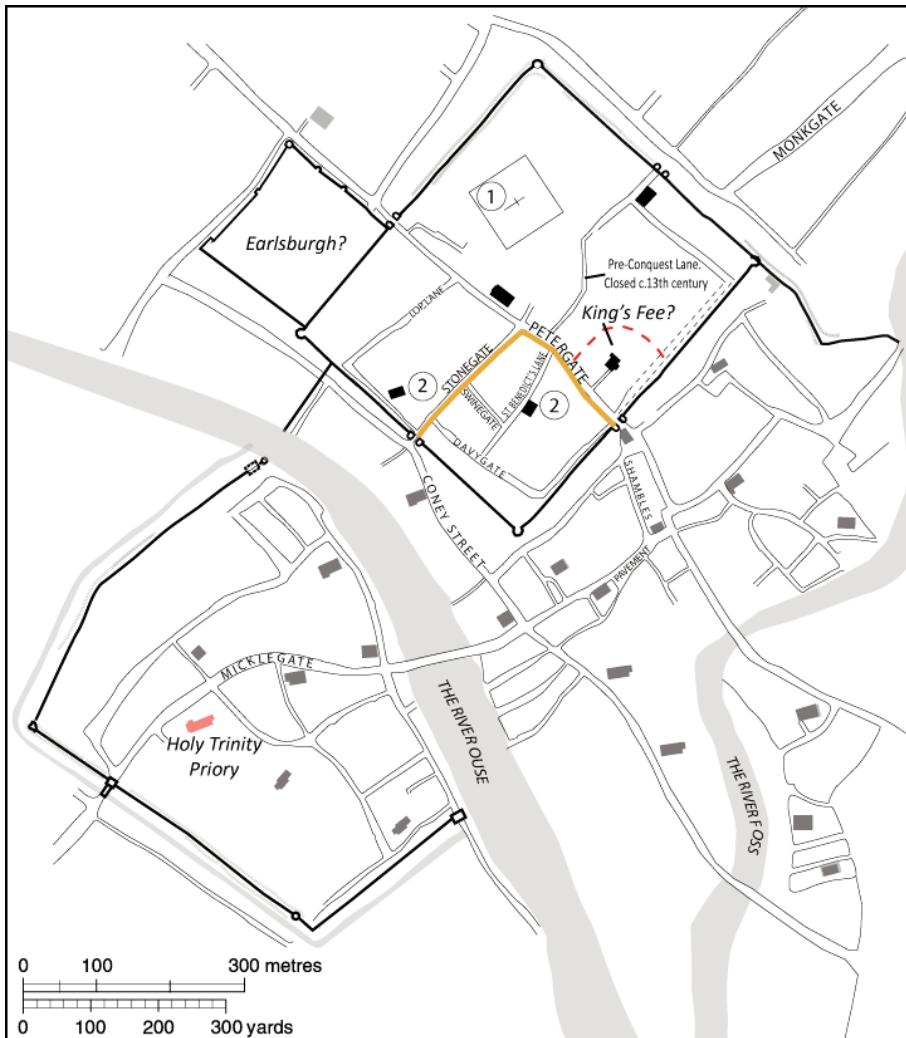
Fig. 7. Possible post Roman landscape showing proposed extension to Grape Lane, the northern lane to the north east gate of the Roman fortress (Norton 1998).

① The Minster

② St Wilfrid's Church

③ St Benedict's Church

☐ St Benedict's Estate

the boundary for two of York's administrative wards and the boundary between two parishes; this alignment can also be projected through the property boundaries between Little Stonegate and Davygate. It is proposed that this preserves the earlier alignment of Grape Lane which formed a route way connecting Davygate to Petergate (fig. 7). The excavations iden-

tified a sequence of cobble and stone surfaces close to this proposed alignment of the road. If Grape Lane extended between Davygate and Petergate it would have formed an important route across the fortress in the 7th-early-11th centuries and would mean that St Benedict's was founded adjacent to an important thoroughfare. It is possible that Grape Lane was associated with a lane, enclosed in 1300, almost opposite its junction with Petergate. It has been argued (Norton 1998, pp. 24-25) that this enclosed lane was the principal Anglo-Scandinavian route from Petergate to the north-east gate of the fortress. If this route was associated with the proposed extended line of Grape Lane, it would provide an important access route across the fortress by-passing the site of the Minster enclosure located in the north-western quadrant of the former fortress.

The archaeological evidence shows the north-eastern section of the graveyard of St Benedict's fell out of use in the early 11th century, but burials continued in the area of the church. The cemetery boundary ditches were backfilled and the area levelled with a series of cobble and stone surfaces that contained residual Roman material as well as pottery dated to the late 10th or early 11th century. Driven through these deposits was a series of timber posts demarking an alley way aligned east-west-an alignment which is in contrast to the north-east-south-west orientation of the Roman and later medieval period. On the north side of the alley was an earth-fast post structure of earth fast post construction and similar to buildings identified in Skeldergate and a late 11th century building at Coppergate (Hall 1994, p. 71; Hall, Hunter Mann 2002, p. 730). Associated with the alley and the building were use deposits. The artefacts from these included antler, leather working waste, amber and bone working, comp making and textile working represented by bone spindle whorls and fibre processing spikes. Personal items included shoes and bone skates. The environmental samples suggested the diet of the residents included grains, fish, shellfish, fruits and eggs. At the same time as the cemetery is built over, there is an increase in the number of pits and accumulation of material near Grape Lane suggesting the presence of properties or activity along this street.

From the late 7th-mid 11th century the interior of the fortress thus appears to have been different in character to the dense urban occupation in the Coppergate and High Ousegate areas near the river Foss and Ouse (Hall 1994). The fortress defined a space separate from the town within which were the Minster, and at least one urban estate with a proprietary church, possibly dedicated to a Northumbrian saint. If the estate in the fortress was the focus for a neighbourhood/community, the residents probably had an allegiance to it with ties to a lord. This scenario has much in common with the definition of a community or neighbourhood based on

parish allegiance (e.g. French 1999). The street pattern within the fortress at this period was also subtly different and shows that some of the streets assumed to have an early origin are in fact much later insertions into the urban topography and that there were short lived episodes of urban planning that have left no visible trace on the topography of the city and are swept away by later programmes of urban re-planning.

4. The complexity of neighbourhood in medieval York

The late 11th and 12th centuries saw major changes in the organisation of urban space in the Swinegate area although a series of pits and dumps suggesting the continued use of the properties fronting onto Grape Lane. This period sees the systematic removal of the upstanding Roman masonry in the Swinegate area; this reflects the evidence from elsewhere in the fortress as well as evidence for removal of the southeast side of the Roman fortress defences (Hall 1991, pp. 264-277; Richards 2001, p. 408). This breaking of the fortress enclosure saw the merging of the interior of the fortress with the established town along the banks of the Foss.

Following the clearance of the Roman masonry in the Swinegate area there is deliberate levelling event comprising dumps of material that contained residual 9th and 10th century pottery, but predominantly pottery fabrics dating to the late 11th or early 12th century. New tenement boundaries and alleys are then set with wicker fences for properties fronting onto Petergate aligned north-east-south-west, respecting the Roman alignment (fig. 8). The fact these properties are fronting onto Petergate not Swinegate is shown from the detailed examination of historical records for these tenements by Sarah Rees Jones (1987, pp. 75-146). This shows that the properties between Grape Lane and Church Street extended the full width between Petergate and modern Swinegate. By mapping these historical tenement boundaries in the GIS it was possible to correlate them to the excavated sequence which showed the backlands were used for the dumping of rubbish, both domestic and craft related; this included small-scale metalworking but it is the leather trades which were most prevalent (Mould, Carlisle, Cameron 2003, p. 3424).

The emphasis placed on the Petergate frontage is a fundamental change from the earlier (post-Roman) period and suggests emphasis is moved away from Grape Lane, although it is still a focus of settlement. The question has to be who was responsible for the large scale reorganization of York in the post-Norman Conquest (late 11th and early 12th century) period (fig. 9). Some towns, such as Southampton, Norwich and Nottingham,
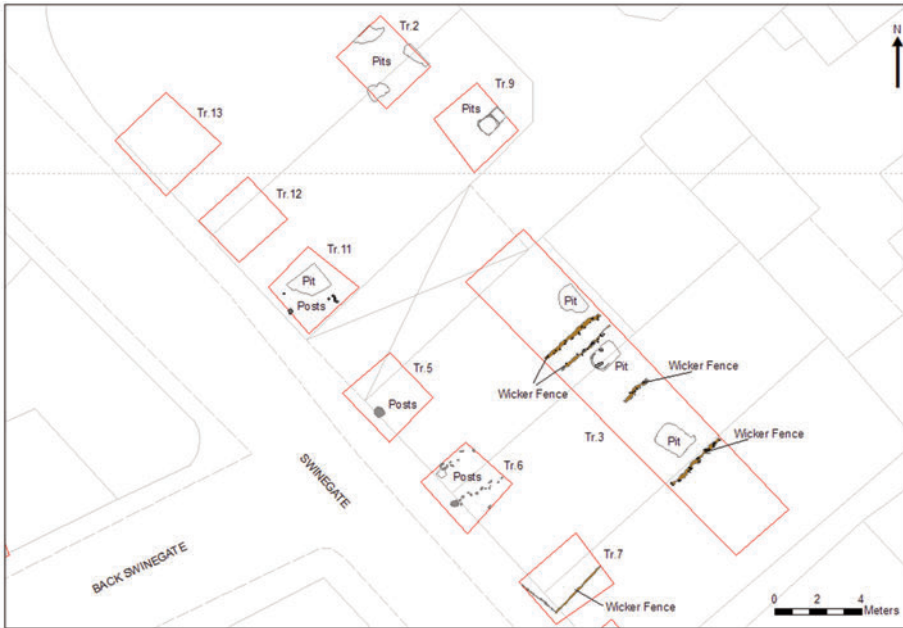
Fig. 8. Posts, pits and wicker fences set out in the late 11th or early 12th century.

had distinct French boroughs attached to them (Lilley 2002, pp. 98-99). However, there is no clear evidence for the establishment of a French borough in York, but recent work by Sarah Rees Jones (2010) shows the imposition of a royal presence on the city in the late 11th and 12th centuries. It is possible the establishment of the new Petergate properties is carried out by the new Norman landowner, but whether there new tenants are Frenchman or the native population is unknown. Further speculative evidence for a Norman presence is the church located on the edge of the Swinegate area dedicated to St Sampson. This saint is associated with Cornwall, Brittany and Normandy and the church stands near the line of Jubbergate which in its earliest form was Bretgate which it has been suggested took its name from Bretons who took up residence in York after the Norman Conquest (Hall 1996, p. 58). Whoever was resident in the area of the fortress, it is clear that the period of the Norman Conquest saw significant reorganization of the fortress area in York and is the point at which the Swinegate area begins to become truly urban, and the process of identifying the character of neighbourhood more complex.

Once the tenements are established in the late 11th century the topography of the fortress along Petergate becomes largely fixed. Through the 12th and 13th century St Benedict's stood as the last significant re-
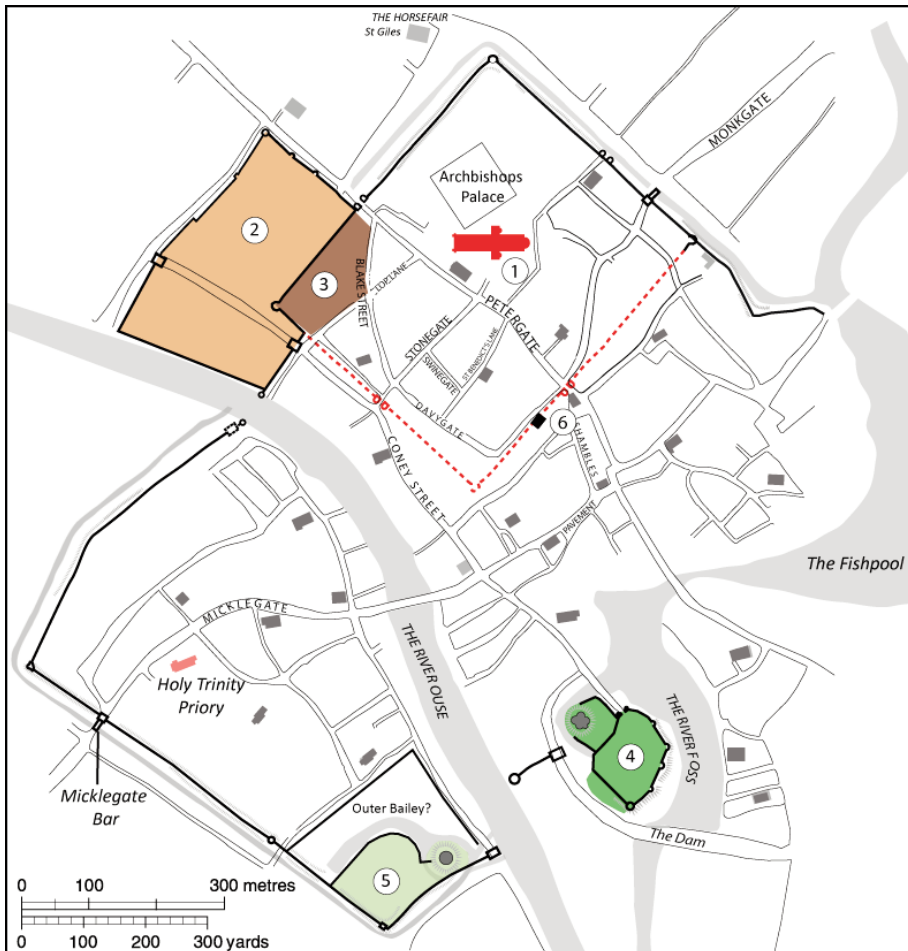
Fig. 9. Late 11th century alterations to the topography of York following the Norman Conquest.

1. The Minster
2. St Mary's Abbey
3. St Leonard's Hospital
4. York Castle (Clifford's Tower)
5. Old Baile
6. St Sampson's Church

minder of the older topography of the area; historical records (Rees Jones 1996) show it became the focus of a parish, but what is less clear are the extents of the parish and the size of the community it served, especially as the emphasis for occupation appears to shift to the properties lining Petergate and the development of the new church of St Sampson's. The problems of identifying the parish are part of the wider debate concerning the formation of urban parishes, but there does appear to be a correlation between earlier land holdings, the influence of

topographical features and groupings of individuals such as craftsmen (Baker, Holt 2004, pp. 239-241). Parish boundaries are first recorded in York on the 1851 Ordnance Survey map and probably reflect the form of the parishes in the 15th and 16th century. The problem is that the parishes shown on the cartographic sources do not take into account churches closed at an earlier date, such as St Benedict's, that would have been absorbed into adjoining parishes, and there would have been an on-goingprocess of changes to the boundaries of parishes through small scale changes as properties were included, subdivided or extended (Baker, Slater 2000, p. 54). It is possible that part of the pre-Norman Conquest urban estate survived to form the parish of St Benedict's in the late 11th and 12th centuries, but it does mean that parish boundaries in the Swinegate area were significantly altered in the early 14th century as a result of the closure of St Benedict's church.

The only archaeological evidence for the residents of the parish comes from the rubbish pits associated with properties in Grape Lane. If the area around the church remained largely undeveloped the population of the parish probably remained small and focused on the properties lining Grape Lane. The growing complexity in the division of urban space could result in a change in the concept of community or neighbourhood from the large land holding of the pre-Conquest estate and see the rise in importance of the street, or sections of it, to become the focus of neighbourhood. Whether the residents of Grape Lane saw themselves as a distinct neighbourhood, separate from the resident of the new tenements along Petergate and the parishioners of St Sampson's is impossible to tell.

The availability of open land in the Swinegate area allowed the creation of a new market place, Thursday Market in the mid-13th century. This was a statement of the growing independence of York's civic authority (Rees Jones 1987, p. 73; 2010, pp. 496-497). Examination of an early 19th century map of York, which predates the changes to Thursday Market through the creation of Parliament Street and the extension of Church Street, show access to this market place was restricted. The new market could have provided the impetus for the development of Swinegate as a formal road as it provided the only access route into the north-east side of Thursday Market via an alley today called Three Cranes Lane. The provision of access into the market may preserve the last influence on the topography of the area by St Benedict's church; two lanes leading from the north-east side of Thursday Market called Nether Hornpot Lane and Finkle Street. St Benedict's stood close to the junction of modern Grape Lane and Swinegate and it is possible that Finkle Street preserves the line of a path that led from the market to the church, and perhaps also gave access to Grape Lane. Nether Hornpot

Lane may have run to the south of the church and connected the new market place to Little Stonegate. A similar arrangement of alley ways can be seen in Peter Lane, between High Ousegate and Market Street (medieval Jubbergate) where the northern lane ran to the church and a southern lane ran through the churchyard (RCHME 1981, p. 180).

The Vicars Choral, a collegiate institution of vicars who worked in the Minster, owned and managed a significant number of properties in York from the 13th century (Rees Jones 2005, pp. 192-199). Large parts of the Swinegate area were to become part of the Vicars urban property holdings and allowed a period of urban re-planning which created the street pattern and property boundaries that largely survive today. Part of this development sees the closure of St Benedict's church in the late 13th century (Tringham 1993). By 1338 ownership of the site of the church passed to the archbishop of York and a license was granted for the building house. However, the site of St Benedict's church remained undeveloped until 1359, when a new license was granted for the construction of houses, known as Benet's Rents, started in c.1360 (Rimmer 2007, p. 36). As part of the construction of these houses it appears that the street pattern is rearranged to that which is recorded on the cartographic sources from the 17th century and survives to the present day. The archaeological evidence shows the line of Grape Lane to Little Stonegate is cut around the late 13th century with the last surfaces of the road truncated by a series of pits containing domestic waste. Once the road is closed, Little Stonegate is connected to Swinegate by the creation of Back Swinegate; the reason to create Back Swinegate was to maximise the street frontage in the area of the former cemetery for redevelopment with small houses (fig. 10). Although excavations did not take place on the area of Benet's Rents, the excavations in Back Swinegate showed the earliest structures set out at the south-western end of the street were constructed in the mid-late 14th century.

Contemporary with the reorganisation of the area around St Benedict's church, the Petergate tenement's acquired by the Vicars Choral between Grape Lane and Church Street are subdivided with properties fronting Petergate and Swinegate (Rees Jones 1987, pp. 117-124). The motivation for the development of Swinegate (medieval Patrickpool) into a road may be due to the development of Thursday Market which, as noted above, could only be accessed from this street on its north-eastern side. The Swinegate excavations identified the process of setting out properties fronting onto Swinegate which resulted in alterations to the 11th century plot divisions from the late 13th century. This shows subtly different arrangement from the townscape recorded on the 1851 Ordnance Survey map, often used as the base for understanding the medieval city. The

Fig. 10. Properties set out along Back Swinegate and Little Stonegate dating to the late 14th century. These properties relate to the development of the area following the closure of St Benedict's church and the area passing into the control of the Vicars Choral.

archaeological evidence shows the properties recorded on the 1851 Ordnance Survey is the result of the amalgamation of tenements and the building over of alley ways. The archaeological evidence indicates that the medieval divisions were usually two adjoining properties of 10ft or 12ft (3 m - 3,65 m) width with alleys on either side. Examination of the surviving medieval buildings and associated alley ways, despite many being enclosed or built over, shows this pattern is to be found across York such as the Shambles. The residents of the new tenements in Back Swinegate and Swinegate brought a change in the craft activity in the 14th century with the appearance of metal working workshops. The change to metal working is also seen in the established properties in Grape Lane.

These workshops were primarily engaged in copper alloy working, but they also appear to have been domestic spaces based on the rubbish from the associated cess pits. This has implications for the study of neighbourhood because, as Jeremy Goldberg (2004, pp. 13-28) has highlighted, the composition of a medieval household could be complex and range from single women to familial households that included servants as well as workers not resident in the property. It is clear that the metal working trades were often family businesses and the wife could be as actively involved as the husband and that they usually had one apprentice (Swanson 1989). It is possible that the ground floors were reserved for commercial/craft activities with upper floors used for accommodation and the division of space between shop, workshop and domestic space is reflected in the wills. The wills and probate inventories also highlight the discrepancy between what is listed as the contents of a property and what survives in the archaeological record for a house.

The evidence for craft activities such as metalworking is not usually taken beyond a basic description of presence and types of metal working carried out. However, through an understanding of the metal working trades manufacturing processes of the smiths (e.g. Blair, Blair 2001, pp. 81-106; Tylecote 1987) aids with the interpretation of the archaeological evidence, but also allows consideration of social interactions, the character and appearance of a neighbourhood. The archaeology of the workshops shows that adjoining properties, although engaged in copper alloy working, could be producing items that would mean the craftsmen were in different craft guilds; York had thirteen separate craft groups; a number which may have reflected council policy, or perhaps the nature of metal working itself led to the formation of distinct specialized fraternities or mysteries based on their extent and reputation (Swanson 1981, p. 179; 1989, pp. 66-81). Those involved in different process and in different fraternities in the same street would have maintained traditional differences, loyalties and hostilities and there are records of disputes (Swanson 1989, p. 68). However, within a street people would know each other, at least by sight and would have to cross different social classes due to the fact that rich and poor lived in close proximity (Phythian Adams 1979, pp. 166-167).

Understanding the use of space in buildings would also have affected the noise coming from them. Woolgar (2006, p. 66) suggests that the medieval city would have been comparatively quiet, with the loudest noises being dogs barking, people shouting and a few man made sounds. However, the excavations show the workshops in Grape Lane and Swinegate were in the front of the buildings and were engaged in the casting of dress accessories and vessels as well as the working of sheet metal. The processes involved would have included hammering the use of saws, files, drills, lathes and soldering irons (Tylecote 1987, pp. 209-218; Hodges 1989, pp. 74-76; Blair, Blair 2001, p. 88). Even if the workshops were set to the rear of the buildings, as shown in the Back Swinegate tenements, the sounds would have carried into the street. Swanson (1989, p. 67) argues that the work of the smith's would have been tediously noisy. Indeed, the London Founders' Ordinances regulated the hours of work to minimise disturbance and literary references are also made to the noise associated with the metalworkers (Blair, Blair 2001, p. 89). This detailed information on the character of an area drawn from the archaeological information can be seen as reflecting the multi-layered nature of complex urban neighbourhoods where the street was the dominant focus, but within which smaller communities would have formed based on proximity and identified through the display of visual signs, associations of individuals or families or the presence of particular crafts. The official

boundaries of ward, parish and craft affiliation through the guilds could have been used by the community to meet, gain status, air grievances and were the means for the authorities to ensure that urban space was maintained and the law upheld (Phythian Adams 1979, pp. 115-116; Rosser 1989, pp. 2-3, 248; Hartshorne 2004, p. 35).

5. Conclusion: GIS, archaeology and the study of neighbourhood

The meaning of the words 'neighbour' and 'neighbourhood 'may have changed over time, and its definition and interpretations in the past were different to those of today, but in the medieval and early modern periods neighbour, neighbourliness and neighbourhood were all closely associated with Christian ideologies (Tadmoor 2010). Wrightson's (2007, pp. 26-31) study of neighbourliness in the Elizabethan and Jacobean period showed it involved a combination of place, personal knowledge, active reciprocity, the avoidance of conflict and aspirations towards Christian charity. It represented an ideal, but often enough was an operative ideal. It had multi-dimensional meaning combining religion utilitarian and sentimental elements. Through an examination of the neighbourhood assemblages from Swinegate in medieval York, it is possible to begin to explore the role of the parish as a focus of medieval urban community (French 1996; Kumin 1999). The role of the parish as defining community may be applicable with a single church — as with St Benedict's — serving a parish similar to a village setting: however closer scrutiny suggests late medieval society was not contained, immobile, within fixed parochial blocks (Rosser 1988, pp. 29-30, 248).

While such neighbourhoods are socially and spatially defined, they might or might not have had clearly marked geographical parameters (Wrightson 2007, pp. 22-23). Indeed Howell argues that the spaces of late medieval urbanity were the vehicles of social and political production; spaces were socially produced and socially productive (Howell 2000, pp. 17, 19). Again, the changing and evolving nature of Swinegate as seen through its material culture points to neighbourhood in medieval York being what Soja (2000, p. 8) describes as a mental or ideational field, conceptualized in imagery, reflexive thought and symbolic representation, a conceived space. The importance of understanding the local spaces of neighbourhoods, is shown in the landmarks used by the resident to describe the city; often things noticed and which remained in people's memories because of their significance in everyday life; whole system of addresses and descriptions designed for locals and not for strangers (Garrioch 1986, p. 27; Smail 2000; Lester 2010). Within these areas, each person had a different social interaction (Garrioch 1986, pp. 2-4). It is

the identification of lost local landmarks and understanding the land use for the character of areas that urban archaeology can contribute significantly to the study of neighbourhoods, adding detail to the information available in historical or cartographic. Here the uses of spatial technologies — in particular GIS-based analyses and mappings — can begin to help conjure past imagined and material cultures of the neighbourhood, for not only is GIS as tool for integrating large volumes of detailed archaeological data from different time-periods, it also yields the intrinsic spatial quality of the medieval urban landscape, and even something of those who dwelt within it and who played a role in shaping it.

References

N. Baker, R. Holt 2004, *Urban Growth and the Medieval Church. Gloucester and Worcester*, Aldershot.

N. Baker, T. Slater 2000, *Morphological Regions in English Medieval Towns*, in P.J. Larkham, J.W.R. Whitehand (eds), *Urban Landscapes. International Perspectives*, London, pp. 43-68.

C. Blair, J. Blair 2001, *Copper Alloys*, in J. Blair, N. Ramsey (eds), *English Medieval Industries*, London, pp. 81-106.

J. Buckberry 2004, *A Social and Anthropological Analysis of Conversion Period and Later Anglo-Saxon Cemeteries in Lincolnshire and Yorkshire*, Unpublished PhD Thesis, University of Sheffield.

J. Buckberry 2007, *On Sacred Ground: Social Identity and Churchyard Burial in Lincolnshire and Yorkshire, c. 700-1100 AD*, in S. Semple, H. Williams (eds), *Anglo-Saxon Studies in Archaeology and History 14: Early Medieval Mortuary Practices,* Oxford, pp. 117-129.

C. Cessford 2009, *Post-1550 Urban Archaeology in a Developer funded Context: An Example from Grand Arcade, Cambridge*, in A. Horning, M. Palmer (eds), *Crossing Paths or Sharing Tracks? Future directions in the archaeological study of post-1550 Britain and Ireland*, Woodbridge, pp. 301-321.

J. Conolly, M. Lake 2006, *Geographical Information Systems in Archaeology*, Cambridge.

K. French 2001, *The people of the parish: community life in a late medieval English diocese*, Philadelphia.

D. Garrioch 1986, *Neighbourhood and community in Paris, 1740-1790*, Cambridge.

D. Garrioch, D. Peel 2005, *Introduction: The Social History of Urban Neighbourhoods*, "Journal of Urban History", 32, pp. 663-676.

P.J.P. Goldberg 2004, *Medieval England*, London.

K.L. French 2001, *The people of the parish: community life in a late medieval English diocese*, Philadelphia.

R.A. Hall 1984, *The Viking Dig: Excavations at York*, London.

R.A. Hall 1991, *Anglo-Scadinavian Defences North-East of the Ouse*, in P.V. Addyman, R.A. Hall, *Urban Structures and Defences*, York, pp. 264-277.

R. Hall 1994, *Viking Age York*, London.

R. Hall 1996, *York*, London.

R. Hall 2004, *The Topography of Anglo-Scandinavian York*, in R.A. Hall, D.W. Rallason, M. Blackburn, D.N. Parsons, G. Fellows-Jensen, A.R. Hall, H.K. Kenward, T.P. O'Connor, D. Tweddle, A.J. Mainman, N.S.H. Roberts (eds), *Aspects of Anglo-Scandinavian York*, York, pp. 488-502.

R.A. Hall, K. Hunter-Mann 2002, *Medieval Urbanism in Coppergate: Refining a Townscape*, York.

P. Hartshorne 2004, *The Street and the Perception of Public Space in York, 1476-1586*, Unpublished PhD Thesis, University of York.

H. Hodges 1989, *Artifacts*, London.

M. Howell 2000, *The Spaces of Late Medieval Urbanity*, in M. Boone, P. Stabel (eds), *Shaping Urban Identity in Late Medieval Europe*, Leuven, pp. 3-24.

R. Kemp 1996, *Anglian Settlement at 46-54 Fishergate*, York.

B. Kumin 1999, *The Shaping of a Community: The Rise & Reformation of the English Parish c. 1400-1560*, Aldershot.

R. Laurence 2010, *Roman Pompeii: Space and Society*, London.

A. Lester 2010, *Crafting a Charitable Landscape: Urban Topographies in Charters and Testaments from Medieval Champagne*, in C. Goodson, A.E. Lester, C. Symes (eds), *Cities, Texts and Social Networks 400-1500*, Farnham, pp. 125-148.

K. Lilley 2002, *Urban Life in the Middle Ages: 1000-1450*, London.

N. McNab J. McComish 2004, *Anglo-Scandinavian and Roman remains at 28-29 High Ousegate, York, UK*, "Archaeology of York Web Series", 3. Online in: www.iadb.co.uk/waterstones/intro.htm (accessed December 2011).

J. Monaghan 1997, *Roman Pottery From York*, York.

Q. Mould, I. Carlisle, E.A. Cameron 2003, *Leather and Leatherworking in Anglo-Scandinavian and Medieval York*, York.

C. Norton 1998, *The Anglo-Saxon Cathedral at York and the Topography of the Anglian City*, "Journal of the British Archaeological Association", 151, pp. 1-42.

S. O'Connor 1989, *Waxing Lyrical*, "Interim", 14.4, pp. 36-39.

S. O'Connor 1990, *The General Accident Waxed Tablets Part II,* "Interim", 15(3), pp. 30-37.

P. Ottaway, N. Rogers 2002, *Craft, Industry and Everyday Life: Finds from Medieval York*, York.

D. Palliser 1978, *The medieval street names of York*, "York Historian", 2.1, pp. 2-16.

C. Phythian-Adams 1979, *Desolation of a city: Coventry and the urban crisis of the late Middle Ages*, Cambridge.

RCHME 1981 = Royal Commission for Historic Monuments of England, *The Central Area*, vol. 5, London 1981.

S. Rees Jones 1987, *Property, Tenure and Rent: Some Aspects of the Topography and Economy of York*, Unpublished PhD Thesis (2 volumes), University of York.

S. Rees Jones 1996. *Medieval Title Deeds for the City of York, 1080-1530*, (computer work plus documentation), Colchester, ESRC Data Archive, SN: 3527.

S. Rees Jones 2005, *God and Mammon: The Role of the City Estate of the Vicars Choral in the Religious Life of York Minster*, in R.A. Hall, D. Stocker (eds), *Vicars Choral at English Cathedrals, Cantate Domino: History, Architecture and Archaeology*, Oxford, pp. 192-199.

S. Rees Jones 2010, *Civic Government and the development of public buildings and spaces in Later Medieval England*, in J.A. Telechea, B.A. Bolumburu (eds), *Construcciones, infraestructuras e instalaciones urbanas*, Logroño, pp. 497-512.

J. Richards 2001, *The Vicars Choral of York Minster: The College at Bedern*, York.

J. Rimmer 2007, *Small Houses in Late Medieval York and Norwich*, Unpublished PhD Thesis, University of York.

G. Rosser 1988, *Communities of parish and guild in the late Middle Ages*, in S. Wright (ed), *Parish, Church and People: Local studies in lay religion 1350-1750*, London, pp. 29-55.

G. Rosser 1989, *Medieval Westminster 1200-1540*, Oxford.

N. Rothschild 2008, *New York City Neighbourhoods*, New York.

D. Smail 2000, *The Linguistic Cartography of Property and Power in Late Medieval Marseille*, in B. Hanawalt, M. Kobialka (eds), *Medieval Practices of Space*, Minnesota, pp. 37-64.

E. Soja 2000, *Postmetropolis: Critical Studies of Cities and Regions*, Oxford.

C. Spall, N. Toop 2008, *Before Eoforwic: New Light on York in the 6th-7th Centuries*, "Medieval Archaeology", 52, pp. 1-26.

H. Swanson 1981, *Craftsmen and Industry in Late and Medieval York*, Unpublished Phd Thesis, University of York.

H. Swanson 1989, *Medieval Artisans*, Oxford.

N. Tadmoor 2010, *The Social Universe of the English Bible*, Cambridge.

N. Tringham 1993, *A Redundant Church in Medieval York: A Note on St Benet's*, "Yorkshire Archaeological Journal", 65, pp. 173-174.

D. Tweddle 1990, *The General Accident Waxed Tablets Part III*, "Interim", 15.4, pp. 25-34.

D. Tweddle, J. Moulden, E. Logan 1999, *Anglian York: A Survey of the Evidence*, York.

R. Tylecote 1987, *The early history of metallurgy in Europe*, Harlow.

C. Woolgar 2006, *The Senses in Late Medieval England*, London.

K. Wrightson 2007, *The 'Decline of Neighbourliness' Revisited*, in N.L. Jones, D. Woolf (eds), *Local Identities in Late Medieval and Early Modern England*, Basingstoke, pp. 19-50.