1.0 Introduction

The archaeological evidence for the end of Roman Britain and the emergence of the sub-Roman and early medieval world in the 5th century is complex and not easy to interpret. The consequences of the Roman abdication of political control clearly had some direct impacts such as the cessation of the coin supply. There are also a series of wider developments, such as the changes in building techniques and a realignment of the economy. Some of these may have been caused by the immediate political events of the early 5th century, but others may reflect wider structural transformations in Late Antiquity, with their origins in the 3rd or 4th centuries and continuing to play out well into the 5th century across the Western Roman Empire. The study of these changes has increasingly become a focus for study, with a series of recent contributions to the debate (Collins and Gerrard 2004; Faulkner and Reece 2002; Gerrard 2013; Gerrard and Collins 2004; Rogers 2004; Speed 2014).

Not surprisingly, much of the debate about the 5th century transformation of Britannia has centred on explorations of the trajectories of Romano-British towns. Despite the emergence of Iron Age oppida in the immediate pre-Roman period, the spread of urbanism was closely connected to the advent of Roman government. The formal establishment of colonia and civitas capitals was the result of direct official intervention, introducing a new form of settlement to Britain. However, the emergence of an increasingly complex monetised economy in the 1st and 2nd centuries AD also saw a more organic development of a lower tier of small towns. Thus whether seen as the result of official policy or the consequences of new economic structures, Romano-British urbanism was intimately linked with the Roman Conquest and a perceived process of Romanisation. Consequently, the reverse is also true - urbanism has been used by many scholars as a lens through which to understand the uncoupling of Britain from Imperial control.
It is clear that Romano-British towns were undergoing major transformations from the 3rd century onwards. This was reflected in the decline of public building programmes (except for defences), whilst existing public buildings underwent significant changes in use (Rogers 2004; Speed 2014). At the same time, there appears to have been an increased investment in high-status rural domestic structures (villas) suggesting that regional élites were increasingly focused on the countryside rather than towns.

However, some forms of activity on town sites clearly continued into the later 4th century and beyond. Much of the scholarly focus on these later phases of Roman urban archaeology has been on unpicking the details of specific chronological sequences as well as wider explorations of whether this evidence is indicative of a continuation of clearly urban activity as distinct from small-scale, essentially, rural activity, situated within the confines of former towns. Good examples of recent disagreements about specific sequences of late-post-Roman activity include the re-evaluation by Alan Lane of the classic Wroxeter Bath-Basilica sequence (Barker et al 1997; Lane 2014) and the debate over the chronology of the late sequence in Insula XXVII at Verulamium (Frere 1983, 2011; Neal 2003, Faulkner and Neal 2009.

The practical problems in interpreting such key late sequences revolve around two key issues. First is the transition from an architectural tradition dominated by the use of structural stone, particularly in urban contexts, to one dominated by timber, including the use of sill-beams and post-pads, which leave often relatively ephemeral remains.

The second problem is the challenge in identifying absolute, rather than relative, chronologies, due to a perceived lack of dateable material culture. Official coin supply terminates c.AD409/10, and even before that the overall coin supply had decline dramatically. Whilst increasingly, good cases are being made for the continued use of coinage (if not continuity in supply) further into the 5th century, much of the evidence for this is based on the subjective judgement of the extent of wear, which fails to provide absolute dating evidence (Walton and Moorhead 2016).

The other mainstay of Romano-British site chronologies is ceramics. Again, the early 5th century sees major changes in the local production and import of ceramics. Whilst, recent scholarship is starting to indicate the presence of continuity in some industries, this work is at an early stage, and the overall decline in the quantity of ceramics remains clear (Gerrard 2014, 2016). The overall decline in the extent of coinage and ceramics is reflected by a wider decline in the quantity of all types of material culture.

This quantitative decline in dateable artefacts exacerbates the underlying challenge presented by high-degrees of residuality in large urban sites (Evans and Millet 1992; Vince 1995). In cities, such as York and London, which had dense periods of activity during the Roman period, any intrusive late or post-Roman activity will inevitably disturb earlier material and incorporate it into later layers. When combined with a low level of contemporary material culture, it makes it very hard to reach firm absolute dates for the late/sub-Roman phases on urban sites.

A final problematic dimension of understanding the archaeology of Romano-British towns in their final stages is the ‘dark earth’ phenomena. These dark, often organic rich, layers are widely found in late/post-Roman urban contexts in Britain and abroad. They have been the focus of considerable debate (Macphail et al. 2002; Watson 1988; Yule 1990). The general consensus is that they develop pedologically from the reworked remains of Roman buildings and deposits, via processes such as robbing out and middening, as well as less directly anthropogenic
activities. Perhaps inevitably, there is far less consensus over the archaeological significance and implication of these soils than over the processes that form them.

Whilst radiocarbon dates are regularly used to resolve chronological problems in archaeology, in the past, there has been limited use of such techniques to unpick the conundrums presented by the Roman to early medieval transition. The prime reason for this is that the 5th century AD is a period when the calibration of radiocarbon dates is liable to give particularly large margins of error. In the period under discussion there is a plateau on the calibration curve between AD 450 and AD 530 meaning that is not possible to place many dates more accurately within this broad 90-year bracket, thus calculated date ranges can often be too wide to provide much fine-grained insight into the process of transition. Nevertheless, with the increased use of Bayesian statistical methods to hone radiocarbon dates, the potential for using scientific approaches should not be underestimated. In recent years there has been an increase in the use of radiocarbon dating to look at late Roman and early medieval burials, which has shown interesting results, suggesting that the accepted chronologies for both the continuity of late Roman burial rites and the introduction of early medieval furnished burial rites are actually far from secure (Hills and O’Connell 2009; Gerrard 2015).

There has not yet, though, been any major use of radiocarbon dating to try and unpick urban archaeological sequences. This project is a first attempt to try and apply the use of such a dating technique to a particular stratigraphic sequence which has the potential to incorporate sub-Roman deposits between more certain late Roman and Anglian deposits. By utilising unpublished archive data describing the excavated material and using faunal remains held in storage, an initial attempt is made to resolve some of the dating issues presented by the late and post-Roman sequence from Queen’s Hotel York (YAT 1988-89.17).
2.0 The Roman to medieval transition in York

York (Eboracum) was one of the most important urban centres in the northern part of the late Roman diocese of Britannia. The city combined a major legionary fortress and a colonia for the settlement of military veterans. By the late Roman period, it had become the key civil and military centre of the frontier zone – the fact that two Roman emperors (Septimius Severus; Constantius I) died here is testament to its strategic importance. By the late 3rd or early 4th century it was the headquarters of the Dux Britanniorum, one of the senior military command posts in Roman Britain, responsible for the command of the Hadrian’s Wall and the other military installations along the frontier. Following the reforms of the provincial framework under Diocletian, York was also became capital of the province of Britannia Secunda.

The early 4th century saw refurbishment of the fortress’s defences, although these may have been intended as much as a statement of power as a response to military threat. Within the fortress, the basilica underwent a major phase of remodelling, which may have been related with the establishment of the post of Dux. In the immediate proximity to the fortress, mosaics from St Mary Castlegate and the Ebor Brewery site, presumably from domestic contexts are indicative of the continuity of urban residence by members of the élite. In the area of the colonia, south of the river, there also clearly continued to be substantial levels of settlement. Good quality mosaics, presumably, are known, such as the fine depiction of the Four Seasons from Toft Green and remains of substantial late town houses have been found at St Mary Bishophill Junior and Clementhorpe.

In terms of material culture, the later assemblages from York are, like many other northern British military sites, are dominated by local calcite-gritted wares. Important work by Mark Whyman on the ceramic assemblage from Wellington Row has confirmed earlier observations about the relative chronological significance of the proportion of calcite-gritted wares to other types of pot. He also suggested that activity at Wellington Row continued into the mid-5th century AD. Whilst this site produced some structural evidence for sub-Roman activity, the evidence for secure sub-Roman activity in York is limited. A common feature was the development of poorly understood ‘dark earths’, found at many sites, including Tanner Row (YAT 1983-84.32), Leedhams Garage Wellington Row (YAT 1987.24), Wellington Row (YAT 1988-9.24; Ottaway 1993, 113), 14 Skeldergate (YAT 1991.14), the North Street Boreholes (YAT 1992.1) and 64-74 Skeldergate (YAT 671).

Within the fortress, the evidence for sub-Roman activity is equally limited. The one exception to this is the site of the basilica (subsequently the site of York Minster). Here there have been extensive excavations in and around the site of the former military headquarters. Here in probable 5th century deposits, an important deposit of faunal remains, dubbed the ‘small pig horizon’ has been identified (Carver 1995, 195; Roskams 1996, 272–3). The interpretation of this assemblage has been disputed, with Carver et al suggesting that it indicates a limited agricultural regime being eked out within the basilica, whereas more recently James Gerrard has argued that a preference for pork indicates the continuity of élite lifestyles and feasting practices (Gerrard 2007).
3.0 Queen’s Hotel (YAT 1988-89.17): Site overview

The Queen’s Hotel site lies within the colonia to the south of the River Ouse. The excavations took place following the demolition of the former Queen’s Hotel, which lay at the corner of Micklegate and Skeldergate\(^1\) (Figure 1). Occupation appears to have commenced in the early 2nd century; earliest in the sequence was a ditch cutting into natural clay, which became infilled with organic material which incorporated pottery and leatherworking debris. Nearby were contemporary surface deposits. This phase was followed, in the later 2nd century AD by the building of larger structure of uncertain function, which was demolished in the 3rd century AD. Following demolition the area was levelled up by dumps of clay and rubble and a new structure dating to the mid-late 3rd century AD. The structural remains of this building were very well preserved, with walls surviving to 3.5m high and 2.2m thick (Figure 2). They were pierced by three tile-lined openings, and the interior contained a sequence of opus signinum floors. It has been suggested that this substantial structure is part of late Roman bath-house (Ottaway 1997, 102).

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\(^1\) The description of the excavated sequence at Queen’s Hotel is based on McOmish 2015 and Monaghan 1997.\(^1\)
This building continued to be used well into the 4th century AD, with a structural alterations including the infilling of the openings taking place c.AD360. At some point after this, the structure was demolished and there was a further levelling phase. A sequence of four burials was inserted into this infill; these all produced Anglian C14 dates (see below). Nearby were a set of regularly spaced post-holes seemingly comprising a 10m long timber structure aligned on the Roman street. A number of pits also cut from the same level containing Anglian sherds (Tweddle et al 1999, 193, 267). The chronology for the sequence running from the demolition of the Roman structure to the insertion of the pits and burials into the levelling layer remained unclear to the excavators; in the archive report phasing diagram this sequence (Phases 7.6-10) were ascribed a broad late 4th-9th century AD date.

Figure 2. Blocked arches in large late Roman structure, Queen’s Hotel

It is interesting to compare the sequence from Queen’s Hotel with nearby Wellington Row (1988-89.24), which after the construction and destruction of a series of wooden and stone structures in the 2nd and 3rd centuries AD saw the final structures falling out of use in the mid-4th to late 4th century and the area being overlain by a series of dumped deposits including industrial and domestic waste. However, there then seems to have been a further phase of more ephemeral construction at the site taking place in the sub-Roman period, the dating being based on 5th century forms identified through the work of Mark Whyman (Whyman 2001). Whilst Wellington Row appeared to show activity into the 5th century, there was no evidence for subsequent Anglian activity, whereas at Queen’s Hotel, the Roman material appeared to end in the 4th century with no evidence for any use of the area until the Anglian period.
However, a crucial aspect of the identification of the sub-Roman activity at Wellington Row was the extremely detailed analysis of the ceramic assemblage carried out by Mark Whyman as part of his 2001 PhD thesis. The material from Queen’s Hotel had not been given the similar level of close analysis. This raises an important question, is the absence of sub-Roman activity from Queen’s Hotel, real or a function of the lack of work on the ceramic assemblage? There is no a priori reason why the levelling phase at Queen’s Hotel may not have taken place in the 5th century or that there had been a phase of levelling down or clearance between the Roman and Anglian activity.

The aim of this Museum Resilience project was therefore to see whether it was possible to relook at the late sequence at Queen’s Hotel. In the absence of the necessary resources to revisit the ceramic assemblage, it was decided to carry out series of radiocarbon assays from late and post-Roman contexts in an attempt to identify any 5th century activity.
4.0 Methodology

There was funding available for five radiocarbon dates, which would complement the existing radiocarbon dates that had been obtained from the late burials which all produced clearly Anglian dates (Table 1). Three contexts were selected to provide a sequence from probable late Roman to Anglian and maximise the potential of picking up any in situ or redeposited 5th century material.

**Context 7162 (Phase 7.6.2).** Part of the rubble infill dumped into the interior of the Roman structure. Possibly waste left over from the robbing of this or another nearby building. Contained fragments of 4th century pot and one fragment of Anglian pot. The archive report suggested that this context may have belonged to any date from the 4th to 9th century AD.

**Context 7041 (Phase 7.6.3)** Comprising a mix of stone and friable silty loam – with fragments of tile, *opus signinum*, charcoal and bone. Sealed phase 7.6.2. Suggested as being part of the infilling of the late Roman building. Cut by pits (Phase 7.8) and postholes (Phase 7.9) which were of Anglian date.

**Context 7048 (Phase 7.8.7)** Upper fill of pit (7055) cut from level of 7041.
5.0 Results

<table>
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<tr>
<th>Context</th>
<th>Material</th>
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<th>Cal 2 sig</th>
<th>Lab no</th>
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<tr>
<td>7162</td>
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<td>89-102 (1.5%) 123-259 (85.9%) 281-324 (8%)</td>
<td>SUERC-65157</td>
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<tr>
<td>7162</td>
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<td>597-682AD</td>
<td>SUERC-65158</td>
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<td>240-395AD</td>
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<td>7041</td>
<td>Cattle molar</td>
<td>1742 ± 34</td>
<td>224-391AD</td>
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<tr>
<td>7048</td>
<td>Cattle radius</td>
<td>1280 ± 32</td>
<td>659-777 ((4.8%) – 793-800 (0.6%)</td>
<td>SUERC-65156</td>
</tr>
</tbody>
</table>

Figure 3: Plot of new C14 dates (SUERC) and C14 dates from inhumations.
These results allow us to draw two important conclusions about the late sequence at Queen’s Hotel.

(i) There is no evidence for 5th or 6th century activity at the site. The dates obtained split evenly and clearly between those of a broadly late Roman date (3rd/4th century AD) and Anglian dates (7th/8th century).

(ii) Despite the high level of residuality, it is most likely that the sequence running from the demolition and infill of the structure to the insertion of the burials, pits and the associated post-holes probably belongs to the Anglian period, rather than the late Roman period. The presence of an Anglian C14 date from 7162 makes it less likely that the fragment of Anglian pottery found in the same context was intrusive, and instead suggests an early 7th century start date for the sequence. The similarity between the dates from the burials and the new dates suggest that all this activity was broadly contemporary.

There are some wider implications that can be derived from this improved understanding of the later chronology of the Queen’s Hotel. First, the proposed sequence contrasts with Whyman’s suggested chronology from nearby Wellington Row, which, on the basis of the ceramic assemblage, includes a more clearly sub-Roman phase. This suggests that whilst there may well be sub-Roman activity taking place in the former colonia south of the Ouse, it is relatively localised. It is noticeable that the Wellington Row site is located on the line of the main Roman road close to the bridge head, whereas Queen’s Hotel is further away from the main communication route. There may be a contraction of activity to core areas leaving more peripheral areas of the town to fall out of use in the 5th century.

The second issue concerns the afterlife of Roman buildings in 5th/6th century York. If the robbing and infilling of the structure belongs to the Anglian rather than late Roman period, this suggests that the putative bath-house may well have remained far more of a feature in the relict streetscape of sub-Roman York than previously thought. A later date for the demolition does make some sense. Robbing of stone from standing structures implies that the stone is being used elsewhere. However, it is hard to imagine a context in the late 4th or 5th centuries in York, in which there was a requirement for large quantities of robbed stone, particularly given the movement from a stone-based to timber-based architectural vocabulary. However, 7th/8th century Anglian York may well have required stone for the construction of early churches. There are five documented pre-Conquest churches within the walled area south of the Ouse (St Mary Bishophill Senior, Saint Mary Bishop Hill Junior, Holy Trinity Micklegate, St Gregory Barker Lane and St Martin-cum-Gregory Micklegate) and the presence of Anglian burials at Queen’s Hotel may hint at the presence of another, undocumented church in the near vicinity. There is solid evidence for stone-robbing elsewhere in this area, although generally this is of a slightly later date (cf. Bishophill II – Anglo-Scandinavian to 13th century - Carver et al 1978, 40; 5 Rougier Street(YAT 1981.12), Tanner Row (YAT 1983-4.32) and Former Presto’s Supermarket, George Street (McOmish 2001, 18) all 10th/11th century. Re-used Roman stone is also clearly visible in the 12th century church tower of St Mary Bishophill Junior (Tweddle et al. 1999, 157). It is possible that the robbed stone from Queen’s Hotel may have been used for other purposes; little is known about the nature of the waterfront in this area, and rubble may have been used to reclaim and consolidate the Ouse frontage, and even the precise chronology of early versions of the Ouse Bridge crossing remain unclear.
6.0 Suggestions for further work

An improved understanding of the later sequence at Queen’s Hotel contributes to a wider understanding of the post-Roman trajectory of York south of the Ouse (cf McOmish 2007). The use of radiocarbon dating clearly has some potential to refine our understanding of the Roman to Anglian transition in this area. This work might be extended in two ways.

(i) Further campaigns of dating on possible comparable sequences from elsewhere in the area. Sites of particular interest include Bishophill II, Wellington Row and St Mary Bishophill Senior. Wellington Row, in particular, may provide an interesting case study, where careful selection of samples, may provide insight and corroboration of Whyman’s proposed 5th century chronology for the pottery assemblage from the site. The timber-lined channel found at the same site of possible 5th century date also deserves scientific dating.

(ii) More detailed analysis of the Queen’s Hotel sequence through thorough integration of the artefactual and ceramic assemblage with the scientific dating campaign. Easily datable objects such as coins could easily be incorporated into a statistical model allowing the C14 sequence to be refined, whilst the application of Whyman’s observations from Wellington Row to the Queen’s Hotel pottery assemblage would also be useful. Finally, further dates, particularly from the layers immediately preceding those sampled in this piece of research may also help resolve in more detail the chronology of the final stages of Roman activity at the site.
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