



Old Collections, New Questions: Researching the Roman Collections of the Yorkshire Museum

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Abbreviations

YMT York Museums Trust
YAT York Archaeological Trust

RA *Research Agenda*
RIB *Roman Inscriptions of Britain*
RIC *Roman Imperial Coinage*

Introduction

Andrew R. Woods

This document draws together four others created as a part of the 'Old Collections, New Questions' project undertaken by York Museums Trust. This project focused upon the Yorkshire Museum's Roman collection. This collection is designated, and is amongst the strongest in country, but much was uncovered in the nineteenth century. The current project has sought to determine what new information modern research questions and methods could uncover about these historic collections.

As much as it has been about uncovering new information the project has also been about establishing an agenda for how the collections can be pro-actively used for research. The project has confirmed our belief that there is huge research potential amongst the Roman collections. It is a hope that the following will outline a path towards the use of these long-standing collections in new, innovative and engaging ways, ensuring that their full potential is realised.

The resources below are organised into four sections. A distinction is maintained between the archaeological and numismatic collection reflecting their differing collections' histories and curatorial responsibilities. The sections are as follows:

1 Research Agenda. This sets out the over-arching themes and questions for the interpretation of the collections. It also introduces the collections, previous research and other repositories of Roman material in York.

2 Overview of the Archaeology Collections. This provides a detailed discussion of the strengths of the archaeological collections.

3 Archaeology Research Plan. This establishes the possible avenues of research using objects from the archaeological collections.

4 Numismatic Research Strategy. This provides a brief overview of the collection alongside a plan for possible research projects.

These documents represent the work of a number of authors. The Research Agenda (1) has been written by Emily Tilley, with contributions from a number of other York Museums Trust Staff. The collections overview (2) and research plan (3) for the Archaeological collections have been written by Patrick Ottaway. The Numismatic sections (4) have been the work of Vincent Drost. In each of these cases, the authors have benefitted from advice from a wider steering group who have helped refine thinking. I would like to thank all of the authors as well as the members of the steering group (John Oxley, Steve Roskams, James Gerrard, Nicole Beale) for their contributions.

Lastly, the project would not have been possible without the support of Arts Council England, who have funded the work through their *Designation Development Fund*. The fund recognises and supports the research potential of designated collections. Through this award the Roman collections of the Trust are better understood than at any other point in their history, primed for innovative research and ready to be interpreted to their full potential.



1. Research Agenda

Emily Tilley

with contributions from Andrew Woods, Adam Parker and Natalie Buy

1.1. Introduction

1.1.1. Key Questions

There are five key questions which this project seeks to explore:

1. What **themes** are emerging in Roman Studies?
2. What is the **potential** of Roman museum collections?
3. What (new) **methods** can we use on Roman collections?
4. What **partnerships** can be built to achieve the above?
5. How can we **engage** people with the results?

1.1.2. Project Aims

This project aims to investigate what new information modern research interests, methods, and values can reveal about York Museum Trust's (YMT) Roman collections. The resulting research will allow YMT to use these long-standing collections in new, innovative and engaging ways, ensuring that their full potential is met.

1.2. Previous Research Projects

Prior to the development of this collaborative project, a number of individual projects have been undertaken on the Roman collections housed by the Yorkshire Museum. Within the period 2000-2017 the following researchers engaged with YMT collections:

- Lindsay Allason-Jones (2001); Jet Spectroscopy.
- Sally Worrell (2006); Tadcaster Arm Purse.
- Hella Eckardt / Steph Leach (2009-2010); Diaspora project, human remains and migration.
- Emma Durham (2009); Metal figurines.
- Malin Holst (2010); Yorkshire Museum Roman Skeleton.
- University of Leicester (2011-16) Hoarding in Iron Age and Roman Britain with special reference to the 3rd century AD.
- Christine Minto (2012); Milestone.
- Anna Booth (2012); Penannular Brooches.
- John Cruse (2013); Quern Stones.
- Brian Roberts (2013); Plough and plough share.
- Rhea Bretell (2014-15); Chemical analysis of lipids used in gypsum burials.
- Rachel Wood (2014); Crambeck Ware PhD.
- Jamie Kapinski (2015); Greek Helmet.
- Thomas Derrick (2015); Glass unguentaria PhD.
- Adam Parker (2015); Jet *Gorgoneia*.
- Stephen Greep (2016); Ivories.
- Matt Fittock (2016); Pipeclay Figurines PhD.
- Kurt Hunter-Mann (2016-17); Wenham archive, roads and early excavations.

Roman Exhibitions in the Yorkshire Museum 2002-2017

- Constantine (2006)
- Roman York: Meet the People of the Empire (2010-present)
- Celebrating Severus (2011)
- Constantius: York's Forgotten Emperor (2016)

1.3. Potential

[Eboracum's] dual character, with military and civilian sites of the highest rank side by side, makes Eboracum unique in Britain and crucial for the understanding of the Roman imperial achievement in this country.

Patrick Ottaway (2013), *Roman York*, p.11.

York is one of the most significant Roman sites in Britain. The city's Roman heritage is comparable to only a handful of other sites within North-Western Europe. The outstanding preservation of archaeological remains, history of excavation, antiquarian collection and range of excavations make it a unique resource for the study of the period.

The wider region has a very pronounced pre-Roman identity. The region remained at the frontier throughout the period, initially as there were campaigns to extend the empire and later as a region at the edge of the empire. During the period, it developed its own economy and industries which made it prosperous, and connected into a wide range of trading networks.

In Yorkshire today there is a range of expertise to contribute to the better understanding of Roman York and Yorkshire, institutions with skills to disseminate findings, and enthusiastic audiences eager to engage with their Roman heritage.

1.3.1. Roman York and Yorkshire as archaeological resource

Between 1972 and 2000 there were 194 excavations of Roman remains carried out by YAT alone. These and a large number of other recent archaeological interventions have provided evidence across almost all parts of the city. These excavations vary in date and scale but together provide a cross-section of Roman activity. There is evidence from the fortress (City Walls, Blake Street), the *Principia* (the Minster), the civilian settlement (Bishophill), cemeteries (Railway Excavations/The Mount, Trentholme Drive), and extramural settlement (Heslington East).

YMT is also the current archaeology repository for North Yorkshire and has previously collected across the whole of historic Yorkshire. Sites held by the trust include Iron Age/early Roman transitions (Stanwick), major military sites (Catterick), and major villas (Dalton Parlours).

York has a strong antiquarian tradition with large quantities of material, including some very significant pieces, from nineteenth century excavations, as well as chance finds. Extensive paper archives offer insights into the work and lives of antiquarian collectors, as well as helping with the interpretation of Roman York. There have also been recent excavations, using the latest scientific and sampling techniques (Heslington East). A large backlog of unpublished material remains extant in the archives of YMT and a number of archaeological units.

1.3.2. Collaboration and partnership

Many institutions in York and across Yorkshire hold Roman collections (see 1.4). There is an equally broad range of expertise in the interpretation of such collections. A number of universities, museums, commercial archaeological units, independent scholars and local archaeological groups have knowledge which can be drawn upon.

Similarly, there are a number of partners (many of whom overlap with the above) with expertise and ability to help with the dissemination of the results. There is a track record of cooperative working between museums, heritage professionals, academic organisations, independent researchers, students, volunteers, community groups, visitors, families, and school groups to promote the importance of the region's Roman heritage and its legacy. Furthermore, there is a ready audience with an interest in the period with large audiences at Roman-themed events.

1.4. Organisations

1.4.1. Yorkshire Museum

There is good research access to the Yorkshire Museum collection and archives. The exact nature of the collections archived in YMT is, perhaps, not widely known outside of the organisation. Recent auditing as part of the current project has produced well quantified figures of the Roman collections (over 15,000 Roman coins, 20,000 individual objects, and 100,000 objects in bulk assemblages), from which research priorities or opportunities can be established. An ongoing digitisation process is also underway, which will ensure that high quality images of the collections are available internally, and will ultimately be made publicly available online.

The Yorkshire Museum's key collection strengths include:

- Inscription Evidence, including religious and funerary
- Funerary remains and grave groups
- Jet and jet-like material culture
- Ceramics
- Numismatics
- Glass
- Significant site archives (EG: Catterick)

In addition to the material archive, the paper archive in the Yorkshire Museum is, largely, an untapped resource which may contain information relating to the above areas of interest. The physical condition and accessibility of this archive is, generally, good but its state of documentation is poor to the point that a complete archive listing does not yet exist.

1.4.2. Other Institutions and Partnerships

York Archaeological Trust (YAT) are the major archaeological partner in York, currently sharing the archival responsibility of excavated material. Collaboration and partnership between YMT and YAT is well established. YAT are the major publishers of excavation reports on York.

Published catalogues to date:

- Small Finds: Blake Street, Skeldergate & Bishophill, Church Street Sewer
- Pottery: Blake Street, General Accident & Rougier Street, Bishophill, Roman Pottery from York
- Structural: Defences, Coney Street, Blake Street & Aldwark
- Environmental: Coney Street, Church Street Sewer, Skeldergate, Tanner Row and 5 Rougier Street

There is some availability of YAT's publications online. There have been 194 archaeological interventions by YAT between 1972 and 2000 in York which have encountered Roman remains (http://www.iadb.co.uk/gaz/gaz_list.php). Roman collections are on display in DIG: An Archaeological Adventure. Recent Roman evidence from excavations at Hungate are of particular interest. There is potential

for greater collaboration regarding researcher access and partnership working to promote Roman York.

York Minster has Roman small finds on display alongside consolidated remains of its 4th century *Principia* (primarily the Basilica). Excavations by Derek Phillips are well published in two volumes.

The **City Walls** include the major extant visible remains of Roman York. Free visitor access is available almost throughout, with some interpretation of Roman remains. They are important as indicators of the relationship between the ancient city and the modern city.

The **Roman Bath Pub** includes *in situ* remains of the legionary bath-house. The remains are interpreted in an independently run museum. Objects from YMT's collection are currently displayed in the public house.

Eboracum **Roman Festival** was introduced to York in 2016. YMT is lead partner in collaboration with many city-wide stakeholders to deliver and grow this important festival for the city.

Many **Regional Museums and Heritage Organisations** in and around Yorkshire also hold significant Roman collections, which can serve as comparanda for YMT's collections and research. Some of these are:

- English Heritage
- Scarborough Museums Trust
- Malton Museum
- Leeds City Museum
- Museums Sheffield
- Doncaster Museum and Art Gallery
- Royal Pump Room Museum, Harrogate
- Craven Museum and Gallery
- North Lincolnshire Museum, Scunthorpe
- Hull and East Riding Museum
- Whitby Museum

Regional Universities offer a wealth of expertise and are at the cutting edge of modern research approaches. YMT already has a strong relationship with universities in and out of the region. This project has relied heavily upon these partnerships. There are possibilities for further expansion of these relationships. Existing and possible partners include:

- University of York
- York St John University
- University of Leeds
- University of Sheffield
- Durham University
- Newcastle University
- Northumbria University
- University of Hull

The **Portable Antiquities Scheme** records archaeological objects found by members of the public in England and Wales, and has a substantial online database of finds and findspots. The Finds Liaison Officer for North and East Yorkshire is based at the Yorkshire Museum.

The **Yorkshire Philosophical Society** was founded in 1822. Its members were responsible for collecting, identifying and interpreting much of the Roman material now in YMT's collection. In 1830 the YPS opened the Yorkshire Museum to house their growing geological and archaeological collections. In 1961 the YPS entrusted the Museum to York City Council and have remained in close partnership with YMT ever since.

The **City of York Council** performs a curatorial role in the city planning process; it approves, monitors and indexes archaeological projects; it manages the City Walls; it instigated the Roman amphitheatre project as part of the Festival of Ideas in 2016; most of the collections held by York Museums Trust are curated on behalf of the City of York Council.

The City of York Council Historic Environment Record (CYCHER) holds data about archaeological sites and monuments and the historic built environment.

https://www.york.gov.uk/info/20216/archaeology/1288/historical_environment_record

<http://www.heritagegateway.org.uk/gateway/>

Currently the HER holds 4301 Monument Records, 6339 Event Records, 1980 Source Records, 1749 Designation Records, 1372 Historic Landscape Character Records, and 235 Finds Records.

Numerous **Commercial Organisations** carry out archaeological excavations in York and have considerable expertise in the city's Roman remains, including:

- Malton Archaeological Practice (inactive)
- Field Archaeology Services (inactive)
- On-site Archaeology
- Northern Archaeological Associates
- Oxford Archaeology North
- AOC Archaeology
- PJO Archaeology
- Addyman Archaeology
- Wessex Archaeology
- Border Archaeology
- Allen archaeology
- University of York Archaeology Department
- Headland Archaeology
- Network Archaeology LTD
- CS Archaeology
- Pre-Construct Archaeology
- York Excavation Group (inactive)

Many of these organisations hold objects and archives which have been allocated YMT accession numbers. These materials have great potential, but are currently beyond the scope of this research project.

1.5. Themes

The following themes have been identified as areas of research interest. This is based on curatorial expertise as well as consultation with the steering group and feedback from Study Days undertaken as part of the ‘Old Collections, New Questions’ project.

1.5.1. Antiquarian Collectors

The paper archive held by YMT and the substantial parts of the Roman collections which were originally gathered by antiquarian collectors offer fascinating insights into not only the Roman period, but also the lives, interests, and collecting approaches of people in the recent past. Learning more about these collectors could provide a new layer of interpretation to the Roman collections, which explores the origins of the Yorkshire Philosophical Society and Yorkshire Museum.

- Who were these antiquarian collectors?
- How did their interests and approaches shape YMT’s collections, and our understanding of the Roman period?
- How can their stories enrich YMT’s interpretation of the antiquarian Roman collections?

1.5.2. People

Previous research into the origins and lives of individual people, such as Reading University’s AHRC-funded Diaspora project, has produced fascinating insights into York’s national and international role, and the impact of the Roman occupation on York’s demographics. There is a case to be made for further investigating the demographic composition of Roman York and Yorkshire, in order to better understand the development of the city through time, the lives of its everyday occupants and its role as a military, commercial and civilian hub in the north of Britain.

- Who were the people of Roman York?
- What more can be learnt about Roman York’s demographic composition?
- How could understanding Roman York’s demographics influence our understanding of the city?
- What evidence exists for mobility, on local, provincial and inter-provincial levels?
- How do the people of York compare with others in the region?
- How can the lives of individuals be uncovered and presented to the public?

1.5.3. Life

There are still many unanswered questions about everyday life in Roman Yorkshire. Factors such as ethnicity, gender, age, profession, socio-economic, and social status could greatly impact people’s life experiences and identities. YMT’s Roman collections have much potential for revealing insights into how these experiences and identities were expressed through the region’s material culture.

- How did social status influence people's experiences of life in Roman Yorkshire?
- How were people's identities and experiences of life reflected in material culture?
- What can we learn from YMT's collections about Roman life as experienced by socio-economic groups who left little impact on archaeology and material culture (e.g. slaves, children, the poor)?
- How did people's life experiences differ in urban and rural environments?

1.5.4. Death

The extensive cemeteries beyond the walls of Roman York and the wealth of antiquarian finds from these cemeteries offer insights into belief, as well as burial and cremation practices in Roman York. Further investigation of this evidence could reveal geographical, chronological and social patterns in these beliefs and practices which could further our understanding.

- Could patterns in burial and cremation practices in Roman York shed light on the city's regional, national and international role?
- What links exist between the archaeologies of death and belief in York?
- What can death in Roman York reveal about life in the city?
- How does death in Roman York compare to death in Roman Yorkshire?

1.5.5. Belief

The interplay of Roman and local beliefs, changing fashions and practices, and the prevalence of military cults in Roman York have important implications for the role of the city through time, and the daily lives of its people. For example, Roman deities, mythological and supernatural figures, the emergence of Christianity, the cult of Mithras and Eastern exoticism, syncretism and apotropaic beliefs are all represented clearly in the YMT collections.

- How did differing religious beliefs interact?
- Does the material evidence for belief link to any specific social, economic, political, or cultural groups?
- To what extent were beliefs in Roman York shaped by the city's changing role?
- To what extent did belief influence changes in Roman York and Yorkshire?
- How far were changing beliefs in Roman York reflected in the wider region?
- How are these beliefs represented in the YMT collections?

1.5.6. Topography

The changing topography of York, the relationship between the fortress and civilian settlement, and York's development over time reflected and shaped the daily life of its occupants, including their experiences of trade, leisure, religion and

politics, etc. Some aspects of Eboracum's urban layout are currently being investigated, such as the potential location of an amphitheatre.

- How can Roman York's urban layout be better understood, given the challenges of excavation?
- How were elements of urban life such as trade, leisure, religion, and politics represented in the layout of Roman York?
- Could the objects in the YMT collection provide further insights into life in different parts of the city?

1.5.7. Military

Understanding York's military identity is central to understanding its role in the north of Britain and in the Roman Empire. The intermingling of military and civilian lives and infrastructures offers a fascinating narrative of the development and functioning of Roman York, but how these two aspects of the city intersected is not fully understood. York's role in governing and directing military activities in northern Britain, and its connections with other military sites in the region, could also be better understood.

- What more can be learnt about Eboracum's regional and national military function?
- How did Roman York's military role influence its developing civilian settlements?
- How far can the influence of the legionary fortress be traced in the military development of the region?
- How did changes to its civic status affect these developments?
- What evidence exists to suggest differences in civilian and military lifestyles and identities, and how did these influence one another in Roman York?

1.5.8. Emperors

Roman York played host to a number of emperors (Septimius Severus in AD 208-211, Constantius in AD 306, Constantine I (who was acclaimed emperor in York) in AD 306, and possibly Hadrian at some point during his tour of the Roman Empire). When Caracalla divided Britain into two regions, Eboracum was named the provincial capital of *Britannia Inferior*. These pivotal moments in Roman history give York unique significance in national and European history.

- What impact did the presence of Roman Emperors have on life in Eboracum?
- What impact did the presence of Roman Emperors have on the political and economic status of Eboracum?
- Can signs of imperial visits be found in the material remains of Roman York?
- Did the imperial presence in the city have any impact on life in the wider region?

1.5.9. Transitions

The transitional periods in Roman Britain (Pre-Roman Iron Age to Roman Britain, early to late Roman Britain, and Roman into Post-Roman Britain) have the capacity for providing a huge amount of information about political, social,

economic, religious, and environmental changes to the city of York. Of the three major transitions, it is the Post-Roman transition that is least well understood.

- How did life in York and surrounding regions change with the conquest of Northern Britain?
- How did the experiences of those living in York and Yorkshire change throughout the Roman period?
- How did life in York and surrounding regions change with the withdrawal of Imperial authority?
- How can the Roman collections held by YMT shed light on how Roman York and Yorkshire experienced periods of transition?

1.5.10. **Hinterlands**

There is huge potential for using the hinterlands of York and Yorkshire as a resource, particularly through the use of aerial photography, Portable Antiquities Scheme data, collaborations with community groups, and use of existing excavation archives. Current groups involved in research in this area include the Roman Rural Settlement Project and the Roman Roads Research Association. Current large-scale excavations in Catterick and the surrounding area will bring some of this research to the fore shortly.

- How can the recently gathered data and modern research capabilities be used to improve our understanding of Roman York's relationship with its hinterlands?
- How did rural life in the hinterlands differ from urban life?
- Is it possible to characterise the connections or mobility between urban and rural areas?
- How can YMT build a better understanding of the region of Roman Yorkshire as a whole?

1.5.11. **Economy**

Understanding the ancient economy of one specific city is a challenging undertaking, complicated by many intangible variables. Roman York was one of the major economic centres of the Roman North. Understanding what underpinned its economy, its external relationships, and the changes over the course of the period are all worth further investigation.

- How important was the army in the economy of Roman York and Yorkshire?
- Is it possible to quantify the economy of Roman York and Yorkshire?
- How did the economy of the city of York inter-relate with the economy of the region?
- To what extent were changes in the economy of the Roman Empire reflected in the economy of Roman York?
- To what extent was the local economy influenced by local events, such as the presence of Emperors in the city?

1.5.12. **Production, distribution and consumption**

Feeding and supplying a Roman legionary fortress, civilian settlement, and eventually a provincial capital, required a complex infrastructure and extensive

trade networks. The archaeological evidence available in YMT's collections could shed light on York's role in the production, distribution, and consumption of material goods and essential supplies. By looking more closely at this aspect of Roman York's role as a military base and city, much could be learnt about its regional, national and international trading connections.

- What was the nature of the relationship between York and its hinterlands?
- What role did York play in Roman Britain's trade networks?
- What evidence is there for trade between York and the wider Roman Empire?
- How did Roman York's military role influence the development of trade and supply networks in and around the city?



2. An Overview of the Roman Collections

Patrick Ottaway D Phil, FSA, MCIFA

2.1. Introduction

- 2.1.1. This document is an overview of the collections of material of and pertaining to the Roman period curated by the Yorkshire Museum, York. It has been commissioned by the Yorkshire Museum from *PJO Archaeology* an independent consultancy based in York, but working throughout the UK, which provides expert advice on archaeology and cultural heritage matters to commercial developers and public bodies (www.pjoarchaeology.co.uk).
- 2.1.2. This overview is component of a Yorkshire Museum project entitled 'Old Collections, New Questions' funded by Arts Council England. A *Research Agenda* (1) has been produced by Emily Tilley, Collections Facilitator, which provides a framework for the project as whole. This overview will form the basis of a *Research Plan* (3) which will allow development of research projects concerned with various aspects of the collections.
- 2.1.3. The Roman collections curated by the Yorkshire Museum are part of archaeological collections designated by MLAC as having national and international importance. The Roman collections are estimated to include c. 22,000 individual objects and many more as part of bulk assemblages (pottery, bones, tile etc). Some 500 objects are on display in the museum gallery. The remainder of the collections is in store. The Roman collections have a very varied content ranging from stone funerary monuments to small items of gold and other metals, bone, jet etc. In addition, there is biological material primarily in the form of human and animal bones. The collections are accompanied by primary documentary and other records of varying degrees of completeness and reliability. In geographical terms the collections come from three principal areas: the City of York (as pre-local government reorganisation in 1996), the county of Yorkshire, but largely North Yorkshire (the former North Riding), and other counties of England - although only forming a small percentage of the whole.
- 2.1.4. The material from the City of York itself is primarily the result of collection in the nineteenth century and the twentieth century until c. 1975. Most of the material from excavations in the city since that time is curated by the York Archaeological Trust (YAT) and other archaeological contractors. However, the museum does hold small quantities from various sources, including excavations and other fieldwork, collected since the mid-1970s. There is also material collected through the Portable Antiquities Scheme and as donations from the public.

- 2.1.5. From the county of Yorkshire, there is a large collection of Roman material from excavations in 1958-9, 1972 and the 1980s at Catterick, North Yorkshire – hereafter the ‘Catterick excavations’. Another significant collection of Roman material comes from two campaigns of excavation at the late Iron Age enclosure at Stanwick St John, North Yorkshire, although almost all the contexts from which it derives are, strictly speaking, prehistoric (i.e. pre AD 71).
- 2.1.6. For York, the principal source of published information about material in the collections is Volume 1 of the Royal Commission on Historical Monuments for England inventory of York, entitled *Eburacum* (1962) and referred to as such below. The material from the Catterick excavations has been published in Peter Wilson’s two edited volumes: *Cataractonium: Roman Catterick and its Hinterland. Excavations and Research 1958-1997* (Wilson 2002a-b). Other secondary sources are quoted as appropriate below.
- 2.1.7. The Yorkshire Museum’s Roman collections are documented internally on an ADLIB collections management system which has 6920 entries at time of writing, but is being continuously added to. Most of the material on ADLIB is either from York or is unprovenanced. Only 199 entries on ADLIB are provenanced to Catterick. In addition, a ‘Collections Audit’ has been carried out as part of this project to serve as basis for upgrading the documentation of the museum’s collections.
- 2.1.8. In this document Yorkshire Museum (YORYM) accession numbers are usually quoted as appropriate and where available. They are either in the form 1900/2000.0000 (date of accession and identifier) or H000 (H, or HG for glass, refers to an item formerly displayed in the Hospitium). As noted above, most material from Catterick excavations has yet to be accessioned.

2.2. Summary of Provenance

2.2.1. The Roman collections in the Yorkshire Museum can be divided up into a number of groups according to their provenance as follows below. A list of the sites etc in Groups 1-6, derived from the Collections Audit, can be found in Appendices 1-6.

1. Recovered in York in the nineteenth and early twentieth century, largely during construction of the two railway stations and related facilities, in 1839-50 and 1874-77, or the suburban expansion of the city, especially south-west of medieval walled town, e.g. on The Mount and in the Clementhorpe and Holgate areas. The material in this group mostly comes from burials. It ranges from stone funerary monuments and pieces of sculpture to small artefacts and pottery etc. Some of the artefacts form burial groups as described in *Eburacum* and there may be others which remain unrecognised. In addition, there are some human remains which have been most recently examined by Lauren McIntyre for her doctoral thesis (2013).

2. Archaeological excavations, other fieldwork and chance finds in York between the 1920s and c. 1970. Sites include those excavated on and adjacent to the fortress defences by Professor Stuart Miller (1925; 1928) and those excavated in various parts of York by Peter Wenham and the York Excavation Group after World War II. Apart from the Trentholme Drive Roman cemetery (Wenham 1968), these sites have usually produced fairly small amounts of material.

3. Archaeological excavations by York Archaeological Trust (YAT) in the early 1970s including Church Street Roman sewer (MacGregor 1976) and 9 Blake Street (Cool et al. 1995).

4. Excavations and other forms of fieldwork in Yorkshire in the nineteenth century (e.g. Dalton Parlours villa, 1854 and Filey Roman signal station, 1857) and twentieth century until c. 1975 (e.g. Well Roman villa). Material from Catterick, largely from a series of excavations in advance either of a bypass on the A1, which began just before World War II and continued in 1958-9, or of road widening in the 1980s (Hildyard and Wade 1950; Hildyard 1957; Wilson 2002). One can also include material in this group from fieldwalking in the area of the fort at Healam Bridge (1994.1881) which was preliminary to the recent (at the time of writing) Catterick excavations from which material will, in due course, be deposited in the museum.

5. Excavations at Stanwick in 1951-2 by Sir Mortimer Wheeler (1954) and Durham University in 1981-2011 (Haselgrove 2016) and adjacent sites at Melsonby (2000.3458; Fitts et al 1999) and Rock Castle (1993.337; Fitts et al 1994).

6. Unprovenanced single artefacts or small groups of artefacts thought to come largely from York, including items collected through the Portable Antiquities Scheme.

7. Single items or small groups from places in England other than Yorkshire and from the Continent of Europe. The latter include two boxes of wall plaster possibly from Pompeii (2010.539-46), a box of flue tiles 'from the Roman baths' (2010.302), perhaps also from Pompeii, and a group of metal vessels from Trier (2010.318 / 323-4 / 551).

2.3. The Artefacts: Introduction

- 2.3.1. For compilation of this overview it has not been possible to inspect, either on screen or by handling, by any means all the material in the collections. The sample on which the overview is based should, none the less, be a good representation of what the collections as a whole contain, although there will probably be some significant items which have been overlooked.
- 2.3.2. The Roman artefactual material in the collections has been divided into sixteen groups which will be considered in turn in Sections 2.4 to 2.19 below. For each group the principal characteristics will be described and some quantification given, although it has not usually been feasible, with the resources available, for this to be more than an approximation. Further information on quantities will be found in the Collections Audit.

2.4. Stone Monuments and Sculpture

- 2.4.1. The Yorkshire Museum holds a large collection of stone monuments and other stone sculpture. The inscribed items are almost all published in RIB I and III and most of them, and the other items, are, for the most part, included in *Eburacum*. Many items with a sculptural component are also included in Sergio Rinaldi Tufi's fascicule of the *Corpus of Sculpture of the Roman World* covering Yorkshire (1983). The relief-decorated funerary monuments are discussed by Marion Mattern (1989) in her survey of the British material.

Funerary monuments (including coffins)

- 2.4.2. York has produced one of the largest collections of Roman stone funerary monuments from Britain. There are c. 20 inscribed tombstones from York and nine inscribed sarcophagi, of which eight are from York and the other is from Sutton-under-Whitestonecliffe, near Thirsk (1957.12; RIB III, 3209). These inscribed sarcophagi are, with the exception of two from London (RIB I, 16, 20), exclusive to York and its region as far as Britain is concerned – another from Nunnington is lost (RIB I, 720).



Plate 1. Sarcophagus of Julia Victorina (2007.6117)

- 2.4.3. There are four uninscribed tombstones in the collections (*Eburacum*, 128). In addition, on display in the gallery, is an unprovenanced marble tomb cover in the form of a recumbent woman (2010.222). This is not in *Eburacum* nor is it published by Tufi (1983) and it is unlikely to be from Britain.

- 2.4.4. Numerous uninscribed stone coffins have been found in the York area over the years; some of them are in the museum stores and others can be found in the Museum Gardens. In addition, there is an uninscribed stone coffin lid from Green Hammerton (2007.6250).
- 2.4.5. In addition to the stone coffins, there are 30 or so lead coffins from York recorded in *Eburacum*, some of which were found within a stone or, more rarely, wooden outer coffin. Many, if not all, of these are in the museum collections. They are plain with the exception of an example found at the Railway Station which is decorated with simple saltire crosses (2014.291; *Eburacum*, 83, fig. 64). There are two wooden coffins from Selby (1977.64-65) and another unprovenanced example (1977.63.1) in the collections.
- 2.4.6. A fairly common feature of stone or lead coffin burials at York is the inclusion of gypsum (calcium sulphate) which, on occasions, completely encased the body. A number of gypsum casts are preserved in the collections including one from a burial at Clementhorpe which enclosed a woman and child with some fragments of clothing adhering to them (2007.6126; *Eburacum*, 108).

Dedicatory and commemorative tablets

- 2.4.7. The museum holds nine dedicatory inscribed tablets and two statues with dedicatory inscriptions. Perhaps the most striking item in the collections under this heading is the incomplete tablet bearing a dedication, dated 107-8, to the Emperor Trajan from King's Square; this is the last dated inscription referring to the Ninth Legion (1998.21; *Eburacum* 111, 1; RIB I, 665). Other dedications have a more overt religious character and of particular interest, perhaps, are the complete tablet commemorating the construction of a temple dedicated to Serapis by the legionary legate Claudius Hieronymianus (1998.27; *Eburacum*, 119, 54; RIB I, 658), and a dedication to the *Genius Loci* from a goldsmith's shop in Malton (2002.417; RIB I, 712).

Altars

- 2.4.8. The museum holds fourteen inscribed and nine or ten uninscribed altars from York (*Eburacum*, 118-9). They include an incomplete inscribed altar to an unknown deity (2013.292), published by Tufi (1983, 21, 34), but omitted from RIB. In addition, the museum holds inscribed altars from Catterick (1980.54.620300; RIB III, 3210) and Doncaster (2011.345; RIB I, 618), two uninscribed altars from Catterick (1998.42.8310363, 1998.42.8310325; Bell and Thompson 2002a, 303, 1-2) and another three from Dunnington Common (2005.3201-2, 2006.2852) of which one is recorded by Tufi (1983, 21, 35). A wide range of deities is represented including some from the Classical world, such as Mars and Fortuna, and others originating in a native milieu such as the mother goddesses, Veteris and Arciacus (2001.12521; RIB I, 640), for the last of whom the museum has the only dedication in Britain. Recent research on York's altars includes recognition of a verse couplet on an altar to Silvanus dedicated by Lucius Celerinius (2007.6164; RIB I, 659) (Kruschwitz in press).

Stone sculpture

- 2.4.9. *Eburacum* describes some 48 pieces of Roman stone sculpture from York held by the Yorkshire Museum comprising statues, statuettes, architectural reliefs and tomb ornaments and furniture. Another piece in the collection, not in *Eburacum*, is a fragment in Millstone Grit, apparently of a bird in relief. In addition, there are two attractive Millstone Grit heads in the collection neither of which is in *Eburacum*, but are likely to come from York. One is described by Tufi who suggests it represents Bacchus (1983, 67, 110; Plate 1). An unprovenanced Roman stone (? limestone) male head (2010.322) is on display in the gallery. The collection is completed by some pieces of sculpture from the York Minster excavations of 1967 – 72, including a gritstone lion (2013.582; Blagg 1995, 241, 8.1).
- 2.4.10. Of particular interest amongst the sculpture from York are a marble head thought to be of Constantine the Great, or another fourth century emperor (1998.23; *Eburacum* 112, 8), and a statue of Mars (1998.26; *Eburacum* 120, 59) which greets visitors to the museum galleries. Amongst other items to be especially noted include a statue of Ariman, a deity in the cult of Mithras (2007.6162; *Eburacum*, 120, 58), a Greek sphinx (2007.6187; *Eburacum* 131, 120), originally a tomb ornament, and a small marble statuette of a naked male, presumably an import for a local connoisseur (1998.22; *Eburacum* 120, 60). The only piece of sculpture from the Catterick excavations is a fragment of a lion, possibly from a tomb monument (1980.54.620302; Blagg 2002, 287, 4).



Plate 2. Male head in Millstone Grit – possibly Bacchus

2.4.11. Unprovenanced items on display in the gallery which are not from York or Yorkshire include a marble plaque carved in relief showing a woman making a dedication at an altar (2007.6234) and a striking female head in marble with a plaited hair style of, perhaps, the mid-third century, given to the museum in 1833 (2007.6177; *Eburacum* 131, 119; Tufi 1983, 77, 133). It is possible that neither of them is antique.

2.5. Construction Materials

Architectural stone

- 2.5.1. The museum holds a range of architectural stones from York including parts of columns and entablatures which are described in *Eburacum* (pp. 112 – 4). In addition, the collection has a number of pieces found in the York Minster excavations (Blagg 1995). Now to be found in Museum Gardens on the approach to the museum are three Roman stone blocks excavated at 5 Rougier Street by YAT in 1981 (1981.12; unpublished report by Tom Blagg in YAT archive). A column base from the same site can be found in a flower bed near the Multangular Tower. Of all the architectural pieces, perhaps the most striking is a Corinthian capital from Catterick on display in the gallery (2009.50; Blagg 2002, 288). In addition, there are other column fragments, as well as pilasters, mouldings, voussoirs and other items from Catterick (entered on ADLIB; Blagg 2002, 286-98; Bell and Thompson 2002a).

Ceramic building materials

- 2.5.2. The Museum holds a large quantity of ceramic building materials, most of which is roofing tile, either *tegulae* or *imbrices*, but there are also bricks, floor tiles and the components of *pilae* from hypocaust systems. Some kiln debris thought to be from the manufacture of tiles comes from an excavation at the Borthwick Institute in 1970, immediately east of the east corner of the legionary fortress (1973.1; King 1975).
- 2.5.3. The tiles in the museum formed part of a larger study of ceramic building materials from York by Ian Betts (1985). Also relevant to any study of the museum's ceramic building materials, although only concerned with material held by YAT, is the MA thesis by Jane McComish (2012).
- 2.5.4. According to *Eburacum*, York has produced some fifteen tile cists used to enclose the human remains (inhumations and cremations) in burials of the Roman period. Most of these are presumably in the museum collections and it is known to the writer that at least six have, at some time, been reconstructed for public display, although only one, from Dringhouses (2010.345, *Eburacum*, 107; Plate 3) is now in the gallery and only two others have entries on ADLIB (2007.3216, 2007.6122). In Britain these cists are unusual structures, being confined to major urban centres and military sites (Philpott 1991, 66).
- 2.5.5. Many of the tiles bear legionary stamps indicating manufacture under the supervision of either the Sixth or Ninth Legions at York, probably in kilns located adjacent to the east corner of the fortress as noted above. The stamps known up to 1992 have been fully recorded in RIB II, 4 (pp. 148-74).



Plate 3. Tile burial cist from Dringhouses (2010.345)

- 2.5.6. Several tiles bear graffiti, including one (thought to be lost) referring to a guild, of tilemakers presumably (*Eburacum*, 114, 24; RIB II, 4: 2491.114). A number of tiles bear the imprint of animal feet, hooves or trotters acquired during the drying process and prior to firing. A tile from excavations by George Wilmott at St Mary's Abbey is incised with a curious X of which one arm is unusually long (2015.126.5), but this is probably not a form of chi-rho.
- 2.5.7. *Eburacum* (p. 114) describes two tower-like roof finials which also served as chimney pots (2205.2209, 2007.3222). There is another unusual example in the collection, found in Bishophill in 1872, also in the form of tower, covered with inscribed lines suggesting large blocks of masonry (2010.246; Plate 4).
- 2.5.8. *Eburacum* (p. 114) describes nine antefixes which were set on the eaves of Roman buildings. They bear images in relief, taken to be deities intended to provide protection to the residents. The York antefixes usually depict either a gorgon's head or a rudimentary female bust. However, a remarkable unpublished example from Interval Tower NE6, Aldwark (1977.55; excavated 1971-2; site report by Wenham and Ottaway 1993) depicts a figure with a Phrygian cap, probably Mithras (Plate 4). The site has also produced another incomplete (unpublished) antefix.



Plate 4. Roof finial from Bishophill (2010.246) (left) and antefix with relief image probably of Mithras (right) from Aldwark (1977.55)

Items associated with bath houses and water management

Furnace

- 2.5.9. Part of a hypocaust furnace, consisting of tile or brick *pilae* and a stone floor slab, from the Roman baths at the Old Station, found in 1939 and reconstructed in the museum after World War II, is now in store (*Eburacum*, 55). There is a box of small flue tiles (2010.302), said to be 'from the Roman baths' which are unlikely to be from York, or even, perhaps, from Britain.

Fountain heads

- 2.5.10. Recovered in a sewer trench in Bishophill Junior in 1906 is a street fountain head composed of slabs of Magnesian Limestone. (*Eburacum*, 51). This is unique in Roman Britain and an important item which speaks of the provision of a public water supply in the urban area south-west of the Ouse to a standard not usual in the province. Catterick has also produced a fountain head composed of stone slabs, including a piece with a decorated pediment (1980.54.620338.5; Blagg 2002, 298-9).

Culvert

- 2.5.11. A Roman culvert, or drain, found under the fortress *via principalis* in 1847 in St Helen's Square, was reconstructed in the Yorkshire Museum after excavation (*Eburacum*, 37) and is described by Peter Wenham (1962, 572-3), although it has not been traced in compiling this document.

Water pipes

- 2.5.12. There are two large lead water pipes in store (2015.486.i-ii) which probably come from the fortress *intervallum* at Church Street (*Eburacum*, 38), although, with two others (2015.484-5 – not seen), ADLIB records them as 'untraced'. They may be compared with a similar pipe from the YAT excavations at Wellington Row in 1989 (Ottaway 2004, 93). Another fragment of lead pipe in the collection comes from the Roman fort at Castledykes, Strathclyde, on the Antonine Wall (2014.246). Although also found at Chester and a few other sites, Roman lead water pipes are rare in Britain, water more usually being supplied with wooden pipes held together with iron collars such as an example from the Spurriergate excavation of 1959 (1971.310.2).

Support beams

- 2.5.13. Two iron beams come from a bath house excavated at Catterick where they were originally intended to support a hot water boiler (1980.54.267; Mould 2002, 201-2).

2.6. Material Associated with the Internal Decoration of Buildings

Painted wall plaster

- 2.6.1. There are two panels of restored painted wall plaster found in the Catterick excavations on display in the gallery (1980.54.1.2, 141-8) and there is more material from Catterick in store (Davey et al. 2002). Other painted plaster in the collections which has been published comes from 9 Blake Street, York (1973.15; Kershaw 1997) and Well Roman villa (Gilyard-Beer 1951, 67-8). In addition, there are small collections of unpublished material from a number of other sites, but it has not been possible to examine all the boxes identified by the Collections Audit as containing wall plaster. An MA thesis by Rebecca Wetzel (1980) examined pigments on plaster from 9 Blake Street and other sites in York.

Mosaics



Plate 5. Mosaic fragment from Oulston Roman villa (2009.43)

- 2.6.2. The museum holds one nearly complete mosaic pavement and ten other fragments from York are recorded on ADLIB. The former, with female busts representing the seasons in the corners, comes from a house on Toft Green, York (2002.478; *Eburacum*, 57-8; Neal and Cosh 2002, 149.5) which also produced two other mosaics. Part of the border of one them is in the collection (2010.1195) and there is a drawing of the other, now lost. Of the other mosaics from York, the most striking is that from Toft Green depicting a bull (1998.24; *Eburacum*, 54; Neal and Cosh 2002, 149.4); another fragment of it was found in 2012 (2013.781). An incomplete mosaic from 21-33 Aldwark depicts a head, possibly of a female figure or of Bacchus (2009.42, 2010.1192; Smith 1986a; Neal and Cosh 2002, 149.9). An incomplete mosaic with guilloche pattern comes from the Roman house excavated by YAT at Clementhorpe (2010.1193; Smith 1986b).
- 2.6.3. From elsewhere in Yorkshire there is part of a mosaic pavement depicting Medusa from Dalton Parlours Roman villa which was recovered in 1854 (1973.64.1; *ibid.*, 130.1). There is also a fragment from Oulston Roman villa depicting a female head (2009.43; *ibid.*, 141.2; Plate 5). Another fragment comes from Well Roman villa (202.595; *ibid.*, 146.2; Gilyard-Beer 1951, 68-9).
- 2.6.4. The Collections Audit records tesserae from a number of other sites, but they have not been examined for this overview.

2.7. Tools and Implements

Plough

- 2.7.1. A remarkably well-preserved ploughshare and coulter from a sewer trench in Parliament Street are probably, but not certainly, Roman (1976.11.1; Tweddle 1986, 195-7). A Roman date is, however, favoured by Brian Roberts in a report of 2013, *York Plough Irons*, in the museum archive.

Other iron agricultural tools

- 2.7.2. The Catterick excavations produced a small range of agricultural tools including a mower's anvil, scythe and spade shoe fragments (Mould 2002, 86, 99, 118). A hoe blade comes from a small collection of metalwork from Kirby Knowle near Thirsk (no accession no., catalogue of 1999 by P. Ottaway).

Querns

- 2.7.3. The Yorkshire Quern Survey has identified 58 querns in the museum collection of which 30 have been fully recorded (figures from John Cruse). They are largely unprovenanced. The majority of those recorded are beehive querns which cannot be closely dated, but are as likely to be Iron Age as Roman. Of six querns, or millstones, from York Minster in the collection, one is of lava (2013.222) and so will probably be Roman; the others are thought to be later. A fragment of a lava rotary quern comes from Interval Tower NE6 (1977.55).
- 2.7.4. Fragments of 76 querns from the Catterick excavations have been published by Wright (2002) and others. They include beehive querns, but the majority are flat rotary querns, many of which are made from lava. A complete rotary quern is on display in the gallery (1985.27.723857)

Textile tools

Spindle whorls

- 2.7.5. There are 55 ADLIB records of Roman spindle whorls, but one record includes seventeen specimens; most are of stone, but a few are lead, ceramic or bone. Many of these spindle whorls are undatable and some, at least, are probably post-Roman. A bone distaff with attached spindle whorl may also be either Roman or later (1946.4.2). The Catterick excavations produced 27 ceramic spindle whorls (Cooper et al. 2002a).

Weaving combs

- 2.7.6. There are examples from Selby (1978.10) and probably from York (2011.244) of a type of handled bone comb usually thought to be used in the Iron Age and Roman period in weaving to ensure the weft threads lie close together on the vertical loom, although this interpretation is now in some doubt (Wild 2002, 11). An L-shaped antler comb, also thought to be for weaving, comes from the Catterick excavations (Isaac and Thompson 2002a, 181).

Wool comb

- 2.7.7. Amongst the assorted metalwork from Kirby Knowle referred to above there is an iron wool comb of Roman type. No others are recorded from north of the Humber in John Peter Wild's survey of Roman textile tools from Britain (2002, 5-6).

Other iron tools

- 2.7.8. There is a small iron anvil (2013.1121), 350mm long and 170mm high, from The Mount, York which is thought to be Roman, but no has obvious parallels of Roman date and may be a model object which is not ancient.
- 2.7.9. Other Roman iron tools in the collections include 31 knives recorded on ADLIB, some of which have bone handles (e.g. 2006.2950, 2012.308). Bone handles for knives (which do not survive) include 2012. 311 / 332-3). There are axe heads thought to be Roman from York (2013.1046), Bainbridge (2005.20) and Knaresborough (H144.23 – on display in the gallery) from where there is also a hammer head (H144.24). There is a small (c. 150mm long) pick head (2011.256), possibly used for trimming rotary querns or other stonework.
- 2.7.10. The Catterick excavations produced a number of iron tools for metalworking, woodworking, leatherworking and other crafts (Mould 2002, 85-6, 117-8). Bladed tools include some twenty knives (ibid. 88-90, 100-1).

Metal vessels

- 2.7.11. The museum holds a number of metal vessels. Of particular interest, perhaps, are those in the Knaresborough Hoard recovered in the nineteenth century (H144). Although part of the hoard is now lost, there are still some twenty items, including wine strainers, bowls and plates, all of copper alloy (Eggers 1966, 91).

- 2.7.12. Other copper alloy vessels in the collections include a large 'camp kettle', or cauldron, found in the River Ouse at York (H143; *Eburacum* 133, 143), which bears an inscription referring to its successive owners (RIB II, 2: 2415.58). Another such kettle (uninscribed) comes from Hemingbrough (1960.5.3). There are two paterae, one from York (H177) and two from Ilton, North Yorks (2002.208-9). A vessel handle with a moulded female face was found in the River Ouse (H2405). A small 'hanging bowl' comes from the Catterick excavations (Lentowicz 2002, 57, 140). An unusual copper alloy vessel, probably a bell, with a perforated lug handle contained the Binnington Carr coin hoard (H2401).
- 2.7.13. A heavy copper alloy bowl with phalluses around the rim (2010.324), a jug (2010.323), and a jar (2010.318) are provenanced at Trier; all are on display in the gallery.
- 2.7.14. Lead vessels include a cremation urn from York for 8 year old Ulpia Felicissima (2015.390; RIB I; 691; *Eburacum*, 134, 145). Other lead urns, or 'ossuaria', used for cremation burials in York come from the Holgate Bridge area (H1058; *Eburacum*, 100) and from an excavation at the Lion and Lamb, Blossom Street in 1966 (2010.346; Radley 1966). Yet another lead urn comes from Langton Roman villa (1974.125.2). Also thought to be Roman is a curious, small lead vessel, 56mm high, consisting of a base and a lid with a projecting rod as a handle (2012.393).
- 2.7.15. A limestone mould for making pewter (lead and tin) vessels comes from the sewer trench in Parliament Street, York (1976.11.28; Tweddle 1986, 199, fig. 94, 689).
- 2.7.16. An iron vessel with a lid (H1059) was found in 1846 at the Old Station, York, and was probably a cremation urn.
- 2.7.17. Wooden vessels include a well-preserved bucket of silver fir from the YAT excavation of a Roman well at Skeldergate, York (1973.14.1120; MacGregor 1978, 47-50). An iron bucket handle came from a Roman well at Holgate Villa (1971.319.8).

Spoons

- 2.7.18. There are 47 records of Roman spoons on ADLIB. Of these twelve are of copper alloy, two of silver (2002.223, 2013.1096) and one of pewter (2012.883). The Catterick excavations produced three copper alloy spoons (Lentowicz 2002, 55-6).

2.7.19. In addition, there are a number of bone spoons which are probably, or certainly, Roman including seven which have a pierced bowl. There are four of these from York (H140.2, 3, 5, 7), two from the Catterick excavations (1980.54.594972 / 594825; Isaac and Thompson 2002a, 185, 39-40) and another from Malton (H2028). These are unusual objects of uncertain function; other examples come almost exclusively from Yorkshire. Another spoon (H140.1) has a leaf-shaped bowl very similar to some of those which are pierced but is itself unpierced.

Metal objects used for weighing and measuring

2.7.20. There are a number of complete copper alloy balances or broken balance arms (e.g. 2012.12493) in the collection.

2.7.21. There is a striking steelyard weight from York in the form of the torso of a young man (2001.12496); another in the collection comes from Cirencester (2001.12498). Another probable weight is in the form of a recumbent ram (2003.264). There is also a spherical weight with a loop probably for attachment to a steelyard (2008.54). Other weights have a cuboid (1948.724) or conical (2012.290) form.

2.7.22. Copper alloy steelyard arms marked out with numbers or graduated with small nicks include 2007.6268-9. On further examination, it is clear that the claim by Home (1924, 189) that an incised Chi-Rho exists on 2007.6269 cannot be sustained.

2.7.23. A copper alloy balance arm and steelyard arm come from the Catterick excavations (Lentowicz 2002, 69, 248-9) which also produced three iron steelyard arms (Mould 2002, 93, 169-71).

2.7.24. There are three lead plumb bobs in the collection (1971.299.72, 2012.224 and 2012.371) and a copper alloy example (2012.224).

2.8. Glass Vessels

- 2.8.1. Many of the glass vessels in the Yorkshire Museum from York, known before 1962, were published by Donald Harden in *Eburacum* (pp 136-41). These and a few additional items recovered up to 1972 have recently been reviewed by Hilary Cool in an unpublished report for the museum. She has also discussed the early Roman glass from York in a paper of 1998.
- 2.8.2. Manufacture of glass vessels in York is thought to be represented by three crucibles from Toft Green (2010.393). They should be seen alongside the evidence for making glass itself, as well as glass vessels, found at 16-22 Coppergate (Cool et al. 1999), although the material is still held by YAT.
- 2.8.3. The provenance of much of the glass from York in the collection is uncertain, but fourteen or so glass vessels come from Roman burials, including a bottle (HG53; *Eburacum*, pl. 66), found with Corellia Optata's tombstone (RIB I, 684), which contained her cremated remains. On display in the gallery is another glass vessel used for a (surviving) cremation which was found in 1820 at Wharram-le-Street (HG214.1).
- 2.8.4. The assemblage of 251 items in Cool's report on the museum collections (which includes one item from Aldborough and one from France) is divided up into the following types: cast vessels, mostly pillar-moulded bowls; blown first-century vessels, dominated by unguent bottles; blown later first- and second-century tablewares, including beakers, bowls, jugs, jars and unguent bottles; blown later second- and third-century vessels, including facet cut cups and bowls, cups, flasks, jars, bottles and beakers; blown later third and fourth-century vessels, some facet cut, jugs, bottles, flasks; and blue / green containers.
- 2.8.5. Five glass vessels from York in the collection are recorded in RIB II, 2 as having inscriptions, including an unusual wheel-abraded fragment from the YAT excavation at 37 Bishophill Senior with the letters VMP, perhaps to be expanded to TRIVMPE (1973.15.169; RIB II, 2, 2419.41; Charlesworth 1978, 55-6).
- 2.8.6. The glass from the Catterick excavations has been published in Peter Wilson's edited volume (2002b, 212-58) with an introduction by Cool et al (pp 212-3). There are 839 glass fragments representing a minimum of 177 vessels. Some are late first century, but most are later with a peak in the numbers dated to the later second or early third century. Blue/green bottles and other vessels are the dominant component in functional terms.
- 2.8.7. There are 32 fragments of early Roman glass from the Durham University Stanwick excavations (Price 2016).
- 2.8.8. There are small quantities of, largely unpublished, glass from sites other than York, Catterick and Stanwick, noted in the Collections Audit, but they have not been examined for this overview.

2.9. Pottery

- 2.9.1. The museum holds numerous assemblages of Roman pottery from excavations and other forms of fieldwork. Pottery in the Yorkshire Museum in the early twentieth century was described by Thomas May in 1908-11. Pottery from Roman burials in York, collected before 1962, was described in *Eburacum*, although as Monaghan (1997, 825) notes '*Eburacum* is a primitive work from the standpoint of modern ceramic studies, with many inaccuracies in its pottery illustrations..'. One of the larger assemblages in the museum collection comes from the excavation of the Trentholme Drive Roman cemetery; it was published in 1968 by Grace Simpson and Eric Birley (samian) and John Gillam (coarse ware). Pottery in the collection from the YAT excavations at 37 Bishophill Senior and Skeldergate has been published by Perrin (1981) and from 9 Blake Street by Monaghan (1993). Most of the assemblages from York, both in the museum collection, except not from burials, and in the YAT collection were examined by Jason Monaghan for his corpus published in 1997. Pottery from the Catterick excavations is published by Jeremy Evans (2002).
- 2.9.2. Other published assemblages of Roman pottery in the collection include those from excavations at Crambeck in 1927 and 1936 (Corder 1928; 1937), Well Roman villa (Gilyard-Beer 1951, 45-57) and the Iron Age enclosure at Stanwick (Willis 2016); others are published with excavation reports cited in the appendices. There is a study of Crambeck Ware, including material in the museum's collection, by Rachel Wood in her doctoral thesis.
- 2.9.3. The museum holds a large, and very remarkable, collection of some 800 complete, or near complete, Roman pottery vessels. About 125 vessels are recorded in *Eburacum* as part of burial groups or as single burial finds from the cemeteries at the Railway Station and elsewhere in York. In addition, some 230 vessels come from the Trentholme Drive cemetery. A recently excavated group of vessels comes from the Roman cemetery at Fishergate House, York (Spall and Toop 2005). Other vessels were recovered elsewhere in the city, at other sites in Yorkshire or elsewhere in England, including Chesterfield and Lincoln; others again are unprovenanced, although likely to be from York.
- 2.9.4. The complete (or near complete) vessels represent a great range of different wares and types. A rapid overview suggests that they correspond largely to those identified in Monaghan's 1997 corpus and therefore represent the complete ceramic history of Roman York. Of the earlier wares, the locally made Ebor ware is well represented by bowls, flagons, jars, tazzas etc. There are also a number of vessels in Rustic ware of the late first – early second century. Other early sherds are of glazed ware from 9 Blake Street and of Lyon ware from Peter Wenham's excavation at St William's College (described by him as 'Firniss ware'). Two Parisian ware beakers come from Trentholme Drive (Corder 1968, fig. 33, 19-20).

- 2.9.5. Vessels in Black Burnished ware and assorted grey wares, many of them jars from burials, appear to make up the majority of the collection. However, colour-coated wares are well represented amongst the complete vessels, largely by examples from the Nene Valley which began to supply York in the late second century and continued to do so until the late fourth. Indented beakers and beakers with trailed decoration in barbotine are particularly well represented in the collection. There is one particularly fine 'Hunt Cup' (2006.2907) and a number of others (including H163). A striking example of late Roman Nene Valley colour coated ware is a flask from the Filey Roman Signal Station excavation of 1857 (2010.44; Plate 6). Of a more restricted late second- to early-third-century date are colour-coated vessels, largely beakers, from the Rhineland. They include four 'motto beakers' with white painted inscriptions (H34.2, H153-5; *Eburacum*, 135; RIB II, 6). Amongst other unusual vessels is H42, an elegant cantharus in a pale orange fabric found with a burial in a lead coffin near Scarborough Bridge (*Eburacum*, 86, fig. 66).
- 2.9.6. Late Roman vessels include examples in Crambeck grey ware and Calcite-gritted ware; an incomplete vessel in the latter comes from a cist burial at Spaunton, North Yorkshire (2008.197.D9). Complete vessels in red-painted Crambeck Ware, dated to c. 360 or later, include a beaker (H182) and jar (H2277).



Plate 6. Colour coat flagon from Filey (2010.144, left) and samian bowl with chained captives in relief from York (H32, right)

- 2.9.7. A vessel type characteristic of York of the Severan period is the head pot (Braithwaite 1984, 117-9, fig. 11, 3 – 5, fig. 12, 4, fig. 13, 1 - 3; Monaghan 1997, 914-21). Monaghan records some 50 complete or fragmentary examples from York, almost all of which are in the museum's collection including H2132 which is on display. Head pots, some of which are thought to represent members of the imperial house, have been described and discussed in detail by Monaghan (ibid.) and Swan and Monaghan (1993) who suggest they represent a North African tradition of potting.
- 2.9.8. One incomplete and one fragmentary face pot from York (both in the collection) are published by Braithwaite (1984, fig. 9, 1-2). One of them is in a grey ware (2013.202), the other is in Ebor Ware and comes from the Borthwick Institute (1973.1; King 1975, fig. 9, 12).
- 2.9.9. Face-necked vessels are represented by one complete example (H32, Accession 1267; *Eburacum*, pl. 29; Monaghan 1997, 926, 3327) found in the Blossom Street area which probably comes from a burial. Monaghan also catalogues another fourteen (some surviving only as the neck) in the museum collections.
- 2.9.10. Other unusual vessels include several triple pots (Monaghan 1997, 1022), thought to have been used in religious ceremonies. They include an early example in Ebor white slip ware (1971.303.438). There are several complete tettines (e.g. H1049, H2075). A curious beaker with a deliberately made hole in the side (H2125) is described on the attached label as a 'lachrymatory' - a vessel thought to have been used to collect the tears of mourners at funerals.
- 2.9.11. Graffiti on coarse pottery from York is catalogued in RIB II, 8. It includes a jumble of numbers and other marks scratched on a cremation urn (H142) from a burial on The Mount, possibly referring to the vessel's original content or, perhaps, intended as a votive formula (*Eburacum*, 135, 142). There is also the incomplete base of a vessel with part of the alphabet incised into it (2002.227).

Samian



Plate 7. Samian jar in form Déchelette 72 (2008.98)

- 2.9.12. There are about 70 complete, or near complete, vessels. There are also several boxes of unprovenanced samian sherds in store.
- 2.9.13. An important collection of early Samian, all South Gaulish, with some highly unusual types for the region, comes from the Iron Age enclosure at Stanwick (Willis 2016).
- 2.9.14. Amongst the complete, or near complete, vessels there are examples of most of the commoner forms: large bowls Dr (Dragendorf) 29 and 37; small bowls Dr 27, 31, 33, 35, 36 and 38; jars in Déchelette 72 and mortaria Dr 45. Particularly attractive, perhaps, are a jar in the Antonine form Déchelette 72 found in Bootham, perhaps from a burial (2008.98; Plate 7), and an East Gaulish bowl of form Dr 37 (H32; Plate 6) decorated in relief with naked captives chained together (Joanna Bird has kindly commented on this). More unusual are an infant feeding bottle (H61), an inkwell (H24) and a bowl of form Dr 36 in black samian (2008.65). A small bowl (H47) from the Railway Station found in 1874 is said by an accompanying label to be 'eastern sigillata.'
- 2.9.15. The museum holds an incomplete samian mould (H22) and another fragment (H23), apparently from York, which suggests local manufacture of the ware, only thought to have been produced elsewhere in Britain at Colchester (Johns 1971, 11).

- 2.9.16. Representing graffiti on samian vessels is an example from the Blossom Street excavation of 1955 which spells out the name CANDIDA (1971.299.3). In addition, one of the boxes of unprovenanced samian contains sherds which bear graffiti inscriptions – it is not known if these have been recorded in RIB II, 7.

Amphorae

- 2.9.17. There is an almost complete Dressel 20 type amphora found in 1893 in Rougier Street (2010.690) and a complete wine amphora from a burial on The Mount (2002.220; *Eburacum*, 100) as well as numerous other fragments in the collection. There is a box of unprovenanced stamped amphora handles in store and there are others in the gallery. Twelve incised or painted graffiti on amphorae in the collection are recorded in RIB II, 6.

2.10. Objects Associated with Lighting

Lamps

- 2.10.1. One hundred and fifty-five Roman lamps are recorded on ADLIB (some recorded as 'oil lamps'), the majority of which are ceramic with a small number in copper alloy or lead. Many are unprovenanced, but a few come from the Roman cemeteries in York and are noted by *Eburacum*. In addition, five lamps come from the Trentholme Drive cemetery (Gillam 1968, 84, 231-5). Twenty-four ceramic lamps from 9 Blake Street (1975.6) in the collection are published by Bailey (1993). Fifty-eight 'known' ceramic lamps from York are referred to, or described by, Monaghan (with a catalogue by Bailey) (1997, 928 – 30) of which 46 are said to be from YAT excavations (including the 24 from 9 Blake Street). The other twelve are variously provenanced, including Trentholme Drive, but it is not clear how they were selected. Three incomplete ceramic lamps and a fragment come from the Catterick excavations (Cooper and Evans 2002). Two lamps have a provenance in Lincoln and one in Ilkley. The published lamps from Catterick and York also appear in Hella Eckardt's *Illuminating Roman Britain* (2002).
- 2.10.2. There is an object (2010.721) said on ADLIB to be a 'mould for an oil lamp' which would suggest lamps were manufactured locally. By contrast, three lamps are described on ADLIB as 'Palestinian' in origin (2009.72-4).



Plate 8. Lamp probably from York with Chi-Rho motif (H895).

- 2.10.3. Of particular interest, perhaps, are two lamps in African Red Slip Ware (H895-6), otherwise very rare in York (Monaghan 1997, 899-900), bearing a chi-rho in relief (Plate 8). Unfortunately they are unprovenanced, but one was published as a York object by Home (1924, plate opposite p. 102). In addition, there are several lamps which bear attractive depictions of human figures in relief including an archer, possibly the goddess Diana (2010.327 – see cover picture), a pair of gladiators (2010.326), a huntsman and hares (H2198), and a woman apparently begging from a standing male figure (2009.69). This last is described on ADLIB as Mary Magdalene meeting Christ after the Resurrection, but, while very interesting if it were the case, this seems fanciful.
- 2.10.4. Amongst the copper alloy lamps a particularly attractive specimen is one bearing a female head (2007.6300), found in a hoard from Tadcaster which also contained an arm purse and coins.
- 2.10.5. In addition to the lamps themselves, there are four lead lamp holders (H1000-2 and 2010.307) and three ceramic examples (H1005, 2012.998-9).

Candleholders

- 2.10.6. There are 21 records of Roman 'candlesticks' on ADLIB which are, strictly speaking, primarily candleholders. There is a range of ceramic examples, largely similar to those published by Monaghan (1997, 1022-3). In addition there is a lead example (2010.307).

Candelabrum

- 2.10.7. There is a fragment in stone of what is thought to have been a large candelabrum; it is decorated with figures and foliage in relief (2007.6159; *Eburacum*, 133, 137). The object was found near the Railway Station in 1876 and in *Eburacum* it is suggested that it would have decorated a grand mausoleum, although there are other possible interpretations.

2.11. Figurines

- 2.11.1. Thirty-seven Roman figurines, or models, in the museum collection are recorded on ADLIB. They are largely made from copper alloy or pipe clay.
- 2.11.2. The metal figurines in the collection from York and Catterick were studied by Emma Durham for her PhD thesis at Reading University and subsequently discussed in a paper of 2012. Some of the pipe clay figurines from York and Catterick have been included in Matt Fittock's PhD thesis, also at Reading University.



Plate 9. Pipe clay figurine of Venus from 24-30 Tanner Row (1983.32.2275)

- 2.11.3. Deities represented in copper alloy figurines from York include Hercules, found in a burial on Peaseholm Green (2007.6237; *Eburacum*, 71), Mars (2001.12523), Mercury (2009.32) and Minerva (1974.5.2193), the last from YAT's excavation at 21-33 Aldwark. Others include a socketed figure with an eagle (2003.268), a fragment of a small figurine of Priapus found on Hob Moor (1989.34) and a representation of cupid (2009.30). A copper alloy figurine of Vulcan (1984.16.8111603; Henig 2002a) comes from the Catterick excavations.

- 2.11.4. Animal figurines in copper alloy from York include two bulls (2001.12527, 2009.31), one of which represents the Egyptian god Apis. There is also a charming model mouse (2006.2870; *Eburacum*, 100, pl. 34), possibly from a burial, found on The Mount, York. As for birds, there are two peacock figurines (H2427; 2015.572), one from the Railway Station cemetery. Another peacock (H2428) is thought to be a sceptre head. A cockerel in lead comes from the Catterick excavations (Cooper 2002a, 106, 1).
- 2.11.5. Pipe clay figurines from York include five representations of Venus (H81; 1948.5.8; 2008.40-1, 1971.299.151; 1983.32.2275), the last from the YAT excavation at 24-30 Tanner Row (Plate 9). There is a bust of a bald-headed man (of a type sometimes thought to represent the smiling god 'Risus') from Fishergate (H859; *Eburacum*, 69, pl. 31). H858 is a naked male figure holding a pot. Six incomplete figurines from the Catterick excavations include two fragments which are probably from representations of Venus (1980.54.590441-2; Cooper 2002b).

2.12. Military Equipment

- 2.12.1. Roman military equipment in the museum collections comes largely from York and the Catterick excavations. From York it includes a sword from the YAT excavations at 24-30 Tanner Row in 1984 (1984.32.2355) and a bag-shaped bone sword pommel from the Railway Station (H2419). As parts of scabbards there are two chapes (2002.201, 2007.6267), two hooks for suspending the sword from a belt (H141.87, H2420) and a bone fitting (2002.202). Three scabbard fittings and some sheathing come from Catterick (Lentowicz 2002, 63-4).
- 2.12.2. A remarkable lenticular iron spearhead (2012.884) comes from Rougier Street, York, found in 1962 during construction of the Yorkshire Insurance Building. Another spearhead comes from Well (2013.53.2; Gilyard-Beer 1951, 63, fig. 20, 3). The Catterick excavations have produced some sixteen spearheads (Mould 2002, 82, 117; Summerfield and Thompson 2002, 141).
- 2.12.3. There is an object described on ADLIB as a 'lance' (1980.54.4326) and two other objects said to be 'ballista heads' (2011.249, 250). Eleven 'artillery bolt heads' and two arrow heads come from the Catterick excavations (Mould 82-3, 99, 117, 131).
- 2.12.4. Probable ballista balls come from the excavation at Interval Tower NE6 (1977.55) and there are others in the collection (e.g. 2010.686 – on display in the gallery).
- 2.12.5. Roman armour includes a 'Chalcidian' style helmet (2008.172) from the River Tyne at Newcastle which is on display in the gallery. There is also a crest support from a helmet (2002.206) and a plume holder (2002.246). A shield fragment comes from Catterick (Mould 2002, 117). There is a fragment of scale armour (2016.245) from Bainbridge fort. An open work hinge and hook for *lorica segmentata* come from Miller's 1925 excavations in York (2002.203-4). The Catterick excavations produced seven 'cuirass hinges' and a few pieces of scale armour (Lentowicz 2002, 62-3).

- 2.12.6. Other military equipment from York includes several button and loop fasteners (e.g. 2003.259, 2013.1338 and 2013.1097). Another eleven come from the Catterick excavations (Lentowicz 2002, 62-3; Mould 2002, 112). A fine enamelled belt-plate from a military uniform comes from 9 Blake Street (1975.6.496; Cool et al. 1995, 1535). There are two components of an openwork baldric mount of a type current in the late second and early third centuries (Bishop and Coulson 1989, 51-3). One of these is a round plate with an eagle in the centre and the letters I M (IUPPITER MAXIMVS) either side (2006.1858; RIB II, 3: 2429.6), the other is a rectangular hinged plate (1974.4.24). Military buckles from York include 2010.210.2-3. The Catterick excavations have produced several military belt buckles and belt-plates (Lentowicz 2002, 61 – 2; Mould 2002, 111-2).
- 2.12.7. The Roman cavalry equipment in the collection is dominated by a late first-century hoard of some 70 silvered copper alloy harness fittings and 25 or so other items from Fremington Hagg, near Reeth in Swaledale (H141; Webster 1971). Other items, probably from York, include a harness pendant in the form of a fist and phallus (2002.247). There are three spurs from the Catterick excavations, two in copper alloy and one in iron (1980.54.9457-8 /.9469; Lentowicz 2002, 66). The Catterick excavations also produced fourteen assorted copper alloy harness fittings (ibid., 64-6; Mould 2002, 113).
- 2.12.8. An important recent addition to the collections is a near complete military diploma from Brompton on Swale (2008.171; Tomlin 2008, 381-4).
- 2.12.9. An arm purse (2007.6299) found in a hoard at Tadcaster, with coins and a lamp (see above), is probably a military item in origin.

2.13. Items of Personal Adornment

- 2.13.1. The Yorkshire Museum has a large and important collection of items of personal adornment. The principal types that would be expected in any large Roman assemblage are all well represented. ADLIB records armlets and bracelets, beads, brooches, necklaces, pendants, pins and rings; they occur in the usual range of materials (gold, silver, copper alloy, bone, glass, ivory and jet).
- 2.13.2. Items from burials and certain other finds (made pre-1962) are recorded in *Eburacum* which also has review of jet from York (pp 141-4). The jet in the Yorkshire Museum (and items curated by YAT) has been studied in more detail by Lindsay Allason-Jones (1996). Items in the museum collection from the YAT excavations of the Church Street Roman sewer are described by MacGregor (1976, 6-13), and from 37 Bishophill Senior and Skeldergate also by MacGregor (1978, 33-9). Items from the Catterick excavations are described by various authors in Peter Wilson's edited volume of 2002b.



Plate 10. Gold jewellery from York. Top row: finger rings (2011.185-6, 2007.3059); bottom row (left to right) earring (2011.188), piece from a pendant (1972.22.6093), earring (1972.6091) and chain possibly from necklace (the two in the centre from the Church Street sewer).

- 2.13.3. On ADLIB there are records of 137 bracelets and 87 armlets, although there is some overlap between the two. They include plain bands in copper alloy, jet and bone and there is one in silver (2013.1095). Four ivory bands (H10.1-4) and a more unusual bracelet of blue glass beads (H10.5) come from a late fourth-century burial at Sycamore Terrace, York (*Eburacum*, 73; Cool 2006). There are copper alloy examples made of cable-twisted wires, but of particular interest is an example in twisted gold and silver wire (2012.502) from a burial in a tile cist in the Baile Hill area of York (*Eburacum*, 107). H2063.4 is a copper alloy bracelet with snake head terminals, a type described by Johns (1996, 109-11). A glass bracelet comes from Dalton Parlours villa (1973.64.113). Decorative jet examples are chip carved, cable twisted and made up from segmental beads (Allason-Jones 1996, 27-36). The Catterick excavations produced 66 copper alloy 'armlets' and 'bangles' (Lentowicz 2002) and seventeen in jet (Isaac and Thompson 2002b), one made up of 38 jet beads (Bell and Thompson 2002b, 178).
- 2.13.4. ADLIB records seventeen necklaces. They are mostly made up of beads whether in amber, bone, jet, glass or frit in the case of melon beads. Of particular interest from York are the necklaces of jet, bone and glass beads from a burial in Walmgate (H321; *Eburacum*, 70; Allason-Jones, fig. and of glass and coral beads from a burial at Heslington (H323; *ibid*, 21, fig. 18). An attractive, presumably restrung, necklace of glass beads (2012.480) was purchased by the museum in 1934. Eight amber and fifteen blue glass beads make up a necklace from the Railway Station (H303.1). A male burial at Catterick produced a most remarkable necklace made up of ten different types of jet bead (Bell and Thompson 2002b, 177, 1). Another from Catterick was strung with two bone dolphins and two tusks (Bell and Thompson 2002c, 192-3, 1). A necklace from York of a rather different type is probably represented by a length of gold links and carnelian beads (2012.889).
- 2.13.5. In addition to those strung on necklaces there are many other loose beads in the collections. There are 78 records on ADLIB, but there is some overlap with necklaces. There are beads in copper alloy (Mould 2002, 109), jet (Bell and Thompson 2002b, 178) and glass / frit (Cool and Price 2002) from the Catterick excavations.

- 2.13.6. ADLIB records thirteen earrings. There is a pair in gold from a burial at Holgate Villa, York (1971.319.3) and another from the burial referred to above at Heslington (H323). A gold earring come from the Church Street sewer (1972.22.6091; MacGregor 1976, 10-11, fig. 8, 73; Plate 10). There is also a pair of silver earrings, possibly from a burial, from The Mount (H312.7-8), and another single example (2012.416).
- 2.13.7. ADLIB records 133 brooches, largely in copper alloy, although there are four in silver. Most of the types well known in Britain appear to be represented (Johns 1996, Chapter 7). Late first- and second-century trumpet and head stud brooches, along with less easily datable penannular brooches, appear to be the commonest types. As one would expect in York and region, however, other early Roman brooches are relatively few in number. Of the late first- and early second-century types, there is one thistle/rosette type (2006.1092), and there are five of Colchester type, of which one is in silver (H2054); all are from York except for one from Kirklington near Thirsk (1949.5.2). There are two AVCISSA brooches, one from Stanwick (2425.2) and one from Thornton-le-Dale (1948.4.17). There are seven dragonesque brooches, one of which comes from Wharram-le-Street (2001.603). Disc brooches are represented by H2438.14 and 2003.241-2. Knee brooches, usually late second or early third century, are represented by 2007.6013.5 and 2007.6266. There are a number of plate brooches including examples in the form of animals and birds. In a group found in various burials in York, recorded in *Eburacum* (pl. 34), there are a crow (H139c), a hen (H139a), a cockerel (H2426) and two ducks (H31.i, ii).
- 2.13.8. The late Iron Age enclosure at Stanwick produced a group of nine first-century brooches, all of which could be earlier than AD 75 (Allason-Jones and Haselgrove 2016, 191-4). Some 60 brooches come from the Catterick excavations (principally Mackreth 2002 and Butcher 2002). They include a few early types including Colchester derivatives, Hod Hills and dragonesques.
- 2.13.9. Late Roman brooches in the collection are fairly scarce, there being only eight crossbow brooches recorded on ADLIB. Another three come from the Catterick excavations (Mackreth 2002, 254-5).
- 2.13.10. There are 22 buckle records on ADLIB. In addition to the two military buckles referred to in 12.6 above, there is one (20002.210) very similar to a late Roman zoomorphic buckle found in the 1939 excavations at Catterick (Hildyard 1957). Also late Roman are a buckle in which the frame has incurving terminals with punched ring and dot (2001.12530), and a buckle and enamelled buckle-plate from Stanwick St John (H2438.3; Hawkes 1974).

2.13.11. Components of pendants include two in gold from the Church Street sewer (MacGregor 1976, 10-11, fig. 8, 71-2; Plate 10). A small group of six jet pendants bear representations in relief of Medusa or of human figures (H1028, H320.1, H2442-4, H321.14.1, Allason-Jones 1996, 24-5; Parker 2016; Plate 11).



Plate 11. Jet pendants and pins from York (left – right, H2442, 1995.184, H2443, H105.4, H2444)

2.13.12. There are 576 entries for Roman pins on ADLIB, although some of the simpler examples may be later in date. All the common forms identified by Nina Crummy (1979) appear to be present, and there are a few with unusual head forms. Pins occur in all the expected materials, primarily bone, copper alloy and jet. The bone pins in the collection include a large group with a provenance in Colchester. One of these has a spherical head covered in gold leaf (H134.4) and another has a crystal head (H134.3). There are five bone pins with a jet head (H134.6-9, H2047.10) and a detached jet head (H324.19) (Allason-Jones 1996, 44-5, 275-80). A range of jet pins from York is described by Allason-Jones (1996, 38-45). Of particular interest, perhaps, are thirteen with heads in the form of a cantharus urn (a double-handled drinking vessel); two were found with the surviving hair in a burial found at the Station Hotel (*Eburacum*, 83; 1995.248-9). These pins are sometimes thought to evoke the god Bacchus. There are 25 copper alloy pins from the Catterick excavations (Lentowicz 2002, 46-8; Mould 2002, 109), about 100 in bone (two with jet heads) (Isaac and Thompson 2002a, 186-9; Bell and Thompson 2002c, 193-4) and five jet pins (Isaac and Thompson 2002b).

- 2.13.13. There are 94 items described as rings on ADLIB, but not all of them are finger rings. Of those that are, there are eight in gold including one from Wistow with a blue glass intaglio depicting Victoria (2014.493), another has an intaglio depicting Bonus Eventus (2010.44). Other rings from York include one from the YAT excavation at Dixon Lane which has a simple carnelian in the bezel (2005.3203.16). There are six silver rings, two of which, both from Haxby (2005.3, 2011.323) also have intaglios depicting Bonus Eventus. A keeled silver ring from East Lutton (2002.571) has a carnelian intaglio with a reclining wolf. Unusual silver rings, both on display in the gallery, include one bearing the only dedication to Sucelus, a Gallic deity, from Britain (2001.12526; *Eburacum*, 133, 140), and another from the Railway Station is dedicated to the god Toutatis with an inscription in the form TOT TOT (2001.12509; *ibid*, 141). Another two silver rings come from burials excavated by On Site Archaeology at the (then) Royal Station Hotel in York (1999.840.13-14). The Catterick excavations have produced 22 copper alloy finger rings (Lentowicz 2002, 51-2; Mould 2002, 109).
- 2.13.14. There are 25 intaglios recorded on ADLIB, some of which are still set in their rings whilst other have been found loose. All are from York except for those in the rings noted above from East Lutton and Haxby and another from Aldborough (1990.42). There are examples in semi-precious stones and in glass. Three from the Church Street sewer are on display in the gallery which, along with five others, have been published by Henig (1976). A range of subjects is depicted including deities such as Diana (re-set in a modern ring; 2011.193), Mars, Bonus Eventus (see above), Fortuna and Roma, and other subjects including a crescent moon and cupid. More unusual is a depiction of Chnoubis, a gnostic solar symbol of Egyptian origin set in a copper alloy ring (2012.378). Two intaglios from the Catterick excavations depict Fortuna and Jupiter (Henig 2002b).

2.14. Toilet and Medical Items

- 2.14.1. There is a group of double-sided combs made of bone or antler in the collection which are probably late Roman including H315.1, 1971.298.9, 2006.2942, 2006.2957, 2011.245, 2011.314, and 2013.1282.
- 2.14.2. Other toilet items from York include copper alloy mirrors (H324.20, 2002.240, 2007.6054-6) and a glass mirror from the late fourth-century burial at Sycamore Terrace (H11; *Eburacum*, 73; Cool 2006). Toilet 'instruments' include tweezers and probes (e.g. 2002.237, 2012.275) and a silver ear scoop (2011.324). Similar items come from the Catterick excavations (Lentowicz 2002, 53-5; Mould 2002, 111).
- 2.14.3. A more unusual item in the collection is a copper alloy 'balsamarium' in the form of an infant bust which was used for balsam or other unguents. It comes from York Railway Station where it had probably accompanied a burial (H2407; Alcock 1977). Also unusual is a small enamelled flask from the Catterick excavations (1980.54.9466; Allason-Jones 2002). A number of glass unguentaria are described in Hilary Cool's report (see 8.4 above).
- 2.14.4. A stone palette, now fragmentary, was probably used for mixing ointments; it is stamped CANDIDVS (2002.236; *Eburacum* 134, 146; RIB II, 4: 2450.1). There is another small, uninscribed palette (2011.322). An oculist's stamp in green soapstone is inscribed with a recommendation for Julius Alexander's salve (2006.2878; *Eburacum*, 134, 147; RIB II, 4: 2446.1).

2.15. Gaming Pieces

- 2.15.1. There are numerous gaming counters in bone, glass, pottery and stone in the collections including those from York sites at Church Street (MacGregor 1976, 2-4), 37 Bishophill Senior, Skeldergate (MacGregor 1978, 33) and 9 Blake Street (Cool et al. 1995, 1553-6). The Catterick excavations have produced twelve bone counters (Isaac and Thompson 2002a, 185-6), and about 30 ceramic examples (Cooper et al 2002b; Thompson and Evans 2002).
- 2.15.2. There are dice in bone from York including three from the Blossom Street 1954-55 excavations (1971.299.1.4-6) and one from Trentholme Drive (1971.303.120). Examples also come from the Catterick excavations (Isaac and Thompson 2002a, 186; Bell and Thompson 2002c, 196). There is a jet die from York (1995.168; Allason-Jones 1996, 314).

2.16. Votive Items

- 2.16.1. There are a number of what may be generically described as 'votive items' in the collection. Some have been covered in other sections, but others have no practical function. Items from York include a small gold plate engraved with two lines in Greek (H20) described as an amulet by *Eburacum* (133, 139). Another small gold plate (c. 80mm long), pierced at each end (H326.1), bears an inscription which is described as FL [.] VI on ADLIB. This comes from the Railway Station and is described as a 'funerary plaque' on ADLIB.
- 2.16.2. From the Old Railway Station in York come two small bronze tablets of ansate form which bear punched dot inscriptions in Greek, one a dedication to the 'gods of the governor's residence' and the other to 'Ocean and Tethys' followed by the personal name Demetrius (H4.1; *Eburacum*, 133, 142; Plate 12).



Plate 12. Small copper alloy tablets with punched dot inscriptions from the Old Railway Station, York (H4.1-2)

- 2.16.3. From the late Roman burial at Sycamore Terrace there is a bone slip with an openwork inscription AVE SOROR VIVAS IN DEO, thought to be Christian in sentiment, although the burial appears to be otherwise pagan (H5; *Eburacum*, 73, 135, 150; Cool 2006).
- 2.16.4. A bone slip from a York burial which bears the inscription 'Lord Victor may you have a lucky win' (H2421; *Eburacum* 135, 149) might be considered to have a votive aspect in a funerary context.
- 2.16.5. There are three ceramic eye charms on display in the gallery (2010.54.7-9), two are provenanced at Trier; the other is unprovenanced.
- 2.16.6. The Catterick excavations produced a small, enamelled copper alloy stand probably used in ritual ceremonies (1980.54.599459; Lentowicz 2002, 68, 243-4). Also of a votive character from Catterick are six phallic amulets (1980.54.9464.1-6; *ibid.*, 244; Fig. 1).

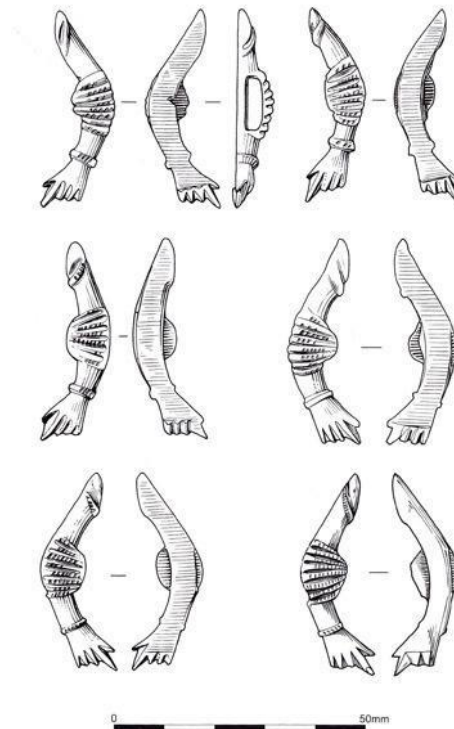


Fig. 1. Group of six phallic amulets from Catterick (1980.54.9464.1-6)

- 2.16.7. A ceramic mask from Catterick (1985.27.1; Anderson et al 2002) was presumably used in dramatic performances; they may have had some cult or votive aspect.

2.17. Other Objects

- 2.17.1. In addition to those in the principal groups described above, the collection includes a great range of other items some of which are itemised below.

Bone and ivory

- 2.17.2. Amongst the more unusual items under this heading are three bone toggles (2013.1279-81), the ribs from a parasol (H322.1-4), two ivory handles for a fan from a burial at the Station Hotel (H304; *Eburacum*, 82) and another possible example of a handle (2012.307). There is also a range of bone handles (some for knives see 7.9 above) and mounts for furniture and other objects. In ivory there is a small item enigmatically described on ADLIB as a 'junction block' (2012.322). The Catterick excavations have produced bone needles, tools, handles and other items (Isaac and Thompson 2002a; Bell and Thompson 2002c).

Copper alloy



Plate 13. Copper alloy barrel padlock (2012.300)

- 2.17.3. More unusual items under this heading include a lock, fittings and mounts from a wooden box in a burial found at Station Hotel, York (H325.1-15; *Eburacum*, 82) and a barrel padlock (2012.300; Plate 13). There are also a number of other lock bolts (e.g. 1972.22.6100, 2008.45-6, 2012.280), as well as a range of 'fittings' including handles, strips, studs etc largely from items of furniture. A small bull's head was probably a fitting (2011.360), possibly of Mithraic significance. The Catterick excavations have also produced a range of copper alloy fittings (Lentowicz 2002) including an attractive small handle in the form of a dolphin (p. 57, 139).

- 2.17.4. There are seven seal box lids recorded on ADLIB, of which three from York (H2440.12, 2002.226, 2007.6240.1) are described by Andrews (2012) who also describes one from the Catterick excavations (1980.54.4593; Lentowicz 2002, 70).
- 2.17.5. There are a number of copper alloy styli, or probable styli (e.g. H2437.2; H2441.4; H2437; 2007.6215-6 / 6220-1; 1980.54.425; 2007.620-1; 2012.421).

Iron

- 2.17.6. There is an assortment of iron objects, including 'fittings' and nails and others no longer closely identifiable, from York and other sites. The Catterick excavations have produced a large number of iron objects in addition to those already referred to, including various items of domestic equipment, locks and keys, structural fittings and styli (Mould 2002).

Lead

- 2.17.7. There is a group of stamped lead seals (H84.1-23) said on ADLIB to be from 'Brough' which is probably the fort at Brough-on-Stainmore (RIB II, 1). There is also a lead seal from York bearing the letters 'P B I' – province of *Britannia Inferior* (1971.299.2; *Eburacum*, 133-4, 144; RIB II, I: 2411.35).

Fired clay

- 2.17.8. An unusual item from Catterick is a *clibanus* or portable oven (Evans and Williams 2002).

2.18. Leather

- 2.18.1. Leather in the museum collection comes primarily from the Roman well at Skeldergate, York (MacGregor 1978, 50-4) and from the Catterick Bypass site (Hooley 2002), although there are a few other items.
- 2.18.2. The Skeldergate well produced a group of twenty or so shoes or shoe fragments. In addition, a well-preserved shoe with a hobnailed sole, which is probably Roman, comes from the site of the York Public Library (2014.517). Four shoe soles come from the 1950 Hungate excavation (1971.321.25; Richardson 1959, 75). A shoe has survived from a Roman burial on Grewelthorpe Moor near Ripon found in 1850 (2053.1; Turner et al. 1991).
- 2.18.3. The leather assemblage from Catterick forms one of the largest and best-provenanced from a military site in Roman Britain, although it cannot be compared in size or variety with that from Vindolanda. There are 326 individual items in the catalogue which come primarily from a midden of the late first to mid-second century. There are shoes of five basic Roman types, numerous pieces of military tents, exhibiting a great range of stitching types, a few fragments of horse barding and saddle as well as many offcuts.

2.19. Textile

- 2.19.1. There is little in the way of Roman textile in the museum collections, although there is a woollen insole and a fragment of a woollen stocking from the Roman burial on Grewelthorpe Moor (H2053.2-3; Turner et al. 1991).

2.20. Human Remains

- 2.20.1. The Yorkshire Museum holds a disparate collection of human remains from various sites in York existing both as skeletons in various states of completeness and as cremated remains. Many, although not all, of the remains were examined by Lauren McIntyre for her PhD thesis (2013) – listed in Appendix 7. A skeleton (2014.59) excavated during building work at the Art Gallery in 2010 was studied by Malin Holst (2010).

- 2.20.2. Material apparently not studied by McIntyre includes some skeletal remains from the Railway Station found in the 1870s (1947.2 / 36), a skull and some other bones from the coffin of Julia Fortunata (1974.4), and three inhumations (found in stone coffins) from Long Close Lane (1974.26; *J. Roman Stud.* 1962, 167).
- 2.20.3. A programme of analysis of strontium and oxygen isotopes from dental enamel combined with a review of the craniometric data was conducted by Leach et al. (2009) on 43 individuals from Trentholme Drive (not in the museum collections) and the Railway Station cemetery. A similar study by Leach et al. (2010) has subsequently been made of the skeleton from the burial at Sycamore Terrace, currently on display in the gallery.
- 2.20.4. There are at least three cremation urns from York in the collections in which the cremated remains still survive unprocessed: an Ebor Ware urn, probably late 1st – early 2nd century, from the Fishergate cemetery (H50; *Eburacum*, 69); an unprovenanced grey ware urn (1948.7.4); and an indented beaker from Trentholme Drive (1971.303.31.1). In addition, cremated remains survive in the glass jar from Wharram-le-Street on display in the gallery (HG214.1-2).
- 2.20.5. There are human remains from some 65 burials excavated at Catterick (Mays 2002). A programme of isotope analysis was carried out to determine the possible origins of the population using bones from 42 individuals and teeth from 26 (Chenery et al. 2011).

2.21. Animal Bone

- 2.21.1. There are groups of animal bones of Roman date from a number of sites in York and elsewhere most of which are unpublished. The groups are recorded in the collections audit, but have not been quantified in detail for this document, although they are clearly varied in size and significance. The largest and best recorded are probably those from the YAT sites at 9 Blake Street (1975.6) and 59 Skeldergate (1975.14); bones from a Roman well at the latter were published by Terry O'Connor (1984, 13-16).
- 2.21.2. There are some large assemblages of animal bones from the Catterick excavations, including over 25,000 fragments identified to species from Baines Farm, which have been published by Sue Stallibrass (2002) and others.

2.22. Documentation

Paper archive

- 2.22.1. In store there is a disparate archive, mostly on paper or drawing film, for certain components of the collections. It proved difficult to make an overview of the material for this document because it is somewhat disordered and there are health and safety implications of dealing with paperwork heavily encrusted with dirt and dust. The principal documentary archives which could be identified are described below.
- 2.22.2. The site archives for Sir Mortimer Wheeler's and Durham University's excavations at Stanwick, and for the 1994-5 Melsonby excavations.
- 2.22.3. Site records from Peter Wenham's excavations at Trentholme Drive, Davygate 1955-8, Feasegate 1955, Low Petergate, Interval Tower NE6, Bishophill Senior 1964, St Mary Bishophill Junior, Lister and Edmonds Garage, St William's College 1964 and various small sites. In addition, there is a book of Peter Wenham's comments on *Eburacum*,
- 2.22.4. Robert Perrin's M Litt thesis (1975); this is the only record which could be found in the museum for the 1939 excavation of the Roman baths caldarium at the Air Raid Control Centre on the site of the Old Station in York. However, according to *Eburacum* (p. 55) 'photographs etc' are in the Yorkshire Museum.
- 2.22.5. The archive for the Catterick excavations of 1958-9, 1972 and the 1980s.
- 2.22.6. Archives (hard copy and digital) of a number of early twenty-first-century excavations in York and North Yorkshire – see Appendix 6.

Photographs

- 2.22.7. Black and white photographs and colour slides were located for Wenham's excavations and the Catterick excavations. In addition, there are a few boxes of photographs and slides of material in the collections in store. Also found in store was a box of glass slides with pictures of Miller's excavation at the east corner of the fortress in 1926, of Roman altars found on Blossom Street in 1880 and the Multangular Tower early in the twentieth century. Other photographs of sites and artefacts may exist in the museum's collections but were not recorded for this document.

2.23. Summary Assessment of the Roman Collections

- 2.23.1. The Roman collections in the Yorkshire Museum have a very distinctive character in terms of their provenance and content. In broad terms, they reflect approaches to collection in two distinct periods, the first before c. 1918 to 1925 and the second after those years when systematic archaeological excavations began in York and its region. Excavations would become the principal source of Roman material for the museum's collections after World War II.
- 2.23.2. Although there is some Roman material collected before the mid-nineteenth century, the first major period of collecting in York belongs to the nineteenth century, after c. 1840, and continued up to World War I. This was a period when local interest in the city's Roman past was, at least in part, prompted by what was brought to light by the rapid development of the suburbs and the railway. However, what was actually collected reflects a priority given to complete or near complete objects, suitable for the museum display case or private sideboard, and to those which represented an idea of Roman culture derived from classical literature and the antiquarian investigations of the Mediterranean world, i.e. stone monuments and particular types of artefact such as figurines, jewellery, pottery vessels etc.
- 2.23.3. In the material gathered in the second period, especially in the context of formal excavations, we see a gradually developing practice of collecting all, or most, of the artefacts, however fragmentary, left behind from the Roman period and also in collecting the human and animal bones and other organic materials. By the early 1970s York Archaeological Trust would collect the whole suite of artefactual and biological materials (bones, seeds, insect remains etc) from their excavations in a manner which would still be considered appropriate today.
- 2.23.4. The same division between the two collecting periods can also be seen in the material from the region around York with the first formal excavations taking place in the late 1920s and 1930s at Crambeck, Well and Catterick. After World War II it is again excavations, primarily at Catterick, which have been the principal source of the museum's collections.
- 2.23.5. Although changing approaches to collection have introduced biases in the content and in the provenance of what is held by the museum, what the collections illustrate is that, as far as York is concerned, it had a character quite different from that of more or less any other Roman place in Britain. This character arises from the distinctive roles that York played both as a permanent military base and, by the early third century, a provincial capital, and from its diverse population consequent on those roles.

2.23.6. The artefactual material from York which this document has reviewed includes, as one would expect, many items of pottery, metalwork etc which occur widely in Roman Britain. In addition, however, there are other items which are much less common and speak of a community, some of whose members were familiar with the culture of the Empire beyond Britain's shores and who in certain periods, at least, were cosmopolitan in their origins as has been confirmed by both inscriptions and isotope analysis of their mortal remains.

2.23.7. With these points in mind, one may suggest that the aspects of the Roman collections from York which are of particular importance would include those providing evidence for:

- a diversity of religious cults, local and of alien origin, represented by statuary, inscriptions and votive and other objects
- burial practice, although, with the exception of Trentholme Drive, this is based primarily on artefacts and monuments collected on a somewhat arbitrary basis rather than on fully recorded cemeteries. The inscribed sarcophagi are, as noted, almost unique to York as far as Britain is concerned.

As far as particular artefact groups are concerned, particular interest, perhaps, attaches to the collections of jewellery, pottery vessels, lamps and jet objects; jet is very much a York speciality as a result of its proximity to the source.

2.23.8. The assemblages from the Catterick excavations, and other sites in the region, up to a point overlap with those from York, but they also provide many important complements to them. Catterick also has a military and civilian aspect, but its status as an auxiliary fort and a non-chartered small town makes it rather more typical of Roman Britain than York. This reflected in the artefact assemblages, especially as they come largely from settlement contexts rather than burials as is the case in York. One immediately striking difference lies in the amount of ironwork from Catterick, largely ignored by the early collectors in York. Furthermore, the Catterick assemblages are largely well stratified and recorded whereas much of the York material is lacking in both respects since relatively little from excavations by YAT or others since c. 1975 has been deposited in the museum.

- 2.23.9. For York, Catterick and the region another aspect of the museum's collections which should not be ignored is the evidence which may be found in the documentary archives for the history of research into the Roman period. How successive generations have thought about it and sought to go about exploring it is an important aspect of intellectual and social history which would be worth exploring further.
- 2.23.10. Comparing the Yorkshire Museums' Roman collections in any meaningful way with those in other museums in Britain is not easy to do without more resource than was available for this project. However, it should be emphasised by way of conclusion to this assessment that in the sheer quantity and range of material and in the inclusion of some very unusual objects, only the Grosvenor Museum at Chester, Tullie House Museum in Carlisle, the Great North Museum at Newcastle-upon-Tyne and Hull and East Riding Museum, in the north of England, can be compared to the Yorkshire Museum in the significance of their Roman collections.
- 2.23.11. The Roman collections in the Yorkshire Museum have been extensively researched and widely published as will be apparent from the references given in this overview document. However, as the 'Old Collections – New Questions' project recognises, there is still plenty of scope for new research. This will be addressed in more detail in the *Research Plan* (3) which will be based on this document, the Collections Audit and the *Research Agenda* (1).



3. A Research Plan for the Roman Archaeology Collections

Patrick Ottaway D Phil, FSA, MCIFA

3.1. Introduction

- 3.1.1. This document is a Research Plan for the Roman collections of the Yorkshire Museum. It has been commissioned by the Yorkshire Museum from *PJO Archaeology*, an independent consultancy based in York, but working throughout the UK, which provides expert advice on archaeology and cultural heritage matters to commercial developers and public bodies (www.pjoarchaeology.co.uk).
- 3.1.2. The Research Plan is component of a Yorkshire Museum project entitled 'Old Collections, New Questions' funded by the Arts Council. Previously a *Research Agenda* (1) was produced by Emily Tilley, Collections Facilitator, which provides a framework for the project as whole and sets it in the context of the mainstream of Romano-British studies. Previously *PJO Archaeology* produced an *Overview of the Roman Collections* (2) which described, in summary form, the material culture, human remains, animal bone and related documentation held by the museum. These two documents provide the starting point for the Research Plan which is intended to identify a series of projects for new research into selected components of the collections with a view to raising their profile in both academic circles and with the general public.
- 3.1.3. The Roman collections curated by the Yorkshire Museum are part of archaeological collections designated by MLAC as having national and international importance. They are estimated to include c. 22,000 individual objects and many more as part of bulk assemblages (pottery, bones, tile, animal bone etc). Some 500 objects are on display in the museum gallery.
- 3.1.4. The Yorkshire Museum's Roman collections are documented internally on an ADLIB data base which has 6920 entries at time of writing, but is being continuously added to. Most of the material on ADLIB is either from York or is unprovenanced. In addition, a 'Collections Audit' has been carried out as part of this project to serve as basis for upgrading the documentation of the museum's collections.

3.2. The Research Potential of the Roman Collections

Issues of Provenance

- 3.2.1. It will be apparent from the *Overview* (2) that the Yorkshire Museum's Roman collections are not only very large, but very diverse in terms of the material culture of the Roman period. There are many individual objects and groups of objects of great interest and significance for a number of reasons. However, a good deal of the material is poorly provenanced or unprovenanced, especially that collected before World War I. Material collected after c. 1925 comes increasingly from stratified contexts on formal excavations whether in York or North Yorkshire, although this does not form a particularly large proportion of the collections.
- 3.2.2. As far as excavations in York are concerned, there is a small amount of material in the collections which was recovered before World War II, but most of it comes from post-war work. Before c. 1972, when York Archaeological Trust (YAT) was founded, these excavations were, apart from Trentholme Drive Roman cemetery (Wenham 1968), undertaken on a fairly small scale. Only a very small proportion of the excavations carried out in the city by YAT has been deposited in the museum. The principal body of material from excavations in North Yorkshire comes from Catterick, excavated in 1958-9, 1972 and the 1980s (Wilson 2002a-b) – referred to below as the 'Catterick excavations.'
- 3.2.3. Because of a relative lack of well-provenanced material, the potential of the collections to address the research questions posed under the 'themes' subheading in the *Research Agenda* (1), involving topography (1.5.6, 1.5.10), specific time periods (1.5.8) or developments over time in the society, economy or overall character of Roman York and Yorkshire (1.5.9) is rather more limited than it for the others. None the less, it is envisaged that it should be possible to undertake further research into these 'themes' by using the results of the individual projects identified below and setting them in the wider context of Romano-British studies.

Previous research and publication

- 3.2.4. For York, the principal publication concerned with the Roman collections remains Volume 1 of the Royal Commission on Historical Monuments for England inventory of York, entitled *Eburacum* (1962) and referred to as such below. Finds deposited in the museum from the YAT excavations at 4-5 Church Street, 37 Bishophill Senior, 59 Skeldergate and 9 Blake Street are published in fascicules in the *Archaeology of York* series by MacGregor (1976; 1978) and Cool et al. (1995). The material from the Catterick excavations has been published very fully in Peter Wilson's two edited volumes: *Cataractonium: Roman Catterick and its Hinterland. Excavations and Research 1958-1997* (Wilson 2002a-b).

- 3.2.5. In addition, as shown in the Overview (2), material in the museum's collections has been extensively researched by other parties and the results of that research disseminated in a wide variety of different forms, in varying degrees of detail and to varying standards. Some of the relevant sources, including *Eburacum*, are now, in some respects, at least, out of date as a result of more recent research. Other sources focus only on certain aspects of the material in question leaving others unconsidered; for example, *Roman Inscriptions of Britain* (RIB, Vols 1 and 3) is primarily concerned with the inscriptions on funerary monuments etc rather than on their art historical aspects which remain under researched.

Research opportunities

- 3.2.6. In the light of the situation regarding provenance, the research potential of much of the collections lies principally in the material itself as representative of the Roman period as a whole rather than in its close relationship to the context from which it was recovered. None the less, there are cases where material can be usefully related to a context, if only in a fairly general sense, such as, for example, the Railway Station cemeteries (see 3.5.2 below).
- 3.2.7. I suggest that there are three areas of opportunity, which up to a point overlap, for research projects focused on the artefacts and other material in the museum's collections as follows:
1. projects, using for the most part, well-established research methods which will add to knowledge by adding hitherto unpublished exemplars to existing corpuses and / or by republishing to present-day standards material previously published, e.g. in *Eburacum*;
 2. projects which apply new research techniques to the material in the collections.
 3. projects which consider groups of material from particular sites or areas of York.
- 3.2.8. In Sections 3.3 to 3.6 below a series of 20 research projects is identified, a selection of which, at least, should be easily manageable and achievable with the resources of 'Old Collections, New Questions'. These projects may be treated as stand-alone or as part of larger research projects, ongoing, perhaps, in other institutions, as appropriate. In addition, they may be seen as 'building blocks' for addressing the twelve 'themes' in the *Research Agenda* (1). In the headings each project is related to one or more of the twelve 'themes' and to the 'potential future projects' in the RA.

Tasks, schedules and personnel

- 3.2.9. Each project, or group of projects, is broken down into a series of tasks and they are provisionally assigned to personnel (by 'type', not name) who might undertake them. Established specialists, research students, placements and volunteers may all have their parts to play.

Priorities

- 3.2.10. It would be invidious to set out a prescriptive list of research priorities. However, it is unlikely that all the projects listed below can be supported with the 'Old Collections, New Questions' resources. I have, therefore, attempted to take account of the quality and intrinsic interest of the material and its wider relevance to Roman studies such that Projects 1 to 7 are set out in priority order, followed by Projects 8 to 12, and Projects 14 to 17. Projects 13 and 18 to 20 stand alone. In summary, I suggest that, although not entirely comparable in terms of scope etc., the seven highest priority research projects are: 1 (pottery typology), 2 (jewellery), 8 (Knaresborough Hoard), 9 (antefix), 14 (pottery technology), 18 (station cemeteries) and 20 (study of Roman York).

3.3. Research Projects, 1: additions to existing corpuses

Introduction

- 3.3.1. Projects 1 to 7 involve research into large groups of objects whilst Projects 8 to 12 involve research into single objects or small groups. For Projects 1 to 7 Lindsay Allason-Jones' attractive publication *Roman Jet in the Yorkshire Museum* (1996) with its discussion section and illustrated catalogue, provides a good model for outputs in a similar format. For Projects 8 to 12 suitable outputs would probably be a journal article and / or web page.

Projects 1 to 7

Project 1. *Roman York: a ceramic history* (RA Themes 1.5.3, 1.5.4, 1.5.5, 1.5.11, 1.5.12).

- 3.3.2. There are over 800 complete, or near complete, Roman pottery vessels in the museum collections as well as large quantities of other pottery sherds with a great variety of provenances and none. Some 230 vessels come from the Trentholme Drive cemetery and have been published by John Gillam (1968). Another 125 or so were identified by *Eburacum* as from, or probably from, grave groups elsewhere in York. A small group of 10 vessels come from the 2002 Fishergate House excavation but are not published in any detail by Spall and Toop (2005). The provenance of the remainder of the vessels is varied, although the majority are, or probably are, from York and many probably from burials, although not identified as such in *Eburacum*.
- 3.3.3. The vessels represent the complete ceramic history of Roman York and whilst corresponding largely to the principal types in Monaghan's 1997 corpus, they have the capacity to enhance it as the corpus contains relatively few complete vessels in what is essentially a publication of material from settlement sites. Secondly, as Monaghan points out (p. 825), *Eburacum* is out of date as far as pottery research is concerned and the same can probably be said of Gillam's report on Trentholme Drive. A typological study of the vessels comparable to Monaghan's of 1997 would be a firm basis for further characterisation of the range of Roman pottery found in York and feed into studies of such themes as lifestyles, pottery use in burials as opposed to settlement contexts, the development of the cemeteries (see Project 18, 3.5.2 below) and the local economy. A potential addition and enhancement of this project is provided by Project 14 concerned with the scientific examination of selected components of the pottery assemblage. Dating of vessels will also be critical for the study of the Railway Station cemeteries (Project 18, 3.5.2 below).

Project 2. *'In all their finery': the Roman jewellery and related items* (RA Themes 1.5.3 - 1.5.5)

- 3.3.4. The Yorkshire Museum has a large and important collection of Roman jewellery and other items of personal adornment some of which has already been published e.g. in *Eburacum* or, in the case of the jet, by Allason-Jones (1996), but much of it remains unpublished. Pieces of particular interest and quality include eight gold rings, two pairs of gold earrings and a number of intaglios which depict a range of both well-known and rarer subjects (see 2.13). Study of the artefacts under this heading would contribute principally, perhaps, to research into lifestyles in Roman York, but also to the study of religion (especially in respect of the intaglios) and funerary practice since there are many items which can be provenanced to burials including those from the Railway Station cemeteries (Project 18, see 3.5.2 below). Whilst one overarching project is what is envisaged here, it would also be possible to break it up into smaller sub-projects.

Project 3. *'Illuminating Roman York': the lamps and candleholders* (RA Themes 1.5.3, 1.5.4, 1.5.5, 1.5.12)

- 3.3.5. One hundred and forty-three Roman lamps are recorded on ADLIB, the majority of which are ceramic although a small number are of copper alloy. There are also four lead lampholders and 21 ceramic 'candlesticks' (strictly 'candleholders'). Some of the ceramic lamps have been published (e.g. Monaghan 1997, 928-30 and see 2.10.1), but the majority are unpublished. Lamps are often thought to derive from cult contexts, being used in shrines or placed in burials (as at Trentholme Drive; Gillam 1968, 84, 231-5), as well as serving, alongside the candleholders, as domestic lighting (Monaghan 1997, 859). Of particular interest in a cult context, perhaps, are two lamps in African Red Slip Ware which bear a Chi-rho in relief (H895-6). These represent an important addition to the archaeological evidence for Christianity in Roman York which is otherwise extremely scarce. In addition, there are several lamps which bear attractive depictions of human figures in relief, some of which are deities. Taken together, the lamps make an attractive and diverse collection which relate, in particular, to the study of lifestyles, consumption patterns and religious cult practice in Roman York. Some of the lamps may be local products but this has not been established for certain. The lamps, lampholders and candlesticks should be more widely known and one would think a publication along the lines of Allason-Jones' 1996 volume on jet would have broad appeal to the general public.

Project 4. *'Delicate and precious': glass from Roman York* (RA Themes 1.5.3, 1.5.11, 1.5.12)

- 3.3.6. A publication of 251 pieces of Roman glass in the museum's collections has been completed in draft by Hilary Cool in 1996. The 'Old Collections – New Questions' project would seem to provide an obvious opportunity to complete this and bring to wider attention an important group of material which represents the use of glass throughout the Roman period in York which is, in turn, relevant to the study of lifestyles and trade and consumption.

Project 5. *'Gods, animals and birds': the Roman figurines* (RA Themes 1.5.5, 1.5.12)

- 3.3.7. 37 figurines, or models, are recorded on ADLIB which represent a varied and attractive collection, in a number of materials, representing deities, and also animals and birds many of which probably had some significance in cult practice. The figurines, therefore, provide another class of evidence for religion in Roman York as well as for patterns of consumption and trade. The figurines in copper alloy and pipe clay have been researched for their respective doctoral theses at Reading University by Emma Durham and Matt Fittock. Their work would seem to be an obvious basis for a research report on the York material as a whole which, again, might have an appeal to the general public.

Project 6. *The Roman army in Yorkshire: a study of military equipment* (RA Theme 1.5.7)

- 3.3.8. The museum holds a varied collection of Roman military equipment including weaponry and pieces of armour, (2.12). Study of military equipment has hitherto been largely lacking in research into Roman York; only a few items are published - from the 9 Blake Street (Cool et al. 1995), the Minster excavations (Lloyd-Morgan 1995; Manning 1995) and Minster Library excavations (Ottaway 2016; Rogers 2016). However, given York's importance as a military base, the 'Old Collections – New Questions' project provides an opportunity to review all the relevant material in the collections with a view to addressing such questions as how the army was equipped, what sort of troops were based in York (only legionaries?) and where had they served previously? Given the appreciable quantity of equipment from the Catterick excavations and other sites in the region (e.g. Fremington Hagg), there is an opportunity for useful comparisons with York.

Project 7. *'Our daily bread': a study of querns* (RA Themes 1.5.3, 1.5.11, 1.5.12)

- 3.3.9. As the *Research Agenda* (1) notes there is an ongoing project to catalogue the museums' querns, of Iron Age, Roman and later periods, along with those held by YAT and other contractors. The 'Old Collections – New Questions' project would seem to provide a good opportunity for sponsoring the completion of the recording work and for a synthesis report. Liaison with YAT and other contractors is to be recommended in order to produce as complete a picture as possible of quern supply and use in the York area.

Projects 1 to 7 Tasks and Personnel

- 3.3.10. *Apart from Project 4, for which some work has already taken place, the tasks involved in Projects 1 to 6 are all much the same and may be broken down as follows: 1, check documentation of material in the museum's records; 2, prepare a catalogue (Roman Jet provides a model); 3, prepare illustrations in drawn and photographic form as appropriate; 4, complete the research report. Task 1 might be undertaken by a volunteer or student placement under museum staff supervision. Tasks 2 and 4 would be primarily be the responsibility of a finds specialist and Task 3 the responsibility of specialists in graphics and / or photography under the supervision of the finds specialist. For Project 4 it is suggested that the tasks are as follows: 1, edit and update the 1996 draft; 2, prepare illustrations; 3, complete the report. It may be appropriate to include additional material, but this can only be determined when a specialist is appointed.*

Projects 8 to 12

Project 8. *The Knaresborough hoard* (RA Themes 1.5.5, 1.5.12)

- 3.3.11. The Knaresborough Hoard of metal vessels and a few other items (H144) was recovered in the nineteenth century on the north side of the town during gravel quarrying. Although part of the hoard is now lost, there are still some twenty items, including wine strainers, bowls and plates, all of copper alloy. It remains an important group of objects which can throw light on craftsmanship in metalworking and on the use and structured deposition of metal vessels in Roman Britain studied *inter alia* by Gerrard (2009). The hoard was briefly noted in Eggers' corpus of bronze vessels from Britain (1966, 91; Abb 41-4), but is otherwise unpublished.

Project 9. *A Mithras antefix* (RA Theme 1.5.5)

- 3.3.12. Found in the excavation of Interval Tower NE6, Aldwark, in 1971-2 (1977.55); is an incomplete antefix depicting in relief the head of a figure with a Phrygian cap, probably to be identified as Mithras. The site has also produced another incomplete (unpublished) antefix. As far as is known, no other antefix from Britain depicts Mithras and this is a further small, but significant, piece of evidence for his cult in York to accompany the tauroctony relief and statue of Arimanius in the museum collections.

Project 10. *Two Roman stone heads from York* (RA Themes 1.5.3, 1.5.5)

- 3.3.13. There are two attractive Millstone Grit heads in the collection, not published in *Eburacum*, which are, none the less, likely to come from statues in Roman York, possibly associated with burials. One is described by Tufi who suggests it represents Bacchus (1983, 67, 110) but this conclusion should be critically reviewed. The other head is unpublished. Taken together these heads represent a small, but important, addition to evidence for the skills of local sculptors and for the artistic tastes of their patrons.

Project 11. *A funerary plaque from the Railway Station cemetery* (RA Themes 1.5.4 – 1.5.5).

- 3.3.14. Not included in *Eburacum*, and not published elsewhere, is a small gold plate c. 80mm long, pierced at each end and inscribed FL VI (H326.1). This comes from the Railway Station (see Project 18) and is described as a 'funerary plaque' on ADLIB. It may have been placed across the mouth of an inhumation for some ritual purpose, but further work is needed to locate comparanda and seek specialist opinion on the likely context in which the item was used.

Project 12. *A Roman roof finial from Bishophill* (RA Theme 1.5.12)

- 3.3.15. Not published with two others in *Eburacum*, but illustrated by Home (1924, 163) is a very unusual roof finial cum chimney pot found in Bishophill in 1872 (2010.246). It is in the form of a tower with windows and the surface is marked out as though with large blocks of stone. This is a small, but significant, piece of evidence for the character of the roofs of Roman buildings of the Roman civilian town.

Projects 8 to 12 Tasks and Personnel

- 3.3.16. *The tasks for Projects 8 to 12 may be broken down as: 1, check documentation; 2, illustration and 3, the research report which should be undertaken by an appropriate specialist or research student.*

Project 13. *Animal husbandry and butchery in the Roman fortress: the bone from 9 Blake Street* (RA Theme 1.5.12)

- 3.3.17. There are large quantities of animal bone from Roman, or probable, Roman contexts in the museum collections – see 2.21.1. Animal bone from Roman contexts in York has not been extensively studied, the only large groups published being those from the Minster excavations in the fortress (Rackham 1995) and from the civilian settlement south-west of the Ouse at 24-30 Tanner Row (O'Connor 1988) with a smaller group from the Roman well at Skeldergate (O'Connor 1984). Another group which would warrant further research comes from the YAT excavations at 9 Blake Street in the fortress, although it is not clear how much well-stratified material of Roman date there is. The publication of this material might make a useful contribution to the understanding of such themes as animal husbandry, diet and butchery in Roman York.
- 3.3.18. As it is difficult at present to quantify the relevant material and determine its stratigraphic integrity so the first task would be to consult YAT's records and the published site reports to assess this. Providing the upshot was satisfactory, then Task 2 would be to identify the fragments to species and Task 3 to produce a research report. This project would seem best suited to a university student with an interest in environmental archaeology.

3.4. Research Projects, 2: application of new research techniques

Projects 14 – 17

Project 14. *Roman pottery made in York: production technology and distribution*

- 3.4.1. It is well known that a Roman earthenware known generically as ‘Ebor ware’ was produced locally at York, whether immediately outside the fortress in the Peaseholm Green area or at Appletree Farm, Heworth (Monaghan 1997, 869-80). However, many aspects of its production and distribution are uncertain. As far as the former is concerned, there are questions about how controlled the firing process was, what sort of temperatures were achieved and extent of variability in the kiln atmosphere. One might also ask whether all so-called Ebor wares are in fact from York; can Peaseholm Green and Heworth wares be reliably distinguished from each other and how far from York was Ebor ware distributed? One way of approaching such questions would be by selective thin sectioning, petrography and chemical analysis of Ebor Ware vessels and wasters; there are a number of the latter from the Borthwick Institute excavations of 1970 (King 1975). In addition, clay should, if possible, be recovered from the kiln sites for investigation. Historic England (2015) provides a guide to procedures and methodology for the scientific examination of pottery.

Project 15. *Human remains from Roman York: isotope analysis and genomics* (RA Theme 1.5.2).

- 3.4.2. The Yorkshire Museum holds a disparate collection of human remains from various sites in York existing both as skeletons in various states of completeness and as cremated remains. There are also remains from the Catterick excavations which have been fully published. Many of the human remains from York, whether in the museum's collections or not, were examined by Lauren McIntyre for her PhD thesis (2013), but there is a small, but potentially significant, amount of material in the collections which was omitted from her work which would warrant research. First of all, there are three inhumations, found in stone coffins, and a cremation in a grey ware jar from Long Close Lane, Walmgate (1974.26). The burials are noted in *J. Roman Stud.* 1962 (p. 167), but not in *Eburacum*. They are of interest, firstly, in coming from an area adjacent to the main approach road from Brough on Humber for which there is little other evidence for a Roman cemetery and, secondly, they offer a further opportunity to employ a range of new techniques, including isotope analysis and genomics, for the study human remains from York (see Leach et al 2009; Martiniano et al 2016). Also in the collections are the skulls of two individuals named on the sarcophagi in which they were found: those of Aurelius Super (1947.9; found 1835) and Julia Fortunata (1974.4; found 1877) from Sardinia. In both cases there is an opportunity to compare the human remains with information in the inscription and, in the latter case, to test whether an isotope signature in tooth enamel can be related in any way to an infancy in the Mediterranean region.

Project 16. *The funerary monuments from Roman York: 3D laser scanning and photography* (RA Themes 1.5.2 – 1.5.5)

- 3.4.3. The funerary monuments – tombstones and sarcophagi – from York are all recorded in RIB I and III, and those known up to 1962 are in *Eburacum*, but these publications are primarily concerned with the inscriptions and other aspects are dealt with only summarily. Those items with a sculptural element have been studied selectively by Tufi (1983) and Mattern (1989). However, the York funerary monuments have not been recorded in detail either by good quality drawings or photographs. Close inspection suggests that in some cases, at least, there are important and hitherto unrecorded features which bear on the subject matter and method of manufacture.
- 3.4.4. Alongside standard photography, it would be valuable and informative to record a selection of the monuments using 3D laser scanning. English Heritage (2011) have provided guidance on the use of laser scanning in archaeology. In brief, the technique involves controlled deflection of laser beams from a laser rangefinder. By taking a distance measurement in every direction the scanner rapidly captures the surface shape of objects etc. The result is a high definition 3D image suitable for detailed research work.

Project 17. *Roman paints and pigments: a Raman spectroscopic investigation* (RA Theme 1.5.12)

- 3.4.5. It is possible that traces of pigment survive on some of the stone monuments or sculpture in the collections, most of which were probably painted originally. In addition, there is a considerable amount of painted plaster in the collections which will incorporate a range of pigments (2.6.1). Both categories of material could be subjected to Raman spectroscopy, a laser-based non-destructive technique for identifying pigments in paint layers etc (e.g. Middleton et al. 2006). Little work has been done on the use of pigments in Roman York, apart from an MA thesis of 1980 on material from York by Rebecca Wetzel and an unpublished summary report (in YAT archives) by David Hooley on plaster from 24-30 Tanner Row. There is the potential in further work to address matters of craftsmanship, artistic tastes and trade in materials, some of which, such as cinnabar, were exotic imports.

Projects 14 to 17

- 3.4.6. *Projects 14 to 17 all involve the use of specialised scientific techniques. Task 1, therefore, would be to have a preliminary consultation with the relevant specialists. Task 2 would involve preparation of the material for the specialist by museum staff, Tasks 3 and 4 would involve the specialist making the record and completing the research report.*

3.5. Research Projects, 3: Site Specific Projects

Projects 18 and 19

- 3.5.1. Although potential for detailed research into chronological and topographical themes using material from the collections may be limited, I have identified two York projects which would, none the less, be amenable to this.

Project 18. *The Railway Station cemeteries: a new investigation of an old collection* (RA Theme 1.5.4)

- 3.5.2. Perhaps the largest quantity of artefactual material in the collections from a particular part of York was recovered from the Roman cemeteries disturbed during construction of the two railway stations and associated facilities in 1839-50 ('Old Station') and, especially, 1874-77 ('Railway Station'). There is also a small quantity of human and animal bone from the cemeteries. Based largely on observations by Wellbeloved (1842) at the Old Station and James Raine at the Railway Station (1876, and notes in York Public Library), *Eburacum* identified about 214 burials, both cremations and inhumations, which had been furnished in some way and / or employed coffins, usually of stone. Furthermore, work for the *Overview* noted a number pots and other items (including the gold plaque – see 3.3.14) from the railway stations which are not in *Eburacum*. Whether they come from burials or not is unclear at present, but this would appear likely. Presumably there were many unfurnished graves which went largely unrecorded, but these cemeteries in the variety and character of their burials must still be considered very unusual in Roman Britain. They are, therefore, of considerable significance for understanding Roman York and its distinctive character. There is a description of the cemeteries in *Eburacum* (pp. 76-80) based on seven separate zones, but while detailed in some respects, this is not based on, or accompanied by, any form of plan showing the location, however inexact, of particular types of burial or grave furnishing. Moreover the dating of the burials in *Eburacum* requires review in light of recent research on pottery and other artefacts.

3.5.3. *I suggest there is a project based on the material from the railway station cemeteries which would involve the following tasks:*

1. *Check documentation to create definitive list of all artefacts, and human and animal remains.*
2. *Review the Raine archives in City Archives to establish whether more information can be gained on the present railway station site than appears in Eburacum.*
3. *Catalogue all artefacts (this will interrelate with Projects 1 to 4) as appropriate.*
4. *Create distribution plots of grave types, artefact types etc.*
5. *Other illustrations as appropriate.*
5. *Complete research report.* Depending on its success, the sort of study outlined above might be used to look at other cemetery areas of York such as Blossom Street and The Mount.

Project 19. George Wilmott archive: excavations in Museum Gardens at St Mary's Abbey and Interval Tower SW6.

3.5.4. The paper archives for George Wilmott's excavations in Museum Gardens are thought to be held by Historic England, but pottery and other finds are in the Yorkshire Museum (although there may be some in Bootham School). The excavations are unpublished, although noted in *Eburacum* and annual reports of the Yorkshire Philosophical Society. In addition, Paula Gentil (1988) wrote an account of the Roman sequence in Wilmott's excavation in St Mary's Abbey for a B. A. dissertation, but the finds were not included and the pottery was not considered in Monaghan's 1997 corpus. The pottery from SW6 was summarily quantified by Monaghan. Publication of Gentil's report, suitably edited, and further research on these sites would be a useful addition to knowledge of an area of York which is poorly understood in the Roman period. In the case of SW6 it would be useful to combine research on the Wilmott archive with work ongoing by YAT on the St Leonard's Hospital excavation (2001-4), which also excavated SW6.

3.5.5. *This project should be under the supervision of a field archaeologist. Tasks for the project are as follows: 1, locate and review the site records and finds; 2, catalogue the finds; 3, prepare site plans; 4, complete site report. Task 1 would be work for museum staff, Task 2 for relevant specialists, Task 3 for a graphics specialist and Task 4 for the archaeologist.*

3.6. The Study of Roman Archaeology in York

Project 20 *Approaches to the study of Roman York: a social and academic history* (RA Theme 1.5.1)

- 3.6.1. A potential research project of a rather different order from those described above, which are focused directly on the archaeological material, is the investigation of approaches to the study of the Roman period in York. Roman York and Yorkshire has been of interest to scholars and local people since the seventeenth century, although the origin of the Yorkshire Museums' collections lies in the early nineteenth. From that time onwards the character of what, in terms of artefacts and other material, was deemed worth collecting, recording and studying in York and Yorkshire has changed continuously. One of the most important changes occurred in the second quarter of the twentieth century when formal archaeological excavations began to be a source for the museum's collections. Another came about in 1972 when excavations previously largely undertaken by part-time or non-professional archaeologists would from then on be conducted by York Archaeological Trust.
- 3.6.2. In addition to the artefacts, the museum holds a range of archive material, including notes, site records and photographs, which supplement published accounts of the excavations and other fieldwork. Of particular interest for York, perhaps, are the records of work supervised by Peter Wenham with the York Excavation Group, St John's College and other parties in the 1950s and 1960s. Included in Wenham's archive are biographical material and a commentary on *Eboracum*. For Yorkshire there are the archives from the Catterick excavations. There is also potential for an oral history component in this project drawing on the experience of many archaeologists who have worked on aspects of Roman York and Yorkshire as field archaeologists, museum staff etc
- 3.6.3. A project looking at how Roman York and Yorkshire have been studied over time would be of interest not only locally but probably to a wider audience given York's importance as a historic city. However, it would require co-operation with partners who also hold relevant archive material notably York City Archives and York Archaeological Trust.
- 3.6.4. *The project can be broken down into the following tasks; 1, locate and review relevant documentation in the museum and other archives; 2, devise and undertake oral history component; 3, create draft report; 4, consultation with relevant parties about forms of output etc; 5, complete a project report. The project should be under the supervision of the museum staff but could involve volunteers and students as well as drawing on the expertise and experience of independent and professional archaeologists.*



4. Roman Numismatics Research Strategy

Vincent Drost

4.1. Structure and potential of the YMT Roman numismatics collection

The York Museum Trust holds approximately 15,000 Roman coins.¹ It is among the major regional collections from the UK.² Beyond numbers, the importance of the YMT Roman numismatics collection lies in its structure. The core of the collection is inherited from 19th century antiquarians. Nevertheless, the collection is still alive and growing thanks to the frequent acquisition of finds.

The collection is well sorted. Provenance (findspot or individual collection) of most of the coins can be traced back. A significant part of the Roman numismatics collection has been recorded on the collections management system Adlib, including detailed descriptions of the coins and pictures. This work is progressing at a good pace and one can foresee that most of the collection will be available to the general public and academics in the near future. Very few numismatics collections in the world can claim to have reached such a stage.

All the conditions are there to gain the maximum potential from the collection. Yet, coins have been largely neglected in recent works on Roman York and Roman Yorkshire. The contrast is striking between heated discussions about the Roman coin collection among 19th century antiquarians and the relative silence from modern scholars. The 'Old Collections, New Questions' project provides a perfect opportunity to fill this gap.

4.1.1. The systematic collection (Cabinets 16 to 25)

4.1.1.1. General structure

The systematic collection consists of more than 5,000 Roman coins from the Roman Republic to the 5th century AD (table 1). It provides a good overview of the Roman coinage as it includes coins of the various denominations and of almost every Roman emperor. The systematic collection is an essential resource for display and pedagogy on topics such as Roman history, ideology, monetary system, coin production, etc.

	Gold	Silver	Large bronzes	Small base silver/ copper alloy	Total
Roman Republic		316	122		438
1st century (27 BC to AD 96)	2	171	316		489
2nd century (AD 96 to 192)	2	283	492		777
3rd century (AD 192 to 294)		318	258	1,274	1,850
4th century (AD 294 to 402)	8	44		1,580	1,632
5th century	1			10	11
Total	13	1,132	1,188	2,864	5,197

Table 1 - Overview of the systematic collection (numbers include coins removed for display)

¹ York Museums Trust (2014), *Collections Development Policy*.

² Money and Medals Network, <http://www.moneyandmedals.org.uk/>.

Gold coins are few. On the other hand, the collection of silver *denarii* is the main strength of the collection. A significant part of these *denarii* are part of hoards mixed within the systematic collection, some of which can be put back together thanks to antiquarian's manuscript notes. The collection of early Roman Empire large bronzes and late Roman Empire small copper alloy denominations is rather ordinary. One obvious weakness affects the period of the Tetrarchy (late 3rd/early 4th century), yet an important period in York's history as it coincides with the rule of Constantius I and the early Constantinian period. Such a gap was recently filled with the acquisition of the major Wold Newton Hoard (YORYM : 2016.566).

The systematic collection naturally includes rare coins. As a example, one could mention a very rare bronze coin struck in London in c. AD 296-303 depicting emperor Diocletian as a consul (YORYM : 2013.1295). This coin is mentioned in the reference book on the London mint (Cloke & Toone 2015, p. 100, no. 2.01.005). This is one of very few Roman coins from the YMT mentioned in the modern literature.



Fig. 1 - Consular *nummus* of Diocletian (YORYM : 2013.1295)

The YMT collection deserves to be publicized among the scientific community so that it could be used within the framework of numismatic *corpora*. Reference works such as the *Roman Imperial Coinage* series are based on nine “core collections”. Although YMT doesn't have the potential to be part of the latter, it provides a useful complement. For that matter, Sam Moorhead took the YMT collection into account while preparing the revised edition of *RIC* on the British Empire. Authors in charge of forthcoming *RIC* volumes should be encouraged to be aware of the collection as well.

This is also important for students. For example, Dorian Bocciarelli who recently defended his PhD on the coinage of Galba (AD 68-69) was recently submitted the 14 coins of emperor Galba held by YMT. His account is useful to assess the importance of the collection. As regards Galba, YMT would be a “minor” collection at international scale. By comparison, core collections such as London, Oxford, Paris or Vienna hold hundreds of coins of Galba. Average collections such as Cambridge, Glasgow or Munich have approximately 50 coins. YMT sits among collections such as Bern or Lyon. Nevertheless, two of the *denarii* in YMT are of utmost rarity:

- 2000.1967 is unlisted in the revised edition of *RIC* I² and is only the fourth recorded specimen in “Lyon style”.
- 2000.1968 is also unlisted in the revised edition of *RIC* I². It was issued by a Spanish mint and is only the second specimen of this type known and in a much better condition than the other one (figs. 2-3).



Fig. 2 (YORYM : 2000.1968)



Fig. 3 (trade: Sayles & Lavender)

Therefore, the YMT collection deserves to be visited and referred to by academics, especially since it is largely available online. The museum would benefit from it and increase its international renown. This doesn't call for financial resources but only network and curatorial availability.

As regards local history, especially interesting is the fact that the systematic collection includes identified groups of coins belonging to antiquarian collections, hoards or archaeological sites.

4.1.1.2. The Cook collection

Among other material, the Cook collection includes more than 500 Roman coins. YMT also holds the cabinet where these coins were originally stored (fig. 4). This collection is general in nature, the point obviously being to represent every Roman emperor. A significant part of the coins have a provenance from York or surrounding area. The coins are now part of the systematic collection but can be identified thanks to a detailed manuscript inventory of the Roman coins ("Robert Cook Collection, 1935"). 88 specimens with a known provenance from York are stored separately. 419 coins without provenance are mixed within the systematic collection.



Fig. 4 - Cabinet originally holding the Cook collection

4.1.1.3. Mixed hoards

Several mixed early Roman hoards lie within the systematic collection. All of the 33 coins from the Blake Street hoard are identified. 93 coins out of approximately 120 coins from the Boston Spa hoard in YMT are matched with the manuscript inventory ("A catalogue of 172 Roman coins found at Boston, near Tadcaster 1848"). Three other *denarii* hoards from York – at least part of them – are mixed in the systematic collection. It doesn't seem possible to identify coins from the York 1898 and York 1930 hoards. On the other hand, the detailed manuscript inventory of the York 1840 hoard ("A rough catalogue of the Roman Imperial Coins purchased from Mr. Hargrove, found in earthen vases") would allow bringing coins from this hoard back together.

Coins of the late Roman Empire are more common and it would be difficult to tie these in with finds. Two small groups of *aureliani* (reformed radiates) in cabinet 21 drawers 8 to 11 probably originate from hoards as suggested by their distinctive patinas. A selection from the Langwith hoard probably lies among the 4th century *nummi*.

4.1.2. Local stray finds

Apart from hoards, YMT holds several assemblages of stray finds from excavations in Yorkshire:

- Cabinet 14: c. 200 Roman coins, including c. 100 coins from the Cook collection found in York.
- Cabinet 14: c. 200 Roman coins from the Wenham collection (excavations in the 1950s and 1960s on various sites in York and Yorkshire). These coins are currently being processed by Emily Tilley and volunteers.
- Cabinet 60: c. 100 Roman coins without a provenance.
- Off-site archaeology store: Catterick finds: 1,214 coins from the excavations in Catterick. This important assemblage has been published (Wilson 2002).
- Off-site archaeology store: a collection of 54 coin moulds from Lingwell Gate (near Wakefield).

Beside the coins from the major Roman site in Catterick, YMT holds various small assemblages from old excavations in York and its region. It is difficult to make use of these data as such and stray finds from York would deserve being studied on a larger scale. This was precisely the aim of a publication project submitted in the late 1980s by R.J. Brickstock. According to the project outline, Brickstock has recorded more than 3,000 coins from 20 sites in York excavated by the Archaeological Trust since the 1970s, plus approximately 1,000 further coins from other sites and collections, including that of the Yorkshire Museum. These coins were fully catalogued and recorded on a database held at Durham University.

4.1.3. Miscellanea

YMT holds a small group of modern copies or fakes of ancient coins. Some of these are probably casts of Renaissance medallic issues.

YMT has the responsibility of coins formerly in the Darlington Museum collection. These are various Roman coins without a provenance, including many Alexandrian tetradrachms.

4.1.4. Coin Hoards

YMT holds many Roman coin hoards. Some of these are 19th/early 20th century acquisitions now mixed within the systematic collection (see *supra*) whereas acquisitions made since the mid-20th century are kept separately. Hoards obviously are the strong side of the Roman numismatics collection. The main categories of Roman coin hoards from Britain are represented in the collection, except for bronze coin hoards of the early Empire which are rare from the Northern regions. Below is a list of the hoards sorted by category.

4.1.4.1. Early Empire *denarii* hoards (late 1st-2nd century AD)

- York, Blake Street

Discovery: found in 1975 in the *Praetentura* of the legionary fortress.

Contents: 35 *denarii* to AD 74 (Republic to Vespasian).

Location: 33 in YMT (systematic collection; matched) [+ 2 in the British Museum].

Reference: Robertson 2000, no. 57, p. 12. Otherwise unpublished.

- Binnington Carr, West Ayton (fig. 5)

Discovery: found in c. 1875 in a field.

Contents: 12 *denarii* to AD 75-76 (Republic to Vespasian) in a bronze bell.

Location: all in YMT (previously on display).

Reference: Robertson 2000, no. 74, p. 15. Harland 1889/91.



Fig. 5 - The Binnington Carr hoard

- Boston Spa

Discovery: found in 1848 at the village of Boston, near Tadcaster.

Contents: c. 200 *denarii*, 172 examined to AD 119-128 (Republic to Hadrian) in a pot.

Location: 118 or 121 in YMT after exchanges in the 1920s/1930s (systematic collection: 93 matched).

Reference: Robertson 2000, no. 154, p. 30; *CHRB* X, p. 64-70.

- York 1930

Discovery: found in 1930 while digging cellars of the new P.O. Parcels Office between Scarborough Bridge and the Station.

Contents: c. 30 *denarii* to the 150s (Domitian to Antoninus Pius).

Location: 10 in YMT (not matched?).

Reference: Robertson 2000, no. 217, p. 45; Sekulla 1981.

- Tadcaster (fig. 6)

Discovery: found in 2005 whilst metal detecting.

Contents: 4 *denarii* to AD 180-192 (Domitian to Commodus) in association with a copper-alloy lamp and an arm-purse.

Location: all in YMT (on display).

Reference: PAS YORYM-5EFF04; Worrell 2006.



Fig. 6 - The Tadcaster arm purse

- York 1898

Discovery: found in 1898 in Railway Street.

Contents: nearly 200 *denarii* to AD 180-192 (Trajan to Commodus?).

Location: 15 in YMT (systematic collection; not matched).

Reference: Robertson 2000, no. 344, p. 73. Otherwise unpublished.

4.1.4.2. Severan and post-Severan *denarii* hoards (first half of the 3rd century)

- Overton Hoard

Discovery: found in 2016.

Contents: 37 *denarii* to AD 205 (Vespasian to Septimius Severus).

Location: YMT to acquire?

Reference: PAS YORYM-BE3F22. Unpublished.

- York 1840

Discovery: found in 1840 on the site of the house erected for the residence of the Secretary of the North Eastern Railway.

Contents: 244 (?) *denarii*/radiates to AD 244-249 (Republic to Philip I?).

Location: pot (beaker of white 'Castor' ware) and coins (244?) in YMT (systematic collection; not matched).

Reference: Robertson 2000, no. 457, p. 100. Otherwise unpublished.

4.1.4.3. Radiate hoards (second half of the 3rd century)

- Knaresborough (Plompton)

Discovery: found in the early 1990s whilst metal detecting + addenda.

Contents: 608 radiates to AD 296 (or 282?); mixture of two different groups?

Location: all in YMT.

Reference: *CHRB* X, pp. 279-283 (first batch).

- Methall (Nunburnholme)

Discovery: found in 1855 in a field + addenda.

Contents: c. 6,000 radiates to AD 276-282 (Valerian to Probus)

Location: 798 in YMT; 693 in Hull City Museum; 273 in Leeds City Museum.

Reference: Robertson 2000, no. 786, pp. 189-190. Otherwise unpublished.

Catalogued and photographed (sorted by volunteers).

4.1.4.4. Tetrarchic hoards (early 4th century)

- Wold Newton (fig. 7)

Discovery: found in 2014 whilst metal-detecting.

Contents: 1,857 *nummi* to AD 308.

Location: all in YMT (incl. pot).

Reference: PAS DUR-16C89F. Unpublished. Catalogued and photographed.



Fig. 7 - The Wold Newton hoard

- Langtoft II

Discovery: found in 2000 whilst metal-detecting.

Contents: 923 *nummi* to AD 325.

Location: 6 in YMT.

Reference: *CHRB* XII, pp. 254-260.

4.1.4.5. Constantinian hoards (mid-4th century)

- Langwith

Discovery: found in 1891 whilst ploughing.

Contents: 6,000+ *nummi* to AD 348.

Location: 1,050 in YMT [+ possibly a selection mixed within the systematic collection]

Reference: Robertson 2000, no. 1251, p. 300; Robertson 1936.

- Womersley ("near Cridling Stubbs")

Discovery: found in 1967.

Contents: c. 3,300 *nummi* to AD 348.

Location: 41 in YMT.

Reference: Robertson 2000, no. 1241, p. 297.

- Haxby A and B

Discovery : found in 1993 whilst metal-detecting.

Contents: Haxby A: 508 *nummi* to AD 348; Haxby B: 330 *nummi* to AD 356 + multiple addenda.

Location: significant portion of both hoards in YMT + pot.

Reference: *CHRB* X, pp. 398-405. Haxby B sorted by volunteer.

- York, All Saints Church

Discovery: found "near the east end of All Saints Church".

Contents: 7 coins to the 350s.

Location: YMT (manuscript list in M.F. Sekulla, *General Catalogue of Antiquities 1823-1862*, Yorkshire Museum).

Reference: Robertson 2000, no. 1322A, p. 319; Sekulla 1862.

- Heslington

Discovery: found in 1966 in a broken jar during construction work for York University.

Contents: 2,795 *nummi* to c. AD 355.

Location: all in YMT (except 3 in the British Museum).

Reference: Robertson, n° 1366, pp. 333-334; Carson & Kent 1971. Currently being processed by Andrew Woods and volunteers.

4.1.4.6. *Siliquae* hoards (late 4th/early 5th century)

- 'Near Wetherby' (Wighill)

Discovery: found in 2012 whilst metal-detecting.

Contents: 38 *siliquae* (only 1 clipped, some broken) and 2 *nummi* to AD 378-402.

Location: all in YMT.

Reference: YORYM-2449B5; SWYOR-740718; SWYOR-5C72E1; SWYOR-3C0EF4. Unpublished (cf. detailed report by Eleanor Ghey).

- Cattal

Discovery: found in 1993 whilst metal-detecting.

Contents: 27 *siliquae* (mostly clipped) to AD 402.

Location: all in YMT.

Reference: *CHRB* X, pp. 424-425 and *CHRB* XII, pp. 375-376.

- Thirsk

Discovery: found in 1996-1998 whilst metal-detecting.

Contents: 3 (+1 donated earlier) *solidi* and 6 *siliquae* (mostly clipped) to AD 406.

Location: all in YMT.

Reference: *CHRB* XII, pp. 359-360.

4.2. Potential Research Questions

The systematic collection could hardly be used as such to set specific research projects although individual coins can be used within the framework of the projects listed below. The diversity of the systematic collection also makes it suitable for studies on iconography. The following research questions are focusing on history and archaeology rather than history of art. They mostly take as a starting point coin hoards held by YMT. Most of these hoards are well documented, if not fully published. The study of individual hoards has to be incorporated into broader research issues. More generally, the material would allow the publication of a book intended for the general public on hoarding practices in Yorkshire, on the model of a recent work on a national scale (Ghey 2015). Such a book should not be restricted to the Roman period. It would have to cover all periods from Iron Age to modern days. This would allow bringing forward Yorkshire's heritage and its populations' wealth and habits. As regards academic studies, one should be aware of the forthcoming publication of a major project on ancient coin hoards in Britain (Bland *et al.* 2018). The latter will include a case study on hoards from South West Yorkshire.

4.2.1. Coin finds as evidence of the Roman conquest of Yorkshire (RA 1.5.7, 1.5.9 and 1.5.11)

The Roman army entered Yorkshire in the early AD 70s at the beginning of emperor Vespasian's rule. The event is reflected by the establishment of the base camp of the 9th legion in York and the edification of the fortress under the administration of Cerialis, governor of Britain. The campaign went further north from the end of the decade under governor Agricola. The northern campaign cannot be reconstructed into detail. Although a group of forts has been identified, their dating is uncertain. Whereas pottery is valuable for dating archaeological contexts of that period, coins are scarce from sites of that period (Ottaway 2013). More generally, Flavian hoards are rare from the north (Bland 2016). Therefore, hoards held by YMT are especially important.

4.2.1.1. "Military" hoards of the early Roman period: Blake Street and Binnington Carr

YMT holds two small hoards dating to the Flavian period: York, Blake Street and Binnington Carr, near Scarborough (see 4.1.4). Their concealment coincides with the first military occupation of Yorkshire. The Blake Street hoard consists of 35 silver *denarii* up to AD 74. Its military origin is suggested by the fact that it was found in the forepart of the legionary fortress. The Binnington Carr hoard ends a couple of years later. The context in which it was abandoned is unknown. An interesting feature is that the 12 silver *denarii* were contained in a bronze bell, a most unusual container for a coin hoard. Specific research on the bell is needed and might allow knowing if such a hoard could have belonged to a Roman soldier.

The Blake Street and Binnington Carr hoards have been under-exploited so far and are still to be published according to modern standards. The Binnington Carr hoard has been described in the late 19th century (Harland 1889/91) whereas P.J. Casey's list of the Blake Street hoard remains unpublished (details are provided after that list by Butcher & Ponting 2015, pp. 716-717). These two hoards are fully

recorded on Adlib (except for two coins from the Blake Street hoard now in the British Museum). They deserve thorough study. Blake Street and Binnington Carr could be published together as part of a single paper. Such a paper should also take into account the few other Flavian hoards from Yorkshire, such as the Honley hoard, West Yorkshire, buried in a hollow bone (Robertson 2000, no. 55, p. 12). The scope of such a paper could even be extended to the whole northern England and Wales. A detailed examination of these early Roman hoards would shed light on the northern campaign, although one should be careful not to write history on the sole basis of coin hoards. It would also illustrate the transition from indigenous to Roman practices.

4.2.1.2. The introduction and use of Roman coins in Yorkshire

Coin finds tell us about the Romanization of Yorkshire. Issues would be the following:

- the date and modality of the introduction of Roman coinage in Yorkshire and the role of the army;
- the transition between Iron Age and Roman coinages.
- the changes in coin supply, from an essentially silver based economy to the development of bronze denominations;
- the patterns of coin use on military, urban and rural sites.

Such issues require investigating hoards (Blake Street and Binnington Carr Flavian hoards but also later Antonine hoards such as Boston Spa, York 1930 and Tadcaster) together with stray finds. Published excavation finds are of interest as they provide archaeological contexts. The large amount of single finds recorded with the Portable Antiquities Scheme (PAS) is also extremely valuable. To take the example of the adjacent area of North Lincolnshire, a concentration of early Roman coins from Old Winteringham, on the Humber Estuary, suggests significant levels of Roman activity on this site which might be of a military nature (Walton 2012, p. 64). Also from North Lincolnshire is a unique gold *aureus* of Vespasian (fig. 8) minted in the East and probably conveyed by a military man. It is likely that PAS data from Yorkshire would provide such interesting cases.



Fig. 8 - Unique eastern *Aureus* of Vespasian from North Lincolnshire (PAS : FASAM-2CD627)

4.2.1.3. Summary

Priority level: high

- Detailed publication of the Blake Street and Binnington Carr hoards. Short term.
- Study of early Roman coin hoards from Northern England and Wales. Medium term. Masters.
- Study of coin circulation in Yorkshire in the 1st and 2nd centuries. Long term. PhD.

4.2.2. The end of Roman Yorkshire: precious metal hoards (RA 1.5.7, 1.5.9 and 1.5.11)

Britain ceased to be part of the Roman Empire during the reign of Constantine III (AD 407-411) when Roman administration and army left the island. Late Roman remains are very rare in Yorkshire, and almost non-existent in York. Coin hoards are among the best evidence of late Roman material culture. The large number of late Roman coin hoards from Britain is a very specific phenomenon, although the explanation for it remains uncertain (Bland 2014). More than 200 hoards are recorded from Britain for the late 4th/early 5th century, a majority of which are precious metal hoards. Most of the finds comes from the 'lowland' zone. The only concentration north of the Fosse Way (linking Exeter to Lincoln) appears to be in North Yorkshire (Moorhead & Walton 2014). Several hoards held by YMT give evidence for this.

4.2.2.1. *Siliquae* hoards from Yorkshire

YMT holds three small precious metal hoards dating to the early 5th century: Cattal (silver + bronze?), Thirsk (silver + gold) and 'Near Wetherby' (silver). Unfortunately, these hoards were found scattered and their archaeological context is not known. The field near Thirsk had produced another gold coin back in the 19th century, which was donated to YMT. The Cattal hoard was found near an important Roman road. As for 'Near Wetherby', a spring and large rocks were reported from the area of the findspot. Further investigations on these sites – although difficult to carry on private lands – would help understanding the context and the meaning of these hoards.

The Cattal and Thirsk hoards have been published and a complete list is available for the 'Near Wetherby' hoard. Cattal and Thirsk include a majority of clipped coins. "Clipping" silver coins, that is to say removing their outer circumference, is generally thought to be a consequence of the abandon of Britain by the Romans. Therefore, these hoards were likely deposited after the end from 410. The 'Near Wetherby' hoard might be a little earlier though.



Fig. 9 - Clipped silver siliqua from the Cattal hoard (YORYM : 1994.195.3.8)

These hoards could be used as a starting point to study late Roman coin hoards from Yorkshire. The key question would be to understand when these hoards were buried, why they were buried and unrecovered. Why is there such a concentration of late Roman coin hoards in North Yorkshire? Did coin use continue later in that area? Was the impact of foreign incursions felt more intensively in the region?

After the Romans left, coins were still used in Britain together with hack-silver and ingots. From the mid-5th century onwards, coins mostly circulated as bullion. It is possible that the silver taken from coins, especially by clipping, could have been reused to make ingots or silverware (Moorhead & Walton 2014). A few late Roman hoards of silverware or bullion are also recorded from Yorkshire. It would be interesting to have the metal of both coins and ingots/silverware tested to know whether or not the silver has the same origin.

4.2.2.2. Coin use in Yorkshire in the late Roman and post-Roman periods

The study of late Roman coin hoards would find an interesting extension in the analysis of circulation and use of both precious metal and bronze coins in Yorkshire at the end of Roman Britain and even in post-Roman Britain. Both hoards and stray finds should be involved. As well as hoards, a concentration of late 4th/early 5th century coins has been reported north of the Humber estuary and in the vicinity of York (Walton 2012, pp. 111-112). Of particular interest are coins from late 4th century fortifications, the so-called 'signal stations' located on the coast of Yorkshire at Huntcliff, Goldsborough, Scarborough and Filey (Ottaway 2013, pp. 295ff.). This may reflect a greater availability of coins in the coastal zone due to continuing supply to the army on the coast. It would be interesting to compare these data to inland sites such as Catterick (coins available in YM). Catterick was still active in the late 4th/early 5th century in relation with a military occupation. Comparison with various areas in Yorkshire could be analysed through the PAS data.

But was coin use restricted to the Roman army by then? The monetary economy didn't suddenly disappear when the Romans left though. So, how did people from Britain manage to sustain a monetary economy while no freshly minted coins reached the island? Can the clipping of silver coins be considered as a pragmatic attitude under such circumstances? The phenomenon of clipping remains largely unexplained and further detailed analysis on a regional scale would be profitable. Regarding bronze coins, it is a fact that, in Gaul, all kind of old denominations were

reused altogether, the heaviest pieces sometimes being cut to fit the small change system in the late 4th century. Was it also the case in Britain?

4.2.2.3. Summary

Priority level: high

- Inventory and analyse of late Roman coin hoards from Yorkshire. Medium term. Masters.
- Study of coin circulation and coin use in Yorkshire (or Britain as a whole) in the late 4th/early 5th century. Long term. PhD.
- Metal analyses of Late Roman silver coins and silverware.

4.2.3. The impact of an imperial presence in Eboracum? (RA 1.5.8 and 1.5.11)

Roman York hosted several emperors. In AD 208, Septimius Severus entered the city accompanied by his wife and children, Caracalla and Geta who would later also become emperors. Severus died in York in February 211 and was cremated there, his ashes being taken to Rome. A century later, in July 306, Constantius I also died in York after campaigning in the north. He was also cremated, as illustrated on coins depicting such a ceremony struck by his son Constantine (fig. 10). The latter, who had joined Constantius in Britain shortly before he died, was acclaimed by his father's troops in York.



Fig. 10 - Coin of the deified Constantius from the Wold Newton hoard (YORYM : 2016.566.499)

Material evidence for the presence of these emperors in the city are almost nonexistent, except for a marble head possibly depicting Constantine. Yet, the presence of an emperor and the accompanying troops must have had material implications, including an influx of coins.

4.2.3.1. Coin losses in York in the Severan and Tetrarchic periods

In order to evaluate the possible economic impact of an imperial presence in York, it would be of utmost importance to have a complete record of single finds from the city available. Such a record could potentially reveal distinctive features in the early 3rd and early 4th century. It would also allow a comparison with the available data from other sites, including fortress sites such as Chester or Caerleon or imperial residences such as Trier in Germany. This was the aim of an earlier project (see 4.1.2) which unfortunately is inactive at the moment. As things stand, single finds

from York held by YMT give a very incomplete view of coin losses in York and cannot be used as such.

4.2.3.2. Severan and Tetrarchic hoards

YMT does not hold any early Severan hoard so far. Hopefully, this gap will be filled by the expected acquisition of the Overton hoard concealed just before Severus came to York.

On the other hand, the recently acquired Wold Newton hoard was abandoned shortly after Constantine left York. Wold Newton is among the largest hoards of that period from Britain. The hoard has been fully catalogued, photographed and is in the process of being recorded on Adlib. It largely consists of coins struck under the authority of Constantius and Constantine. These coins are being examined by Hugh Cloke and Lee Toone as part of their research on the London mint. Full publication of the hoard in a journal is in preparation by Vincent Drost and Andrew Woods.

Although this hoard cannot be directly connected to the emperor's presence in the area, it provides an image of the coins available in the early 4th century. Evidence of this are the similarities between this hoard and the pattern of single finds recorded with the Portable Antiquities Scheme. Moreover, the Wold Newton hoard's composition is very similar to the few other large hoards recorded from Britain.

The Wold Newton hoard includes 12 irregular coins (fig. 11). Little is known about Tetrarchic copies. The only analysed copy has a much lower silver content as compared to official coins (Besly 2002). This suggests that counterfeiters were intended to make a benefit by removing the silver from official coins and restriking debased ones. Further analyses of the metal of copies and official issues could confirm such an idea.



Fig. 11 - Copy from the Wold Newton hoard (YORYM : 2016.566.1854)

4.2.3.3. Summary

Priority level: medium

- Detailed publication of the Wold Newton hoard. Short term.
- Metal analysis of copies from the Wold Newton hoard.

4.2.4. Counterfeiting coins in the mid-3rd century (RA 1.5.11 and 1.5.12)

In the first half of the 3rd century, forgeries of *denarii* were widespread in the North-Western part of the Empire. Several groups of clay moulds intended to cast fake *denarii* are recorded from Gaul and Britain. The status of these productions remain unclear: were they part of a legitimate industry to face a shortage in official coins or a criminal activity intended to make a benefit? The YMT collection includes a group of coin moulds as well as a hoard of the mid-3rd century that could lead to further examination of such a practice.

4.2.4.1. Lingwell Gate coin moulds

From Lingwell Gate, near Wakefield, finds of clay coin moulds were reported since the late 17th century until the 1820s/1830s. The original number is unknown but moulds were probably hundreds. It is among the largest assemblages of this kind from the Roman world. These moulds are intended to copy silver *denarii* dating to the 2nd and early 3rd centuries. Such a production probably took place in the mid-3rd century though.

The Lingwell Gate group has been widely dispersed. The largest remaining group is now held by YMT: 54 moulds, plus modern casts providing a positive image. According to E. Collinge, former director of the Yorkshire Museum, this group originates from the 1823 and 1825 finds.

Several museums across England also hold moulds from Lingwell Gate:

- Leeds, Abbey House Museum: at least a dozen (see <https://www.youtube.com/watch?v=t7Sns4JECZs>).
- Carlisle, Tullie House Museum and Art Gallery (cf. Robinson 1931/2: at least 8)
- Hull (cf. Collinge's letter).
- London, British Museum: moulds + crucibles (recent acquisitions: 2013,4076.1, 2013,4076.2, 2013,4076.3 and 2013,8012.1; old collection to be checked, in particular the Pitt collection).
- Liverpool, Museum of Liverpool? (cf. Robinson 1931/2: uncertain provenance but "believed to be from Lingwell Gate", casts passed on to the Ashmolean Museum).
- Oxford, Ashmolean Museum (Robinson 1931/2 mentions moulds from the Douce collection, part of which is now in Oxford).
- Cambridge, Fitzwilliam Museum (Robinson 1931/2: provenance unknown but "probably" Lingwell Gate; 7 described, one of which still has a coin in it!).

Finds from Lingwell Gate have aroused interest and discussions among antiquarians since the 1830s but no detailed record was provided by then. It was not until the early 1930s, a century later, that Arthur E. Robinson, a former civil servant in Sudan, undertook a detailed study of these moulds, trying to trace back their locations and to describe them. An interesting and rather funny correspondence between Robinson and Collinge is available at YMT (transcribed by Emily Tilley). However, Robinson's subsequent publication (Robinson 1931/2) lacks details and is even rather chaotic. Moulds held in YMT are simply illustrated from the plates provided by the museum and are not properly described. In modern literature, Lingwell Gate moulds are systematically but vaguely referred to (see for

instance Boon 1974, Lallemand 1994 and Aubin 2003). In brief, the Lingwell Gate coin moulds are famous and, yet, largely unknown. Therefore, potential is high for a modern study of this important group of coin moulds. Such a study could include an interesting section on antiquarians' methods and interests.

The first step is to provide a complete record and description of the group of moulds in YMT. Good quality pictures are available. Then, the original group would have to be reconstituted, as far as possible, from other collections across the country. This would be a laborious but hopefully rewarding task. It would have the merit of developing cooperation between YMT and regional/national museums.

A study on how these double sided moulds stacked in column were used to cast coins could be carried on (figs. 12-13) using the existing literature on the subject. The Lingwell Gate group has to be compared to other published assemblages of similar date from Britain and Gaul, including a recently published group from London (800+ moulds; Hall 2014). One has to mention a much smaller group found in York in 1974 on the site of the Ebor Brewery, 21-33 Aldwark (Magilton 1986).



Fig. 12 - Biface coin mould from Lingwell Gate (YORYM : H2402.8.1)



Fig. 13 - Column made of two moulds from Lingwell Gate (British Museum)

Finally, it would be interesting to get the moulds analysed. The clay they are made of was already a question addressed by antiquarians (*Numismatic Journal*, 2, 1837, pp. 58-59) who did not have the appropriate technical means. Such analysis could allow linking together moulds held by various museums. Possible metal remains at the surface of the moulds might tell us about the metal used to cast the coins (Nicot & Pilon 2016). It might even be possible to trace back coins made out of these moulds. Robinson actually mentions, at the Fitzwilliam Museum, a mould that still has a coin in it.

4.2.4.2. The York 1840 Hoard

Interestingly, YMT holds a hoard dating to the same period as the Lingwell Gate moulds. This hoard, found in York in 1840, consists of approximately 250 *denarii* and radiates to the mid-3rd century. Very little is known about it. Although coins are mixed within the systematic collection, a detailed 19th manuscript inventory of the hoard (*A rough catalogue of the Roman imperial coins purchased from Mr. Hargrove, found in earthen vases in York*) would allow its reconstruction. The coins appear to be in a very nice condition and are easily recognizable thanks to a distinctive bluish patina. The hoard is said to contain many cast coins (*Handbook to York Museum*, 1891, pp. 100ff.). It would be interesting to check if some of these cast coins originate from the Lingwell Gate moulds.

4.2.4.3. The phenomenon of *denarius* copying

Lingwell Gate could be the starting point of a larger study on counterfeits of silver coins in the first half of the 3rd century on a regional or even national scale. Such a study still has to be undertaken (Walton 2012, p. 172). This would allow an analysis on the various techniques used to produce copies: casting, plating and striking. Of note are two die-linked copies of a radiate of Gordian III struck with forger's dies (figs. 14-15).



Figs. 14-15 - Copies of coins of Gordian III struck from the same dies (YORYM : 2001.682-683)

The circulation patterns of these copies would deserve further examination. It would be interesting to have a precise idea of the share of cast or plated copies in circulation at that time and to try to understand when, where and for whom these were produced. Some scholars notably claimed that copies could have been made by the army to pay the troops.

Finally, the YMT collection could be used to undertake metal analyses on these copies. Although more and more data are available (Raub & Zwicker 2012), analysis of British material remains rare.

4.2.4.4. Summary

Priority level: high

- Detailed description of the Lingwell Gate moulds in YMT. Short term. Volunteer.
- Study of the Lingwell Gate coin moulds: investigations in other British museums to identify moulds from the same site; study of the fabric, techniques, products of the Lingwell Gate factory. Medium term. Masters.
- Reconstitution of the York 1840 hoard. Short term. Volunteer.
- Study of the production and the circulation of forgeries in Britain in the first half of the 3rd century. Long term. PhD.
- Analysis of the clay and of potential metal remains on Lingwell Gate moulds; metal analysis of cast and plated coins.

4.2.5. Counterfeiting coins in the mid-4th century (RA 1.5.11 and 1.5.12)

Following on from a major reform of the coinage in AD 348, a widespread episode of counterfeiting occurred in the North-Western regions. The so-called “*Fel Temp Reparatio* copies” correspond to two very different logics: making a benefit out of the silver content of large coins and facing a shortage of small official denominations. Although R.J. Brickstock has published a thorough study of this phenomenon (Brickstock 1987), certain points require further examination.

4.2.5.1. Copies from the Heslington Hoard

The Heslington hoard provides an interesting overview of counterfeits of the mid-4th century. The majority of its 2,795 coins are copies. Although the hoard has been published by distinguished scholars (Carson & Kent 1971), the group of copies has not been studied in detail. R.J. Brickstock repeatedly mentions the Heslington hoard but doesn't give further details on its content (Brickstock 1987). The 1990 report on single finds from York states that “Richard Brickstock has details of the more interesting copies and overstrikes” from this hoard but details are not available. G.C. Boon also seems to have reexamined some of the copies from the hoard (Boon 1985, n. 3).

Existing works on the hoard obviously deserve to be completed. The recording work currently undertaken by Andrew Woods and volunteers is opportune. A further step would be to search for stylistic similarities or die-links among copies from the hoard. A few die-links have already been observed among the group of overstruck copies which seems to be quite homogeneous. This could suggest a local production for these coins.

The Heslington hoard could also be used to undertake metal analyses. Very few work has been done so far on the metal of *Fel Temp Reparatio* copies (Brickstock 1987, p. 59 for summary and bibliography). Yet, as stated by Brickstock, the metal content of these copies as well as the method of manufacture are of considerable interest. An interesting issue is the silver content of the heavy copies of the period 348-353. A decree issued in AD 349 (*Codex Theodosianus*, IX.21.6) speaks out

against the fact that “some metal casters purge the majorina criminally and frequently, by separating the silver from the bronze”. These copies might result from such a practice. Comparing the metal of copies and of official coins could confirm such an idea.

2.5.2 Overstruck copies from Britain

Of particular interest is a group of 297 overstruck copies from the Heslington hoard (fig. 16). These copies were struck using forger’s dies on earlier official coins. Such practice might relate to the demonetization of the former Constantinian coins (*Codex Theodosianus*, IX.23.1). Overstrikes were produced during a brief period (c. AD 354-8). This is a predominantly British phenomenon, although reasons for it are uncertain. Where and why were these copies produced? Were they tolerated by the authorities and widely used by the public?



Fig. 16 - Overstruck copy from the Heslington hoard (YORYM : 2014.395.2689)

The group of overstruck copies from Heslington could be the starting point of a wider study on overstrikes. This would involve comparing the material from Heslington to other recorded hoards of that period, such as the Haxby B hoard, also in YMT, or the Besthorpe hoard, held by University of Nottinghamshire, which includes 51 overstrikes and several clear stylistic groups (Cotterhill *et al.* 1945). Some of the latter are die-linked with finds from Poundbury, near Dorchester. It proves that even irregular coinage was widespread. A significant number of overstruck copies are also recorded with the Portable Antiquities Scheme and PAS database could be used as a comparanda. Such a large scale study might allow identifying production areas. Yorkshire possibly was one of them.

4.2.5.2. Summary

Priority level: medium

- Detailed analysis of copies from the Heslington hoard. Short/medium term. Volunteer (advanced).
- Study of overstruck copies in Britain and Gaul. Long term.
- Metal analysis of *Fel Temp Reparatio* copies.

4.2.6. Coins for the dead (RA 1.5.4)

Deposition of coins in graves is a very topical issue at the moment, as evidenced by the international conference “A coin for the dead, coins for the living. Charon’s obol: the end of a myth?” (Athens, November 2017). Such a practice proves to be very varied and is often related to individual choices. However, further case studies from various periods and areas across the Roman Empire are required to answer pending issues. How frequent was the deposition of coins in burials or cremations? Were these intended to specific categories of population? Were the coins selected for deposition according to their value or iconography?

Extensive cemeteries stood outside the walls of Roman York. One of the best documented cemeteries is the one at Trentholme Drive (Wenham 1968). Several coins from the site were associated with tombs: five were placed in the mouth of skeletons, another one was deposited in a cremation pot and a couple more were associated more or less directly with vessels or sarcophagus. These coins are now held by YMT and could be the starting point of a study on coin deposition in funerary contexts in York.

Several other coin finds from graves are recorded from York (see for instance Bruce 1880; Burton 1773; Dickinson & Wenham 1957; Ramm 1948; Wenham 1952/3; Wenham 1962). However, most of these old finds are poorly documented and it might be difficult to find the coins and to know about their original context. Recent excavations from York provide more reliable data. Since 1995, more than a hundred tombs have been excavated in York by four different archaeological units. However, information about these finds is dispersed and it would not be an easy thing to gather the material and to publish it (Ottaway 2004, p. 22). A comparison with Roman cemeteries in the region would be limited as funerary archaeological evidence is scarce for the rest of Yorkshire. Therefore, a potential project aiming at studying funerary deposits from Yorkshire, possibly including coins and other categories of artifacts, is questionable. The potential of the YMT collection and of local archaeological data on this subject is limited and priority should be considered as low.

4.2.7. An antiquarian collection: the Cook collection (RA 1.5.1)

Robert Cook was an active collector in York since about 1840, acting as agent for the collection of archaeological items for Thomas Bateman, and collecting specimens from the York coin finds on his own behalf. His son, Robert Bielby Cook, continued to add to the collection after his father’s death. In 1920, the Yorkshire Philosophical Society inherited the collection.

The Cook collection is a fine example of an antiquarian numismatics collection. Although mixed in the systematic collection, most of the coins from the Cook collection have been identified. A systematic comparison with the *Robert Cook Collection* catalogue of 1935 might enable to identify further coins and indications of origin.

Study of the Cook collection should involve not only the Roman coins but the coin collection as a whole. A publication of the Cook collection as such does not seem relevant though. As far as Roman coins are concerned, the collection mostly

consists of relatively common specimens. Moreover, it might be difficult to find information on Robert Cook and his son Robert Bielby and to get insight on how the collection was built. Therefore, it is probably best to make use of the collection in a selective way, as has been done before with the early medieval coins. Therefore, this subject should hardly be considered as a priority.

4.3. Conclusion

Two especially promising research topics stand out of the survey of the Roman numismatics collection: on the one hand, the coin circulation and use at pivotal periods in history of Roman Yorkshire, i.e. the Roman conquest (section 4.2.1) and the end of Roman administration (section 4.2.2); on the other end, the phenomenon of counterfeits in the early 3rd (section 4.2.4) and mid-4th centuries (section 4.2.5).

Such subjects may result in academic works and publications that would improve knowledge on history and people of Roman Yorkshire. This could lead to the formulation of narratives that would feed the future permanent exhibition at the Yorkshire Museum. One could imagine a section dealing with the Roman conquest of Yorkshire using the Blake Street and Binnington Carr hoards or a section on forger's activity in Yorkshire using the Lingwell Gate moulds and the Heslington hoard. Moreover, the above suggested projects would contribute to strengthening cooperation with regional museums, archaeologists and the Portable Antiquities Scheme.

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6. Appendices

Appendices 1-6 list the sites as grouped for the summary of provenances in Section 2. Appearance in the list does not necessarily mean that all archaeological material from the site is held by the museum. Appendix 7 lists the human remains studied by Lauren McIntyre for her doctoral thesis (2013).

6.1. Appendix 1

Group 1: material from late nineteenth and early twentieth century sources in York

In addition to the 'Old' and 'New' Railway Stations sources include:

Davy Hall, 1899

Exhibition Hall, 1879 (i.e. the present art gallery)

Gasometer, Monk Bridge, 1881

Skeldergate, F.C. Wolstenholme Collection, 1893

6.2. Appendix 2

Group 2: material from archaeological excavations etc in York c. 1920 – c. 1975

Sites listed in the Collections Audit as producing archaeological material of the Roman period (in date order). Most sites pre-1962 are referred to in *Eburacum*.

Blossom Street, 1920

Exhibition Buildings, 1930, 1944

Fishergate, 1939

Railway Control Centre 1939: pottery examined by Perrin (1975)

The Rise, St Peter's School, 1947

Fulford Pumping Station, 1949

Hall's Leatherworks, Huntington Road, 1949

150-1 The Mount ('The Rowans'), 1950-1

Hungate, 1951 (Richardson 1959)

Jewbury Tower, 1951

Trentholme Drive, 1951-9 (Wenham 1968)

Newgate, 1952

St Mary's Abbey 1952-6 (Gentil 1988)

Blossom Street, 1954 (Wenham 1965)

Hungate, 1954

Toft Green, 1954

Treasurer's House, 1954 (Wenham 1958)

Feasegate, 1955 (Wenham 1961)

St Peter's School, 1955
 Davygate, 1955-58 (Wenham 1962)
 Castle Yard, 1956 (Ramm 1958)
 Dalton Terrace, 1956
 South Corner Tower, 1956 (Stead 1958)
 Interval Tower (SW6) Museum Gardens, 1956-64
 King's Square, 1957 (Stead 1968)
 Low Petergate, 1957-8 (Wenham 1972)
 Davy Hall, 1958
 Labour Exchange, 1958
 Stonegate, 1958 (Wenham 1967)
 Appletree Farm, 1959 (Wenham 1967)
 Railway Offices, Holgate Road, 1959
 Spurriergate, 1959-60
 50-1 Coney Street (Dorothy Perkins) 1955 (Ramm 1956)
 Long Close Lane, 1961 (*J. Roman Stud.* **52** – 1962)
 Priory Street, 1961
 St Mary Bishophill Junior, 1961-3, 1967 (unpublished report by Wenham and Ottaway in YAT archive)
 Bishophill Junior, 1962 (unpublished report by Wenham and Ottaway in YAT archive)
 Lister and Edmonds' Garage, The Mount, 1963
 52 Bootham, 1964 (Keen 1965)
 Bar Convent, 1964-5
 St William's College, 1964-5
 Tanner Row, 1965 and 1971-2
 Blossom Street, 1966
 Tower Cinema, New Street, 1967
 School Clinic, Monkgate, 1967-8 (YEG 1967; 1968) and 1971
 Little Stonegate, 1968
 Ogleforth, 1968
 147 Newington Terrace, Mount Vale, 1968
 Barclays Bank, High Ousegate, 1969
 Nunnery Lane, 1969
 Anglian Tower, 1969-70 (Radley 1972)
 George Hudson Street, 1971
 Midland Bank, 1971
 York Minster 1966-71 – architectural fragments and sculpture only (Blagg 1995)
 Interval Tower NE 6, 1971-2 (Wenham and Ottaway 1993)
 South Outer Bypass, 1972-3

Borthwick Institute, 1973 (King 1975)
Tadcaster Road, 1982

Also, undated:

47 Bootham

Castlegate, St Mary's Church

York Employment Exchange

6.3. Appendix 3

Group 3: excavations by York Archaeological Trust

Gillygate (1972.14) – all finds

Church Street (1972.22) – all finds

9 Blake Street (1975-6.6) – pottery, animal bone and some (?) small finds

1-5 Aldwark (1976.15) - pottery and animal bone (mostly post-Roman)

21-33 Aldwark (1973-4.5, 1976.5) – pottery, animal bone, small finds and conserved portion of the mosaic

37 Bishophill Senior (1973.15) – all finds

Skeldergate. (1973.14) – all finds

Lloyd's Bank, Pavement (1972.21) – all finds (mostly post-Roman)

16-22 Coppergate (1976 – 81.7) – animal bones and a few small finds (mostly post-Roman)

5 Rougier Street (1981.12) – timber pile (in gallery) and architectural stones (outside museum)

24-30 Tanner Row (1983-4.32) – a few small finds

6.4. Appendix 4

Group 4: material from Yorkshire in the nineteenth century and twentieth century until c. 1975

Church Hill, Selby – no date

Dalton Parlours, Wetherby, 1854 (Procter 1855)

Well, Roman Villa, 1938 – 40 (Gilyard Beer 1951)

Riccall, Danes Hill, 1949

Norton Kilns pre 1950 (Hayes and Whitley 1951)

Brompton on Swale, 1958

Nawton (cist burial) c. 1960 (Wenham 1960)

Malton excavations, 1968-70 – pottery and animal bone (Wenham and Heywood 1997)

Crambe, 1974

Riccall, 1975 and 1977

6.5. Appendix 5

Group 5: material from excavations in Catterick and surrounding district

Sites / collections as follows (see Wilson 2002a-b):

Bainesse, 1981-2
 Catterick Bridge, 1983
 Honey Pot Road, 1983
 Catterick Racecourse, 1984
 Catterick Triangle, 1987-8
 Thornborough Farm, 1990, 1993
 Catterick Bypass, 1958-9
 Catterick, 1972
 The Embleton Collection
 Finds by Mr Gill

Also

Healam Bridge, Roxby House and Howe Moor fieldwalking 1996

6.6. Appendix 6

Group 6: material from excavations etc in York and North Yorkshire of the late twentieth and early twenty-first century

Castle Dykes villa, 1980
 Selby Rail Diversion, c. 1985?
 Strensall, 1986
 Rock Castle, 1993 (Fitts et al. 1994)
 Melsonby, 1994-5 (Fitts et al. 1999)
 Kirby Knowle, metal detector finds, 1999
 Teeside to Saltend, Ethylene Pipeline, 2004
 Elvington to Riccall Pipeline, 2005
 Smaw's Quarry, Tadcaster, 2005
 Asselby – Pannal pipeline, 2007-8 (Gregory et al. 2013)
 Church Street Car Park, Tadcaster, 2008
 East Road, Northallerton, 2011
 Fulford Rising Main, 2013
 Fishergate House and Blue Bridge Lane (Spall and Toop 2005)

6.7. Appendix 7

Human remains in the museum studied by Lauren McIntyre for her doctoral thesis (2013) with accession numbers and numbers of inhumations or cremations 'C'.

147 Mount Vale / Newington Terrace, 1975.30 – 3
 Apple Tree Farm, 1974.95 – 1
 Blue Bridge Lane – number not stated
 Castle Yard – 1 (head of Aurelius Super?)

Clifford's Tower no code – 1
 Coffin in Hospitium, 1947.58 – 1
 Elmbank Hotel, 1977.57 – 1
 Heworth Green, no code – 1C
 Holgate Bridge, H1058 – 2C
 Monkbridge Gasometer 1881, no code – 5
 Opposite Holgate House, 1971.305 – 2
 Platform 14, Railway Station, no code – 3
 Railway Offices Holgate Road, no code – 3
 Roman Graveyard, 391 – 1
 150 The Mount – 'The Rowans', 1974.120 – 3
 Stone Coffin 1, 1947.21 – 1
 Stone Coffin 2, 1947.17 – 1
 Stone Coffin 3, 1947.29 – 1
 Sycamore Terrace, 1977.60 – 1
 The Bar Convent, no code – 13
 Railway Station, 1947.1-9 – 59, 2C
 York Tile Tomb Mount Villa, 1947.11 – 1
 Yorkshire Museum, 2011, Rep 0610 – 1
 York Castle Yard, 58178 - 4