YORK'S BURIED PAST: 1

An introduction to York in its natural setting and to 400 years of research (23 and 26 January).

What sort of place is York? Why has there been human settlement in this area for at least 6000 years? We think of York as having its origins in the Roman period about 2000 years ago, but there have been people here for much longer than that. How do we know about these York people, both before the Romans came and since then - and what do we know about them? To begin to answer these questions we need to consider the two topics which I will bring to your attention tonight. First we look at aspects of York's geography and natural environment which have made it suitable home for our forebears. Second we look at how some of those forebears have themselves taken an interest in the city's early history and archaeology.

York in its natural setting

Location plan

York lies in the middle of the low-lying Vale of York almost equidistant from areas of higher ground to the east (Wolds), north-east (Howardian Hills) and west, the Pennines. To understand the present character of the landscape we should go back briefly to the last Ice Age and look at the process of retreat of the ice, completed about 10,000 years ago.

Glaciers map

Map shows maximum extent of ice in the last Ice Age (Devensian) and location of the ice sheets. On the fringe of the ice, meltwaters created glacial lakes which formed where seaward exits of rivers were dammed by ice or glacial moraines – they now appear as ridges of high ground. In our area two moraines run across the Vale - the York moraine and the Escrick moraine. Glacial Lake Humber was formed by ice blocking the Humber Estuary preventing meltwaters from other ice sheets reaching the North Sea. As the glaciers retreated the moraines held water back for a while before it broke through making the rivers Ouse and Foss. York moraine is readily visible in the modern landscape around the University and within the city, west of the Ouse, for example, on The Mount. As Lake Humber silted up it left lacustrine clays to a depth of c 20m in places. Another result of retreating ice is isostatic change – removal of weight of ice in NW causes land to rise relative to SE causing Britain to tip over and sea level to appear to rise.

Local relief

Map shows current relief – note moraine is only relatively high – up to 35m OD.

Prehistory and the moraine

Earliest reappearance of hunter-gatherers in England 11,000 BC, but little evidence for a human presence in our immediate area. However, archaeological finds suggest that the moraines have been used for land based communications since the Neolithic period c.3500 BC onwards, if not before. Also the rivers Rivers Ouse and Foss at York have allowed a link between land and water-based communications – an important consideration for the Romans. Before Naburn Lock downstream from the city, was created in the mid-18th century, the tide on the Ouse came up past the city to its head at Poppleton. Until the locks York an important port for seagoing vessels.

Flooding

The Ouse is part of a river system which gathers water from much of northern and Midland England with its outflow in the Humber Estuary. The Ouse itself above York takes water from the Ure, the Swale and the Nidd and so at times of high rainfall in the Pennines large quantities of water flow through the city. Rainfall in York itself is relatively low, currently only c. 600mm on average per annum, but e.g. at Malham Tarn Met Station in the Pennines it is 1518mm. This was not a problem when there was a wide flood plain, but has become one with the confinement of the channel by human activity and deforestation in Pennines. River level has changed considerably since Roman times –average summer level about 3m higher today, partly due to silting, channelling and isostatic change.

Geology maps

Relief is related to geology. Solid geology of York is Triassic Sandstone and Mudstones, but in the York area this is largely covered by superficial deposits laid down during or after the last Glaciation. It is these Quaternary, or drift deposits, which have had a critical impact on patterns of settlement because of the sort of soils which developed on them and the possibilities, or otherwise, they offered to early farmers working with simple tools. In much of the York area there is heavy lacustrine clay – lake clay from Lake Humber - but there are also areas of sand and gravel and there is alluvium in the river valleys.

Moraine geology

The York moraine geologically very variable, as I saw at the new campus – boulder clay overlain with gravel, sand and peat. In places, at least, very favourable for early agriculture.

Note geology as resource. Magnesian Limestone and Millstone Grit as building stone.

Aerial view

So there is a brief introduction to York's setting and I will come back to aspects of this in the coming weeks. To sum up, York is a good place for human settlement because it has ready access to water, a temperate climate, and good communications. Less good because of poor natural drainage arising from being low-lying, historically prone to flooding and for early farmers in many areas soils on clay which were often difficult for arable agriculture.

History of Research

The other aspect I want to talk about tonight revolves around how do we know what we know?

In this course we will be taking you through the early history of York largely as it is understood through archaeology. In fact until the arrival of the Romans we only have archaeological evidence and then until after the Norman Conquest not a great deal in the way of written sources which bear directly on York.

What we know about this history has not been learnt over night. Although our knowledge has increased enormously since WWII, and large resources are put into archaeology nowadays, research into the physical remains of York's past has its roots some 400 years ago. It has taken a long time to come to grips with the nature of the evidence and to understand what it can tell us. It is important to bear in mind that the direction of research has always been constrained by the nature of the evidence and the tools we have available to study it and the opportunities which present themselves. Many things we cannot know because the evidence simply does not survive – e.g. personal names - but others which we may one day know as we develop the research tools, for example to learn where did people came from.

Speed's map and print of Multangular Tower

As far as opportunities are concerned, the prehistory of York – ie before the Romans - is very much a research topic of recent times, largely because opportunities for excavation have been very limited for reasons which I will come to next week. However, knowledge of York as a place with a Roman past was probably never lost, partly because of surviving above ground remains and partly perhaps because of a surviving tradition of its Christian heritage. In the 8th century the monk Alcuin referred in a poem praising his native city to the high walls and towers, presumably of the legionary fortress.

Scholarly investigation of antiquity and collection of artefacts in Britain as a whole began in the 16th century – under the influence of ideas from the European Renaissance which involved rediscovery of Classical antiquity. If we look for a founding father, then as good as any is William Camden, an antiquary who travelled the country looking for Roman and other remains which he published in his *Britannia* – first edn in Latin 1586 – many subsequent editions most famous being in English by Richard Gough 1789.

Lucius Duccius Rufinus and *Verecundius Diogenes*

For York Camden described the city and its history – Roman to Norman - and referred to the now lost coffin of Verecundius Diogenes found in 1579. Subsequently, antiquarian enquiry in York focused almost exclusively on the Roman period for the next 300 years or so. Scholars usually with a Classical education were naturally drawn to the material culture of Empire and what most obviously survived of antiquity - monumental architecture, such as the fortress walls of York, the Roman roads, many of which could still be traced in the landscape, and funerary monuments / tombstones. Amongst these early scholars was Martin Lister the eminent zoologist who practiced medicine in York 1670 -1683 and studied antiquity in his spare time – apparently he recognised once again that the Multangular Tower as Roman in origin.

Early discoveries include the tombstone of Lucius Duccius Rufinus – 1688.

Warburton map

The first mapping of Roman roads around York – and for the county as a whole – by John Warburton in 1720.

This map was presumably drawn upon by Francis Drake (1696 – 1771), a York physician, who also drew on the work of other early antiquaries as well his own observations, in writing his account of Roman York – and other places in the county - in his *Eburacum* of 1736: *The History and Antiquities of the City of York from its origins to the present time*. As far as the Roman period at least it is somewhat in the spirit of the time in mingling observation and description with fanciful speculation and imagination, asserting, for example, that Emperor Constantine the Great had been born in York and his mother Helena had been British (in fact from Nissus). Drake was grateful to Lord Burlington for paying a debt and perhaps as a reward made his estate at Londesborough a centre for Roman roads and settlement.

Drake Viking coins

Drake also published for the first time drawings of post-Roman artefacts, namely a coin hoard of reign of William the Conqueror found in High Ousegate in 1696.

Mithras and Serapis

Subsequent to Drake's publication, one sees antiquarian and historical inquiry stepping up a gear. Significant finds include the relief of Mithras found in Micklegate in 1747 and the inscription recording the foundation of a temple of Serapis found in Toft Green 1770.

In 1818 William Hargrove (1788 – 1862), a York newspaper proprietor published his *History of York* which has a new account of Roman York based on Drake but with much new material including the two pieces referred to.

Hargrove altar and St M's

In 1822 the Yorkshire Philosophical Society was founded and acquired part of St Mary's Abbey grounds. The YPS sponsored the 'excavation' of St Mary's Abbey in 1827-8 – essentially clearance of overburden around the structural remains. This was done partly in advance of construction of the society's museum, now the Yorkshire Museum, opened in 1829, to house collections of Yorkshire antiquities made by members, in which Roman antiquities loomed large, but also of other periods.

Wellbeloved

The first honorary curator of the museum was a Unitarian Minister Rev Charles Wellbeloved (1769 – 1858) who in 1842 published his *Eburacum or York under the Romans* based both on previous discoveries and first hand observations. He was an early practitioner of what we now call 'rescue archaeology'. For example, Wellbeloved recorded the Roman fortress wall during creation of St Leonards Place and Exhibition Square in 1835. He recovered finds made when the York and NMR broke through the city walls to build the Old Station in 1840 – an episode of terrible destruction of York's archaeology. Wellbeloved mapped Roman York in a manner still recognisable today. Picture shows Anglian Tower when the Recorder of York drove a tunnel through the city defences to connect his house to his stables.

Aelia Severa

In the second half of the 19th century and early 20th century York expanded rapidly into new suburbs outside the medieval walls and in the 1870s the new – present day - railway station was built. In the course of this expansion large areas of Roman cemetery were disturbed. Whilst the human remains were not usually collected, tombstones, sarcophagi and grave goods were and deposited in quantity in the Museum. The railway station excavations were fortunately recorded by Rev James Raine (1830-96), Chancellor of York Minster and curator of Antiquities at the Yorkshire Museum 1873-96. Remains of the Viking Age were also collected in the late 19th century e.g. in creation of Clifford Street in 1884.

Benson: BA urn and Bootham Bar

Discoveries of antiquities, structures etc since Wellbeloved were included in the next substantial history of York by George Benson (1856 – 1935) a York architect, in three volumes published in 1911 and 1919. This begins in earliest times, although he does not have a lot to say about prehistory. Benson also made first hand records including the Roman fortress NW gateway at Bootham Bar.

High Ousegate and Bateman collection

Benson's history illustrates - if without comment - antiquities of the Viking Age including finds made in Coppergate in 1906. In another publication Benson recorded the remains of Viking Age buildings found digging out the cellars of 25-7 High Ousegate in 1902. These were wooden

structures and demonstrated the good preservation conditions in this part of York revealed in detail most famously at 16-22 Coppergate – now Jorvik Centre.

Archaeology

Valuable though the work of Benson and his predecessors was, the collection and observation of artefacts and structural remains during building work – what we would now call watching briefs - is not the same as controlled archaeological excavation.

Anglian Tower section

This involves a recognition that the remains of the past survive rather like geological strata with deposits and structural remains superimposed one upon another, sometimes as in York to a considerable depth. Archaeological excavation involves recognition of these strata and careful recording of the sequence beginning with the latest and continuing to the earliest. It also involves the collection of artefacts, bones, samples etc in relation to that sequence, so that the material from each deposit etc is kept separate from that in other deposits and they are not jumbled up together – particularly critical for items like coins which can be used for dating the sequence. In the early 20th century the so-called 'stratigraphic method' was developed in Britain by the likes of Sir Mortimer Wheeler and is **fundamental** to modern archaeology.

East corner view and Miller's report

The first archaeological excavations in York which we would recognise as adopting modern standards were undertaken by Stuart Miller (1880 – 1952), lecturer at Glasgow University at the behest of the York Excavations Committee. In 1925 – 8 he was set the task of confirming the limits of the Roman legionary fortress and developing an outline of its history, largely through excavations on the defences. One of his excavations took place at the East Corner where the fortress wall was found standing to its full height below the medieval rampart – still visible today.

Other archaeological excavations – very few - before WWII were focused on Roman York. At St Sampson's Square before construction of what is now the Roman Bath public house in 1930-1 which uncovered the large apse of a caldarium in the legionary baths. In 1939 hurried excavations in the medieval rampart SW of the Ouse by the Old Station in advance of construction of an air raid control centre revealed remains of a massive heated Roman room, thought, not necessarily correctly, to be part of a bath house.

Garden Place

After WWII archaeological excavations took place in York both on development sites and elsewhere with permission of landowners - usually with volunteer labour, although under professional supervision of one sort and another. One of the first archaeological excavations after WWII took place in 1950-1 at Garden Place, Stonebow in advance of the telephone exchange. This was led by Sir Mortimer Wheeler's girlfriend Kitty Richardson. Roman structures preceded a Viking Age sequence. The waterlogged deposits found here gave a further indication, if one was needed, of the excellent state of preservation of organic materials – timber structures, wooden artefacts and leather shoes - which can be found in the centre of York.

Trentholme Drive and SMBHJ

With one or two exceptions it was usually the Roman period which was the principal focus of attention in the immediate post-war era, although other periods were recorded on 'the way down'. One of the more active fieldworkers was L Peter Wenham, Head of History at St John's College. Amongst his projects was the Trentholme Drive Roman cemetery excavation 1951-2

and 1957-9 the first Roman burials to be archaeologically investigated rather than unearthed during building work.

Eburacum

A **landmark** in archaeological publication came in 1962 with *Eburacum*, the first in the RCHME's inventory of York. It is a thorough catalogue and evaluation of all discoveries in Roman York up to that date and remains a fundamental source of information, although some of its conclusions now need revision.

Minster Excavations

Subsequently RCHME was involved in excavations at York Minster 1967 – 1972 in the heart of the Roman legionary fortress where danger of collapse of the towers made major ground works necessary. Initially the aim was to find the Northumbrian King Edwin's 7th-century Minster. However, this did not appear and its site and that of its Viking Age successor remain unknown. None the less, there was a most important sequence beginning with the headquarters and barracks of the legionary fortress followed by a Viking Age and medieval cemetery and above them the remains of the Norman Minster. You can get some sense of this in the Minster Undercroft.

Anglian Tower and fortress wall

In the early 1970s RCHME moved on to the next volume of its inventory on the city defences. In connection with this Jeff Radley re-excavated the stone tower on the Roman fortress wall first revealed in 1842. This is the so-called 'Anglian Tower' which we now know is almost certainly late Roman. Subsequently the City decided to put the tower on permanent display and also to reveal more of the adjacent legionary fortress wall to commemorate 1900 years since the foundation of the city by the Romans in AD 71. This involved the removal of the Norman and later medieval rampart overlying the Roman wall which was, it seems unbelievable now - done without any archaeological input until the later stages – how times have thankfully changed!

In spite of a continuous programme of archaeological investigation since WWII, the overall state of archaeological research in York by the beginning of the 1970s was one of a totally inadequate response to the threat of modern development. Important sites such as the Viking / Moat House hotel on the riverfront – the Dublin Stanes - had been developed without any archaeological investigation at all. Projects were dealt with on an ad hoc basis and there was no centre of overall strategic or academic responsibility. The crisis had acquired a new urgency with Lord Esher's report: *York a Study in Conservation* of 1968. One of its recommendations to relieve traffic congestion was a new - or rather a continuation of the - inner ring road begun before WWII with a short stretch at Kingsway North. This threatened large areas of below ground archaeology immediately outside the walls. Esher also made proposals for the redevelopment of the Bedern / St Andrewgate area to bring housing back into the city centre.

Sewer and Blake Street

The Esher report was one of the factors behind the establishment of the York Archaeological Trust in 1972 with public money from the DoE, and assistance and premises from the University. Like other similar organisations – 'units' - of the same period YAT was able to properly resource a multi-disciplinary team of specialists to excavate development sites, monitor other disturbances of the ground by utility trenches etc and conduct research on what was found. YAT hit the ground running with such important sites as the Roman sewer in Church Street, Roman fortress buildings at Blake Street and Viking Age buildings at Lloyds bank. In the

first interim director Peter Addyman summed up YAT's objective as 'a broadly based examination of the whole process of urbanisation over the past two millennia' involving a programme of careful site selection to cover all periods, types of institution etc.

AAI and Wellington Row

In spite of the creation of these 'units' in Britain, the 'rescue archaeology' crisis did not go away in the 1970s – this is where I came in. Access to sites and funding of archaeological work remained a problem throughout the UK and a good deal was lost. Then in 1979 came the Ancient Monuments and Archaeological Areas Act which was particularly important for York because it became one of five Areas of Archaeological Importance, all in historic towns. For the first time access and period of time had to be allowed for archaeology by law in advance of new development, although there was no provision of funding for the work. None the less, in the 1980s it gradually became accepted practice that developers would make some contribution to archaeological excavation on their sites - as at Wellington Row.

In 1990 this was formalised by a change in government policy for England as a whole with Planning Policy Guidance Note 16 (PPG16). In brief, this required developers to assess the impact of their proposals on the archaeology of their sites - at their own expense – *before* making a planning application – archaeology a material consideration in the planning process. In York this often involves both desk-based assessment and evaluation trenching.

Arup Report and cutting

Following a crisis over access to the former Queens Hotel site in 1988 – 89, City of York produced its own version of PPG16 in 1991 with the *York Development and Archaeology Study* which made a number of recommendations for ensuring development and archaeology could co-exist. A City Archaeologist was appointed to monitor all planning applications and provide the City's response.

Since 1990 the provisions of PPG16 have remained part of government policy on planning and the historic environment, most recently incorporated into NPPF 2012. As a result of PPG16 and its successors, there has been a great increase in archaeological work in England as a whole, now largely funded by developers rather than the state. Much of this has been in the form of small scale evaluation in advance of planning applications. As far as York is concerned this has often been in parts of the city which have never been investigated before, e.g. in the suburbs and peripheral areas such as Heslington. Evaluation will often allow buildings etc to be constructed without further impact on archaeological remains, although of course there have been instances where this could not be avoided and developers have been required to support further excavation.

So since 1972 and in particular since 1990 there has been a huge increase in our knowledge of of York's early history – looking back it's been a golden age.

Methodology

Another important aspect of this period is that YAT and others have taken advantage of the many advances in archaeological methodology which seem to become ever more sophisticated, allowing us to interrogate the physical remains of the past and giving us the means to reconstruct the culture, economy, society, ways of life, religious beliefs, physical character of the population etc in ever more detail.

These techniques include:

AP Naburn & geophysical survey

Site prospection using aerial photography and geophysical survey, although they are not really suitable for built up areas, but used to good effect in the immediate hinterland.

Wellington Row posts and metal object

Scientific dating. Revolutionary once, C14 dating is now a standard technique. In addition, dendrochronology or tree ring dating for large timbers. Less well known archaeomagnetic dating used on burnt material in which the iron atoms preserve the location of magnetic north whose movement over time has now been accurately plotted.

Conservation – YAT had one of the first dedicated archaeological conservation laboratories where artefacts in all materials can be stabilised, cleaned, examined and prepared for long-term storage. A particular speciality of the York lab is waterlogged wood and leather.

Roman Flea and 10th century fly pupae

Environmental Archaeology. This involves the study of organic material including bones, plant remains, insects and micro-organisms including the eggs of internal parasites. One of the first of its kind in UK was a special unit with a group of experts established at the University jointly with YAT.

Burials

Study of human remains. The excavations at York have produced large numbers of human burials of Roman and later date. Over the years a series of specialist researchers has studied the skeletons and taken advantage of the rapid development of new techniques for looking at physical condition, trauma, diseases etc in the past.

Recently new techniques have become available involving the examination of mineral isotopes in ancient tooth enamel which give a clue to where an individual was living in childhood when the enamel formed – in this way we have identified a Roman who probably came to York from desert area in the Middle East. DNA in bones can also tell us about interrelationships between people – family groups.

To a greater or lesser extent all of the techniques I have outlined this evening have been employed in the archaeology of York and we will be referring to them again in talking to you about many of the projects which we discuss with you during the course.