

MUSEUM OF LONDON



## Archaeology Matters

Human Biology Special, Spring 2004

## Past lives, future lessons

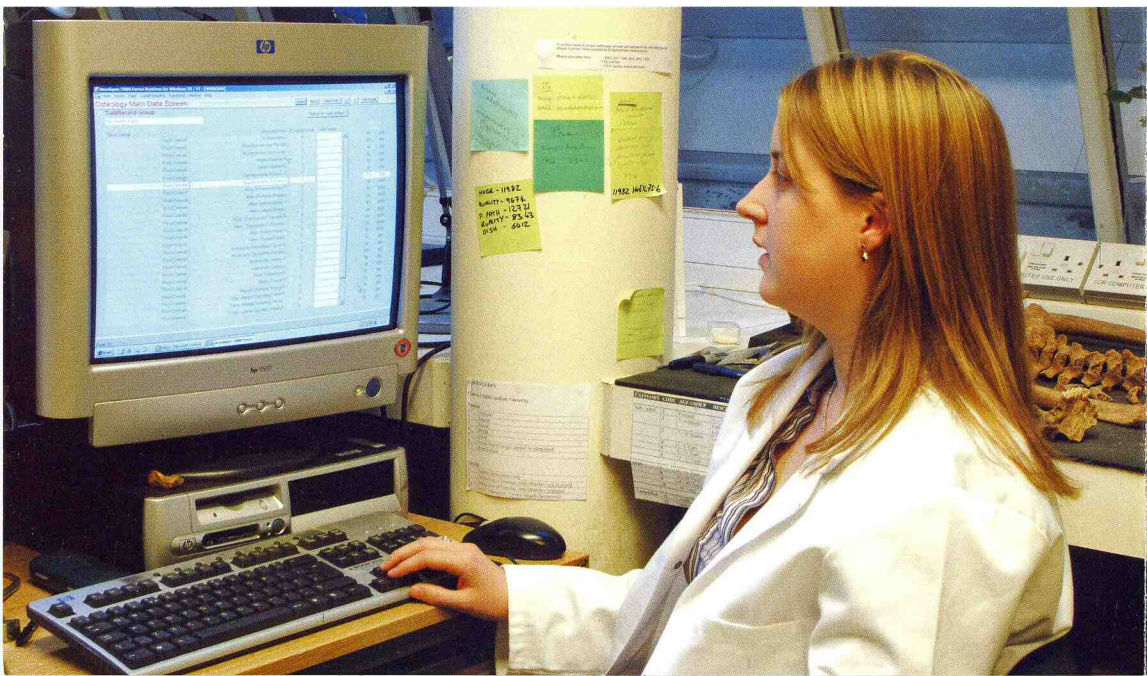
The bones of ancient Londoners have much to teach us. The Museum's collection of stratified human remains is one of the largest in the world, currently comprising about 17,000 skeletons. The information stored in these bones will soon be available to researchers nationally and internationally thanks to a project funded by the Wellcome Trust.

To become an adequate basis for research, the collection has to be analysed and documented to the standards demanded by scholars today. Over the next three years we shall be developing an osteological database that can be consulted in-house or online. Bill White, the Museum's Curator of Human Osteology (see cover), is leading a team of three osteologists and a research assistant. Brian Connell has designed the database. Work will focus upon a core collection of 4,700 individuals from 55 sites, extending from prehistoric times to the 19th century and including a large mid-14th-century Black Death population. Remains from the recently excavated Spitalfields cemetery will be

catalogued in the same way, adding a further 8,000 entries.

The database will ultimately support studies ranging from palaeopathology to paleodemography, from biomolecular research to forensic anthropology. As an example of the collection's potential, take the research of Dr Daniel Antoine, a Wellcome Trust Senior Research Fellow at University College London. Teeth include microscopic layers of enamel and dentine that are a permanent record of how the tooth has developed – rather like growth rings of a tree. It has been suggested that 'stress' lines in this layered growth correlate with disturbances such as nutritional deficiency. Dr Antoine is testing this assumption by examining teeth from adult Black Death victims (died c 1348) in the Museum's collection. They should show evidence of the Great Famine of 1317, a terrible event that would have affected their dental development thirty years earlier, when they were just children.

Gustav Milne  
Museum of London



## Mysterious Roman burials

Since Roman law prohibited burial within a city's boundaries, the site at 20–30 Gresham Street – just 300m from where Londinium's main east-west street crossed the Walbrook stream – is not where a cemetery would be expected. Yet excavations here in 2001 uncovered human remains, including three burials: a man and two newborn babies. Surprisingly, all these inhumation burials are of early Roman date, when cremation was the norm.

One baby had been laid carefully in a grave, the other casually dumped in a rubbish pit. Pliny, the Roman writer, commented that 'it is not customary to cremate people who have not cut their teeth', implying that his contemporaries made special arrangements for the disposal of young babies. One reason for burying people outside a settlement was the fear of being haunted by their ghosts. But babies were not counted as people. They could be disposed of in a different manner, sometimes even interred beneath the floors of buildings.

The man's burial is also unusual as he was found lying face down in his grave and his body had been disturbed after burial, perhaps by scavenging animals. Perhaps this 'unnatural' facedown burial, carried out at a time when cremation was usual, was the fate of a social outcast or someone who had died an unnatural death?

It appears that until about AD 70 this area lay on the western outskirts of the Roman settlement, presumably beyond the reach of civic jurisdiction. The land here was badly drained, and instead of being built on it was quarried for brickearth and gravel. It may have been seen as unclaimed or waste land which was available for the causal disposal of deceased Londoners, who for some reason did not merit a proper funeral and burial.

*Information from Natasha Powers (MoLSS) and Bruce Watson (MoLAS). The excavations at 20–30 Gresham Street were undertaken by the Museum of London Archaeology Service (MoLAS) as a collaborative venture with AOC Archaeology Group and were sponsored by Land Securities plc.*



# Greenwich Naval Hospital

Refurbishment of Devonport Buildings, Greenwich, in 1999 has made it possible to study for the first time the remains of a large number of sailors who lived at the time of the Napoleonic Wars. The site, on the south side of Romney Road, immediately east of the National Maritime Museum, lay within the Royal Naval Hospital Burial Ground, which was in use between 1742 and 1856. Around 20,000 individuals were buried there. The most prestigious grave belongs to William Hardy, whose mausoleum is still standing.

The remains of 104 individuals were recovered. The majority were of men aged over 40. This was the age at which a sailor was pensioned off. These men had therefore survived the hard and often dangerous life at sea, where threats to their health and general welfare came from all directions. Poor diet on long journeys was likely to produce scurvy, caused by vitamin C-deficiency. Battle, whether close-quarter fighting during boarding of enemy ships or the delivering and receiving

of broadsides, frequently caused injuries. Many of the individuals excavated showed evidence of trauma. Fractured legs and ankles were common, and fractured skulls and dislocated shoulders were also identified. Some injuries had clearly been so severe that the limb had had to be amputated. Several men had amputated legs. These amputations – which were probably carried out by a surgeon on board one of the hospital ships which shadowed the battle fleet during war – had all healed.

Not all injuries necessarily occurred during storms or battle. A surprisingly large number of men had broken noses. Extreme drunkenness was commonplace when ships were in harbour. Women were often invited on board to cavort with the sailors or watch ‘milling matches’ between them. These fist-fights - and less organised brawling – will have caused many noses to be broken.

Annsofie Witkin  
Oxford Archaeology

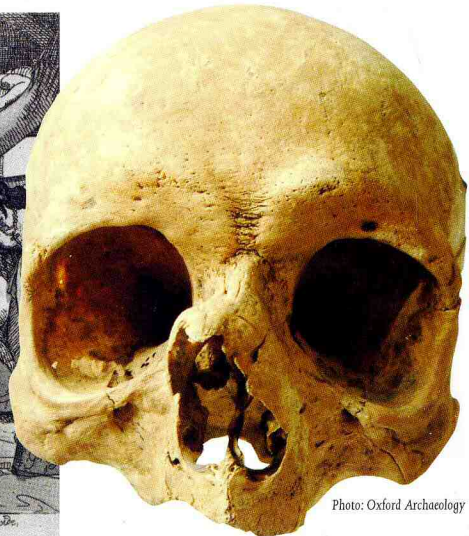


Photo: Oxford Archaeology

## St Pancras burial ground

In January 1793 the British Government passed its first major legislation to deal with asylum-seekers. The Aliens Act, hurriedly drafted in response to a flood of refugees from the French Revolution, imposed tortuous immigration procedures to curb numbers and monitor suspicious-looking individuals. The refugees often arrived destitute, and by 1795 over 2,000 were claiming Poor Relief. Many of them – including lesser nobility and priests – settled in Somers Town and St Pancras.

A unique opportunity to learn more about this community came when the burial ground of St Pancras Old Church was partially cleared before construction of the Channel Tunnel Rail Link. In use since medieval times, but increasingly during the 18th century, the cemetery had been extended away from the immediate surroundings of the church into the 'New Burying Ground' in 1792. Long associated with London's Roman Catholic community – Catholic martyrs were said to have burned there in Elizabeth's time – it became the natural resting-place for the French émigrés.

Over 1,300 burials were mapped during a watching brief, the remains of 780 individuals examined in detail. Of these, about 140 are named on coffin plates, including Comte Jacques Philippe de Marguenat, who died on 30 November 1793 aged 53 (see picture), Pierre Augustin Godart de Belbœuf (1730–1808), the last bishop of Avranches, and Arthur Richard Dillon (1721–1806), Archbishop of Narbonne and Primate of Languedoc, who was found buried with his porcelain dentures. Parts of 730 memorial stones were also recorded.



Photo: Union Railways (North) Limited

The human remains were exceptionally well preserved in waterlogged clay. Research is still in progress, but osteology combined with documentary evidence is providing new insights into the health and physical characteristics of the immigrant community and of the resident population into which it was absorbed. Over 1,100 items of coffin furniture, meanwhile, are revealing the social context of burial in St Pancras cemetery.

Project directed by Phillip Emery (Gifford & Partners) and fieldwork supervised by Kevin Woodridge & Duncan Sayer (Pre-Construct Archaeology) for Rail Link Engineering on behalf of the client Union Railways (North) Limited. Osteological analysis by Bill White (Museum of London Specialist Services).

# Spitalfields

A total of 10,500 skeletons was unearthed from the Priory and Hospital of St Mary Spital between 1999 and 2002. Post-excavation analysis is now underway, with a series of mass graves containing thousands of individuals buried around 1280 to 1320 forming an intriguing focus for research. In what circumstances and of what illnesses did these people die?

One particularly important burial is a child, aged 9 to 10 years, whose skeleton shows classic signs of treponemal disease: lesions both on the skull and elsewhere on the body, and thickening of the limb bones. In life, his or her arms and legs would have been swollen, the skin inflamed, much of the hair lost. To have reached such an advanced stage, the illness must have been contracted many years earlier – almost certainly passed on from the child's mother. Several forms of treponemal disease can leave similar evidence on the skeleton, but only one –

venereal syphilis – can be transmitted from mother to child. This burial thus proves beyond reasonable doubt that venereal syphilis was not – as is commonly believed – introduced from the New World by Columbus's men at the end of the 15th century, but was endemic in Europe much earlier.

To provide an absolute date for the burial, a radiocarbon reading was obtained from the body lying directly above the child's in the pit. It confirmed that he or she can have died no later than 1300. Syphilis cannot have been the epidemic that caused the hurried interment of thousands in mass graves, but the Spitalfields project has demonstrated that this deadly disease was rife in medieval London. Not only the bones of the child, but also the bones of an adolescent aged 14 or 15, and of no fewer than 34 adults show just how widespread it was.

Chris Thomas

Museum of London Archaeology Service



## What makes a Londoner?

Archaeologists 50 years ago imagined successive waves of settlers – Neolithic farmers, Beaker folk, ‘Belgae’, Saxons and countless others – traipsing across Europe, invading southern Britain and pushing the resident population ever further west. Modern scholars, on the other hand, stress the element of continuity in Britain’s population, arguing that even after well-documented invasions the number of permanent settlers was comparatively small.

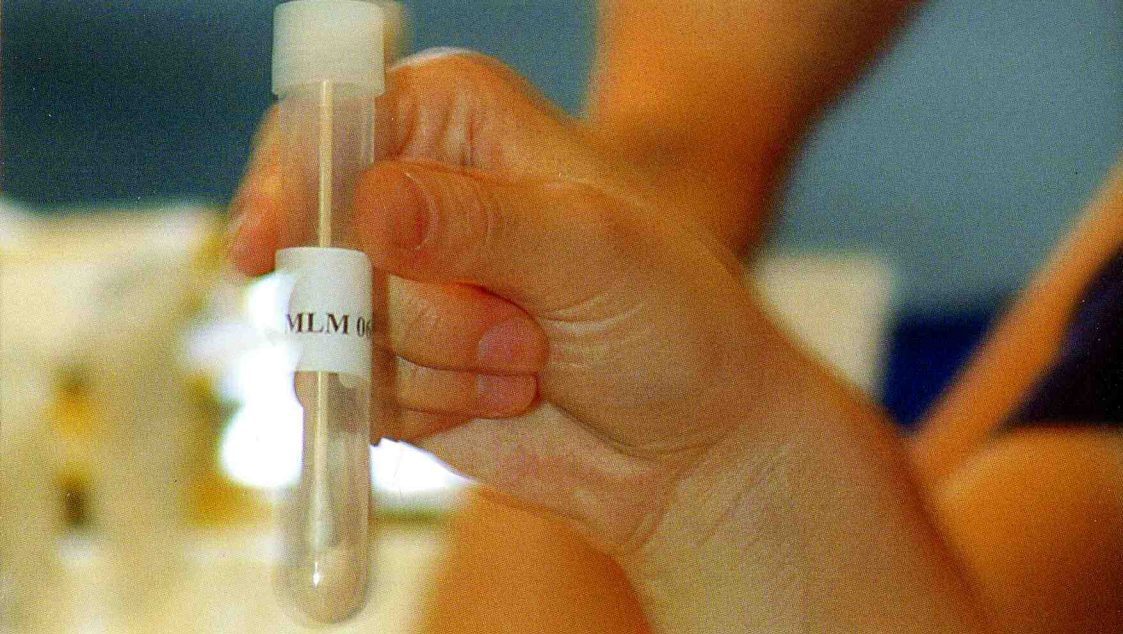
Biologists have revitalised this debate by studying DNA – particularly the Y chromosome and mitochondrial DNA (mtDNA). ‘Y’ is passed from father to son and, despite being a tiny chromosome, has properties that make it very good for studying population history. Europe has been extensively studied and is now much better understood – thanks entirely to the humble ‘Y’! Mitochondrial DNA is passed from mother to daughter, and can be thus used to trace female history.

The Goldstein Laboratory at University College has systematically analysed the Y chromosomes

of men living across the British Isles, producing some interesting results. The most common signature is that of the indigenous inhabitants of Europe. This is particularly common in Ireland and Wales. Orkney and Shetland show some evidence of Norwegian male settlement, probably dating from the Viking age. Most English and Scottish locations show some Anglo-Saxon or Danish male influence.

Last July the survey was extended to London. Dozens of men and women queued in the Museum to give a DNA sample for analysis. By far the majority of Y chromosomes fitted the same pattern as the rest of England. British mtDNA is less well understood, but again the London sample appeared very similar to those from the rest of Britain. Yet as might be expected in so cosmopolitan a city as London, there were several representatives of central Asian, Middle Eastern and African Y-chromosome and mtDNA lineages.

Julia Abernethy  
Department of Biology,  
University College London



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**Digging Up Londoners**

Friday 3 September, 1.10pm  
Hedley Swain, Museum of London

**St Mary Spital, Spitalfields**

Friday 17 September, 1.10pm  
Chris Thomas, Museum of London Archaeology Service

**Greenwich Naval Hospital Burial Ground**

Friday 24 September, 1.10pm  
Annsophie Witkin, Oxford Archaeology

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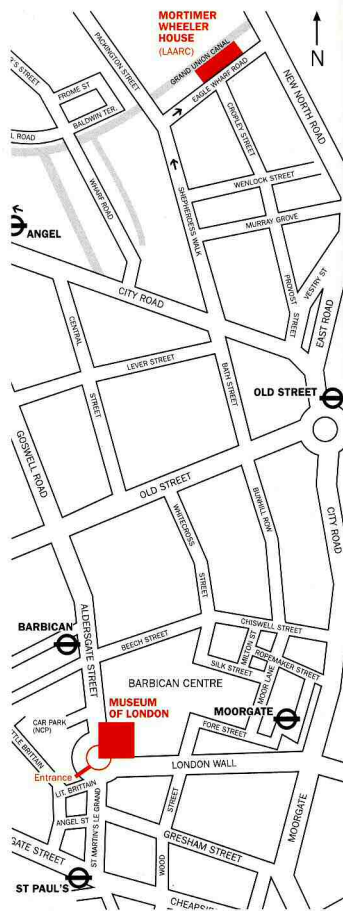
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Front cover. Bill White in the new osteological laboratory