

# Chapter 1: Introduction

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## PROJECT BACKGROUND

The Parochial Church Council (PCC) of St George's Church, Bloomsbury, commissioned Oxford Archaeology (OA) to undertake an archaeological desk-based assessment in advance of major restoration of the church. The proposed works comprised the clearance of coffins within the crypt and restoration of the crypt to its original form; reinstatement of the steps to the south of the tower; installation of a wheelchair platform lift; demolition of the sacristy; the siting of gate piers; modification of existing drainage within the north churchyard, and the excavation of six 75 mm diameter boreholes and four test pits within the churchyard and crypt, the latter to be done under archaeological supervision. Between April and June 2003, during a ten-week crypt clearance programme, 781 early 19th-century coffins were recorded by Oxford Archaeology (OA) and removed for reburial by Burial Ground Services (BGS). OA undertook archaeological watching briefs during the excavation of the four test pits and in four other areas within the churchyard (Areas 5-8). This report presents the results of these archaeological interventions.

## Location and topography

The Grade I listed church is located in the parish of St George, Bloomsbury, in the London Borough of Camden at NGR TQ 3025 8150. It is bounded to the south-east by Bloomsbury Way (formerly Hart Street), to the south-west by Museum Street, to the north-west by Little Russell Street and to the north-east by Bury Place (Fig. 1.1).

The geology of the area is Lynch Hill gravel (BGS Sheet 256), which is one of a number of gravels forming part of the post-diversionary Thames River Terrace deposits; gravel, sandy and clayey in part. Test Pit 4 within the crypt of the church confirmed that the foundations of the church rest on gravel at a depth of 1.38 m below the present level of the crypt floor (see Fig. 2.7). This geology was overlaid by alluvial clay.

## Restoration programme

Prior to restoration, the church was in a bad state of repair. Restoration works commenced in the spring of 2003. The work programme comprised the following elements:

- The main standing fabric of the church would not be altered but would be repaired. The structure of the church had already been

subject to non-destructive analysis and a full digital survey including ashlar joints.

- The steps to the south of the tower, constructed as part of the original design but later removed, were to be reinstated.
- A wheelchair platform lift would be installed adjacent to the steps.
- The existing 1870s sacristy building to the north-east of the site was to be demolished and a new building, designed to allow full access to the undercroft and church level from Little Russell Street, was to be constructed in its place.
- The gate piers and railings to Bloomsbury Way were to be reinstated in their original location.
- New gates and railings were to be sited at the boundary of the North Courtyard.
- Some modifications to the existing drainage within the north courtyard would be made in order to drain new WCs within the Little Russell Street entrance building and the undercroft. Otherwise, it was proposed that the existing extensive service runs were reused.
- New electrical, gas and water services were to be laid in from Little Russell Street across the north courtyard.
- Four 75 mm diameter boreholes and six 600 mm<sup>2</sup> trial pits were to be excavated in the positions shown on Figure 2.3. The latter works were to be undertaken under archaeological supervision.
- The undercroft was to be restored to close to its original form. This involved the removal of all interments from within the crypt and removal of later brick walls sealing the vaults from the central chamber, and separating adjacent vaults.

## ARCHAEOLOGICAL PROGRAMME

### Desk-based assessment

In the first instance, the Parochial Church Council (PCC) of St George's Church, Bloomsbury, commissioned OA to undertake an archaeological desk-based assessment of the proposed restoration works at the church. This document formed an initial stage of archaeological investigation that was intended to inform any future mitigation strategies. As

*'In the vaults beneath'*

requested, OA supplied a proposed archaeological mitigation strategy as part of this document. The assessment also included a site visit, which was carried out on 8th January 2003. The probable number of interments within the crypt could not be established from parish burial records as these did not distinguish between those buried within the

crypt and those interred in the burial ground. A number of memorial plaques recorded in the church explicitly stated that the deceased had been interred within the crypt but these represented only a handful of individuals.

Small holes were made in the brick walls sealing three of the seven vaults prior to the commence-



Fig. 1.1 Site location

ment of site works. The outlines of multiple layers of coffins were clearly visible in Vault 1. They appeared to be aligned west-east and were covered by a layer of charcoal, sand and rubble. Charcoal and considerable quantities of rubble were clearly visible in Vault 2, although there were no coffins visible. A number of north-south aligned coffins could clearly be seen in Vault 3. Again they were covered by charcoal and rubble. Details of a triple shelled wood-lead-wood coffin could be discerned. Coffin stud decoration was clear and the condition of the coffin appeared to be good. The total number of coffins could not be determined on the basis on these explorations.

### Archaeological mitigation

OA undertook the archaeological recording at the church of St George, Bloomsbury, between April and June 2003.

The mechanical excavation of four test pits was archaeologically monitored by OA and the findings are reported in Chapter 2. The structure of the church had already been the subject of non-destructive analysis and a full digital survey including a record of ashlar joints. Because the vaults had not been not accessible when this survey was carried out, additional limited recording of the structure of the crypt was undertaken by OA prior to and following the removal of the coffins. The results of this work are also presented in Chapter 2.

The archaeological recording action within the crypt took place between 21st April and 20th June 2003. OA were in attendance on Burial Ground Services (BGS). All archaeological and osteological recording took place during site works prior to re-interment of the 781 coffins and human remains at St Pancras cemetery, East Finchley.

### Project aims

The main aim of this archaeological recording action was to record and interpret as much detail as possible within the parameters of a relatively rapid exhumation and re-interment exercise. It was believed that the archaeological data collected would contribute to the history and development of late Georgian and early Victorian funerary trends and the demography of the population of the crypt.

#### Archaeological aims

Specific objectives of the archaeological work included:

- The osteological recording of the human remains from breeched coffins prior to their removal by BGS.
- Recording of coffins, fittings and contents of breached coffins that will contribute to the understanding of the history and development of funeral trends.
- Creation of an updated typology of coffin fittings.
- Collection of documentary data from *depositum* plate inscriptions that will contribute to the understanding of the demography of the population of the crypt.
- The creation of a database of the inscriptions and assessment and analysis of the inscriptions data.
- Documentary research to enhance and augment information recorded from memorial plaques within the church, the International Genealogical Index (IGI) and the Trade Directories.
- Establishment of the stratigraphic sequence of burials.
- Recording of the vault structures and their contents.
- Full reporting and dissemination.

#### Osteological aims

The osteological aims are detailed below.

- To establish the biologically determined demographic structure of the sample.
- To investigate and interpret pathological manifestations and patterns within the sample.
- To compare the biological profile of the sample with the historical picture of the group provided by documentary sources.
- To compare the mortality and morbidity of the sample with other populations similar in date and type.
- To blind test osteological ageing and sexing methods in the named sample.
- To provide a detailed record of the skeletal group prior to its re-interment.

#### Recording system

A single context recording system was not thought to be appropriate for the coffin record. Therefore, the focus of recording became the coffin. Each interment was assigned a unique number from a continuous running sequence. The same number was assigned to the coffin, any associated fittings, skeleton and grave goods. This system had previously been applied successfully during the archaeological watching brief at St Bartholomew's, Penn, Wolverhampton (Boyle 2004), and the archaeological excavation of the churchyard and crypt clearance at St Luke's church, Islington (Boyle *et al.* 2005), which were carried out by OA in attendance upon Necropolis.

All other contexts (i.e. structures, overlying soil layers and iron and wooden coffin supports) within

the crypt were assigned individual context numbers. These were numbered according to their provenance within each of the seven vaults, the first digit of the context number signifying the vault in which it was discovered. Specialised recording forms were available for the recording of both coffins and skeletons. Written descriptions were recorded on *proforma* sheets and comprised both factual data and interpretative elements. Charnel and disarticulated remains were not recorded although they were carefully collected for reburial by the enabling contractor, BGS.

#### *Plans*

The uppermost layer of the coffin stack within each vault was recorded in plan at a scale of 1:20. Coffins lower in the stacks were not individually recorded in plan. Matrices of their stratigraphic position relative to other coffins, however, were recorded and are presented in Chapter 3. In this way the vertical and horizontal relationship between the coffins was documented. After each vault had been emptied of coffins, it was planned at a scale of 1:50. A register of plans was kept.

#### *Photographic record*

A black and white and colour (35 mm transparency) photographic record was maintained. The photographic record also included shots to illustrate more generally the nature of the archaeological work. In addition, a digital photograph of each coffin was taken. Unfortunately due to the poor lighting and the excessive charcoal dust within the crypt, the quality of much of the photography was poor. Photographs were recorded on OA Photographic Record Sheets, and digital photographs were renumbered with their context number.

Palaeopathology of particular interest was photographed on site before reburial, as were well preserved coffin fittings and previously unidentified fitting types.

#### *Recording the coffins*

##### *Coffins and coffin fittings*

Wooden and lead coffins and any associated fittings, including fixing nails, were recorded on a *proforma* coffin recording sheet. All surviving coffin fittings were recorded in detail by reference to the published corpus of material from Christ Church, Spitalfields (Reeve and Adams 1993) as well as the unpublished catalogues of material from St Nicholas, Sevenoaks (Boyle 1995), St Bartholomew's, Penn (Boyle 2004) and St Luke's church, Islington (Boyle *et al.* 2005). Where individual types could not be paralleled, they were drawn and/or photographed, and assigned a style number, prefixed by BBM (eg. BBM 1). In addition, there are detailed coffin recording sheets with supporting illustrative and photographic records.

#### *Sealed Coffins*

It was anticipated that there would be very few fully intact sealed coffins, due to the environmental conditions, time and vandalism. Each coffin was inspected prior to lifting. Where coffins have already been perforated due to collapse, oxidisation or vandalism, and the decency of the occupant has already been compromised, the remains were collected and analysed on site by osteoarchaeologists. In the event that some coffins remained largely intact, irrespective of whether they were sealed or not, these coffins were not be opened. Burials with substantial soft tissue survival were not osteologically analysed.

#### *Osteological methodology*

##### *Low-resolution recording*

Skeletons that could not be identified by name, age and/or sex were subjected to low-resolution recording. This includes a skeletal and dental inventory, age and sex assessments, gross pathological observations, and basic metrical recording for use in the determination of stature and sex. The primary aim was to provide enough information to reconstruct the demography of the skeletal assemblage. These skeletons formed the Unnamed Sample discussed in subsequent chapters.

##### *High-resolution recording*

Individuals whose names were recorded on *depositum* plates were recorded in more detail. This entailed compiling a skeletal and dental inventory, analysis of skeletal preservation and completeness, age and sex estimation, detailed metrical recording, detailed descriptions of pathology and differential diagnosis, and a study of the non-metric traits. These individuals formed the Named Sample.

#### **Ethical and religious considerations**

The crypt has not been used for burial since its prohibition in 1856. However, as the church is still consecrated it was necessary to obtain a faculty prior to commencement of works. The Desk Based Assessment was submitted in support of the application for a faculty.

For reasons of decency and dignity, the faculty stipulated that sealed coffins should not be opened and that such coffins should be sleeved on site and removed for reburial. The ethical and religious implications were of primary concern throughout the project. The entire site was secured from the general public and controlled access was in operation for the duration of the site works. All staff involved in the exhumation of the remains were expected to behave with care and attention, showing respect for the dead at all times.

The burials represented the remains of past parishioners of the church of St George and thus particular consideration had to be afforded to the

sensitivities of any individuals who have connections with St George's during all excavation and reinterment works. All sealed or substantially sealed lead coffins were to remain unopened, were sleeved on site prior to removal for reburial, as stipulated in the faculty. Ethical considerations – opening undamaged coffins was unnecessarily invasive in the case of such recent burials – lay behind this condition in the faculty.

The contents of open or badly damaged coffins were inspected by archaeologists, subject to a health and safety evaluation. Human remains were then collected for osteological examination. All attempts were made to re-unite the skeletons that had undergone osteological analysis with their coffin. The coffin and skeleton were sleeved together and were reburied as an entity. All grave goods and personal effects (eg. dentures) were reinterred with the rest of the burial. In this way the integrity of each burial was maintained.

### Health and safety

OA was required to demonstrate that they had planned safe working practices by providing the Planning Supervisor and Principal Contractor with a Risk Assessment and developed Health and Safety plan of all work to be undertaken by the archaeological team, a current Health and Safety policy, and detailed specification for the archaeological watching brief. The Health and Safety at Work Act 1974, under which the Personal Protective Equipment at Work Regulations are made, was complied with at all times by OA. All work was carried out according to the requirements of *Health and Safety at Work, etc. Act 1974, The Management of Health and Safety Regulations 1992*, the OA Health and Safety Policy, any main contractor requirements and all other relevant Health and Safety regulations.

Funerary archaeology presents a specific and complex range of hazards. Human remains, particularly soft tissue, have the potential to pose infection risks to those who handle them (Healing *et al.* 1995), but the use of appropriate protective clothing and observance of *Control of Substances Hazardous to Health* regulations should protect handlers. Disease present in the 18th and 19th centuries included plague, cholera, typhoid and tuberculosis (all notifiable diseases today), but these are unlikely to survive long in a buried cadaver (*ibid.*). The risks posed by smallpox and anthrax are less easily defined. Contracting smallpox is remote possibility but the potential threat to the population at large is such that it must be taken seriously (Young 1998; Kneller 2003, 18). The risk of contracting anthrax from cadaveric human tissue is as yet unproven but is unlikely to be significant, but well-preserved horsehair or woollen materials used in the coffin pads, pillows and packing may pose a greater health risk.

During the crypt clearance, all staff wore protective clothing at all times when handling coffins, coffin contents and human remains. This included

chemical protection suits and latex gloves. The highest health risk from body tissue is presented by those individuals within sealed lead coffins and where preservation of soft tissue may be good. In addition, the increased risk of post-traumatic stress disorder (Reeve and Cox 1999, 168), made it undesirable to deliberately open sealed lead coffins.

The presence of lead coffins in all the burials ensured that in many cases some soft tissue and/or coffin liquor was present within the unsealed coffins. For the most part, individuals were largely or completely skeletonised, with soft tissue restricted to hair and toenails. Coffin liquor was found in the majority of coffins. This viscous black liquid was mixed with the remains of textile coffin linings, shrouds, sawdust and bran and pads lining the base of the coffins. These hazards were treated as potentially severe and appropriate protective systems were employed.

A potential respiratory health risk identified during the crypt clearance was charcoal dust encountered when charcoal layers that sealed sand and overlay all coffin stacks was disturbed. In order to minimise the risk facemasks were worn during any disturbance. Attempts to dampen down the charcoal were made. The disturbance of so many lead coffins within the confined space of the vault created the risk of lead dust inhalation, and the accumulation of toxic levels of lead within the body. Serum blood levels were not taken on archaeological staff, as the duration of the works was deemed too short. Sanitary and washing facilities were provided on site and strict hand washing before meals and before leaving site was observed. Strict adherence to the site Health and Safety policy produced by Burial Ground Services was observed at all times. Personal protective clothing worn on site was not worn outside the compound area.

Coffin liquor, disposable paper suits and respiratory protection equipment are all classified as clinical waste and were collected and incinerated by approved contractors. Lead can be stored and recycled. Rotting wood from coffins can be disposed of by agreement with the local waste regulation authority. The disposal of decontaminating fluids into sewers requires approval and possibly a licence. All of the above were the responsibility of BGS. Lead coffins may weigh up to one third of a ton. Their removal was undertaken by BGS.

### Structure of the report

Chapter 1 provides the background to the project, aims of the current restoration project and of the archaeological mitigation programme. Chapter 2 describes the structure of the church crypt and the archaeological watching briefs undertaken within the churchyard. Chapter 3 describes the stratigraphic arrangement of the coffins within Vaults 1-7. Chapter 4 discusses the historical evidence for the individuals buried in the crypt and identified from *depositum* plates. Chapter 5 considers the demo-

graphy of the crypt population. Chapter 6 presents the osteological analysis of the skeletal assemblage. Chapter 7 examines the reliability of the methods used for ageing skeletons. Chapter 8 considers funerary practice and looks in detail at the coffins and their fittings. Finally, Chapter 9 presents some overall conclusions about the data and evaluates the success of the particular methodological approach applied to St George's, particularly in relation to the reburial debate.

The main text is supported by four appendices, two print appendices – Appendix 1: Alphabetical lists of named individuals known from coffin plates with supporting evidence; Appendix 2: Statistical analysis discussed in Chapter 7 – and two appendices available via the internet only – Appendix 3: New coffin fitting styles recovered from St George's church (Figs. A3.1–A3.49); Appendix 4: Catalogue of all coffins and fittings recorded in the crypt.