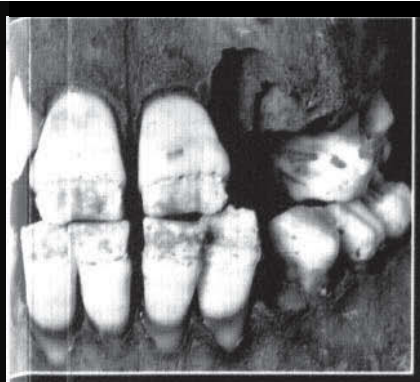
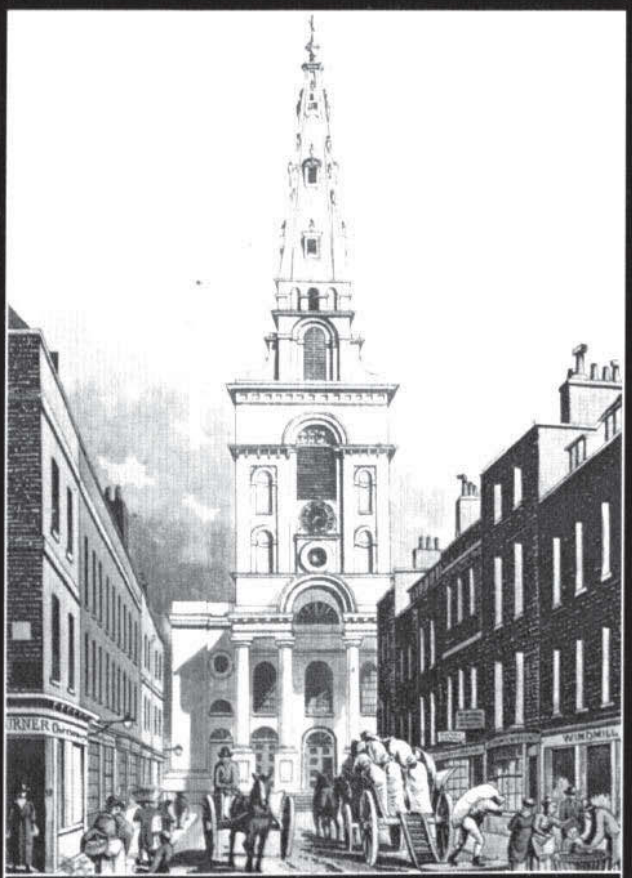
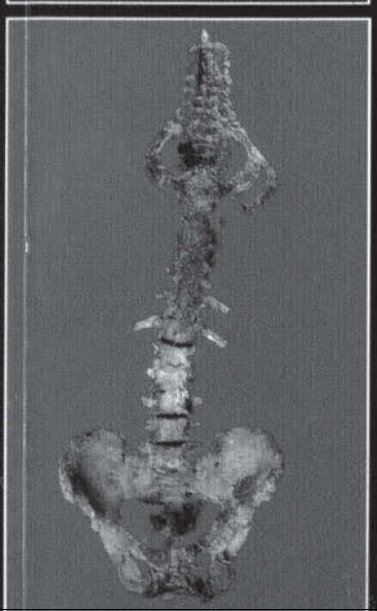


Life And Death in Spitalfields 1700 to 1850





By Margaret Cox

Life And Death in Spitalfields 1700 to 1850

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This book is dedicated to the
memory of my mother
Elizabeth Francis (née Coleman)
1921–78

Frontispiece *Christ Church, Spitalfields in the 1830s*

LIFE AND DEATH IN SPITALFIELDS: 1700 TO 1850

Part 4: Disposal of the dead

INTRODUCTION

This is an account of an archaeological project, and of life and death in east London during the 18th and 19th centuries. The project took place at Christ Church, Spitalfields between 1984 and 1989. It centred around the excavation of vaults beneath the church, and analysis of the skeletons and artefacts within them. Almost 1000 skeletons were recovered, of which 387 were of known name and age. They had been buried from 1729 to 1859. The circumstances made the excavation one of the most important ever undertaken. The results of the excavation were enhanced by the abundance and diversity of historical sources from the 18th and 19th centuries.

In the years since the excavation ended there has been much interest in its findings; both among fellow archaeologists and anthropologists, at whom the two research reports published in 1993 are aimed, but also among many people fascinated by the story of the excavation and the wealth of personal stories brought to life by it. It is for them in particular that this book is written.

ACKNOWLEDGEMENTS

It is impossible to thank everyone who participated in the Christ Church Project. However the following roles are acknowledged: Jez Reeve directed the archaeology with Max Adams, and Theya Molleson the anthropology. They are my co authors of the two technical reports published by the CBA. Others who must be mentioned are A D Mason, of Whitfield Partners, architect for the restoration of Christ Church; Susan Young who looked after our health and safety; Phil Crabbe, who helped with the photography; The Reverend Eddie Stride, Rector of Christ Church at the time of the excavation and the Trustees of the Friends of Christ Church Spitalfields. Many archaeologists, anthropologists and other specialists were involved in the Project in their different ways. Some are mentioned in the text, but to all we owe a debt of gratitude. The Project was sponsored by the Greater London Council, Historic Buildings Division; the Nuffield Foundation; the Wellcome Trust and English Heritage.

Jez Reeve, Theya Molleson and Red Mason read this text and made helpful comments and suggestions for which I am most grateful. Richard Morris and Christine Pietrowski of the Council for British Archaeology provided valuable editorial help. Much of the background information in this book is gleaned from texts referred to in the reading list.

Finally, this book could not have been written without the help and co operation of those whose ancestors were buried at Christ Church. Many are members of the Huguenot Society of Great Britain and the Australian Society of Genealogists. They are too numerous to mention individually, but they have been extraordinarily generous with information about the people who lived and died in 18th and 19th century Spitalfields. The information they have provided gives new life to the skeletons recovered from the vaults.

PART 1: THE BACKGROUND

Spitalfields

History of the area

The present parish of Christ Church, Spitalfields in east London, lies to the east of Liverpool Street Station and Bishopsgate. The church stands at the south-east corner of what was Spitalfields' fruit and vegetable market (Figure 1).

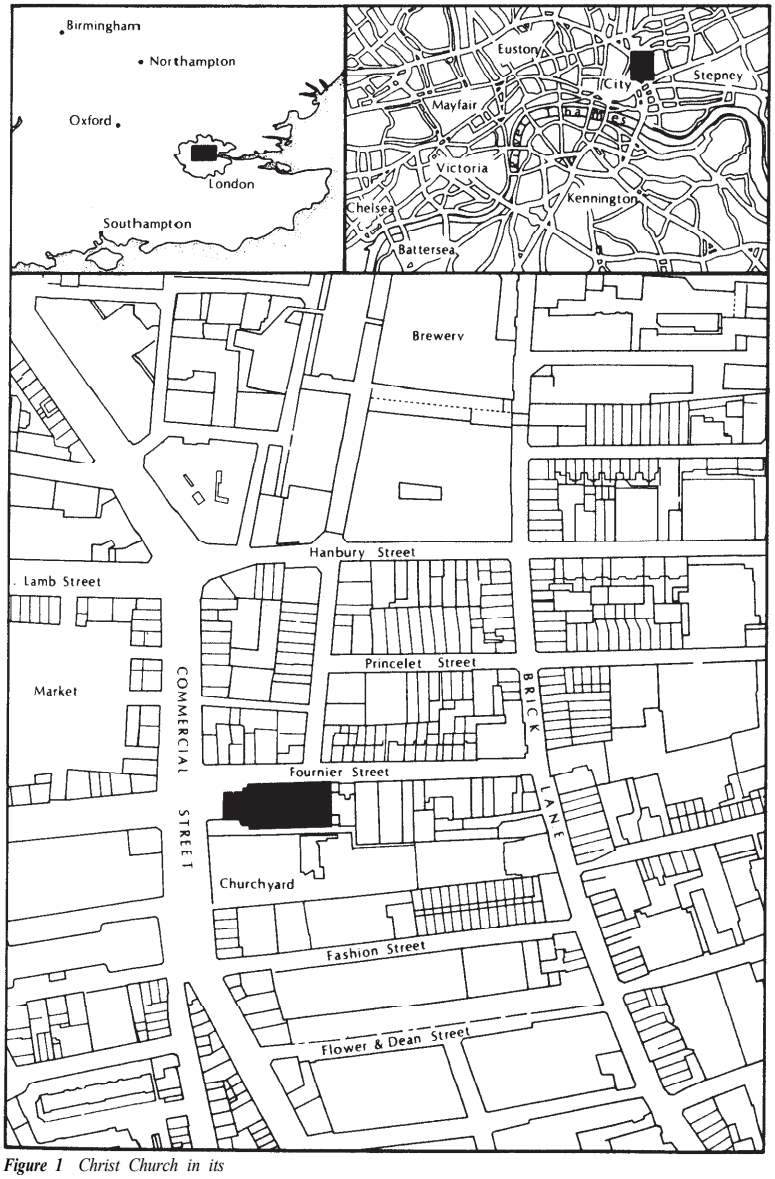


Figure 1 *Christ Church in its modern context.*

The earliest known use of the area was as a cemetery serving the Roman town of Londinium. Suburban land adjacent to the main roads leading out of the towns was often used for cemeteries during the Roman period. Many Roman burials were disturbed during residential development of the area throughout the 17th century.

In the 12th century, the area became the site of the Priory of St Mary's Spital. The hospital, founded in 1197, was the largest hospital in London. The name Spitalfields recollects this, and is known to have been current by 1588, deriving from 'Seintmariespital'. Land around the present Brick Lane was dug for brick earth, and until 1669 bricks used in the development of the area were dug and fired at this site. Just as Brick Lane derived its name from early land use so did the Tenter Ground – an area where cloth was stretched on 'tenter hooks'- and the Old Artillery ground, which until 1682 was used for archery and gunnery practice (Figure 2)

Residential development of the area began after the dissolution of the monasteries in the late 1530s. The housing was of good quality, and the former monastic buildings were also converted to residential use. This area, outside the City boundaries, was particularly attractive to immigrants and nonconformists, because it was free from guild and other regulations and restrictions.

The Huguenots were protestant immigrants fleeing from religious persecution in France. They began to settle in the area following the Massacre of St Bartholemew's Day in 1572. By the mid 17th century the area outside Bishopsgate was known as 'Petty France'. A century later the Spitalfields area had acquired a character reflecting its population of French immigrants and the silk manufacturing industry, in which the Huguenots played a major role.

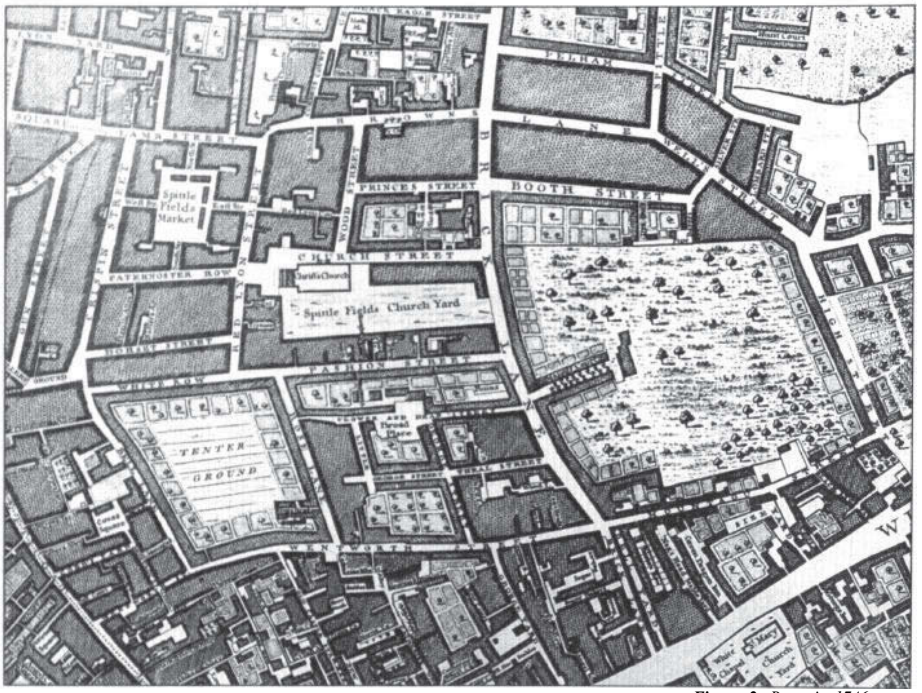


Figure 2 *Roque's 1746 map showing Spitalfields and the site of Christ Church.*

Places of worship

By the early 18th century there were nine French churches in Spitalfields and just two Anglian chapels of ease. Two factors led to the construction of an Anglian church in the area.

The first was a period of celebration following the Tory election victory of 1710, in which the Tories sought to reaffirm the status of the High Anglican Church in England. Their desire. and that of Queen Anne (1704–1714), the last representative of the Protestant House of Stewart, was to discourage nonconformism and liberalism. This ambition was manifest in their plan to construct fifty grand new churches.

Secondly, there was a general lack of Anglian places of worship at this time, particularly in London's suburbs. This in small part reflected the ravages of the Great Fire of 1666, but predominantly lay with the rapid growth of the suburbs and the City's population. Many areas, particularly those outside the City walls, had no Anglian church, while a number of those that did exist were decrepit. The medieval parish of St Dunstan, Stepney (Stenbunheath) contained seven crowded hamlets. Spitalfields was one of these, with a population of 20,000. It was estimated that six new churches were needed to accommodate the population of St Dunstan's, In the event, only three were built: Christ Church, Spitalfields, St George's in the East, and St Anne's, Limehouse.

The first Commission for Building Fifty New Churches was established in 1711 and was followed by further Commissions in 1712, 1715 and 1727. An Act was passed in 1711 which raised coal dues to fund, among other projects. the completion of the City churches and to enable the new churches to be constructed of stone with either a tower or a spire.

The Commissioners set the brief for the design of the churches and both Christopher Wren and John Vanburgh submitted detailed architectural briefs: Vanburgh's Proposals included that the churches should not have too many windows and that they should have 'the Reverend look of a Temple itself; which shou'd ever have the most Solemn and Awfull Appearance both without and within, that is possible'. It is clear that the churches were planned to be grander than the Wren churches of the English Restoration. The Commission was disbanded in 1758 by which time only twelve of the fifty proposed churches had been built.

A further Act (1712) facilitated the division of the old parishes into new ones, and also forbade intramural burials within the new churches;

> That they may be free'd from that Inhumane custome of being made Burial Places for the Dead, a Custome in which there is something so very barbarous in itself besides the many ill consequences that attend it; that one cannot enough wonder how it ever has prevail'd amongst the civiliz'd part of mankind. But there is now a sort of happy necessity on this Occasion of breaking through it... .
> (sic)

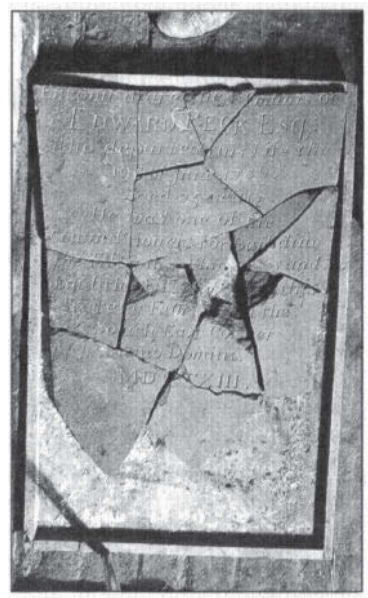


Figure 3 *Memorial stone to Edward Peck found in pieces near the entrance to the Peck vault*

The Commissioners decided that the hamlet of Spitalfields should be divided into two new parishes, those of Christ Church, Spitalfields and St John, Wapping. Each would have its own new church. Spitalfields did not become a parish until 1728 under an Act passed in the second year of the reign of King George II. This same Act made it lawful to '...place and deposit any corpse in any of the vaults under or belonging to the said church...'

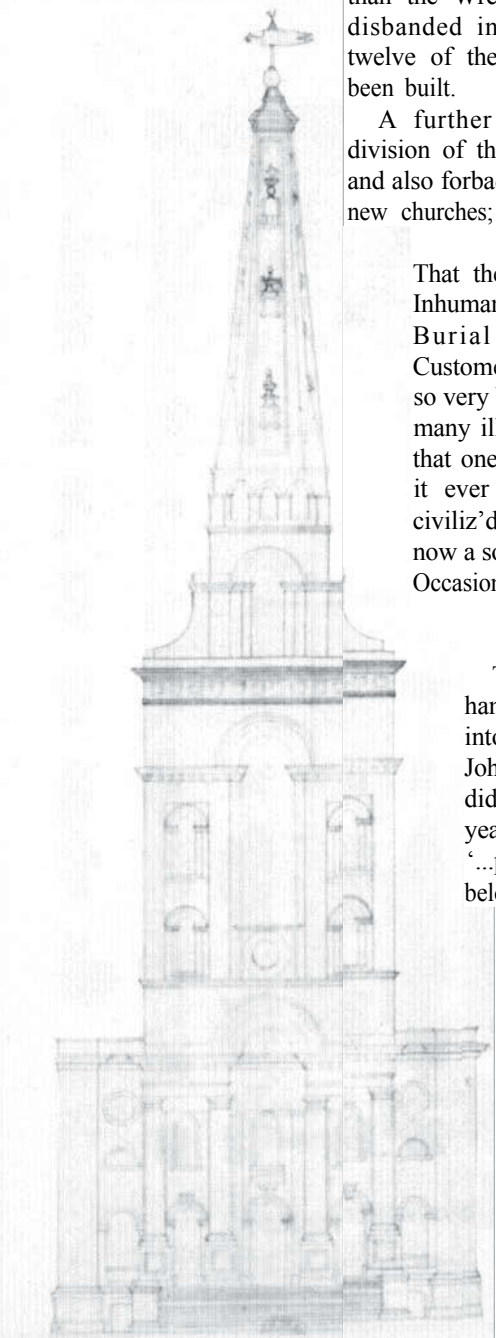


Figure 4 *West elevation drawn by Hawksmoor.*

Christ Church

Design and Construction

In 1714, a design for a church for Spitalfields was drawn up by the Commissioners' surveyor, Nicholas Hawksmoor. Hawksmoor (1661–1736) had been Wren's principal pupil and often collaborated with another great architect of the time, Sir John Vanburgh. The design was approved and its construction estimated to cost £9,129-16s. The site of the new church, largely open ground, had been purchased for £1,260 in 1713.

The foundations were dug by a labourer at a cost of £120-9-10d, and the foundation stone was laid in 1715 by Mr Edward Peck (Figure 3), a silk dyer of Red Lyon Street. Peck served on the 1715 and 1727 Commissions for building Fifty New Churches.

The church was designed with a crypt so that the main floor was raised above the level of the surrounding streets, possibly to allow for a large flight of steps. Vanburgh had proposed that all the new churches should have porticos as 'no part in Publick Edifices being of greater use, nor no Production in architecture so solemly magnificent' (sic) and although Hawksmoor's early designs for Christ Church do not include a portico, the raised ground floor certainly had the effect of providing the 'Solemn Magnificence' proposed by Vanburgh. The massive grandeur of Hawksmoor's scheme still dominates the neighbourhood.

The design of the church is unusual (Figure 4) and is considered to be one of the finest Baroque churches in England. In a move away from the half-hidden exteriors of Wren's City churches, the new churches were to be free standing and elevated on insular sites. Monuments to High Church Toryism and to Queen Anne, they were largely constructed of Portland Stone.

The construction of the church took fifteen years. Problems faced included vandalism and theft on such a scale that a labourer was employed during 1721 and 1722 to act as a night watchman. The original design was modified several times in ways that reflect Hawksinoor's developing ideas. The final cost was £39,162-17s-6d – more than four times the original estimate.

The vaults

Figures 6 and 7 show how the vaults beneath Christ Church extend below the entire church, and include several small vaults on the ground floor. The double storey of brick tunnel vaults in the base of the tower is part of the structure of the tower and was probably not originally intended to be burial vaults. The upper level of these vaults in the tower is at ground level.

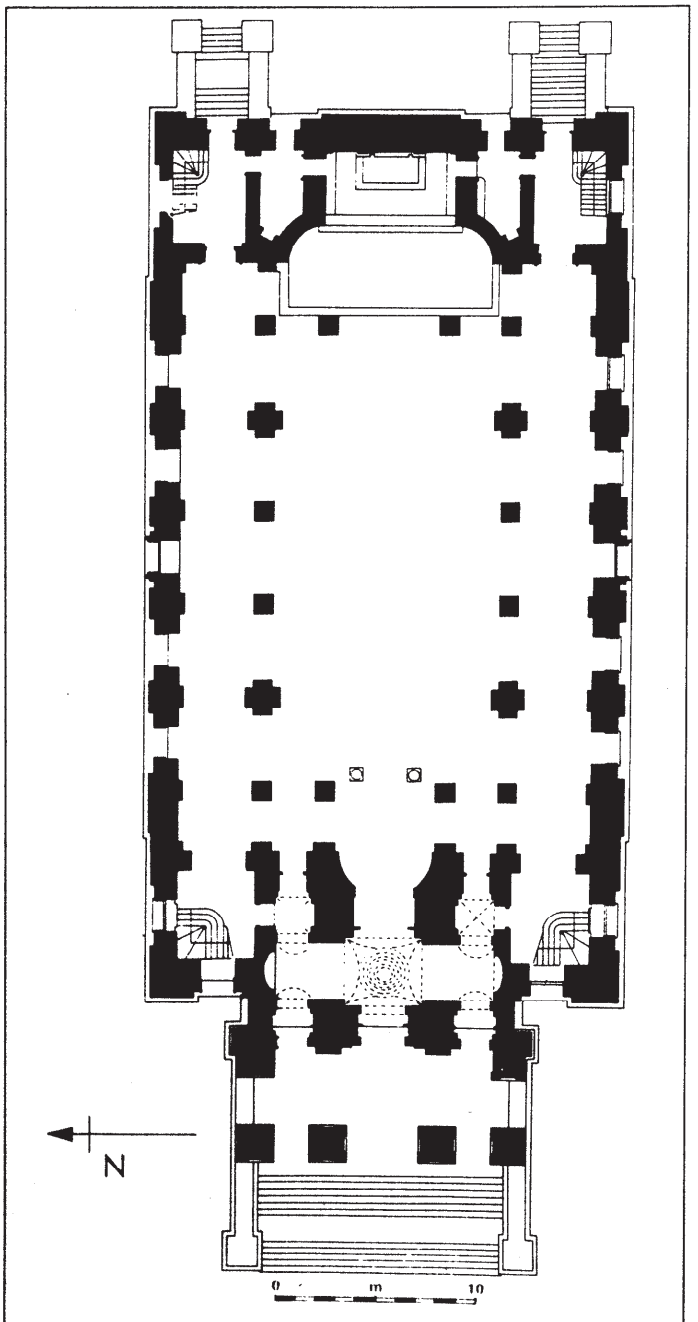


Figure 5 *Ground plan of Christ Church.*

The external walls of the church and the piers to the columns of the arcade to the north and south aisles were built at the same time as the lower stages of the tower. After the roofs had been raised, the floors of the nave and aisles were built by constructing a series of brick groin vaults. These vaults are supported at the corners by the piers to the columns of the aisle arcade, by two additional rows of piers in the central area of the crypt and by the aisle arcade and pilasters in the aisles of the crypt. The crypt was probably completed about 1724 and it appears that around this time it was anticipated that intramural burials would be allowed. At about the same time, to increase the space in the crypt, a large amount of soil was taken out of it and dumped in the church yard.

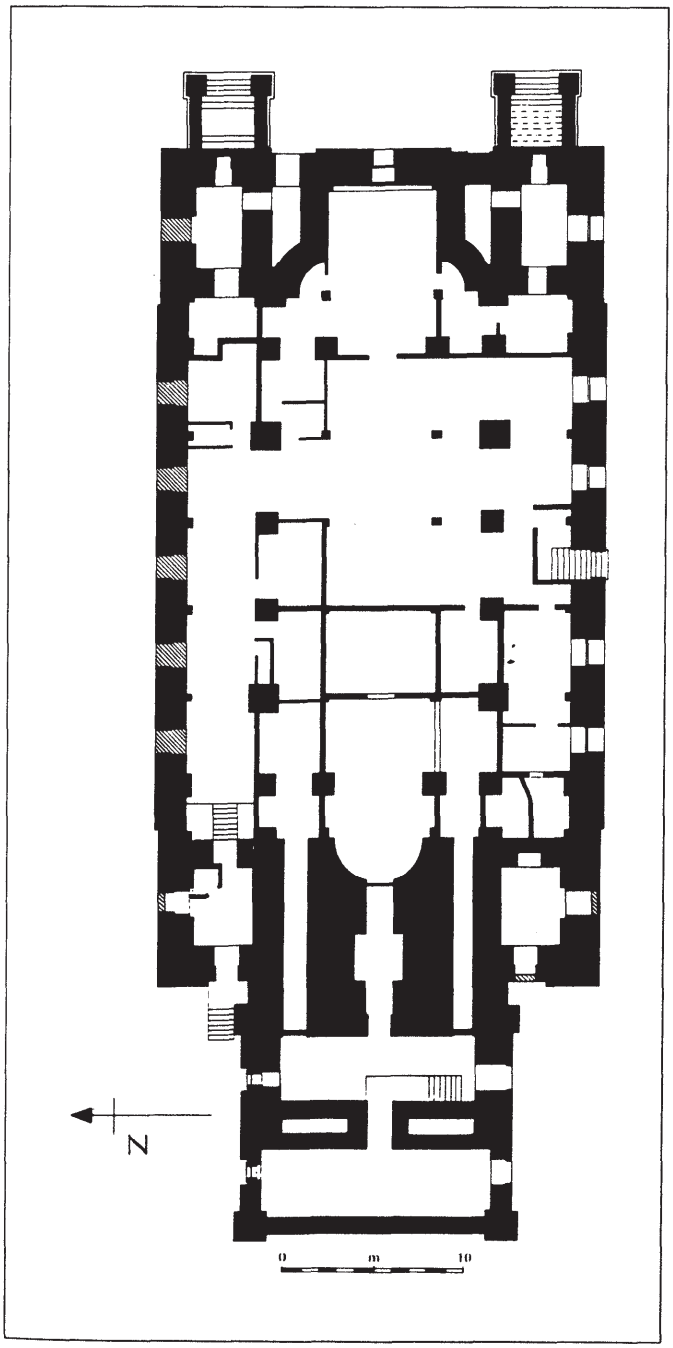


Figure 6 *Ground plan of the crypt of Christ Church.*

In 1729, when the church was consecrated, the tunnel vaults in the tower were divided up to form private vaults, additional vaults were enclosed in the corners of the aisles and a large parochial vault enclosed at the west end of the main body of the crypt. Over the years further private vaults were enclosed in the aisles as the need arose.

In 1813, when the parochial vault became full, a new vault was built next to it. Burials continued in the crypt until 1857 when the vaults were closed by an Order in Council (one issued by the Privy Council). Further Orders in Council followed. In 1859 the church yard was closed to any further burials and in the same year another Order was issued to brick up the ventilating grills into the crypt. The last Order, issued in 1867, stated that the coffins in the crypt should be enclosed and covered with a layer of soil and charcoal.

Although the vaults were not originally intended for burials, a vault was endowed for the use of Edward Peck's family before 1727. The first burial known to have been placed in the vaults was interred on 3 August 1729. The first burial in the church yard was on 8 July 1729, and a further 68,000 or so burials were registered before burial ceased at Christ Church on 23 February 1859. The burial registers survive and list details of the name, age at death, date of burial, abode at death and name of the officiating minister for each burial. Unfortunately, the register does not indicate whether interments were in the vault or the burial ground.

No known document provides this information,

if indeed such ever existed. A total of 983 individual burials were excavated from the vaults between 1984 and 1986.

It is clear from memorial inscriptions that those areas which were already clear of burials in the 1980s had once contained them. These areas have been used as a rehabilitation centre for alcoholic vagrants since 1965. They are rumoured to have been used in part as a rifle range during the First World War and as an air raid shelter during the Blitz. Archaeological evidence suggests that burials from these areas may well have been redeposited elsewhere in the vaults before 1857, when intramural burial within Christ Church was prohibited by an Order in Council.

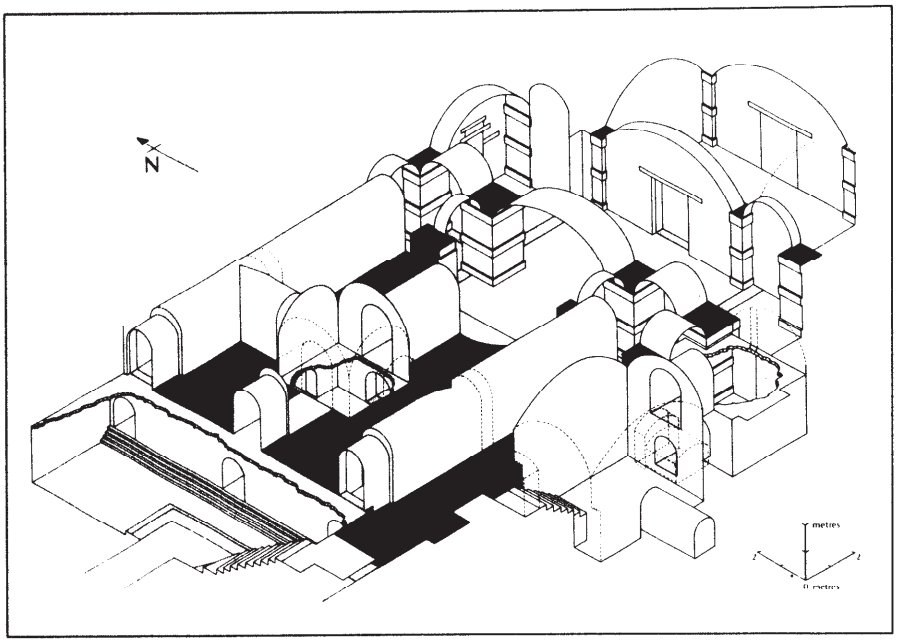


Figure 7 *Axonometric reconstruction of the crypt from the south–west.*

Christ Church 1729–1984

The fortunes of a church often reflect those of the parish or benefactor supporting it, and also religious or cultural trends. By the early 1730s Hawksmoor's masterpiece was already unfashionable. Whig supremacy meant that the High Church pretensions of previous decades were no longer acceptable. In fact taste changed so rapidly that by 1734 the church was ridiculed and described as one of the most grotesque in Europe by certain eminent architects. However, it is extremely unlikely that the parishioners shared this view.

No major alterations were made in the 18th century with the exception of the removal of the North Steps in 1743. The steps were removed when the medieval pub which blocked the western end of Fournier Street was demolished and the road extended to join Red Lion Street. Incidentally, the Faculty for this alteration granted permission for the part of the steps that was below pavement level to be converted into a Private vault.

Major repairs were carried out in 1822. The interior of the church was extensively refurbished, but the basic design was not altered. The only major change at this date was to the appearance of the steeple where mouldings were removed because the stonework had weathered badly. The frontispiece shows the church in the 1830s.

The first major alterations, which changed the appearance of the church and which were carried out in response to 'fashion', took place in 1866, when the interior of the church was refurbished (Figure 8). Similar alterations, some of

which were even more radical than those carried out at Christ Church, happened in many churches at this time. The box pews and the galleries in the aisles were removed. The aisle windows were rebuilt and the galleries at the West end reorganised. The tall pulpit was discarded and the reader's desk converted into a new pulpit.

Since the last major repairs were carried out in 1822, it is not surprising that parts of the church were in poor condition after the Second World War. The nave and aisle roofs and the top of the steeple were rebuilt in 1966. Since then, the Portico has been restored, the original arrangement of the aisle and gallery windows reinstated, the forecourt railings, which were removed in the War, replaced and numerous repairs made. The lack of space in the church for modern facilities such as a kitchen, toilets, Parish room and boiler room led to a decision in the early 1980s to explore the potential of the sealed vaults.

In 1981 it was agreed to remove the burials from the crypt to gain the space needed for these facilities. Such a decision is not unusual. Over the last twenty years many church vaults have been cleared of burials by commercial undertakers at the request of the church, usually because extra space was needed. The cost of such work is considerable and was beyond the resources available for the restoration of Christ Church. After due enquiries, it was decided to establish whether the crypt could be cleared as an archaeological excavation. Such a scheme was, at that time, eligible for grant aid, bringing it within the means of the Church.

Figure 8 *The interior of the church in 1909, after the refurbishments of 1866.*

PART 2: THE EXCAVATION 1984–1986

The decision to excavate

Archaeological excavation, and the analysis of evidence that excavation uncovers, are costly and seldom undertaken unless an important site is going to be destroyed, or for purposes of research. In the case of the Spitalfields project, preliminary investigation of the vaults and the associated historical records was necessary to establish if the vaults were important archaeologically.

The western half of the crypt appeared to be undisturbed and 'keyholes' were drilled through the outer walls of the vaults. Close circuit television (CCTV) was then used to establish something of the nature of the deposits. Historical research suggested that the vaults contained burials from 1729 to the mid 19th century, a period about which much is known from written records, but little is known archaeologically, from physical remains. The pictures relayed by CCTV and appropriate calculations, suggested that there were approximately 1000 coffins within the vaults, and that some still had legible coffin plates stating the name, age at death and date of death of the deceased (Figure 9).

The coffin plates were crucial to the decision to excavate the crypt. Most cemetery excavations are of known period, for example, early Saxon or Roman – but they lack precise dates and little is known of the people buried there: their age, sex, health or their lifestyles. The vaults beneath Christ Church, by contrast, would provide an opportunity to examine skeletons from a defined period, which were of known age and sex. There was also the possibility that other information could be retrieved such as where individuals lived, their occupations, family size, relationships, diseases and causes of death. Excavation would provide an opportunity to study the funerary furniture of a post-medieval population, to understand their treatment of the dead and to glean evidence of the contemporary funerary industry. Further, given the relatively recent nature of the deposits, it was anticipated that much might be learnt about archaeological processes such as the interpretation of stratification, how artefacts came to be deposited and what happens to these once they are deposited.

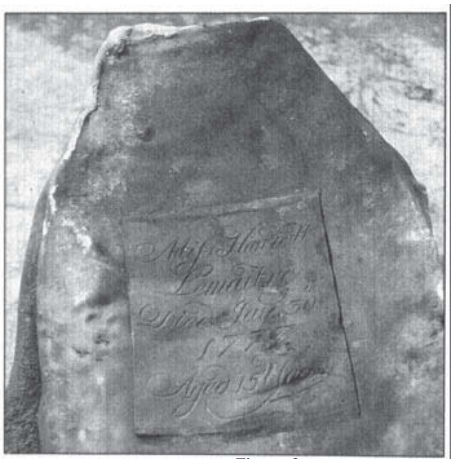


Figure 9 *Coffin of Harriet Lemaistre with coffin plate in place.*

A proposal was thus drawn up for the scientific excavation of the vaults and the examination of the contents. A protocol for safe working procedures was established and the necessary consents and funding obtained. A team of archaeologists and anthropologists was assembled and a recording procedure, aimed at maximising the retrieval of data, was devised. Work finally began in November 1984.

Clearance of the vaults

Health and safety

Health and safety formed a major consideration as the excavation focused on human remains from a period when smallpox, cholera, typhoid and diphtheria were commonplace.

As little was known of conditions within the vaults, it was difficult to anticipate the likelihood of viruses and bacteria surviving. Smallpox, in particular, was a matter of concern as the disease has been eradicated and vaccine is scarce.

The usual health and safety precautions for archaeological sites were taken (eg tetanus injections, steel capped boots and hard hats), and the wearing of overalls, gloves and masks was recommended. After the discovery of a corpse with eruptions on the skin that were later confirmed to be smallpox (though fortunately the virus was not viable), it was decided that all those working within the vaults had to have secondary smallpox vaccinations. Other concerns were the lack of fresh air and natural light, and levels of dust.

Figure 10 *Coffins stacked one on top of another, and covered with rubble, in the north end of the lower portico area.*

Two health risks were not fully appreciated at the start of the project. The first was posed by lead and the second concerned the psychological effects of dealing with human remains in varying states of preservation. Lead poisoning was a problem because many of the coffins contained lead shells, and some of these were oxidising. Once work began, dust from these was disturbed and lead oxide was freely available to inhale and ingest. Blood lead levels were monitored and when they began to rise towards the legal limits the archaeologists concerned were given off-site duties until their lead levels reduced naturally.

Archaeologists are used to excavating skeletons, but they are not trained forensic scientists and there were members of the project who found dealing with human remains, some with surviving soft tissue, some which appeared almost complete, and some putrescent, distressing. Added to this was the effect of working in dusty, cramped, ill-lit and poorly ventilated conditions, and often having to move heavy weights (a lead coffin could weigh up to a quarter of a tonne). Consequently and understandably, the amount of time lost to sick-leave for non-specific reasons increased as the project continued. With hindsight, and with present knowledge of post-traumatic stress disorder, such a project might be handled differently today.

Figure 11 *View of coffins which had to be excavated from the side.*

Archaeological methods

There were no precedents for an excavation of this kind. Conventional procedures for excavating burial grounds were inappropriate for the

vaults beneath Christ Church. For example, graves were not cut in stratigraphic sequences and many coffins were positioned below dumps of secondary refuse (Figure 10). Furthermore, it soon became evident that coffins had occasionally been moved from their first resting place. Appropriate excavation and recording systems had to be devised. Each element of each burial was recorded and numbered as a separate item though the level of recording was simplified as the excavation progressed and the range of coffin and burial types and styles became clear. Stratigraphic reationships for each burial and all other features were noted.

Figure 12 *View from above coffins before excavation in one of the larger parochial vaults.*

Archaeological excavation is usually undertaken 'top down', starting with the most recent features and working back towards the most ancient. In the vaults, however, access to the deposits was not always possible from above, and in areas such as low tunnels deposits often had to be excavated from the side (Figure 11). The parochial vaults (Figure 12). could be excavated from above as they were larger, though it was still difficult because a sanitising layer of rubble had been dumped on top of the coffins when the vaults were closed for burial in 1867. Working on top of the deposits could increase the compression damage already evident in many of the coffins some of which were stacked one upon another to a considerable depth. One method of alleviating this was to lay planks across the vaults from side to side. The archaeologists worked from above, with their weight taken by the planks (Figure 13).

Figure 13 *Using a plank to excavate a coffin from above without damaging it.*

All elements of the coffins were recorded in detail, from grips to lining, and upholstery pins to escutcheons (Figure 14). Each skeleton was given a unique number. Three hundred and eighty-seven burials had surviving, legible coffin plates. During cleaning and analysis the skeletons were kept separate from identifying evidence such as coffin plate data for reasons which will be explained below. Skulls were placed in specially designed boxes and the other bones were usually placed in a black plastic bag. The skeletons were then taken for cleaning.

Photography in the vaults was difficult. Poor light, little contrast between different elements, high dust levels and lack of top quality equipment resulted in a photographic record of the excavation which was less than ideal.

It was originally estimated that the excavation would take seven months. This proved to be a serious underestimate. Health and safety problems, including a smallpox scare, had an effect on the timetable, as did the fact that before the work started, the nature of the deposits and the problems of retrieval were largely unknown. Since many of the burials were enclosed in lead coffins this caused logistical as well as health problems. In total some 16 tonnes of lead were

OUTER COFFIN | Sample Ret. | Context

Recording Date | Site Code

Associated Nos.

Condition

Breast Plate | Legible | Inscription

Fab. | Lead | Ormolou | Brass | Tin Plated Pewter | Gilt Tin | Iron

Silvered Tin | Enamelled | Other | Sample Ret.

Shape of Breast Plate | Square | Rectangle | Shield | Tapered | Lozenge

Cartouche | Oval | Other

Covering | Sample Ret. | Colour | Serge | Velvet | Other

Construction | Butt Joint | Bevelled Edge | Pitched | Other

Grip Plate | Fab. | Ormolou | Brass | Tin Plated Pewter | Gilt Tin | Iron

Silvered Tin | Enamelled | Other | Sample Ret.

Grip | Fab. | Ormolou | Brass | Iron | Other | Sample Ret.

Design | Swag of Roses | Horse Shoe | Cherubs Head | Plain | Other

Grip Bolts | Corner Bolts | Type | Gilt Brass | Brass | Iron | Sample Ret.

Other

Lid Motifs | Desc. | Sample Ret.

Escutcheons | Desc. | Sample Ret.

Upholstery Nails | Brass | Gilt Brass | Silvered Brass | Iron | Sample Ret.

Enamelled | Other

Fixings | Panel Nails | Screws | Hinges | Lace | Other

Sample Ret.

Timber Type | Sample Ret.

Interpretation/Comments

Figure 14 *Form devised for recording details of each outer coffin excavated.*

Figure 15 *The skull of Louisa Courtauld (see Figure 40). It proved possible to reconstruct much of Louisa's life history, providing anthropologists with known facts – age, health, number of children against which to check physical details of her skeleton.*

removed from site along with 250 tonnes of rubble, 4000 small finds and 967 skeletons. It is salutary to consider that this was all moved by hand, often in areas with ceilings so low that it was impossible to stand upright. The excavation eventually took a total of 22 months and the archaeologists involved should be applauded for their efforts. During the excavation archaeologists came and went. Portia Askew was the longest serving archaeologist, and she, with Jez Reeve, the Director of the excavation, was present throughout the course of the excavation. For further details about the excavation *see* Reeve & Adams 1993.

Skeletal and historical analysis

Rationale

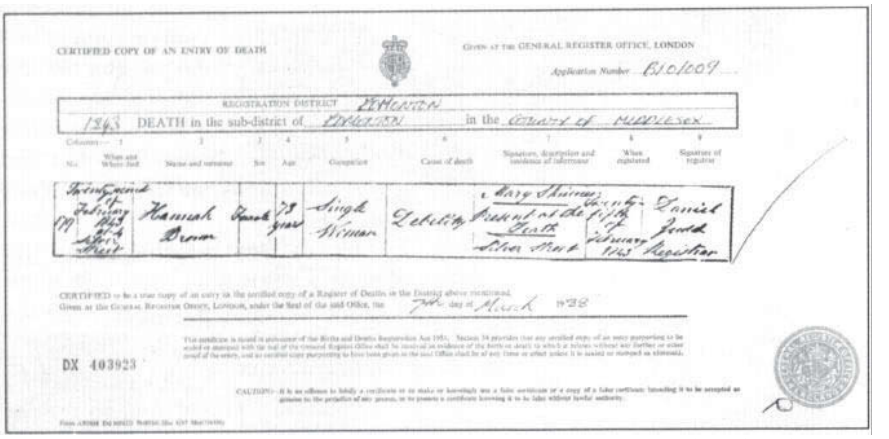
The excavation provided a unique opportunity to retrieve a sample of 387 skeletons of known age and sex, and a further 600 of unknown identity. The group of skeletons whose identity was known came to be referred to as 'the named sample' (Figure 15). They are listed alphabetically and chronologically at the end of the book. This group was considered to be of international importance as it provided an opportunity to test the reliability of a range of skeletal methods used by physical anthropologists and forensic scientists. These included ageing, sexing, establishment of parity status (whether women have borne children), occupational and environmental indicators and genetic traits.

The ageing issue in particular, was considered to be of great importance. Many physical anthropologists were concerned that the ageing methods current at that time were not accurate, and that cemetery sample ages were being consistently underestimated. It was not unusual, for example, to age an individual at 35, when (s)he had clearly suffered from certain conditions, such as Paget's disease, which are known only to affect the over 55s. For this reason it was important that the anthropologists who worked on the material did so without prior knowledge of the true age of the skeletons or any of the other coffin plate information. All the historical research connected with the project was undertaken after the completion of the anthropological data collection.

A second reason why this sample of skeletons was considered to be important was because no large scale analysis had previously been undertaken on post-medieval burials. Although a lot of historical information survives about health and mortality in this period, it had never been possible to see if these factors were borne out by skeletal analysis. Furthermore, historical information

can be biased; it often only deals with 'important' issues such as major epidemics. There is little in contemporary sources about, for example, dental health and rates of osteoarthritis, matters which can have a significant effect on the quality of life.

The period is a particularly interesting one for those interested in the study of the development and spread of disease. Rheumatoid arthritis seems to have first appeared at this time and there was considerable interest in establishing a precise date for this, Similarly, epidemics of diseases such as cholera, typhoid, puerperal fever, diphtheria and scarlet fever all occurred in England for the first time in the late 18th and 19th centuries and had a dramatic impact upon life expectancy. For further details see Molleson & Cox 1993.


CERTIFIED COPY OF AN ENTRY OF DEATH

Given at the GENERAL REGISTER OFFICE, LONDON

Application Number B10/1009

REGISTRATION DISTRICT Edmonton

1843 DEATH in the sub-district of Edmonton in the County of Middlesex

No.	When and Where Died	Name and surname	Sex	Age	Occupation	Cause of death	Signature, description and residence of informant	When registered	Signature of registrar
199	Twenty-second February 1843 Edmonton	Hannah Brown	Female	73 years	Single Woman	Debility	Mary Shurmer Present at the Death Edmonton	Twenty-fifth February 1843	Daniel Gould Registrar

CERTIFIED to be a true copy of an entry in the certified copy of a Register of Deaths in the District above mentioned. Given at the General Register Office, London, under the Seal of the said Office, the 7th day of March 1938

DX 403923

CAUTION: It is an offence to falsify a certificate or to make or knowingly use a false certificate or a copy of a false certificate intending it to be accepted as genuine to the prejudice of any person, or to possess a certificate knowing it to be false without lawful authority.

Figure 16 *Death certificate for Hannah Brown, a single woman, who died aged 73, in 1843, of debility. Certificates like this provided valuable information on age at death, own or husband's occupation, marital status, cause of death and address at death.*

Skeletal methodology

> ... My working bench... A wice, Tools, Bones, warious, Skulls, warious, Preserved Indian baby...Everything within reach of your hand, in good preservation. The mouldy ones a-top...Oh, dear me! That's the general panoramic view.
>
> (sic)
>
> (Charles Dickens, *Our Mutual Friend* (description of Mr Venus' shop)

Once the skeletons were removed from the coffins they were taken to a specially created cleaning area, situated next to the vestry within the church. A stalwart team of bone cleaners was responsible for this important, if rather unwholesome task, They included Percy Cohen, a retired dentist and Dawn Hodgson, a retired biology teacher. The bones were subject to an appropriate method of cleaning, which was usually either brushing or washing. Many had sawdust and insect pupae cases on them. Once dry, the bones were put in custom-made long bone and skull boxes which were marked with their skeleton identification number.

After cleaning, the skeletons were examined by a team of two physical anthropologists, Lizzie McClintoch and the author. The vestry became a bone store and laboratory, Between us we collected over 500 pieces of information from each complete skeleton. Measurements were taken to establish such criteria as height, head and face shape, and robusticity. Other characteristics were recorded to provide information indicating age, sex, genetics, disease, dental health and other oral variables, parity status in females, and occupation. The data

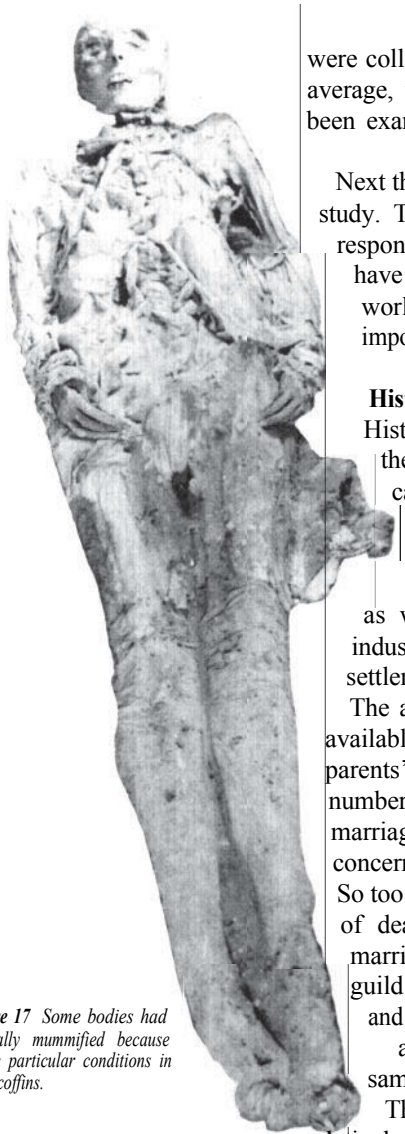


Figure 17 Some bodies had naturally mummified because of the particular conditions in their coffins.

were collected onto a computerised database to facilitate statistical analysis. On average, ten skeletons were examined each day. All the skeletal material had been examined by September 1986 - two months after the completion of the

Next the skeletons were transported to the Natural History Museum for further study. They are still there, under the care of Theya Molleson, who is also responsible for co-ordinating further research on them. Numerous projects have since been undertaken on this material by researchers from all over the world. The expectation that the collection would be of international importance has been borne out.

Historical research

Historical research followed with several aims. Stuart Davis investigated the undertaking trade in London, whilst Jez Reeve and Max Adams carried out further research into the technical and architectural history. The author was responsible for enquiry into the history of the area, and the Spitalfields environment, including fresh water provisions, sewers and housing conditions. The contemporary climate was of concern, as were levels of atmospheric pollution originating from the newly industrialising East End and the docks. Enquiry was made into Huguenot settlement in the area, its subsequent dispersal, and the silk weaving industry. The author also reconstructed a biography for each named individual from available historical sources. Where possible the aim was to recover details of parents' names, occupations and addresses, place of baptism, godparents and number of siblings. Marriage data included spouse's name, address, place of marriage, literacy, number of children born and birth spacing. Other data, concerning occupations, and social and economic status, were collected. So too was information relating to individuals' deaths, such as place and cause of death, and material from wills. Sources consulted included baptism, marriage and burial registers, death certificates (Figure 16), trade directories, guild and company records, probate records, coroners' reports, newspapers and journals, and personal papers such as diaries and letters. A considerable amount of information was obtained from descendants of the named sample, particularly those of Huguenot origins.

The historical research took place over some 15 months. While it was relatively easy to reconstruct biographies for those with unusual surnames, or of high social and economic status, the many Smiths and Williamses proved far more problematic.

Preservation

The state of preservation of the human material varied from virtually complete, including skin, hair and internal organs, to a sediment of crystal debris being all that remained of the bone. There was some mixing of bone from more than one coffin, particularly where earlier wooden coffins had been crushed by those stacked upon them.

The bones varied from being dry, firm and in perfect condition, (in the best preserved, even the tiny inner ear bones survived) to wet, soft and tending to

erosion at the ends of the long bones, They were stained brown and some had a watermark resulting from their immersion in body fluids. Particular conditions within some coffins led to mummification of the remains (Figure 17). These individuals were subsequently cremated, as were those with a large amount of surviving soft tissue who usually came from sealed lead coffins.

Adipocere, a fatty decomposition product of the soft tissues, occurred in a minority of cases. These were usually in coffins with an inner wooden lining and with surviving body fluids. Adipocere was often associated with a distinct and revolting smell that permeated any associated bone. Added to this, such bones were 'greasy' to handle. The smell of adipocere and its effects upon the bone made working conditions for the anthropologists extremely unpleasant at times.

Preservation of hair was relatively common. Sometimes only remnants survived but occasionally a complete head of hair was recovered. Facial hair was present on some males. Occasionally eyebrows pubic hair survived. Some skeletons had finger and toe nails, always stained brown.

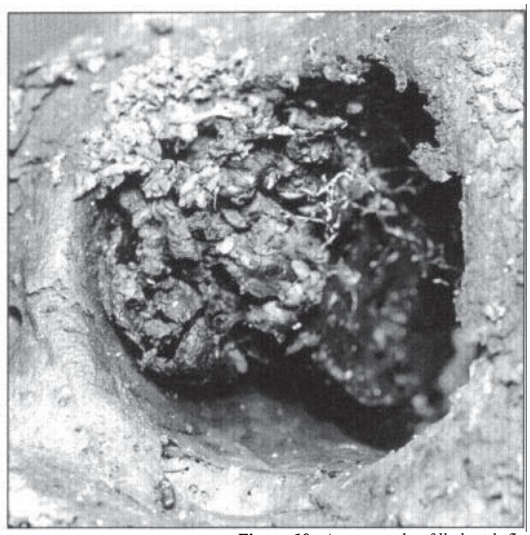


Figure 18 *An eye socket filled with fly puparia cases.*

Variables associated with preservation of the body

(i) Insect activity

Puparia cases of various flies were often present, and in large quantities. They adhered to the teeth and were massed within the cranium and eye sockets (Figure 18). Curiously, there was no evidence of *Calliphoridae sp.* (Bluebottles). These are usually amongst the first insects to invade a body and their absence was surprising, especially in view of the time lapse between death and burial. Some puparia were from *Ophyria sp.* a carrion feeder. These usually infest the body during the period of ammonical fermentation which takes place some four to eight months after burial. It is possible that *Ophyria* were responsible for the type of damage seen in Figure 19. *Conicera sp.* were also evident. In earth burials these insects usually infest the corpse after about a year. The adult fly burrows through the soil to deposit its eggs. When the vaults were reopened for excavation and burials were being exposed, fresh waves of insect activity occurred,

Figure 19 *Insect damage of soft tissues would have been a major cause of skeletonization.*

a phenomenon that proved extremely distressing to both archaeologists and anthropologists.

Wood boring weevils and beetles had also been at work. Evidence was found of *Euophyrum confine, E rufum, and Pseudophloeophagus aenopiceus*. Interestingly, E rufum came to England from New Zealand and was first identified here in 1934. Evidence also survived of a carpet beetle, *Mycetaea* hirta, which feeds on moulds.

(ii) Fungus

Some bones bore vivid pink/purple staining which resulted from a fungus yeast (Figure 20). Upon opening the sealed lead coffins, a mass of fine white *hyphae* was occasionally present accompanied by honey coloured droplets. No attempt was made to identify this.

(iii) Age at death

It has been argued in the past that the bones of the elderly, especially osteoporotic females, and of children do not survive within a burial environment as well as juveniles and adults. This has often been used to explain the fact that many cemeteries yield fewer infant and elderly female burials than might be expected. At Christ Church it was possible to examine this issue in detail and compare the skeletal remains with evidence from inscriptions. It transpired that the bones of infants survived best, reflecting high levels of collagen, and that the rate of survival decreased with age for both sexes. In fact males aged over 50 survived less well than their female counterparts.

(iv) Coffin type

Burials in coffins with a lead component which had remained sealed, generally less decayed state than others. Some even had surviving soft Overall however, there appeared to be no difference in survival between those interred in a coffin with a lead shell and those interred in a wooden coffin.

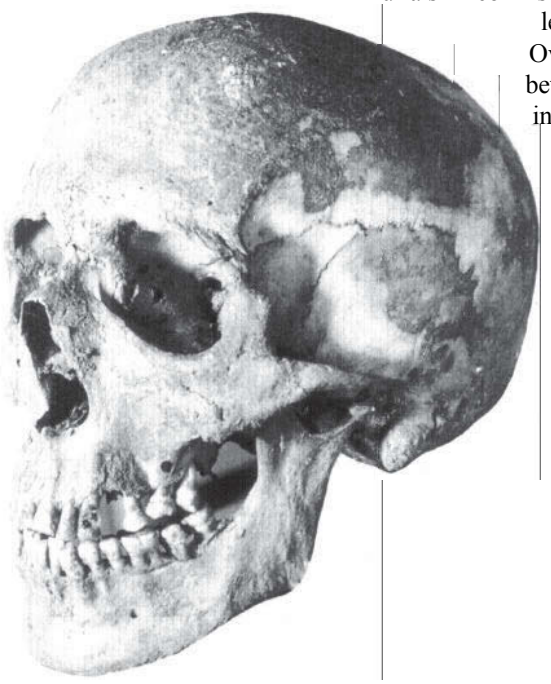


Figure 20 *Purple staining resulting from a fungus yeast on the skull of an adult male.*

PART 3 THE NAMED SAMPLE

Origins

Lifespans

The named sample consisted of those who chose, and could afford, to be buried within the vaults of Christ Church between 1729 and 1852. The first to be interred was Thomas Hull in 1729, the last William Louis Moinier Leschallas in 1852. Their dates of birth range from that of Susannah Hull in 1646 to Jane Stephens in 1844. Figure 21a shows the distribution of the dates of birth and death of the named sample. Figure 21b gives the same information but includes the life span of each individual.

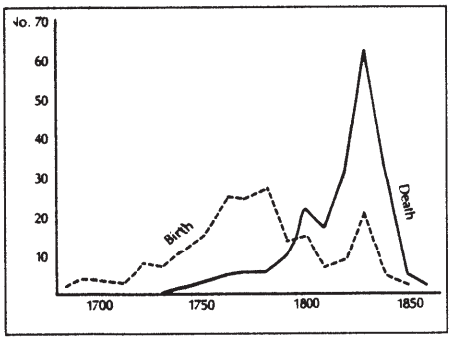


Figure 21a *Distribution of the dates of birth and death of the named sample.*

Where they lived

The place of residence (at death) of the named sample was recorded in the burial register in all but 20 cases. This information ranged from simply stating the parish to giving the house number and street. Five burials were not apparently registered. These included John Mesman, a master weaver and John Stubbs, one of the proprietors of the Norton Folgate Brewery.

Mid-life addresses were obtained from appropriate trade directories, the Christ Church Vestry Minute Books and company records. Another useful source of information were Marriage Registers as these noted the parish in which both parties lived. Childhood addresses could be traced from Baptism Registers after 1750 and appropriately dated sources relating to the father's occupation such as trade directories and guild records.

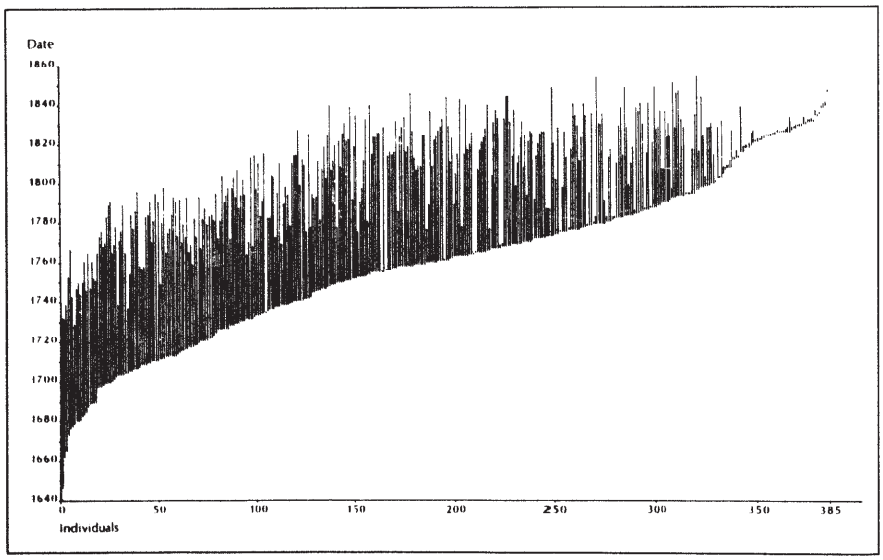


Figure 21b *The life span of each of the 387 named individual is represented by a vertical line. Most children buried in the crypt were born after 1790.*

At the time of their death, 38% of the named sample lived in Spitalfields and 39% in the neighbouring parishes of Bethnal Green, Whitechapel, Bishopgate, Stepney, Mile End New Town and the two liberties of Norton Folgate and the Artillery Ground. A further 22% lived in other London parishes and 1% were

from outside London. They came from 61 different parishes, and the six counties of Middlesex, Surrey, Essex, Hertfordshire, Hampshire and Essex. One, Helena Lefevre, died in France and was brought back to Spitalfields to be interred in the Lefevre family vault.

In general, very little is known historically about mobility in respect of home address and place of burial. To establish if the named sample was typical of those being interred at Christ Church (in both the burial ground and vaults), it was decided to examine two sample groups from the burial registers and compare these with the named sample. These were taken from 1730-31 and 1819-20. The time difference between the two groups allowed some consideration of change through time. The results are shown in Table 1. It is clear that the named sample from the vaults differed from the parish samples where the majority of burials hail from Spitalfields itself. It is interesting to note, however, that the percentage from the parish decreases through time. A reason for this is suggested in a letter from the Reverend William Stone (rector of Christ Church) to Edwin Chadwick in the 1840s where it is hinted that undertakers were smuggling in bodies from other parishes to avoid paying double burial fees.

Table 1
Address at death of those buried at Christ Church (%)

Abode	Parish register 1730/31	Parish register 1819/20	Crypt sample
Spitalfields	94.7	75.2	38.5
Nearby parishes	2.6	18.2	38.7
Other London parishes	2.5	6.4	21.7
Outside London	0.2	0.2	1.3
Totals	931	645	369

The Huguenots

Only seven individuals (3%) from the named sample were identified as having been born outside England. Yet, of those buried before 1800, the majority have French surnames. In total, 42% have French sounding names. Only 33% are English and the remaining 25% are ambiguous or unknown. Some names, for example Backer and Schleicher, appear to be from the Low Countries, while Moser is a Swiss name.

The underlying explanation for so large a number of people with French names was religious intolerance in France during this time. England granted freedom of worship to Protestants and refugees from Europe including many Huguenots who came to London from the later 16th century to the mid 18th century. The Huguenots who settled in Spitalfields came predominantly from Saintonge and the Bordeaux region and most had connections with the French silk industry.

The origin of the term 'Huguenot' is unknown. Historically it has been applied to French Protestant refugees fleeing from religious persecution. French Protestantism owed its beginnings to the teachings of John Calvin (1509-1564) and his followers. Amongst other things, its use of the vernacular rather than Latin in religious services gave it popular appeal, and as the century progressed it began to attract noblemen. The loss of the nobility's allegiance produced a violent reaction in the Catholic Church. Civil strife followed, culminating in the Massacre of St Bartholomew in 1572. During this Period waves of refugees fled France and established colonies in the Low Countries and England. There were major areas of settlement in England in London, Norwich, Colchester, Canterbury, Southampton and Exeter.

The Edict of Nantes in 1598 restored religious freedom in France, but after the fall of La Rochelle in 1628 Protestantism once more became unpopular. Systematic interference with Protestant worship began in 1669 and from 1679 there was unrestrained persecution by both church and state. Between 1679 and 1685, 125 Acts aimed at curtailing the liberty of Huguenots were enforced, and in 1685 the Edict of Nantes was revoked. This accelerated the exodus of Protestants from France, which continued for many years.

It seems that the majority of first-generation Huguenots in the named sample fled in or shortly after 1685. Many families involved in the silk industry, including the Mesman and Giles families, first settled in Canterbury but later moved to Spitalfields which became the centre of the English silk industry. The Ogier family, however, fled to England in the 18th century. Pierre Ogier II arrived in England with his younger children in 1730, his older children having left France earlier. Many families resorted to smuggling their children out of France in baskets and barrels and the Ogier children were reputedly transported with potatoes!

The Huguenots who settled in London established a mother church in Threadneedle Street. Rebuilt after the Great Fire of 1666, the church in regular use until 1842, when the congregation moved to St Martin le Grand and then to Soho Square (Figure 22). By about 1700 there were 28 French Churches in London, nine of them in Spitalfields. For further information about the Huguenots see Gwynn (1985) and Scouloudi (1987).

Although the majority of Huguenots settling in the Spitalfields area were in the weaving trade, reference to the French Church registers demonstrates the variety of occupations. The Church of the Artillery had amongst its congregation 42% weavers and 21% sailors. There were also bakers, hatters, merchants, turners and surgeons. Soho too attracted many Huguenots. They seem to have been the wealthier individuals, including gold and silversmiths, and watch and clock makers.

The number of Huguenots who settled in England is uncertain. Estimates range from 40,000 to 80,000. The majority were penniless artisans, but a minority of very wealthy families appear to have been able to capitalise their assets and bring their money with them. These families proved to be very important to English finance and trade. For example, of the 24 initial directors and investors in the Bank of

Figure 22 *Hogarth's Noon, 1738, showing the sober Well-dressed Huguenots leaving the French Church in Greek Street, Soho, in marked contrast to the English rabble on the left.*

England in 1694, seven came from the Huguenot community. In fact, in 1718, a Huguenot, Henri Portal, acquired the monopoly of making paper on which Bank of England notes were, and still are, printed.

An indication of the drive and energy of the Huguenots, is given by a report that in 1767 Peter Ogier, one of the named sample, invested some $50,000 to establish a branch of the silk trade in Quebec, Canada, to be run by his son Pierre Abraham. At a time when shipping was under sail and communication slow and uncertain, this represented a tremendous financial risk.

The assimilation of the immigrants into the host population took several generations, as the gradual disappearance of French names from the named sample during the late 18th and the 19th century shows (See pp 126 - 132). An examination of marriage patterns illustrates how the process occurred. In the early population Huguenot married Huguenot, for example Suzannah Maze married John Roy. Several generations later, by the 19th century, Huguenots were marrying into the host population. An example of this is John Desormeaux who married Ann Watts in 1802. The sizes of congregations in the French Churches gradually diminished and the French language was neglected. Sarah Hurlin née Marchant (1765-1839) was, however taught to read and speak French though we do not know if she passed this knowledge on to her children.

The English

Little is known of the backgrounds of most of the families of English origin who were buried within Christ Church, simply because less work has been undertaken on their genealogies. One exception is the Kilner family who lived in Browns Lane. In the named sample were four members of this family; Matthew, a carpenter, who died in 1806 aged 57, his wife Susannah who died in 1797, aged 45, and their children John and Mary who died in 1847 and 1849, aged 65 and 57, respectively. Susannah's aunt, Mrs Mary Mutch who died in 1798 aged 86, was also buried within Christ Church.

Matthew Kilner was born in 1749, the third child of John and Mary Kilner of Sellet Hall, Stainton, Heversham, South Westmorland. John, a husbandman, came from the village of Great Strickland, in Morland parish in North Westmorland and returned there with his family before 1755. It is thought that the Kilner family originally migrated from North Lancashire to Westmorland around the turn of the 17th century.

Matthew's father, John, took over the tenancy of the farm at Great Strickland on his return, but died in 1761 aged 51. His eldest son William, aged 16, was admitted to the tenancy. Matthew left Great Strickland in about 1770 and his movements are then uncertain until 1788, when he and his wife Susannah baptised their second son at St Matthew's, Bethnal Green. Matthew and Susannah had four children, John born in 1782, William in 1788, followed by Mary in 1791 and Susannah in 1793.

Matthew, a carpenter, who, interestingly, was a member of the Paviors' (pavers) Company was admitted to the Freedom of the City in 1790. Before his children inherited a property in Browns Lane from their great-aunt, Mary Mutch, in 1798, the Kilners lived at Spicer Street, Bethnal Green. Mary Mutch, née Lowde, married Samuel Mutch at St George's Mayfair on 28th May 1749, but little else is known of her.

Infancy and childhood

The children buried in the vaults

During the period in which the vaults were in use, the Bills of Mortality for London demonstrate that the percentage of the population dying below the age of 21 was consistently around 50%. Assuming 50% to be the norm for the period, there were fewer children buried within the vaults than would have been expected. Of the total vault sample, only 19% were infants and juveniles. Of the named sample of 387, 91 (23%) were aged below 21. Of these, 36 died aged below one year, and 74 aged below five (Figure 23). Of note amongst these was a stillbirth, Master Chauvet, who was interred in 1754. They also included Isaac Lay who died aged 11 months and his twin brother Jacob who outlived him by only 5 months; both died in 1830.

This low figure reflects a variety of factors. Many people from outside the parish buried their infants in the parish in which they lived, despite their own preference to be returned to the parish of their birth (and baptism) after death. Louisa Courtauld for instance, chose to be buried in Spitalfields, (the parish in which she grew up), with her parents and siblings, despite the fact that her husband and their four children who died in infancy, were buried near their home in Chelsea. Most of the infants and juveniles buried within the vaults date from the 19th century (see Figure 21b). Of these, 91% lived in or near the parish of Christ Church. This suggests that children were often buried in the most convenient place. For a detailed discussion of morality in the Metropolis during the 18th and 19th centuries see Landers 1993.

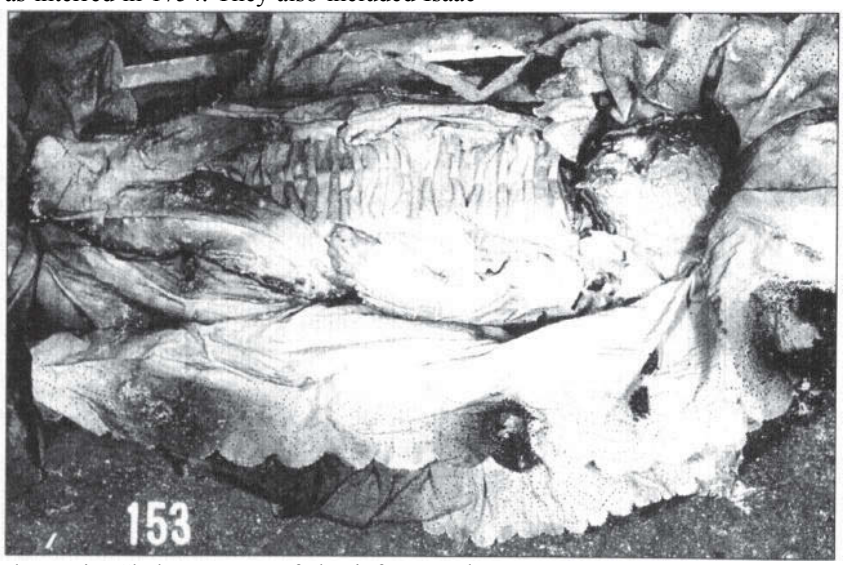


Figure 23 *The body of Ann Lemaistre, who died in 1763, aged 3 months 14 days. Ann was buried in a lead coffin, which helped to preserve her bonnet and dress and the delicately edged coffin linings.*

Study of the children's remains and a reconstruction of some of their short lives has provided many fascinating insights into childhood at this time.

Diet

During the 18th century Dr William Cadogan noted the fact that the children of the rich did not necessarily receive the best care. He wrote in 1748:

> The mother who only has a few rags to cover her child loosely and little more than her own breast to feed it sees it healthy and strong, and very soon able to shift for itself; while the puny insect, the heir and hope of a rich family lies languishing under a load of finery that overpowers his limbs, abhorring and rejecting the dainties he is crammed with, till he dies the victim of the mistaken care and tenderness of his fond mother.

Cadogan also advised against swaddling and although his Essay upon the *Nursing and Management of Children* was reprinted nine times between 1748 and 1770, it is impossible to judge its impact upon the mothers and nurses of the time. Factors such as diet and infant handling were and still are subject to the influences of fashion, particularly amongst the better-off.

Infant feeding practices

Skeletal evidence, particularly cribra orbitalia (pitting of the eye-sockets) (see Figure 24) suggests that at least 34% of those buried within the crypt had suffered from childhood anaemia. In addition, three infants' skeletons showed signs of pitting of the cranium, another condition associated with iron deficiency. There are several possible explanations for this.

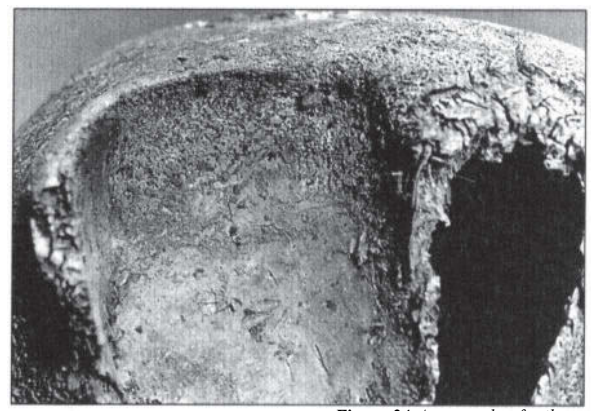


Figure 24 *An example of cribra orbitulia (pitting in an eye socket) - a sign of childhood anaemia.*

The first is anaemia in the mother which can cause iron deficiency in infants. Although the diet of the middle class was rich in animal protein (see below), the idea of iron supplements during pregnancy was unthought of; it is likely that many women were anaemic, particularly those who bore several children.

A second cause of childhood anaemia is infant feeding practice. Until the late 18th century, most middle-class women employed wet-nurses rather than breast-feed their own babies. Wet-nursed infants rarely received the colostrum, the first liquid produced by a newly delivered mother. Colostrum liberates protective proteins and engulfs infective organisms in the infant's gut. It also provides concentrated amounts of nutrients, notably zinc. However, if wet-nursed babies survived the deprivation of colostrum and their wet-nurses were well fed, healthy and feeding only one or two babies, then there is no reason why such children should have been malnourished, particularly if they were breast fed at least for their first year of life.

During the 18th century however, an increasing number of mothers and nurses practised hand-feeding (Figure 25). This could have been detrimental

Figure 25 *An infant being spoon fed pap (a detail from Hogarth's Strolling actresses in a barn).*

to their babies' health both nutritionally and for hygienic reasons. Recent research shows that in circumstances where clean water and sanitation are a problem, bottle-fed babies are fourteen times more likely to die than breast fed babies.

Artificial hand-feeding denied the infant breast milk and comprised the spoon feeding of pap or panada, from a dish. The risk of infection from contaminated foods and implements was high and potentially fatal. Pap was flour or bread crumbs cooked in milk or water. Panada was bread, broth, or milk, with some kind of flavouring. Occasionally, an egg was added. Study of various contemporary recipes suggests that such a diet would have been very deficient in vitamins and minerals as well as protein, calcium and iron. For further information about infant feeding *see* Fildes 1986.

Certain intestinal parasites can also contribute to anaemia. 'Worms' were a subject of much interest to physicians at this time. Dr William Cadogan (1748) believed that intestinal parasites, along with fevers during teething, were the most common causes of infant mortality. However, those which cause anaemia, for example *Ancyclostomatidae* and *Cestoidea,* were unlikely to be prevalent in the Spitalfields population. The common worms, *Ascaridoidea,* are almost invariably harmless unless present in massive infestations. It is therefore unlikely that worms were a major contributor to anaemia amongst this sample.

There were signs of other nutritional deficiencies. Seven children had porotic palates, a condition believed to be associated with scurvy, which results from vitamin C deficiency. Over 20 of the children and at least fifteen adults (Figure 26) buried within the vaults had clearly suffered from rickets (vitamin D deficiency). Figure 27 is a contemporary illustration of an infant with rickets.

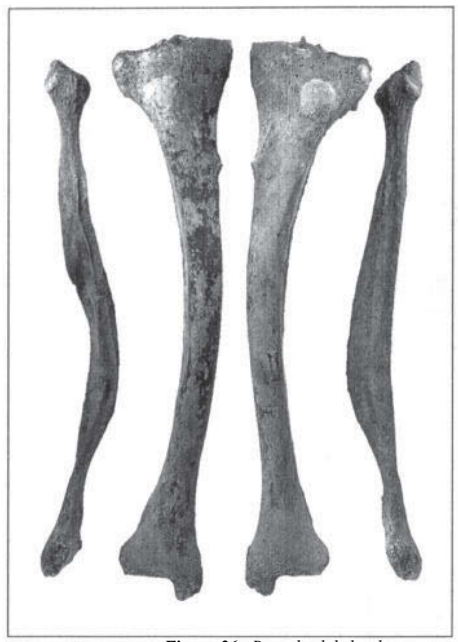


Figure 26 *Bowed adult leg bones - a sign that they suffered from rickets as a child.*

Rickets is a relatively recent disease evident in cemetery samples from the late medieval period but only rarely seen in earlier Saxon contexts. Writing in 1733, William Farrar noted:'...the unhappy progress rickets has made lately amongst us...tun bellies, swelled wrists and ankles, and crooked limbs...'. As always, there

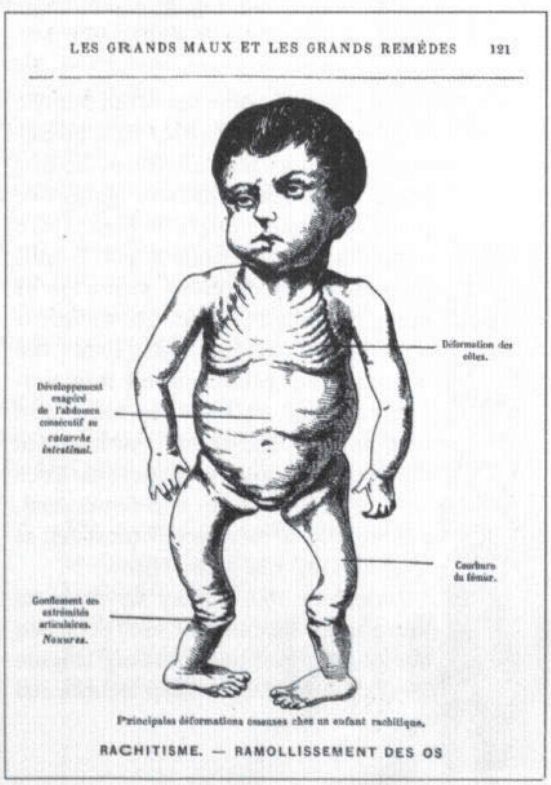


Figure 27 *Illustration of a child suffering from rickets c1870*

was a market response to misery, and in this case it serves to illustrate that rickets was a classless disease. The *General Advertiser* of 11 February 1748 draws attention to the wares of one Mrs Parsons, stay-maker at The Golden Acorn, James Street, Covent Garden, who offered: '...supports for misses that are crooked, or inclined to be so either by falls, rickets...'.

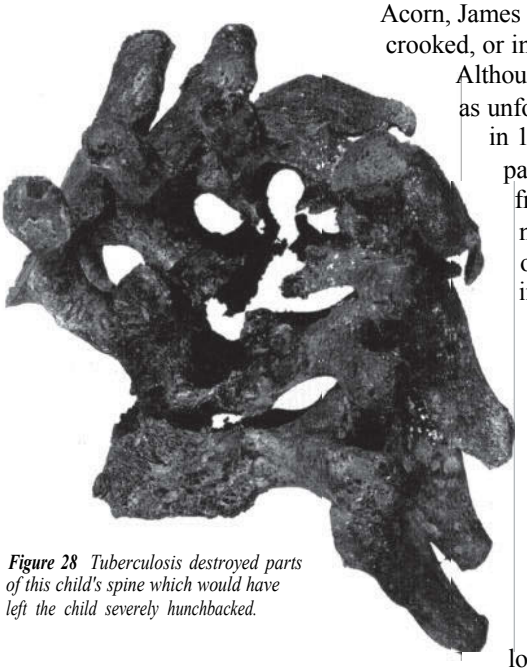


Figure 28 *Tuberculosis destroyed parts of this child's spine which would have left the child severely hunchbacked.*

Although the diets of middle-class children left much to be desired, just as unfortunate was the lot of the children of the poor journeyman weaver in 19th century Spitalfields. Their physical condition, and that of their parents, outraged reformers like Engels and Chadwick. Records from various charities show that, despite the earlier romantic notions of well meaning physicians such as Cadogan, the children of the poor from this area was sickly and stunted in growth, as indeed were their parents.

The only direct evidence for the diet of a child from the family of a poor journeyman weaver comes from 1850. A women weaver, whilst describing her childhood, mentions that: On Sundays '...we had a cooked dinner, but on the other days we had only bread and perhaps a red herring, or a piece of cheese.' Obviously many infants and children at this time suffered from poor nutrition, regardless of their economic status.

Growth of the children

The dental patterns of the children whose age is known shows that their teeth developed as in today's children. The length of the long bones (eg femur, tibia, humerus) of those infants aged below two months shows that they were mostly of normal size. However, the length of the long bones of older infants and children shows that many were retarded, falling short of the normal range for modern children. This could well be a result of either poor nutrition or sickness, although in part it could reflect that the adults were also slightly on the short side by modern standards.

Figure 29 *Detail from Hogarth engraving showing a severely deformed hunchback.*

Health

It is difficult to deduce information about the health of the living from the health of those whose deaths have been caused by illness. In most cases it is also impossible to establish the cause of death from skeletal remains. Infectious disease strikes quickly and there is little time for a skeletal response. Only chronic long term diseases, such as poliomyelitis, leprosy, tuberculosis and syphilis, cause a specific and identifiable skeletal response. Three children of the Stephens family died after the beginning of civil registration in 1837 (see Table 17). Jane, died at 22 days of 'debility and convulsions', Thomas at 20 months of 'inflammation of the lungs' and Ann at 30 months of scarlet fever. Conditions such as these leave no skeletal traces.

Only two children had signs of a long term infection - tuberculosis. Destruction of the bodies of the lower cervical and upper thoracic vertebrae had resulted in the collapse of the spine of one child and severe kyphotis - a deformity of the spine which would have given a

humped back appearance. (Figure 28). The upper and lower vertebrae had fused together demonstrating .that the child had been in this condition for some time. It is clear from contemporary illustrations that children with humped-backs were not uncommon in the capital in the 18th and 19th centuries (Figure 29). Another child had tubercular lesions affecting the right hip (Figure 30). Tuberculosis is thought to have been contracted through the consumtion of infected milk; the quality of milk in London at this time is discussed below.

A clue to periods of ill health in infants and children is a condition known as dental enamel hypoplasia, thought to result from a period of illness or malnutrition occurring at a time when the enamel crowns of the teeth were developing within the socket. The disease causes horizontal bands of disruption to the enamel of the teeth and the positions of the banding can be used to assess at what age the illness occurred. Severe enamel hypoplasia was unusual amongst the children buried within Christ Church but there are two examples. The teeth of sixteen year old James White, who died in 1782, indicate that he suffered an illness at about five years of age. Those of a younger, unnamed boy, illustrated in Figure 31, were severely affected during infancy. Interestingly, this child had been subject to a post-mortem during which the ribs had been cut to open the chest (see Figure 99).

The dental health of the sample as a whole was extremely poor (see below). Many of the children had tooth decay, some in their milk teeth. This could indicate that they had been given sweetened dummies or teething rings, or had a diet of soft refined foods. It also suggests that children were not cleaning their teeth effectively.

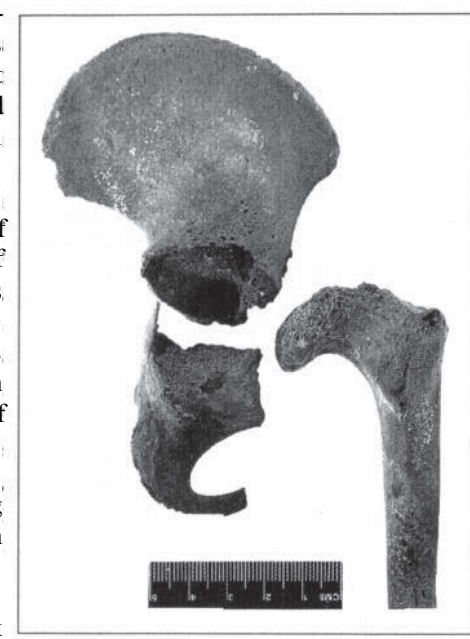


Figure 30 *Tuberculosis has left its mark in the right hip of this child.*

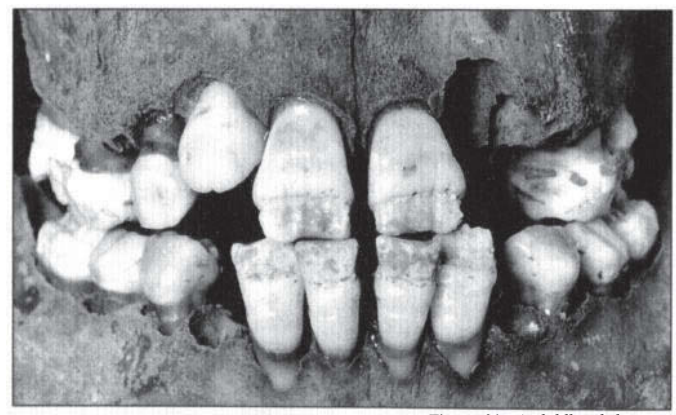


Figure 31 *A childhood disease affected the development of the enamel of this boy's teeth.*

Education

Formal education was only available to the wealthy in the 18th century. For the majority this consisted of tutoring at home, with a small but increasing number of grammar schools and university places. There was no provision for the less privileged until the mid 18th century when the first Charity Schools, established to teach basic literacy. were opened. Sunday Schools followed and the foundation of the National, and British and Foreign Schools took place during the 19th century. The charity school in Spitalfields was founded in 1708; by 1782 the number of pupils had risen to 70 and a new school was built at the south side of the Portico. This was subsequently rebuilt in Brick Lane in 1873, when Red Lion Street was widened to form Commercial Street.

Judging from the occupations of the named sample, it seems reasonable to assume that many were literate and some well educated by the standards of the day. Charles Shaw Lefevre MA had received a university education. A son of Daniel Mesman went to Cambridge, and became a parson. Another son, Daniel (1762-1834). was a major benefactor of the Fitzwilliam Museum in Cambridge

and would seem to have had links with the University. He donated over 240 Flemish and Dutch old masters, which were of enormous contemporary value, from his private museum in Knightsbridge.

There are only three specific mentions of educational attainment known from among the named sample. Family tradition observes that Sarah Hurlin, 1765-1839, was fluent in French and could read and write both in English and French. Ruth Soddy, who died in 1825 aged 19, belonged to the local lending library. Ruth was the daughter of a soap-boiler. Finally, a reference in Catherine Ogier's will refers to an investment specifically for the maintenance and education of Louisa Perina (Courtauld) '...until she shall attain the age of 21 years.'

References survive relating to the education of Sarah Hurlin's grandson, William, in the mid 19th century. William, born in 1814, the son of a journeyman weaver, tells us that he;

> ...learned to read quite early, and when at six years of age I began to attend the Bethnal Green National School I was able to read the bible...by the time I was eight I was appointed monitor and taught the younger class.. When I left school at ten I commenced attending a Sunday School.
>
> *(The Hurlin Letters)*

Obviously a very bright child, William's experience serves as an indication of the education available to some of the working class in the mid 19th century.

Children in employment

The children of the wealthy, like their mothers were unlikely to be wage-earners. For the less fortunate, however, the contribution of a child's income to a household could be extremely important. William Hurlin, whose early education is described above, has left letters in which he describes 'work' as part of his childhood:

> My father and mother were silk weavers and all the time I attended school (from six years of age) I had to work at winding quills before and after school hours,...when I was ten years old...I was to leave school that I might learn to weave...I never felt it a hardship, but took it as a matter of course. My father wove figured silk, it required considerable ingenuity and skill...when arranging a new pattern...I continued to weave until my sixteenth birthday...
>
> *(The Hurlin letters)*

At this time William obtained a job as a porter for one of the silk manufacturers:

> This was considered to be quite a rise in my position...continued for several years, when the relative of the manufacturer, who preceded me resumed his position and I returned home to weave silk...

The lot of the journeyman weaver's child could vary considerably. A woman weaver, born around 1840, describes a much harsher childhood:

> I never went to school, and cannot remember beginning to weave. I always had to work and sleep among the looms in my father's workshop. There were six of us children and we were all taught to wind quills for the shuttle as soon as we could sit at the loom. My mother used to weave as well, and only left off to bring up our food to us, so that we should not have to lose more time than could be helped in eating. We always had a holiday on Sundays and Mother used to clean up the house while we played outside...My father hardly ever did any work himself after he taught me to weave fancy silks on a Jacquard machine...Sometimes I used to get fidgety and want to get up and move about. To prevent this my Father used to tie me to the loom in the morning, before he went out, and dare me to leave it till he came back. I have often been tied to the loom all day and eaten my meals as I sat there.
>
> *(Weekly,* 1950)

There are seventeen individuals from journeymen weavers families among the named sample but it has only proved possible to trace details of the lives of the Hurlin family.

Mortality

Judging from the mortality figures reconstructed for the named sample, infant and juvenile death rates were extremely variable. Sarah and Martin Hurlin for example, lost only one of their ten children, while the wealthy Courtaulds lost four out of eight. This diversity is well reflected in the extremely wealthy Mesman dynasty where Daniel I and Jane successfully reared their five children, while Daniel IT and Martha lost six of their family of fifteen. Martha Lazabet, one of the surviving children of Daniel and Martha, lost all of her six children as babies, as did Daniel III and Margaret Mesman. For reasons unknown, not all of the Mesman infants and children were buried within the family vault at Christ Church.

Figure 32 Children playing *c1780 by William Hamilton. A family of healthy children. who all survived to adulthood, was something experienced by very few of the Spitalfields' couples.*

Marriage and motherhood

> In a word, the married state, with and without the affection suitable to it, is the completest image of heaven and hell we are capable of receiving in this life.
>
> *The Spectator,* 9th September 1712

Figure 33 Oui ou non (Yes or No): *1781, engraving by N Thomas after J M Moreau le Jeune.*

The nature and quality of marriage during the 18th and 19th centuries has been much discussed in literature of or about this period. The wisdom expressed in 1712 is as true now as it was then (Figure 33). For further reading see Stone 1979 and 1990.

Marital status

It was possible to reconstruct the marital histories of 259 of the named sample. Nearly half (44.8%) of their marriages took place at Christ Church and the rest elsewhere in London. Almost half took place on Sundays with the remainder being almost equally divided between other days. The most popular month for marriage was May; January was least favoured.

The marital status of the named sample is shown in Table 2. Twenty-two adults were unmarried at the time of their death but twelve of these were aged below 25 and might well have married had they lived longer.

The fact that the majority of women were titled 'Mrs' on their coffin plates did not necessarily signify that they were married. The terms 'Mrs' and 'Miss' are both contracted from 'Mistress' and it is not clear when their use to distinguish married from unmarried women crystallized. We know from her baptism record that Mrs Catherine Galhie who died in 1777 aged 28, was the unmarried daughter of Etienne and Marie Galhie. No record of a marriage to a man with the same surname exists for her so this cannot be the explanation for the use of the title.

Some interesting and intriguing facts came to light during research in the married lives of the named sample. Peter Isaac Galhie, for example, refused to acknowledge his marriage to anyone except his brother Robert and his sister Judith. Samuel Courtauld, having obtained a licence to marry Elizabeth Chase on 18 January 1749, obtained another just seven months later on 28 August 1749, and married Louisa Perina Ogier. Had he not done so, one of the great textile dynasties of the 19th and 20th centuries would never have existed.

Age of Marriage

Before Hardwicke's Marriage Act of 1753, parental consent was legally required for marriages of girls aged between seven and eleven and boys from seven to thirteen. After 1753, parental consent was deemed necessary for those aged below twelve and fourteen, respectively. These ages were considered to relate to puberty. This law provides the only clue to the age of those marrying in parish churches as the parents of the very young were required to sign the register giving their consent. (These remained the minimum ages for marriage without consent until the Age of Marriage Act of 1929.) Since none of the crypt sample married with their parents' consent (in the legal sense), they should, by implication, all have been married at or above the ages of twelve and fourteen.

Table 2
Marital status of the Spitalfields crypt sample

status	%	Number
Married but details obscure	44.8	116
Married once	41.3	107
Married twice or more	5.4	14
Unmarried	8.5	22

The average age of first marriage for women among the named sample was 25 years. The range was 12 to 39. For men the average was 26, the range being 16 to 39. Further details are shown in Table 3 along with data from a comparative British sample. The youngest bride amongst the named sample was Mary Margas who married Alexander Sigourney, a journeyman weaver, on 20 May 1766 when she was aged 11 or 12. Her parents did not, however, sign the marriage register

Table 3
Age at first marriage of the Spitalfields crypt sample

	Females				Males			
Date	Number	Average age	Age range	British sample	Number	Average age	Age range	British sample
Pre 1750	18	27.8	20–38	27.0	13	26.1	19–35	28.1
1751–1800	32	23.4	12–39	25.4	25	26.2	16–39	27.1
1801–1855	7	26.0	18–37	24.3	12	27.7	21–38	26.5
Total	57	25.2	12–39		50	26.5	16–39	

Second marriages

It seems that all women entered into their first marriage during their fecund period (fecundity is the time between puberty and the menopause). Ages of second and subsequent marriages differ in this respect, the average age for women being 46 years, with the range being 32 to 51. For men, the average was 41, but the range was greater from 29 to 66.

It seems that the possibility of producing children was a less important criterion for many women entering a second or subsequent marriage. Second marriages may well reflect a wish for financial security and companionship.

John Chevalier and his wife Magdalene both married for the second time in May 1740, at the ages of 50 and 55, respectively. Each had children from previous marriages. Magdalene's son Louis Chauvet had been apprenticed to John, a successful master weaver, in 1733. Louis married John's daughter Jane in April 1740, one month before their respective parents' marriage. Their stillborn son

was buried in the crypt in August 1754, as his grandparents John and Magdalene had been in January and February 1752.

Pre-nuptial conception

Pre-nuptial conception is considered to have been common in early modern England, particularly in rural areas and amongst the lower classes. In the 17th century the level of recorded pre-nuptial pregnancies was below 20%; in the early 18th century it rose to over 40%. Analysis of sixteen parishes outside London between 1750 and 1849 demonstrated that 25% of all first births took place less than eight months after marriage. It should be considered here that at least 20% of all first pregnancies are naturally aborted in the first three months of pregnancy, so the real incidence of pre-nuptial conception was much higher. Francis Place remarked that in the late 18th century, '...want of chastity in girls was common up to the class of respectable small property owners, tradesmen and master craftsmen.' By the 1820s the situation was once again confined largely to the lower classes.

Table 4
Age of parents at first birth

	Female			Males		
Date	**Number**	**Average age**	**Age range**	**Number**	**Average age**	**Age range**
Pre 1750	21	26.7	19–36	20	29.3	19–42
1751–1800	41	27.0	12–45	38	28.0	18–43
1801–1855	9	25.0	19–33	11	26.7	19–35
Total	71	26.7	12–45	69	28.2	18–43

Only one couple amongst the named sample are known to have had a child before their marriage. Mary Cadnam and her husband Charles baptised their first child on their wedding day. Mary was 22 years old at the time and she and Charles went on to baptise a further ten children, the last when she was 44. No other evidence of illegitimacy or bastardy was discovered among the named sample. It seems that the named sample was atypical of the trend in this respect. As the descendants of religious refugees, could this reflect their strong religious dedication?

The interval between marriage and first birth

It was possible to establish the interval between marriage and first birth for 65 of the named sample. The average was 19 months, with a range from nought, represented by the Cadmans, to over seven years.

Age at first birth

The age of parents at the birth of their first child has been established for 140 of the named sample. The average age of motherhood was 27 years with the range varying from 12 years to 45. The average amongst men was 28 with a range of 18 to 43. Further details are given in Table 4.

In populations where it is normal for girls to marry at puberty, the age of first birth can provide an indication of the onset of puberty. With a relatively late age of marriage amongst the named sample, this does not apply. However, Mary Sigourney gave birth to her first child at the age of 12 and two other women baptised their first child when they were 14. This suggests that puberty could be occurring as early as ten in some girls at this time, since a period of sterility, just after the onset of menstruation, must also be taken into account. It has been thought that puberty at this time occurred around the age of 17, but the

Christ Church data give a very different picture. It is now known that the onset of puberty relates to body weight and nutritional status; in members of the middle class this probably meant that puberty occurred in about the same age range as today.

Little is known of the ways in which women in the past coped with the regular inconvenience and practicalities of menstruation. Although this largely reflects a lack of relevant historical data, the subject has, it seems, failed to attract scholarly attention. The letters of the four Lennox sisters, written between 1740 and 1832, include discussion of this area of their private lives. The sisters all clearly experienced the physical and emotional distress often associated with menstruation. They write of their dread of 'the French lady's visit', and, when menstruating, refer to themselves as 'the French lady'. Menstrual 'rags' were a far cry from the convenient and practical sanitary provision of today. The Lennox sisters, typical of the upper echelons of society, either took themselves off to bed, or stayed at home, often raging at the inconvenience. It is clear from their letters that their menstrual cycles severely disrupted their social lives. They either dreaded the arrival of a period because it meant they were not pregant, or, on other occasions, welcomed it for the same reason. Occasionally they looked forward to their menopause to be rid of 'that plague'. For further details of the lives and aspirations of these fascinating women *see* Tillyard 1994.

Table 5
Changing trends in family size

Date of marriage	Number	Average no of Children	Range in family size	Childless
Pre 1750	51	4.2	0–15	5
1751–1800	105	3.2	0–11	10
1801–1855	27	2.6	0–10	1
Total	183	3.4	0–15	16

Note: Family size has been estimated for each individual. There are 27 husbands and wives among the crypt population: where data exists for couples, each is represented as an individual. Second marriages are considered as separate entities. The childless individuals are included in the analysis and noted separately.

Family size

Family size reflects many social and environmental factors. The relatively late age of marriage of this sample reduces the number of births the women could have achieved between puberty and marriage. An inadequate diet can cause amenorrhoea (cessation of menstruation), which prevents conception, and can increase the risk of premature delivery by as much as 40%. Deliberate birth control and social taboos restricting sexual activity at certain times can also reduce fertility, as can prolonged lactation (breast feeding).

The compulsory civil registration of births (and marriages and deaths) was not introduced until 1837 so the reconstruction of family size (Table 5) in this sample relies almost entirely upon the baptism registers. Such sources will under-record the actual number of births as they exclude still births, babies who died prior to baptism and chiidren who were never baptised.

Family size was reconstructed for 183 of the named sample. The average family size was 3.4 with a range of nought to 15. The average fell from 4.2 in the pre 1750 group to 2.6 for the post 1800 sample. Table 5 gives further details. Excluding post-menopausal second marriages, about 6% of the sample appear to have been childless.

Skeletal indicators of childbirth

Using historical sources, it was possible to assess with some certainty whether or not the women from the named sample had borne children. This had never been possible for a cemetery sample from England before. Traditionally, three skeletal indicators have been looked for in archaeological samples to show whether a woman has given birth. Two of these are preauricular sulci and pubic pitting (see Figures 34 and 35). These are areas of bone resorption at the place where ligaments attach to bone. They are not found on male pelves, and only on about 75% of females. Consequently, it had been assumed that these must reflect stress to the joint attachments during childbirth. A third characteristic is an extended pubic tubercle (Figure 36). This tubercle is the attachment site of the large triangular abdominal muscle *abdominus rectus,* which is severely distended during pregnancy. Its extension is considered to represent bone remodelling at the attachment site due to stress during pregnancy.

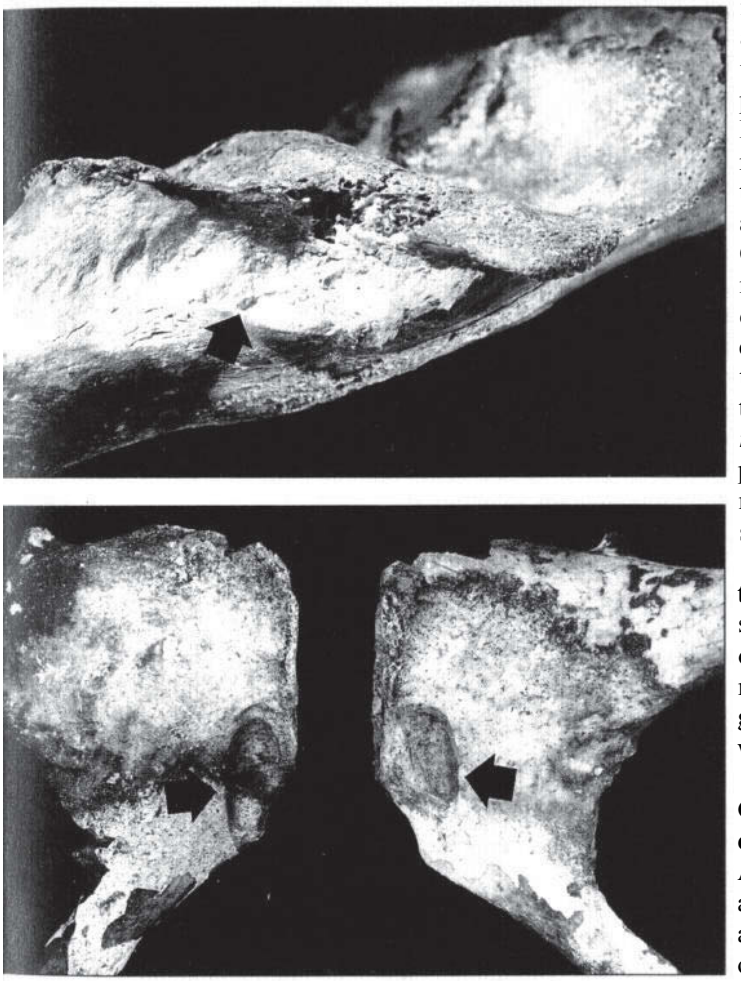


Figure 34 & 35 *Pelvic bones showing sulci and pits – previously assumed to be indicators of childbirth.*

By reconstructing the obstetric histories of the named sample the reliability of these skeletal characteristics could be tested. In fact, only one, an extended pubic tubercle could be related to obstetric events in this sample. The greater the extension, the more times the woman had given birth.

Childbirth in the 18th and early 19th centuries

As early as the mid 17th century, pregnancy and childbirth became the subject of concern and inquiry by physicians (Figure 37) and other scientists. This continued throughout the study period although for many it remained a subject shrouded in superstition and folklore, and very much the concern of women.

Whilst women seem to have accepted that childbearing was a desirable consequence of marriage, it was viewed by many with trepidation. Childbirth was more dangerous than it is today and it is likely that all women would have known friends or relatives who had died during or soon after giving birth. Some women suffered from long term chronic injury during childbirth. Such conditions as *fistulae* (abnormal passages from a hollow organ to the surface), and *perineal* laceration extending from vulva to anus, could cause both urinary and faecal incontinence. Another complication could be prolapse of the uterus.

Obstetric forceps were invented in France in the 16th century and introduced into England by the Huguenot immigrant Dr William Chamberlain. During the 17th and 18th centuries their use became accepted and commonplace amongst doctors. Midwives resisted them, partly because they came to symbolise male interference in what they considered a female domain and also because, while they could be used to save lives, their application by some, as a matter of course, crippled and killed. Lisbeth Berger, a midwife, described an occasion she witnessed in 1813 while she and her patient's husband held down a woman undergoing a forceps delivery:

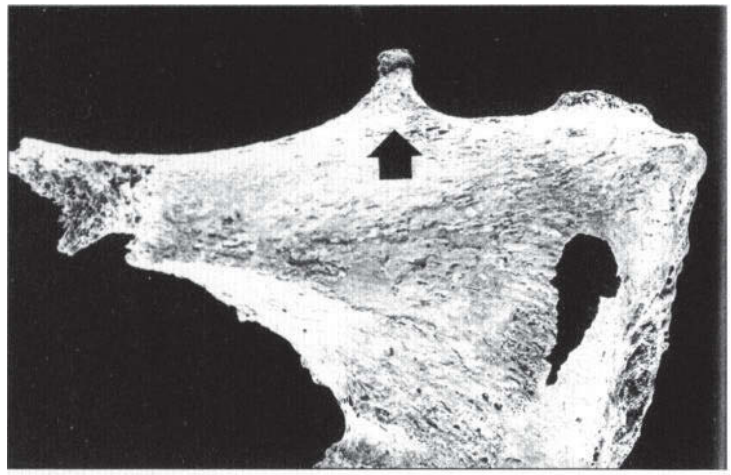


Figure 36 *An extended pubic tubercle (a round projection of bone) – an indicator of childbirth.*

> ...the groaning and the whimpering of the mother dominated everything in the room, the jerking and shaking of her tortured body ...After all that pulling and levering, holding and bleeding, the child finally emerged from the mother's lap. Torn and haemorrhaging, exhausted to death, the poor mother lay back on the cushions...

The fate of the child and the subsequent health of the mother are not mentioned.

Malpresentation was another potential problem during parturition. Skills in 'version', or turning, the foetus *in utero,* improved during this period. Increased male interest in obstetrics, and the growth of the sciences, led to a greater understanding of the anatomy and mechanics of childbirth. Consequently there was a slow improvement in this fundamentally important area of women's lives.

Figure 37 Déclaration de la grossesse
(the doctor tell his patient she is pregnant).
1766, engraving by P A Martini after J M Moreau.

The majority of women gave birth at home, usually in overheated rooms devoid of fresh air. Very little evidence has been traced which discusses the place where the named sample gave birth. It seems probable that the wife of Isaac Lefevre had her twelve babies at home. Their baptism records from the Church of the Artillery, Spitalfields note: *'bap. a la maison'* (baptised at home) in most cases and

'bap. en la maison par maladie' (baptised at home because of illness) in the case of Jean *'Né (born) 21st Octobre, 1722'*. Of the six infants of Jean and Henrietta Lemaistre, all but the first, Susannah, were also noted as being baptised at home.

Only one woman, buried in the crypt, is known to have had a hospital delivery. Mrs Sarah Hurlin gave birth to her first child, Sarah, in the Lying-in Hospital, City Road. It is also known that some of the children born into the Prevost family (also journeyman weavers – probably buried in the church yard) were born in lying-in hospitals. Perhaps this was a cheaper option for the less well off than the services of a physician at home? In London, the Middlesex Hospital opened a lying-in ward in 1747, and a small number of lying-in hospitals opened during the 18th century, such as Jerymn Street Hospital which opened in 1752. Generally, though, such facilities were not readily available, even if they were desired.

Pain was dealt with by recourse to herbal remedies and age-old rituals, some of which probably had little value other than as a placebo. Birth took place in whichever position the woman found most comfortable. This could be sitting on a birthing stool, squatting, kneeling or standing. The growth of the profession of male midwives and intervention by doctors in obstetrics led to the adoption by their patients of the lithotomy position on a bed. Doctors such as Charles White believed that a horizontal position reduced the possibility of complications and '...retention of the secundine (placenta), flooding (haemorrhage)... even death'. Contemporary constraints of modesty meant that examination and delivery by a male practitioner were performed under clothing or a sheet.

After the birth of a child, middle and upper class women were confined to their rooms for a period of one month, to rest, free from their social and managerial duties and cares. During this time, they progressed from bed chamber to dressing room and finally to the parlour, at all times being cosseted by their family and visited by friends. When the month was over the ceremony of 'churching' took place. This rite of passage (for which the vicar received a fee), not dissimilar in intent to the diverse purification rites practised around the world today, signalled that the ritual of childbirth was complete and the process might begin again.

Figure 38 Les délices de la maternité
(The delights of motherhood), *1777, engraving by Helman after a drawing by J M Moreau.*

Maternal mortality

Puerperal fever *(post partum sepsis)* was responsible for many maternal deaths at this time. It became more common during the 19th century, particularly in towns and cities and as hospital confinements increased. A description from the *American Journal of Obstetrics* of 1874 depicts the horrors of this condition:

> ...there is nothing more sudden than the change of condition of these women...In the morning they are cheerful and smiling, and seem to be well, yet they are consumed by fever, pulse rapid, features pale and shrunken, and death is written on their foreheads. They sink and die without a struggle.

The cause of puerperal fever was not appreciated until 1847 when Ignaz Semmelweiss, a Hungarian doctor, proved that: '...puerperal fever is caused by the conveyance to pregnant women of putrid particles derived from living organisms, through the agency of examining fingers.' Even then, it was some time before proper regard was paid to his advice regarding cleanliness and hygiene.

Without death certificates, it is impossible to detect the real prevalence of maternal mortality in an historic sample. The Bills of Mortality list deaths in 'childbed', but puerperal fever can develop up to ten days after delivery. Consequently some deaths from this cause might have been classified as deaths from 'fever'.

The women of the named sample between them experienced at least 621 births (Figure 38). Five of them are known to have died within days of childbirth. This has been inferred from their dates of death and the dates of birth and baptism of their infants. It may be that some of the other 25 women dying below the age of menopause also died as a result of childbirth. If the child was stillborn or not baptised its birth could not be detected historically. These data show that the named sample had a slightly lower maternal mortality rate (8:1000) than that assessed for London as a whole (12:1000).

There was no skeletal evidence indicating that any of the women died actually during childbirth – there was no example of an infant's head wedged within the pelvic cavity. Foetal bones were recovered from within the pelvic cavity of Mrs Ann Bowden, who died in 1827 aged 29, although she may have died prior to childbirth. Two women were buried with infants but they were not necessarily their mothers (see below).

Birth spacing

Birth spacing is important as it can provide insights into such issues as infant mortality and duration of breast feeding. Information on 93 individuals has been compiled using the baptism registers. The space between births ranges from seven to 128 months, with the average being 29 months. While the seven month interval between births probably represents an error in the register, the average is almost certainly an overestimate as it does not include stillbirths and the non-baptised. The picture could be further confused by those families who baptised several children at one time. An example of this is shown in Table 6, with the baptism of the children of Richard and Jane Wilkinson. Richard was a silk dyer by trade and the family lived in Queen Street, Spitalfields. Had any of these children died prior to their baptism they would have been lost historically.

Table 6

Dates of birth and baptism for the Wilkinson children

Name	Date of birth	Date of baptism
Elizabeth	7 Nov 1794	13 Oct 1795
Robert	2 May 1797	23 Feb 1803
Mary	15 May 1800	23 Feb 1803
Edwin	26 Jan 1803	23 Feb 1803
Harriet	14 Jun 1809	7 Aug 1816

Age at baptism

The age of children at baptism is known for 71 of those born to the named sample. Excluding the Wilkinson children, the range is from two to 170 days, the average being 25 days. Robert John Blachford, son of a gold lace manufacturer, died aged five years having been baptised more than five months after his birth, Had he died before he was baptised not only would his existence have been

unrecorded, but the issue would also have been raised as to his place of burial. Traditionally the unbaptised could not be interred within consecrated areas, as it was believed that without baptism salvation could not be attained. This is discussed further below.

Birth control

The birth-spacing of the sample (29 months) is within the average for upper-class England at this time (24 to 30 months). It is interesting to speculate as to the possible mechanisms used to achieve this. A survey of the literature concerned with family size, contraception and abortion suggests that those who married during their child bearing years expected parenthood. Whilst it is explicit that within marriage some children were welcome (Figure 39), it is equally clear that others were not. Mary, wife of the second Lord Alderley, already had a large family when she found she was pregnant again. She wrote to her husband in 1847: 'I was sure that you would feel the same horror I did at the increase of family, but I am reassured at the efficacy of the means'. Contemporary literature exemplifies the well-being of the mother, existing children, and the family as a whole above and beyond further births.

Figure 39 C'est un fils, Monsieur! (It's a boy!), *1776, engraving by J C Baquoy after a drawing by J M Moreau le Jeune.*

By and large, birth control during this period seems to have placed emphasis on spacing births through marriage to menopause. This appears to have been achieved by a variety of means, some unconscious and others deliberate. Frequency of sexual intercourse is a crucial determinant of fertility where no other contraception is being used, but nutritional status and general health, environmental factors and taboos surrounding menstruation and the months after childbirth could also have played a part. Extended breast feeding discourages sexual activity in some cultures and it suppresses ovulation. Low nutritional status is another factor which is significant in prolonging the period of sterility associated with breast feeding (lactational amenorrhoea).

By the 18th century the pleasure principle in sexual activity was becoming distinct from the procreative function, both in theological texts and in the minds of husbands and wives. The desire for effective contraception seems to have spread from the wife to the husband, who was aware of the danger and discomfort which could accompany pregnancy and childbirth.

Within this environment, contraception within marriage became desirable. *Coitus interruptus* is attested historically, as are barrier methods, herbal potions and magical charms. If an unwanted pregnancy occurred and abortion was recoursed to, this could be achieved by the use of pessaries, abortifacient drugs administered orally, or mechanical procedures. It is impossible to quantify the use and effectiveness of contraception and abortion in past populations. Such evidence as that contained in the letter of Isabella Tomkins, of Hackney Road, to her brother in New South Wales in 1849, is indicative of the desire for family limitation, but imprecise as to the means: 'I have as yet but one (child), but

expect, long before you get this (letter), to be plagued with another...But I suppose I must not grumble as I have now been married six years...'.

Analysis of birth spacing among the named sample gives no indication of the underlying factors. However, examination of two families from different social classes may offer some indications, even if only on an individual level.

Louisa Courtauld (Figure 40)

Louisa Perina Ogier was born in Moncoutant, Poitou, France in 1729. She was the youngest daughter of a wealthy silk merchant, Pierre Ogier II. The Ogier family settled in Spitalfields and became one of the most important and successful silk-manufacturing dynasties in London.

In August 1749, Louisa married Samuel Courtauld, a goldsmith who was also of Huguenot descent. Their first son, Augustine, was born on 26 August 1750. His prompt arrival attests to the fertility of his parents and their desire for an heir (both were wealthy in their own right). Sadly, Augustine died aged only five days. Samuel, their second son, was born in October 1752, 26 months after Augustine. Why the delay? Was it deliberate, or perhaps the effect of a succession of miscarriages or other personal events? It certainly was not because Louisa was breastfeeding, and is unlikely to have reflected dietary deficiency.

Figure 40 *Portrait of Louisa Courtauld.*

Louisa was born 17 months after Samuel, who survived the perils of infancy. It is possible that Louisa breast fed Samuel for the first eight months of his infancy and that she conceived when she stopped. Alternatively, she may have employed a wet-nurse: no information survives. But Louisa died in July 1756 aged 28 months. Esther was born eight months later: that is, 36 months after Louisa. The long birth interval suggests that Louisa might have decided to feed her daughter herself for the first two years of her life, but it is impossible to tell. Esther died as an infant and in August 1758, 18 months after Esther's birth, Louis was born. He too died. Louisa had lost four of her five children during infancy. Almost two years later Catherine was born, to be followed after 17 months by George (founder of the Courtaulds textile industry). Sophia was born two years later. These three babies and Samuel survived to adulthood.

The early years of the Courtaulds' marriage seems, by our standards, to have been have been a sad era of pregnancy, childbirth and loss. Louisa's fertile period was 16 years. It began with her marriage at the age of 20 and ended when she was widowed at the age of 36. That she lost four of her eight children was not unusual; some couples lost all of theirs.

Sarah Hurlin (Figure 41)

Sarah Marchant, the grand-daughter of Nicholas Marchant of Normandy, was born in England in 1765. She came from a comfortably-off background and was well educated. In 1786, when she was 21, Sarah clandestinely married Martin Hurlin, an illiterate journeyman weaver, at St Anne's Church, Limehouse. She was five months pregnant at the time. Although only the years of birth of Sarah's infants are known, they nevertheless provide a guide to the intervals between her births.

Figure 41 *Sarah Hurlin's cofin plate.*

It is probable that Sarah Hurlin's adult life was economically less privileged than Louisa Courtauld's, and indeed many others from the named sample. Nevertheless, Sarah and Martin successfully reared nine of their ten children. Only the second, James, died in infancy.

Sarah's namesake was born in the year of her marriage, 1786, James two years later in 1788, and William in 1791. In 1794 George was born, two years later Charles, and in 1799 Mary Ann. 1803 saw the arrival of Catherine, James was born in 1805, John in 1807, and three years later Samuel.

Sarah's birth intervals of two to three years are fairly regular and suggest the influence of lactational amenorrhoea (breast feeding suppressing fertility). Indeed, it is unlikely that a journeyman weaver's wife could afford a wet-nurse, or that she would have had the time to feed her babies artificially. If she was breast feeding, her nutritional status would have suffered and this could have further suppressed ovulation. The interesting interval is that which followed James's death. Sarah was obviously not breastfeeding and one wonders if a miscarriage occurred during this interval or if deliberate contraception was being practised. Unfortunately, women rarely wrote of such matters so we will never know.

Sarah's fertile period was from her marriage at 21 until Martin's death, shortly before Samuel was born when she was 45. Despite the fact that her older children were adults by the time of Samuel's birth, it nevertheless remains a source of wonder that a widow living on a restricted income managed to rear nine children.

Louisa Courtauld took over Samuel's business interests and became a successful designer of silverware. There is no evidence, however, that Sarah took over from Martin in trade. It is to be hoped that Sarah and her children received some financial assistance from the wealthy Marchant family.

Age at last birth

It is not possible to infer the age of menopause from skeletal remains. The onset of osteoporosis, associated with post-menopausal women today, is too gradual and variable to be useful in this respect. An indication of the age of menopause of the women from the named sample can be gleaned from their age at last birth. However, such an approach is flawed by the fact that for several, last birth was

determined by their husband's death. Other distorting factors would have been sterility caused through infections contracted during childbirth, failure to baptise, miscarriages and still births.

The average age at last birth was 35 years, the range from 14 to 47. Several women bore children well into their forties. The oldest mothers in the sample were Susannah Thomasson, wife of a wax-chandler, who baptised her first child when she was 26 and her third when she was 47 and Jane Wilkinson, whose husband was a silk-dyer. Jane baptised her first child when she was 25 and her sixth at 47.

For further information about childbirth and fertility during this period *see* Shorter 1982, McLaren 1984, Carter and Duriez 1986, and Towler and Bramall 1986.

Affection

It is difficult to imagine how married couples coped with the loss of their infants and, indeed, the possible early, death of their partner. The subject is one much debated by historians. Some suggest that it would not have been possible to cope with infant death if parents were as attached to their children as most are today; others vehemently disagree. Little evidence to add to the debate has arisen as a result of this project. However, the following extract from a letter written by Edward Benson, to his sister in 1861 is poignant evidence relating to marriage and childbirth:

> ...had another little son born on 22 of March last...he is a very pretty little fellow. His name is Edward Ernest, he makes our tenth child, eight living. I do not know when Mrs Benson means to stop as she looks so blooming, although we have been married twenty years. She says it is my fault and I must put up with the consequences...
>
> *(The Benson Letters,* 21 July 1861)

Edward was transported from Spitalfields to Australia for allegedly stealing one shoe from his employer whilst an apprentice.

Families and relations (Figure 42)

Family groups

We were surprised by the degree to which those in the named sample were related one to another. This was particularly noticeable amongst the Huguenot silk weaving families. Of the 387 named individuals, 129 were related, forming 245 related pairs, ranging from parent and child to great great grandparent and child.

As might be expected many of the family

Figure 42 *Skulls of five members of the Ogier family. Top row left to right: three sisters, Louisa Courtauld, Frances Merzeau and Jane Julien. Bottom row: their brother Peter Ogier and Frances's son Peter Merzeau.*

groups were interred within family vaults. some of which had inscriptions. The Mesman inscription, part of which is reproduced below, is a typical example.

this vault... was purchased by Mr DANIEL MESMAN of
this Parish July the 27th 1731
MESMAN brother to ye above s'd Mr Danl.
MESMAN who died July ye 23 1731 Aged 61 years
Also ye body of MARTHA MESMAN Daughter
of Danl & MARTHA MESMAN who died Sept^{br}
the 13th 1730 Aged 6 months and 28 days.
Also ye body of Mr Daniel Mesman
who died Feb ye 4th 1732/3 Aged 70 years.
also ye Body MARTHA MESMAN who
died Augt ye 21st 1733 Aged 4 mths 10 days
Also ye Body of Mary Mesman who died
July ye 31st 1734 Aged 1 Month 21 days
Also ye body of Jane Mesman Daughter
of John and Dinah Mesman who died
Augst ye 29th 1735 Aged 5 weeks
Also ye body of Mary Mesman Daughter
of Danl. & Martha Mesman who died
July ye 9th 1737 Aged 8 mths 3 days.
Also ye body of Mr John Mesman
who died December ye 27th 1737 Aged 32 years.
Also ye body of Mrs Jane Mesman widow
of ye above s'd DANL. MESMAN ... (sic)

It would appear that Daniel Mesman bought the family vault following the death of his brother John and that he had his infant daughter's body moved there from her previous resting place. The Mesman genealogy is shown in Figure 43. They were the best represented family amongst the named sample, with eleven individuals covering five generations. The first was Daniel, born in 1662, and the latest, his great great grandson Charles Daniel, who was born in 1793. Most of the family had moved out of the area by the early 19th century.

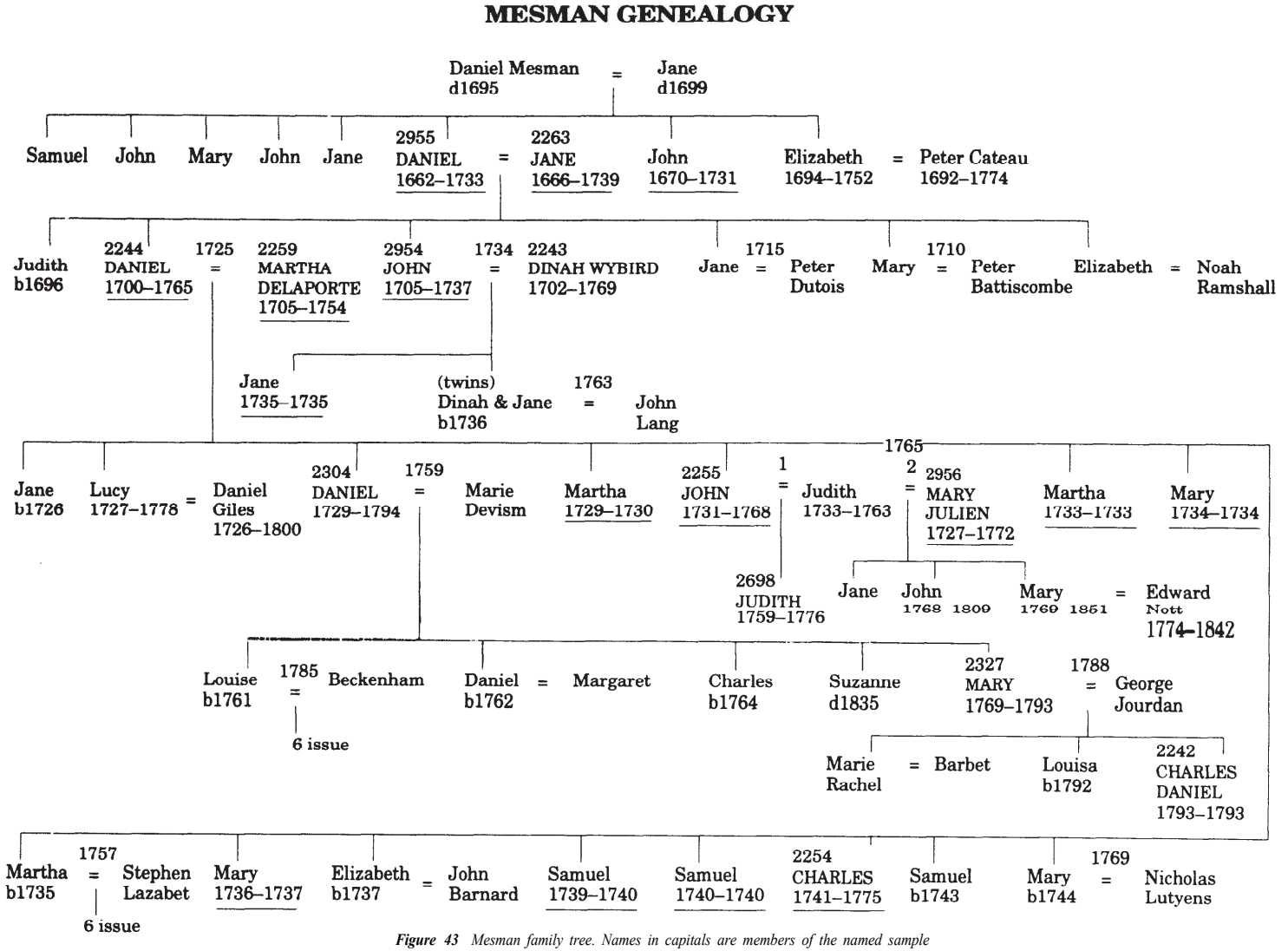


Figure 43 *Mesman family tree. Names in capitals are members of the named sample*

PONTARDANT – LEMAISTRE GENEALOGY

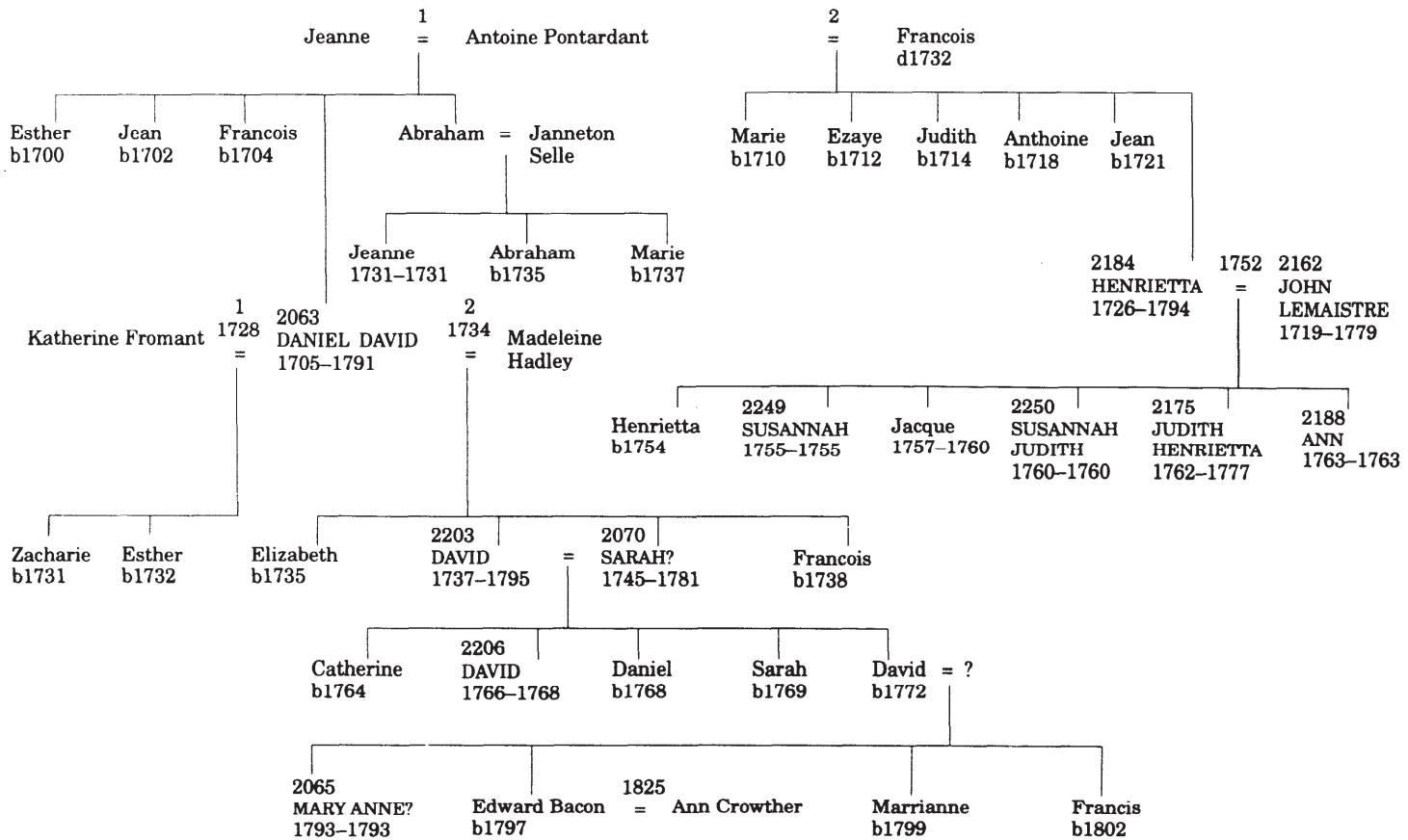


Figure 44 *Pontardant-Lemaistre family tree. Names in capitals are menbers of the named sample.*

Huguenot networks

Examination of documents suggests that there was a complex web of relationships within the Huguenot lineages represented in the vault. This can be explained by two principal forces.

The first was that the Huguenot silk weaving dynasties were keen to keep power and wealth amongst themselves. As a consequence it was quite usual for master weavers to marry the daughters of their business partners, or to take their sons-in-law as business partners, to choose one another as god-parents for their children and to act as executors and trustees for each other. An example of two closely related families is the Pontardant/Lemaistre genealogy shown in Figure 44.

Close family links existed between a number of such families. An interesting example was that between the Merzeau, Maze, Gamage, Sorel, and Lambert families who were all related by virtue of the fact that Jean Lambert, Abraham Gamage, Thomas Sorel and Peter Merzeau had each married one of the daughters of Jean and Rachel Jeanne Maze. Eight children of these marriages were interred within the crypt, and these form 21 pairs of cousins. Three other families, represented in the crypt, Godin, Raine and Roy, were also related to the Mazes,

The second factor underlying close relationships was the Huguenots' behaviour as an immigrant group. It is not unusual for incoming groups to marry within the group. They tend to do so to preserve their ethnic identity, and because they are not accepted amongst the host population. Huguenots settling in and around Spitalfields in the late 17th and early 18th century were no exception, with first generation Huguenots marrying within their group, whilst some of the second and most of the third generations married outside.

Genetics

Disappointingly, there was little conclusive skeletal evidence of gross genetic traits amongst the family groups. Most of the skeletal traits seen within certain families were also evident among those who were not related. One unusual skeletal trait seen in two of the males from the Ogier family was the presence of a bregamatic ossicle – an extra cranial bone situated at the centre of the coronal suture, which is the position of a baby's fontanel or 'soft spot' (see Figure 45). However this was also present in 2% of the skulls. Some families seemed to be shorter or taller than average, but as stature can also be related to diet this was as likely to reflect family diet as a genetic predisposition. Similarly, in certain families there was a tendency to die young. The Mesman family, for example, had four of five women and three of six men dying aged below 50. However, it should be considered that this was a period of widespread infectious disease, and perhaps their short lives reflected this.

With the continual development of the science of genetics and DNA analysis, if a project such as the Spitalfields study were to be undertaken today, a very different set of results might be expected.

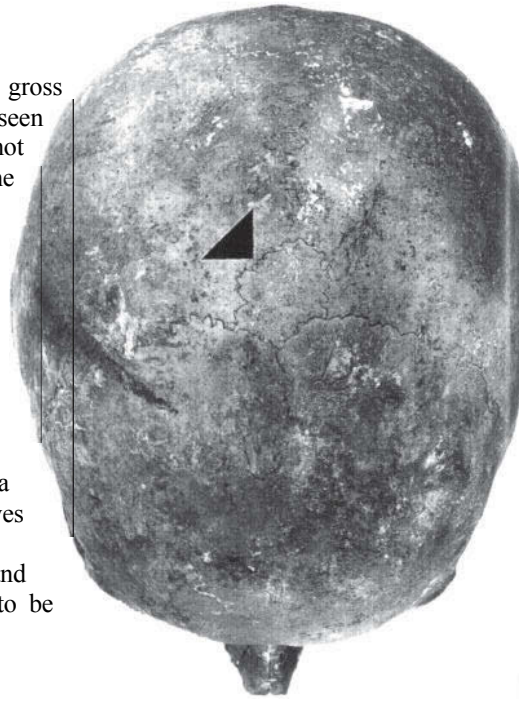


Figure 45 *Peter Merzeau's skull, showing the large ossicle (arrowed) – a rare trait he shared with his uncle Peter Ogier.*

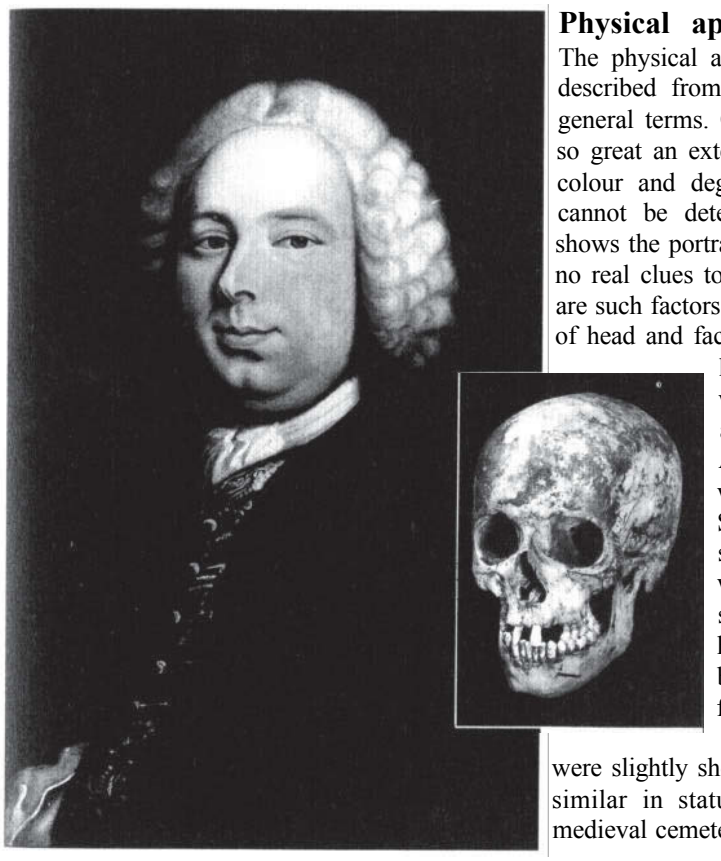


Figure 46 *Portrait and skull of Peter Ogier*

Physical appearance

The physical appearance of a group of people cannot be described from their skeletal remains other than in very general terms. Our understanding of 'appearance' relies to so great an extent upon factors such as skin, eye and hair colour and degree of fatness or thinness – matters that cannot be determined from skeletal remains. Figure 46 shows the portrait and skull of Peter Ogier, the latter giving no real clues to the former. What can be assessed, though, are such factors as stature, general robusticity, and the shape of head and face. As with most populations, the men were larger than the women. They were taller, with men standing at around 5'6" (167 cm) and women at approximately 5'1" (155 cm). As always there were short men and tall women. The tallest woman was Elizabeth Schleicher at about 5'9" (175 cm) with the shortest man being Sammuel Sullivan who was about 5' (152 cm). Sammuel had suffered from rickets in childhood and this had clearly affected his height. The men had broader faces, wider shoulders and longer forearms than the women.

Overall, the people buried within the vault were slightly shorter than we are today, although they were similar in stature to those examined from Roman and medieval cemeteries.

Living conditions

In the 18th century, Spitalfields was largely a residential area occupied by those involved in silk manufacture, particularly master craftsmen and merchants. Most of the journeyman weavers lived in Bethnal Green.

Services

Generally speaking, the provision and development of services such as water supply, sewage and lighting in Spitalfields was typical of London as a whole. Spitalfields benefitted from a Lighting and Cleansing Act of 1759, and a Paving Act of 1778. Efforts to improve the existing sewers were increased from 1775. However, such improvements as were enacted, were largely offset by the rapidly increasing population and overcrowding, especially in the 19th century. For further details *see* Cruikshank and Burton 1990, and Wohl 1983.

Water supply and waste disposal

Water for drinking, bathing and cleaning was provided to some areas by public stand-pipes and water carriers. In the better quality houses rain could be collected into water-butts to provide a supply of water. Water Companies were first established in the 18th century; they supplied water via wooden pipes to some households. Wooden pipes were replaced by iron in the early to mid 19th

century. The water supply was not constant and was often only available on certain days of the week, and then only for limited hours. This irregularity led to the use of cisterns, often situated in basement kitchens, for water storage (Figure 47).

Drains under Christ Church were probably constructed about the same time as the church. It is not known if these were connected to a sewer. Generally, underground drainage pipes were a Victorian creation. With some exceptions, early sewers were natural water courses such as the Thames, the Fleet River or the Walbrook. The construction of purpose-made sewers was piecemeal and in many areas 'night soil' was disposed of into channels in streets, or piled high in the streets for collection by the 'night-soil men' (Figure 48), who also emptied sewage from cess-pits. Cess-pits could be dug in back-yards or even in basements. The overwhelming problems of waste disposal in London at this time cannot be overstated. An early Victorian description of the consequences of living close to the River Thames may help to illustrate the extent of the problem:

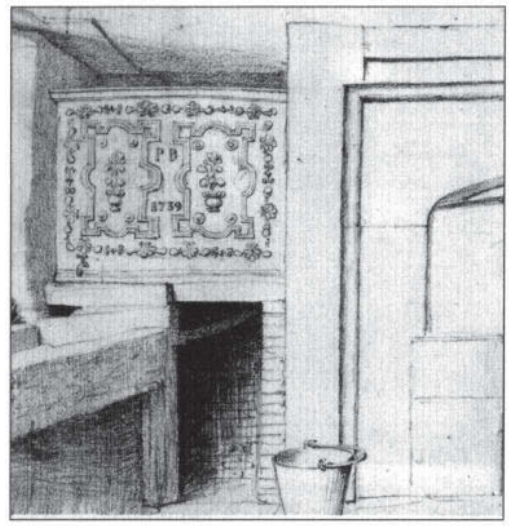


Figure 47 *The basement kitchen at 30 Spital Square with its water tank c1739*

> Despite its wealth and social prominence the family was unable to isolate itself from the stinks, pollution and health hazards of the day. As newly-weds they had wanted the latest sanitary appliances, but the inexperience of the workmen putting in the water closet resulted in the waste overflowing into the drainpipe and down the dressing-room window. The cesspools beneath their Thames-side residence were notoriously foul even by the standards of the day and when, at last, they had a new drainage system installed, the stench from the old cesspits remained and made parts of the dwelling almost uninhabitable. Some twenty years later the sewers blocked up after heavy rains and became most offensive and putrid. Although living close by the Thames was certainly most scenic, whenever the river rose their lawns were saturated with raw sewage, which habitually floated to the surface of the water. Resigned to this inevitability. they simply had the lawns raked and the filth shovelled back into the river. In dry weather, on the other hand, the Thames' muck was left high and dry along the banks and gave off an appalling odour. (from Wohl 1983)

The family home being discussed was that of the young Queen Victoria and her consort Prince Albert!

Housing

The facilities within a typical Georgian built house (usually of five storeys) varied but a common arrangement was as follows. The basement was used as kitchen, cellar and servants' quarters, such as the butler's pantry. These were usually damp and gloomy places. The ground floor often included the parlour while the first could include the dining room, drawing room and a water closet. The second floor

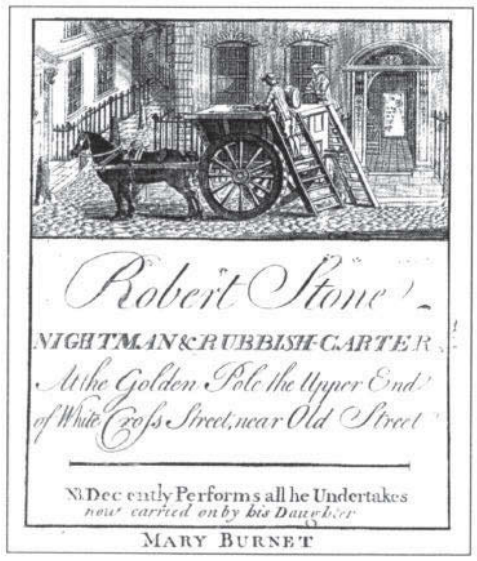


Figure 48 *A trade card for Robert Stone, whose business was taken over by his daughter. Mary Burnet c1750.*

was used for family bedrooms and often had a closet. Garret rooms were used as servants bedrooms. In the 19th century some of the garrets in Spitalfields were converted into a room with a long window to house looms and weavers.

During the 18th century most houses were heated by open fires, light being provided by candles. Changes in services began about 1780 but the gas-lit, well-heated house with odourless drains was not a reality until the late Victorian period, and then only for a minority. Kitchen stoves were introduced in the late 18th century. Before this cooking was over an open fire or upon a cooking range.

Table 7
Street addresses at time of death

Date	Crypt sample	N	%	Parish record sample	N	%
	Spital Sq	10	14	Wheeler St	81	9
18th century	Wood St	7	10	Workhouse	79	9
	Princes St	5	7	Monmouth St	29	3
	Total*	72	100		868	100
	Brick Lane	13	15	Workhouse	105	16
19th century	Wheeler St	11	12	Brick Lane	23	4
	Browns Lane	3	4	Wheeler St	18	3
	Total*	89	100		645	100

**Totals include less frequent addresses, not listed*

Some of the housing and streets in which the named sample lived still survive in much the same form today. Examples are Church Street, now Fournier Street (Figure 49), and Artillery Lane, with its surviving 18th century shop-fronts. Other streets no longer exist but records survive; examples are Spital Square (Figure 50) and Steward and Fort Street (Figure 51).

The street addresses (at death) of the named sample are presented in Table 7. The data are presented separately for the 18th and 19th centuries and also include data from samples (1730–1 and 1819–20) taken from the Parish registers for comparative purposes.

The most popular and most prestigious address in the area in the 18th century was Spital Square. The Square was described as having '...many handsome houses for merchants and others...'. Some of the 'silk' families living there included the Mesman, Bennett, Roy, Bredell, Sorel, Jourdan, and Ogier families. A few of the silk manufacturers had their business premises 'on-site' in the 18th century; an example was Louis Chauvet, a wealthy silk handkerchief manufacturer. 'Others' included those engaged in the professions, such as the Galhie family successive generations of whom were surgeons. By the mid 19th century, the square had declined in status and was notable for the number of wholesale warehouses standing behind the houses. The houses in Spital Square were constructed in the early 18th century and can be seen in Figure 52. They were spacious and well appointed, with gardens.

Wood Street, later known as Wilkes Street, comprised well-built houses, one room in depth, with three to five storeys. The area was populated by families such as Pontardant and LeMaistre, successful master weavers, related by marriage and business partners. Wood Street was an address that people 'improved to' before progressing to Spital Square.

Princes Street, now known as Princelet Street, was the third most popular address during the 18th century. This area too was one favoured by silk manufacturers, but also attracted other professional people such as the Reverend and Mrs Jane Balguerie.

These streets were attractive and comparatively sanitary places in which to reside, but only 28% of the sample lived in them. Other master craftsmen and

Figure 49 *Church St (now Fournier St) c 1900. Families such as Chabot, Covenant, Gamage, Jervis, Lefevre, Roy, and de la Chaumette lived in these substantial houses.*

Figure 50 *Part of Spital Square, the most prestigious address in the 18th century. Photo c 1935*

Figure 51 *Houses in Steward and Fort Streets.*

their families lived at less affluent but acceptable addresses such as Crispin Street, Red Lyon Street and Pater Noster Row.

Amongst the 19th century sample, however, a different picture emerges. Brick Lane was the most common address at this time. The economic status of this area seems to have varied, with different properties being subject to widely different amounts of Land Tax. Some of the houses were older timber-framed structures, and tended to have low rents, while the new brick houses were clearly more desirable. People living in Brick Lane had varied occupations; those from the named sample included a cheesemonger, cabinet makers and undertakers. Wheeler Street also had a considerable variety of housing and was occupied by people in diverse occupations, including journeymen weavers.

Browns Lane, later called Hanbury Street, had single fronted houses, two rooms deep with three storeys and a roof garret. In the 19th century many had their roofs converted to facilitate the installation of silk weaving looms. The Kilner family, first carpenters, then tailors, and finally 'gentlemen', lived in Browns Lane, as did the Gardiners who were brush makers. Number 10 Browns Lane had a wooden shop front added *circa* 1805.

The poor journeymen weavers lived in the less aftluent areas of Spitalfields and in Bethnal Green. A description of a house occupied by a journeyman weaver and his family survives in a letter written in the early 1930s:

> The house in which I was born in Bethnal Green was one of a row built specially for refugee weavers. It still exists and I paid a visit to it a few days ago. They are double fronted houses with a room each side of the front door. Over both of these rooms ran a "long room", a very light room with a long window right along. This contained the looms... The house had a lovely little garden and I knew every flower by name, smell and taste.
>
> *(The Hurlin letters)*

This description implies that there were only two rooms for living, cooking and sleeping. Another description of poorer quality housing survives from 1838. This is of Number 2 Daniel Street, off Orange Street, Spitalfields, the house rented by William Bresson, a velvet weaver and loom broker. William was a man of some capital assets; he owned 200 looms valued at about 20 shillings each, and lived:

> ...in a small house containing but three small rooms, and a fourth barely large enough to contain six looms, by which it is completely choked up. For this house...the two families occupying it pay the disproportionate rent of £16 and £2.5s for the small strip of flower garden in front. There is no cess pool nor sewer to carry off the soil from the privy; and close to the house runs a stagnant ditch filled with abominable black filth, for which there is no drain...
>
> *(Royal Commission on the condition of the Hand Loom Weavers, Reports, 1839–41)*

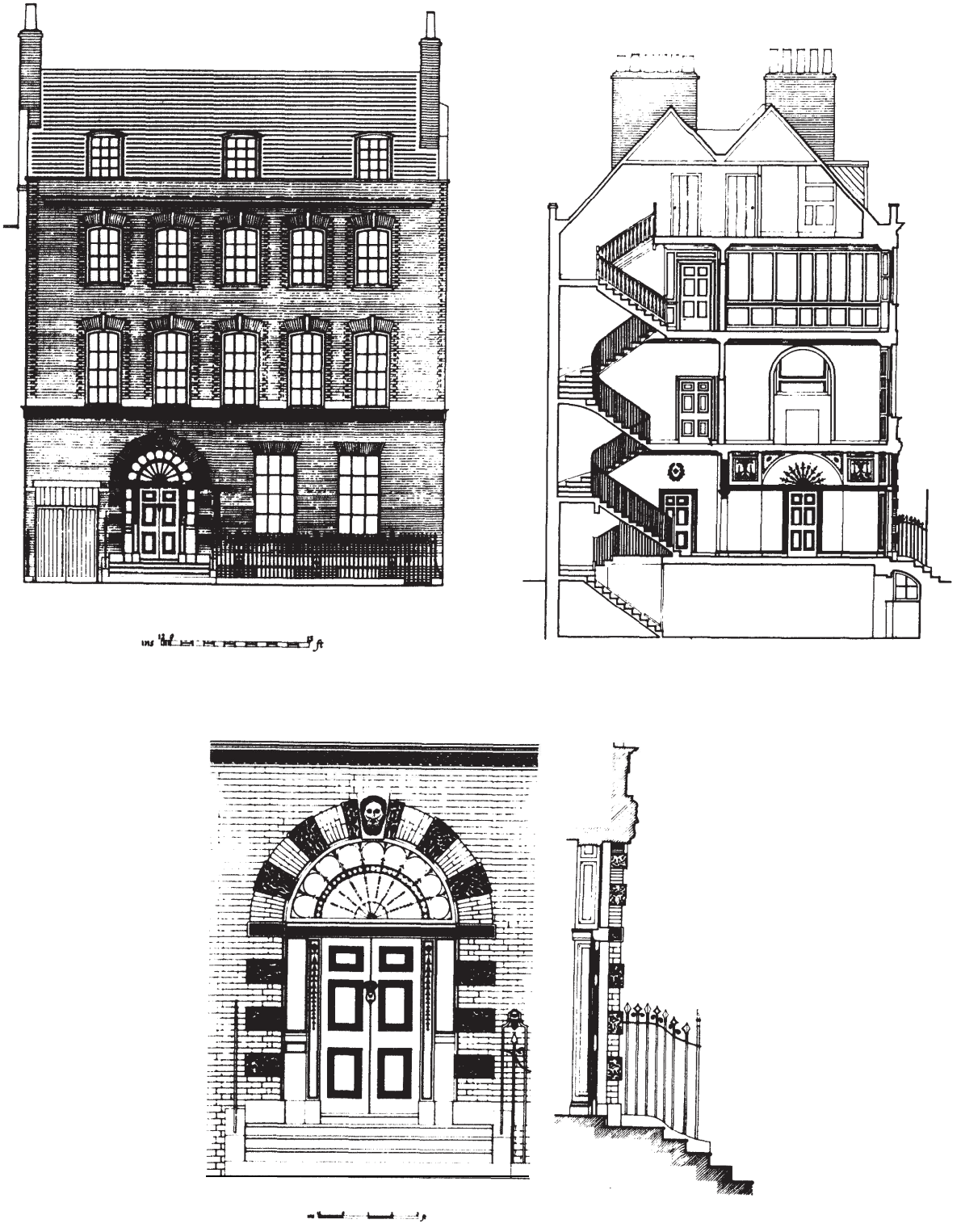


Figure 52 *Designs for 20 Spital Square built in c1732*

Table 7 compares the addresses of the named sample within Spitalfields with those of an 18th and a 19th century sample taken from the burial register. Almost all of those in the parish register samples will have been buried in the burial ground. It is clear that the named sample lived in the most select areas of the parish. There appears to be a decline in the address status of the named sample and the parish sample in the 19th century. That an increasing percentage of the parish sample hailed from the workhouse is an indication of the decline in the economic status of the parish through time. A detailed survey of housing in Spitalfields is given in Sheppard 1957.

Climate

Those buried within the vaults at Christ Church lived from the 1660s to the 1850s. During this time the climate of England varied greatly but it was generally much colder than it is today, and colder than at any time since the last Ice Age ended c8000 BC. Increased mortality rates, reduced life expectancy, famine, disease, epidemics and migrations have all been attributed to the effects of this 'Little Ice Age'.

Winters could be extremely cold, especially those of the 1690s and the period 1770–90. The Thames was frozen over at least 11 times in the 17th century, and in 1709, 1716 and 1813–14. The worst winter of all was 1683–4; the Thames froze, there was ice on the sea for two miles off Deal, the ground was frozen to a depth of 1.2m and large trees were split by frost. Traders took advantage of the space created on the frozen river, and Frost Fairs became a feature of severe winters. Another notable winter was that of 1716, when a spring tide raised the level of the ice on the Thames by 4m without causing any interruption to the Frost Fair. Fuel requirements during this time would have been very high for those that could afford to buy more. It was not uncommon for people to die of the cold in normal winters, and these deaths were noted in the Bills of Mortality. In severe winters the hardship and suffering must have been considerable.

Summers varied; those of the 1740s were pleasant, averaging higher temperatures than in the 20th century. By contrast, several years were described as 'years without summers'. The wet summers of the 1750s and 60s led to failure of grain harvests and to famine.

Dust veils in the atmosphere between 1752 and the 1840s were caused by the extraordinary frequency of explosive volcanic eruptions. These retarded the climatic recovery and incidentally inspired artists such as Turner who painted sunsets of unprecedented hues. Such trends were exacerbated by smoke pollution which had a dire effect upon the quality of London's air. Coal was imported from areas such as Newcastle and Tyneside and the city became notorious for its smogs.

There was no indication that the years of severe weather and food shortages had any effect upon the health or stature of the named sample. Most were middle class or skilled craftsmen and their economic status is likely to have cushioned them from the impact of such factors. Likewise, although a lack of sunlight is believed to play a part in causing rickets (vitamin D deficiency), analysis of the years of birth and early childhood of the rickets cases from the vaults showed no statistically significant correlation between poor summers and this disease. If

lack of sunlight was a contributor to rickets in this sample, it is more probable that this arose because of the fashion for keeping babies and small children indoors.

The diet of the middle classes

Background

The diet of a population is a fundamental indicator of many characteristics of its society. Diet reflects technological status, resources, and land-to-population ratios. The distribution of food reflects political, economic and social structure. Food intake affects metabolic rate, growth, susceptibility to certain diseases and to metabolic disorders. Nutrition can affect stature, physical capacity, demographic behaviour, fertility, morbidity and mortality.

Very little historical evidence relating directly to the diets of members of the named sample survives, although more general information illuminates the diets of the middle classes. However, skeletal remains can indicate certain nutritional deficiencies and excesses, and supplements the sparse historical data.

Developments in internal transport, such as turnpike roads and canals improved agricultural technology (fodder crops, improved breeds, drainage and water meadows), the effects upon food markets of imperialism and slavery, and progress in commercial organisation and banking systems, all increased the range of available foodstuffs. These factors also improved the freshness and quality of food that could be purchased.

The high socio-economic status of the named sample, particularly in the 18th century, is likely to have cushioned them from the food shortages and high prices which impaired the lives of the poorer people. Equally, their high status would have rendered them susceptible to fashion in food. These range from immigrant influences on diet (the Huguenots are reputed to have introduced oxtail soup to the English palette) to infant feeding fads. Like almost everyone at this time, the named sample would have been susceptible to intestinal parasites and to ill-effects resulting from food adulteration (see below).

During this period the diets of the wealthier classes were high in animal proteins and in animal fats (Figure 53). In fact, middle and upper class eating habits amazed foreign visitors. An account from the 1690s observed:

> I always heard that they were great flesh eaters, and I found it to be true. I have never known people in England that eat any bread, and universally they eat very little; they nibble a few crumbs while they chew meat by whole rnouthfuls...Among the middling sort of people they had ten or twelve sorts of common meats which infallibly take their turn at their tables...
>
> (Stead 1985)

Figure 53 *Cartoon by Cruikshank illustrating the kitchen and the food prepared there.*

A wide range of fruits and vegetables was available and these are described in Table 8 on page 54. Various types of cereals were consumed as bread and pastries. As the comment above exemplifies, it is widely believed that the wealthier classes ate only very small quantities of either cereal or vegetable fibre, particularly in the 18th century. All classes are considered to have consumed large amounts of alcoholic beverages throughout this period.

Dietary excess

> 'Whosoever was the father of a disease, an ill diet was the mother.'
>
> (Hebert 1660)

A diet of excess can be as bad for health as nutritional deficiencies, and it contributes to such illnesses as coronary disease and diabetes. It is known from death certificates that at least one individual amongst those who died after the beginning of civil registration, in 1837, was thought to have died of heart disease. This was Mary Trimmer who died aged 45, in 1840. Other individuals were found dead 'without marks of violence' and might have died of heart attacks. These include Mary Kilner, who died aged 57, and her brother John, aged 70. Both deaths were subject to a coroner's enquiry.

Figure 54 *Fused vertebrae from the neck of Daniel David Pontardant, a master weaver who suffered from DISH.*

In European populations the condition, Diffuse Ideopathic Skeletal Hyperostosis (DISH), is associated with obesity. DISH occurs today in twice as many males as females and is extremely rare in those aged below 40. Although its cause is uncertain it is considered to be associated with late onset diabetes, and, possibly, difficulties in regulating levels of Vitamin A.

DISH can affect most of the joints of the skeleton. In the spine, bony growths around the edges of joint surfaces (osteophytes), bridge the space between the vertebrae and can fuse them together. A close up of this condition is seen in the thoracic vertebrae of Daniel Pontardant, Figure 54. In the skeleton, bony growths or enthesopathies, may form where tendons and ligaments are attached. An extreme example of this condition can be seen in Figure 55, which shows the skeleton of John Stubbs, a brewer, who died aged 50.

DISH is not unusual in archaeological material, but appears to be both more frequent and more severe in the Spitalfields sample. As would be expected the men suffered from this far more commonly than women, the rate being 103:1000

103:1000 and 26:1000 respectively. It is possible that the high prevalence of this disease is a consequence of dietary excess and obesity in this middle class group. A range of historical sources support this. Contemporary artists illustrated the physical condition of the overindulged. Robert Deighton's *Stock-jobbers Extraordinary* (1795) portrays the paunches and jowls of stockbrokers (Figure 56), a profession represented amongst the named sample by the husband of Frances Pulley. The portrait of Peter Ogier depicts a kindly but obese gentleman (see Figure 46). This portrait currently hangs at the French Hospital in Rochester where the present warden affectionately refers to Peter as 'chubby chops'. Sir Robert Ladbroke *(see* Figure 62) was also apparently a man of considerable girth. By way of contrast, Hogarth's *Heads of Six Servants* (*c*1750–5) (Figure 57) depicts the faces of the adequately nourished among the lower classes.

Daily diets

An idea of what may have been familiar fare to comfortably off Huguenot families is suggested in the *Diary of William Tayler, Footman 1837*. William was footman to the widowed Mrs Princeps, née Auriol. She lived at No 6, Great Cumberland Street. Her husband had been MP for Queensborough from 1802–6, Alderman of the City of London between 1804–9, and High Bailiff of Southwark from 1817 to 24. This puts the Princeps family in the same socio-economic group as the Ladbrokes and the Shaw-Lefevres.

Having described food below stairs several times William Tayler begins his entry for 14 May 1837 thus:

> I said some time ago I would give an indication of the way the people live in the parlour ...For parlour breakfast they have hot rolls, dry toast, a loaf of fancy bread and a loaf of common and a slice of butter. They have hot water come up in a hurn ...they make their tea themselves. They have chocolate ...Lunch at one, they generally have some cold meat and vegitables. dinner ...two soles fryed with saws, a leg of mutton, a dish of ox, pullets, potatos, brocolo, rice and rhubarb tart, a tabiaca pudding, cheese and butter ...tea at eight with bread and butter and dry toast; never any supper - its not fashionable. (sic)

On 18 May 1837, Mrs Princeps entertained two gentlemen to dinner. The courses served were as follows:

> Had fish, soop, saddle of mutton, pieces of veal stewed, spinnach, two sorts of potatoes and a bowl of sallad. For second course, a roast duck, stewed coliflour, gooseberry tart, orang jelly, custard pudding, two dishes of oranges, one of apples, one sponge cakes, one of cracknells, one of pruin, one of raisins and almonds, wine &c &c. (sic)

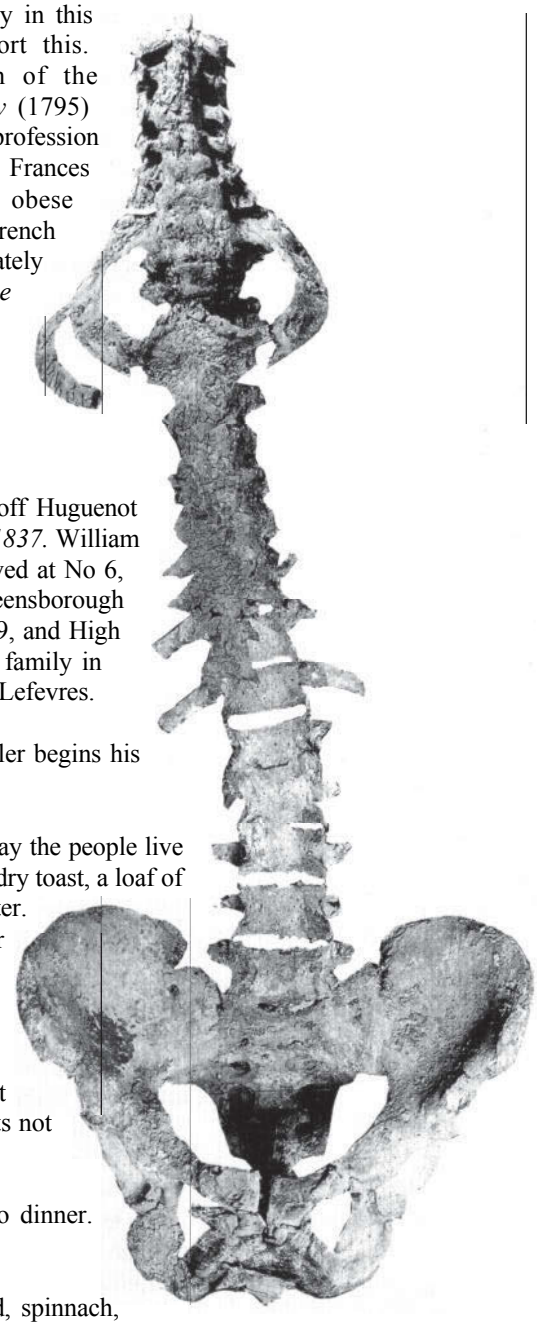


Figure 55 *The fused spine, pelvis and ribs of brewer John Stubbs, who died aged 50.*

There were, incidentally, only two members comprising Mrs Princeps' household, herself and her daughter, the latter described as 'an old maid'. Interestingly, this diet does seem to contain a reasonable amount of vegetable fibre.

On the basis of cost alone it seems likely that the less well-off ate more bread and root vegetables, which were far less expensive than the animal proteins favoured by the more affluent, This need not necessarily have been an unhealthy diet depending upon the quantities consumed.

Figure 56 *Robert Deighton's* stock-jobbers Extraordinary – *an array of over fed gentlemen!*

There is some direct evidence for the diet of a journeyman weaver's family from the end of the period 1850–60. A woman describing her childhood mentions that: 'On Sundays...we had a cooked dinner, but on the other days we only had bread and perhaps a red herring or a piece of cheese'. How typical such a diet was is difficult to judge; it should be remembered that at this time the silk industry in London was in decline, the hardship of the journeymen and their families arousing much contemporary comment. Seventeen members of the named sample are known to have been from the families of journeymen weavers.

An indication of what philanthropists considered to be an adequate diet can be seen by reference to what was provided by contemporary institutions. The most relevant institution for this population is the 'Maison de Charité de Spittlefields', later called 'La Soupe'. This institution was founded in the winter of 1689–90. At first it gave money to the poor, and later, provisions, in the form of 'portions'. In 1733 each portion consisted of a pan of good broth, mixed with six ounces of bread, half a pound of meat and the same weight of 'good bread'. Unfortunately it is not possible to infer the daily diet for individuals from these records.

The recipe book of an affluent Huguenot family, living in the Spitalfields and Bethnal Green area, survives from the late 18th century. It belonged to a Mrs Merceron and is written in beautiful script. Like many modern-day family recipe books this gives no information of those recipes in everyday use but it is a useful indication of peripheral fare. The booklet contains recipes for the sick such as chicken panada and port wine jelly. It includes recipes for preserves, such as jams and marmalades, which are similar to those still in use. Cake recipes are

numerous and they range from 'little plain cakes to keep' and 'common cake' to 'excellent cake' and such favourites as gingerbread. The recipes are similar to those of today and contain wholesome ingredients.

Figure 57 *Hogarth's* Heads of Six Servants – *adequately, but not excessively nourished.*

Dietary deficiencies

Vitamin C or ascorbic acid is mainly derived from certain fruits and vegetables, potatoes being the main source in this country. Deprivation of vitamin C can cause scurvy *(scorbutus),* a common disease among sailors during this period. Unlike the children (see p22), there is no skeletal indication that any of the adults buried in the vaults suffered from scurvy. A wide range of fruit and vegetables was available during this period and Table 8 illustrates average consumption of fruit and vegetables per person in 1851. For interest, these data are compared with a more modern sample.

There is evidence to suggest that some people in the area grew food in their gardens, though it is impossible to know the extent of this practice. Writing in the early 19th century a member of the Benson family reminisces over this: 'I well remember your little garden, Mother often talkes of the sallad you used to bring her out of it...'. (sic).

Calcium intake is crucial to growth and health, and is of considerable interest to this study because it also plays an important role in skeletal mineralization. Conditions caused by calcium deficiency that can be detected skeletally, include rickets (see Figure 26) and osteomalacia.

Historical evidence suggests that dairy foods, an important source of calcium, were available to city dwellers. As always the quality and quantity available to individuals was income dependent. William

Table 8

Availability of fruit and vegetables (Lbs) per person

	1851	1978
Fruit		
Pears	7.96	3.12
Oranges*	7.34	12.97
Stone Fruit	5.68	3.64
Grapes	0.50	1.66
Soft Fruits other than grapes	8.22	2.37
Rhubarb	1.74	1.76
Nuts	4.22	1.76
Dried Fruit	17.99	3.51
Vegetables		
Potatoes*	148.64	130.39
Cabbages*	68.33	21.03
Broccoli, Cauliflowers*	27.29	8.71
Turnips, Swedes*	40.84	2.31
Carrots	6.87	11.28
Peas	3.34	15.67
Beans	2.28	18.56
Lettuce*	1.71	5.53
Onions	31.82	13.20

* *Foods high in vitamin C*

Sources: Mayhew (1851) and Ministry of Agriculture (Oddy 1980, 45-7). These figures are derived from data from the large fruit markets in London. Obviously per capita consumption conceals those consuming more than average and the deprived poor.

Tayler's diary notes the consumption of milk and cheese in the Princeps' household. It seems likely that the majority of the crypt sample could have afforded dairy foods which became increasingly available through this period.

Cheese was the dairy food that kept best, and regional varieties became available with improved transport and centralized marketing. William Hedges, who died aged 32 in 1812, was a cheesemonger, as was the father of William Brooks, a two year old who died in 1785. Mr Thomas Hills of Spitalfields Market specialized in Cheshire Cheese.

Milk supplies in 18th century London were notorious. Unless milk was from the lactarium in St James' Park or that supplied by cattle driven around the streets, the product was likely to have been watered down and nearly sour. Most milk was from cattle housed in ill-ventilated dark sheds and cellars in London, fed on hay or brewers' grounds. Apparently the situation had not improved by the early 19th century, when analysis showed that it was difficult to find a sample in the capital that did not contain blood or pus. The Trade Directories list only two milk suppliers in Spitalfields: Mr Rees Lewis, 'Cowkeeper and Dairyman' who traded from 19 Browns Lane in 1846, and from the same year Jo Hurley, 'Cowkeeper', at 38 Crispin Street.

An article in the *Lancet* in 1847 condemned London's milk supply as being responsible for scrofula (a glandular tuberculosis). Infected milk was almost certainly responsible for the spread of both bovine and human tuberculosis at this time. Tuberculosis can, but does not always, lead to skeletal lesions (see Figures 28 and 30 above) which are recognisable in bone.

Although at least two children were infected by tuberculosis (see p23 – 24), none of the adult skeletons had tubercular lesions. Interestingly, there were no instances in either adults or children of the changes to the ribs believed to indicate 'consumption' or pulmonary tuberculosis, one of the commonest causes of death in the 19th century. This might suggest either that the population was not susceptible to the condition or that the skeletal changes considered by some human bone specialists to represent pulmonary tuberculosis do not in fact show this.

Apart from tuberculosis, such diseases as scarlatina, diphtheria and brucellosis can be contracted from infected milk, as can the common causes of food poisoning, including *salmonellae* and *staphyocci.* None of these can be detected skeletally.

Sugar consumption

Sugar consumption increased dramatically from *c*1700 as a consequence of Britain's imperialist policies, and settlement and slavery in North America. Sugar was an expensive luxury during the earlier part of the period; consequently, the better-off were likely to consume more than the poor. However, the price decreased dramatically during the 19th century and sugar became available to all. Annual sugar consumption per person ranged from 11.74lb to 30.45lb between 1793 and 1856. It is however salutary to consider that in 1960 annual consumption was **112lb** per person, although by 1990 it had dropped to just under 100lbs.

Sugar was regarded by contemporaries as one of the factors contributing to high rates of tooth decay (caries) throughout this period *(see* below). Today it is appreciated that the contribution of sugar in itself to caries is less significant than previously believed. The poor dental health of the sample probably reflects poor oral hygiene as much as too much sugar in the diet.

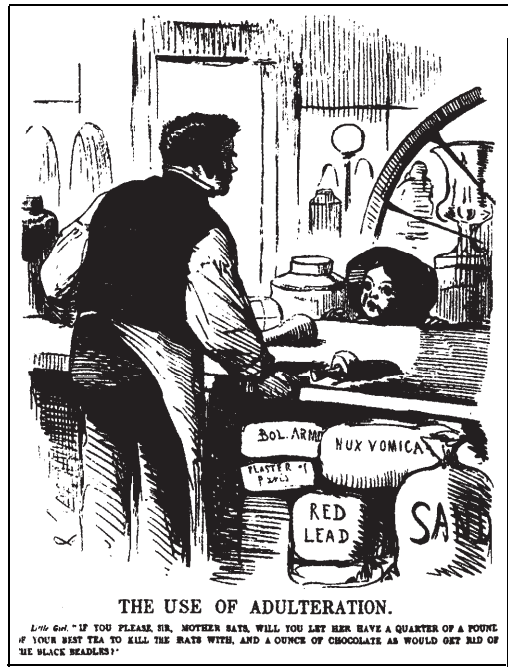


Figure 58 *Cartoon from Punch, 4 August 1855, drawing attention to the problem of food adulteration*

Water

As late as the 1840s approximately 30,000 of London's population were without piped water, even from communal street taps. However, due to the contamination of London's ground water and rivers by raw sewage, even piped water could be dangerous to drink. Unless the water was boiled it could and did act as the conveyor of such diseases and epidemics as cholera and typhoid. Horrific epidemics of both periodically swept the capital during the early to mid 19th century killing tens of thousands of people.

Food adulteration

Food adulteration has been noted in Britain since at least the 12th century. Laws dealing with the purity of bread were first introduced in 1203. Social commentators were concerned about the detrimental effects on health of food adulteration in the 18th century, and increasingly so by the early 19th century. A series of articles in the *Lancet* led to the appointment of a Parliamentary Select Committee in 1855. Public awareness of adulteration is reflected in the cartoon from *Punch* shown in Figure 58 and protest eventually led to the first Food and Drug Act of 1860.

Adulterants included coloured sulphuric acid in vinegar; alum and crushed animal bone in bread and copper salts as a colouring in confectionery, pickles and China tea. Milk was thickened by chalk mixed with water, capsicum was added to mustard, and lead was used to blacken Indian tea. Alcoholic beverages of all types were subject to both deliberate and unwitting adulteration. Cider was contaminated by the use of lead components in the presses, and wines were improved with lead. Cocculus was added to beer if the taste was 'weak', coriander seeds and red peppers to improve the colour. Alum was used to cure 'ropy' beer, oil of sulphur to clear cloudy beer and copper sulphate to lift 'flat' beer. The harmful effects of certain adulterants to health was well known and those of alum were described in *Punch* in 1851:

> Imps of all trades were there. The Baker imp who grinds alum to make his bread, and selling the staff of life, makes the staff carry a mischievous weapon for the bowels of him who trusts to it.

It was realised in the 18th century that cooking acidic food in copper and brass pots caused the formation of verdigris, but not that cooking in iron pots could be beneficial (because foodstuffs could absorb the iron). Lead-glazed pottery and pewter vessels could also prove dangerous if acidic contents were stored in them.

The extent of food adulteration is unknown as are its effects upon the health of the capital's population. It seems from the high levels detected in their bones, that those buried in the vaults were absorbing lead. As would be expected, those buried within lead coffins had high lead levels, largely reflecting uptake after death. Surprisingly, though, some of those buried in wooden coffins also had high lead levels. It was impossible to ascertain if this uptake had been gradual, through life, or during adulthood; nor was it possible to detect if the lead was ingested or inhaled.

For further information on nutritional disorders *see* McLaren & Meguid 1988, and on contemporary diet Rothberg & Rabb 1983, Hope 1990, and Drummond & Wilbraham 1991.

Occupations

O let us love our occupations.
Bless the Squire and his relations.
Live upon our daily rations.
And always know our proper stations

(Dickens, *The Chimes,* Household Words, 14 December,l850)

Historical background

In the 18th century, trade and occupation fell into categories which reflected the political, economic, and geographical characteristics of the capital. London was one of the main ports of England and the headquarters of coastal shipping. Businesses such as shipbuilding and supply, cooperages, breweries, distilleries, and sugar refineries were all dependent upon it for exports and distribution to the home counties.

London was the centre of production of high class goods such as clocks, watches, optical and mathematical instruments, jewellery and furniture, and of coach building. As the seat of government and the court, London was the centre of conspicuous consumption. Trades serving the needs of the rich and prosperous, both in terms of material goods and of professional services, thrived. These varied from peruke (wig) makers and milliners, to lawyers, stockbrokers and bankers.

As industrialisation progressed and changed the economic face of the country, London's role as a port and manufacturing base declined. Industries developed in other areas, gaining access to the London markets through improved transport systems.

The 18th century in London saw specific distinctions drawn within occupational groups defining master craftsman and journeyman, artisan and labourer. Ancient differences between the latter were eroded by the development of new industries which employed a skilled foreman, instead of journeymen who had served an apprenticeship. Brewers, distillers, tobacconists, sugar refiners, and soap boilers were considered to be labourers, but they could be as highly paid as journeymen in the lower-paid trades such as silk. Older trades such as tallow chandlers and tanners employed journeymen but paid them labourers' wages. Artisans in the building trades, and smiths employed labourers

to perform the heavy and menial aspects of their trade.

Consequently, in many trades it is impossible to infer economic status from profession alone, particularly when the exact grade of an individual within a complex occupational hierarchy is unknown. A master craftsman might employ a large number of journeymen, own the houses in which they lived and worked, and one or more well stocked retail outlets – or he might work alone and own only the tools of his trade. For further details *see* George 1965.

London's trades and professions tended to cluster in particular areas. Each locality developed its own particular manufacturing and business identity as well as providing local services and supplies.

Occupations of the named sample

The occupations of 61% (237 of 387) of the named sample have been established from a variety of sources. These include parish registers, trade directories and company records. For men the occupation was their own; for women it could be either that of their husbands, their fathers or, if they were widows, their own. For children the occupation was their father's. Table 9 shows the occupations split between people who died before 1800 and those who died after that date.

Twenty-three different occupations are listed before 1800, and 57 after 1800. This illustrates the increased occupational diversity of the named sample as time passed. Of the 250 known occupations, 40% are in the silk industry; 16% are involved in construction industries such as plumbing, bricklaying and painting; and 14% are in food retail and manufacture, ranging from cheesemakers to German sausage makers, bakers to potato merchants. Tallow chandlers are also represented. Amongst their other goods, they provided candles, a necessity at this time.

One of the more unusual professions was that of William Louis Moinier Leschallas. On his death certificate he is described as a stationer and rag merchant, and in the 1851 Trade Directory as a wholesale and export stationer and manufacturer of 'Moinier's Linen Writing Paper'. From the report in the Times (14 December 1852) of the inquest into his death, we find that he owned a paper mill in Chatham, Kent.

The remaining occupations include a diplomat, two MPs, surgeons, and those involved in the legal profession, going down the social scale to brushmakers and a bird dealer. James Dickens was a tobacco pipe maker. There are three goldsmiths in the sample. Susannah Vine's husband, listed in the I820 Trade Directory as a wedding and mourning ring manufacturer (Figure 59), would seem to have specialised within this craft, as did the father of Robert John Blackford who was a gold lace maker.

Examination of the addresses of those in the professions reveals that the majority did not live within the parish. Most had ancestors who had lived and prospered in Spitalfields; they appear to have chosen to be buried within Christ Church for sentimental reasons. An example is Charles Shaw Lefevre, a barrister, whose abode at death was St Martin in

Figure 59 *Mourning ring found on the left hand of Judith Mesman, who died in 1776 aged 17.*

Table 9

Occupations of the named sample

Occupation	Before 1800	After 1800	Total
Master silk weaver/merchant	55	7	62
Journeyman weaver	1	16	17
Silk dyer	4	10	14
Victualler/grocer	4	10	14
Carpenter	1	11	12
Butcher	5	5	10
Tallow chandler (inc soap)	1	6	7
Tailor	1	4	5
Surgeon	2	3	5
Rector	5	0	5
Cheesemonger	1	2	3
Merchant (not silk)	2	1	3
Goldsmith	1	2	3
Apothecary	2	1	3
Silk broker	1	2	3
Brewer (1 proprietor)	2	0	2
Upholsterer	2	0	2
Member of Parliament	1	1	2
Haberdasher/hosier	2	0	2
Silk throwster	1	1	2
Stationer (1 wholesale)	1	1	2
Dtstiller	1	0	1
Bookseller	1	0	1
Bricklayer	0	6	6
Cordwainer/shoe maker	0	6	6
Cabinetmaker/undertaker	0	5	5
Builders' merchant	0	3	3
Bank clerk	0	3	3
Glazier	0	3	3
Pawnbroker	0	2	2
Baker	0	2	2
Painter/plumber	0	2	2
Smith	0	2	2
Corn chandler	0	2	2
Sugar refiner	0	2	2
Tobacco pipe maker	0	0	2
Brushmaker	0	2	2
Tinplate worker	0	2	2
Gentleman	0	1	1
Stockbroker	0	1	1
Consul	0	1	1
Coroner JP	0	1	1
Pewterer	0	1	1
Staffordshire pottery warehouseman	0	1	1
Calico and muslin warehouseman	0	1	1
Exciseman	0	1	1
Cook	0	1	1
Labourer	0	1	1
Enamel painter/artist	0	1	1
Author/novelist	0	1	1
Bird dealer	0	1	1
Soldier	0	1	1
Barrister	0	1	1
Salesman	0	1	1
Publican	0	1	1
Leatherfellow	0	1	1
Potato merchant	0	1	1
Milliner	0	1	1
Staymaker	0	1	1
Drysalter	0	0	1
Cooper	0	2	2
Proctor and notary	0	1	1
Bank proprietor	0	1	1
Totals	97	153	250

Note: Where an individual is known to have had more than one occupation, each one is listed.

the Fields (Figure 60). His wife's family, whose surname (Lefevre) he took upon marriage, were very prosperous red silk dyers in Spitalfields in the early 18th century and owned a family vault within the crypt at Christ Church.

It appears that by the third generation many of the prosperous Huguenots originally involved in the silk industry had withdrawn from this and entered the professions. Another example was William Mills Pulley, who died in 1786, a proctor and notary of St Andrew's Holborn. Earlier in the century his father had been a Spitalfields weaver Some men, particularly those who were not craftsmen or in the professions, changed occupation during the course of their lives. John Whisker who died in 1822, was first a soldier and later a weaver. Samuel Dawson was a labourer, weaver and undertaker, in that order, before his death in 1816. More puzzling was the change of trade of Susannah Thomasson's husband who died in 1750. He was described as a wax chandler when they married and a goldsmith at the baptism of their children. It is possible that he took over his father-in-law's business, but this is speculation.

Several individuals held public office. These included Peter Favenc, husband of Eliza, who was Consul of the Canary Islands in 1795. Charles Shaw Lefevre was Member of Parliament for Reading for 18 years. (Figure 60).

Figure 60 *Charles Shaw Lefevre FRS, barrister 1759–1823.*

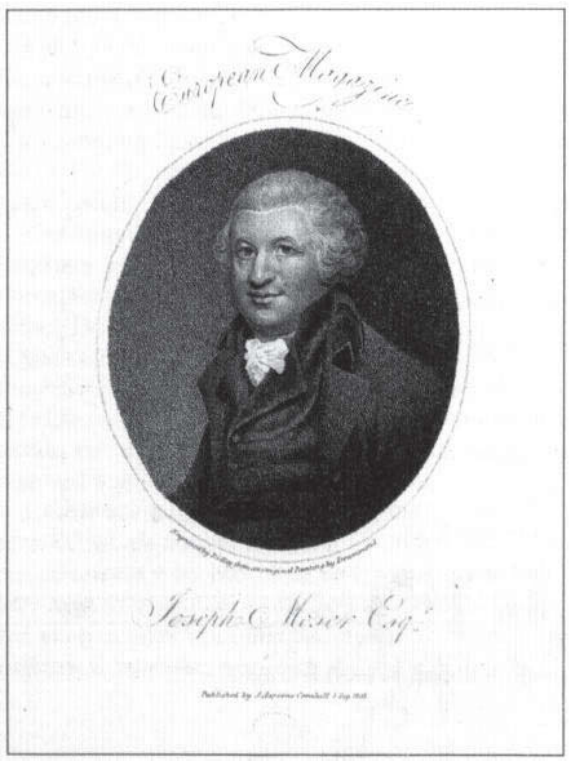


Figure 61 *Joseph Moser, artist and novelist 1744–1823.*

Joseph Moser (Figure 61) was Deputy Lieutenant for Middlesex from 1794 and a magistrate for Westminster until 1819. Louisa Thistleton's husband William, was a Justice of the Peace, Coroner, and Steward for the Tower of London. Most notable of all was Sir Robert Ladbroke (Figure 62) 1713–1773. As his coffin plate states he was 'Alderman of Bridge Ward, One of ye representatives of Parliament, Father of the City of London

Figure 62 *Sir Robert Ladbroke, Lord Mayor of the City of London 1713–1773*

Lord Mayor 1747) and president of Christ's Hospital.' He was also president of the Anniversary of the Charity Schools in London and Westminster.

Joseph Moser's career was unusual amongst this sample. The son of a Swiss artist, he was born in Greek Street, Soho. Instructed by an uncle in enamel painting, he exhibited in the Royal Academy from 1774 to 1782 and again in 1787. After marrying the daughter of the surgeon Peter Liege, he abandoned his profession and retired to the country. Three years later he returned to London, living first in Princelet Street, Spitalfields, and then at Romney Terrace, Westminster, where he devoted himself to literary pursuits.

It is clear from examination of the spectrum of occupations of the named sample that their social and economic status changed at around the turn of the century. Before 1800, 81% were master craftsmen, merchants, or in the professions. After 1800, 73% were journeymen weavers, artisans or shopkeepers.

Occupations in Spitalfields

Although Spitalfields was known to be the centre of England's silk industry (Figure 63) throughout the 18th century, examination of records of occupations and trades from contemporary trade directories illustrates the diversity of occupations in the area. Table 10 shows a breakdown of occupations for four years. These data are obviously incomplete as is demonstrated by the fact that there appear to have been no publicans in Spitalfields before 1846 which we know from other sources to be incorrect. However, they do give an indication of the variety of occupations within the parish at different dates.

It is clear that until the early decades of the 19th century, the silk industry was the main employer in the area. Thereafter its decline in London coincides with a marked increase in service and provision industries. The development of the Spitalfields fruit and vegetable market, first established in 1682, contributed to the occupational diversity of the 19th century.

Examination of the trade directories revealed some unexpected occupations in the area. In 1815, Mr L Levy, 'Vermicelli and macaroni manufacturer' traded from 21 Wood Street, and in 1846 Richard Fryer is listed as a 'Washing machine manufacturer'. In the mid 19th century, perhaps reflecting a market response to growing concern over the dreadful

Figure 63 *Hogarth's Industry and Idleness 1747. The idle apprentice sleeps at his hand loom whilst his more industrious work mate weaves diligently.*

state of the nation's teeth, Mr George Speer of 3 White Street was a 'Tooth-brush maker'.

John Stubbs was one of the proprietors of the Norton Folgate Brewery and was accused of creating havoc whilst earning his living. Presentation was made against the brewery at the manorial court; the crime was obstructing Elder Street and Blossom Street with their drays.

The Spitalfields silk industry

London's silk industry established itself on the eastern outskirts of the city from the late 16th century. It increased in size and range as a direct result of settlement by Huguenot immigrants with silk manufacturing expertise. Assisted by a growing export market to America and the proximity of the main domestic market in London, Spitalfields silks were in great demand for quality clothing (Figure 64).

Spitalfields silk industry flourished through the 18th century and then went through a series of expansions and depressions which caused great hardship to the journeymen weavers and their families. In the mid 19th century the industry declined in London for a variety of reasons. Cheaper production in the Midlands and laissez-faire economic policies were major contributors. Cobden's commercial treaty with France of 1860 dealt the death blow to an already weakened industry.

The peak of the Huguenot contribution to the craft was in the 1740s and 50s. Names such as Desormeaux, Godin, Lemaistre and Ogier dominated the Weaver's Company at this time. There were many different processes in the silk industry and most of the occupations arising from them are represented among the named sample.

Silkmen imported raw silk from Turkey through the Levant Company, from Italy through individual merchants, and from Bengal through the East India Company. Silkmen and brokers did not live in any particular area and can be located in trade directories at such addresses as Cannon Street and Ludgate Hill. Abraham Favenc and Peter Dupuy were silk brokers in the late 18th century.

The first process applied to the raw silk was throwing – twisting the raw silk into yarn. Most throwsters lived in Whitechapel, in such streets as Goodman's

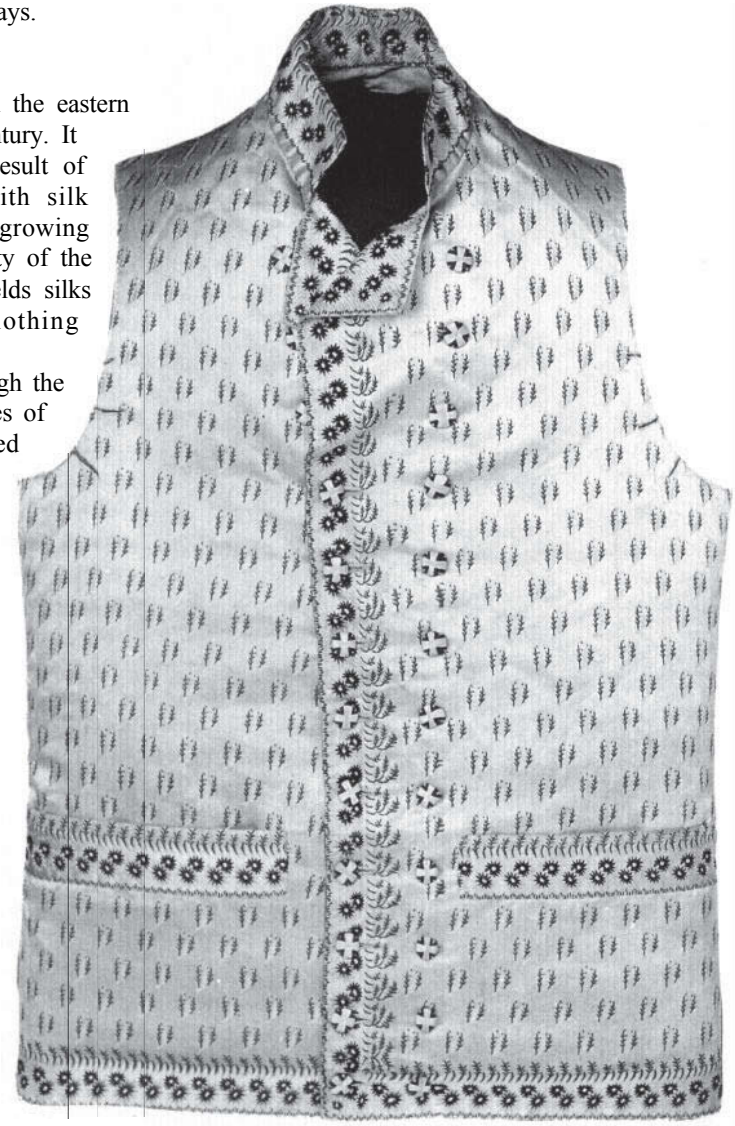


Figure 64 *A fine quality waistcoat produced by the Spitalfields weaving firm of Maze and Steer.*

Fields, and Lemon and Ayliff Street. Many throwsters had workshops adjoining their homes. The throwster employed '...mostly women to whom he gives but small wages: It is a very profitable business for the master...'.

Members of the Merzeau family were interred within Christ Church; they were throwsters. Isaac and his wife Frances (née Ogier) were both Huguenots. Isaac was born in Exeter, his parents having fled from Saintonge. Frances was born in Poitou. They were very successful in business and their son Peter, born in 1740, carried it on, moving from Whitechapel to Mason's Court in 1774. Peter was Director of the French Hospital in 1771. A description of a mill used by one of Peter Merzeau's employees survives in a letter written by a distant cousin. They:

> ...were of the most primeval and barbarous type...A drum, round about a strap passes, embraced in its course two or three dozen clumsy bobbins, and returns round a small roller at the end of the mill to which a blind old man, fit for no better work than this, groaningly turns the drum round...
>
> (Coleman 1969, 32)

Peter retired to Camden Town. He was described as 'King of Spitalfields' in a report of his death.

Dyeing followed throwing. Dyers lived in the more affluent parts of the parish such as Red Lyon Court and Princes Street. Scarlet dyeing was the most profitable branch of this trade. Edward Peck *(see* Figure 3) was a scarlet dyer, as was Isaac Lefevre. Edward Peck insured his dye house and dwelling in Red Lyon court for £500; in total he insured some £2150 of property in the area. After his death in 1736, the *Gentleman's Magazine* observed that his estate totalled £40,000 – a colossal sum for this time. Those employed by dyers, such as George Wright who died in 1769 aged 31, lived in less affluent areas such as Quaker Street.

Pattern drawers sold their designs to the master weavers who produced the patterned silks. Figure 65 illustrates examples of the designs of Anna Marie Garthwaite who sold her designs to many of the Spitalfields weavers, including Peter Ogier. No pattern drawers are known to have been interred within the vaults, although Margaret and Frances Baudouin may have been related to Christopher Baudouin, a very successful designer.

The largest single occupation represented amongst the named sample is that of silk weaver. Sixty-two individuals were either master-weavers themselves or a member of a master-weaver's family. Seventeen were journeymen weavers. From the age of fourteen, both master and journeyman weaver served an apprenticeship of between seven and twelve years. However, the master craftsman did very little weaving once his apprenticeship was over while the journeyman probably wove for six days out of seven for the rest of his life.

Weaving activities involved a series of repetitive movements of the hand, wrist, knee and hip each of which would be repeated many thousands of times each day. However, in this small group of journeymen weavers, there was no apparent relationship between possibly occupationally-related conditions such as

Table 10

An indication of the occupational identity of the parish of Spitalfields

Occupation	Crypt sample	Trade directories			
		1736	1795	1815	1846
Silk industry	99	15	65	73	68
Food retail/manufacture	35	0	2	18	180
Building	15	0	0	8	21
Carpentry	12	0	1	3	20
Chandlers	6	0	2	14	24
Textiles	6	0	1	10	18
Metals	3	0	1	18	29
Cabinet/undertaker	5	0	0	2	13
Surgeons	5	1	0	0	10
Apothecaries	3	0	1	4	9
Corn chandlers	2	0	0	3	12
Brewers	2	0	2	2	1
Sugar refiners	2	0	4	2	1
Law	2	0	0	2	5
Professions	8	2	0	5	30
Stationers	3	0	0	4	6
Soap manufacturers	1	0	0	3	1
Church	5	0	0	0	6
Goldsmiths	3	0	0	0	1
Merchants	2	5	9	2	1
Clothing	8	0	0	3	15
Pawnbrokers	2	0	0	0	15
Shoes/cordwainers	6	0	0	0	10
Coopers	2	0	0	3	2
Pottery/china	1	0	1	1	3
Publicans	1	0	0	0	54
Bird dealers	1	0	0	0	2
Smiths	2	0	0	0	1
Drysalters	1	0	1	3	4
Tobacco pipe manufacturers	2	0	0	0	0
Gentleman	1	0	0	0	7
Currier/leather	1	0	0	7	9
Milliners	1	0	0	2	10
Coal	0	0	0	2	7
Tobacco manufacturer	0	0	0	1	8
Watch manufacturer	0	0	0	5	4
Odds	2	3	0	19	118

Sources: 1736: London Directory, Kent; 1795: London Directory, Lowndes; 1815: London Directory, Kent; 1846: Post Office London Directory (Guildhall Library)

osteoarthritis and labour intensive occupations such as weaving.

Most 18th century apprentices were the sons of those already involved in the industry. Their daughters were forbidden from becoming weaving apprentices by an Ordinance of 1708, although they could become apprentices to milliners who were a subgroup of the Weavers Company. Finance was the factor which determined whether someone became a master weaver. From 1708 a journeyman could become a master if he paid a fee and had the capital to establish himself. Consequently, it was usual for the sons of masters to become masters, and those of journeymen to remain as journeymen. It is believed that the Master Weavers of Spitalfields employed somewhere in the region of 20,000 journeymen weavers.

Figure 65 *Design of woven silk by Anna Garthwaite sold to Peter Ogier of the firm of Maze and Ogier.*

Master weavers and their journeymen usually specialised in the production of one type of silk. Daniel Mesman and his sons produced black silks and velvets. These were in great demand during periods of court mourning and for funerary attire. John Roy was a satin weaver, and John Rondeau produced flowered silks as did the firm 'Maze and Ogier'. Another speciality was that of Louis Chauvet who manufactured silk handkerchiefs which were known as, 'Spitaltonians'.

The high insurance premiums paid by silk manufacturers and their large estates suggest that substantial profits were made. Journeymen weavers, by contrast, were considered among the lowest paid craftsmen of the time. Their average income in 1765 was:

> Children: 2/- to 6/- per week
> Others: 6/- to 10/- per week
> Much the greater part do not exceed 10/- to 16/-
> Others: 16/- to 20/- per week
> Very few: 20/- to 30/- per week
>
> *(Gazette and Daily Advertiser,* 14 March 1765)

During times of depression, which became all too frequent as time passed, this group of people was the hardest hit. Those living in the northern and eastern parts of Spitalfields and Bethnal Green were described in 1742/3

as 'journeymen and artificers who can scarcely maintain themselves and their families'. Journeymen weavers often lived in houses let at less than £10 per annum. Owned by master weavers, these houses were usually sublet to two or three tenants. The journeymen weavers amongst the named sample were buried within the vaults at Christ Church during the late 18th and 19th centuries. It seems likely that they were at the top of the socio-economic spectrum of journeymen,

For further information about the Spitalfields silk industry *see* Plummer 1972, and Rothstein 1961, 1987 and 1990.

Women in business

Despite the fact that 'Women are no less capable than men of filling the employments in society' (Anon 1758) the reality was that 'The sphere of feminine action is contracted by numberless difficulties...'(Wakefield 1817).

Among the wealthier strata of society married women did not generally contribute regularly to the family income other than with their dowries and from any legacies. They would have run a household, but to what extent members of the named sample delegated responsibility to a housekeeper is unknown. By contrast wives of journeymen and artisans were expected to contribute to the family income, as were their children – out of necessity, as the incomes of these men were below subsistence level for a family.

The lives of the wives of master craftsmen buried in the 18th century, and of professional men buried in the 19th century were physically far less demanding than those of journeymen and artisans. Susannah Roy, née Maze, was both the daughter and the wife of prosperous master craftsmen. Her life would almost certainly have been less strenuous than that of Ann Curtis, wife of a butcher. (Figure 66). Ann may well have assisted in the business in addition to running the household. Women from poor backgrounds were often hired as winders and throwers in Spitalfields Market for a pittance as low as three shillings a week.

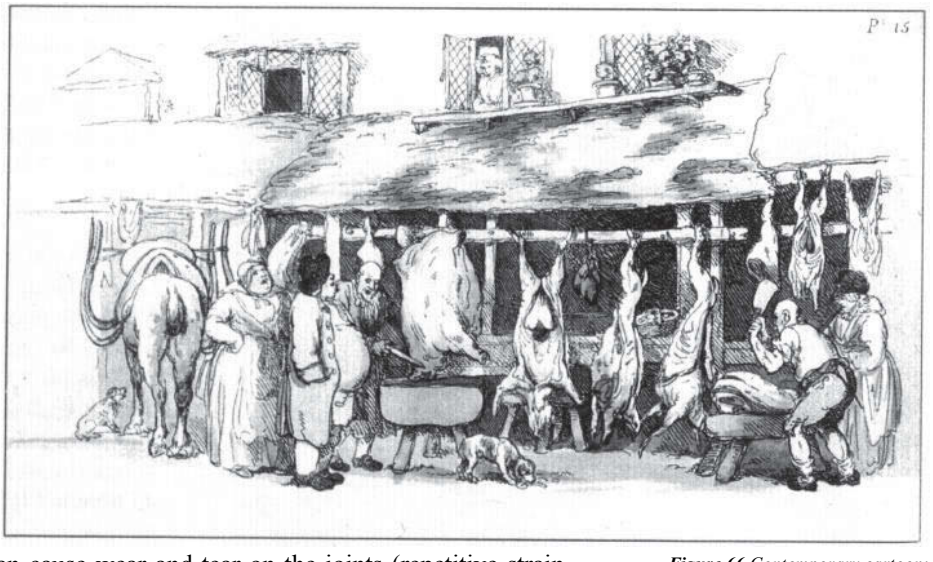


Figure 66 *Contemporary cartoon:* Butchers at work.

Repetitive hard work can cause wear and tear on the joints (repetitive strain injury) and accentuate muscle attachment sites on certain long-bones. One woman, Ann Dormer, was exceptional amongst the women of the named sample in that the muscle attachments of her femur (thigh), tibia (shin) and humerus (upper arm) were unusually pronounced. This may be an indication that she lived

a physically hard life, working alongside her husband. Ann married Michael, a journeyman weaver, when she was 28. They were childless. She died aged 52 in 1814.

Women could and did run a business if they were the widows of craftsmen or tradesmen who left them control of their estates. This usually happened if any sons were below the age of majority. The Weavers' and other Companies and Guilds regarded a wife as a trade partner having the right to succeed to and carry on the business after her husband's death. Widows took over all rights, privileges and liabilities of their deceased husbands, for example as to the number of looms, journeymen and apprentices. However, if she remarried she could neither retain her rights nor transfer them to her new husband.

Several working widows are known amongst the named sample. Charlotte Megnin, widow of Peter, a grocer and victualler, carried on in business as a publican. In the 1846 Trade Directory she is described as the landlady of the Three Jolly Weavers at 60 Wheeler Street. Mrs Louisa Courtauld took charge of her late husband's business in 1765 at the age of 36. She had four children aged under twelve to support. Sammuel Courtauld had been a successful silversmith who specialised in rococo designs. He had been elected to the Livery of the Goldsmiths Company in 1763. Louisa appears to have been a very competent business woman and a successful designer of neo-classical themes in her own right.

By 1777, her son Sammuel was involved in the business. In 1780, when Louisa was 51, the business premises at The Crown, 21 Cornhill, and the goodwill were sold. Thereafter Sammuel is reputed to have 'squandered his father's fortune in high living in France'. The question arises as to how Louisa supported herself thereafter. Her sister, Jane Julien, a childless widow, died in 1791 and in her will she stipulated that the bulk of her property was to be sold to establish a trust, the income of which was to benefit Louisa for life, free from any husband's control. This bequest suggests that Louisa was in financial need.

It is clear that some widows, particularly those with a family to support, could find themselves in a precarious position. A glimpse of the anguish experienced by Susannah Benson, the recently bereaved widow of John, a 'horse-hair manufacturer' of 93 Church Street Spitalfields, is evident in a letter she wrote to her son Paul, in Australia, in April 1841:

> I never knew what real trouble was until now, but thank God I am not left destitute of a means to get a living, for he (John) has left me Sole Execertrix, to continue the business as long as I like, or to give it up and sell it when I like. But for Tom's sake I should like to keep it going until I see (if) we can get a living...Tom dont know much of good business - his father kept him as a journeyman,...Our future prosperity depends upon his judgement. (sic)
>
> *(The Benson Letters)*

Another son, John, wrote to Paul in May 1841: 'Mother is carening on the Bisiness with Tom, but I dont know how long it will last as things are very bad in that line' (sic).

Another tradeswoman amongst the named sample was Dorcas Haynes, listed in the 1820 Trade Directory as a Potato Merchant, of Spitalfields Market. This could perhaps have been an inherited business. By 1830, a P Haynes was running the business; it is not known exactly who he or she was; from 1835 until at least 1846 a Miss Esther Haynes ran the business. Again, exactly who Esther was is unknown, as her relationship with Dorcas has not been established. Esther is mentioned on a memorial tablet on the north wall within Christ Church. It would seem that the market woman could be a person of considerable possessions.

Social and economic status

> The great, who live profusely.
> The rich, who live plentifully.
> The middling sort, who live well.
> The working trades, who labour hard but feel no want.
> The country people, who fare indifferently.
> The poor, that fare hard.
> The miserable, that really pinch and suffer want.
> (Daniel Defoe, *The Review,* 25 June 1709)

The middling sort

An indication of the socio-economic status of the named sample has been established using such information as occupation, position within their occupational hierarchy, insurance policies, land tax returns, wills and company records. Socio-economic status has been divided into the following categories:

Artisans: includes shopkeepers, journeymen, labourers, and those in the building and heavy metal industries.

Master craftsmen: mainly weavers but including such trades as cabinet makers and goldsmiths.

Professionals: includes those employed in finance, law, medicine and public servants.

Merchants: are specifically so. They do not include 'shopkeepers' or food retailers.

Wholesalers: are specifically so. It is assumed that their economic status would be higher than that of retailers.

Independently wealthy: includes 'gentlemen' and those for whom no specific occupation is evident.

Table 11 shows a breakdown of the named sample into these categories. The sample is shown as a whole, and is split between those who died before 1800 and those who died during the 19th century. Interestingly, the ratio of master craftsmen to artisan reverses in each century. This reflects the changing character and occupational identity of Spitalfields either side of 1800. The status of the named sample would seem to have been a mix of Defoe's 'middling sort' and his 'working trades'; two groups who 'live well' and 'labour hard but feel no want'.

In all of the categories above, other than artisans, many are known to have owned property. An indication of the wealth acquired by the named sample can be gleaned by reference to their insurance policies, wills and probate records. As we have seen, the estate of Edward Peck was valued at over £40,000. John Brown, who married Edward's daughter Frances, inherited this fortune. From him it went to John Peck and his wife Deborah. Their niece Elizabeth married Sir Robert Ladbroke who inherited the ever increasing Peck fortune, and from him it went to Henry Ladbroke, a nephew. This fortune, founded on the success of Spitalfields silk, was eventually invested in banking and country estates – a progression evident among many of the descendants of the successful silk merchants.

Table 11

Socio-economic status of the named sample (%)

Category	*1729–1800	*1801–1852	Total
Artisan (%)	17.0	68.3	47.9
Master craftsmen	61.7	12.0	31.8
Professionals	11.7	10.6	11.0
Merchants	6.4	2.8	4.2
Wholesalers	0.0	4.2	2.5
Independently wealthy	2.2	2.1	2.1
Sample sizes	94	142	236

** Year of death*

Edward Mason, a weaver and factor of Steward Street, the Old Artillery Ground, insured his house contents in 1746. These are described as 'Household goods...and wearing apparel, plate, china, glass, books, utensils and stock...', and insured for £1,000. Peter Isaac Galhie and his brother Paul, who were both weavers, also insured property in Steward Street. Household goods were insured for £1,950 and weaving apparel for £50.

Few of the named sample owned the freehold of the property in which they lived, although many held leases. William Harwood owned several houses in Brick Lane and Mary Mutch and later Susannah Kilner owned property in Browns Lane. When Mary Mutch purchased Numbers 9 and 10 Browns Lane in 1793, she paid £555 for the property.

Several of the master craftsmen and those in the professions owned country estates. Charles Shaw Lefevre was Lord of the Manor of Burley and he acquired, through marriage, estates at Old Ford and Heckfield Place, Hampshire. Peter Ogier owned an estate between Sydenham and Lewisham in Kent. The Ladbrokes held property at Frenches in Surrey.

It appears that many of those interred within the vaults at Christ Church were very wealthy by the standards of the day. Fortunes could, however, fall as well as rise and that fate befell the father of Master Robert John Blachford. Richard Blachford was a successful gold lace maker with business premises in Lombard Street. He was a member of the Goldsmiths' Company and a Freeman of the City of London. By 1824 his business was failing; he resigned from the Goldsmith's Company and gave up his rights as a Freeman of the City.

Family responsibilities

When Daniel Mesman died in 1765, he left £3,500 capital bank stock, the lease of his house at Southgate and the furnishings from his house in Spital Square to his eldest daughter Jane (a spinster). Warehouse furnishings and stock were left to his sons in trade; and to his daughter Lucy and her husband Daniel Giles he left £2,500 capital bank stock. This will demonstrates that unlike the majority of wealthy English at this time, Huguenots did not generally practice primogeniture

to keep their estates intact), and, furthermore, that sons do not seem to have received preferential treatment. An exception would appear to have been Samuel Courtauld's estate. It seems that the bulk was left to Samuel and Louisa's eldest son.

A sense of responsibility for dependants is seen in many wills. Pierre Ogier II, the father of Louisa Courtauld, Jane Julien, Frances Merzeau and Peter Ogier III, left £2,560 to each of his children and £500 and his household effects to his widow. He directed that the remainder of his vast estate should be invested the interest going to his widow for her lifetime, and the children inheriting the residue of the capital equally upon her death.

Figure 67 *George and Suzannah Wagstaffe.*

A broker, Peter Dupuy, who died in 1804, left his sons Peter and Daniel one shilling each. This common practice ensured that those already provided for, in marriage portions for example, or those who were not going to inherit for whatever reason, were not left out of the will altogether. The practice also prevented a challenge to the will by relatives on the grounds of oversight.

The will of George Wagstaffe, (Figure 67) who died in 1781, caused both consternation and practical difficulties among his six surviving children. George had been trading as a bookseller from 11 Browns Lane and is reputed by family tradition to have been an alchemist. Letters of Administration granted to his younger son, George, suggest that George Sr had omitted to provide for two of his children, leaving a portion of his estate with no beneficiary. Upon reading the will, the eldest son William:

> ...took up the said Will and perceiving that there were no subscribing witnesses there to, declared the said Will good for nothing and of no effect in law and incautiously and without further consideration or consultation thereon immediately put the said Will onto the fire whereby the same was entirely consumed to ashes.
>
> *(The Wagstaffe Letters)*

The contents of another will illustrate the sort of family misunderstandings that could arise, particularly at long distance and with poor communications. John Walker, the son of George Walker, wrote to his sister Ann, who was living in South Africa, on 25 August 1837. He was concerned to explain to her why their father hacl excluded Ann from his will.

> I have subjoined a copy of Father's Will by which you will see that you are excluded from any Share or benefit of Father's effects, but I wish to

> impress upon your mind that it was not from any influence exercised by us on Father but soley his own free act and deed. The property he has left is but small as he was out of business since 1832 and had only the interest to live on it does not amount to £600 altogether. I made Copy of Will in which I joined you to share alike with us, but when I read your name to him as in it he said I told you not to put her name in it and I will not sign it. I therefore had to write another which is this Copy I send you. Mr Selves urged him to leave you and George something & would not witness the Will that day in order to give Father time to consider it, but he still kept the same mind & therefore he Witnessed it. The reason he assigned was this *(I do not write this to hurt your feelings but wish to lay the naked fact before you as no doubt you would like to know therefore I hope that you will not take umbrage at me in being candid & think I write with unnecessary severity of language)* You had not written so long to him he thought you had forgotten you had a Father and what added still more to his painful feeling was your'e sending that cool & disrespectful enquiry to know if Mr George Walker was dead, by some Gentleman who called & had no further instructions, you did not send your love if he was living, (but merely wished to know if he was dead) It left an impression on his mind that your enquiry was not filial but selfish gain, as though you thought there might be some money in it for you if he was dead but he said if you were independent of him Now, you should be when he was dead. I assure you that it caused him many hour's uneasiness when he reflected on it, indeed he could not erase it from his Memory...(sic).
>
> *(The Walker Letters)*

An interesting bequest can be seen in the will of Peter Ogier's widow, Catherine (née Rabaud):

> To my five sons ...and to my four daughters...to each of them the sum of 15 pounds stirling for mourning...Item I give to my said daughter Louisa Perinna all my cloaths linnen and other things belonging to my wearing apparel by reason that they fitt her better than any other of my said daughters...(sic).
>
> (Sanders 1986)

The latter bequest reminds us that in the mid 18th century even the 'middling sort' owned only limited amounts of clothing.

Literacy

The only means of obtaining a crude understanding of the educational standards of the named sample was in terms of literacy. As today, couples marrying were required to sign the marriage register, the only exception being for minors, in which case a parent or guardian would sign. One hundred and three marriage

records were checked; 93 were signed and 10 marked with a cross. Table 11 compares these results with figures from a survey of neighbouring parishes. This survey was based on *all* sectors of society within the parishes, not a select group such as the named sample.

It appears that men from the named sample were typical of the surrounding area, while the women had a literacy rate that was notably higher. This difference might reflect preferential treatment of males over females in the less affluent surrounding areas. It seems likely that poorer parents were more likely to educate their sons than their daughters – a practice which is still reflected today in certain quarters.

Table 12

Literacy rates in Christ Church and neighbouring parishes

Parish	Date	Males (%)	Females (%)
Bethnal Green	1770	87.0	78.5
	1815	92.5	83.0
Shadwell	1770	88.5	72.5
	1804	89.0	83.0
Hackney	1770-1	93.0	87.5
	1813	88.5	85.0
Whitechapel	1770-1	89.0	77.0
	1809	89.0	84.0
Christ Church – named sample	1729-1852	88.2	90.5

Philanthropy and public service

The Huguenots were notable for their energy and generosity in establishing charitable bodies, specifically those to aid less fortunate Huguenots and their descendants. These included 'La Soupe, la Maison de Charite de Spittlefields' from 1690 to 1826. Initially 'La Soupe' provided beneficiaries with money, but later replaced this with provisions. One of the named sample, The Reverend John Balguerie, was a Director of 'La Soupe' in 1737.

Huguenots founded and funded 'La Providence', the French Hospital, in 1716. This institution still survives and is now situated in Rochester, Kent, where it offers hospitality and care to those of Huguenot descent in their later years. The commitment of several members of the named sample to the welfare of those of Huguenot origin is evidenced by the directorships of the French Hospital of Abraham Favenc (Figure 68), Robert Galhie, Peter Merzeau, Peter Ogier and William Mills Pulley. Families amongst the named sample who were related to directors of the French Hospital are: Baudouin, Bourdillon, Bredell, Chabot, Chauvet, Chevalier, Desormeaux, Gervis, Giles, Godin, Jouenne, Jourdan, Lambert, Lefevre, Lemaistre, and Rondeau.

Many of the named sample took an active role in parish affairs and their names recur in the Christ Church Vestry Minute Books. The Parochial Council and its officers ensured the maintenance and repair of the church, and the organisation of paving, lighting, watching and cleansing of the parish. Amongst their lighter duties was that proposed on 1 March 1834: 'That the boundaries of this parish shall be perambulated by the vestrymen and inhabitants on Holy Thursday next, and that all the usual expences attending such perambulations be defrayed by the parish'.

Payment was due for the privilege of holding office. For example, John Rondeau and John Stubbs paid £14 each as overseers of the poor in 1752. John Rondeau was clearly a committed parish officer as his coffin plate notes that he was 'Sexton of the parish for 29 years'.

Many of the named sample held office in various Companies. Louis Chauvet was a Steward of the Weavers' Company in the 1750s. Sammuel Courtauld, husband of Louisa, was elected to the Livery of the Goldsmith's Company in 1763. The career of Peter Ogier III exemplifies the achievements possible at this

time. Born in France, Peter was naturalised in 1749. He was elected to the Court of Assistants of the Weavers' Company in 1756, became Renter Bailiff in 1758, and in 1769 achieved the highest office, Upper Bailiff. Peter was exceptionally able and successful in the silk industry; he insured stock worth £3,000 in 1765 and had premises in Pall Mall and in Bath.

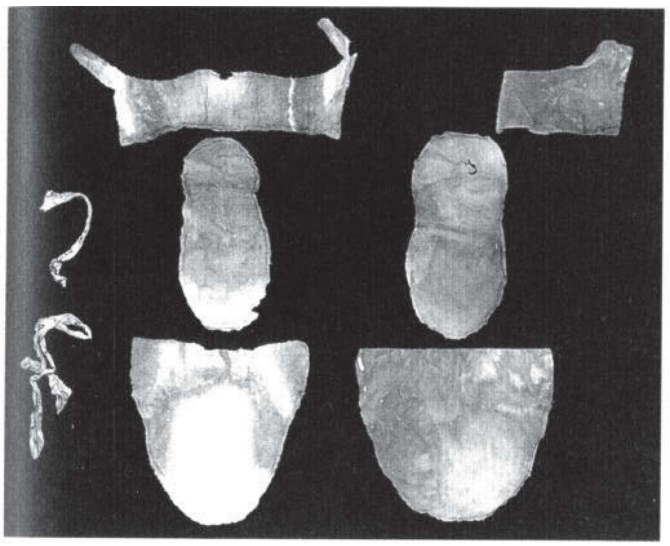


Figure 68 *Gout boots found on the body of Abraham Favenc. His skeleton however showed no sign of gout and he seems to have played an active part in the community.*

In sickness and in health

Information on the types of diseases affecting the people buried within Christ Church can be detected using both skeletal and historical evidence. However, neither is conclusive, and both types of evidence are limited.

Historical evidence

Historical evidence of health and disease in the past is extremely difficult to interpret. A major problem is that we cannot attribute modern clinical diagnoses to descriptions of many diseases in earlier centuries. Diagnoses that were meaningful to contemporaries, for example 'evil', have no meaning for us, whilst others such as 'rheumatism' may well not reflect rheumatoid arthritis but some other joint complaint. An indication of the ambiguous and often mysterious causes of death in London during this period can be seen by examination of those listed in the Bill of Mortality for London from 1775 (Table 13). There is no particular reason for choosing 1775 other than that it falls approximately half way through our period of study.

Examination of these 'causes of death' suggests that many were in fact an identifiable condition which was enough to satisfy the 'searcher' or woman, earning pin or gin-money, who was responsible for collecting this information. Although some are unlikely to have contributed to the death of the deceased, they do contribute to our knowledge of the general health of the population. To put this information in context by modern standards, it is worth considering that some 25% of today's death certificates are thought to be inaccurate.

The most common conditions to which death was attributed appear to have been: old age, consumption, convulsions, fever, and smallpox. The most common accidental death was by drowning. None of these conditions, with the possible exception of consumption, are detectable skeletally.

Returning to expand upon the difficulty of using historical sources to understand disease and causes of death in past populations, it is worth pausing to consider one condition: smallpox. In infancy many die before the rash develops – hence their deaths might be attributed to such symptoms as convulsions or fever. Another problem is that many such diseases contribute to death but do not actually cause it. With smallpox, some individuals survive the disease itself but succumb to secondary conditions such as bronchopneumonia and streptococcal

Table 13

Causes of death in London taken from the Bills of Mortality 1775

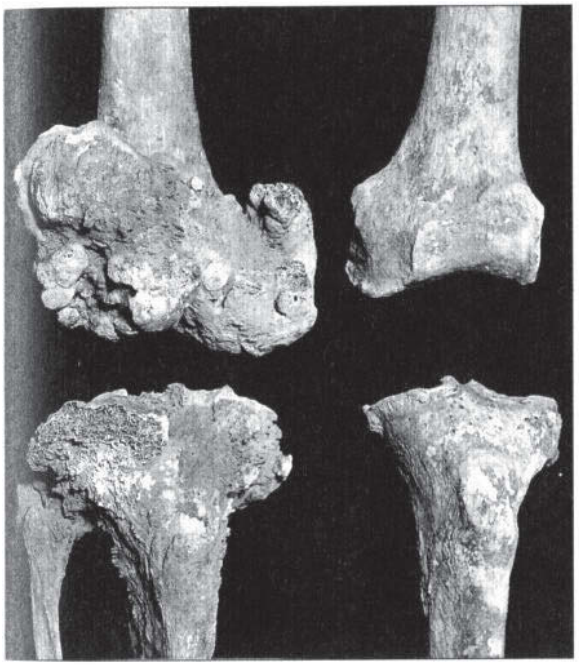
Natural deaths	No of deaths
Abortive and stillborn	529
Aged	1297
Ague	5
Apoplexy, suddenly & planet struck	215
Asthma & tissick	286
Bedridden	6
Bleeding	9
Blood flux	3
Bursten & rupture	8
Cancer	54
Canker	9
Childbed	188
Chicken pox	–
Cold	18
Colick & Twisted gut	70
Consumption	4452
Convulsions	5177
Cough, chin & whooping	206
Diabetes	2
Dropsie	865
Evil	11
Falling sickness	–
Fever, scarlet, purple spotted	2244
Fistula	9
Flux	9
French pox	71
Gout	69
Gravel, stones	36
Grief	3
Griping in the guts	–
Horseshoe head, head made hot, water on the head	19
Headache	2
Jaundice	120
Impostume	11
Inflammation	114
Itch	1
Leprosie	1
Lethargy	6
Livergrown	2
Lunatick	52
Measles	282
Miscarriage	4
Mortification	169
Palsie	65

Natural deaths cont...	No of deaths
Quinsie	4
Rash	1
Rheumatism	6
Rickets	1
Rising of the lights	–
Scald head	4
Sciatica	–
Scurvy	2
Sore throat	4
Smallpox	2699
Sores & ulcers	9
St Anthony's fire	2
Stoppage in the stomach	10
Surfeit	1
Swelling	1
Teeth	694
Thrush	77
Tympany	1
Vapours	–
Vomiting & looseness	5
Worms	1
Non-natural causes	
Bite- mad dog	2
Broken limbs	–
Bruised	1
Burnt	8
Choked	–
Drowned	104
Excessive drinking	2
Executed	24
Fools etc	64
Found dead	2
Frighted	–
Frozen	–
Murdered	3
Overlaid	4
Poisoned	–
Scalded	1
Shot	–
Smothered	–
Stabbed	–
Starved	2
Suffocated	4
Suicide	29

septicaemia. Furthermore, latent conditions such as tuberculosis can be triggered by smallpox.

Skeletal evidence

It is a truism that most diseases do not affect the skeleton. Neither do many of the traumatic accidents that can cause severe ill health or death. In the case of disease, only chronic long-lasting infections, usually caused by bacteria, cause bone lesions. These include tuberculosis, leprosy and treponemal diseases such as syphilis. Acute diseases, such as smallpox, plague and cholera, do not produce changes in bone and consequently these cannot be detected in skeletal samples. In such cases, the resolution of the disease, either recovery or death, occurs rapidly, and long before any infection can spread to the bone.



The most frequently seen diseases affecting the skeleton are those of the joints. Even here, however, our understanding of the impact of such conditions upon the quality of life is rather vague. Clinical observations suggest that some individuals with 'severe' joint disease suffer little pain or debility, whilst others with a slight condition can experience considerable pain and disability.

Osteoarthritis and joint disease

The most common disease affecting skeletons excavated from archaeological sites of all periods is osteoarthritis. This is characterised by deformity of the contour of a joint, eburnation of the joint surface (caused by bone rubbing on bone), and often new bone growth either on or around the joint surface. Figure 69 illustrates the knees of a male, the right knee showing the changes representing severe osteoarthritis. His left knee is normal. It is likely that unilateral osteoarthritis such as this reflects a response to inflammation resulting from an injury.

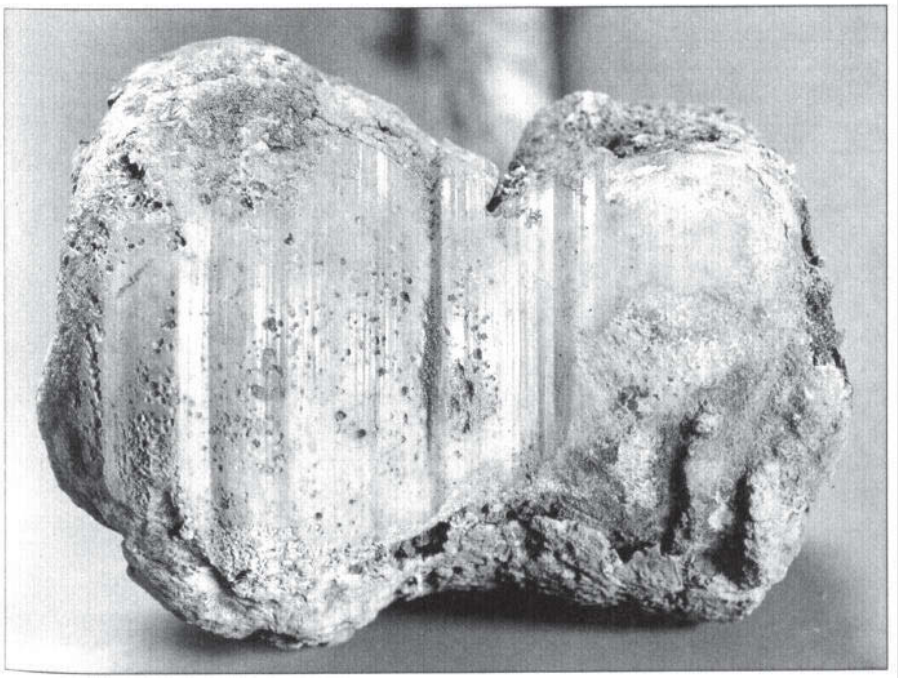


Figure 69 *Osteoarthritis in the right knee of an adult male. A detail of the eroded surface of the femur is shown in the second photograph.*

In the vault sample, 255 adults had osteoarthritis to some extent. None of these was aged below 30 and there was a marked increase in the prevalence with age. More men than women were affected, and of those aged over 65, half the men and a third of the women had the disease in at least one joint. The joints most commonly affected were the shoulder, spine, hands and feet. Figure 70 shows severe osteoarthritis in the upper neck of Elizabeth Voisin, who died aged 72. The prevalence of osteoarthritis in this sample is about half of that seen today. There was no evidence of rheumatoid arthritis in the skeletons excavated from beneath Christ Church.

Gout *(Arthritis uratica),* an inherited metabolic disorder occurring especially in men, was a disease much discussed by contemporaries. Surprisingly, however, no skeletons showed the changes associated with this condition. Although Abraham Favenc wore gout-boots to his grave, his bones appear not to be affected *(see* Figure 68). The bony characteristics associated with gout are only rarely observed in skeletal samples.

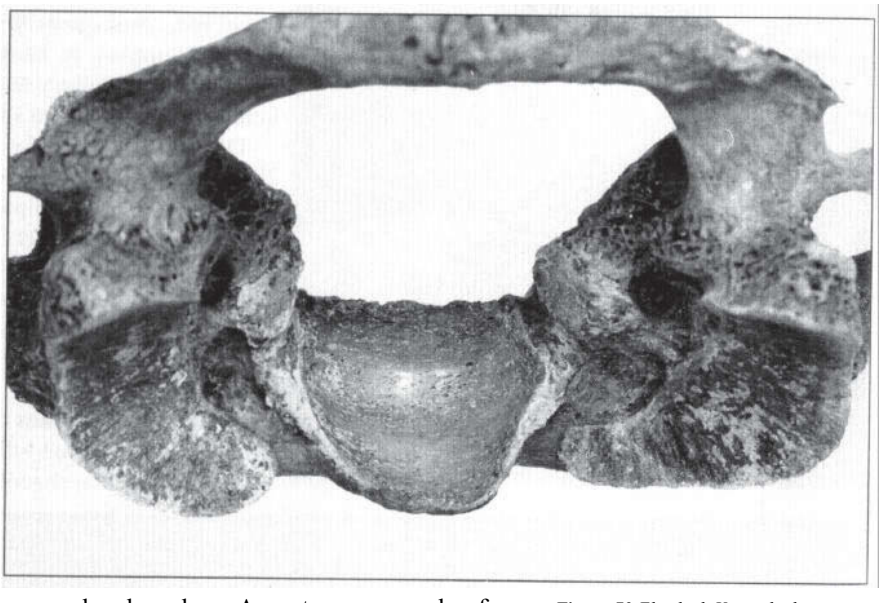
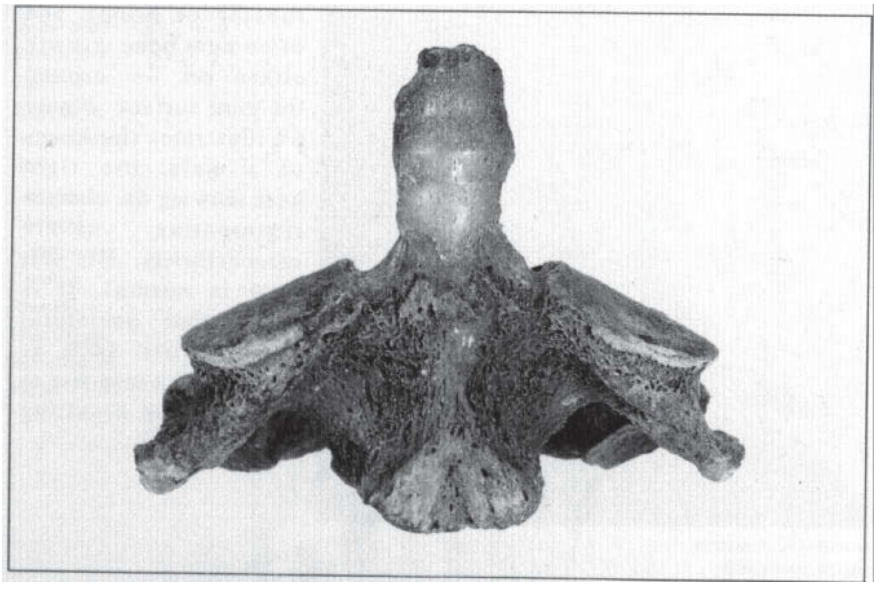


Figure 70 *Elizabeth Voisin had severe arthritrs in her neck vertebrae. She had also suffered from rickets and had fractured her right leg, but still lived to 72.*

Degenerative disc disease is a condition more frequent in females than males and one which only creates health problems when the disc spaces narrow to the point where they encroach upon peripheral nerve roots. At this stage symptoms can be experienced in arms, hands or legs. An extreme example of this condition can be seen in Figure 71.



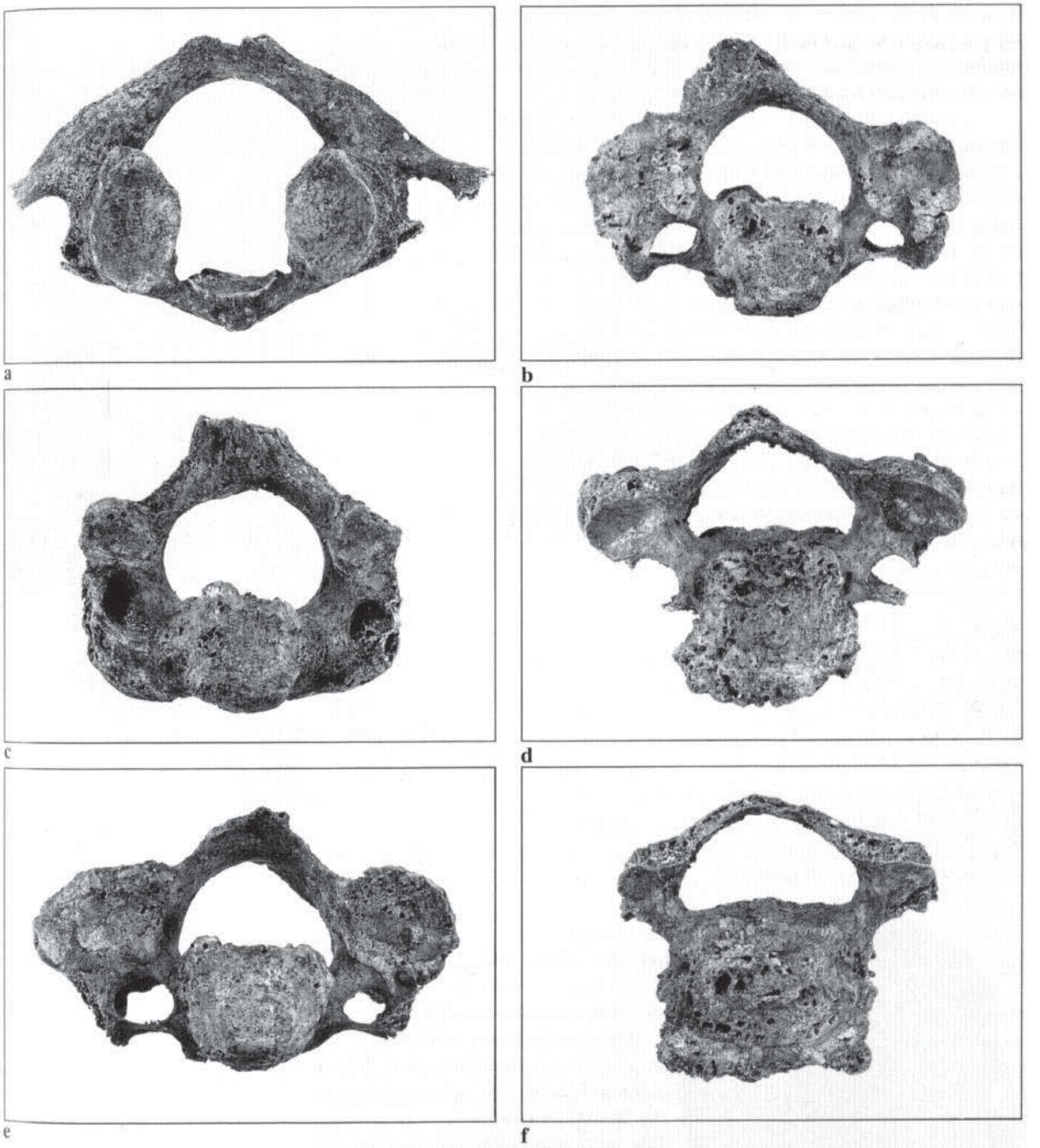


Figure 71 *Degenerative disc disease becoming progressively more severe down the vertebrae of Samuel Ireland.*

Scoliosis of the spine is a condition occurring as a result of vertebral body collapse (Figure 72), which can be caused by a range of conditions including osteoporosis. There were ten individuals with scoliosis of the spine, five of whom were female.

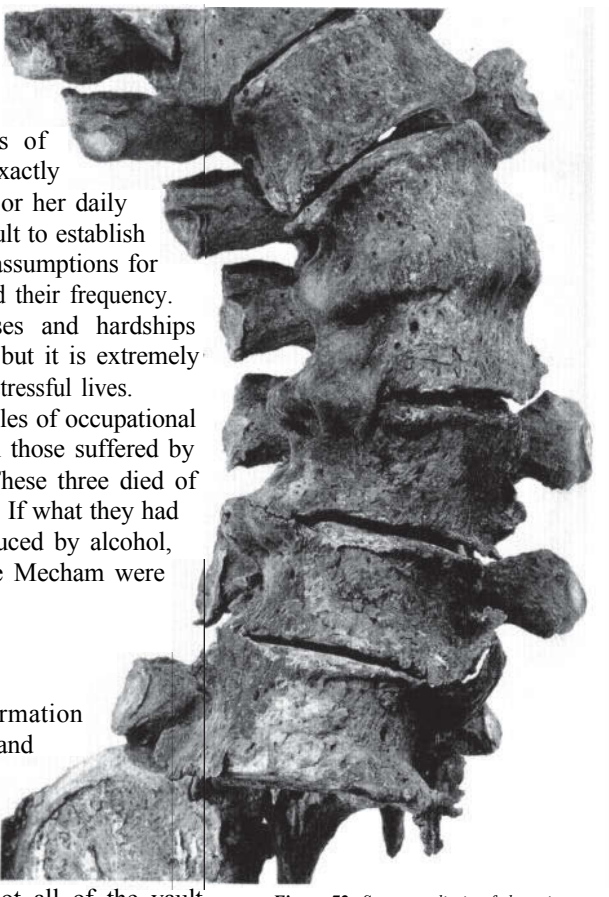


Figure 72 *Severe scoliosis of the spine of an adult male. The effect upon his posture is obvious!*

Occupational disease

It is very difficult to assess the physical implications of occupations in historic populations. Today, we understand exactly what a plumber, or doctor or stockbroker does during his or her daily routine. However, as discussed above, it is extremely difficult to establish this for past occupations and it would be foolish to make assumptions for individuals without evidence that characterises daily tasks and their frequency. There is considerable historical evidence of the stresses and hardships encountered in certain occupations, such as silk weaving, but it is extremely unlikely that those in the crypt sample lived such physically stressful lives.

With tongue in cheek, it is suggested that the only examples of occupational disease encountered in the named sample might have been those suffered by Thomas Mecham, his wife Anne, and Thomas Jackson. These three died of 'dropsy' according to their death certificates (see Table 18). If what they had was ascites of the abdomen, this may well have been induced by alcohol, which was freely available to them all. Thomas and Anne Mecham were victuallers, and Thomas Jackson a sailor!

Paget's disease

Paget's disease is characterised by abnormal bone formation resulting in thickening of the bone (Figure 73), fractures, and collapsed vertebrae. The disease is rare in those below 50, and more common among males. Between 3% and 5% of the modern population are affected by this condition. Skeletal diagnosis of the disease in its early stages requires radiographic examination of the skeleton, and not all of the vault sample were X-rayed. Consequently, the nine males and eight females noted as being affected are an underestimate.

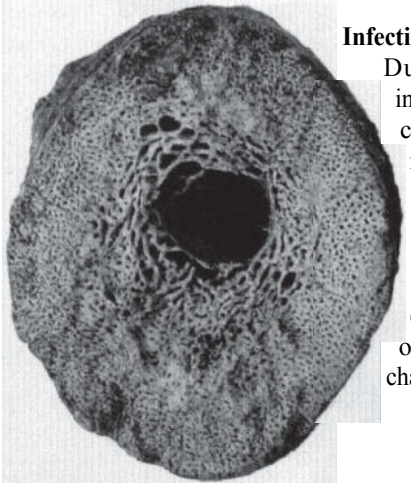


Figure 73 *A cross section of a bone showing signs of Paget's disease.*

Infectious disease

During the 18th and 19th centuries infectious diseases were the most common cause of death. Unfortunately, most yield no skeletal response, and hence are invisible in a cemetery sample. Of those that can be detected, tuberculosis was the most common in our period. Tuberculosis has already been discussed (p55); it is surprising that as few as two out of almost 1,000 had the skeletal changes associated with this condition.

Figure 74 *From Hogarth's* Marriage à la mode. *The young lord complains to the quack doctor that his pills have not resulted in a cure. A skull, showing the tell tale signs of syphilis, is on the table.*

Syphilis

Those who are full of lust
Carry their wealth and their health
Into my stinking crevasse.
But after their sudden pleasure
They come out of the Net pickled
And go and sweat in the Hospital.

(Paris 1664)

Syphilis affected Europeans from at least the late 15th century, and became more widespread as it decreased in virulence. In contemporary minds it changed from a 'pestilence' to a disease. The course of the disease includes a latent stage with no symptoms, followed by a range of symptoms including paralysis, blindness, insanity, heart failure and premature death.

During the 18th and 19th centuries syphilis was mainly spread via prostitutes, through their clients, to wives and children. Until the end of the 18th century, it was not differentiated from other venereal conditions such as gonorrhoea. According to the Bills of Mortality, deaths resulting from the 'French Pox' were not common, with fewer than 100 attributed deaths of roughly 20,000 annually (less than 0.5%). Despite this, the symptoms, and the skeletal response, were well known, as can be seen in contemporary illustrations (Figure 74).

Two cases of syphilis were present amongst the Spitalfields sample (0.2%). The first case was a 51 year old male with lesions on the frontal area of the skull, the vertebrae, ribs and clavicle, see Figure 75. The second, a male of unknown age, had multiple lesions on the skull *(caries sica),* many of which had destroyed both the inner and outer tables of the cranial vault (see Figure 76). Some of his long bones were affected, including the femora, left humerus and radius, and right ulna. There were no cases of congenital syphilis in this sample and no women were affected.

The customary 'cure' for syphilis was mercury, which could be applied as an ointment or taken by mouth. Bizarre treatments included anti-venereal underpants coated with mercury, and fumigation. It was recognised that mercury had no value if the disease was in the later stages, and that as a poison, mercury could itself cause death. Analysis by ICP (Inductively Coupled Plasma – a process that simultaneously determines a large number of metal ions) of rib bones gave no evidence of mercury ingestion in the two Spitalfields cases of syphilis, although it was detected in two children. For further details of the history of syphilis, *see* Quetel 1990.

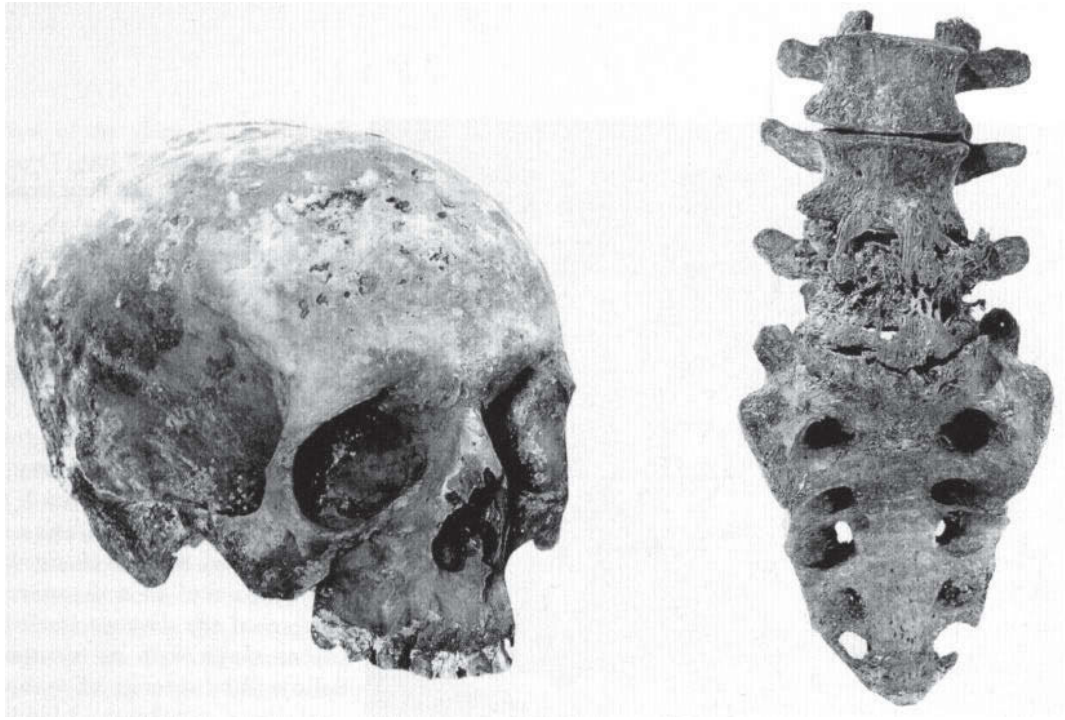


Figure 75 *Signs of syphilis on the skull and vertebrae of a 51 year old male.*

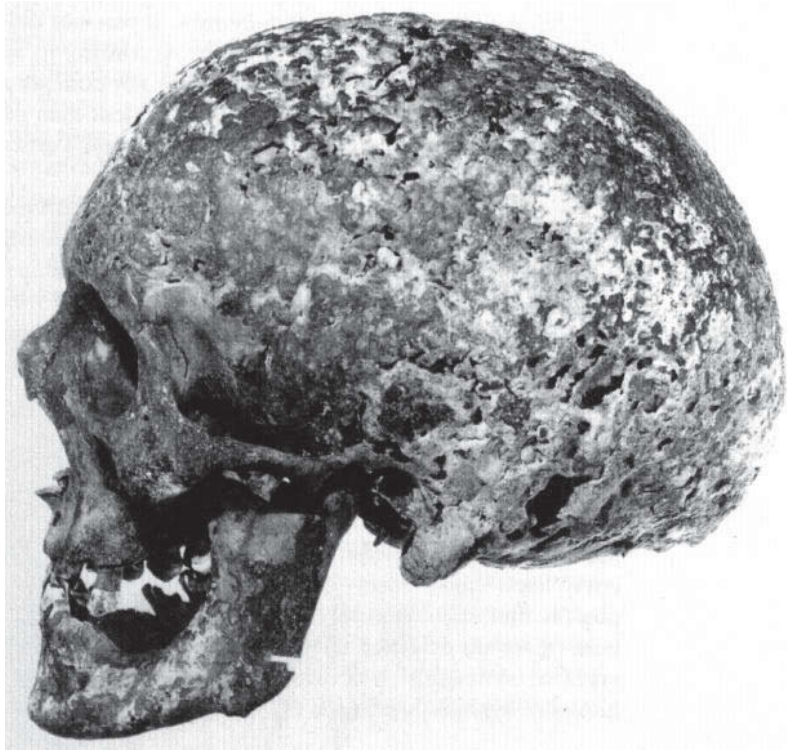


Figure 76 *Multiple erosive legions and bong remodelling typical of syphilis on the skull of an unnamed male*

Cancer

Evidence of cancers in archaeological samples is infrequent for three reasons. Firstly, cancer is largely a disease of the elderly and in the past it is possible that fewer people survived to old age than today. Secondly, in the past there were fewer carcinogens in the environment than there are today. The third factor is diagnosis: many skeletal changes are only detected radiographically and few skeletons are X-rayed.

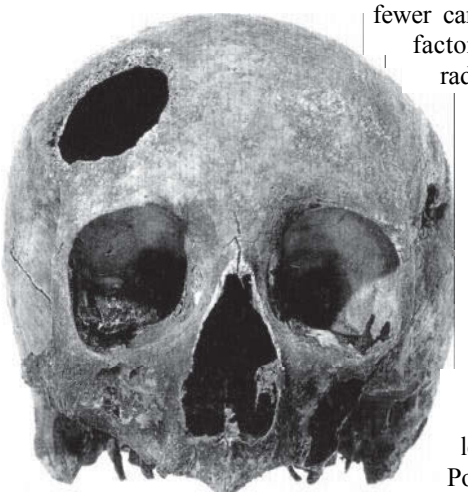


Figure 77 Evidence of malignant disease in Hannah Brown's skull. Her death certificate gives her cause of death as debility.

There was only one case of malignant disease detected amongst the Spitalfields sample. This was a lytic lesion in the skull of Hannah Brown who died aged 75 (Figure 77). This may well have been a secondary spread from a primary carcinoma in the breast. Her death certificate *(see* Figure 16) gives her cause of death as 'debility' – perhaps reflecting the weight loss and weakness often associated with cancer.

Vascular disease

Very few of the vascular diseases affect the skeleton. One that can is an aneurysm of the descending aorta. A large erosive lesion (Figure 78) seen on the thoracic vertebrae of Daniel David Pontardant is likely to be indicative of arteriosclerosis in an elderly man.

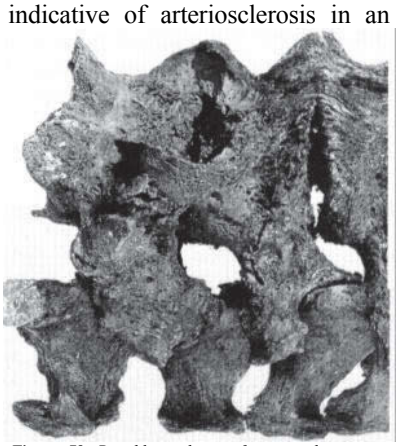


Figure 78 *Possible evidence of arteriosclerosis in the spine of Daniel David Pontardant aged 86.*

Broken bones

Healed fractures are commonly seen in skeletal material from all periods (Figure 79). They are usually easily recognised because of both resulting deformity and the formation of a callus of new bone around the site of the fracture. Generally, fractures associated with accidents which caused or just preceded death are undetectable.

In the crypt sample 9% of males and 5% of females had experienced fractures to one or more bones. These are described in Table 14. It is impossible to be sure how these fractures were sustained, but some explanations can be deduced from modern experience.

Table 14

Different bones found to have fractures in the skeletons recovered from the crypt

Rib	34
Fibula	5
Pelvis	4
Radius	3
Tibia and fibula	3
Clavicle	2
Vertebrae	2
Femur	2
Skull	1
Ulna	1
Radius and Ulna	1
Tibia	1

Unusual fractures include those of the pelvis which could reflect a blow by a moving vehicle. Two males had fractures of the superior and inferior left ischio-pubic rami. James Lee, who also suffered seven fractured ribs on the right side, recovered from this experience, despite considerable internal bleeding (Figure 80), while John Leschallas, aged 75 did not. Leschallas had also experienced broken ribs during his lifetime and had a healed, though twisted, left femur. The pelvic fractures are similar to injuries seen in road traffic accident victims today and it is possible that these men were hit by a coach or cart in one of the narrow streets of the neighbourhood (see Figure 81).

Figure 79 *Thomas Burdett suffered a compound fracture on his right leg, which, though broken in three places, healed well.*

Figure 80 *Well healed fracture in the pelvis of James Lee.*

Figure 81 *Traffic congestion led to overturned carts and the risk of crush fractures to those caught in the meleé.* Ludgate Circus *by E Lami, 1850.*

Psychiatric disorders

It seems likely that the pressures of life in 18th and 19th century London may have been akin to those of today and that the prevalence of mental illness and disorders is also likely to have been similar. The period began with those who were 'different' being cared for within families and absorbed into society, however, with increasing urbanisation and industrialisation through the 18th and 19th centuries, those who were 'simple' or 'lunatic' would have been separated off from family and society and confined in the burgeoning number of lunatic asylums.

Clearly, it is impossible to deduce psychiatric disorders from skeletal remains alone. Nevertheless, where we have both skeletons and historical documentation this is, very occasionally, possible.

The Times of December 14th 1852, reported a Coroner's inquest held into the suicide of William Louis Moinier Leschallas, which took place on the previous afternoon in the deceased's drawing room at 32 Budge Row, Cannon Street. Leschallas was a well known wholesale stationery manufacturer and exporter. He was also a rag merchant, this commodity being the raw material of 'Moinier's linen-writing paper' (above, p58).

It appears that on the afternoon of 13 December, Leschallas had committed suicide by shooting himself through the head. The weapon was a low velocity pistol. Figure 82 shows the entry and exit wounds in the skull, the bullet having bounced off the bone. This successful suicide attempt followed another attempted in March of the same year. Skeletally this is represented by a gutter lesion to the left of his metopic suture, reflecting a bullet glancing off the bone. Why this earlier attempt failed is not known.

The Coroner decided that Leschallas had committed suicide while temporarily insane, and the historical evidence presented in *The Times* suggests that he was indeed suffering from a psychiatric disorder known as involutional melancholia. This severe form of depression seems to be triggered by a major 'life' event. Involutional melancholia is relatively uncommon, and it seems unlikely that the evidence supporting this verdict was manufactured by his relatives and friends to ensure his burial in consecrated ground.

It appears that Leschallas's paper mill in Chatham, Kent had been destroyed by fire about a year before his death. His warehouseman, Edward Gissings (who lived in Leschallas's house), reported that following this event Leschallas became convinced that he was on the verge of financial ruin despite the contrary reassurances of his advisers. His brother John supported this, commenting that his brother had been suffering mentally since the fire.

That this event had disturbed the balance of Leschallas's mind and distorted his sense of reality is confirmed by the fact that duty was paid on bequests from his estate valued at over £95,000 (excluding real estate). Leschallas was an extremely wealthy man by the standards of the day, despite his delusions of poverty.

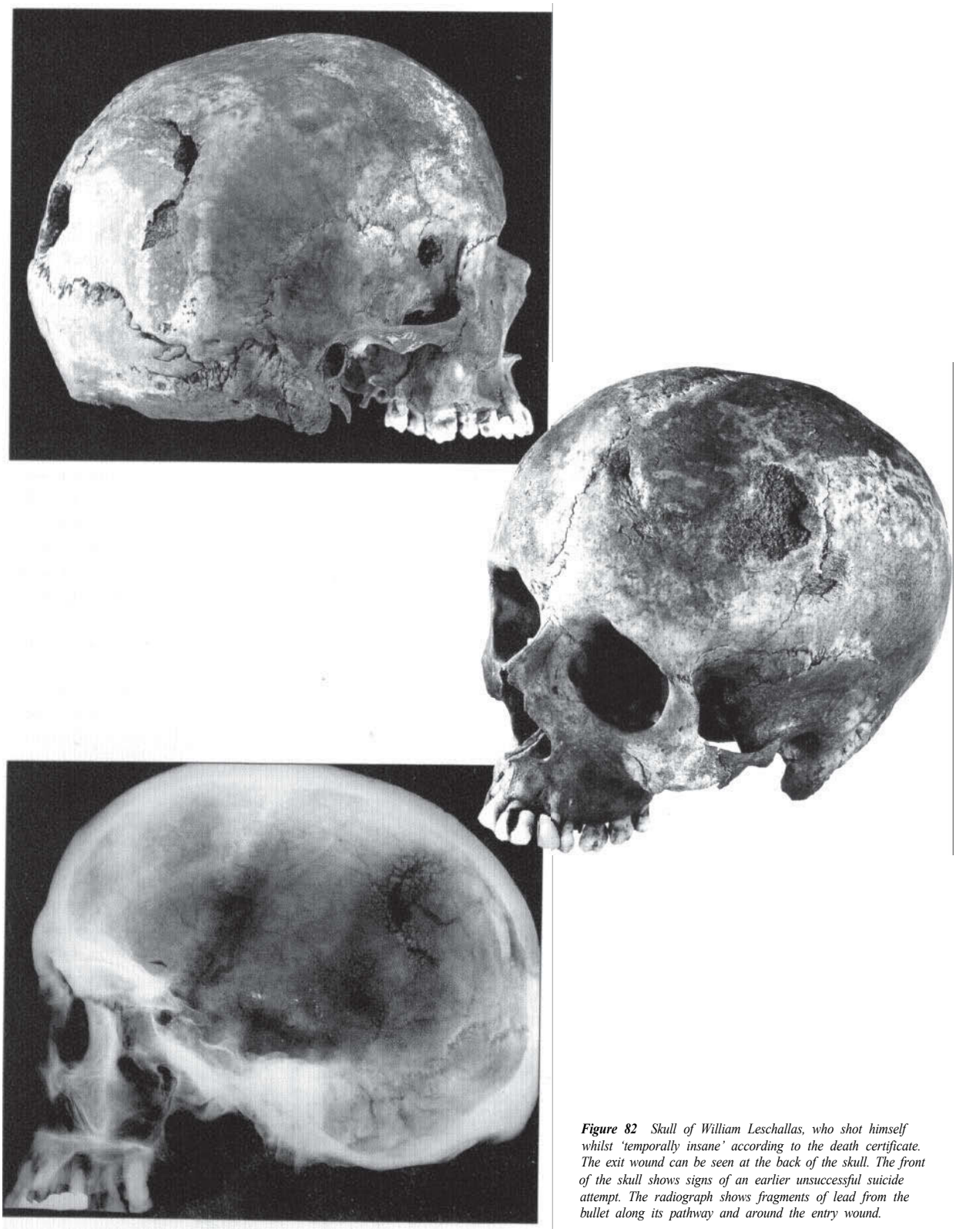


Figure 82 *Skull of William Leschallas, who shot himself whilst 'temporally insane' according to the death certificate. The exit wound can be seen at the back of the skull. The front of the skull shows signs of an earlier unsuccessful suicide attempt. The radiograph shows fragments of lead from the bullet along its pathway and around the entry wound.*

Oral health

Background

Generally, teeth survive very well in the burial environment, often much better than bone. However, the front teeth, having a single root, frequently become dislodged after death.

Tooth decay is a disease affecting many species. Indeed, Pleistocene cave bears are known to have had caries. The presence and distribution of carious (decayed) teeth is considered to indicate much about diet and oral hygiene. Diets that require considerable chewing, are to some extent self-cleansing, and seem to lead to lower evels of decay. Studies have shown an increase in dental decay as time has passed, although this has not been constant. For example, Anglo-Saxon populations had better oral health than those living in Roman Britain.

The oral health of the Christ Church sample is of particular importance for several reasons. As we have seen, the period was one that saw major changes in diet. The increasing availability of sugar and refined carbohydrates meant that diets contained greater amounts of readily fermented carbohydrates which can easily be broken down by micro-organisms to yield acid products which attack the mineralized tissues of the teeth. Further, the period witnessed the beginnings of dentistry as a science. Although the first English dental school was not established until 1858, the earliest scientific efforts at filling teeth and making dental prostheses all took place during the 18th century, although precise dates for 'firsts' are unknown. Formerly, dental needs – predominantly extractions – were largely met by a wide range of untrained people. Monks performed this important service in the medieval period and then barbers took over in the 15th century (Figure 83). The poet John Gray (1685–1732) described the wide range of services that continued to be offered by such people during the time covered by the Spitalfields burials:

His pole with pewter basins hung,
Black, rotten teeth in order strung,
Ranged cuts, that in the window stood,
Lined with red rags to look like blood,
Did well his three fold trade explain.
Who shave, drew teeth, and breathed a vein.

The causes of poor dental health were ill-understood at this time and as late as 1753, it was believed that dental caries were caused by worms in the teeth. Frederick Hoffman MD of London advocated that these could be dislodged by a decoction of coloquintida, pills of aloes and myrrh and a 'snook of henbane'. However, the profession developed rapidly from the 18th century due to works such as John Hunter's *The Natural History of the Human Teeth* (1771) and *Pathology of the Teeth* (1778).

Table 15
Percentage of teeth showing signs of decay

Age group	Teeth present	Decayed teeth		Individuals with decayed teeth	
		N	%	N	%
6–15	513	74	14.4	19	73
16–25	275	37	13.5	8	80
26–35	397	90	22.6	15	100
35–55	504	79	15.6	19	86
56+	451	105	23.3	22	96
Total	2140	385	17.9	83	87

Figure 83 *Before the advent of dentists, barbers performed tooth extractions alongside their other services.*

Dental caries

Table 15 shows the number of individuals with carious teeth, and the number of teeth which were carious. These figures are not derived from the total crypt sample but from a sample of 100 skulls which each had twelve teeth present. Clearly, such a method underestimates the prevalence of tooth decay as it excludes those who had lost most of their teeth as a result of it. It would appear that at least 87% of this sample had carious teeth and that at least 17.9% of all teeth were carious.

Periodontal disease

The loss of supporting bone around the teeth is a major contributor to tooth loss. Table 16 shows the numbers of teeth which were lost prior to death, in the same sample of 100, possibly due to alveolar resorption. Again this is only an estimate as it does not exclude extractions; furthermore it excludes from the reckoning those who had lost all or nearly all of their teeth.

Contemporary dentistry

> The widow of the later Dr Povey, operator for the teeth, now follows the same business; she cleans teeth and puts in Artificial ones so easy, so neat and firm that they need not be removed for years and sells his medicines... She has a Cephalik, which certainly cures the toothache in a minute's time...she stops hollow Teeth so that the pain will never return again. (sic)
>
> *(Post Bag,* London 1719)

The extraction of teeth during this period would have been undertaken using primitive forceps known as 'the key,' a device which, when turned, dislocated the tooth from its socket, or 'the pelican' and 'elevators' both of which prized the tooth from its socket. Screws, which acted like cork screws, were used to remove the stumps of incisors and canine teeth. It is not usually possible to deduce from skeletal material whether missing teeth were lost through disease or extracted by a 'dentist.'

Table 16

Number of skulls and number of teeth in each age group

Age group	No of skulls	No of teeth	Average no of teeth	Lost before death (% of possible)	Lost after death (% of possible)
6–15	26	513	19.7	17 (2.8)	69 (13.4)
10–25	10	275	27.5	15 (7)	20 (9.5)
26–35	15	397	26.5	27 (5.7)	45 (9.5)
35–55	22	504	23.0	103 (15.2)	69 (10.2)
56+	23	451	19.6	179 (25.7)	66 (9.4)
Total	96	2140		314 (12.5)	269 (9.7)

Drills were used to prepare for fillings as early as the 2nd century AD (Galen). By the post medieval period a variety of drills were in use, including bowdrills, hand drills and even an Archimedes drill. The Chevalier drill, developed in 1855, was the first to have an angled head, and mechanised drills began with Morrison's 'patent dental engine' invented in 1872.

During the medieval period, carious teeth were filled with wax, gum, resin and even raven's dung! By the 1780's various materials were used as fillings such as gold, which was the most common, pitch, beeswax, tin and lead. In 1833 the Crawcours family arrived in England from France, bringing with them a material they had developed for fillings known as royal mineral succedaneum. It comprised an amalgam of mercury and filings from silver coins.

Figure 84 *A gold foil filling across two teeth.*

Fillings were only found in three individuals from the Christ Church sample, Unfortunately, only one of these was a named individual, and consequently we cannot be sure of all their dates. A grey metallic filling of the type described above was seen in only one skull, in the upper right canine. Two other individuals had gold fillings; one had two, the other six. The latter is very important as a dated example of dentistry of this type in Britain, The unnamed individual had fillings comprising gold foil condensed across the gap from one tooth to the next (Figure 84). These fillings appear to have been successful in preventing further decay. However, the six gold fillings in the teeth of Eliza Favenc, who died aged 27 in 1809, seem largely to have been unsuccessful (Figure 85) with recurrent decay around them. The rarity of such treatment within the sample makes it likely that it was extremely expensive. Eliza Favenc's husband was Consul of the Canary Islands and it must be assumed that they were reasonably wealthy. Gold fillings took about 3 hours each to fit. The gold was rolled into a cylinder and pushed into the cavity.

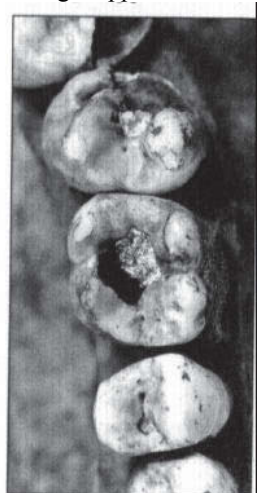


Figure 85 *Two of Eliza Favenc's gold fillings with signs of further decay around them.*

Anaesthetics employed during dentistry ranged from opium, laudanum and morphine to chloroform (first used in France in 1831) and nitrous oxide which came into use after 1868.

Dentures

Dental prostheses are known to date from the Etruscan period (c700BC) and were used by the Phoenicians (c600-400BC). During our period, a popular alternative to a prosthesis was to have healthy teeth transplanted from a donor into the socket of an extracted tooth. The manufacture of dentures and bridges advanced enormously though the 18th century, largely through French innovation adopted by English dentists. The work of Pierre Fauchard (1728) was very influential. He advocated the use of silk and wire ligatures to hold prostheses in place, and hippopotamus teeth and walrus ivory as suitable materials from which to carve false teeth. Plaster of Paris casts, made from wax impressions, were used from the middle of the century. The use of springs to hold plates in place seems to have originated in the United States, the idea of John Greenwood (1760-1819). In spite of these technical advances, most dentures at this time were regarded as largely cosmetic, and it was quite acceptable to remove them at dinner! For further details of this fascinating subject, see Bennion 1986.

Nine individuals exhumed from the vaults beneath Christ Church were wearing either bridges or partial dentures. Unfortunately, the majority were of unknown name and the dentures are thus largely of uncertain date. It seems probable that more people wore 'false teeth' of some type but that the high value of the components of some meant that they were removed prior to interment. Figures 86 to 92 illustrate some of the dentures found.

Figure 86

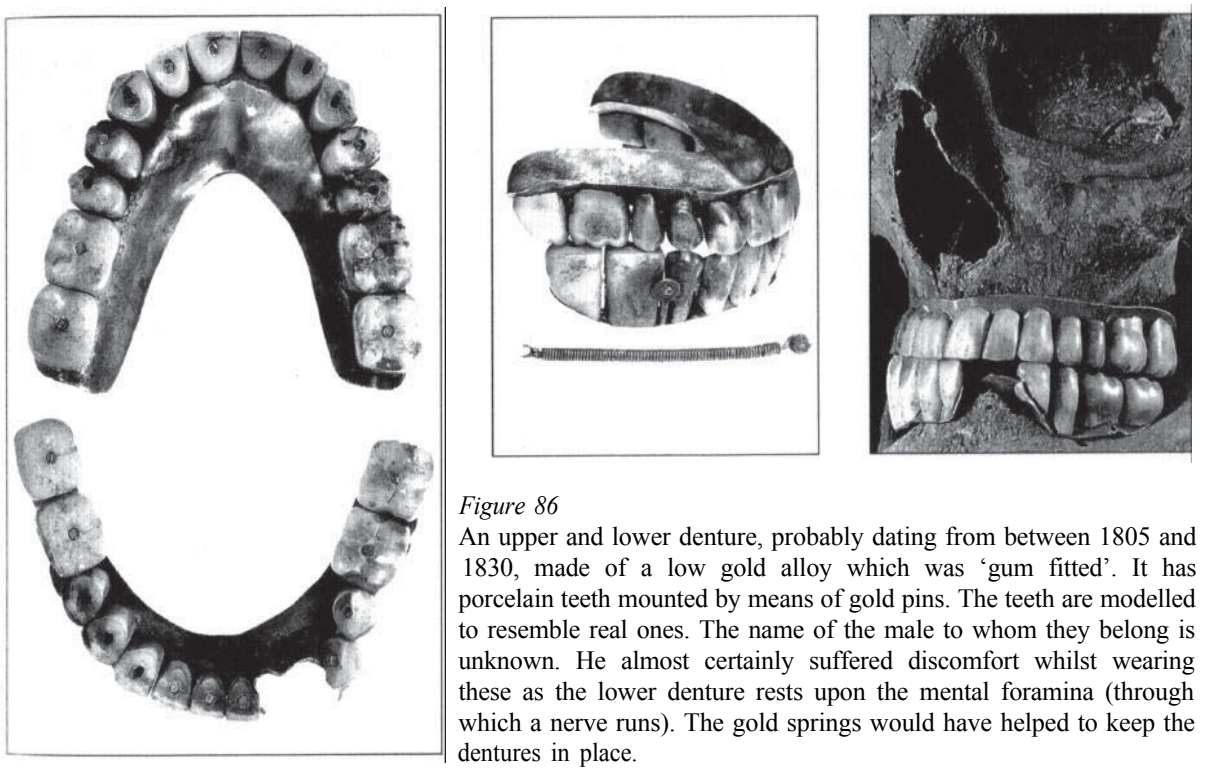


Figure 86
An upper and lower denture, probably dating from between 1805 and 1830, made of a low gold alloy which was 'gum fitted'. It has porcelain teeth mounted by means of gold pins. The teeth are modelled to resemble real ones. The name of the male to whom they belong is unknown. He almost certainly suffered discomfort whilst wearing these as the lower denture rests upon the mental foramina (through which a nerve runs). The gold springs would have helped to keep the dentures in place.

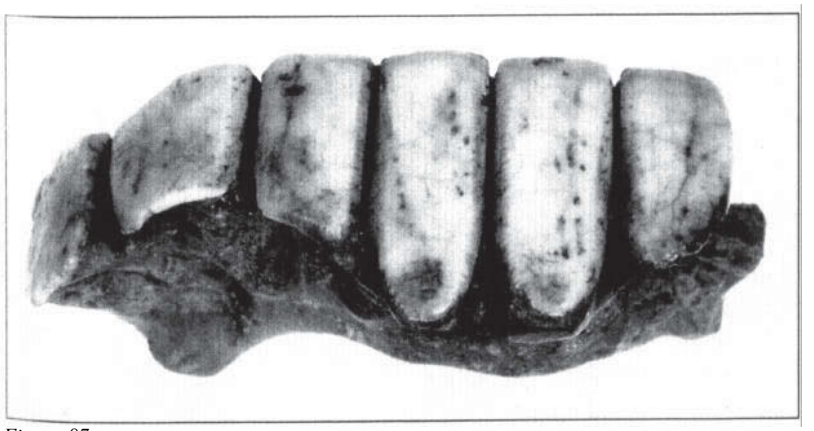


Figure 87

Figure 87
A partial denture made for the lower jaw of an unnamed individual. The base is carved from a block of hippopotamus ivory and the teeth, which are poorly characterised, appear to be faced with enamel from animal tooth. A common design from around the end of the 18th century, this denture was probably fitted over the retained roots.

Figure 88
Deborah Peck was the wife of a very wealthy silk dyer; she died aged 35 in 1739. Her denture is a very early design and comprised two natural teeth and two carved replacements of ivory faced with animal tooth enamel. These were bound together by silk ligatures. This would have been permanently tied into her mouth.

Figure 88

Figure 89
A lower denture formed from a sheet of gold which was cut and folded around the lower molars. The upper component is lost. This expensive prosthesis belonged to Charles Shaw Lefevre who died aged 64 in 1823. A landed barrister, he had married into the wealthy Lefevre family. This denture fitted around existing teeth and probably held pinned natural teeth, now lost. Springs attached to rotating rivets held this sophisticated device in place.

Figure 90
The owner of this denture, which survives in very good condition, is unknown. The base is carved of ivory and the teeth are natural and were either pinned or riveted to the base using gold pins. The denture sits over root stumps and accommodates existing teeth. The plates are joined and held in place by rotating, coiled springs.

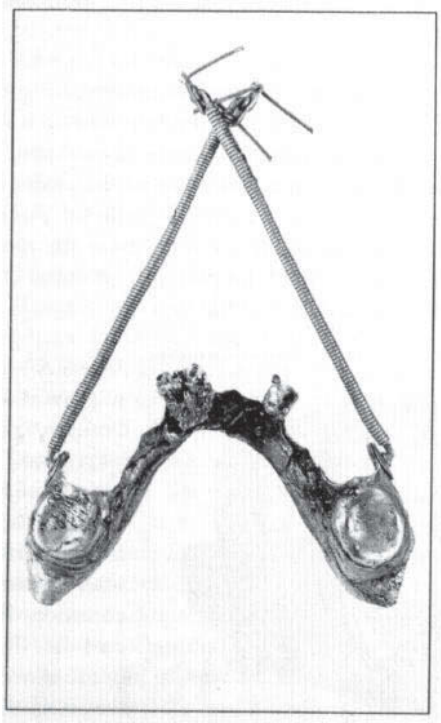


Figure 89

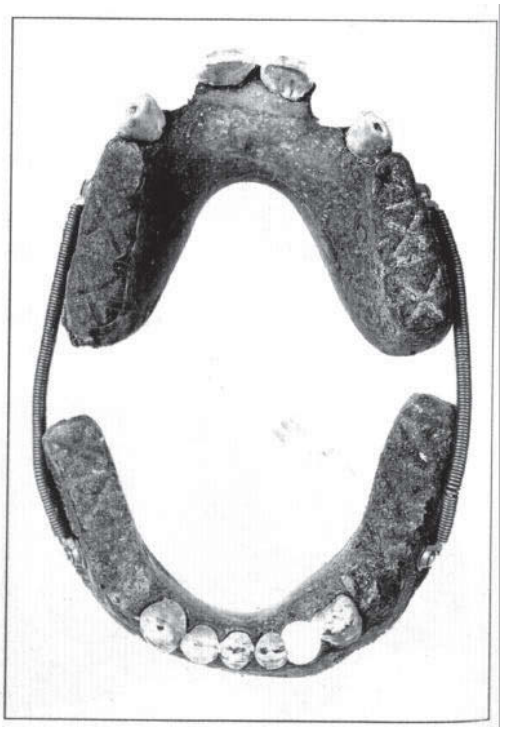


Figure 90

Figure 91
This denture was recovered from the mouth of its owner who is of unknown name. It consists of a carved bone base replacing teeth which were sawn off at gum level (a), exposing the pulp of the teeth but leaving the roots *in situ.* The reason for this procedure is unknown and it seems likely that the end result was extremely painful. The three replacement teeth are natural and are backed by the bone base (b). Silk ligatures attached this to the surviving teeth (c).

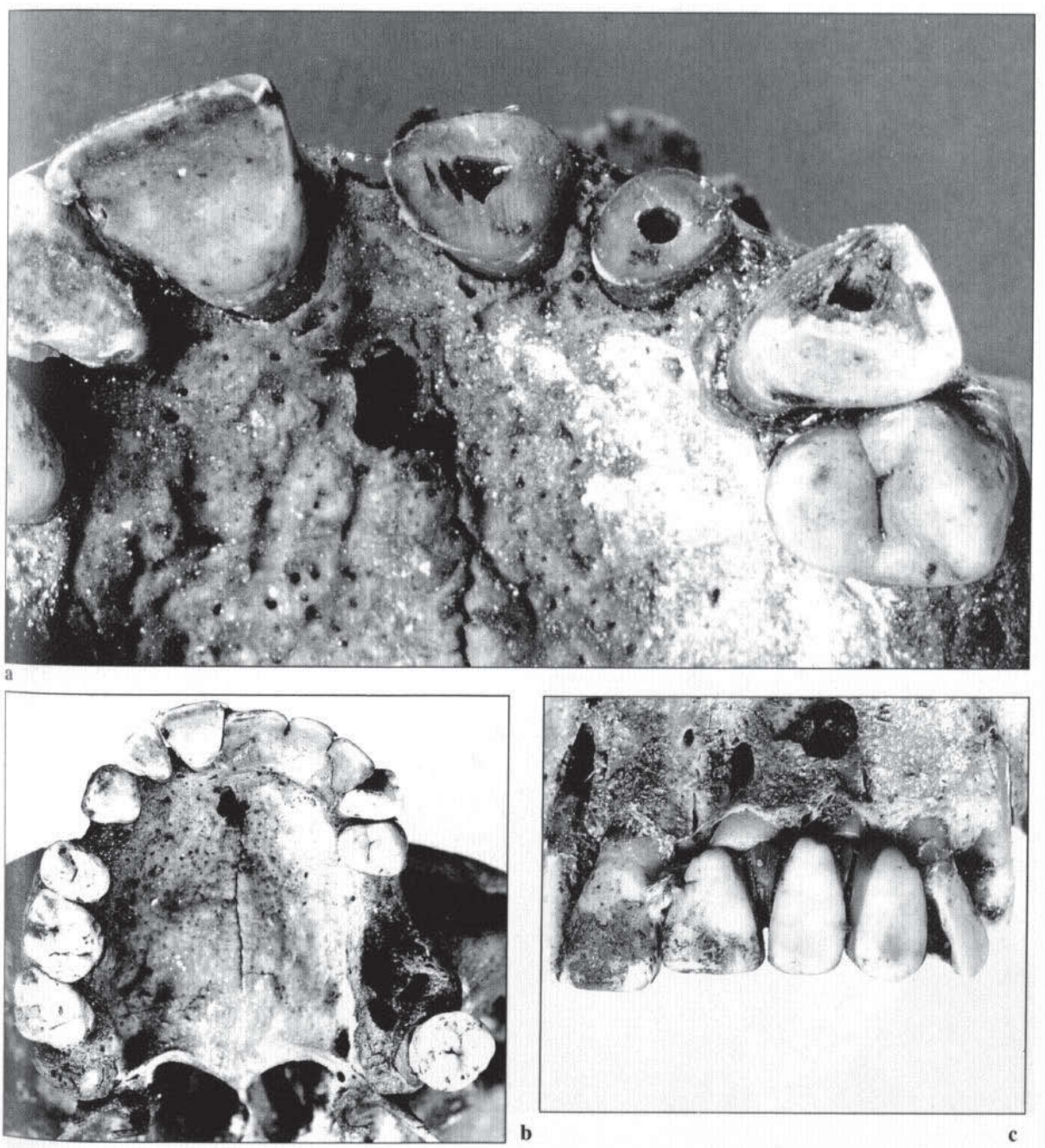
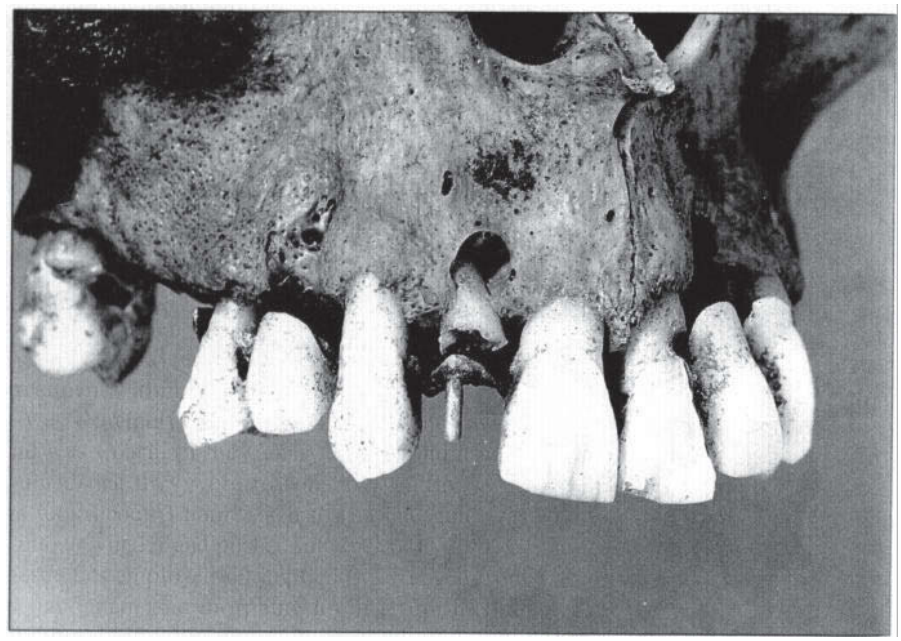


Figure 92

The most spectacular, and almost certainly most expensive, of the dentures recovered from Christ Church was firmly fitted into the mouth of William Leschallas, who died aged 57 in 1852. The denture consists of a small gold base plate which is gum-fitted and which carries four porcelain teeth inserted onto gold rivet pins. This prosthesis fits so closely that it is impossible to remove it from the jaw. It seems likely that the extremely close fit may have caused some discomfort.



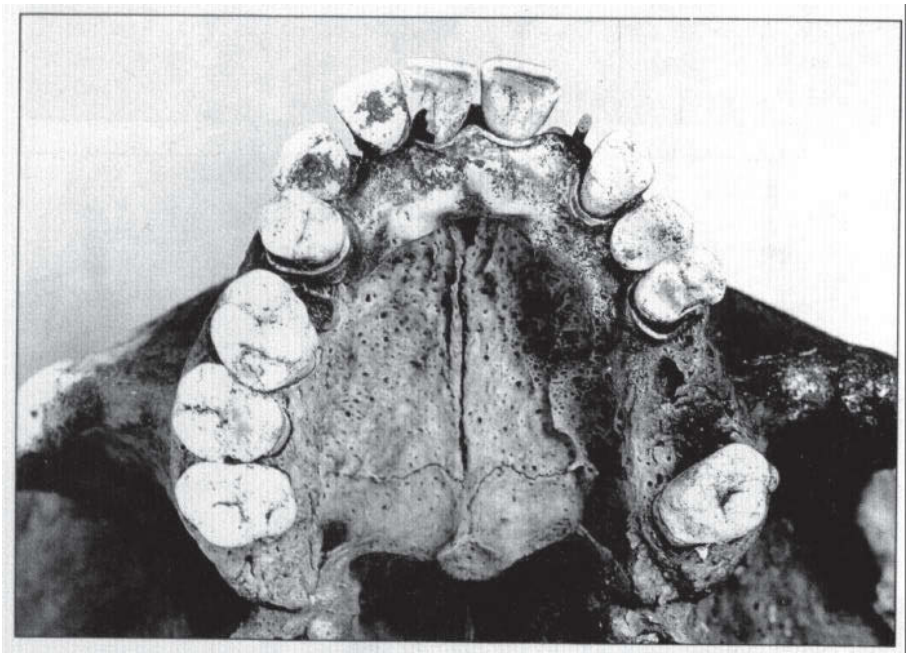


Figure 92

Old age and death

Growing old

Today, chronological age plays an important role in our lives. Social rites of passage - the right to vote, to consume alcohol, to drive, or be conscripted - have their informal counterparts in 'thirty something' or 'the Big 40'. Towards the end, retirement is fixed at a specific age. In the past, however, as today in many third world countries, chronological age was of less significance than biological age. Hence, factors such as ages of weaning, puberty and menopause, and fitness and infirmity were what mattered, rather than the number of birthdays celebrated.

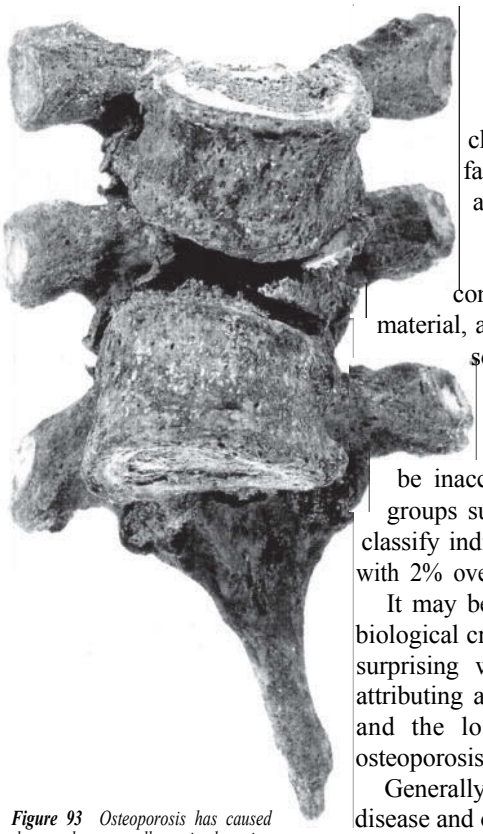


Figure 93 *Osteoporosis has caused the vertebrae to collapse in the spine of this unknown female.*

Reflecting today's priorities, 20th century anthropologists are concerned to determine chronological age at death from skeletal material, and they have devised a range of skeletal methods to assist in doing so. Some of these are more accurate than others, but for adults few are accurate to, at very best, within a decade. A range of ageing methods was tested on the named sample from Christ Church and many macroscopic and microscopic methods have been shown to be inaccurate on an individual level. Even categorising adults into crude groups such as young (below 35), middle-aged (35 to 50) or old, failed to classify individuals into the correct group. Only 39% were correctly attributed, with 2% overaged and 58% underaged.

It may be that to determine a chronological value from a range of variable biological criteria is not possible other than in the broadest terms. This is hardly surprising when scrutiny of living people demonstrates the difficulties in attributing age to adults, even with such give-aways as greying hair, wrinkles and the loss of stature associated with such age-related conditions as osteoporosis. Without soft-tissue indicators the task is much more difficult.

Generally speaking age-related diseases affecting the skeleton, such as Paget's disease and osteoporosis (Figure 93) were found in people of the appropriate age and above. Kyphosis associated with osteoporosis (widow's hump) was and still is a common sight among the elderly. Five elderly females and four men were affected. Degenerative conditions such as arthritis (see Figure 69) were also found to relate to age, with older individuals being more prone to widespread osteoarthritis than the young. Specifically, in women, the thoracic vertebrae (lower spine) were subject to osteoarthritis from the age of 35 with the condition worsening with increasing age. Men were affected more severely, and from an earlier age.

Causes of death

As has been discussed, it is extremely difficult to determine the cause of death of individuals from skeletal material. Fortunately, 28 named individuals died after the beginning of civil registration on 1 July 1837. The death certificates of 26 were obtained from Somerset House (the other two could not be traced). These are listed in Table 17. Death certificates provide a wealth of information. Apart from the date and place of death, Martha Smith's death certificate

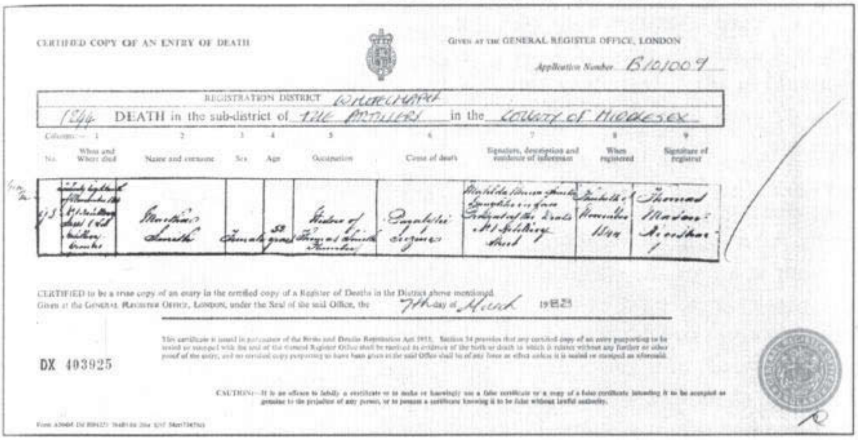
Table 17
Cause of death from death certificate

Name	Date of Death	Age	Cause of death
BROWN Hannah	February 1843	73	Debility
DAYCOCK John	October 1852	74	Congestion of the liver 7 days, with bronchitis, cerebral effusion 24 hours certified
DESORMEAUX John	December 1839	63	Asthma
HURLIN Sarah	May 1839	73	Mortification in the feet
JACKSON Thomas	July 1839	63	Dropsy
KILNER John	December 1847	70	Found dead in bed without marks of violence*
KILNER Mary	January 1849	57	Found dead in bed without marks of violence*
LADBROKE Henry	October 1847	75	Epilepsia since youth, hydropericardium for 6 or 8 months
LESCHALLAS William Louis Moinier	December 1852	57	Shooting himself in the head with a pistol bullet, died in a few minutes, temporary insanity*
MECHAM Ann	May 1839	54	Dropsy (Oedema)
MECHAM Thomas	August 1837	53	Dropsy
MEGNIN Peter	February 1839	55	Chronic disease of the lungs
MERCER Ann	December 1843	77	General decay
PARDIEU Sarah	December 1839	86	Decay of nature
PULLEY Frances	January 1843	82	Natural decay
PULLEY William Mills	April 1847	61	Disease of the spine, 5 years paraplegia certified
SMITH Martha	November 1844	52	Paralytic seizures
SNAPE Thomas	October 1845	53	Pneumonia, 4 days certified
STEPHENS Ann Harmer	October 1839	2y 9m	Scarlet fever
STEPHENS Jane	November 1844	22 days	Debility and convulsions
STEPHENS Thomas	December 1837	1y 8m	Inflammation on the lungs
TRIMMER Mary	March 1842	45	Diseased heart
VAUX Ann	August 1845	86	Natural decay
WALKER Ann	September 1838	87	Old age
WILKINSON Jane	January 1842	79	Decay of nature
WILLIAMS Thomas	June 1839	92	Decay of nature

* subject of a coroner's inquest

(Figure 94), in addition to telling us that she died of paralytic seizures at the age of 52, tells us that her daughter-in-law was present at her death, confirming that she herself had borne at least one child, and that her husband was a plumber.

Of the causes of death listed in Table 17, only one could be detected skeletally. William Leschallas's bullet wounds to his skull have already been described. If William Mills Pulley had been a paraplegic of five years, as we understand the term today (paralysed from the waist down), this condition would have been reflected in atrophy of his leg bones. However, William's legs appeared to be entirely normal so it must be assumed that the term paraplegia was used somewhat differently in 1847. Of the remaining causes of death, few offer any real clue that is meaningful to us today.


CERTIFIED COPY OF AN ENTRY OF DEATH

GIVEN AT THE GENERAL REGISTER OFFICE, LONDON

Application Number

REGISTRATION DISTRICT

DEATH in the sub-district of in the

No. | When and Where died | Name and surname | Sex | Age | Occupation | Cause of death | Signature, description and residence of informant | When registered | Signature of registrar

CERTIFIED to be a true copy of an entry in the certified copy of a Register of Deaths in the District above mentioned.
Given at the GENERAL REGISTER OFFICE, LONDON, under the Seal of the said Office, the

DX 403925

Figure 94 Martha Smith's death certificate.

Descriptions of the last illnesses of two individuals survive in letters. The first is in a letter written in August 1837 by John Walker of Spitalfields to his sister Ann in South Africa. It describes the death of their father, George Walker who died in May of the same year. John wrote:

> I have the painful task of informing you of the Death of our dear Father which took place at half past four O clock on Wednesday the 3rd of May last. He was taken on the Monday Night previous with a bleeding at the Nose which could not be stopped, and he gradually sank from loss of blood as several other vessels in his body broke, but he suffered no Pain he only complained of Faintness. He was quite sensible to the last moment and died without a Struggle quite resigned to the Will of the Almighty & gave us reasonable hope of a happy exit from this sublunary Sphere to the realms of bliss. His constitution seemed to be gradually giving way for a Month or so previous, as he did not eat his meals with his usual appetite and seemed fatigued with the least exertion, and instead of taking his Knap after dinner as usual in his chair, he would lay down in bed. We did not anticipate his death to be so near but thought it might be the effects of the Weather which had been very trying throughout the Winter and Spring, therefore we were not prepared for the shock. The Wednesday previous Martha's eldest boy near 12 years of age died of consumption & poor Father said he should not be long after him, but we little expected it to happen so soon. It was an appalling sight I assure you to see every Pillow etc saturated with blood in fact everything that passed from him was mixed with blood, but if we reflect it was a mercy he did not lay long in a helpless state considering his weight, I do not know what we should have done to have lifted him... (sic)

Unfortunately George died before civil registration began and consequently we do not know how his contempories would have described his cause of death. Modern diagnosis of his symptoms suggests that he did not die of an infectious disease or of a malignancy. His fainting spells and widespread bleeding indicate that he may have succumbed to thrombocytopenia, probably caused by a leukaemic process.

The letter written by George Courtauld in 1817, describing the death of his uncle, Peter Ogier, some 42 years previously (1775) is less amenable to modern interpretation:

> My Uncle Peter Ogier was a pattern of patient suffering for some years before his death. After lying on his couch in agony for quarter of an hour at a time drops of sweat running down his face from extreme pain - a few moments relief would induce expressions of pious gratitude for the ease he experienced, and he would speak with his wife and family about their several concerns; then when another paroxysm was approaching he would resignedly lie himself down and mildly say God's will be done (sic)

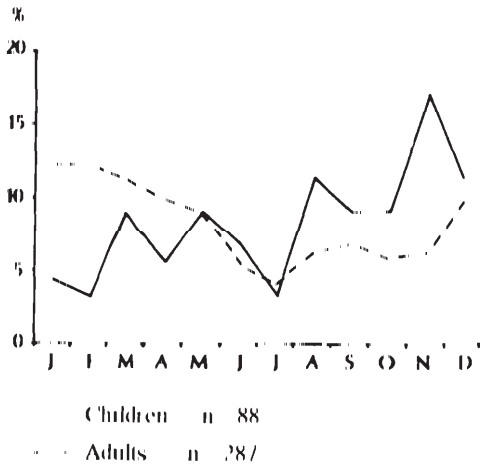


Figure 95 *Month of death of the adults and children buried in the vault.*

Seasonality of death

The seasonality of death is a useful indication of the agencies responsible for death within a population. High mortality figures during cooler months are generally indicative of deaths due to bronchial disorders, particularly among the elderly, while summer deaths can be associated with gastric conditions, especially in children. These rules of thumb are borne out in Figure 95 which shows the seasonality of death of the named sample. The death certificate data (see Table 17) show that the most of the deaths due to bronchial conditions occurred between October and February. Six of the fifteen children born to Martha and Daniel Mesman died during infancy. Interestingly, they all died between the months of May and October.

Comparisons of the seasonality of death of the crypt sample with both 18th and 19th century parish samples (taken from the Christ Church Burial Register) demonstrated that they were typical. There were slightly

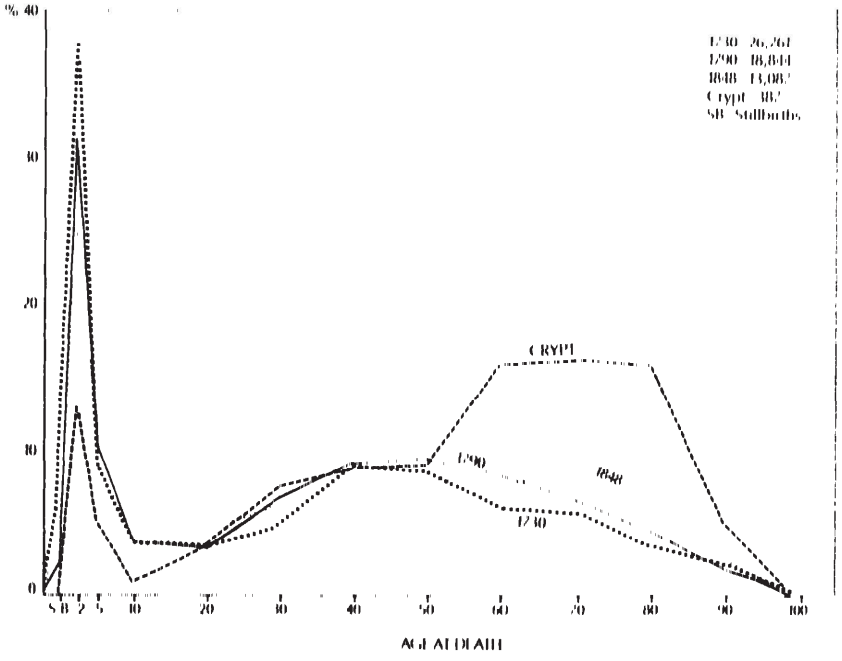


Figure 96 *Age at death of the named sample, compared with those of selected years from 18th and 19th century London.*

different trends between the two centuries, particularly during the autumn months. This probably reflects changing disease patterns.

Age at death

The ages at death of the named sample are shown in Figure 96 where they are compared with samples from the Bills of Mortality for London for the years 1730, 1790 and 1848. Interestingly, the death rates of infants and juveniles from the crypt sample is much lower, but by the time early adulthood is reached, they had a very similar life expectancy to those from London as a whole. This pattern continues until around the age of 50 when once again the crypt sample is atypical, with far more individuals enjoying old age than from elsewhere in London. The low infant mortality, as discussed above, reflects infant burial practice while longevity of the adults almost certainly reflects the high socio-economic status of the named sample.

In 1775, 10,134 men and 10,380 women were buried within London's cemeteries. Of these 7,742 were aged below two years, 1,025 were aged between 70 and 79, 418 between 80 and 89 and 53 died in their 90s. One individual died aged 100 and one at the good old age of 106. In total, 7.45% of those who died in London in 1775, did so above the age of 70.

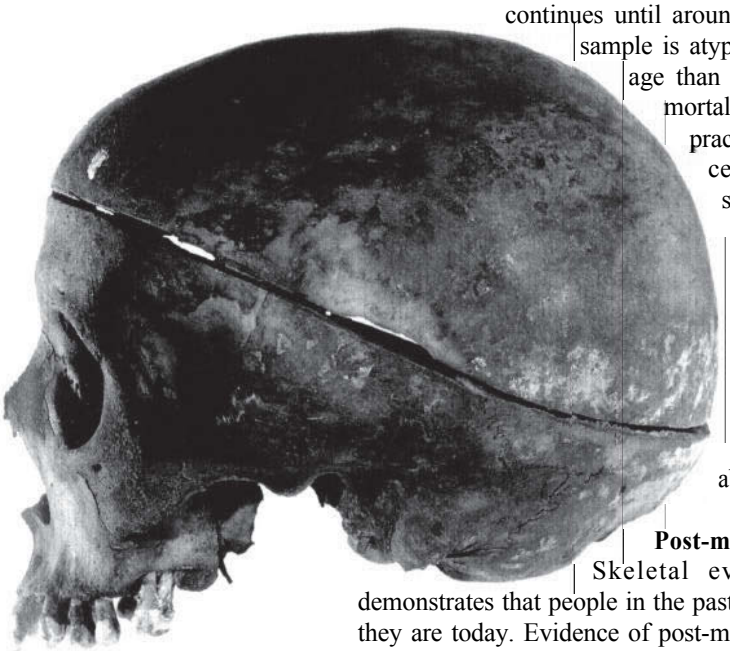


Figure 97 Autopsied skull of an unknown female.

Post-mortems

Skeletal evidence from beneath Christ Church demonstrates that people in the past were as curious about the cause of death as they are today. Evidence of post-mortem examination was seen in seven of the skeletons. In all but two the cranium had been sectioned, as shown in Figure 97. In the skeleton of a young female, the cranium had been sectioned and the parts of the vertebrae had been cut to remove the spinal cord. There was no pathological indication of why this had been undertaken; neither was there in the case of a juvenile whose ribs had been cut (Figure 98), or an adult male whose manubrium (lower breast-bone) was cut through.

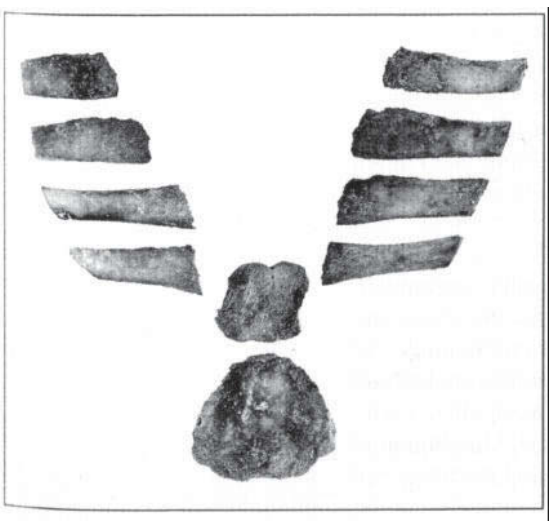


Figure 98 Cut marks on the ribs of a young boy indicated an autopsy was performed.

Two children from the named sample had been autopsied: Mary Anne Sanders and William Taylor Leese, who had died aged two years and ten months, respectively. William was the son of Louis Leese, a surgeon, and one wonders whether the post-mortem on his son was a grieving father's last attempt to understand the cause of his son's death, or the desire for science to benefit from bereavement. If it was the latter, Louis would not have been the first to dissect members of his family in the name of science. The renowned 17th-century anatomist William Harvey dissected both his sister and his father.

PART 4: DISPOSAL OF THE DEAD

The burial vaults

An understanding of the way in which the vaults were used has been obtained by analysis of inscriptions and coffin plate data, as well as the sequences of layers of tons of rubble brought into the vaults. Memorial inscriptions affixed to the outer walls of these vaults show that they were originally numbered sequentially and available for purchase for private use. Some inscriptions were very detailed and provided an indication of those interred within. Such information was occasionally in conflict with that in the burial register and the vault contents.

The small vaults were sold for use as family vaults throughout the 18th century. For example, the Peck vault was allocated before 1727; the Jervis vault was purchased by Philip Dutch for £35 in 1735; the Lefevre vault was purchased in 1739 for £19-4s; and the Vernezobre vault was acquired in 1744. Having purchased his vault, Benjamin Vernezobre obtained faculties (permission from the church authorities - the Diocesan Advisory Committee) and moved those members of his family who had predeceased the purchase from their original burial place in St Leonard's, Shoreditch.

Other family vaults included those of the Lemaistre, Leschallas, Hebert, Kilner, Chevalier, and Simpsons. They contained between four and 45 family members, and were in use for up to 98 years.

The latest known purchase was the vault acquired for the interment of Mary Mutch in 1798 and subsequently used by the family of her niece, Susannah Kilner. In fact, Susannah predeceased her aunt by some three months and was interred elsewhere within Christ Church. She was subsequently removed to her aunt's vault.

Three larger areas were designated as parochial vaults, although only two appear to have been used. The most westerly was in use up to 1813 and contained 335 burials; the eastern vault held 181 burials and was in use from 1813 to 1845. These larger areas contained a wide range of people, representing many families with an interest in Spitalfields. Families known to have been buried in the parochial vaults include the following names: Backer, Balguerie, Ball, Baudouin, Beck, Bennett, Beverley, Bowden, Curtis, Dance, Dickens, Dormer, Gardiner, Giles, Gamage, Haverson, Jackson, Jones, Lay, Mason, Megnin, Moody, Ogier, Peake, Raine, Rivas, Roy, Sainsbury, Sanders, Sherman, Sigourney, Smith, Sorel, Stephens, Tagg, Tilstone, Wilkinson and Williams. Other family vaults were constructed in the burial ground. Those purchasing such vaults included the Ouvrey family but little else is known about them.

Family vaults

The names on the coffin plates confirmed that many of the smaller vaults were used as family depositories. The inscription on p38 illustrates the use of the Mesman vault by the family over a period of 70 years. It contained 29 burials.

The Mesman dynasty, of which five generations were interred within Christ Church, owed its wealth to black-silk dyeing. The majority of named individuals were Mesmans, but others include Jourdan, the family into which Mary Mesman married, and Cox. Dinah Cox was the wife of John Mesman, John being her

second husband of three. Her presence within the Mesman vault suggests that she maintained a close relationship with the family even after her remarriage. The other name within the vault is that of Mary Loader. Mary does not appear to have been related to the Mesmans and archaeological evidence suggests that her coffin was in fact redeposited in to this vault from elsewhere.

The coffins

Design and construction

The majority of burial containers were flat-lidded single break (angled at the shoulder) coffins, the familiar design still in use today. Figure 99 illustrates the construction of a typical single shelled coffin and Figure 100 shows an example from Christ Church. Some coffins were double, or triple shelled containers constructed of wood and lead. Four burials did not conform to this shape; one was trapezoid in shape, and three rectangular. Of the rectangular coffins, one contained three burials and the other nineteen. The rectangular coffins were all braced with iron straps. Curiously, 22 skeletons showed no signs of being buried within a coffin. It is possible that they were deposited in shrouds alone, or removed from their coffins after interment, by the sexton.

The coffins were constructed of a variety of materials including elm (74% outer and 85% inner), conifer (21% outer and 13% inner), lead and iron; elm and lead being the predominant materials. The most frequent thickness of wood for outer coffins was 25mm (1 inch), with 20mm (4/5 inch) for inner coffins. Carpenters' marks were observed occasionally, as were measurements written in chalk. Almost all of the outer wooden coffins were covered with upholstery. The wood was not waxed or polished underneath the upholstery. A small number of children's coffins were painted white with an oil-based paint, or limewashed or covered in white plaster. An example of the latter was the coffin of Master Alfred Hall-Jones who died in 1822 aged 2 years and 6 months.

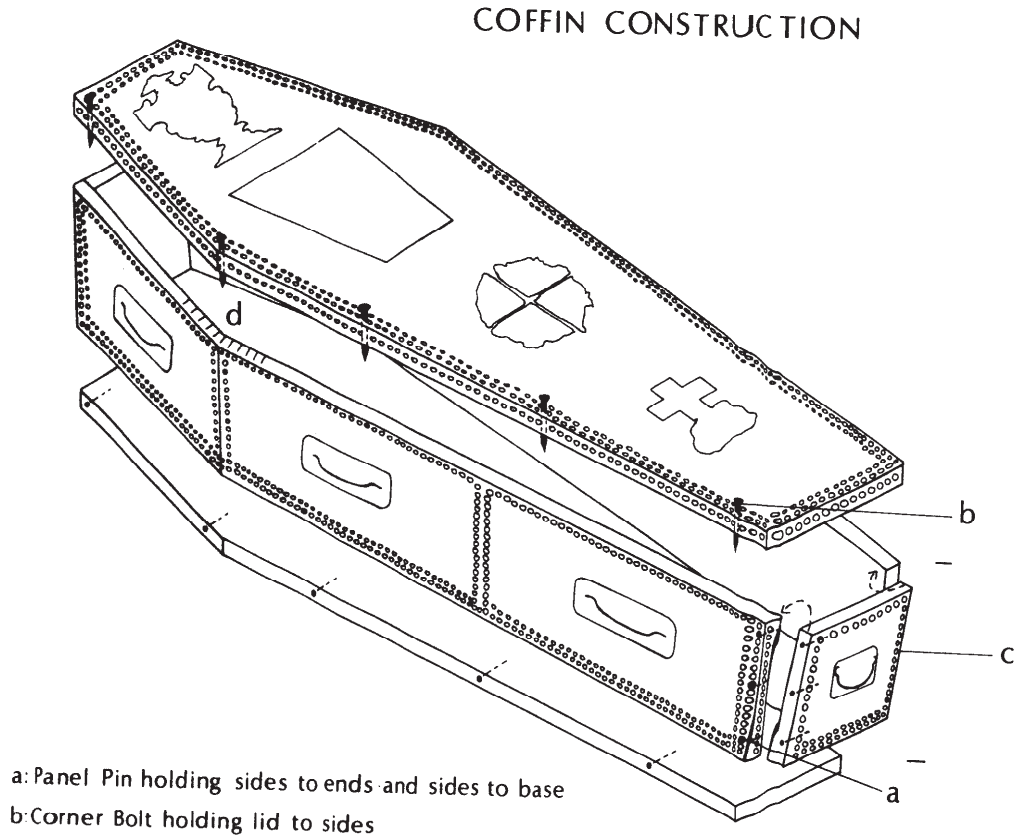
The insides of both single-shelled and inner wooden coffins sometimes had their joints sealed with pitch. This was possibly done to prevent the leakage of body fluids. Body fluids are a product of soft tissue decomposition and are produced during the first six months after death. In wooden coffins, in earth burials, the fluid usually dissipates or evaporates within a year of deposition. In sealed lead coffins, however, these fluids are retained, sometimes for many centuries. A Roman lead coffin recently excavated from within the City of London still contained body fluids.

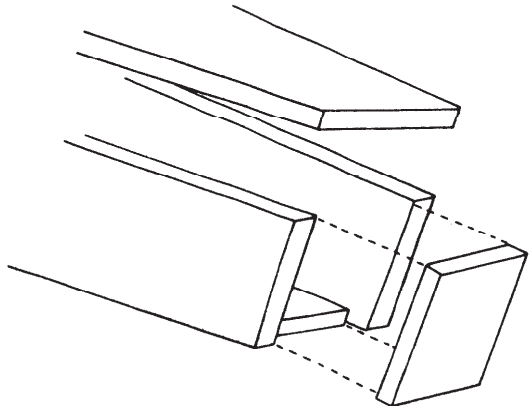
Twenty-seven single-break wooden coffins were reinforced with iron bands, and one with a chain. This additional security points to fear of the 'resurrectionists', discussed below.

One iron coffin was recovered. Some 600mm in length (24 inches), it had been made for an infant, and contained part of a locking mechanism. The inside bore signs of both black paint and of whitewashing and evidence suggests that the outside was covered with paper.

Lead coffins

Nine different types of lead coffins were observed. These fall into three





Butt Joint: sides outside ends and base but inside lid.

Figure 99 *How a single break coffin was constructed.*

descriptively named forms: 'pie-crust', 'shoe-box' and 'flush-soldered'. Some were used to line wooden coffins, and others to contain them. Many had been decorated externally by cross hatching using a 'shave-hook'.

Lead has been used in the construction of coffins in this country since the Roman period. Generally speaking, lead was only used on high status coffins before it became compulsory for intramural burials in 1813. Lead was always known to have had preservative qualities and, at a time when in popular belief resurrection demanded 'complete mortal remains', was an attractive option to those who could afford to use it. Furthermore, as a container for the dead, it was particularly useful in an intramural situation because it prevented leakage of the smells and fluids associated with putrefaction. It was for this reason that an order of 1813 decreed that all future burials should be enclosed within lead. Adherence to this is noted in a letter written in 1837 about the funeral of George Walker:

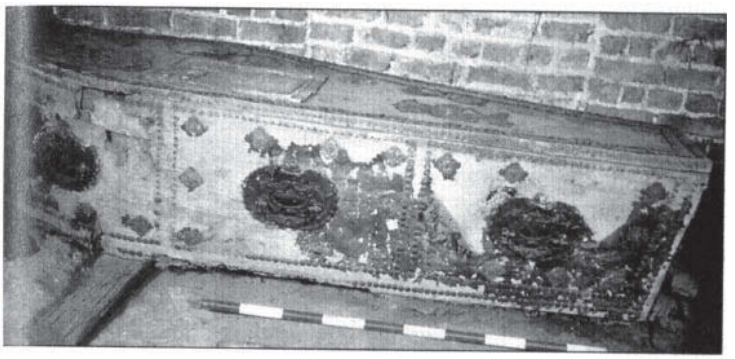


Figure 100 *A typical outer wooden coffin Christ Church, showing surviving metalwork.*

> We buried him on Sunday 14th May in the Public Vault under Spitalfields which he had made when he was Churchwarden in 1813 ...followed with a Hearse & Coach as we were obliged to have a lead coffin & He being so heavy it would not have been safe to have walked. (sic)

However, it seems that not all were so willing to comply with this regulation; at least 27 (15%) individuals interred after this date were not enclosed in lead. This must have taken place with the connivance of the undertaker and the church sextons. The reason for avoiding the regulation would have been cost. A simple wooden coffin would cost around £6, whereas one with a lead component would be much more expensive.

Sawdust was put in coffins for a variety of reasons. It could act as a sort of mattress, absorb body fluids and help prevent the body moving around whilst it was being carried. Usually there was only a thin layer of sawdust but on one occasion the body had been completely covered. A viscera box (used to hold the internal organs) also contained sawdust but no human remains could be identified.

Multiple burials

Two multiple burials are mentioned above and there were several instances of double burials recovered from the vaults. Some were secondary interments (later insertions) within a single person's coffin, whilst in others two individuals who had died at the same time were placed side by side in a single coffin. An example is the unidentified individual laid alongside Master Thomas Williams who died in 1832, aged seven years. Similarly, two women had the bones of an infant laid at their feet. These could be cases of mothers with their infants but this need not necessarily be so. The author has personal knowledge of a young woman (dying as a result of childbirth) being accompanied by her friends recently deceased baby.

Four juveniles were interred within a single wooden coffin. They were separated one from another by layers of ash and one was wrapped in cloth.

Position of the body within the coffin
Just over 600 of the burials were considered not to have been disturbed since their original interment. In the majority (90%) the bodies were laid on their backs (supine) with their hands by their sides. Three individuals (0.5%) were prone (laid face down).

Coffin fittings

Fabrics
Fabric coverings for coffins were introduced in the 17th century. The majority of the surviving coffin textiles from Christ Church vault were plain wool, often with a raised nap. The colour of this fabric denoted the status of the deceased. Children's and unmarried young women's coffins, for instance, were usually covered with either white or pale grey fabric while mature adults' coffins were covered with dark colours. The fabric was nailed or stuck to the coffin before being decorated with upholstery pins tacked in various patterns, and other functional and decorative metalwork.

Grips
Grips, (the proper term for handles) were placed at intervals around the outside of the coffin, normally three to each side. They were usually made from cast iron and twelve decorative types were found at Spitalfields (Figure 101). Many of these had decorated backing plates through which the grips were fixed. Thirty-five different designs were identified, including winged cherubs, angels with trumpets, and sarcophagi. The designs were often repeated in other elements of the coffin furniture.

Escutcheons
Escutcheons or 'drops' were usually made from pressed tin and were purely decorative in function (Figure 102). They could be placed anywhere on the coffin exterior. Larger decorative items were called lid motifs; these were also made from pressed metals.

Coffin plates
Some breast or coffin plates were embellished with Carolean or classical symbolism but some were very simple - a variety of themes and schemes were used. They were fixed onto the lid of the coffin below the shoulder. Brief biographical information was inscribed into these *(see* Figures 9 and 40) occasionally 'died' and 'aged' were written in Latin

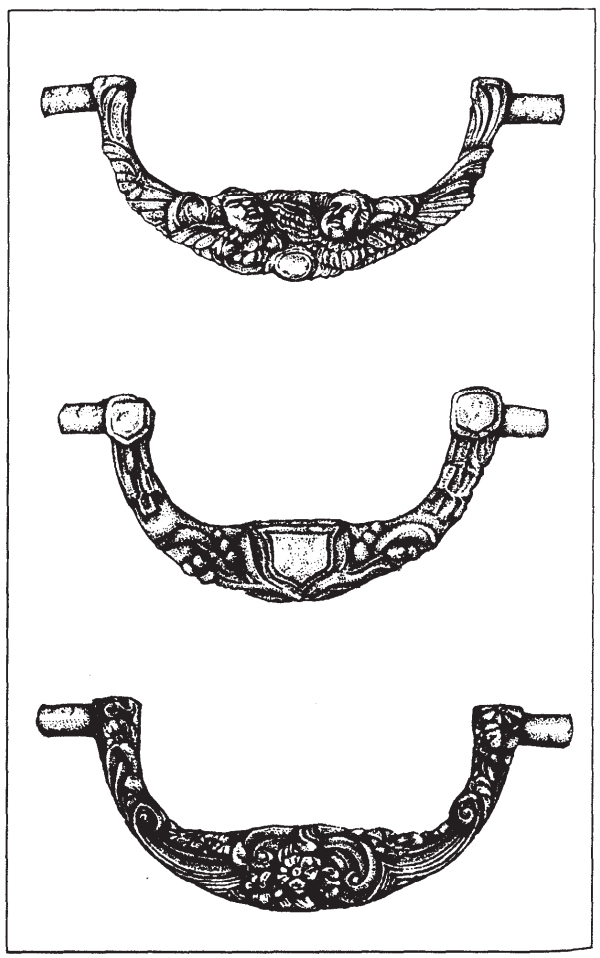


Figure 101 *A selection of coffin grips.*

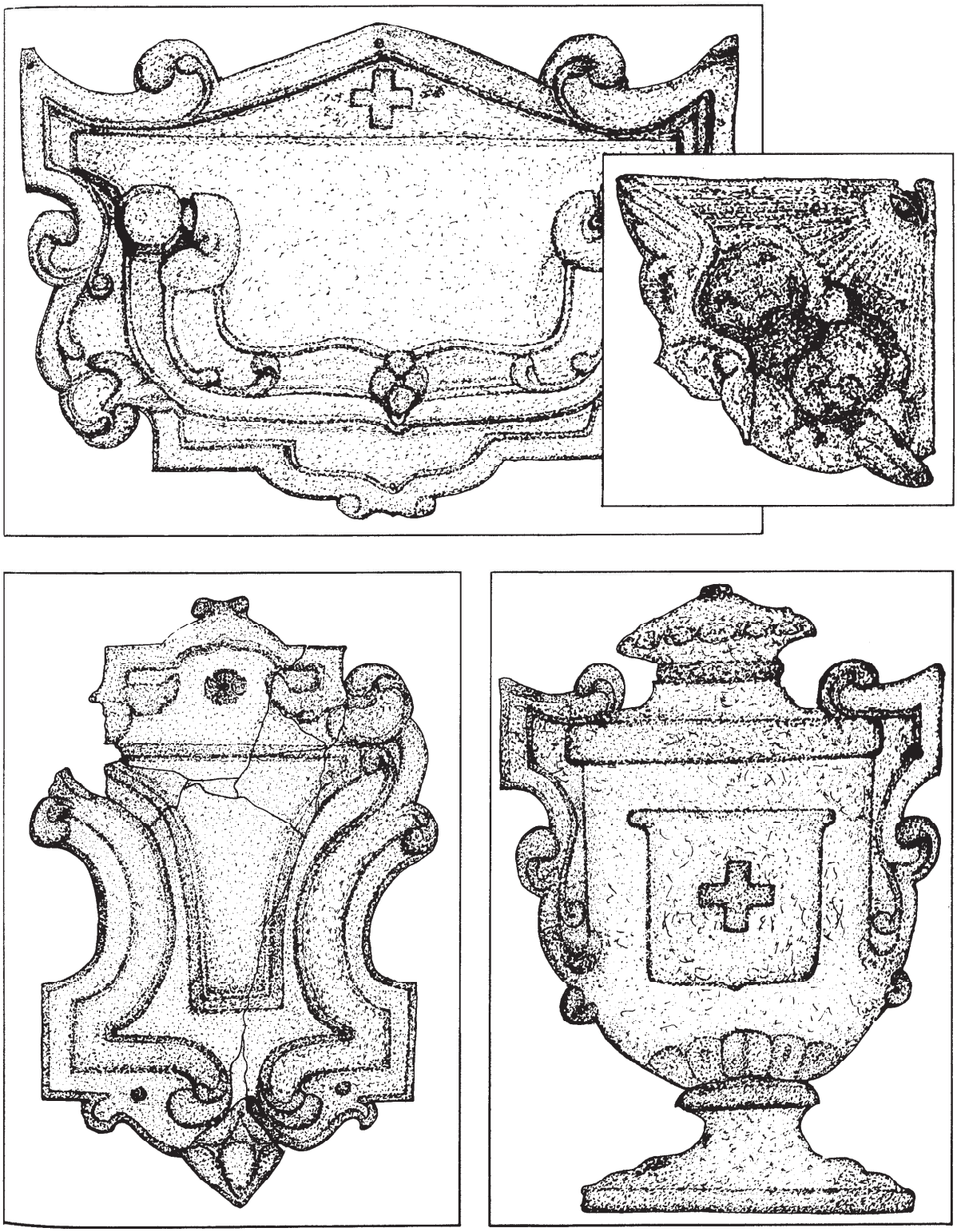


Figure 102 *A collection of escutcheons.*

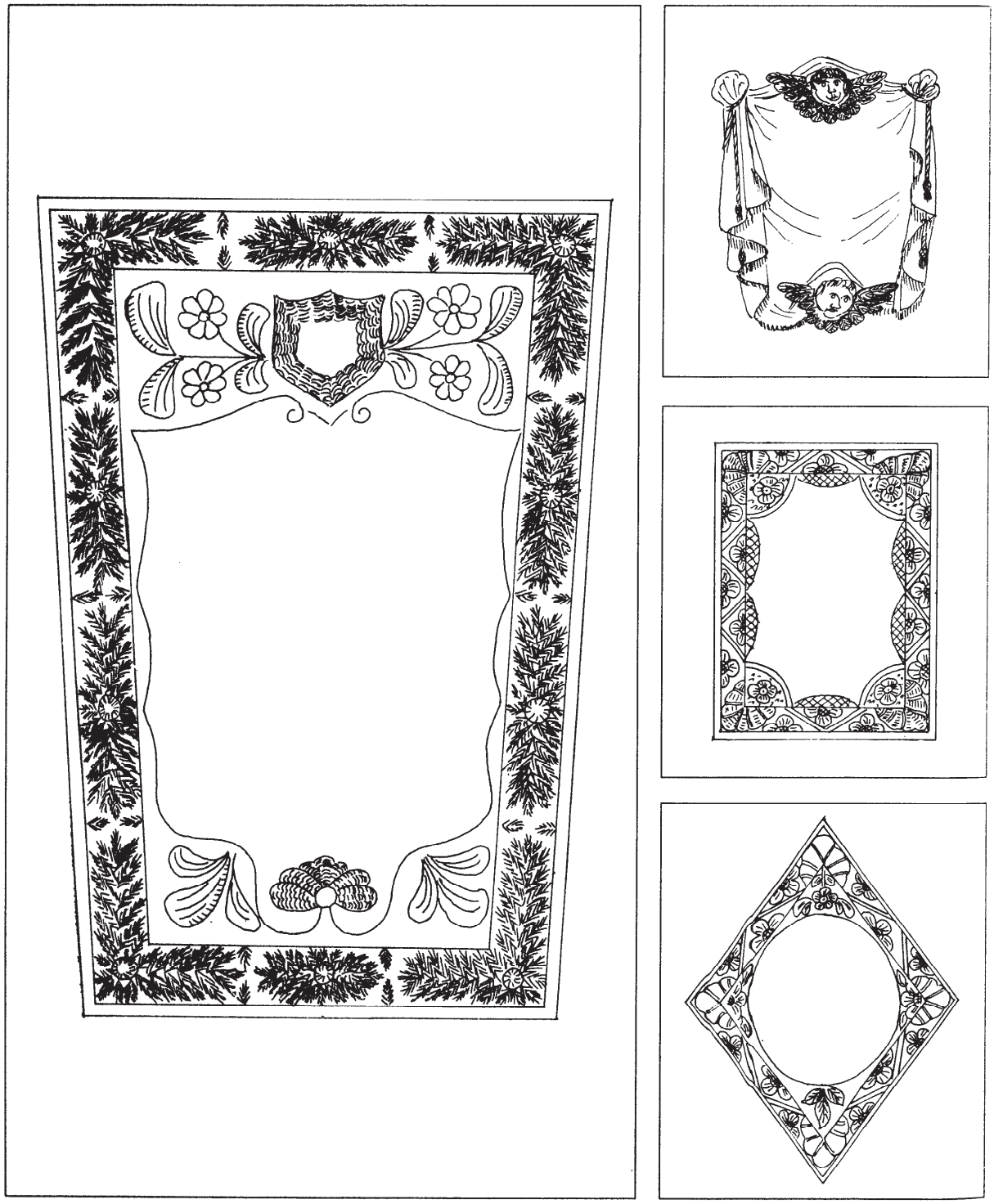


Figure 103 *Drawings of different shaped coffin plates.*

(Obit and *Aetis).* Very occasionally additional biographical information was added to the coffin plates. One example is George Mills' coffin plate. George died in 1827 aged 44. His coffin plate noted that he was landlord of the Queen's Head, Fashion Street. William Taylor Leese died in 1811 aged 10 months. His coffin plate stated that he was 'son of Louis and Mary Leese'. The fact that the deceased had been a public servant might also be mentioned. Sir Robert Ladbroke, Lord Mayor of London, had a particularly detailed coffin plate.

It appears that coffin plates were sometimes reused. The reverse side of the coffin plate of Samuel Dawson, who died aged 40 in 1815, was inscribed 'Miss Maria Seurle, died 1st August 1815, aged 3 years'. Quite why this coffin plate was not used the first time remains a mystery; however, Samuel was an undertaker and making use of unwanted components may have been one of the perks of the trade.

Coffin-plates could be supplemented by head, end or side plates which also served to indicate the identity of the deceased person. They helped sextons to locate particular coffins when they were stacked high on top of each other.

Coffin-plates were made from a variety of metals using a range of techniques. A total of 114 different types were identified (Figure 103), predominantly rectangular, shield, lozenge, trapezoidal or diamond shape. Heraldic tradition specified symbolic meanings for certain shapes. For example, a shield was used for a male and a lozenge for young unmarried women, though these conventions were not always adhered to. The most striking example of such misappropriation was the use of a lozenge breastplate on the coffin of Dinah Cox. She had been married three times! For more details about coffin construction *see* Reeve and Adams 1993.

Burial practice

Non-baptism

The Church states that without baptism, salvation cannot be achieved. Consequently, it is usual for the non-baptised to be excluded from consecrated burial grounds, or at best be allocated a 'special' area which may be shared with criminals and suicides. The one still-birth known to have been interred within the vault was Master Chauvet. The fact that he does not have a Christian name suggests that he was not formally baptised by a minister. However, his presence within a consecrated burial ground suggests that he might have been baptised by the mid-wife in attendance at his birth. This practice was allowed under appropriate circumstances. (Figure 104)

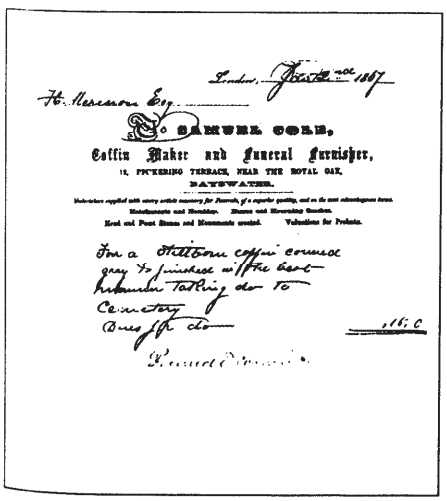

SAMUEL COLE,
Coffin Maker and Funeral Furnisher,
12, PICKERING TERRACE, NEAR THE ROYAL OAK,
BAYSWATER.

Figure 104 Receipt from 1867 for payment of undertaker's dues, 'for a stillborn coffin covered grey and finished in the best manner Taking to cemetery 15s.'

Suicide

Since Tudor times, the act of suicide has been considered a sin against the teachings of the Church. Until 1961, it was a felony. However the interment of suicides in consecrated areas is an issue over which the clergy have always used their discretion. Prior to a law of 1823 (4 George IV, c.52) coroners were empowered to order the burial of a *'felo de se'* in a public highway with a stake driven through the body.

After 1823 suicides were to be interred within 24 hours of the finding, and between the hours of nine and midnight. They were, in theory, still excluded from Christian burial. A consequence of this was that coroners were frequently persuaded to declare suicides to be of unsound mind or 'lunatic'.

The single known suicide recovered from beneath Christ Church was William Leschallas. The Coroner's inquest was reported in *The Times,* 14th December 1852. The Coroner in attendance decided that Leschallas took his own life while suffering from 'temporary insanity'. The detail behind this tragedy was discussed on p83.

Intramural burial

All parishioners had the right to be buried within the graveyard of their parish church. Cremation was not an option in modern England until its legalisation in 1884. Indeed, it would have been abhorrent to popular Christian belief in the resurrection of the body, and to the notion that a Christian's body was redeemed and purified after death.

Graveyards were notoriously overcrowded in the 18th and 19th centuries and this was one factor which influenced people in their choice of burial place. Extramural burial was no guarantee that your mortal remains would stay undisturbed. William Hurlin writing of his grandmother, Sarah Hurlin, who died in 1839, was of the opinion that she 'shrank from the idea of being buried in the earth'.

Apart from disturbance by subsequent grave digging, another threat to the eternal rest of one's mortal remains was posed by the activities of the resurrectionists. The growth of medical science during this period required cadavers for detailed study of anatomy, and of the effects of disease.

The Resurrectionists

> 'Father,' said young Jerry, 'what's a Resurrection-Man?'
> Mr Cruncher came to a stop on the pavement before he answered,
> 'How should I know?' 'I thought you knowed everything, father,' said the artless boy. 'Hem! Well,' returned Mr Cruncher...'he's a tradesman...' 'What's his goods, father?' asked the lively boy. 'His goods...is a branch of Scientific goods,''Person's bodies, ain't it father? I believe it is something of that sort,' said Mr Cruncher. (sic)
>
> (Dickens, *A Tale of Two Cities.* 1859)

The resurrection men supplied such medical schools as St Bartholomew's and Guy's until the cruelly discriminating Anatomy Act of 1832 provided an alternative supply of corpses. Before the Act, the only legitimate corpses were those of executed criminals (Figure 105). Afterwards, the bodies of paupers whose relatives could not afford a burial, or could not be traced, were sent to the Anatomy Schools.

The supply of fresh corpses was a lucrative business: and the 'going rate' was about four guineas per body. The business was well organised and is known to have had the co-operation of a range of relevant funerary personnel, from undertakers to sextons. Undertakers were accordingly viewed with much suspicion by some of those opposed to body-snatching. Apparently, some could be bribed into substituting weights for the body, prior to burial. One double wooden coffin recovered from the vaults beneath Christ Church was full of building rubble and might well represent such a deception.

Figure 105 *Hogarth's The reward of cruelty. The body of a criminal is used for a dissection class in a medical school.*

While interment within a vault offered a measure of protection against resurrectionists, it was no guarantee. To deter them, a 'mort-safe' was used. This secure coffin was used as a temporary repository for coffins containing the recently deceased. After a few weeks, when autolysis, putrefaction and insect activity had begun, the remains would be of no value to the medical schools and the coffin would be removed.

The *London Evening Post* of June 1736 describes the forthcoming interment of Edward Peck Esq, 'in a mort-safe vault in Spitalfields Church, in stone coffin, 8 foot long, 3 foot deep and 4 foot' (sic). Interestingly, but not unusually, the interment was to take place in the evening.

A further value in the human corpse lay in its teeth. The growth of dentistry as a science and the provision of a range of dental prostheses (see p87) created a demand for human teeth for incorporation into dentures. Such teeth are often called 'Waterloo teeth' as women apparently scoured the battle-field to extract teeth from the fallen in 1815. However, this was already operating closer to home. A case is known from the 1820s, where a resurrectionist known as Murphy pulled enough teeth from the remains within a London burial vault to earn £60.

It is difficult to deduce how much of this activity occurred within the vaults of Christ Church. Sextons periodically reorganised the contents of the vaults and such disturbances make it impossible to be sure that the empty and broken coffins recovered during the excavation represent the outcome of body-snatching. It is, however, very clear that many individuals took precautions to prevent it happening.

Thirty of the coffins were reinforced with iron bands. An example is the outer coffin of Mrs Mary Mason, who died in 1814 aged 73, which had three iron straps wrapped around it. Another coffin had a chain fixed around it.

In view of the role of undertakers in this gruesome trade, the fact that the most assiduously protected coffin belonged to William Home, himself an undertaker, who died in 1826 aged 68, is perhaps significant. William was buried in a triple shelled coffin, the middle component being of lead. The wooden lid of the inner coffin was protected by two iron bars running from end to end; the lead coffin had two iron straps nailed to the interior. This was placed upside down within the outer shell, presumably concealing the soldered edges. The outer wooden coffin had two iron straps around it nailed into the wood. William's determination to remain within his coffin is no certain indication of his involvement in body-

snatching, but one wonders at his precautions.

For a detailed discussion of the resurrectionists and the consequences of the 1832 Anatomy Act see Richardson, 1988.

The funeral industry in London 1729 to 1867

Church income

All churches benefitted from burial fees and, as elsewhere, Christ Church gained financially from exploiting the vaults as burial areas. It has been estimated that it raised approximately £2500, from burials in the crypt, during the period 1729 to 1867. Those who did not live within the parish, or the two liberties of Norton Folgate and the Artillery Ground, had to pay double fees. The church wardens received £1 for every burial within the vault, and £10 for every vault of 9 by 7 feet. This compares with 11 shillings for a plot in the most expensive part of the graveyard.

The church wardens and the rector benefitted (£125 per annum) from burial fees which were considered a source of profit and went towards defraying other church expenses. It also seems likely that the sexton and his employees were not above supplementing their incomes from plundering burials. A gravedigger, appearing before the Select Committee on Improvement of Health in Towns in 1824, spoke of lead being sold for profit, cadavers being sold to the anatomy schools, and coffin wood being burnt as fuel.

It is clear from various sources, including archaeology, that coffins were reorganised within vaults. The Vestry Minutes of St Swithin's Church (1776) note: 'Work done at y^{e} Long vault of Mr Wyatt's and other gentlemen and making room for 60 or 70 corps... £3-3-0d' (sic)

Funeral undertaking

The trade of funeral undertaking developed towards the end of the 17th century. Funerals, particularly of the middle and upper classes, involved the skills of a range of tradesmen such as metal engravers, coach hirers, carpenters and upholsterers. Eventually, one contractor undertook to arrange the funeral by co-ordinating the activities of the others. A trade card which demonstrates this is that of William Grinly, a coffin maker, from 1745 (Figure 106). The purchase ledgers of Richard Carpenter, an undertaker, from 1746-7 illustrate the diversity of his profession. He was in partnership with some 28 traders including plumbers, founders, silk manufacturers, carpenters, and hirers of a range of commodities from horses to ostrich feathers, and palls to hoods.

The first known undertaker was one William Russell, a coffin maker and painter, who gained the approval of, and came to an arrangement with, the College of Arms in 1689. This was important because middle class funerals evolved around heraldic and aristocratic origins.

The industry developed rapidly, and the College of Arms' original role in funerals was usurped by the undertaker. By the

Figure 106 *Trade card for Wm Grinley, coffin maker 1745.*

vaults beneath Christ Church were being used for interment, the industry was well established in London. It included in its remit all those functions undertaken today, and in addition appraising and selling the deceased's home and its contents. Largely for financial reasons, the trade became very influential in maintaining the pomp and formality of the 'middle class' funeral. Undertakers eventually became the object of derision for their overbearing attitudes.

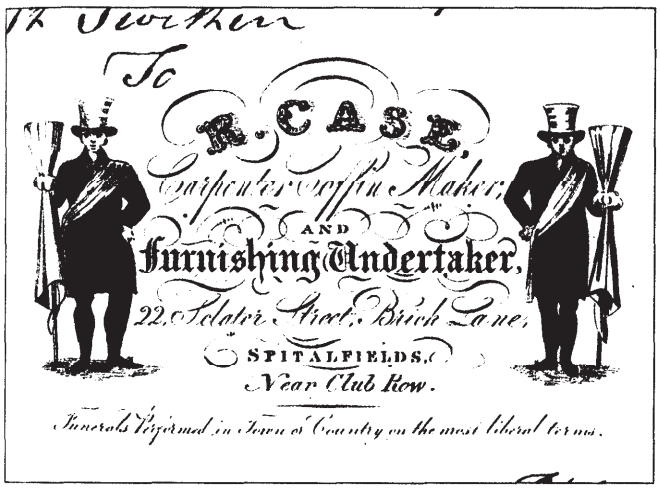


Figure 107 *Trade card for R Case, carpenter, coffin maker and furnishing undertaker, 1829.*

By the middle of the 19th century the provision of some specialist components and services had become centralised. Mr J Bedford of King Street claimed that he provided over 90% of the coffin furniture required within the capital. Another undertaking firm, Harrod's, eventually became the celebrated Harrod's of Knightsbridge.

Several individuals directly operating in the undertaking trade were interred within the vaults. William Horne and Samuel Dawson have already been mentioned. Ann Mercer's husband was an undertaker, as was Jeremiah Mercer's father. Many of those interred within the crypt would have provided services to undertakers. Figure 107 shows the trade card of one R Case, an undertaker trading in Spitalfields in 1829. By the 1850s six undertakers were trading from the parish.

The cost of a funeral varied enormously, depending upon status. In the 1840s, it seems that the funeral of a tradesman of the 'better class' should cost between £70 and £100; £150 was the minimum for a 'gentleman's' funeral, with many costing from £200 up to £1000. A funeral of a middle class child could cost about £50. For further details see Litten 1991.

A 19th century funeral

Several accounts of funerals at Christ Church have survived. The account of Sarah Hurlin's funeral, in May 1839, illustrates the grandeur and ritual of such an occasion in the 19th century. This description was written by her grandson in 1908;

> My grandmother had a special desire for what was called a 'grand funeral' which was quite expensive in those days, and it was understood that she laid aside a sum of money, perhaps £500.00 for this special purpose. I think that she shrank from the idea of being buried in the earth.
>
> At the parish of Spitalfields, about three quarters of a mile from her home in Bethnal Green, the whole space under the building was laid out as a burial vault, and it was here that she wished to be buried. As it was a populous neighbourhood, it was necessary to guard against effluvia, and thus in order to be buried in this vault it was required that three coffins should be used, first, one of oak, in which the body was deposited; this

was placed in a metallic coffin, on which the lid was closely souldered, and this was placed in a common coffin, covered with a black woollen cloth, and with a row of black nails with large heads placed closely together around the sides and ends of the coffin, and around the edge and top of the lid. There were also handles and other ornaments on the sides and a plate containing name and age on the lid.

Figure 108 *Illustration of an 18th century funeral by Hogarth*

On the day of the funeral, an hour before it occurred, the two men called 'mutes' took their places outside the front door, one on each side of it. They were dressed in black, and had a black sash over one shoulder, and across each breast low down on the other side. Each had a broad black silk band on his hat with the ends of it, about 18 inches long, hanging down behind. In the hand farthest from the door, they each held a black staff about four and a halffeet long, with a cross piece about a foot long on top of it, over which was laid a piece of black silk about eight feet long, which was bound close to the staff about two feet from the top, and its folds hung loose about two feet lower.

When the mourners were assembled, the undertakers dressed them, the men in long black coats and black gloves, and a broad black crepe band around their hats, the ends of which hung down about 18 inches; and the women in a long black scarf with a hood attached to it which covered their heads, and also with black gloves. When all were ready the procession started as follows;

First, the undertaker with a black silk scarf and black silk hat band like the mutes. Second, the mutes aside each other with their staves. Third, a man in black with a black board about three by one and a half feet, on his head, on which board were placed six groups of four or five large black ostrich feathers, Fourth, the hearse covered with black cloth and drawn by two black horses, each having on his head a bunch of large black ostrich feathers; and eight groups of large black ostrich feathers on top of the hearse in which of course the coffin had been placed. The driver was dressed in a black cloak with silk hat band hanging down behind, like the undertaker and the mutes. An attendant in black with sash and hat band like the mutes, walked outside each horse, and each of them carried a small staff about 18 inches long which he grasped in the middle of it.

Fifth, two mourning coaches to accommodate six persons each, each horse having a plume of feathers on his head, the drivers being dressed as the drivers of the hearse, and there being two attendants for each coach as in the case of the hearse.

After the prescribed portion of the burial service had been read in the church, the coffin was carried into the vault, and deposited in the place assigned to it, and the remainder of the service was read. I think the attendants before spoken of acted as bearers.

As the oldest son of the oldest son, and also the oldest grandchild, I attended the funeral as the representative of the grandchildren.

Wm. Hurlin
Antrim, N H (New Hampshire)
September 30th, 1908

It is something of a mystery how Sarah Hurlin could afford such a grand funeral. As discussed on p37, Sarah, although a daughter of the comfortably off Marchant family, eloped with a journeyman weaver in 1786 when she was 21. They had ten children before her husband, Martin Hurlin, died when Sarah was 45. Perhaps her family continued to support her after her elopement, or her surviving nine children supported their mother in her widowhood.

Death and burial at Christ Church, Spitalfields

Between 1700 and 1850 most burials took place from the home of the deceased. 'Chapels of rest' did not exist at this time. It is not known if any efforts were made to embalm the bodies, although the presence of a viscera box in one coffin suggests that some embalming did take place.

Interval between death and burial

The interval between death and burial amongst the named sample from the vaults was between one and 21 days. The average was seven days. The majority of the burials which took place after an extended period were winter burials. This probably reflects the unpleasant effects of summer temperatures upon bodies, and that travel in winter could take longer than in the summer. Factors such as the importance of the individual and the distances which mourners would have had to travel may also have played a part. There appears to be no correlation between the distance that the deceased lived from the church and the time lapse between death and burial. Those who lived within the parish of Spitalfields were buried anything up to eighteen days after death, as were those living outside of the parish. Short and long intervals occurred independent of distance. Approximately one third of the named sample were buried on a Sunday, with the remainder being buried throughout the week.

Generally, children's burials took place sooner after death (four to five days) than adults. A child's funeral could be arranged quickly as the majority of mourners are likely to have been the immediate family. There are exceptions, however, and the funeral of Master Jeremiah Mercer, who died aged 6 years in March 1815, took place eighteen days after his death. Interestingly, he was the son of Jeremiah Mercer 'Undertaker and Cabinet Maker'. Is this perhaps the case of the 19th century craftsman who was always too busy attending to the needs of his customers to attend to those of his own family?

Funerary textiles

The excavation of the vaults beneath Christ Church produced a large quantity of textiles of two principal types. The first were those associated with the coffins, the second burial attire. At first all surviving textiles were sampled, but the sheer quantity of material led to a policy of selection based upon typology and condition. Often. the best preserved textiles were associated with the best preserved bodies. The textiles were subject to bio-hazard treatment although this was later considered to be unnecessary. Many of the textiles were stained by body fluid and tannin, these were washed with liquid wash to remove some of the staining. Some were damp when recovered and these were also washed before drying.

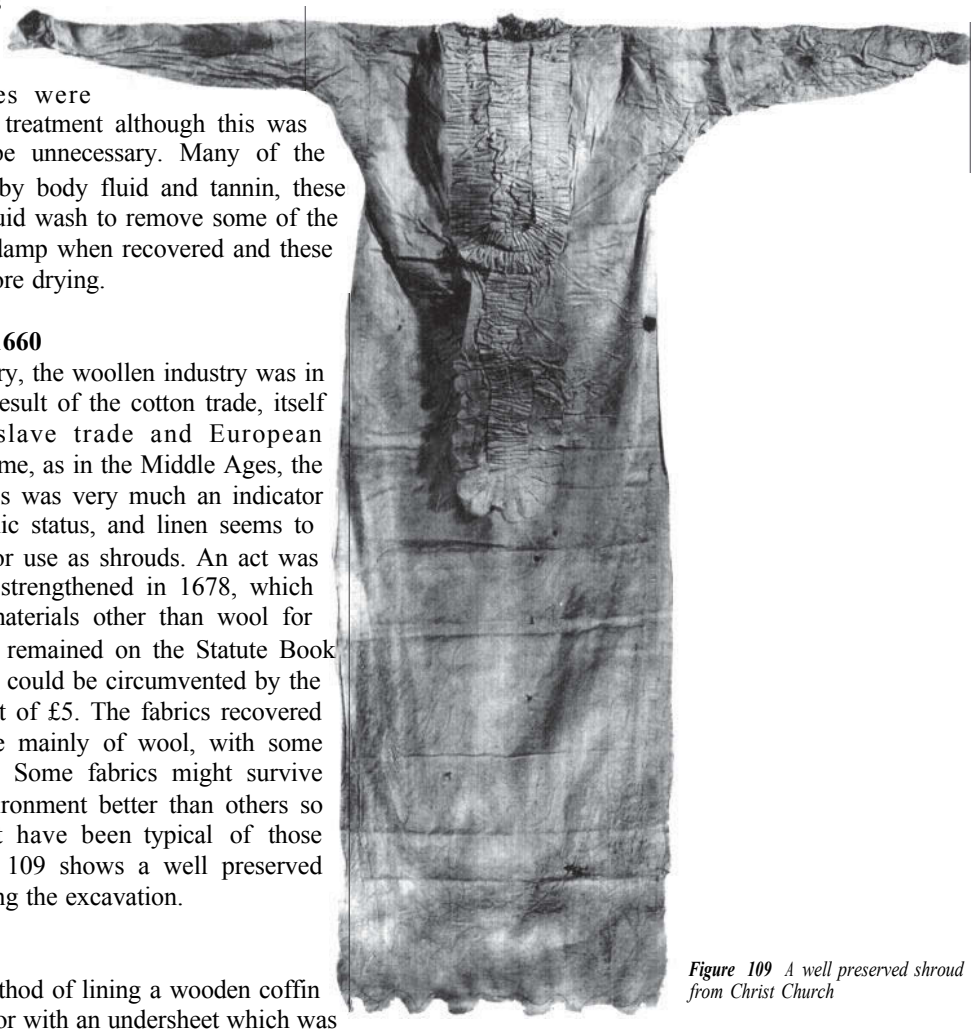


Figure 109 A well preserved shroud from Christ Church

The Woollen Act of 1660

During the 17th century, the woollen industry was in decline, largely as a result of the cotton trade, itself the result of the slave trade and European imperialism. At this time, as in the Middle Ages, the use of different fabrics was very much an indicator of social and economic status, and linen seems to have been favoured for use as shrouds. An act was passed in 1660, and strengthened in 1678, which forbade the use of materials other than wool for burial attire. The Act remained on the Statute Book until 1815, although it could be circumvented by the wealthy for a payment of £5. The fabrics recovered from the burials were mainly of wool, with some cotton, bast and silk. Some fabrics might survive within the burial environment better than others so the remains may not have been typical of those actually used. Figure 109 shows a well preserved shroud recovered during the excavation.

Coffin furnishings

The most common method of lining a wooden coffin was to cover the interior with an undersheet which was tacked into position. Onto this were fixed side linings with a ruched frill, with pinked or scalloped edges along the top edge. This masked the beading upon which the lids of the coffins rested when the coffin was open (Figure 110). Most of the furnishings were removed and placed loose on top of the corpse when the coffin was sealed.

The base of the coffin was either covered with sawdust, which was sometimes mixed with bran, or with a tailored mattress. Mattresses were stuffed with various materials such as wool, horse hair, feathers or hay and were covered with plain woven wool or cotton.

Figure 110 *Coffin frill, with lacy edging, and lining material used to trim the edge of a coffin.*

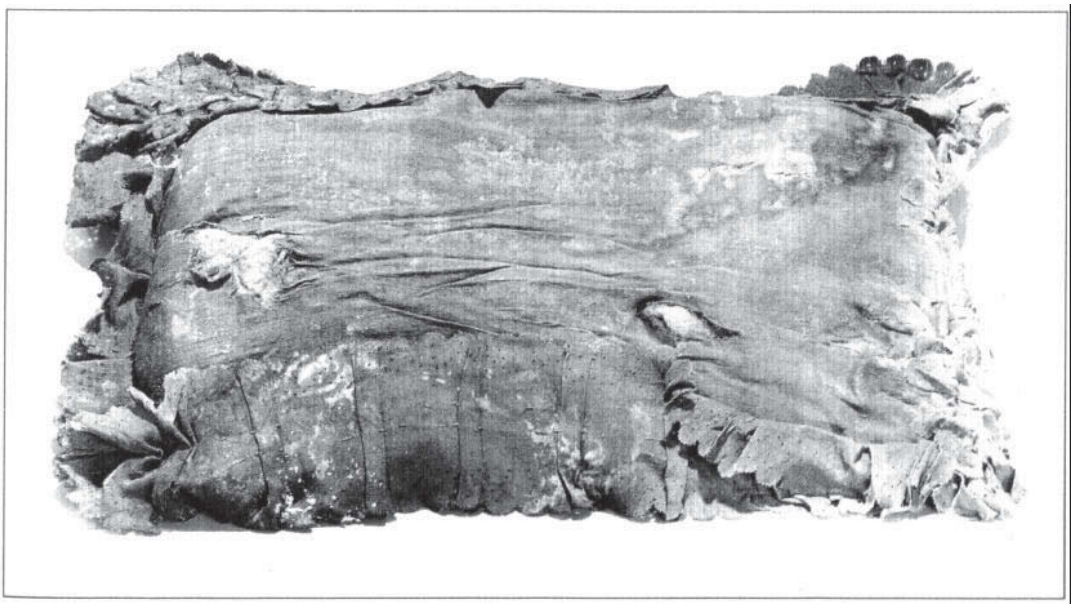


Figure 111 *Pillow found in one of the coffins.*

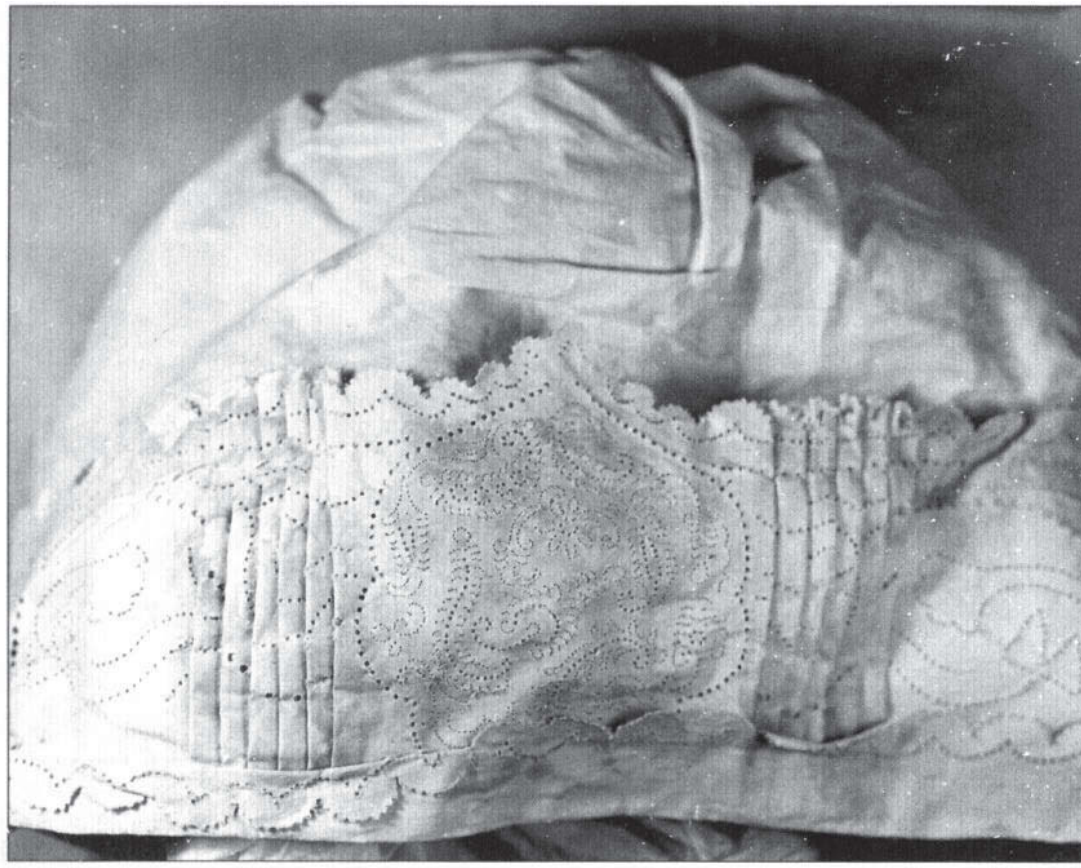


Figure 112 *Detail of the punch decoration on the front of a bonnet made for the funeral.*

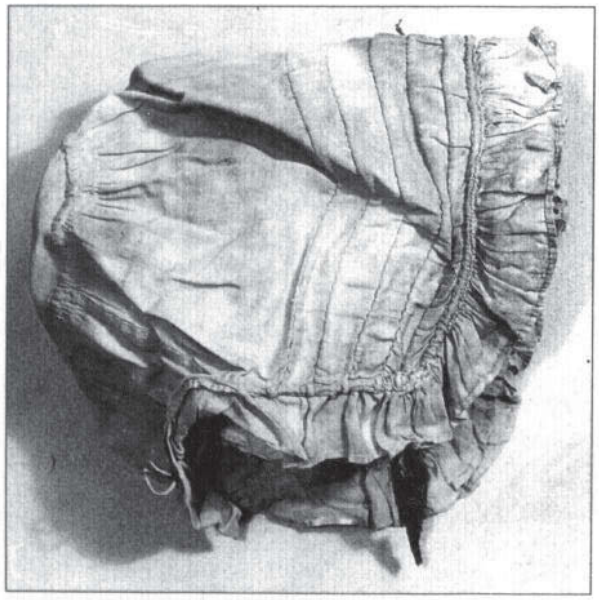


Figure 113 *George Thomas Williams, who died aged 11 months 1824, was buried wearing this bonnet.*

Figure 114 *Detail of the punched decoration on a cotton winding sheet.*

Pillows were sometimes used to support the head (Figure 111). The frills around the pillows were often patterned to match other furnishings and clothing, and contributed to a co-ordinated approach to funerary textiles. Most of the coffin furnishings were of wool or cotton; three coffins had silk linings.

Burial attire

The clothing recovered from the burials suggests that a wide range of burial attire was acceptable. Laying out involved stripping and washing the body and catering for the absorption of evacuated body fluids. Today, it is common for underclothes to be put on the body after laying out. Few of the burials within the vaults wore underclothes though some had a 'modesty cloth' in the pubic area. One individual had padding bound to the loins, presumably applied to absorb body fluids, and forgotten.

As today, ties were used to keep the body in position within the coffin. The legs were tied together, either at the ankles or by the big toe, and the arms sometimes tied to the sides of the body. Today bandages are used; then, plain ribbons were common. During the excavation, jaw straps or decorated 'jaw cloths' were occasionally recovered. These were used to keep the mouth closed. Bodies were trussed to present a seemly repose while being viewed, and to prevent limbs from banging against the sides of the coffin during transportation. Some individuals' faces were covered with decorated 'face cloths'. Only one instance of coins being placed over the eyes was noted: that of John William Baines, who died aged 2 years in 1826.

Broadly speaking, burial attire fell into two groups: that made especially for burial and the individual's own clothing. In most cases the difference was self-evident. A shroud, for example, was burial attire. However, in other cases, particularly with bonnets and caps, differentiation could only be made on the basis of their construction and fine detail. Figure 112 shows the unbound broiderie anglaise type of punching evident on much of the specially-made burial attire. Many of the burial clothes had unhemmed edges and a generally poor finish and would not have stood up to daily wear unlike the well made bonnet (Figure 113) found in a baby's coffin.

Some of the bodies were wrapped in a winding sheet (Figure 114), which usually had scalloped edges and punched decoration. Sometimes a shroud was worn beneath this, sometimes ordinary clothing, and very occasionally both. Examples of under-garments recovered were a pair of 'Long Johns', worn by Thomas Mecham who died in 1837 aged 52, and stockings. Stockings especially made for burials often had red thread woven around the tops. Those recovered from the vaults could be of wool, silk or cotton (Figure 115).

Ordinary clothing included gloves, shifts, shirts, chemises, jackets and a waistcoat. They ranged from the ornate and sophisticated to the coarse and repaired. For example, one individual wore silk stockings and an elaborate satin and lace garment while another wore a shift and jacket.

The shrouds found were backless, with sleeves, and covered the body from the neck to the feet. They were decorated with frills at the front and many had punched decoration *(see* Figure 109).

Only three children had surviving textiles associated with them. Ann Lemaistre, an infant who died aged 3 months in 1763, was dressed in a woollen cap, shroud and a winding sheet *(see* Figure 23). George Thomas Williams, another infant of 11 months who died in 1824, lay upon a pillow and wore a bonnet (see Figure 113) and an open fronted gown, tied at the neck. This long sleeved gown was made of cotton and was probably his own everyday clothing. Charlotte Williams, who died in 1826 aged 12 weeks, wore a gown that was gathered at the wrists, with two draw strings at the neck, one going underneath the arms, and the other around the neck. A pillow with scalloped edges lay beneath her head.

Hair pieces

The remains of wigs or hair pieces were found with four bodies. The base of a wig survived with burial of an unknown individual. Dinah Cox, who died in 1769 aged 67, had a long, dark hair piece. It would be extremely unusual, though not impossible, for a 67 year old to have this colour hair suggesting that, in the 18th century as today, women were not encouraged to grow grey gracefully. Two individuals had false pigtails or 'queues' (Figure 116), human hair wrapped in a ribbon. It is likely that the real incidence of people being buried with wigs and hair pieces was much higher but human hair rarely survives within the burial environment.

Grave Goods

In archaeology, there is a common assumption that the presence of objects deliberately buried with an individual infers that they were not Christians. That is a fallacy and is clearly demonstrated at Christ Church where grave goods included jewellery, pennies, and combs. A copper coin was found near the pelvis of one body. It is possible that this was originally held in a hand and could represent money to pay for passage to another sphere.

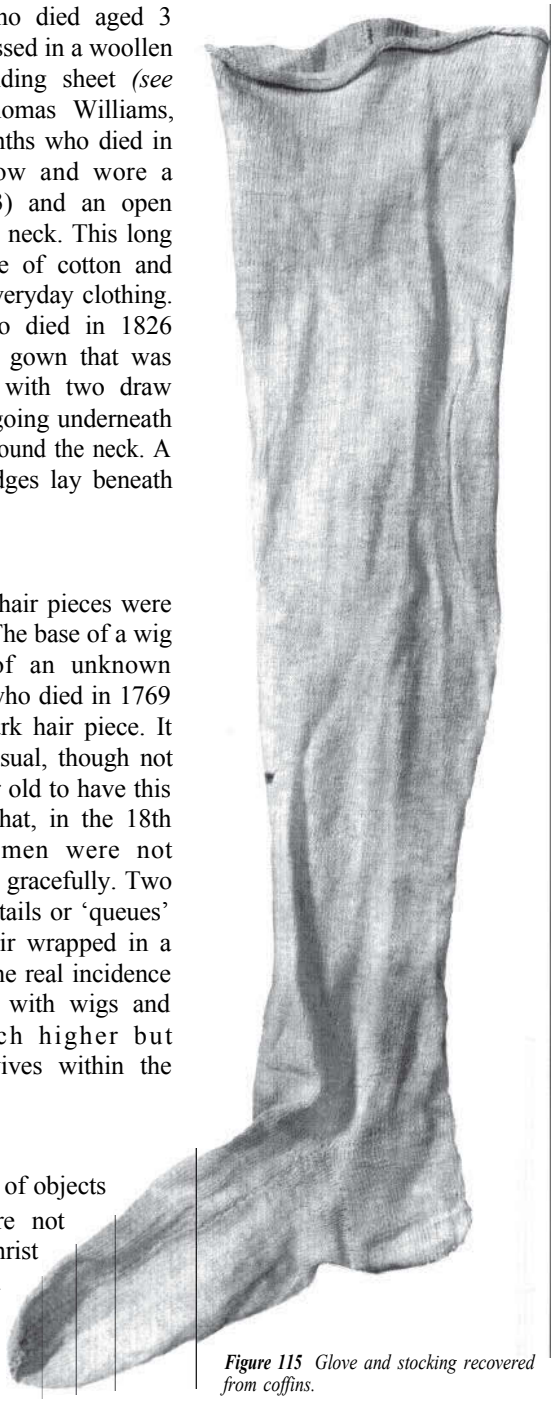


Figure 115 *Glove and stocking recovered from coffins.*

One of the more unusual items was a wooden barrel containing two adult molars (Figure 117). Unusually for Christ Church, these molars were not carious (decayed), neither were they from the mouth of the person with whom they were buried. Their significance remains a mystery. A holdfast, probably used to hold keys, was found near the pelvis of one woman. Intriguingly, a medicine bottle was found inside the lead coffin of a child (Figure 118). Its significance is unknown.

Jewellery, mostly finger rings, was occasionally recovered. The most interesting of these is the mourning ring worn to her grave by Judith Mesman (see Figure 59), whose abode at death was Reading. Judith died in 1776 aged 17. For reasons that cannot be deduced, Judith was not interred within the Mesman family vault but within the public vault. She was the daughter of John Mesman's first marriage. The mourning ring worn by Judith was in memory of her mother who had died when Judith was four. Clearly, the ring had not been made for Judith as a child, but had been passed on to her.

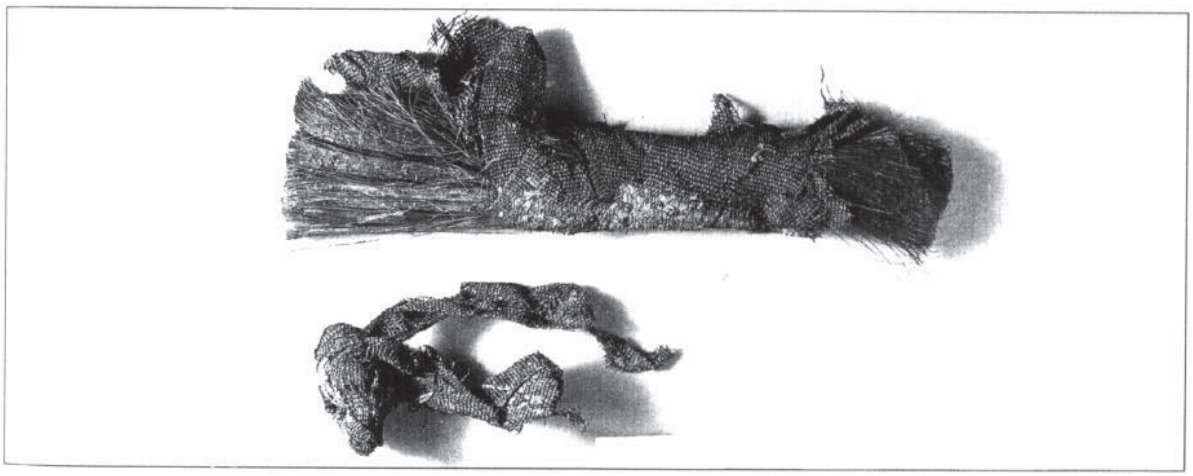


Figure 116 *Example of a pigtail.*

Figure 117 *Boxwood barrel containing two teeth that strangely do not belong in the mouth of the person with whom they were buried.*

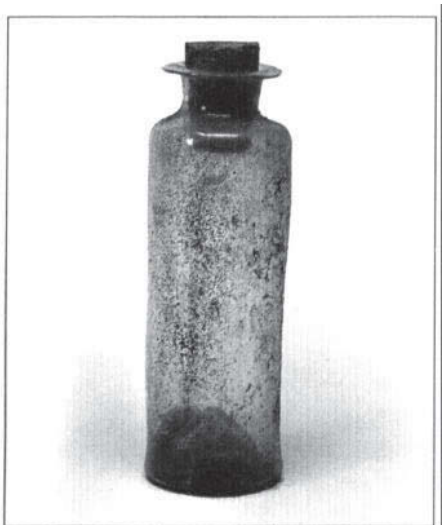


Figure 118 *Medicine bottle found in a child's coffin.*

PART 5: EPILOGUE

For a variety of reasons discussed above, the reader will appreciate that all those who were involved with the Christ Church Spitalfields Project will long remember the experience. For the participants, the Project will variously have been unusual, fascinating, arduous, depressing and occasionally shocking - but always memorable. The author remembers it as an opportunity to acquaint herself with the people of the past to a more intimate degree than is usually conceivable within archaeology.

The people buried within the vault beneath Christ Church, Spitalfields were of the 'middling sort'. They were people of substance, well educated craftsmen and professionals, with strong family ties and religious commitment, living through a time of tremendous change and adapting to new circumstances. They represent an era concerned with improving living conditions, controlling and understanding disease, and furthering scientific enquiry. It is sincerely hoped that were they to know that they have individually furthered not only our understanding of life and death in 18th and 19th century London, but also scientific and medical enquiry, they would be pleased. We owe them and their descendants a debt of gratitude and are honoured to have known them.

An alphabetical list of the named sample

Name	Age at Death	Year of Death
A		
Allen Judith	46	1767
B		
Backer Matilda	5 months	1824
Backer Richard Charles	1 year 5 months	1824
Baines John Edward	02	1826
Balguerie Jane	66	1747
Balguerie John	79	1753
Ball Martha	70	1821
Ball Mary Ann	47	1819
Bardolph Elizabeth	47	1806
Baudouin Frances	78	1765
Baudouin Margaret	70	1770
Bawdwen Thomas	74	1783
Beck Charles	51	1789
Beck Mary	13	1786
Beck Mary	79	1832
Belgerie John	52	1769
Bennett Emily	8 months 18 days	1821
Bennett Frances Emily	8 months	1820
Beverly Ann	64	1832
Beverly William	69	1823
Blachford Robert John	05	1796
Bosquain Jacob	66	1743
Bourdillon Jane	82	1791
Bowden Ann	29	1827
Bowden George	40	1808
Bowden Rachel	28	1830
Bowden William		39

Name	Age at Death	Year of Death
Bowden William	39	1831
Boyd Mary Ann	65	1832
Bracknell Hannah	80	1791
Bredell Richard	6 weeks 3 days	1777
Bridcutt Elizabeth	49	1810
Brookman Sarah	57	1833
Brooks William	02	1785
Brown Hannah	73	1843
Brown Henry	83	1825
Brown John	38	1749
Brown Richard	71	1777
Bryant George	69	1768
Burdett Thomas	67	1765
Busher Charles	32	1822
C		
Cadman Mary	65	1824
Campbell Sarah	73	1814
Chabot Mary	49	1808
Chauvet	Stillborn	1754
Chevalier John	67	1751
Chevalier Magdelene	62	1752
Clare Thomas	67	1818
Clark Maria	29	1827
Collins Lewis	27	1780
Collins Sarah	17	1806
Conner John	32	1822
Cooke John Howarth	49	1794
Cope Elizabeth	41	1804

Name	Age at Death	Year of Death
Corne Esther	61	1765
Corneau Ann	73	1776
Cottiny Balthazar Gardimeau	38	1770
Courtauld Louisa Perina	77	1807
Covenant Paul	51	1758
Cox Dinah	67	1769
Crouchley Elizabeth	55	1820
Curtis Ann	57	1814
Curtis Emma	15 days	1827
Curtis George	50	1829
Curtis Hugh	63	1794
Curtis John	48	1835
Curtis William	55	1781
Curtis William	60	1814
Curtis William Frederick	06	1824
Curtis William Hope	8 months	1829
Cutter Ann	55	1819
D		
Dance Samuel	52	1814
Dance Sarah	57	1822
Davies Sarah	67	1836
Davy Hannah	57	1747
Davy William	76	1773
Dawson Samuel	40	1816
Daycock Dinah	27	1809
Daycock John	74	1852
Daycock John Thomas	21	1837
Daycock Thomas	75	1825
Dearns Ann	71	1784
Dearns John	66	1787
Dearns Mary Ann	37	1790
Desormeaux John	63	1839
Dickens Charles	65	1824
Dickens James	5 months 6 days	1825
Dickens James	26	1827
Dormer Ann	52	1814
Dormer Michael	58	1815
Douglas William	19	1815
Dupuy Peter	77	1804
Durade Mary	63	1793
Dyke Eleanor	52	1816
E		
Ede Elizabeth	78	1776
Edgar William	54	1770
Edger Mary	59	1770
Edmunds William	36	1812
F		
Farrow George	10 months 24 days	1824
Favenc Abraham	60	1798
Favenc Eliza	27	1809
Foster James	63	1797
Fowler James	54	1794
Fowler John	35	1803
French Jane	34	1772
French Jane	1 year 1 month 8 days	1807
G		
Galhie Catherine	28	1777
Galhie John Roy	3 weeks	1764
Galhie Peter Isaac	81	1813
Galhie Robert	76	1810

Name	Age at Death	Year of Death
Galhie Steven Francis	18	1770
Gamage Abraham	34	1777
Gamage Edward John	37	1807
Gamage Peter	63	1830
Gardieu Mary	47	1765
Gardiner Daniel William	6 months	1825
Gardiner Mary	39	1827
George Mary	58	1799
Gervis Elizabeth	61	1821
Giles Elizabeth	37	1831
Giles Constance	82	1834
Glenn Eleanor Esther	81	1814
Goddard Ann	59	1815
Godin Jean-Baptist Benjamin	70	1828
Goldspring Edward	70	1810
Gosford Charlotte	54	1822
Gray Elizabeth	51	1835
Gray John	39	1826
Griffiths William	49	1808
H		
H... Thomas	64	1744
Haggart James	37	1816
Handwell Sarah	72	1810
Harding John	70	1798
Harris Sarah	60	1818
Harrison Daniel	47	1782
Harrison George	2 years 3 months 11 days	1821
Harverson Eliza	2 years 3 months	1835
Harverson Robert Thomas	42	1792
Harverson William	1 year 2 months	1828
Harwood Martha	63	1779
Harwood William	47	1772
Harwood William	46	1793
Haverson Alfred	4 years 2 months	1835
Haynes Dorcas	74	1831
Haywood Elizabeth	41	1759
Hedges William	32	1812
Hill Phoebe Ann	30	1829
Hoare James	63	1830
Horne William	68	1826
Hull Joseph	68	1750
Hull Susannah	85	1732
Hull Thomas	51	1729
Humphries Mary	56	1825
Hurlin Sarah	73	1839
I		
Ireland Samuel	79	1786
J		
Jackson Elizabeth	68	1809
Jackson Thomas	63	1839
Jones Alfred Hall	02	1822
Jones Augustus	9 months 8 days	1823
Jouenne Magdalene	38	1778
Jouenne Susannah	76	1778
Jourdan Charles Daniel	3 weeks	1793
Jourdan John Anthony	56	1833
Jourdan Mary	23	1793
Julien Jane	78	1791
K		
Kilner John	70	1847

Name	Age at Death	Year of Death
Kilner Mary	57	1849
Kilner Matthew	57	1806
Kilner Susannah	45	1797
Knight Josiah	76	1824
Knight Mary	41	1806
L		
Ladbroke Henry	75	1847
Ladbroke Robert	60	1773
Lambert Harriet	5 weeks	1775
Lambert James	62	1825
Lambert John	34	1817
Lambert Mary	44	1813
Lanes Sarah	28	1785
Lay Catherine	57	1815
Lay Isaac	11 months	1830
Lay Jacob	1 year 4 months 5 days	1830
Lay John	70	1825
Lay John	34	1827
Lay William	04	1802
Le Tailleur Lucy (Louise) Ann	19	1791
Lee James	68	1828
Leese Mary	41	1813
Leese William Taylor	10 months	1811
Lefevre Charles Shaw	64	1823
Lefevre Isaac	61	1746
Lemaistre Ann	3 months 14 days	1763
Lemaistre Daniel	62	1784
Lemaistre Henrietta	68	1794
Lemaistre James	63	1790
Lcmaistre John	58	1779

Name	Age at Death	Year of Death
Lemaistre Judith	78	1784
Lemaistre Judith Harriet	15	1777
Lemaistre Susan	78	1761
Lemaistre Susannah	8 weeks	1755
Lemaistre Susanna Judith	15 days	1760
Lemere John	31	1813
Lemere John	58	1813
Leschallas Jane	76	1836
Leschallas John	75	1833
Leschallas John	69	1836
Leschallas William Louis Moinier	57	1852
Lesieur Daniel	66	1777
Lewry Elizabeth	1 year 5 months	1806
Littler Ann	39	1791
Loader Mary	26	1801
Low Ann	65	1823
Lowe Mary	77	1792
M		
Mackway Grace	68	1780
Mannock Francis Horatio	6 months 2 weeks	1811
Mason Edward	48	1757
Mason Jane	77	1793
Mason Mary	73	1814
Maxton John	58	1811
Mayor John	61	1830
Maze Elizabeth	53	1816
Mecham Ann	54	1839
Mecham Thomas	53	1837
Megnin Peter	03	1817
Megnin Peter	5 months	1821

Name	Age at Death	Year of Death
Megnin Peter	1 year 7 months	1833
Megnin Peter	55	1839
Megnin Sarah	02	1819
Mercer Ann	77	1843
Mercer Jeremiah	06	1825
Merriman John	71	1821
Merzeau Peter	88	1827
Merzeau Francis Catherine	65	1782
Mesman Charles	34	1775
Mesman Daniel	69	1732
Mesman Daniel	64	1765
Mesman Daniel David	64	1794
Mesman Jane	73	1739
Mesman John	32	1737
Mesman John	36	1768
Mesman Judith	17	1776
Mesman Martha	48	1754
Mesman Mary	43	1772
Mills George	44	1827
Mills Mary	29	1798
Mitchell Martha	53	1825
Mitchell Thomas	66	1826
Moinier Susan	36	1803
Moody George	53	1824
Moody Catherine	50	1820
Moore Grace	60	1807
Moser Joseph	70	1819
Mutch Mary	86	1798
Myers Elizabeth	50	1825

Name	Age at Death	Year of Death
N		
Nevill Sarah	53	1765
Nutt John	04	1810
O		
Ogier George	25	1788
Ogier Peter	63	1775
Ortel John	71	1761
Pardieu Sarah	86	1839
Paty Harriet	6 weeks 4 days	1786
Peake James	81	1830
Peake Frances Terrant	68	1823
Pearson Mary	84	1795
Peck Deborah	35	1739
Penleaze James	61	1783
Perks Elizabeth	53	1812
Phillips Elizabeth	77	1814
Phillips William	74	1803
Pile Sarah	35	1827
Pontardant David	58	1795
Pontardant Mary Ann	2 weeks	1793
Pontardant David	02	1768
Pontardant Daniel David	92	1797
Pontardant Sarah	35	1781
Praye John	73	1793
Pulley Frances	82	1843
Pulley William Mills	61	1847
R		
Raine David	68	1771
Raine Elizabeth	85	1789
Read Thomas	53	1823

Name	Age at Death	Year of Death
Rivus Jane Frances	12	1790
Rivaz Henrietta Louisa	15 months	1782
Rivaz John Francis	1 day	1774
Roberts Joseph	40	1809
Roll Ann	53	1825
Rondeau Rebecca	83	1783
Rondeau John	90	1796
Roy John	80	1793
Roy Susannah	70	1781
S		
Sainsbury Ambrose	71	1825
Sainsbury Ambrose Martin	39	1829
Sanders Elizabeth	67	1828
Sanders Mary Ann	02	1828
Sanders William Robert	3 years 4 months	1827
Sayer Joseph	32	1764
Schleicher Elizabeth	70	1795
Selves Sarah	65	1811
Sennard Patrick	58	1808
Sherman Rebecca	26	1823
Sherman William John	5 months	1822
Sigourney Alexander	72	1818
Sigourney Mary Crump	72	1828
Simpson Martha	11	1776
Slyman John	22	1797
Smith Christopher	9 months	1811
Smith Henry	1 year 2 months	1828
Smith John	1 year 4 months	1769
Smith Martha	52	1844
Smith Mary Ann	3 years 2 months	1782
Smith Thomas	1 year 5 months	1782
Smith William	04	1782
Snape Thomas	53	1845
Soddy Ruth	18	1825
Soirel Charlotte	11 months	1778
Sorel Louiza	1 year 8 months	1786
Sorel Thomas	4 weeks 5 days	1781
Sorel Thomas	56	1791
Sorel Thomas	45	1829
Spencer Sarah	16	1806
Stacey Frederick	11 months	1823
Stapleton Elizabeth	76	1813
Stephens Ann Harmer	2 years 9 months 23 days	1839
Stephens Faventon Robert Stranger	3 years 7 months	1832
Stephens Jane	3 weeks	1844
Stephens Sarah Jane	3 years 7 months 17 days	1838
Stephens Thomas	1 year 8 months 13 days	1837
Stracey Thomas	28	1814
Stubbs John	50	1758
Styles William	61	1822
Sullivan Samuel	47	1819
Sutton Elizabeth Dunn	46	1828
Swift Charlotte	50	1829
Sykes Edward	52	1828
T		
Tagg Mary	01	1807
Tagg Thomas	04	1807
Terrers Mary	77	1839
Thiselton Louisa	56	1834
Thomas Magdalene	61	1782

Name	Age at Death	Year of Death
Thomas John	32	1819
Thomason Susanna	70	1750
Thompson William Henry	10	1808
Tilstone Ann	53	1824
Tilstone George Wilder	01	1834
Tilstone Mary Arm	10 days	1802
Touquet Susannah	90	1767
Tregoe Susannah	89	1789
Trimmer Mary	45	1842
Trippets Ann	45	1782
Tufnell Mary	55	1802
Tufnell William	01	1830
V		
Vaux Ann	87	1845
Vaux Joseph	6 months	1799
Vine Susannah	49	1837
Voisin Elizabeth	72	1812
W		
Wagstaffe George	60	1781
Walker Ann	28	1788
Walker Ann	87	1838
Walker George	72	1837
Walker Martha	1 year 3 months	1823
Ward John	47	1835
Wells Grace	62	1811
West Mary	45	1822
White Charlotte	18	1794
White James	16	1798
Wilkinson Jane	79	1842
Wilkinson Richard	71	1832
Williams Charlotte	11 weeks 6 days	1826
Williams Edward	03	1815
Williams George Thomas	11 months	1825
Williams John	22	1816
Williams Maria	3 years 6 weeks	1827
Williams Martha	1 year 7 months	1831
Williams Mary Ann	55	1834
Williams Robert	8 months	1823
Williams Robert	53	1827
Williams Sophia	8 months	1817
Williams Thomas	07	1832
Williams Thomas	92	1839
Willock John	71	1802
Wills Hannah	74	1784
Wisker John	71	1822
Wood Jane	56	1773
Woolley Grace	80	1815
Wright George	31	1769

A chronological list (in order of date of death) of the named sample

Name	Age at Death	Year of Death
Hull Thomas	51	1729
Hull Susannah	85	1732
Mesman Daniel	69	1732
Mesman John	32	1737
Mesman Jane	73	1739
Peck Deborah	35	1739
Bosquain Jacob	66	1743
H... Thomas	64	1744
Lefevre Isaac	61	1746
Balguerie Jane	66	1747
Davy Hannah	57	1747
Brown John	38	1749
Thomason Susanna	70	1750
Hull Joseph	68	1750
Chevalier John	67	1751
Chevalier Magdelene	62	1752
Balguerie John	79	1753
Mesman Martha	48	1754
Chauvet	Stillborn	1754
Lemaistre Susannah	8 weeks	1755
Mason Edward	48	1757
Covenant Paul	51	1758
Stubbs John	50	1758
Haywood Elizabeth	41	1759
Lemaistre Susanna Judith	15 days	1760
Ortel John	71	1761
Lemaistre Susan	78	1761
Lemaistre Ann	3 months 14 days	1763
Sayer Joseph	32	1764
Galhie John Roy	3 weeks	1764
Gardieu Mary	47	1765
Baudouin Frances	78	1765
Burdett Thomas	67	1765
Mesman Daniel	64	1765
Corne Esther	61	1765
Nevill Sarah	53	1765
Allen Judith	46	1767
Touquet Susannah	90	1767
Mesman John	36	1768
Bryant George	69	1768
Pontardant David	02	1768
Smith John	1 year 4 months	1769
Cox Dinah	67	1769
Belgerie John	52	1769
Wright George	31	1769
Cottiny Balthazar Gardimeau	38	1770
Edger Mary	59	1770
Baudouin Margaret	70	1770
Edgar William	54	1770
Galhie Steven Francis	18	1770
Raine David	68	1771
Harwood William	47	1772
Mesman Mary	43	1772
French Jane	34	1772

Name	Age at Death	Year of Death
Wood Jane	56	1773
Ladbroke Robert	60	1773
Davy William	76	1773
Rivaz John Francis	1 day	1774
Mesman Charles	34	1775
Lambert Harriet	5 weeks	1775
Ogier Peter	63	1775
Ede Elizabeth	78	1776
Simpson Martha	11	1776
Corneau Ann	73	1776
Mesman Judith	17	1776
Gamage Abraham	34	1777
Lemaistre Judith Harriet	15	1777
Brown Richard	71	1777
Galhie Catherine	28	1777
Lesieur Daniel	66	1777
Bredell Richard	6 weeks 3 days	1777
Jouenne Magdalene	38	1778
Sorel Charlotte	11 months	1778
Jouenne Susannah	76	1778
Harwood Martha	63	1779
Lemaistre John	58	1779
Mackway Grace	68	1780
Collins Lewis	27	1780
Wagstaffe George	60	1781
Roy Susannah	70	1781
Pontardant Sarah	35	1781
Sorel Thomas	4 weeks 5 days	1781
Curtis William	55	1781
Trippetts Ann	45	1782
Thomas Magdalene	61	1782
Harrison Daniel	47	1782
Smith William	04	1782
Rivaz Henrietta Louisa	15 months	1782
Smith Thomas	1 year 5 months	1782
Smith Mary Ann	3 years 2 months	1782
Merzeau Francis Catherine	65	1782
Bawdwen Thomas	74	1783
Rondeau Rebecca	83	1783
Penleaze James	61	1783
Lemaistre Judith	78	1784
Wills Hannah	74	1784
Dearns Ann	71	1784
Lemaistre Daniel	62	1784
Brooks William	02	1785
Lanes Sarah	28	1785
Beck Mary	13	1786
Paty Harriet	6 weeks 4 days	1786
Ireland Samuel	79	1786
Sorel Louiza	1 year 8 months	1786
Dearns John	66	1787
Walker Ann	28	1788
Ogier George	25	1788
Tregoe Susannah	89	1789
Raine Elizabeth	85	1789
Beck Charles	51	1789
Lemaistre James	63	1790
Dearns Mary Ann	37	1790
Rivas Jane Frances	12	1790
Le Tailleur Lucy (Louise) Ann	19	1791

Name	Age at Death	Year of Death
Littler Ann	39	1791
Julien Jane	78	1791
Sorel Thomas	56	1791
Bracknell Hannah	80	1791
Bourdillon Jane	82	1791
Harverson Robert Thomas	42	1792
Lowe Mary	77	1792
Harwood William	46	1793
Roy John	80	1793
Praye John	73	1793
Durade Mary	63	1793
Jourdan Mary	23	1793
Jourdan Charles Daniel	3 weeks	1793
Mason Jane	77	1793
Pontardant Mary Ann	2 weeks	1793
Cooke John Howarth	49	1794
Curtis Hugh	63	1794
Fowler James	54	1794
White Charlotte	18	1794
Mesman Daniel David	64	1794
Lemaistre Henrietta	68	1794
Schleicher Elizabeth	70	1795
Pearson Mary	84	1795
Pontardant David	58	1795
Blachford Robert John	05	1796
Rondeau John	90	1796
Slyman John	22	1797
Foster James	63	1797
Pontardant Daniel David	92	1797
Kilner Susannah	45	1797

Name	Age at Death	Year of Death
Favenc Abraham	60	1798
Mutch Mary	86	1798
Milson Mary	29	1798
Harding John	70	1798
White James	16	1798
George Mary	58	1799
Vaux Joseph	6 months	1799
Louder Mary	26	1801
Tufnell Mary	55	1802
Lay William	04	1802
Willock John	71	1802
Tilstone Mary Ann	10 days	1802
Fowler John	35	1803
Phillips William	74	1803
Moinier Susan	36	1803
Dupuy Peter	77	1804
Cope Elizabeth	41	1804
Spencer Sarah	16	1806
Knight Mary	41	1806
Kilner Matthew	57	1806
Collins Sarah	17	1806
Bardolph Elizabeth	47	1806
Lewry Elizabeth	1 year 5 months	1806
Courtauld Louisa Perina	77	1807
Gamage Edward John	37	1807
Moore Grace	60	1807
Tagg Thomas	04	1807
Tagg Mary	01	1807
French Jane	1 year 1 month 8 days	1807
Sennard Patrick	58	1808

Name	Age at Death	Year of Death
Griffiths William	49	1808
Thompson William Henry	10	1808
Chabot Mary	49	1808
Bewden George	40	1808
Roberts Joseph	40	1809
Daycock Dinah	27	1809
Favenc Eliza	27	1809
Jackson Elizabeth	68	1809
Handwell Sarah	72	1810
Goldspring Edward	70	1810
Galhie Robert	76	1810
Nutt John	04	1810
Bridutt Elizabeth	49	1810
Selves Sarah	65	1811
Leese William Taylor	10 months	1811
Maxton John	58	1811
Mannock Francis Horatio	6 months 2 weeks	1811
Wells Grace	62	1811
Smith Christopher	9 months	1811
Edmunds William	36	1812
Hedges William	32	1812
Voisin Elizabeth	72	1812
Perks Elizabeth	53	1812
Lemere John	31	1813
Stapleton Elizabeth	76	1813
Leese Mary	41	1813
Lemere John	58	1813
Lambert Mary	44	1813
Galhie Peter Isaac	81	1813
Stracey Thomas	28	1814
Curtis William	60	1814
Mason Mary	73	1814
Dance Samuel	52	1814
Curtis Ann	57	1814
Phillips Elizabeth	77	1814
Campbell Sarah	73	1814
Dormer Ann	52	1814
Glenn Eleanor Esther	81	1814
Dormer Michael	58	1815
Williams Edward	03	1815
Douglas William	19	1815
Goddard Ann	59	1815
Woolley Grace	80	1815
Lay Catherine	57	1815
Maze Elizabeth	53	1816
Haggart James	37	1816
Dawson Samuel	40	1816
Williams John	22	1816
Dyke Eleanor	52	1816
Lambert John	34	1817
Williams Sophia	8 months	1817
Megnin Peter	03	1817
Sigourney Alexander	72	1818
Harris Sarah	60	1818
Clare Thomas	67	1818
Megnin Sarah	02	1819
Cutter Ann	55	1819
Sullivan Samuel	47	1819
Ball Mary Ann	47	1819
Moser Joseph	70	1819

Name	Age at Death	Year of Death
Thomas John	32	1819
Crouchley Elizabeth	55	1820
Bennett Frances Emily	8 months	1820
Moody Catherine	50	1820
Ball Martha	70	1821
Merriman John	71	1821
Bennett Emily	8 months 18 days	1821
Gervis Elizabeth	61	1821
Megnin Peter	5 months	1821
Harrison George	2 years 3 months 11 days	1821
West Mary	45	1822
Conner John	32	1822
Styles William	61	1822
Dance Sarah	57	1822
Wisker John	71	1822
Gosford Charlotte	54	1822
Busher Charles	32	1822
Jones Alfred Hall	02	1822
Peake Frances Terrant	68	1823
Lefevre Charles Shaw	64	1823
Williams Robert	8 months	1823
Jones Augustus	9 months 8 days	1823
Walker Martha	1 year 3 months	1823
Sherman Rebecca	26	1823
Low Ann	65	1823
Read Thomas	53	1823
Sherman William John	5 months	1823
Stacey Frederick	11 months	1823
Beverly William	69	1823
Tilstone Ann	53	1824
Cadman Mary	65	1824
Knight Josiah	76	1824
Farrow George	10 months 24 days	1824
Curtis William Frederick	06	1824
Dickens Charles	65	1824
Backer Richard Charles	1 year 5 months	1824
Backer Matilda	5 months	1824
Moody George	53	1824
Brown Henry	83	1825
Roll Ann	53	1825
Dickens James	5 months 6 days	1825
Mercer Jeremiah	06	1825
Gardiner Daniel William	6 months	1825
Mitchell Martha	53	1825
Williams George Thomas	11 months	1825
Myers Elizabeth	50	1825
Soddy Ruth	18	1825
Lay John	70	1825
Daycock Thomas	75	1825
Humphries Mary	56	1825
Sainsbury Ambrose	71	1825
Lambert James	62	1825
Horne William	68	1826
Williams Charlotte	11 weeks 6 days	1826
Baines John Edward	02	1826
Gray John	39	1826
Mitchell Thomas	66	1826
Lay John	34	1827
Pile Sarah	35	1827
Dickens James	26	1827

Name	Age at Death	Year of Death
Curtis Emma	15 days	1827
Bowden Ann	29	1827
Williams Robert	53	1827
Mills George	44	1827
Gardiner Mary	39	1827
Clark Maria	29	1827
Sanders William Robert	3 years 4 months	1827
Williams Maria	3 years 6 weeks	1827
Merzeau Peter	88	1827
Sutton Elizabeth Dunn	46	1828
Harverson William	1 year 2 months	1828
Sigourney Mary Crump	73	1828
Lee James	68	1828
Sykes Edward	52	1828
Sanders Elizabeth	67	1828
Godin Jean-Baptist Benjamin	70	1828
Sanders Mary Ann	02	1828
Smith Henry	1 year 2 months	1828
Sorel Thomas	45	1829
Swift Charlotte	50	1829
Hill Phoebe Ann	30	1829
Sainsbury Ambrose Martin	39	1829
Curtis George	50	1829
Curtis William Hope	8 months	1829
Mayor John	61	1830
Lay Isaac	11 months	1830
Bowden Rachel	28	1830
Gamage Peter	63	1830
Tufnell William	01	1830

Name	Age at Death	Year of Death
Hoare James	63	1830
Lay Jacob	1 year 4 months 5 days	1830
Peake James	81	1830
Williams Martha	1 year 7 months	1831
Haynes Dorcas	74	1831
Bowden William	39	1831
Giles Elizabeth	37	1831
Beck Mary	79	1832
Wilkinson Richard	71	1832
Beverly Ann	64	1832
Boyd Mary Ann	65	1832
Stephens Faventon Robert Stranger	3 years 7 months	1832
Williams Thomas	07	1832
Jourdan John Anthony	56	1833
Brookman Sarah	57	1833
Leschallas John	75	1833
Megnin Peter	1 year 7 months	1833
Giles Constance	82	1834
Thiselton Louisa	56	1834
Williams Mary Ann	55	1834
Tilstone George Wilder	01	1834
Gray Elizabeth	51	1835
Harverson Eliza	2 years 3 months	1835
Haverson Alfred	4 years 2 months	1835
Ward John	47	1835
Curtis John	48	1835
Leschallas Jane	76	1836
Davies Sarah	67	1836
Leschallas John	69	1836
Vine Susannah	49	1837

Name	Age at Death	Year of Death
Walker George	72	1837
Daycock John Thomas	21	1837
Mecham Thomas	53	1837
Stephens Thomas	1 year 8 months 13 days	1837
Stephens Sarah Jane	3 years 7 months 17 days	1838
Walker Ann	87	1838
Megnin Peter	55	1839
Hurlin Sarah	73	1839
Mecham Ann	54	1839
Williams Thomas	92	1839
Jackson Thomas	63	1839
Stephens Ann Harmer	2 years 9 months 23 days	1839
Desormeaux John	63	1839
Terrers Mary	77	1839
Pardieu Sarah	86	1839
Wilkinson Jane	79	1842
Trimmer Mary	45	1842
Pulley Frances	82	1843
Brown Hannah	73	1843
Mercer Ann	17	1843
Stephens Jane	3 weeks	1844
Smith Martha	52	1844
Vaux Ann	87	1845
Snape Thomas	53	1845
Pulley William Mills	61	1847
Ladbroke Henry	75	1847
Kilner John	70	I847
Kilner Mary	57	1849
Daycock John	74	1852
Leschallas William Louis Moinier	57	1852

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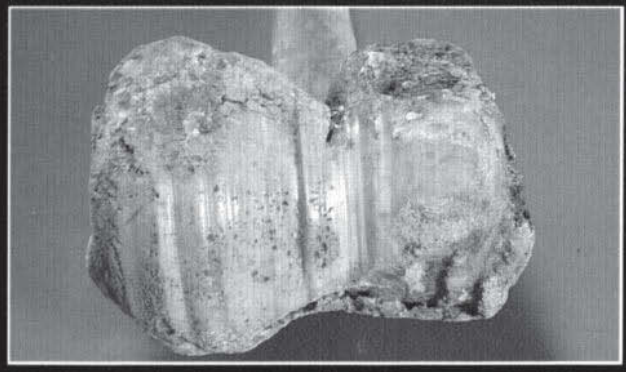
INDEX

The index contains only those names of individuals mentioned in the text. Full lists of named individuals from the excavation are given alphabetically and chronologically on pages 119-25 and 126-32. Italic page numbers indicate an illustration. Bold page numbers indicate a table.



The archeological excavation
of the crypt below Christ Church,
Spitalfields, in the east end of London,
was the starting point of a
remarkable study into the lives and
deaths of the people who were
buried there in the 18th
and early 19th centuries.
By reconstructing the life histories of
many of the individuals, Margaret Cox
provides a fascinating insight into
contemporary marriage and childbirth,
diet and death, occupation and living
conditions – and the culture of death.