

Excavations at Christ Church, Spitalfields 1984-1986

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"...an unqualified pleasure, except, perhaps, when concerned with the photography of deceased persons in an imperfect state of preservation." (Mervyn Bunter, in Dorothy L. Sayers' *Busman's Honeymoon*.)

Christ Church with All Saints, Spitalfields, one of the finest baroque churches in the British Isles, dominates a London parish just outside the eastern boundary of the City. It lies at the centre of an area of contrasts between opulence and poverty, with an economy based on a largely immigrant textile industry, a long-established vegetable market, and the overspill of financial businesses from the City itself.

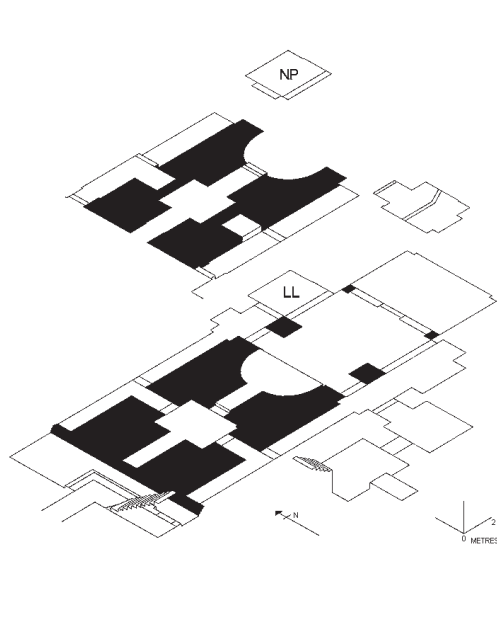
The parish retains the character established during the late 16th and early 17th centuries, an admixture of a wide range of economy and population. The area between Commercial Street and Brick Lane has variously been a centre for Huguenot craftsmen and merchants who came as refugees from France after the revocation of the Edict of Nantes, in 1685, for a thriving Jewish community during the 19th and early 20th centuries, and for the present Bengali community who have continued the tradition of the area as cloth and clothing manufacturers.

Christ Church itself was one of the Fifty New Churches commissioned during the reign of Queen Anne. Under the terms of the 1711 New Churches Act the dramatic increase in the population of London during the previous seventy years was acknowledged by a demand to provide a church for every 4,750 people. On finding that 100 000 of the population were Huguenots or nonconformists, the commission reduced the number of new churches to be built from 72 to 50. Of these, only 12 were completed. Christ Church was one of six resigned by Nicholas Hawksmoor. It was constructed between 1714 and 1729 at a cost of £39,162.17s.6d, whilst parochial status was conferred on Spitalfields in 1728.

Despite specific instructions that none of these churches should be used for intra-mural burial (Port 1986) the first interment in the vaults at Christ Church took place within a few days of the consecration. Part of the resolution of this apparent paradox lies in the form of the church. Christ Church, along with other churches of the period such as St Alphege's at Greenwich and St Martin in-the-fields was designed to possess what Vanburgh called 'awful majesty', a concept which called for building on a massive scale, with the floor of the church raised high above the streets, and a consequently large space between the floors and the deep foundations which had to carry a tower weighing 19 000 tons.

It seems apparent, too, that whatever ideological or sanitary motives lay behind the commissioners' dislike of burial vaults, the time which lapsed between the commissioning and the completion of the church was long enough for the pragmatic considerations of the parish council to assert themselves. As a result, some time during the 1720s the floor of the vaults was lowered, evidently with a view to increasing the available burial space (A.D. Mason, pers. comm.). Between 8 July 1729 and 23 February 1859 at least 1 000 individuals were interred in the vaults, whilst more than 67 000 were buried in the churchyard during its period of use. Further burials were prohibited by an order in Queen's Council of April 1858 and a further order dated 1867 ensured that the vaults were sealed. During the 1960s, and prior to the introduction of the Faculty Jurisdiction Measure of 1964, which was introduced to vet and control all proposals for work in churches, the eastern half of the vaults was cleared and refurbished for use as a shelter for 'alcoholic vagrants'. No records apparently survive to show whether or not any interments were found and removed, and consequently it is uncertain whether any burials which took place there were cleared out or replaced in the western half of the vaults in the 19th or early 20th century. The remainder of the vaults, excavated archaeologically between October 1984 and September 1986, contained an estimated 1000 individuals.

Archaeological examination of these vaults (see FIGURE 1) was made possible by the restoration programme which was begun during the 1970s. This programme included the installation of under-floor heating and other services to be created in the crypt in order to avoid compromising the architectural integrity of the church fabric.



**Figure 1: Split level plan of the excavated areas**

Commercial clearance of the vaults was considered, but it was decided that full archaeological investigation of the deposits would provide an unparalleled opportunity to research 18th and 19th century funerary practice, and to retrieve a unique sample of named and provenanced individuals for anthropological and forensic research.

### **Excavations**

The excavations were directed by Ms Jez Reeve for the Incumbent and Parochial Church Council. Examination of the vaults provided the excavators with a series of problems specific to churches-in-use. Many of these have been encountered and described before (Phillips 1976). They included the poor lighting which made recognition of soil changes extremely difficult, and the use of 35mm cameras which proved inadequate for dealing with detailed features. Extra problems which are rarely encountered were caused by excavating the vaults not from above, through an exposed floor, but from within the confines of the vaults themselves. All surveying had to be carried out using parallel, but independent grid lines without the aid of a theodolite, and the difficulties of triangulation in such as confined space meant that often the excavators had to rely on the superior accuracy of Hawksmoor's surveying.

At Christ Church the unique characteristics of the deposits

posed difficulties which were resolved by the creation of a modified single-context system of excavation and recording which was designed to ensure accurate provenancing of material and on-site stratigraphic analysis, together with rapid typological ascription under rescue conditions.

FIGURES 3 and 4 show an area on the north side of the vaults divided horizontally into two burial locations during the use of the vaults prior to 1858. It will be appreciated, not least by archaeologists used to excavating in discrete stratigraphic units, that the principle unit of stratification at Christ Church was the coffin. The coffin was defined for recording purposes as an artefact, covered with a 'subset' of other artefacts. Both units required the attention normally reserved for small finds, whilst the mixture of soil, building rubble and coffin wood which was variously dumped over stacks of coffins has to be excavated in 'spits' to ensure that material which had become removed from its original coffin could be provenanced and eventually traced back to the coffin itself, providing a crude measure of the way in which artefacts moved within the matrix of the dumps.

Although the vertical physical relationships between coffins can, for the most part, be relied upon, the horizontal relationships are much more difficult to assess, even when the actual interment of the coffin is accurately dated. Only in areas such as tunnel vaults which have very limited access, have we been able to make confident inferences, based on logistical grounds, about the exact sequence in which interments was introduced.

Pro-forma 'coffin sheets' were introduced and used in conjunction with a stratigraphic matrix, so that artefactual and contextual information was completed by the excavator in situ. The sheets require quantitative assessment of decorative coffin furniture, of the number and type of constructional components of the coffin, position of the skeleton, and sampling of any remaining textiles (FIGURE 2).

Types OUTER COFFIN	Co-ordinates 110-50/ 220-90	How many sheets 1	Site Code CAS 84	Context 0587
Outer Coffin 0587	Inner Lead —	Inner Coffin 0588	Skeleton 2280	Angle of Discovery Not Orientation S — N
Associated Numbers				
Desc.	Desc.	Desc.	Desc.	
Dimensions and Distinguishing Characteristics TYPE I UPPN DESIGN; TYPE I ESCUS				
Comments				
Site Grid Ref. 105-110/220				
Levels 73, 74				
Stratigraphically earlier than				
0573				
Stratigraphically later than				
0600				
Plan Nos. 562 N+S	Initials and Date			
Other Drawings	AS 31.10.85			
Location of Matrix	Checked & Date			
Ii	JR 07.11.85			
Interpretation/Comments				
Photography				

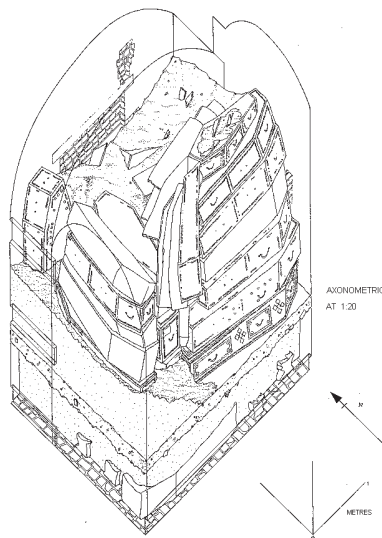
OUTER COFFIN		CONTEXT 0587	
Recording Date	31.10.86	Site Code	CAS 84
Associated Nos.	0588; 2280		
Construction	Joint	Where pitched	Other
	BUTT	NONE	
Inscription NONE SURVIVING			
% Survival	Cond	Shape	Design
Breast plate	0		
Lid motif	0		
Grip plate	8/8	B	VOID 2 CHECKERS; SURVIVING
Grip	8/8	B	
Grip bolt	16/16	B/C	
Escutcheon	24/24	B	TRIANG 2 CHECKERS; SURVIVING
Corner bolt	3/6	B/C	ROUND-HEADED SCREW
UPPN	95%	B	ROUND 15MM D
PAPN	100%	C	
Fixings	—		
Covering	0		REINTEGRATED
Lining	—		
Packing	—		
Wood	100%	C	
Interpretation			

Figure 2: The proforma 'coffin sheet'

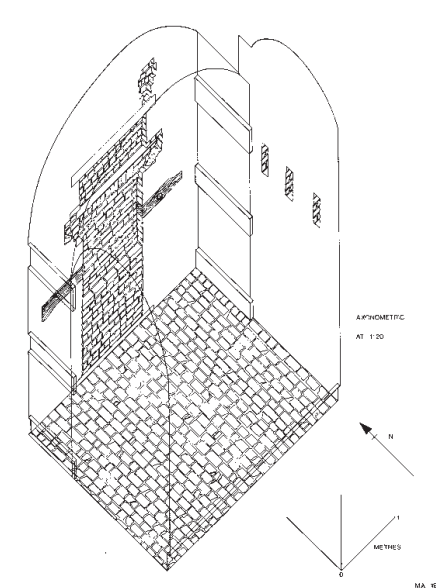
During the excavation a taxonomy was created for upholstery designs, for breastplates, lid motifs, grips for handles and grip-plates as well as for minor items of coffin metalwork and variations in lead coffin construction.

As the speed of the excavation increased references to and constant update of these taxonomies replaced the collection of much material for which samples had already been obtained.

Each burial and dumping deposit was planned at 1:20 with a minimum of four levels so that, as shown in FIGURE 3, any sequence of deposition can be reconstructed in three dimensions.



**Figure 3 Vault showing deposits**



**Figure 4 Vault after excavation**

This recording system is to be outlined in more detail in a forthcoming publication of the Council for British Archaeology and the Council for the Care of Churches-in-use, together with some recommendations for the enhancement of the recording system with the benefit of hindsight. Future excavations of this type should be able to deal with the recording of post-depositional processes more explicitly, especially those which affect the rate and type of decay of cadavers in widely different micro-environments. Measurements of soil moisture and acidity should be taken as part of a strategy aimed at retrieving a great deal more information about the behaviour of deposits in these conditions, than was feasible at Christ Church. We also recommend the development of on-site micro computer techniques in this field so that the large amount of numerical data produced by the Christ Church recording system can be fed directly to an archive, with a consequent reduction of the time spent by the excavators in repeating clerical tasks.

### **Health and Safety**

Rigorous health and safety restrictions added not only to the logistical difficulties inherent in an excavation of this type, but also to the personal risk undergone by members of the excavation. In a period when, due to the

successful campaign of the World Health Organisation during the 1970s, most people are not vaccinated against smallpox, questions have been raised about the potential for recovering viable viri from burial vaults (New Scientist, 25.07.1985). Because of the expectation that smallpox victims might have been buried in the vaults during the period 1729 to 1858 when there were epidemics in London, the excavators were inoculated. In the event, the smallpox lesions recovered from a cadaver in the vaults at Christ Church were not viable. However, under the terms of the Health and Safety at Work (1974) Act, the Health and Safety Executive, and the Tower Hamlets Area Health Authority were empowered to implement recommendations, of which several are mentioned below. An unfortunate side-effect of these controls was that only people bearing a visible vaccination scar from birth would be covered by the boosting inoculation. Personnel had therefore to be vetted by a doctor before commencing work, and several applicants were turned down on these grounds.

Those people who were allergic to penicillin were additionally covered against anthrax, although the risk here was more from rats than from any likelihood of spores being active in the soil. The wearing of surgical gloves, overalls and rubber safety boots was obligatory, and the use of Ministry of Defence chemical warfare masks was recommended to combat the risks of lead poisoning, dust inhalation and the possibility of contracting leptospirosis, a bacteriological infection carried by rats, for example. Unfortunately, the dangers of ventilating a site so close to the Spitalfields vegetable market and the consequent build-up of carbon dioxide in the vaults during excavation meant that masks impeded breathing. As a result, during periods when masks were impractical, most of the excavation personnel were found to have levels of blood\lead content incompatible with industrial standards, forcing the suspension of work more than once; the long-term effects of this exposure have yet to be assessed. In addition, one member of the excavation team contracted a skin disease, possibly from insects which feed off the wood of coffins; there are, as yet, no recommended means of protecting against this. The generally poor health and extended periods of depression suffered by members of the team will affect the chances of another site of this type being examined without the application of even more stringent health and safety codes.



## **The interments, coffins and other artefacts**

More than 950 interments were excavated from coffins, together with a few which were interred without coffins, making the total nearer to one thousand. Of these, some 42% were identified by the information recorded on coffin breastplates and inscriptions. These are commonly of iron, lead or tin, bearing the name, age and date of death of the individual, and usually attached to the lid of the coffin at the shoulder. Where these have perished the same information is often available from inscriptions on internal lead coffins, or small plates attached to the end or side of a coffin.

Interments from most years between 1729 and 1853 were excavated, so that for this period we have obtained an almost continual record of the types of coffins, furnishings and clothing used here. The range is enormous: more than 100 different styles of breastplate, nearly 60 designs of upholstery patterning, 9 types of lead coffin construction, together with an almost infinite variety of symbolic elements, constructional components and individual quirks. Some coffins were furnished internally with items such as mattresses, pillows, decorative frills and linings; often these remain in a fine condition, and form part of the analysis of all the textiles by the University of Bradford Archaeological Sciences department.

Some personal artefacts were found interred with the body in the coffin. These range from the banal to the bizarre: a tiny model barrel containing two molars, a glove, medicine bottles, mourning rings, and even a small pool of mercury which may have had a medicinal purpose.

Extensive analysis of all the material some 3 500 small finds and 2 500 contextual records must be undertaken before it is possible to determine to what extent intramural burial practices changed through time at Christ Church. Generally, coffin decoration seems to have become less ornate during the Victorian period, though the elaborate preparation of the body appears to continue throughout the use of the vaults. The actual containers were the subject of much argument during the early part of the 19th century when health problems associated with urban cemeteries were being aired in public; in 1813 the Christ Church vestry minutes recorded that subsequently it would be required that:

"...no corpses should in future be deposited...in the public or private vaults except such as enclosed in lead."

Most of the coffins interred after this date were of a triple-shell construction; that is a plain wooden coffin containing the corpse placed inside a lead coffin which was encased in a decorated outer wooden casket. The whole might easily weigh in excess of a quarter of a tonne. The excavations finally produced almost 16 tonnes of lead alone.

## **Stratification and the burial sequence**

The sequence in which interments in the vaults at Christ Church will probably never be entirely understood. While several hypothetical reconstructions of the sequence may appear equally plausible, however, a careful analysis of structural alterations to the church fabric, logistical possibilities and original burial dates may yield a picture of the ways in which the vault space was used, and in what order the 21 individual vaults were filled.

We can demonstrate the likelihood that some vaults contained few, if any, primary interments, while others seem not to have undergone phases of extensive reorganisation. Two vaults, marked LL and NP in FIGURE 1, highlight how a sequence may be deduced.

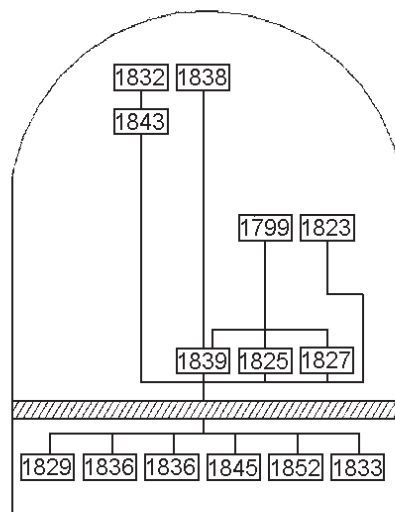
FIGURES 3 and 4 show these two vaults, situated immediately N of the main parochial area and divided horizontally by a deposit of rubble and a mixed concretion. FIGURE 3 shows the area as it looked immediately prior to excavation. At some stage during the use of the vaults 6 individuals were introduced into the lower vault which had been procured by a family; subsequently, the upper part of the vault was filled to within 30 cm of the ceiling with coffins which did not, apparently, belong to any particular family grouping.

FIGURE 4 shows the area after excavation, bounded on all sides by brick walls. An entrance from the N shows signs of having been remodelled more than once. On the other side of that entrance an inscription bearing the name of the family in the lower vault was at some stage inserted into the wall. The wall on the W side of the vault was partly dismantled to the same level as the layer of concrete.

The possibility of a sequence of simple, vertical stratification is remote. The last dated coffin in the lower vault was deposited during or after 1852. The 60 or so coffins above that level must be later depositions although breastplates indicate that at least some of them belonged to individuals who had died 20 or 30 years earlier (see FIGURE 4). Any inferences about the redeposition of these later coffins, and their original positions, rely on an understanding of the significance of the dismantling of the western wall, and the remodelling of the entrance. The coffins at the top of the vault could hardly have been

introduced through the lintelled doorway; we may infer that the doorway was blocked at the end of its period of use as a family vault, and that the coffins introduced after 1852 were brought from an as yet unidentified repository elsewhere in the vaults. A remaining puzzle concerns the purpose of the wooden lintel, apparently truncated, at a height of about 1.5 m above the floor. At present resolution of this problem seems unlikely, though it may represent an earlier entrance into the main parochial area.

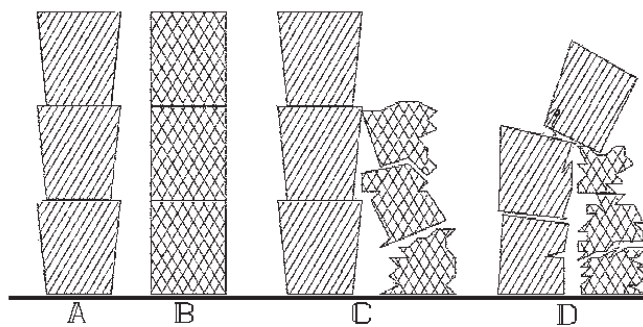
Problems of dating upstanding structures within both an absolute and a relative chronology add to the deceptive nature of coffins whose manufacture may be dated by information on breastplates, but whose deposition can only be post-dated by frequently misleading termini post quem. As FIGURE 5 shows, whilst the date



**Figure 5**

inscribed on a breastplate is within perhaps ten days of the date on which the coffin was first introduced into the vaults, it serves as a poor guide to the date on which the coffin was last moved. We believe that the mechanics of differential settling of wooden coffins, lead coffins and building rubble allow for the disturbing possibility that, as shown in FIGURE 6, the illusion of reverse stratification might be created by the effects of gravity. Here A represents a stack of wooden coffins viewed from the end; B shows the introduction of a second stack, this time with lead inner shells; in C this weight of lead causes the

second stack to collapse on itself; finally, in D fungal decay causes the collapse of the stack of wooden coffins, with the result that a coffin which was culturally deposited prior to the second stack appears to be of later deposition than the lead coffin on which it rests. Indeed, it is a later deposition, but it has been deposited as a result of several mechanical and environmental processes, and not as a direct result of human action.



**Figure 6: Differential settling of wooden coffins, lead coffins and building rubble**

### **Human biology**

The study presently being undertaken by physical anthropologists at the British Museum of Natural History is a long-term project whose results will ultimately be integrated with those from the excavations. The large percentage of named, aged and sexed individuals from this site, as well as contributing to human biological studies and mortuary archaeology, as discussed below, will enable the project to assess the degree of social stratification represented in this burial population. Work is presently being carried out on the skeletal material which will tell us in detail about the general health of the local population, their diet, living and working conditions and which, combined with the ongoing socio-historical study will give historians an accurate picture of the daily existence of people in this area during the eighteenth and

nineteenth centuries.

Initial results based on the testing of visual observations indicate that of 390 named interments less than 10 were attributed to the wrong sex. However, ageing techniques from gross observations are proving far less reliable. Both dental and skeletal analysis show a reasonable degree of accuracy for younger individuals below the age of 30 or 35. Beyond this age estimates are extremely unreliable (Theya Molleson pers. comm.). It has been suggested (David Whittaker pers. comm.) that the application of standard forensic techniques, and the possible generation of new techniques of dental ageing may resolve the problem.

Pathological analysis of the skeletal material has so far shown that the section of the population represented at Christ Church had a high occurrence of osteo-arthritis, but there was little evidence of infection or trauma (Tony Waldron pers. comrn.). Given the popular conception of 18th and 19th century London as a violent and disease-ridden city this may seem surprising; the full results are eagerly anticipated.

The burial population from Christ Church will be of special interest to social historians for two reasons. The period during which people were interred at Christ Church mirrors the Industrial Revolution in Britain; for the first time it will be possible to document the effects of this revolution on an urban population. Of particular interest is the strong Huguenot element which represents a discrete and well-documented group whose origins, and probably lifestyles, are distinct from those of much of the rest of the local population.

### **Burial vaults**

Although the project's work concerns post-medieval archaeology, it holds implications for other areas of archaeology, in particular the study of mortuary behaviour, which are far-reaching.

To begin with, Christ Church stands unique in the field of post-medieval burial vaults, though interments within churches in various forms are by no means uncommon in Britain from the 16th century onwards, until the middle of the Victorian period. Interments within churches have occurred since the early medieval period and up until the

present day in Britain. Very often, as is the case with royal and other state burials at Windsor and Westminster, these have been rare and specialised affairs. However, there is plenty of evidence (Thomas 1971 and elsewhere) that in the early medieval period the positioning of a grave within the walls of a church was desirable and probably highly venerated. Nevertheless, it was the post-medieval period which saw the proliferation of intramural burial amongst not only the upper classes, but also merchants, artisans and craftsmen, including undertakers.

Although the constraints of architectural whim, available materials and site restrictions have resulted in a wide variety of forms, of the post-medieval vault Litten (1985) has shown that certain trends can be identified:

"The late 16th century vaults have vertical walls to all elevations with a gently curving roof, somewhat 'flattened' Perpendicular style, early 17th century vaults are similar except the roof tends to be flat, mid-17th century ones differ in having a slightly barrelled roof whereas those of the 18th century are of the railway tunnel type whose east and west walls are vertical, with low north and south walls from which springs the barrel-vaulted roof. With the advent of the 19th century we return to the expensive 17th century model."

The part of the vaults at Christ Church which were excavated archaeologically can furnish much additional detail about the construction and use of burial vaults, because structural elements have escaped the common fate of burial vaults which have been converted for modern use without thought for the historical potential of 'nasty modern disturbances'.

The urban middle classes of the period 1729 - 1858, ostentatiously pious and reverent, saw intra-mural interment as a means of avoiding the unpleasant conditions created by overcrowded churchyards (Litten 1985), and also, perhaps, as an enhancement of status in death.

Chadwick (1842) notes that St. Martin in the Fields, with a graveyard of some 200 square feet, has a burial register containing 60 000 or 70 000 names, a similar number to Christ Church. The appalling overcrowding in urban churchyards and cemeteries during the early part of the 19th century led to the Burial Acts of 1852 and the

subsequent banning of intramural and urban burial, as well as the introduction of cremation after 1879, despite much opposition. Bishop Fraser of Manchester admitted that:

"...my instincts and sentiments...are somewhat revolted by the idea of cremation." (quoted by W.Robinson in *God's Acre Beautiful*, 1880)

In the course of essential clearance of burial vaults, and the occasional accidental disturbance of remains, much information has come to light concerning the specific architectural design of burial vaults, and the furnishings attached to coffins which were interred there. In no case has an archaeological project been specifically designed to research into post-medieval burial vaults, and with one exception, that of St Augustine's in Bristol, (Hoore 1986f) Christ Church is the only example of such a site to have been excavated under archaeological conditions. Many others have been cleared by commercial undertakers, not subject to scientific rigours and insensitive to academic considerations.

Litten (1985) refers to much of the documentary and other accidentally retrieved material that has contributed to our understanding of burial practices during the period from c.1680 to c.1860 when brick-lined burial vaults were in vogue. Undertakers' pattern books demonstrate the range of fancy metalwork available for the decoration of coffins, and many examples of coffins have been recovered which give us some idea of the way in which a 'typical' burial receptacle was constructed.

The 1000 or so interments in the vaults at Christ Church offer the chance to test inferences about the 'typicality' of the material which has been collected previously, and to fill some of the gaps in our knowledge of the post-medieval artefacts of Christian death highlighted by Rahtz (1981).

Literary accounts of funerals during the 18th and 19th centuries stop short of describing the final movements of a coffin as it enters its last resting place within the vaults. The evidence from St Augustine's confirms that care was taken to ensure that individuals were interred on the 'correct' E-W alignment (Litten 1985). One might assume that the reverence accorded to the Victorian dead above ground, for example, was assiduously continued within the vaults. The evidence from Christ Church, suggests, however,



that quite the opposite was in this case true. The reality of the Dickensian funeral, isolated from the pomp of ceremony and procession, and the precocious piety of memorials, may have been of a more mundane, even sordid nature in reality than has been thought.

### **Christ Church and mortuary theory**

The value of Christ Church is enhanced by its almost untouched nature during the 120 years or so since interment ceased. The excavated deposits remained until 1984 almost as they had been left when the vaults were sealed some time during the 1860s.

The only processes operating on the deposits in this time have been those of gravity, chemical reaction, animal activity, and biological decay. Since these processes have not been 'blurred' by subsequent human activity, and have occurred in a relatively isolated environment, we have been able to identify many of them, and the effects which they have had on the deposits. It should be possible to demonstrate with some confidence what the vaults looked like immediately prior to their closure. The implications of this are enormous.

The generation of a body of theory which deals explicitly with mortuary practices has been the subject of discussion for some 15 years (Brown 1971). Strictly speaking, there is no 'mortuary theory'. A collection of models and hypotheses exists as an attempt to define the relationship between living societies and their dead (Chapman, Kinnes & Randsborg 1981; O'Shea 1984), but there is no evidence that those relationships are stable ones. The Christ Church data may be used to resolve some specific questions about mortuary differentiation and the reflection in death of an individual's status in life, especially in such a well-documented period, although whether or not archaeological mortuary data from a modern European context are suitable for answering questions about past societies is a matter for long-term debate. Nevertheless,

"the existing theory of mortuary differentiation has concentrated on statements which specify the relationship between the organisation of a living society and its practices for the disposal of the dead. It fails to predict the additional relationship between these mortuary practices and their archaeological observation which is, of

course, the evidence on which any social reconstruction will be based." (O'Shea 1981, 40)

The resolution of these "additional relationships" relies on an archaeological understanding of post-depositional models, or formation processes (Schiffer 1976, 1985). These processes operate on all archaeological deposits, and, generally, the older the deposit, the more complex the interaction between it and its environment. Because mortuary deposits have often demanded a high level of interpretation, usually in churches, churchyards and other cemetery sites isolated from settlements, it is of great importance that inferences drawn from their data should be reliable (see Doran 1973 for experiments in the generation of mortuary models).

If analysis of the Christ Church data should lead to the generation of a post-depositional model for at least some types of mortuary deposit, then inferences could be drawn from data from other mortuary sites which could be of greatly increased reliability. Such a model would involve a re-examination of some of the fundamental assumptions involved in the interpretation of mortuary data, such as the reliance on Worsaae's law, and inconsistencies in understanding reverse stratification. An example from Christ Church underlines the dangers of relying on artefacts associated with burials to date those burials. A coffin was examined in the main parochial vault, after the removal of 1.5m of soil and rubble, and another coffin directly above it. Although apparently sealed and undisturbed the coffin yielded hundreds of fragments of a national newspaper printed during the 1920s. The skeleton of a rodent was not recovered from the area, but we may infer that faunal activity took place because documents exist to show that the vault was sealed in 1813; the coffin itself appears to be a primary interment of the 1770s.

## **Physical anthropology**

A large part of the rationale for the project centres upon the scope for study and research which is provided by a burial population of approximately 1000 individuals, excavated under strict archaeological conditions to ensure that named individuals could be closely monitored between exhumation, and their study by physical anthropologists. The methods which are employed to determine the age and sex of human skeletons recovered from archaeological deposits on sites of all periods are variable in both quality and precision. The present assemblage, of which some 42% have been identified in the parish burial registers, offers a rare opportunity to evaluate these methods, and to place the results at the disposal of the archaeological and anthropological communities. Results from Christ Church are therefore likely to have bearing on mortuary studies everywhere.

The advantages of being able to study so recent a mortuary population are not confined to the generally good preservation of human remains of this period. Most burial populations which are archaeologically examined represent societies for which our understanding of every day life is inadequate. Studies of these populations may attempt to test assumptions about the validity of mortuary archaeology as a key to unlock extinct societies (eg. Goldstein 1981), whilst continuing to rely on mortuary data, for making inferences about those societies. Conversely, studies which have recorded the attitudes of contemporary societies to their dead (eg. Ucko 1969) are hamstrung by the difficulties of examining, in the present or near future, the archaeological residue of such societies.

A combined archaeological and socio-historical study of a funeral population which is only four generations or so removed from the present will provide, as it were, a control with which to test theories of mortuary variability against the vast amount of historical and literary evidence which exists for the period.

## **Legal and ethical concerns**

The excavation of human remains, even under the aegis of a scientific project, is subject to both legal and ethical considerations, of which the latter must be approached with sensitivity and considerable tact.

Under English law a Home Office licence is required prior to the removal of any human remains, as well as a statutory church Faculty covering works within churches in use and the reinterment in consecrated ground of any human remains which are disturbed. Individuals may also be the subject of a coroner's inquest. The procedure is the same for a commercial clearance.

Public notice was given prior to the excavation of the intention to clear the vaults at the western end of the church. The clearance, it must be stressed, was not prompted by any desire to excavate archaeologically, but by the need to install essential services for the church where they would not interfere with the restoration programme currently being undertaken to restore the church to its original baroque splendour.

The excavation of human remains, and the provision for their reinterment in consecrated ground together with the construction of a suitable memorial, fulfills not only the requirements of the 1971 Burials Act, but also the Christian tenet that the soul of a human being retains its integrity independent of the mortal remains. Such is not the case with other religions, within which the disturbance of corporeal remains is anathema.

The ethics of disturbing human remains, whether accidentally or by design, is a thorny issue for the archaeologist to tackle (for a discussion of the issues see Bahn 1984, 1986). One must consider not only the attitudes of contemporary society, but those of the deceased and those of the excavators themselves. Though it is inadequate for the archaeologist to treat human remains simply as 'artefacts', regardless of her or his own views, the inherent inability of individuals to empathise fully with the ideational framework of those alive even as few as four generations ago, would suggest a carefully compromised approach; indeed, the terms of the Home Office licence dictate that the removal should be conducted "with due care and attention to decency". It should be said that the response from members of the public whose relatives were interred in the vaults at Christchurch was positive, and often displayed considerable interest in the project. Where the information exists details have been readily passed on to descendants, who have themselves provided the excavators with invaluable information.

Eventually the value of the Christ Church project will rest on the research which it generates. Some of the potential has already been suggested. The combination of a social history of the people of Spitalfields, and its undertaking industry will provide historians of the Industrial revolution with a rich database for further analysis of economic and social changes between 1700 and 1860.

The vast quantity of funereal artefacts is rich in possibilities for symbolic, artistic and metallurgical analysis which lie beyond the scope of the present programme.

Within the archaeological community the potential for understanding the formation of mortuary sites cannot yet be fully calculated, but the Christ Church data suggest a very high level of interpretation. Reeve and Adams (1986) give a more detailed discussion of some of the academic objectives, including a synopsis for the final publication of the site.

## **Bibliography**

Bahn, Paul G., 1984 Do not disturb? Archaeology and the rights of the dead Oxford Journal of Archaeology 3,2. July 1984: 127-40

Bahn, Paul G., R Paterson, R.K.W., 1986 The last rights: more on archaeology and the dead Oxford Journal of Archaeology 5,3. Nov 1986: 255-272

Boore, E.J., 1986f Transactions of the Bristol and Gloucestershire Archaeological Society 104

Brown, J.A p , 1971 (Ed) Approaches to the social dimensions of mortuary practices Society for American Archaeology Memoirs, 25

Chadwick, Sir Edwin, 1843 Report on sanitary conditions of the labouring population in Great Britain Supplementary report on the practice of interment in towns. London: Clowes

Chapman, R., Kinnes, I. & Randsborg, K. 1981 (Eds) The

archaeology of death Cambridge: Cambridge University Press

Doran, J.E., 1973 Explanation in archaeology: Computer experinent in C. Renfrew (Ed) The explanation of culture change: models in prehistory London: Duckworth

Goldstein, L., 1981 One dimensional archaeology and muti-dimensional people: spatial organisation and mortuary analysis, in Chapman, R., Kinnes, I. R Randsborg, K. 1981 (Eds) The archaeology of death Cambridge: Cambridge University Press

Litten, J., 1985 Post-medieval burial vaults: their construction and contents CBA Churches bulletin Winter 1985: 9-17.

O'Shea, J.N., 1984 Mortuary variability London: Academic Press

Port, N.H., 1986 (Ed) The Commissions for building fifty new churches: minute books, 1711-27 London: London Records Society

Phillips, A.D., 1976 Excavation techniques in church archaeology, in Addyman, P.V. and Morris, R.K. (Eds) The archaeological study of churches CBA research report no.13

Rahtz, P.A., 1981 Artefacts of Christian death, in Humphreys, S.C. & King, H. Mortality and immortality: the anthropology and archaeology of death London: Academic Press

Reeve, J. & Adams, M., 1986 Christ Church, Spitalfields archaeological project: post-excavation research design

Schiffer, M.B., 1976 Behavioral archeology New York: Academic Press

Schiffer, M.B., 1985f Formation processes of the archaeologiaal record

Thomas, C., 1971 The early Chirstian archaeology of North Britain London: Oxford University Press

Ucko, P., 1969 Ethnography and the archaeological interpretation of funerary remains, in World Archaeology 1:262-80

