CATHEDRAL
FLOOR DAMAGE SURVEY

Jane Fawcett

ICOMOS UK
CATHEDRAL FLOOR DAMAGE SURVEY

Surveys of the Historic Floors of Cathedrals and Greater Churches in England and Scotland

by

Jane Fawcett

The Secretary, ICOMOS UK
(The International Council on Monuments and Sites)

A report prepared with the assistance of a Research Award from the Royal Institute of British Architects and with the support of ICOMOS UK

The surveys identify Cosmati and tiled pavements, brasses and brass indents, ledger stones and inscribed grave slabs in 44 Cathedrals and Greater Churches
CONTENTS

Acknowledgements
Alphabetical list of reports
Introduction
Cathedral floor surveys and floor plans and illustrations (alphabetical)
Guidelines for good practice
Summary and conclusions
Recommendations
ALPHABETICAL LIST OF REPORTS ON CATHEDRALS

AND GREATER CHURCHES

Bath Abbey
Beverley Minster
Birmingham Cathedral
Blackburn Cathedral
Bristol Cathedral
Bristol, St Mary Redcliffe
Cambridge, King's College Chapel
Canterbury Cathedral
Carlisle Cathedral
Chelmsford Cathedral
Chester Cathedral
Chichester Cathedral
Derby Cathedral
Durham Cathedral
Edinburgh Cathedral
Ely Cathedral
Exeter Cathedral
Gloucester Cathedral
Hereford Cathedral
Hexham Abbey
Kirkwall Cathedral
Lichfield Cathedral
Lincoln Cathedral
Manchester Cathedral
Newcastle Cathedral
Norwich Cathedral
Oxford, Christ Church
Peterborough Cathedral
Portsmouth Cathedral
Ripon Cathedral
Rochester Cathedral
St Albans Cathedral
St Paul's Cathedral
Salisbury Cathedral
Southwark Cathedral
Tewkesbury Abbey
Truro Cathedral
Wakefield Cathedral
Wells Cathedral
Westminster Abbey
Winchester Cathedral
Windsor, St George's Chapel
Worcester Cathedral
York Minster
ACKNOWLEDGEMENTS

First, I should like to thank the RIBA for granting me a Research Award and ICOMOS UK for providing the administrative support and financial backing without which this survey could not have taken place. I am also most grateful for the encouragement and help that I have been given by many Deans and Chapters, Cathedral Architects, Librarians and Clerks of Works.

I have incorporated their comments, wherever possible, into my surveys, although in order to meet the RIBA deadline, I have had to omit some of the latest information sent to me. This is, therefore, a preliminary report.

I am even more indebted to those who have taken some action as a result of reading my reports, particularly the Deans and Chapters of Exeter and Canterbury Cathedrals, who have offered financial support to the teams of cathedral recorders, and of York Minster for supporting a pilot scheme to carry out tests and prepare guidelines for historic floors.

Others who have given valuable advice and help are the Cathedrals Fabric Commission, the Building Research Establishment, the Royal Commission on Historical Monuments and English Heritage.

My husband Ted has given me his usual support and encouragement, and has helped with the floor surveys of four cathedrals.

Last, but not least, my heartfelt thanks to my secretary, Kate Entwistle, who, not for the first time, and I hope not for the last, has shouldered the burden of typing and coordinating the survey reports.
INTRODUCTION

As the recognition and protection of historic floors has until recently received very little attention, my surveys are intended to provide a general assessment of the historic floors in all of the most heavily visited cathedrals and greater churches, with a note of the major historic features and their condition. I have also made recommendations, wherever possible, for the immediate protection of the areas most seriously at risk from overuse. My surveys have been partly funded by a Research Award from the Royal Institute of British Architects and partly by ICOMOS UK.

I first wrote to all cathedral architects, asking for information on damage inflicted by visitors on historic floors, especially ledger stones, brasses and decorative tiles and for details of any controls or protective measures that had been introduced. Although cathedral architects were aware of the damage being inflicted, very little had been done to control it.

At the same time, cathedral librarians were requested to send information on existing records and plans of historic floors, with details of inscriptions and armorials on ledger stones and brasses, as well as photographs or prints.

The results of these enquiries were extremely worrying. Many cathedrals have inadequate or non-existent records of floor slabs and inscriptions and locations of ledger stones and brasses. Such floor plans as exist, are fragmented between cathedral libraries, record offices, architects, and Clerks of Work offices. There is no overview of what exists. Without a full record of all inscriptions of lettering, heraldry, location, condition reports, and an archaeological survey, supported by photographs and rubbings and entered on a floor plan, a historical element of outstanding importance is being irrevocably lost.

The response to my surveys, which have been circulated individually to all cathedrals for comment, has been most encouraging. Several have already agreed to take some action over their historic floors. These include: Westminster Abbey, St Paul's, Winchester, Exeter, Canterbury, Norwich, Ely, Wells and Lincoln Cathedrals, and York Minster. At Bristol and Lichfield Cathedrals, surveys were already under way, under Dr Warwick Rodwell.

My surveys are one of the initiatives promoted by the ICOMOS UK Cultural Tourism Committee. This committee arranged, with English Heritage, a seminar on Tourist Wear and Tear, which included papers on cathedral damage, in June 1989. It also organised an important European conference on the subject of tourist damage to the heritage at Canterbury in March 1990, using the cathedral as a case study.

We are now awaiting reports from the Building Research Establishment on various aspects of historic floor protection. They have inserted studs to monitor the rate of deterioration in sample floor areas, in Canterbury Cathedral and Westminster Abbey. We have also asked them to advise on protective pads for chairs and moveable furniture, to avoid scratching; methods of moving stands and chairs for special events, without damaging floor surfaces; guidelines for protective covering for areas of special historic significance; and types of matting for extracting dust and grit from visitors' feet at entrances.
The Care of Cathedrals Measure (1991) requires each cathedral to compile an inventory of all furnishings, books, manuscripts, plate, and other treasures, within five years. Historic floors are now regarded as a necessary component of these inventories. Sales and thefts, such as the four medieval tiles from Winchester Cathedral, should thus be avoided. Thefts are becoming increasingly frequent and while some of the objects are stolen by tourists as souvenirs, many more are stolen deliberately and find their way into the sale rooms.

The promise of Government grants worth £11 million for cathedrals, should help to remove the temptation to sell treasures in order to pay for necessary repairs. The inventories will give much needed protection to the treasures with which many cathedrals are still endowed.

Arising from my surveys, two initiatives are now underway. Cathedral Recording Teams are being set up, under the Surveyor to the Fabric, and with my help, to record all inscriptions and armorials on ledger stones and brasses, with condition reports. Their position will be entered on floor plans, photographs and rubbings will be taken and the records will be deposited in the cathedral libraries and with the Cathedrals Advisory Commission. Surveys have already started at Exeter and at Canterbury Cathedrals and at Westminster Abbey. Other teams will be set up wherever possible. These surveys, which will be based on the methods used by the Church Recorders, should in their turn provide some of the data necessary to make decisions over controls, repairs and the conservation of historic floor surfaces.

The Dean and Chapter of York Minster, the Cathedrals Fabric Commission and ICOMOS UK have set up a Working Group of experts, including representatives from the Building Research Establishment, the Royal Commission on Historical Monuments, and the York Centre for Conservation Studies, to establish guidelines for the recording and treatment of historic cathedral floors. Using York Minster as an example, methods of recording, recutting, reordering and protecting important ledgers, brasses and tiles will be initiated and guidelines circulated to all cathedrals.

It is clear that widespread damage is being inflicted both to monuments, floors, and to other parts of the fabric. It is also clear that, hard as the cathedral authorities find it to accept, the majority of those inflicting the damage have little interest in the cathedral as the House of God; they often have no interest in the architecture; and they are, in many cases, destroying for each other whatever experience they might have expected by sheer noise and weight of numbers. We hope that these initiatives will help cathedrals to find some solutions to a very difficult problem.

Jane Fawcett MBE Hon FRIBA
Grad Dip1 Conservation AA
The Secretary of ICOMOS UK

March 1991
BATH ABBEY

A great many ledgers, many of them armorial, lie along both aisles, up the nave, and along the west end. Some have been broken up and relaid during one of the restorations, many lie under Gilbert Scott's carved stalls and font. Some brasses exist, mostly nineteenth century, particularly along the nave, and some are placed on the walls among the many monuments all forming part of the wall pattern, including one brass specifically moved from the floor to an adjacent wall on the recommendation of Alan Rome, Surveyor to the Fabric.

There are good metal grilles designed by Scott, and a magnificent Gothic brass lectern and altar rails by Skidmore, as are the gasoliers.

A decision has not yet been taken as to whether to regard the ledgers as expendable, as at Windsor, or whether they should be recut. Many are no longer identifiable but records do exist, partly as a result of the extremely thorough recording carried out by James Thomas Irvine, Scott's Clerk of Works, whose records are now lodged in the Reference Library. A decision would also have to be made as to whether recutting should be confined to stones of historic interest, or of artistic importance. As Scott moved many of the slabs, they do not relate to burials, of which there were well over two thousand in the abbey. Nevertheless, they form an important link in the social history of the area, and the texture they give to the floors adds significantly to the interest of the building.

Jane Fawcett
November 1990

Mr Gerald Deacon, Chairman of the Bath Abbey Fabric Committee, writes (11.90):

I personally do not think that any of the visible ledgers is of great importance; many of them have been defaced and damaged.

A few years ago I had the tablet on the nave floor marking the burial place of James Quin the actor recut. The fine James Quin memorial tablet is now in the north choir aisle.
David Wilson, the Head Virger, reports (8.88):

The number of people round the building would average about 150,000 visitors a year in comparison with York's 4.5 million. Vandalism is low, largely due to myself and an assistant being there in full-time attendance.

Ian Stewart, Surveyor to the Fabric, writes (7.88):

As far as I am aware, we are thankfully free of the damage which tourists and "visitors" of all kinds can bring in their wake, Beverley being under much less severe pressure from that quarter than our near neighbours at York, for example. Pavements and ledgers are worn, but then they have been there a long time. We do not see them disappearing before our very eyes. Some repairs to the marble pavement in the Choir are in prospect, but these are necessitated by natural decay of the material and its substrate and cannot be said to be due to excessive foot traffic.
ICOMOS UK CATHEDRAL DAMAGE SURVEY

BIRMINGHAM CATHEDRAL

Michael Reardon, Surveyor to the Fabric, makes the following comments:

Birmingham is fortunate in having relatively few tourists and I do not think the Chapter have any interest in encouraging them. It is very much a living and working city church, more like an Italian duomo than an English cathedral - people drop in to pray, light a candle or simply have a chat with the priest on duty. I am inclined to think that this exactly as it should be.

As an eighteenth century building, Archer's cathedral does not contain floors that are of the importance, historically, of medieval cathedrals, nor are they at present in danger from over-use.

Records

Patrick Baird, the Librarian of the Local Studies Department, writes:

The records of St Philip's Cathedral have been deposited here in the Archives Department. I enclose details of those relating to inscriptions, although they seem to be in the churchyard or on the exterior of the building rather than inside. The cathedral authorities have in recent years published a series of booklets about the building. Some of the mural tablets are reproduced in these.

Jane Fawcett
February 1991
Tomb of Judge Walmsley, (reign Eliz I), possibly copy of that of Duchess of Somerset in Westminster Abbey, vandalised by Cromwell's soldiers - surviving alabaster slab on S. transept wall.

All other commem. tablets and memorials removed to walls of columbarium and staircase in crypt in 1964.
ICOMOS UK CATHEDRAL DAMAGE SURVEY

BRISTOL CATHEDRAL

The important archaeological survey of the south choir aisle carried out recently by Warwick Rodwell has developed new techniques in the plotting and identification of floor slabs and ledger stones. He has also devised a method of classifying by colour all the flooring materials, with a note of their condition, and of identifying those ledgers which formed covers to burial vaults, recognisable partly by their size and also by the fact that many have a narrow surround of a different material, added to make good the damage after the vault was excavated.

The plans, which are prepared to a scale of 1:20 and then reduced for publication, also contain the location of all ledgers, with a record of shape and size. Each ledger is numbered for identification. Irregularities in shape reveal archaeological information about later alterations and additions. Dr Michael Smith with his students from the Department of Art History at Bristol University, is recording all the inscriptions, since no record appears to exist, and these records will relate to Dr Rodwell's survey. It is hoped that the Dean and Chapter will commission a similar survey of all the floors in the eastern arm, with the exception of the choir, which was repaved by J L Pearson, and of the Berkeley Chapel, also repaved.

A small section at the south west corner of the south choir aisle has been sensitively repaired by Alan Rome, Surveyor to the Fabric. The most seriously damaged floor slabs have been replaced by slabs of identical material, the floor surface has been levelled, ledgers repaired and two black marble slabs replaced. The result is that, without appearing new, the area is no longer dangerous for the public. There was a proposal to replace the whole of this historic floor. I very much hope that instead this conservative repair will be extended to cover the whole area. The cathedral would be immeasurably the poorer without these historic floors, and their replacement would be quite unacceptable.

Dr Rodwell wrote:

The eastern arm is a palimpsest of important historical evidence: there are hundreds of individual stones (medieval, early post-medieval, indents, eighteenth and nineteenth century tablets and vault markers, medieval tiles, etc). The architect and I have shown that careful repair can be successfully undertaken. My detailed drawing of the floor has enabled me to work out the entire pattern of eighteenth and nineteenth century vaults and brick-lined shafts which lies buried beneath. Various evidence for liturgical and furnishing changes has also been teased out of the floor archaeology.

The Surveyor to the Fabric reported:

Dr Rodwell has carried out a magnificent investigation into the Quire pavements with superb drawings and the Dean is most anxious to carry out remedial and relaying work as finance permits; by relaying I should emphasise that it is not repaving but resetting to a reasonably level surface.

The Nave

The tiled paving of the nave was designed by G E Street when
The Chancel

The very fine marble floor designed by J L Pearson is in good condition, with the exception of the area between the entrances to the north and south choir aisles, where there are considerable signs of wear. The magnificent Cosmati floor in front of the high altar is in superb condition. The whole ensemble, with the choir screen, side screen, stalls, altar rails and reredos is a splendid period piece, and one of Pearson's most successful creations.

North choir aisle

Most of the floor slabs are of Pennant stone, rectangular, of irregular shape, and with diamond-shaped white marble ledgers inset. The surface is uneven and many of the slabs are in very poor condition. There is an important band of rare embossed medieval tiles in the north east raised chapel at the eastern end of the aisle, running along the north wall, and under the altar are three large ledgers.

Lady Chapel

A fourteenth century indent of an Austin Canon lies at the north west entrance to the chapel. It is being seriously damaged by the feet of visitors, owing to the placing of exhibition panels immediately to the west, thus channelling all feet over this important monument. It deserves better care.

A fragment of an early ledger with a marginal inscription lies to the south east; it is probably late sixteenth century, to a bishop of Bristol.

A walk of eighteenth century black and white diamond-shaped marble paving runs down the centre of the chapel, and covers the area round the altar. To the south west of this walk lies a small ledger to 'John, the sonne of John Yeamans . . . Merchant, who departed this life 13th December 1640 aged 6 years', with good, rather primitive, lettering. Next, to the west, lies an important heraldic ledger to Joseph Butler LLD, badly damaged, date illegible. Under the step leading to the south choir lies a black basalt heraldic ledger to Dean Richard Lowgood d. 1683, and on the step another heraldic ledger to John Conybeare DD, Dean of Christ Church, Oxford, d. 1755. Both these ledgers are subjected to heavy wear and their removal to less vulnerable positions should be considered.

South choir aisle

Three large ledgers lie in the eastern section of the aisle: to Anne Sutton d. 1740, in the south east corner, with attractive lettering and a foliage design in the corners; lying centrally a damaged ledger, date 1617, covering a vault; and on the north west side above the step, a black heraldic ledger to Jacobus Phillips d. 1725, with a foliage surround. There are many rough square stone slabs interspersed with diamond-shaped white marble ledgers in this area.

Below the step and going west is a black ledger to Mrs Elizabeth Needham 1770, and Mrs Hamilton d. 1776, and beyond, diamond-shaped stone slabs alternating with white marble ledgers, a very distinctive ensemble.

Jane Fawcett
November 1990
Vandalism and Theft - report by Canon J M Free

Windows were damaged between November 1987 and February 1988. The Lalique Cross was smashed; the Blensdorf sculpture was knocked over, occasioning damage to both the sculpture itself and the Berkeley tomb; and a small modern crucifix valued at £500 was stolen. The sculptor allowed the cathedral to purchase his own copy, but within a short time this was broken.

A number of thefts from the shop have taken place, a silver alms dish was stolen four years ago, and the coin box on the Chapter House lighting is broken open once or twice a year, although there is never much money in it.

Dr Michael Smith, Dept History of Art, Bristol University, reports

As far as I can find there is no complete survey of the monuments, memorials and inscriptions.

The Dean and Chapter have a recent photographic record of the (major) memorials made recently by Mr Iduni in connexion with conservation problems.

In Gloucestershire Notes and Queries vol II (1884) an author signing himself 'Bristoliensis' gave a breakdown of his figures while lamenting the lack of a full catalogue: the figures of 1884 can be compared to my own provisional totals (1989):

<table>
<thead>
<tr>
<th></th>
<th>1884</th>
<th>1989</th>
</tr>
</thead>
<tbody>
<tr>
<td>Choir (now Lady Chapel)</td>
<td>24</td>
<td>24</td>
</tr>
<tr>
<td>South Aisle</td>
<td>80+</td>
<td>10</td>
</tr>
<tr>
<td>Newton Chapel</td>
<td>60</td>
<td>80+</td>
</tr>
<tr>
<td>North Aisle</td>
<td>92</td>
<td>-</td>
</tr>
<tr>
<td>Aisles (i.e. before re-arrangement of choir, organ-screen etc.)</td>
<td>186</td>
<td>135</td>
</tr>
<tr>
<td>Transepts,</td>
<td></td>
<td></td>
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<tr>
<td>(i.e. including wall across west arch of tower)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Elder Lady Chapel</td>
<td>25</td>
<td>26</td>
</tr>
<tr>
<td>Nave</td>
<td>--</td>
<td>25</td>
</tr>
<tr>
<td>Cloister</td>
<td>1</td>
<td>33 (many moved from church)</td>
</tr>
<tr>
<td>TOTAL</td>
<td>502</td>
<td>approx. 413+</td>
</tr>
</tbody>
</table>
In 1884 there were 86 memorials in churchyard; Family History Society have a basic record. Much erosion is evident.

Many of the inscriptions on the floor of the cathedral are by 1990 getting evermore difficult to decipher. Some can be identified and "restored" by reference to such authorities as Barrett's History of Bristol (1789) - e.g. Coster monument, - and Cathedral Registers 1669-1837 (1933).

I have done essays on three of the memorials - Hugh Conway and Sir John Stuart, the Victor of Maida (Friends Annual Report 1986 and 1938) and on Emma Marshall (University of Bristol 1984). We included a detail of a Newton Tomb, 1599, and the Frampton bronze to Canon Norris in Nooks and Crannies of Bristol Cathedral.

I would hope to be able to incorporate material from e.g. N.PENNY: Church Monuments in Romantic England (1977), Ida ROPER: The Monumental Effigies of Gloucestershire and Bristol (1931) to create a single, full catalogue.

As 'Bristoliensis' noted in 1884, it is a task for some one "with time to spare and a fair amount of patient perseverance."

Overleaf
Archaeological floor plan (colour coded), by Dr Warwick Rodwell, 1987
BRISTOL CATHEDRAL

SOUTH QUIRE AISLE

Paving and memorial stones

Warwick Rodwell, F.S.A.  6 October 1987

FIGURE 2. Plan of paving and memorial stones, as existing in 1987. Scale 1:50, reduced from original survey at 1:20 scale. Memorials numbered from 1 to 101. Numbers in parenthesis:

[ ] Stone probably never inscribed
( ) Stone probably once inscribed, but now worn smooth
ICOMOS UK CATHEDRALS AND GREATER CHURCHES DAMAGE SURVEY

ST MARY REDCLIFFE, BRISTOL

Two of the most important brasses to survive in their original position lie to the west of the high altar steps. They are by far the most outstanding feature of the floors, and because of their early date and remarkable condition, must be regarded as outstanding in a national context.

The first, to the north, is John Brook d. 1522 and his wife Johanna, daughter of Richard Amerique, after whom America may have been named, for, as the King's Sheriff in Bristol, he handed a reward from Henry VIII to Cabot on the latter's return from his expedition to America. John Brook was Servant-at-Law to Henry VIII, Judge of Assize in the West of England, and Chief Steward of the Abbey of Glastonbury. The figures of John and Johanna are severe and impressive, three feet high, with two crests, one now an indent, at their feet, and an inscription in Latin. Johanna wears a headdress, and a robe tied with a belt with a censor attached. To the south lie John Jay 1480, and Johanna his wife wearing a wimple, and a purse and rosary. These figures are also three feet high, there is a canopy above and fourteen kneeling children below.

Both these brasses are becoming badly worn. They are covered with carpets, which seemed reasonably clean. On top of each of their heads, however, on each side are placed seats and prayer desks. The friction created by the regular use of these during services must damage the brasses, and this is unacceptable. Thought should be given to relocating either the furniture or the brasses. It is amazing that they should have survived in these, their original positions, despite the repaving of the chancel floor.

There are two other important brasses, one to Philip Mede 1491, on the wall in a recess in the north choir aisle, and the other to Sir John Juyn d. 1439, a great benefactor to the church, placed on the north wall of the Lady Chapel. Sir John was 'Chief Justice to our Lord the King'; he bequeathed a number of treasures to the church. Neither of these fine brasses is in danger.

Apart from the brasses, there are several medieval ledger stones of interest, and a number of seventeenth and eighteenth century ledger stones, mostly in poor condition.

St John's Chapel
There are several ledgers here, some covered by rugs.

The Nave, and north and south aisles
These areas were all repaved with encaustic tiles in the nineteenth century. However, there are ledgers to James Fitchew 1813, and other Fitchews in the north aisle, and diamond-shaped brasses in the central walk of the nave to George Taylor 1834 and wife, Jaspar Wescott 1849, William Kinton 1819 and Samuel Lucas 1853.

More significant is the armorial ledger stone to William Penn 1670, roped off for protection but badly worn. Admiral Sir William Penn, buried near the central crossing in 1670, was the father of William Penn, founder of Pennsylvania. His armour is on the north wall of the nave.
North transept
There are several ledgers, some lying under chairs without protective pads, and some under pews. Near the tomb of Robert de Berkeley lie two ledgers, one of Purbeck with an armorial crest to Hester, wife of Jacob Little 1708, and to William (?) Williams 1601 (?), both badly effaced. In the centre, under pews, are two ledgers, both virtually illegible.

North choir aisle (west to east)
A fine sequence of six black marble heraldic ledgers lies here, with a foliage design in each corner. A table sits on one, a chest on another, a cupboard on a third - these ledgers are not treated with the respect they deserve. They are: William Williams 1721, wife and children, and Betty, relict of Henry Painnice (?) 1763, worn; William Edge and Elizabeth wife of Nicholas Edge, 1733; a double ledger by the north exit from the chancel, with a foliage relief above a double inscription to John -- and John --winn 1734, with a cupboard on top of part of it, and forming part of the route from the chancel to the vestry with consequent passage over it; a marble ledger with a brass plaque to Sarah King 1837, with crests and a cross; a black slate ledger to Elizabeth, wife of Joseph Browne 1743, and five of their children; and Dame Sarah -- 1715, covered by a chest.

Under a chest and illegible is a heraldic ledger. Then Sir William Lewis, Knight and Alderman 1712, and Elizabeth, his daughter, aged 20, 1712; Bridget, Mary and Sarah Lewis, 'the virgin sisters', daughters of Sir William Lewis; and also in this vault John Davies, Gent 1799, and Ann his wife. Then comes a ledger to Rev Thomas Broughton, Rector of St Andrews, Holborn.

All these ledgers form an important group, and are badly worn.

A splendid little brass to Richard Mede 1475, son of Philip, with two wives, one wearing a coat of lioncells, has been placed on the north wall of the Mede monument.

Chancel
This is paved with black and white marble, in the shape of a star at the west end, and containing the two outstanding brasses mentioned earlier.

Lady Chapel
This is entirely carpeted. A plaque in the floor records that three Hogarth paintings hung here from 1756-1858 and are now in the City Art Gallery.

South choir aisle (west to east)
There are several small white marble diamond-shaped ledgers, one lying under the harmonium, one let into the large cracked slab to Prosser's vault 1807, three more lined up along the south wall, to Elizabeth Clements 1786, and her three daughters aged 16, 23 and 33. Next is a stone to James Gwyer 1828 and Ann his wife, and to Merry, wife of Thomas Woodall 1781, and daughter aged 3. Next is a ledger from which the whole surface has spalled off.

To the north is an important armorial ledger with a brass plaque inserted, to 'Henricus Compton Civit, Bristol Mercat. Come Gallant stay a while, behold in me, What thou (though now in health) must sholly be', 1670. Next are two nineteenth century ledgers to members of the Whish family.
Under the fine cope chest lies a huge black marble ledger to Elizabeth, wife of John Cooke 1679, with excellent lettering. Several others have been added in smaller letters, including Elizabeth Thurston, Cooke's daughter, d. 1727, and her daughter, d. 1736. The rest is obscured by the cope chest; could this not be moved?

South transept
Several important, but apparently undervalued ledgers lie in this area, mostly covered with metal chairs with unprotected set or obscured by pews. Lucas Stritch 1716 is carved into a large medieval slab with a marginal black letter inscription, the lettering still filled with the original lead. The inscription reads: '+ Hic Jacet Johes Blecker sen. pandoxator cuius aie propicietur deus amen + Hic jacent Ricardus Coke et Tibota ux' eius (quorum aibus) ppicietur deus amen '. There is also on this slab a large incised cross. The ledger can be dated as John Blecker, senior, endowed a chantry in 1434.

Next to the west is a white marble ledger to Elizabeth Reace 17187, aged 5 years and 1 month, badly damaged by the metal chairs on top. To the east is a fine ledger with an armorial crest to John Hilly 1658; it is decorated with half columns, volutes, and with a bird in the centre.

To the north lies another medieval ledger with a deeply incised black letter marginal inscription, and decorated with a dagger and a colander, inscribed: 'Hic Jacet Wilm' Coke quondam servitas Willmi Canynges mercatoris ville Bristoll cui' aie ppicietur deus amen'. William Canynges' effigy and that of his wife lies on the south wall of the transept. He was five times Mayor of Bristol, a Member of Parliament, and paid for the building of the clerestory and vaults of the church.

Apart from the brasses, these two medieval ledgers are the most important memorials in the church.

There are several more ledgers concealed under kneelers and stalls, one of 1712 with volutes and a scroll design.

Jane Fawcett
January 1991

Vandalism and Theft
The Surveyor to the Fabric, Alan Rome, reports:
A spate of stone throwing some years ago caused damage to the Clayton & Bell south facing windows. Polycarbonate was added to the south facing aisle and transept windows and the damage stopped. There are occasional attempts to steal bottom length of the lead downpipes, resulting in damage, although Sir George Oatley's bronze fixings usually thwart major removals. A clerestory window was kicked in by vandals who broke down an oak door to gain access to the roof.

A crucifix was stolen from the north porch medieval shrine in 1986/7, and a bronze grating from the medieval Ruge Well in 1987.
Mr Rome also sent the following comments:

Chancel Floor

Black and white marble of 1756. The 1933 booklet on the Restoration notes:

"The black marble star, which is now a prominent feature at the western end of the Chancel, has been brought lately from the Crypt where it formed part of the floor. It dates from the restoration which took place in Queen Anne's reign, and is believed to have been formerly in the Chancel, but was removed during the restoration of the last century."

The Hogarth Triptych

This truly enormous ensemble was a reredos for the High Altar until the 19th century restoration. It is now set up at the east end of the St. Nicholas Church Museum.

The church had a medieval reredos similar to Winchester or St. Albans which was demolished. In the 1930's my old chief, Sir George Oatley, designed a replacement but this was never carried out though George Godwin's reredos was eventually taken down.
ICOMOS UK CATHEDRALS AND GREATER CHURCHES DAMAGE SURVEY

KING'S COLLEGE CHAPEL, C A M B R I D G E

Sir Martyn Becket, Consultant Architect to King's, writes:

**Vandalism**
The only tight security in the Chapel is for the Rubens altarpiece which has been vandalised once already and now has an elaborate alarm system to protect it.

**Wear and Tear**
What has been of more concern than wear and tear of the floor and fabric is the humidity set up by thousands of visitors and the effect it has on the fabric. Details will hopefully be forthcoming.

Other reports are attached.

November 1990
The Domus Bursar of King's College, David Smith, writes: (1989)

Wear and Tear

Obviously, King's Chapel is subject to rather different environment-related problems than I would imagine would be the case in respect of cathedrals. For instance, we do not have any monuments that require special protection. One other thing that perhaps makes the visitor problem rather more difficult for us in terms of routing is the fact that the nature of the building is such that we are not able to devise flow systems that might spread the wear on such things as floor surfaces.

We have found that the stone floor in the Ante Chapel has been subjected to some wear over quite a long period. Some stones have, to my knowledge, been turned over before any serious problem developed.

A problem which causes particular difficulties for us concerns the movement of dust within the Chapel. Some of this is carried in on the feet of visitors but a certain amount is attributed to stone dust from the walls of the building. The heating for the building is underfloor and we believe that this, coupled with the down draught of cold air from the Great Windows, causes the dust to circulate. This creates major problems for the organ which, as you will know, is situated in the centre of the building. We are constantly trying to find ways of reducing the amount of dust that is circulating, but I fear that this is a problem that we will continue to face. If you know of any solutions we might try, I would be pleased to know of them.

We have no ledger stones in the main part of the Chapel but we do have a small number in the north side Chapels where our permanent Exhibition is located. The Exhibition was set up just over two years ago and some worries were expressed about the need to protect these stones. The stones are in quite good condition and their protection is not considered urgent. However, we would welcome any suggestions that you might be able to offer that will provide both effective protection for the ledgers and which, at the same time, does not present any hazard to safety.

We have no policy as such for the care of ledger stones but I have recently been in discussion with Henry Freeland, an architect who is assisting Martyn Beckett with the Chapel, about photographing these stones. I would hope that we might be able to make a record of these stones sometime during this year.

Vandalism and other damage

In your letter you mentioned details of vandalism and the only one that immediately comes to mind occurred in 1985 when some glass was broken by a person unknown who climbed scaffolding leading to this window. The amount of damage was relatively small in cost terms - some £1,500 - but of course the cost was the least of our concerns. Scaffolding to the building from the point of view of security is always a headache and provides an opportunity for students to test their climbing skills. We apply various measures to help with security, including cameras, heat sensors, strong lamps etc. to deter people. My greatest worry about people climbing the scaffolding is not so much vandalism as the risk that a person might be badly injured by a fall.
There is one area of activity within the Chapel that presents more threat to the fabric than visitors or vandals. This is people associated with television programmes recorded in the building. Television recording occurs on average about once per year but the people concerned present a constant worry while they are here. Without referring to any particular company by name, I do find that our concerns about possible damage are not taken as seriously as they should be. The main source of potential damage is to the very fine carving around the stalls in the Choir. Some 7 or 8 years ago sections of very delicate carving were broken off by lighting and camera cables, as a result of which television work was banned from the Chapel for some while.

The main problem we find, and I suspect this is also true of cathedrals, is that the television personnel are prone to regard the Chapel like a functional studio. We now have to ensure that a senior College representative is present in the Chapel at all times when television equipment is being installed so that agreed routes for cables etc are adhered to. However, I must say that this source of vandalism presents a very worrying and ongoing situation.

In late 1990 he reports that the photographing of the ledger stones has not yet been carried out, but he is still hopeful that it will be. He further adds:

We did indeed have a visit from the BRE and, for your information, I enclose a copy of their letter dated 30 August 1989. The question of matting to the threshold of the Chapel is a problem. It is surprising how many people fail to wipe their feet upon entering the building and no matting can adequately deal with this problem. Staff clean the area around the entrance almost daily. Part of our difficulty is the absence of a deep porch which could afford the opportunity of gathering dust and other particles before visitors enter the main part of the building.

Dust from the major internal restoration carried out in the 1960s is still prevalent. This will diminish in time, but I fear it could be many years yet. This year we have cleaned high level cills and accessible interior areas of the organ to complement the major cleaning carried out to the surfaces of the organ casing twelve months or so ago. I hope that this ongoing activity will help to speed up the removal of the stone dust.
Dr Tim Yates of the Building Research Establishment wrote as follows to the Domus Bursar in 1989:

A copy of your letter of 14th March 1989 to Jane Fawcett of ICOMOS has been passed to BRE to see if we could help with the dust problems at King's College Chapel. I think that the best course would be for myself and a colleague to visit you at the Chapel and sample the dust. We could then determine the relative amounts of material coming from the internal walls of chapel and from outside. If much of the dust is from outside it may be possible to isolate this as the visitors arrive - special mats, etc.

The transport of dust from outside is also an important factor in the processes that lead to damage to stone floors. The study that BRE is undertaking for ICOMOS and the Department of the Environment on this subject consists of inserting fixed measuring points into floor areas and then taking a series of measurements of a period of at least 12 months. The fixed points will be studs fixed in 15mm holes and then sealed with a cap that will be flush with the floor. I can describe the work in more detail if we come to visit the Chapel.

In 1990 Dr Yates wrote and enclosed a copy of his report to the Domus Bursar:

I am enclosing a copy of the letter I sent to David Smyth (Domus Bursar) following the visit to the Chapel in June 1989. As you can see the dust inside the building is mainly derived from the limestone walls with a quantity of general 'dust' (organic debris). As most of the dust originates inside, we did not recommend any extra matting - and also I am not sure we at BRE know enough about what is available to give a definitive answer at present. I discussed the wear to the floors, particularly the north aisle, with David Smyth and Henry Freeland (the architect) at the time of our visit. The general conclusion was that we would not install any measuring studs at present.
ICOMOS UK CATHEDRAL DAMAGE SURVEY

CANTERBURY CATHEDRAL

The Nave
There are no ledger slabs in the nave. The existing floor slabs are in poor condition and are due for replacement.

North Aisle
Lying along the north side of the north aisle, against the wall, are ten black Purbeck ledgers, moved from their original position in the south transept to protect them from further damage. These date from the seventeenth and eighteenth centuries, some have armorials, several are badly eroded, with the text obliterated. All are covered with a line of fixed chairs, none with protective pads. Scratching must occur. We need a ruling from the Building Research Establishment on the degree of damage inflicted by chairs, as opposed to feet.

North West Transept (The Martyrdom)
This chapel is the most worrying area in the Cathedral, since there are three entries, from the cloisters, the nave and the crypt. It acts as a passage and suffers from acute congestion at peak times, as every visitor wishes to see it. The historic floor has been very severely damaged, over a long period. It contains six large Purbeck ledgers all with armorials, one of 1666, one of 1674 and the others dating from the eighteenth century. There is also a fine heraldic ledger dated 1689 in the centre of the passage leading to the crypt. There is a strong argument for moving this, at least, before it receives any more wear.

Two more ledgers, one by the altar and one at the base of the steps from the nave, are illegible. Many inscriptions are recorded in Cowper's record of 1898. Another small ledger to Henry Pricket d. 1652 lies near the exit to the cloisters.

Historically the most important are the four huge brass indents lying near the effigies to Archbishops John Peckham 1279 and Warham 1503. They are to Prior Finch, Archbishop Stafford 1443 and Archbishop Dean 1501, and Prior Selling.

The protection of this chapel from further deterioration is exceptionally complicated, given the enormous number of visitors to the cathedral (2 1/2 million in 1990), and the fact that they all wish to see the site of the martyrdom. A false floor would protect the surviving evidence but destroy much of the historical significance of the chapel. Moving the grave slabs would have the same effect. Perhaps recarving the inscriptions on the ledgers, where practicable, and the heraldic devices, where known, would prolong the life of the slabs. There is a case for roping off the great brass indents to prevent further damage. Could the door to the cloister be closed at peak times, to discourage through traffic?

Lady Chapel
An unusual tomb to Caecilia Fotherby d. 1634 lies beside the magnificent tomb chest of Dean Fotherby. Nearby lies the small ledger to Gerrardine Baker b. 1824, d. 1825. Lying centrally are ledgers to Dean Powys d. 1809 and Dean Potter d. 1770. On the north side of the chapel, beside the tomb to Dean Rodgers, lies a ledger to Jacobus Wedderburnus d. 1639. All these are in black slate or Purbeck.
The Choir and Presbytery
There are no ledgers. Two fine new slabs, lettering by David Kindersly, have been placed on either side of the high altar.

Trinity Chapel
The splendid Cosmati pavement is now protected from the public by chains, but is sadly damaged. The impressive inscription marking the position of the shrine of St Thomas a Becket was recently designed by Simon Verity.

Chapel of Saints and Martyrs
This is roped off for protection. There is a small group of medieval tiles to the north of the altar and two small black slate ledgers behind it.

Chapel of St Anselm
There is one nineteenth century brass in this chapel, otherwise nothing of interest to this survey in either the north or south choir aisles.

St Michael's Chapel
Roped off for protection, this chapel contains three black ledgers in front of the effigies to Lady Margaret Holland and her husbands. One of these has inlaid plaques of white marble.

Crypt
There are two important brass indents, one to Archbishop Morton 1486 lying under the altar of Our Lady Undercroft, the other, possibly to Prior Molash, lying just inside the south west entrance to the crypt. This is exposed to exceptionally heavy wear; perhaps a mat would be the best answer here. There are some medieval tiles at the eastern extremity of the crypt, but they are reasonably well protected.

South West Transept
Mats should be placed at the entrance, to extract grit from visitors' feet. Although a number of the ledgers have been removed for protection, this area receives heavy wear and tear owing to the position of the shop, the post card stand and the exit.

Five interesting black Purbeck ledgers are still in position, and deteriorating rapidly. One, to Henry ---, dated 1616, lies at the base of the steps in front of the exit door, and is a candidate for removal. In front of the shop lies a ledger to Georgius Randolph d. 1702, cracked and damaged and in a most vulnerable position. Even more vulnerable are the fine heraldic ledgers to Johannes Avcher d. 1700 ?, lying immediately in front of the post card stand and, at the corner of the south aisle, the butt of all feet, Frances wife of Dr Holcombe, Prebendary of this Church d. 1725 and Samuel Holcombe d. 1761. Could these also be moved? If they relate to burials, which seems unlikely, a small plaque with their names and dates could be placed on the site. If moving them is impossible, perhaps the post card stand could be moved to another position.

South Aisle
Against the south wall are lined up fourteen of the ledgers moved from the south west transept, mostly armorial, all black slate. Several are illegible. The dates, from east to west are: 1691, 1740, 1716, 1719, 1680, 1679, 1766 (cracked), 1716, 1737, 1732, three with illegible dates, the last 1732. As with the moved ledgers in the north aisle, these are covered by a row of fixed
chairs without protective pads. Although these prevent the public from walking on them, there must be scratching, particularly when the chairs are moved to other positions. When the Building Research Establishment has completed tests on protecting historic floors from scratching by chairs and other furniture, perhaps their recommendations could be followed.

**Cloisters**
The cloisters contain over 90 identifiable ledger slabs of widely varying types, sizes and legibility, and over 30 that cannot be identified. All are subject to continuous wear.

**East Walk**
The east walk contains a large cracked black slate ledger to Thomas Dashwood, date obliterated, to the south of the entrance to the Chapter House, and another to the Hon William Boyle d. 1810 aged 17, to the north, and one to Thomas Start d. 1810 nearby. On the east side of this lies an indent with brass studs. Two good ledgers, one to Joseph Prince d. 1768, with nice lettering, and one heraldic to Thomas Naver d. 1721, both lie in vulnerable positions.

**North Walk**
In the north walk, going west, lie ledgers to Frances Lamprey d. 1758, John Airson d. 1787 and Thomas Frewen d. 1742, cracked. Then some fragments, followed by two black slate armorial ledgers to Rev. W Broderip d. 1764 and Isaac Terry d. 1754. Then further fragments and small ledgers, damaged, followed by Dame Mary Shirley d. 1815, and two more heraldic ledgers, one to Thomas Johnson d. 1727. There are five large brass indents in the centre of the walk at the west end, all worn, but two still showing quite clear images.

**West Walk**
This walk is now almost entirely paved with ledger slabs of various types. There are four or five battered brass indents with just a few brass rivets remaining; there are two slate slabs which once held rectangular brass plates; three slate slabs with white marble inlaid panels and medallions (one identifiable). Then there are four quite good heraldic ledger slabs, to Martin Hirst d. 1679, Anne Tenison d. 1750, Robert Sprakeling d. 1697, and Nicholas Wootton d. 1700; and finally there is a large assortment of other simple engraved slabs.

**South Walk**
Very little remains in this walk except a few ledgers, the inscriptions of which are more or less unrecognisable apart from quite a good armorial slab to Elisabeth Cornwall d. 1737.

When the floor survey gets going, it will be essential to check existing records of inscriptions. Captain Tempest Hay's excellent report on the ledger slabs and brasses, referring to both J M Cowper's record of 1897 and A G Sadler's monograph of 1980, provides an excellent start.

When the survey of inscriptions is completed, some recarving could be considered. In their present condition, the cloister floors look rather sad and uncared for. However they have in the past contained many interesting grave slabs. A decision will have to be taken on what should be conserved, what recarved, and which areas should eventually be renewed. The control of footwear, particularly of stiletto heels, could help to prolong the life of these historic floors.
There is also the dilemma of the historic steps, many of them badly eroded and damaged. However, so long as their condition is not dangerous, as with the Dean's Stair, the wear they demonstrate is an important element in the historic development of the cathedral, and should be conserved as such. So much of the building's long history is written on its floors.

Jane Fawcett
February 1991

Peter Marsh, Surveyor to the Fabric, reports that 'certain elements of the structure have worn out, or are in the process of doing so. An example is in the considerable wear being sustained by the nave flooring and, whilst we are endeavouring to patch this nineteenth century surface where it is wearing into holes and cracking, a wear of up to 1.25in. is making a very uneven floor surface. This will eventually require replacement.'

He also refers to the resiting of seventeenth and eighteenth century slate ledger stones from the south west transept to the north and south nave aisles, owing to severe wear caused by the positioning of the shop. 'Noise has now reached intolerable and unacceptable levels at times.' He outlines damage caused by scaffolding and stands brought in by outside contractors and assembled in situ, creating damage to the pulpitum steps and to the column shafts.

Overleaf
(A) Heraldic ledger stones in south west transept before removal to north aisle
(B) Ledger stones from south west transept being moved to north aisle
(C) North west transept (The Martyrdom), showing brass indents and damaged ledger stones before insertion of new altar
(D) Trinity Chapel, damaged mosaic roundel
(E) Dean's Stair
CARLISLE CATHEDRAL

The most notable feature is the fine brass in the chancel to Bishop Bell, 1478-1536. The lifesize figure has a prayer scroll, with four sections missing and a marginal inscription with base missing. Otherwise, it is complete and remarkably well preserved. It is covered with a mat for protection. Brasses of this quality should be roped off, as any friction will cause further damage.

Much of the floor is paved with red sandstone slabs, patched and repaired in York stone. The nave and chancel have a marble pavement dating from 1933, a gift from the Freemasons, in reasonable repair.

Nave: Central Walk

Two black marble ledgers to Anne Smith, 1698 and Thomas Smith, 1702, good lettering and reasonable condition. Brass commemorative plaque to Freemasons, 1983.

Nave: South Aisle

Stone ledger to Dean Churchill, 1920-1990; another to Dean Mayne, 1943-1959; small brass plates to Mary Percy, 1795-1851, to Anne Birkett, daughter of Prebendary Birkett, 1809, and to Mary White 1830, to Dorothy Birkett 1842. Matrix for brass indent, fifteenth or sixteenth century.

Nave: North Aisle

Brass with Latin inscription; three brass plates to William Paley, 1805 and his wife and daughter; ledger to T & E Johnson 1800 and 1792, good lettering.

South Transept

Brass in memory of Col Dyson Laurie 1839 to 1909.

Jane Fawcett
February 1991
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<th>NAME</th>
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<td>E Reed, cathedral office</td>
<td>none evident - the few ledger stones mostly modern</td>
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<td>Virtually complete typed record of wall inscriptions. Extensive photographic collection held in Library, which probably includes wall mons.</td>
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ICOMOS UK CATHEDRAL DAMAGE SURVEY

CHESTER CATHEDRAL

The general condition of the floors is very poor, with the exception of the splendid tiled pavements in the chancel and Lady Chapel. Most of the ledgers are damaged, and much of the stone paving is uneven and in places breaking up, partly due to the soft red sandstone with which much of the floor is paved, and partly to apparent lack of maintenance. Some crude repairs have been carried out. Many of the worn slabs have white marble plaques inset, often standing proud of the stone. Even the grey and white marble paving in the north and south choir aisles is in places in bad condition.

The nave
North aisle (west to east) - The floor is mostly composed of sandstone slabs, with grey paviours irregularly interspersed. A group of large slabs, 6'x3', probably gravestones, have all their inscriptions effaced. Some white marble plaques have been inserted into the paving stones; again the lettering is mostly illegible. A group of five ledgers opposite the door to the cloisters is probably nineteenth century.

There is a ledger to Eliza, wife of William Makepeace Thackeray MD of this City d. 1833, and William Thackeray b. Cambridge 1770, educated at Rugby and graduated at Trinity College Cambridge, d. 1849.

There are several other late eighteenth and nineteenth century ledgers of no particular distinction, and in bad condition.

South aisle - A similar pattern is to be found here, with largely nineteenth century ledgers, some with white marble plaques, mostly illegible.

North choir aisle
The grey and white marble paving is in moderate condition, with some ledgers incorporated, mostly along the north wall; some are breaking up. A group of medieval tiles found in the south cloister in 1871 have been reset, at a lower level, in the aisle.

The choir
There is a fine Clayton & Bell incised marble pavement here, incorporating roundels and squares illustrating Biblical scenes, designed by J R Clayton in 1876.

Lady Chapel
Nineteenth century encaustic paving has been laid here, with foliage designs based on medieval examples. The tiles at the entrance are badly worn. A brass to Rev Mascie Domville Taylor d. 1845, is by Hardman & Pugin.

South choir aisle
Again the same grey and white marble pavement is to be found, here in even worse condition than in the north choir aisle. There are ledgers along the sides, mostly with white marble inlays. There is also an area of Minton tiles of 1874, using designs from medieval tiles found during the rebuilding of the apse by Sir G G Scott.
South transept
Rough paving contains a row of ledgers, some with white marble inlays, along the centre. Few are legible.

Chapel of St Nicholas
A big ledger marks a vault to Mary Cox d. 1889.

Chapel of St Oswald
Encaustic tiles lie round the altar, and three white marble ledgers are set into a sandstone slab.

Chapel of St Mary Magdalene
There is black and white marble paving, and a black ledger to Narcissus Carolus Proby 1775, and Katharine his wife.

Crossing
A handsome Cosmati-type nineteenth century pavement with a central roundel was designed by Scott. It is deteriorating badly between the south piers.

Chapter House
The floor is largely timber with black and white marble at the sides. There are some rough stone slabs in the Chapter House vestibule.

Cloisters
These have been partly repaved, and there are some rough stone paving slabs and a few ledgers, obliterated. There are very fine thirteenth and fourteenth century grave slabs with foliated crosses, one to Henry de Bebington, in the west and south walks.

In this cathedral, one is torn between respect for the restorers, Hussey, the two Scotts and Blomfield, who after so much remodelling and repair left such large areas of the floor untouched, and regret that, since that period, the floors have fared so badly. Nevertheless, they form part of the historical development of the cathedral, and one would regret a thorough-going replacement scheme. What is required is a sensitive conservation treatment, of the kind lovingly carried out by Alan Rome and Warwick Rodwell in the south transept at Bristol Cathedral.

Records
A hand-written list of inscriptions was compiled some years ago, and a few photographs of individual monuments have been taken. It is believed that the inscriptions are being recorded at present.

Jane Fawcett
February 1991
Ronald Sims, Surveyor to the Fabric, writes (3.91):

I have been concerned over the condition of the sandstone flags for many years and the increase of many Heritage-seeking feet over the last few years has accelerated the problem.

My aim is to insert a heated sub-floor in the Nave and Aisles (removing the gas fired stoves) and to entirely repave in Yorkstone, resiting the existing legible ledgers.

Whether this eventually materialises depends on the finance becoming available.

Until then my reports advise that the deeply worn areas signify the passage of time and the number of feet which have passed that way down the centuries!

Unfortunately, the stone is too worn and too thin to replace some stones and not others.

I would be the last to remove any stones I could reuse but in this case the Victorians made the decision not to patch the 'worn coat' and having given a further century plus of service it has reached the point of no return.

Scott's use of hard resilient marble in conjunction with soft red sandstone to form patterns can be seen as a disastrous choice. (He was singularly adept at choosing the wrong stone when working in the North).

These areas and the cloisters will eventually be carefully restored but not replaced!
ICOMOS UK CATHEDRAL DAMAGE SURVEY

CHICHESTER CATHEDRAL

The nineteenth century Cosmati floor in the chancel and round the high altar is quite badly worn, and will be difficult to repair. It was laid in about 1870 after the repair of the tower and spire by Sir G G Scott.

At the west end of the nave are some early ledgers in poor condition, and some badly worn paving stones. There are some eighteenth century ledgers in the central nave, covered by chairs, and some broken sections. Also to be seen are two large stones with indents and metal studs. Between the second and third piers from the west end lies another immense slab, with brass indents.

Some of the diagonal paving in the north and south aisles is badly cracked. Most of the ledgers lie near the west end of the north and south aisles; several eighteenth century stones are almost obliterated and subjected to heavy wear. There are many inscribed slabs in the south aisle, and in the side chapels.

A fine nineteenth century brass in the south transept is roped off for protection and in reasonable condition. There are ledgers to Gustav Holst and Frederick Crowe, both organists, in the north transept.

Jane Fawcett
January 1991

Mr D E J Jago, the Communar, reports that the ledgers were mostly put in position in 1829 after being moved from the Quire, details of this being found in records made by Tummer. The Lady Chapel was refloored in 1871 and the Choir aisles in the early 1970s.

Mrs Mary Hobbs, Cathedral Librarian, reports that the library has several offprints of articles on the brass indents with full details, the latest, by Bertram Jerome of the Monumental Brass Society, with an interesting suggestion that the largest might have been the brass of St Richard himself.
We get relatively few visitors so floors etc are fine. Only two incidents of vandalism come to mind. One is the crown of the figure - lying down - of Bess of Hardwick in the middle of her monument. There are several prongs to this crown, and one was pulled and replaced, and another was pulled off and stolen. This all happened before I arrived in early 1981. We want to replace it of course, but in a fashion that the toughest vandal will not be able to move. Not easy.

The other is a break in to a newish freestanding glass, four sided collection box, with armoured glass. We got it four years ago, did not clear it at nights and a young thief - never caught - came through a window in the Song School, broke several doors, used a chair to break the box and get away with the tiny amount of cash inside. We have since done the necessary security things.
The Nave
The nave is paved with sandstone slabs and no ledger stones are now visible. In front of the Choir Screen is black and white marble paving (reused from the Quire 1870), while the Quire has a fine Cosmati pavement designed by Sir Gilbert Scott during his restoration of the Choir stalls and insertion of the Choir Screen.

Chancel
The area in front of the high altar and of the altar rails continues the Cosmati work, partly carpeted. The great grey-green tombstone to St Cuthbert lying behind the high altar was placed there in 1542 and protected from feet by a curb made up of more green marble from the demolished shrine.

North and South Quire Aisles
There is a line of large grave slabs lying between the columns on the north and south choir aisles, some with armorial crests, one of 1662, and one formerly containing a brass. The north quire aisle contains a number of interesting stones, one to Walter Skirlm, Bishop of Durham 1388, one to Richard Wrench, a brass of 1639 under a pew, a ledger to Edward Kirby 1650, and an armorial slab of 1686 under a pew.

Some of these are deteriorating as a result of heavy wear and tear, and should be protected or moved, since they are of considerable historical interest.

The Chapel of the Nine Altars
This chapel contains a few ledger stones, in varying condition, especially in the north west corner, including a fine stone of 1820 to Anna Ogle.

Ian Curry, Surveyor to the Fabric, writes:
Those ledger stones about which I am most concerned are the grave slabs of the early Norman bishops in the Chapter House, walked on every day by choir and clergy, though not the general public. I have been trying to get them protected or roped off, but without success so far.

These tomb slabs, dating from the Norman period to the thirteenth century, are of great importance historically, and their protection must be ensured.

Records
A list of monumental inscriptions of the cathedral, parish churches and cemeteries of the City of Durham was compiled for C M Carlton Ainsley's Durham, 1880; and in 1932, Surtees & Wall had privately printed Durham Cathedral Inscriptions, which includes the texts of all inscriptions in the cathedral apart from the few most modern ones.

Jane Fawcett
Revised February 1991

Ian Curry reports that the few medieval ledgers and matrices within the cathedral are already worn and damaged. There are comparatively few later ones surviving, apart from in the Galilee and Nine Altars Chapels.
James Simpson, Surveyor to the Fabric, writes:

Much of the wear and tear is certainly from tourists, rather than regular users of the church, and there is no doubt that St Giles suffers from coach parties, particularly city tours which tend to follow a standard route. A further problem of these is that corruption is rife and that drivers and tour leaders will discourage their parties from going into the Cathedral Shop and will direct them instead to places which have paid 'back handers'. I believe this is a bigger problem than is generally appreciated, though I should make it clear that I am not accusing the city tour drivers or anybody in particular.

Damage
On the whole St Giles is not too vulnerable to much damage by visitors in that we don't have medieval floor tiles, brasses and son on and, at the moment, I don't see it as being a major problem, though there is undoubtedly wear and tear. I am particularly conscious of damage to 'pamment'tiles in the Lower Aisle, where at certain doorways stiletto heels tend to hit the same spot time after time.

Theft
There have certainly been thefts, most notably of the sword from the nineteenth century Montrose Monument and of pound notes from money boxes by fishing with long straws and super glue! Some years ago, a heavy but just liftable money box was removed from the Cathedral and the culprit was apprehended with it on a bus half a mile away! The thefts are mostly I think by locals and there is - or was- a well known gang of kids who went for the money boxes.

I recall one further incident in which a man concealed himself in the gents loo and was locked in there behind an oak door at the end of the day. He wrought considerable damage before fighting his way to a ventilation grating, through which he shouted until he was released and transferred to the nearby police cells.

November 1990
ELY CATHEDRAL

Nave
There are no ledger stones in the nave or aisles. The fine paving in the nave is composed of a decorative design of marble roundels. The black and white paving under the north west tower is in a poor state; that of black and red diamonds under the south west tower is reasonable. The black and white marble paving in the north and south aisles is handsome; its condition in the south aisle is poor and it is in places breaking up.

Octagon, north side
On the north side of the octagon, below the monument to Dean Henry Caesar 1614-36, lies a large damaged medieval ledger with the remains of a marginal inscription almost erased. It is on the route for all those going through the Scott screen to the north choir aisle, and deserves protection.

North choir aisle
The condition of the floor in the north choir aisle is deplorable. At the entrance lies a large, probably medieval, grave slab, totally defaced. Small irregular paving slabs, some loose and without mortar, are interspersed with important ledgers, all unprotected and badly worn. There are also two fine effigies without protection. There is a ledger to Thomas Stuart by the Bishop Fleetwood monument, its surface gone, a fine Tournai marble grave slab to Bishop Nigellus 1135-1174, and an eighteenth century black slate heraldic ledger to Dean Robertus Moss d. 1729 by the Bishop Redman monument. On the north side a nineteenth century brass is roped off for protection. An interesting effigy to Bishop Kilkenny of 1254-56 lies on a coffin-shaped slab of Purbeck marble. Both the monuments and the ledgers in this area are outstandingly important, and their unprotected condition is most worrying.

Chancel
The Scott Cosmati pavement at the crossing is in poor condition and on the south side sections are displaced and in danger of being lost. There is a brass to Prior Crauden d.1341; the matrix is original, the brass is renewed, and shows a large foliated cross with a kneeling figure of the prior at the base. A similar slab to Bishop Hotham 1337, is nineteenth century work.

Ambulatory Chapels
At the east end, a black slate heraldic ledger marks the vault of Bishop Patrick d. 1707 and Penelope Patrick d. 1725. At the entrance to the Chapel of Bishop Alcock lies a large defaced medieval grave slab with brass indent, possibly to a crusader - the outline is still distinguishable. This should be protected. In the Bishop West Chapel lie excellent nineteenth century brasses to Bishop Russel d. 1865 and Bishop Sparke d. 1836 made in 1868, the date of the floor tiles by Minton. Both are damaged and in need of protection. There is also a black marble ledger to Bishop Keene d. 1781.

South choir aisle
Beneath the chapel steps, which are in poor condition, on the south side lies a brass to Hester Agnetae d. 1829, Catherine Green d. 1770, Mary Keene 1776, and Mrs Fleetwood d. 1725, all wives of
bishops. Then, from east to west, are an armorial ledger, cracked and name indecipherable, a grave slab and tomb chest to Bishop John Hotham 1316-1337, a large medieval grave slab with brass indent, a cracked ledger to Elizabeth Allix d. 1750, and a heraldic ledger to Canon Johannes Nelson.

Next, in the centre of the choir aisle, is a huge black armorial slab to Bishop Petrus, which is cracked, and beside it an ancient brass with sections of the border only remaining. Next, going west, comes a group of outstanding early matrices, with indents; two are protected by rails, to Bishop Thomas Goodrich 1534-54, a large brass figure with arched surround only an indent, and Dean Humphrey Tyndall 1591-1614. Damage to two immense slabs alongside has been increased by the placing of these protective rails; one of them, beneath the Bishop Montinus Heton monument 1600-1609, is a brass indent of a mitre, with canopies.

Next to the west are four large black ledgers, two heraldic, one illegible, one to Kingsmill Lucy d. 1674, one to Prebendary Thomas Jones and Anne Jones d. 1730, and one to Bishop Fleetwood d. 1759. This is an extremely important group of early brasses, ledgers and monuments, and it is very sad to see their poor condition and unprotected state. In spite of their advanced state of decay, it would still be worth salvaging what evidence remains, either by protection or by moving them.

Octagon, south side
On entering the octagon from the south choir aisle, immediately below the steps lie three huge cracked slabs with indents, then two black ledgers to John Mingay d. 1676 and Jane Mingay with a partially illegible inscription 'the Great Level of the fens', one illegible ledger, two large slabs with indents, one black armorial to Elizabeth Williams d. 1736, and one black ledger lying partially under the heating stove.

South transept
Some medieval tiles have been reset here; they are in poor condition and little of the original design is still visible.

Precinct
Prior Crauden's Chapel has one of the most outstanding medieval tile pavements in England, consisting of irregular tiles laid in a mosaic. The central motif is of Adam and Eve and the serpent.

Records
Dr Dorothy Owen, Ely Archivist, reports that the History and Antiquities of the cathedral church of Ely by James Bentham, especially the two volume edition of 1812, records a number but by no means all of the sepulchral monuments and wall slabs, many with engravings. A series of Ely Cathedral Monographs, by Edmund Esdaile, published in 1974, also includes some notes on the monuments.

Since writing this report, I hear from the Cathedrals Advisory Commission that the Fabric Advisory Committee has agreed that a record should be made of ledger slabs in the cathedral. An SPAB scholar has made such a survey, Dr Dorothy Owen has agreed to annotate it, and Hugh Richmond of the Royal Commission on
Historical Monuments in England, Cambridge, has offered to prepare notes on recording methods. All this is encouraging news, although it is important that any recording of inscriptions on floor slabs should conform to the methods recommended by the Cathedrals Advisory Commission/York Minster Working Group.

Jane Fawcett
February 1991

Peter Miller, the Surveyor to the Fabric, reports (Jan 1991):
The Dean and Chapter have commissioned me to carry out the Quinquennial inspection and this will include looking at the ledger stones and monuments most in need of protection. The Dean and Chapter's consultant archaeologist, Gavin Simpson, will be doing this with me and our findings will be contained in the Quinquennial inspection report, which will be submitted to the Chapter and the Fabric Advisory Committee in about three months time.
ICOMOS UK CATHEDRAL DAMAGE SURVEY

EXETER CATHEDRAL

There is a remarkably large collection of medieval grave slabs at Exeter, mostly in the north and south quire aisles, but also some in the nave at the west end. Some of the inscriptions, all of which were recorded by Revd. Vivian Hope in 1956, have now vanished, but the positions of all the ledgers were noted by him, which makes the job of the recorder today much easier. These ledgers commemorated Bishop W Brewer d. 1244, formerly buried 40ft below the high altar, stone moved and grave opened, and the burial now located, according to Hope, in the north quire aisle. There are also Pylton d. 1433, Maior Parys d. 1438, Richard Helie d. 1446, Webber d. 1476, and John de Dreyton d. 1524. There is also a pre-Reformation altar slab with a cross in one corner at the west entrance to the north quire aisle. The marginal inscriptions, frequently in black letter, are often just visible even if it is no longer possible to decipher them.

Other early ledgers include:

Nave
Willi Crugg 1500, Johnes Mogridge 1524, John Britnell, Mayor, 1528, 1534, 1547, 1551, and John Britnell d. 1837, Robert Clafe, twice Mayor d. 1575, Sir Simon Knight, Mayor, 1583, Thomas Carye d. 1583.

Ambulatory
Thome Harryes 1511, Ricus More 1516, Johes Fulforde 1518, Edward Ryleye 1577.

Quire
There was a considerable loss of valuable ledgers when the quire was repaved in 1763. Hope records that in 1763 the Dean & Chapter decided that 'the old grave stones that were taken up in the quire be laid down in the body and aisles of the church at such places as may want repair'. These grave stones consisted largely of slabs covering the burial places of bishops and canons, mostly medieval, including Bishop Brewer 1244, Bishop Bitton 1307, Bishop Berkeley 1327, Bishop Turbeville 1559, and Bishop Alleigh 1570. It is possible that some of these slabs were relocated in the north and south quire aisles.

Dean Milles records, in a letter of 1764, 'While this old pavement was removing, I was constantly attending the workmen . . . to see whether anything curious or valuable were found underneath . . . on ye removal of ye great stone at foot of ye communion steps on which the effigy of a Bishop is cut, and which has always been called Bishop Bitton's monument . . . the workman, putting his hand into the coffin, pulled out a sapphire ring, clumsily set in gold . . . at the same time he took out a chalice and patten . . . they are both of silver gilt.' They can now be seen in the cathedral library. Bishop Bitton's grave slab is, according to Hope, in the north quire aisle.

This concentration of medieval slabs is extremely rare and makes the floors of Exeter of unusual importance. In addition there is a remarkably rich collection of medieval high tombs, effigies and brasses, many of high artistic quality, and some at risk. These include:
North Quire Aisle
Bishop Marshall 1206, tomb chest and effigy on coffin-shaped slab; Richard de Stapledon 1320, a knight lying cross-legged, within cusped arch; Bishop Stapledon 1326, canopied tomb with effigy, near high altar; Canon Langton d. 1413, brass, a fine kneeling figure, in the chapel of St John, roped off for protection. This aisle has a number of important medieval ledgers which are in very poor condition; some are breaking up. It also contains sixteenth and seventeenth century ledgers, and some good eighteenth century ledgers on which the inscriptions are still legible, including Weston ledgers, placed centrally and deteriorating.

The Lady Chapel
The Lady Chapel is paved with a nineteenth century marble floor, and the Quire has a nineteenth century Cosmati pavement, both in good condition. Bishop Iscanus 1184, coffin-shaped Purbeck slab, flat relief, in south east recess; Bishop Simon of Apulia 1223, coffin-shaped slab and effigy, south west recess; Bishop Branscombe 1280, effigy, black basalt, between Lady Chapel and south east chapel; Bishop Quivil 1291, slab with foliated cross; Bishop Stafford d. 1419, tomb chest with cusped arch. There are several early ledgers in the chapel of St Andrew and St Catharine.

South Quire Aisle
Sir Humphrey de Bohun, Earl of Hereford, and Sir Henry de Ralegh, both effigies of cross-legged knights, early fourteenth century; Bishop Berkeley 1327, Purbeck slab with trefoil-shaped recess for a small brass figure; Sir Peter Courtenay d. 1409, large brass at east end, roped off for protection. Black slate ledgers to the Weston family, with good lettering, are placed centrally and deteriorating. The South Quire Aisle also contains a number of important ledgers, some early, many in bad condition. There is one large medieval slab in the north west corner of St Gabriel's Chapel with a marginal inscription, covered with chairs and with no protection.

Damage
Anna Hulbert, Conservator, writes:
Apart from general wear from feet the worst damage the floor gets is from the cleaning machines used to keep the place clean after the passage of feet. Knapsacks and baby carriers with metal frames damage carved doorways, as do push-chairs and carelessly driven wheelchairs, and also shopping trollies dragged heedlessly against objects.

Tombs are at worst risk from climbing children, who also climb on screens. I am going to propose thick cushions with nicely embroidered heraldry to put on the stone seat where toddlers always walk, to protect the effigies.

School parties come armed with questionnaires on thin paper with no pads to rest on, so they press on the paintings and tombs instead and can leave scratches where pen or pencil slips. Chewing gum is extremely difficult to remove.

A volunteer recording team, coordinated by Juliet Dymoke-Marr, was set up in 1990 under the supervision of Dr R M Payne, Peter Bird, Surveyor to the Fabric, Peter Thomas, Librarian, and myself, and with the generous financial support of the Friends.
Starting with the quire aisle floors, the proposal is to record inscriptions and armorials on all ledger stones and brasses, accompanied by a photographic survey and brass rubbings. It is hoped that all the cathedral's floors will eventually be recorded in this way and the details entered on a floor plan, scale 1:20 provided by Peter Bird. Final records will be deposited in the cathedral library and at the Cathedrals Advisory Commission.

Records
The History of Devonshire by Richard Polwhele, 1793, records grave slabs with inscriptions to some of the bishops buried in the quire. A Complete Monumentarium of the Cathedral Church of St Peter, Exeter by the Rev. J W Hewett records many of the inscriptions on graveslabs.

The Rev. Vivian Hope, in his Cathedral Monumentarium, 1956, transcribed all the ledger slab inscriptions, translating those in Latin and Greek, and describing their heraldry and location. This document will simplify the job of the Volunteer Survey Team, who hope to supplement existing information with a photographic record and rubbings. The positions of all slabs will be entered on a floor plan now being prepared, starting with the north quire aisle.

Jane Fawcett
February 1991

Overleaf
Floor plan showing positions of furnishings and monuments, from Tourist Information Leaflet
ICOMOS UK CATHEDRAL DAMAGE SURVEY

GLOUCESTER CATHEDRAL

The Nave and Aisles
The nave and aisles were repaved in 1740 under Bishop Benson. The few ledgers that survived this process were lined up between the columns on each side of the nave. These are predominantly black slate ledgers dating from the eighteenth century, several with armorials, and many decorated with delightful foliage designs in the corners. Two seventeenth century armorial ledgers are sited between columns in the north aisle. Two are under particular threat, lying respectively under the collecting box in the south west corner of the nave, and under the information desk at the north west corner. Both are on the main route to the cloisters.

North Transept
In the south west corner of the north transept lies a large medieval grave slab, formerly containing a brass and possibly a marginal inscription; it may mark the entrance to a vault. There are also 15 armorial ledgers in black slate, and 3 grave slabs, formerly with brasses, plus a medieval black letter ledger with a marginal inscription, and a brass plaque let in to William Lisle, Gent, d. 1723. It is unfortunate that the candle dispenser encourages visitors to walk on this important group of grave slabs.

The Presbytery
The pavement, with black and white sgraffito scenes, designed by Sir G G Scott, is in excellent condition, although some wear is apparent at the crossing. The medieval tiled floor in front of the high altar is covered by a carpet. Much of Abbot Seabroke's pavement of 1455 has survived.

The Ambulatory
The ambulatory was repaved in 1760 and contains no ledgers. There is one nineteenth century brass in the south walk. The north east ambulatory chapel contains some medieval tiles.

The Lady Chapel
The Lady Chapel presents real problems. It is floored with a mixture of medieval tiles, many in poor condition and unprotected, and an important collection of ledgers of varying dates and conditions. The chairs which cover much of the floor have no protective pads and cause serious damage. The block of new tiles inserted round the piano is unfortunate. The medieval tiles were, I understand, preserved in situ and protected with a membrane before the bedding down of the font podium. Future generations, if they so wish, will be able to remove the podium and font and leave all as before.

The South Transept
The south transept contains valuable grave slabs, many cracked, one or two medieval, formerly with brasses. Again, the general condition is poor, and historically they form an important group.

Cloisters
The cloisters contain many ledgers, most of them eighteenth century and of black slate. Those in the south and west walk are lined up neatly along the centre where everyone walks.
Basil Comely, Surveyor to the Fabric, reports that there have been several attempted break-ins, particularly to the Lady Chapel, where the stained glass has been broken on several occasions. The erection of scaffolding has sometimes provided access for burglary or damage, and this is now protected by hoarding at the base. Toilets have been vandalised, and the coffer box damaged.

The number of tourists is about 300,000 per year. Thefts are minimal. Additional wear and tear is caused by the erection of orchestral and chorus platforms during the Three Choirs Festival every three years. Weaker paving slabs can break under the additional load, although to spread the wear as much as possible all staging is erected on scaffold boards. Particular care is taken to impress the fragility of the site upon the scaffolding contractors. Additional methods of protection, which might provide a form of padding beneath any boarding to prevent rubbing, are being investigated.

Records
History of the City of Gloucester, by T D Fosbrooke, 1819, contains a fairly complete list of ledgers in the cathedral, with their inscriptions. There are also drawings of that date of the major memorials. A record of the tombs and ledgers in the cathedral and cloisters was made by a Cathedral Guide in 1983, noting all the legible inscriptions under surname, date and location. It is hoped that this record might be updated and expanded by a team of volunteer recorders.

Jane Fawcett
February 1991
Gloucester Cathedral

Lady Chapel  The ledgers were recorded c 1890 when the entire floor was relaid on concrete. This record consists of separate sheets on which is drawn the inscriptions, in the style of the actual grave stone, and any decoration or arms. It is an invaluable record of the condition of each ledger at that time. A comparison with the ledgers today (1990) shows that little damage has been done since the recording. This is mainly due to the fact that the lady chapel has been little used compared with the main body of the building. Nevertheless a few in the central passage are slightly more worn, and there is a danger that the chairs will erase lettering. A carpet down the main aisle would help preserve some since this is where visitors mainly walk.

The tiles laid on the north side of the entrance area replace hideous red domestic tiles of the 1960s laid when the Gurney stove was removed. The tiles under the recently installed font base (1987), which covers a large part of the entrance area, are very worn. But as a result of a careful examination before the base was laid down it was clear that the original medieval floor remains in situ in this area, as it does in the sacarium area. The tiles had, however, been much patched and most were without decoration or glaze. Nevertheless it was, in my judgement, a disaster to have placed the font in this position, and to have laid such an absurdly large base. It is much to be hoped that the Dean and Chapter will acknowledge their mistake and remove it. My suggestion was to mount the font on a small base on the south side of the entrance area, a metre from the medieval stone bench, and central between the niches which form part of the wall panelling, below the Whall window. This would open up the vista through the chapel to the east end, and provide the Lancaut font (c 1140), which is one of our great treasures, with a worthy siting.

The Great Cloister  The ledgers were relaid in c. 1855 on a new concrete base. It was at this time that they were set out in the orderly fashion they are in today.

Present position

A list has been made containing the full names (but with few other details) of those interred beneath legible burial slabs, and all those with wall memorials or memorials in stained glass. This is mainly for genealogical purposes.

The list recording the lady chapel ledgers has been duplicated and is available for further study.

David Welander  
Canon of Gloucester  
25th November 1990
ICOMOS UK CATHEDRAL DAMAGE SURVEY

HEREFORD CATHEDRAL

Most of the floors were repaved, many with encaustic tiles, in the nineteenth century during the restoration carried out successively by James Wyatt, Sir Gilbert Scott and John Oldred Scott. The fall of the west tower and the subsequent shortening of the nave by James Wyatt must have destroyed much of early interest. The surface has largely worn away from most of the nineteenth century encaustic tiles.

Hereford contains an important collection of brasses, some of them still on the floor:

North transept Two fine brasses, one to Bishop Frowsetoure 1529, a figure with saints, and the other to Richard Delamare d. 1435 and wife, large figures with ogee-shaped canopies above. At the entrance lies a nineteenth century copy of a brass, unprotected.

North east transept Brasses of a priest, early sixteenth century, and a knight of the fifteenth century lie under rugs for protection.

Chancel An excellent brass to Bishop Trillack 1360, shows a figure 5' long under a canopy, also protected by a rug. The tile pavement is by Godwin, designed by Sir Gilbert Scott.

Lady Chapel A brass to Canon Richard de la Barr 1386 shows a large figure under an ogee canopy.

South east transept Several brasses are mounted on the walls, including a priest 1434, Edmund Ryall 1428, a bearded man 1394, Dean Harvey 1500 and Richard Rudhall 1476; on the floor are brasses to Dean Chaundler 1490, to John Stockton, Mayor of Hereford 1480 and to William Porter 1524. This is a remarkable collection.

Crypt An incised slab to Andrew Jones 1497 and his wife has a canopy above the figures.

There are a few ledger stones left within the cathedral, and those ledgers with brass inlays are protected by mats. With the recent increase in the number of visitors to 140,000 this practice may be counter-productive, because grit is likely to be trapped beneath the mats and rubbed against the floors by the passage of feet.

The most significant surviving ledgers are those laid as a pavement in the Chapter House garden. These are subject to wear and tear both from feet and from the elements.

Records

A list of the ledgers mentioned above, with names, dates and a numbered locations plan, was prepared in 1881. A list of all monuments with dates and a note of their condition was prepared in 1988 by a member of the Diocesan Advisory Committee. In addition, a list of publications was sent by Canon John Tiller, Master of the Library (see attached).

Reports from Raymond Kingsley-Taylor, Chapter Clerk and Michael Reardon, Surveyor to the Fabric are attached.

Jane Fawcett
January 1991
Raymond Kingsley-Taylor, Chapter Clerk, writes:

1. The majority of the Cathedral floor was laid something over 100 years ago, and the surface, as you know very well, has largely worn from the majority of the tiles. Since the 1950's, the number of visitors has increased dramatically. When I became Chapter Clerk in 1985, our visitors numbered an estimated 75,000 pa. I now believe the figure to be nearer 140,000, which means the wear and tear must have virtually doubled in only 3 years. The increase is due to the revived interest in cathedrals, and a general increase in tourism, and a specific increase in interest in Hereford and Herefordshire as a tourist centre.

2. Wear and tear to ledger stones must be in a smaller ratio, and we still have some important ones that cannot conveniently be protected from wear without removing them to another position, or fixing them vertically.

3. Brasses and monuments, unless in the floor, have so far suffered no apparent damage, either accidental or by vandalism.

4. So far we appear to have escaped any serious vandalism, except in certain areas of the exterior, eg, the Booth Porch, and you know that you are hoping to solve that problem with a screen.

5. Theft - this is a serious problem. A major and important pair of candlesticks from the High Altar was stolen a few years ago, and although the thief was apprehended, and is presently in prison, we have not been able to recover them. The thief has written to the Dean and admitted the theft, and at one time said he wanted to return them, but has since revoked that statement, and although the Dean has visited him in prison, communication has now ceased.

A further important pair of candlesticks was stolen from one of the Chantry Chapels by a man living in Herefordshire, who has since died. The man was a psychiatric case, and believed that he had a right to certain religious artefacts, as having some connection with his family. Before his death, he returned the sticks to the Chantry, but unfortunately for him, left us a clue as to who he was. An amusing postscript to this was that when the police visited him, they found not only a number of items stolen from other churches, but found that he had returned items which he had previously stolen within the county/diocese. Unfortunately, he could not always remember which church he had stolen what from, and various vicars were to discover that they had acquired such items as an oak coffer or 17th century chair which they had not previously owned! Most of these were finally traced and returned to their rightful owners.

After having attempted wiring candlesticks and crosses to the altars, we have now had to remove them, and the 7 altars in the Cathedral are now normally bare of such items, which can only be brought out from the safe in time for services.

6. Because of theft and minor vandalism, one Chantry is now kept permanently locked unless required for use.

7. As a result of a number of break-ins at night in search of petty cash, which the police inform us is usually for drugs, we have had to considerably increase our security devices, and our insurers have just written insisting that we increase them still further.
We charge £1 for a photography permit. The main purpose of this is not
to raise money, but so that we may take the names and addresses of those
using cameras in the Cathedral, so that the police may have access to this
in case of theft, the theory being either that someone may have
photographed something with the intention of stealing it, or that the
police may find something useful in a photograph taken for perfectly
genuine reasons.

Donation boxes are cleared daily at 5 pm to ensure that no cash is left
in the Cathedral overnight. We have increased the size of donation boxes
not only to make them more prominent, but so that they cannot be carried
out easily.

The Cathedral Shop is another area where we suffer theft by shoplifting.
It has now become serious enough for us to call in the Crime Prevention
Officer from Hereford City Police to train the staff in detection, to
install surveillance mirrors, and to re-arrange areas of the shop to
improve vision. We have also agreed that large parties of children
will be told beforehand that they must obtain a receipt for their
purchases before leaving the Shop (a subtle warning), and we are
considering restricting the numbers of children permitted in at any one
time (eg, a party of 40 might be allowed in in 10s).

Toilets - These, of course, always suffer the usual minor vandalism,
graffiti etc, and due to a shortage of public toilets in the city as a
result of the closure of toilets due to new development, the wear and
tear of them is considerable. Last year we had to have the Close dug
up twice because our existing elderly soil drains could not cope with
the problem. Even our bill for loo paper has increased considerably -
most of it seems to be thrown down the loo or on the floors.

Finally, wear and tear generally is increasing at a rapid ratio, but
I am not convinced that our income from visitors is increasing
sufficiently to meet the cost of the necessary maintenance.

Michael Reardon, Surveyor to the Fabric, writes:

Hereford

I believe that the

number of tourists is increasing rapidly and one is already
greeted at the door with "Welcome to the Historic Cathedral
Church of the Marches" and handed a leaflet.

What really concerns me is the way in which the cultivation of
our Cathedrals as tourist attractions is causing them to be seen
primarily as historic monuments rather than holy places. Belief
in the primacy of conservation can have the same effect

The Friends of Hereford Cathedral, who have recently had a
handsome legacy to administer specifically for the embellishment
rather than repair of the building are anxious to spend it on
tourist facilities rather than, as the Dean & Chapter would wish,
commissioning a majestas and other furnishings for the new High
Altar we are building. This seems to me very sad.

A couple of years ago I prepared a report in which I suggested
that the Cathedral might be shown to visitors in a way that would
not detract from its religious purpose and perhaps make better
sense, for the visitors themselves. It also offers a way out of
the turnstile dilemma. Unfortunately, the setting up of an
independent trust for the Mappa and Library has probably made it
more difficult to achieve these aims.
1. The Godwin tiles are not true encaustics in that, the patterns are made with painted slip as underglaze decoration with the result that when the glaze wears away the pattern and colour often go too.

2. The principal source of abrasive material is the sandstone of the Cathedral fabric itself - which constantly dusts off and is then rubbed into the tiles by the feet of passers by.

3. When I took over as surveyor, the Vergers were still allowed to clean the floors twice a week with an abrasive compound intended for cleaning factory floors! It took me the best part of three years to get this practise stopped and the floors are now simply washed and occasionally treated with a polish of some sort.

4. There was also a period when they experimented with sealing the floors and it will not surprise you to learn that this resulted in increased salt deposits on the lower part of the walls.

The extent of the deterioration during the last 50 years can be seen by lifting the carpet in the choir sanctuary and is very considerable.

Incidentally, the tiles which were covered by the new crossing platform were in the worst condition of all, but we protected them with layers of nylon mesh and sand before laying the new floor on top, so they will at least be preserved for the delight of future archaeologists.
List of publications sent by Canon John Tiller, Master of the Library:

1. Havergal, Francis T. *Monumental inscriptions in the cathedral church of Hereford.* 1881

[N.B. This records inscriptions in the cathedral and its churchyard existing at that time and it also collected from other sources (i.e., 2, 3, 5) epitaphs no longer remaining.

It includes plans showing monuments, etc. Cathedral - Monumental ground plan, 1881
Chapter House Yard " " " "
North Transept " " " "

2. Rawlinson, R. *History and antiquities of the city of Hereford.* 1717.

[This records an account of all the inscriptions, epitaphs, etc. upon the tombs, monuments and grave-stones.]


[This includes inscriptions on monuments in the cathedral]


[This has photographs of important monuments]


[N.B. We have a series of plate glass negatives of monuments in cathedral taken about 40-50 years ago.

Overleaf
Plan of floor slabs in Chapter House Yard, 1881
Several eighteenth century ledger stones lie in the nave; they are on the route of many feet, and are badly worn. A large defaced black slab lies in front of the new nave altar. A fine thirteenth century effigy, in poor condition, lies in the north ambulatory. A large black slab is placed in the centre of the chancel to Sir Thomas of Delvinstone; it originally contained four shields in the corners. An early brass stands in front of the high altar.

There are two fine armorial ledgers in the south transept, one to John Aynsley 1757, the other to Edward Tirry, and one other.

Some ledgers are lined up along the walls of the slype.

Although Hexham is not subjected to heavy use, there is a case for moving or protecting the ledgers in the nave, and the armorial ledgers beside the Acca Cross, which will shortly become totally obliterated.

Jane Fawcett
January 1991

Geoffrey Whitehouse, churchwarden with special responsibility for the fabric of Hexham Abbey, writes (2.91):

Most of the ledger stones in the slype have been there since they were carved. A B Wright in his History of Hexham, 1823 (W Davison, Alnwick), refers to "the cemetery of the respected ancestors of the Blackett family" beneath the balcony in the south transept. There is however a reference elsewhere to the Cooke stone which says that it was moved from the eastern chapels to the slype when these chapels collapsed and were finally demolished in 1858. The series of stones on the north of the slype are similar in style to the Blackett stones and I assume relate to members of the Blackett family on the distaff side.

Some attempt is being made to record all the inscriptions but it is difficult to see how we can move the ledgers in the nave. These stones, most of which are headstones, were placed above the graves to which they refer when the nave was built in the first decade of this century. In any case we should be unable to display them elsewhere. Most of these stones are well away from main traffic flow but there are one or two at risk and we will give some consideration to this problem. We should be glad of advice about the preservation of the three ledgers near the Acca Cross.
Wear and tear is obviously not a real problem here, with only 20,000 visitors a year. However, the magnificent collection of ledger stones, each with its own unusual form of lettering and decoration, is unique. Bold figures in bas relief, shell and foliage borders and elaborate inscriptions, decorated with skull and crossbones or putti are everywhere, and very fine indeed.

Furthermore, during the Mackie Watson restoration of 1913-30, when much of the floor area was repaved, all the ledgers were taken up and resited on the external walls. This accounts for their splendid condition. It also provides a valuable precedent for cathedrals where the aisle walls are not already covered with monuments. However, the pavings are showing signs of wear and the pointing is now having to be renewed.

The exceptionally fine Norman interior of Kirkwall is, with the exception of the remarkable capitals, largely undecorated. The impact of the splendid array of ledgers encircling the walls of the nave and choir aisles is all the more impressive. Although the decoration on these ledgers is unusually fine and typical of the local vernacular, their resiting is an example that could well be followed elsewhere. The position of the original burials could be suitably marked.

It is sad to hear that even here vandalism is a problem, with reports of headstones being pushed over, light fittings broken and lead pipes being damaged.

Jane Fawcett
November 1990
Most of the floors at Lichfield have been repaved during the extensive programmes of restoration carried out successively by James Wyatt, Joseph Potter, Sydney Smirke, and Sir Gilbert and John Oldred Scott. Much of the work carried out by the Scotts is of remarkable quality, including the refurnishing of the choir with its magnificent screen, and the fine tessellated pavement. This outstanding scheme, one of Scott's best, covers the choir, sanctuary and presbytery. The tiles were made by the Minton pottery and some of the designs were based on medieval tiles found in the cathedral. This was a practice often adopted by Scott: there are other examples at Worcester and Ely Cathedrals, and at Tewkesbury Abbey.

Moreover, Lichfield had already undergone extensive repairs under Bishop Hacket, following the serious damage inflicted during the Civil War. It seems unlikely, therefore, that any pre-nineteenth century floor surfaces would have survived.

However, when I visited Lichfield in 1978 to collect information for the English Tourist Board survey, Cathedrals and Tourism, I asked to see the Library. There I was shown the famous Gospel of St Chad, removed from its medieval chest and opened by the Canon Librarian at the portrait of St Luke. The library was furnished with large bookcases, but it was evident to me, even then, that these covered large areas of medieval tiles. I was deeply concerned at that time by the fact that the public was admitted into this sensitive area, where damage to the tiles was bound to occur, and that the Gospel of St Chad was handled and displayed without adequate security. Since then, the Gospel has been relocated, and the medieval floor examined archaeologically by Dr Warwick Rodwell and surveyed by rectified photography by Ross Dallas of the York Institute of Advanced Architectural Studies. Dr Rodwell's account of this work is attached.

Records
Canon A N Barnard reports that the library possesses Inscriptions and Heraldry in Lichfield Cathedral, a list which is kept up to date, and Lost Inscriptions and Heraldry in Lichfield Cathedral, a list compiled mainly from Shaw's Staffordshire. There are no pictorial records. Canon Barnard reports that old and broken inscriptions are to be seen stacked in the stoneyard, and many gravestones are very worn. He writes (2.91): 'There is a kinship between the extant medieval pavement in the library and the design of some of the Victorian tiles, but the only direct evidence is Scott's own evidence that they found medieval fragments under the floor of the choir.'

Jane Fawcett
January 1991

Dr Warwick Rodwell, Consultant Archaeologist and Architectural Historian, writes:

At Lichfield, it is the medieval tile pavements of the library and consistory court that have concerned me. The rate of destruction of the former, since the last war, has been horrific. It is a pavement of seminal importance for tile studies, and unique in the Midlands. I was able to get the basic record made by Ross Dallas, by rectified photography. I am now engaged upon the daunting task of making a complete scale drawing of the floor.
The thing that has struck me most forcibly is the sheer volume of evidence that can be extracted from a floor by careful recording and study. Reading and recording the inscriptions, photographing the heraldic devices etc is the easy part. It's all the other evidence relating to former monument positions, wall benches, lost screens, altar emplacements and a host of other details that are ghosted in the flooring materials, that really makes pavement archaeology interesting. This sort of recording is, of course, painstaking and costly, and is something that simply cannot be tackled by untrained enthusiasts. But the evidence is vanishing before our eyes, even though few people seem to appreciate that it even exists.

In an article in *Antiquity, Vol. 63, no. 239, June 1989* Dr Rodwell writes:

Ironically, it is the destruction of cathedral floors by the passage of innumerable visitors' feet that has focussed attention on their archaeology in recent years. The few surviving medieval tile pavements in English cathedrals are generally well known and published, and it therefore came as a great surprise to discover that there is at Lichfield, in the chamber above the chapter house which is now the cathedral library, a large, almost intact, and wholly unrecorded pavement of c. 1300. The pavement was laid as a series of seven parallel 'carpets', each of a different design, with additional panels filling the two polygonal ends of the building. Approximately half the floor is hidden by bookcases which were placed in their present positions in 1910, and the visible tiling is mostly well worn. Possibly this accounts for the fact that Pevsner (1971), in company with all previous commentators, failed even to note its existence.

In 1988 it was determined that a full archaeological survey of the library pavement should be made, and the bookcases were accordingly removed. Rectified photography was employed to produce an accurate photo-mosaic at a scale of 1:10; plans of both the complete pavement and individual panels were then drawn from the mosaic. In this way, it was possible to detect and analyse minor misalignments of single tiles, or groups of tiles, which would have been virtually impossible to achieve by hand measurement. These misalignments, together with differential wear patterns, provided indications of ancient patching and repair.

Tiles in several parts of the floor had suffered from impact damage, the cause of which was apparently localized falls of masonry from the vaulted roof, a casualty of the Civil War bombardment. The principal damage to the pavement was, however, found to be of very recent date. The removal of the bookcases revealed that during the first 600 years of their life the tiles had suffered remarkably little wear, and some of the harder-fired examples are still in pristine condition; but in the last 80 years many of the exposed tiles - especially those in the principal gangways - have lost their glaze and much of their slipped pattern. The Lichfield pavement survey was conceived as a research project, but retrospectively it must be classed as a piece of rescue archaeology. The complete medieval design has been recovered, an achievement which would have been impossible had the project been deferred for another decade or so.
Martin Stancliffe, Surveyor to the Fabric, reports (2.91):

We expect during this coming year to install a carpeted viewing area at the (much more damaged) west end of the library, to which visitors will be restricted. I have been given much helpful advice by John Ashurst before he left for the US about the experiments that have been tried at Westminster Abbey, and I am aware that this carpeting cannot be relied on completely. However, I think that it will be better than nothing.

In addition, a conservator has reported on the proper conservation of the whole tiled library floor, and the first part of her programme will be implemented as soon as funds are available.

I should also draw attention to the floors of the Cathedral, and particularly to the aisles of both choir and nave. These are now breaking up at an alarming rate, largely because of traffic generated by the increased use of the Cathedral: the shifting of chairs, the bringing in of electrical and TV equipment for recorded services and concerts, the introduction of pianos, etc for concerts and so on. It would appear that, not only the stonework in these areas will need to be lifted and re-bedded, but much damage has been done to the ornamental cast iron grilles to Scott's heating ducts, and these are also in the process of replacement at present.
LINCOLN CATHEDRAL

Lincoln is remarkable for the unusually large number of medieval ledgers, many with marginal inscriptions in black letter, and for the exceptional number of large matrices for brass indents. Although many were moved when the nave was repaved in 1790, and some are in fragments, they form an important collection. Many of the inscriptions have been lost, but some were recorded by William Dugdale in 1641 and reprinted as Lincoln Cathedral, Ancient Monumental Inscriptions, collected by Robert Sanderson and published in 1851. The new publication, The Latin and French Inscriptions of Lincoln Minster, by Nicholas Alldrit and David Tripp, 1990, records many of the surviving inscriptions, both on monuments and floor slabs, with locations. They have recorded many inscriptions that are now indecipherable and I am indebted to them for some of the information contained in this survey.

West End
Under the west porch lie four eighteenth century black slate armorial ledgers, partly covered by coir mats. Lying centrally and roped off is the tomb, with brass, to Bishop William Smith d. 1513. The original brass was destroyed during the Civil War, but the inscription was recorded by William Dugdale in 1641 and the present full size brass was given by Brasenose College, which the bishop founded, in 1927: 'Bishop of Coventry, Lichfield, then of Lincoln, First President of Wales, Chancellor of the University of Oxford'. John Evelyn reported in 1654 that 'soldiers lately knocked off most' of the brasses.

It is encouraging to see that all the entrances to the cathedral are protected by coir mats, those at the west end firmly fastened. These will remove most of the grit carried by visitors' feet, and so do much to reduce unnecessary damage.

Morning Chapel
Several large grave slabs, two with armorial crests, two with black letter marginal inscriptions and one with an inscribed design of a foliated cross lie in front of the altar steps. All are important. They include Clerk's tombstone, name and date illegible; Succentor's tombstone to Sir John Moswall 'once vicar and succentor of this church' d. 14--; and William Peresby's tombstone, 'Here lies the reverend man William Peresby, Doctor of Divinity' d. 1670. This inscription has been entered into a much earlier slab with a marginal inscription, possibly dated 1300. Another double slab is to Sir Robert Patrynton d. 1453 (marginal inscription), with, in the centre of the slab, 'Here lies the outstanding man Thomas LAMY ... Precentor of this cathedral church d. 1669'.

North Nave Aisle
An important raised ledger, supposedly on the site of Bishop Remegius' tomb, lies in the last bay before the central crossing, between the piers. The Latin inscription reads: 'The resting place (according to report) of Remigius, Bishop first of Dorchester, then of Lincoln, and founder of this church in the year of salvation 1072; restored in the year of salvation 1872.'

North West Transept
This contains three modern ledgers only.
St George's Chapel
In front of the altar step lie several ancient ledgers. Facing the altar to St Andrew lies the Vicar-Choral's tombstone: 'Here lies Sir Robert West, at one time Vicar Choral of this church, who died on the eve of St Kenelm, King and Martyr, in the year of our Lord 1530, on whose soul may God have mercy. Amen.' Next, also facing the altar of St Andrew, lies Dean William of Lessington's tombstone d. 1272, with an ancient fragment beside it. Next, facing the central altar, lies Simon of Barton's tombstone d. 1280, also with an ancient fragment nearby; to the south west, lying under stalls, are two large brass indents and one large medieval slab with black letter marginal inscription, illegible.

North Choir Aisle
A continuous line of large matrixes with brass indents has been placed right along the centre of the aisle, where all feet must tread. Ten indents lie to the west of the entrance to the choir, three across the entrance, and nine to the east of it, lying head to feet. The largest, formerly a bishop with a canopy, lies immediately to the east of the chancel steps in a most vulnerable position. It is hard to see how these, and a similar group in the south choir aisle, can be protected, but they still have archaeological evidence to offer and are striking monuments in their own right. Perhaps mats are the answer here, since there is no delicate inscription which might be harmed by grit underneath them.

St Hugh's Choir
In the centre of the floor towards the west end lies a rare survival, the 'Cantate Hic' ('Sing Here') stone. Two panels of nineteenth century Cosmati pavement lie on each side of the high altar, the rest has been repaved.

Angel Choir - North Aisle, Burghersh Chantry
Three brass indents lie in front of the altar steps on the north east side, by the Burghersh Chantry. On the next step lies a fine group of five black slate ledgers, four of them armorial, to Lady Katherine Knollis d. 1730, Mary, Countess of Deloraine d. 1737, and three to members of the Scrope family, also commemorated in the Morning Chapel. They are Elizabeth Scrope d. 1719, Gervasius Scrope, her husband, d. 1741, and Frances Scrope d. 17--. The inscription to Gervasius Scrope ends: 'In expectation of the resurrection on the last day. What manner of man he was, that day will reveal.'

Above, beside the altar lie four more handsome black armorial ledgers, two of them to Anne and Thomas Howson. Anne's inscription begins: 'Led by you, how many seas have I entered upon!', and Thomas's is identical. He was Registrar of the Bishop and Archdeacon.

Many of the ledgers in this area have raised lettering which appears to have worn better than the usual inscribed lettering.

Former Chapel of St John the Baptist
On the upper step lies a group of black slate Newcomen ledgers, to Mary Newcomen 1764, Selina Newcomen 1725 and Thomas Newcomen, 'Senior Vicar of this Church, who died 8 February 1749 in the 29th year of his age', also to Dame Harriet Churchill 1777. On the top step lie two black slate ledgers, also with eighteenth century embossed lettering, and two freestone ledgers, one to Newcomen Wallis, 'whom, in the year of our Lord 1730, on the 31st of December, and in the 34th year of his age, the force of a merciless fever, after four days of illness, snatched out of life . . . There was no one either more generous or more friendly . . . At length, just as in life he made no enemies, so, as he died, he left many friends.'

Angel Choir - Cantilupe Chantry
William Turre's tomb-plate reads: 'Here lies Sir William Turre, formerly Master or Guardian of the College of Nicholas de Cantilupe, Knight, who died on the Feast of the Apostles, Peter and Paul, 1517, on whose soul may God have mercy'. On the first step lies a black armorial slab with embossed letters, to Mrs Lucy Houseman 1714, and a freestone slab; and on the top step, a brass indent and a stone ledger to Catharine Browne 1720, with good lettering.

Angel Choir - Nave, East to West
An important collection of early ledgers has been placed here, many of them probably moved from other positions when repaving was carried out.

Several brass indents, a large black armorial slab to Mrs Anne Gardiner 1683, and a stone slab to Rev. Henry Bell 1777, lie under chairs. Then comes Robert the Lay Official's tombstone, 'Here lies Robert D-- of the Chancellor', d. 1521; Thomas the Priest Vicar's tombstone d. ?1455; William Farmery's tombstone d. 16--; Robert Dymoke's tombstone d. 1755, 'Alas, when shall naked Truth find his peer?'; and Edmund Walter's tombstone d. 1684, Rector of Burton.

Behind the high altar lies Bishop Gardiner's tombstone, a raised alabaster ledger with an elaborate Latin inscription ending: 'Go, mindful of the death that pursues (you): Go, and good luck attend you.' Next, also raised on posts, an alabaster ledger to Sub-Dean Gardiner, his daughter and wife, again with a long Latin inscription; beneath these two raised ledgers lie two further Gardiner ledgers, d. 1732 and 1704.

A raised black marble ledger to Bishop William Fuller d. 1675 is next, 'who, from the furthest part of Ireland, was translated to this presidency in the year of this Christian century the 67th, of the bishops, the 67th, also in the year of his age the 67th . . . at his own not inconsiderable expense, he had restored some of the monuments (which a former age had set up . . . and which our age had shamefully destroyed), and had already begun to think of restoring others when he succumbed to an untimely fate.'

There is another raised black marble ledger, with a Latin text, partly indistinguishable. Together, these last four handsome ledgers, well protected and excellently displayed, make a remarkable group.

Immediately behind the high altar lie three stone ledgers, inscriptions obliterated, Dean Campion's tombstone d. 1701, and
next a black slate ledger to Dean Michael Honeywood DD, d. 1681, 'grandchild, and one of the 367 persons that Mary, the wife of Robert Honeywood Esq. saw before she died. Lawfully descended from her that is 16 of her own body, 114 grandchildren, 228 of the third generation and the fourth'. Dean Honeywood's achievements are commemorated on his monument in the south nave aisle. He was for 21 years the Dean of Lincoln and 'built at his own expense, a library [the Wren Library], on the side of the cloister of this church which had fallen down, he subsequently enriched it with books, neither few nor merely popular'.

Next to this is an early brass indent of a figure framed with a canopy, then black slate ledgers to Samuel Fuller, Dean Abraham Campion 1701, and Dean Daniel Brevint 1695 and his widow Anne.

Angel Choir - South Aisle, East to West
A black armorial ledger to Elizabeth Hammond 1750/1 lies here, with stone slabs to Mrs Elizabeth Paulson 1676 and Edmondus Waite 1684, and three slabs with black letter and marginal inscriptions, one cut down, as are many of the medieval ledgers in this cathedral.

South East Transept
A modern, raised ledger commemorates Bishop Grosseteste d. 1253. Four shortened early ledgers lie in front of the altar steps.

South Choir Aisle
As with the north choir aisle, some of the most important brass indents have been placed in a continuous row down the centre of the aisle, 21 of them in all, the largest at the west end where it receives the greatest pounding from feet. Since visitor numbers at Lincoln are only around 250,000, it might be possible to rope off some of these magnificent matrixes and to direct visitors along one side of the aisle.

South Transept
In the chantry chapels lie several medieval ledgers with marginal black letter inscriptions, and general fragments. By the altar of St Anne lie ledgers to Canon William Tailboys, date illegible, Sir Thomas Tophill, 'sometime vicar of this church' d. 1436 and Sir William Typtway (?), 'sometime vicar-choral' d. 1536. By the altar of the Works Chantry lies the chantry-priest's tombstone to Sir G-- Bradbern d. 1542, 'chantry priest of the chantry of Henry Lexington, bishop . . . Mercy triumphs over judgement'. Then comes Sir William Shypton d. 1465, 'formerly vicar of this church'. Before the altar of St Edmund is a priest's tombstone to Sir William ----, formerly keeper (?) of the altar of St Edmund, and then a joint tombstone to a chaplain and Sir John Castill, 'here lies Thomas . . . at one time chaplain' d. 1456, and 'here lies Sir John Castill d. 1542'. As well as these remarkable survivals, there are two brass indents, one to John Gifford Ward d. 1860 (?), under furniture.

South Aisle
Between the south west crossing pier and the next pier west lies a very large slab to Dean Mackworth d. 1451, with a brass on top to Dean Fry, Dean from 1910-1930, which was formerly under a lead cover for protection. This cover has now been removed as damp trapped underneath was causing a reaction between the lead and the brass. Instead, the slab has been roped off for protection.
Cloisters
All the floor slabs in this area are in very poor condition.

West Walk
Leaning against the west wall is a tombstone to William and Dorothy Walker d. 1544 and 1556. A row of new ledgers to masons, Dean's vergers etc lies here.

North Walk – West to East
Below the steps lies a row of six early grave slabs, one of them a brass indent. A line of ledgers, several medieval with black letter inscriptions, several in pieces, have been placed along the north wall. These include the tombstone of a cathedral functionary 'in the cathedral church of Blessed Mary of Lincoln', date illegible; Master William Bill, Bachelor of Civil and Canon Law, formerly Keeper of the Altar of Saint ---- 1556; inset, a panel to Rev. William Gray, Senior Vicar d. 1876; and George and Eleanor Jepson's tombstone d. 1837 and 1833. Then come three brass indents, one with a panel to Jane Garre d. 1830 set into it, and several other grave slabs, some truncated and all in a very poor state. The medieval slabs in particular deserve better treatment.

The East Walk
This has been repaved.

Chapter House
At the entrance lie nine grave slabs in two rows, all of identical shape. Only one has the vestiges of an inscribed design.

The South Walk
This has been mostly repaved, and some important grave slabs have been displayed on the south wall. First is Richard of Gainsborough 13--, with a black letter marginal inscription, 'at one time master mason of this church' – this grave slab has been replicated and placed centrally on the floor, with a large figure under a canopy. Next on the wall comes a reproduction of the original epitaph to Sir Edward Lake 1674, 'Chancellor of the Diocese of Lincoln, the Kings Majesty's Attorney General for his Kingdom of Ireland . . . He took as his wife Anne . . . a well-born lady . . . even in the hardest times an extremely patient, constant and faithful companion and sharer in this husband's lot'. Next is Thomas Loveden's tombstone, 'Oh Father Giles to me Thomas Loveden pay heed. In you have I trusted; repay my offerings soon.' Next comes Thomas' tombstone, 'here lies Thomas'; then the Gilbertine Anchorite's tombstone, 'Here lies John Levison, an anchorite of the order of St Gilbert; then Sir William (Dymoke), formerly Chaplain of the Chantry of Sir Nicolas de Cantilupe d. 1535.

These early slabs are fortunately protected from damage by feet, though their condition is very poor, and they form a rare and valuable collection.

There are also many grave slabs placed in the grass to the south of the nave.

Records and Plans
Lincoln has an unusually complete set of records and floor plans, showing the position of grave slabs and brasses before the repaving of the nave and transepts in 1790.

Plans The floor plans include a plan published in Aymer Vallance Great English Church Screens and taken from the Gough Collection in the Bodleian Library, Oxford. This shows the ledgers, and also the procession stones used by members of the clergy to indicate the correct position to occupy 'to indicate the course of the
procession and the order for the station before the Rood. There is also a floor plan prepared in 1875 by Michael Drury and updated in 1936 by Robert Godfrey, both Surveyors to the Fabric. This plan draws on Dugdale, 1672, and Brown Willis, 1730, and identifies the names, dates and positions of most of the ledgers at those dates.

Records As already mentioned, there is Nicholas Alldrit and David Tripp's excellent book, The Latin and French Inscriptions of Lincoln Minster, 1990, which identifies and locates most of the medieval Latin inscriptions. Apart from this, there is no complete record of inscriptions. Some records are also to be found in William Dugdale's 1641 collection which was republished in 1851, edited by Robert Sanderson, and in Lincolnshire Church Notes by William John Monson, 1828-1840, which contains some ledger inscriptions in the Angel Choir.

It is unfortunate that so many of the remarkable collection of medieval ledgers have been lost following repaving, and that many others have been moved and therefore dissociated from the original burials.

Jane Fawcett
January 1991

Overleaf
(A) Plan showing processional stones in nave and ledger stones before repaving in 1790s, from Gough's Camden.
(B) Floor plan prepared by Michael Drury 1875, based on Dugdale and Brown Willis, updated by Robert Godfrey, Surveyor to the Fabric and Clerk of Works, 1936.
LINCOLN CATHEDRAL: Plan showing pulpitum and screens in transepts; also procession stones in nave before repaving in 1790
(Gough Collection, Bodleian, Oxford)
The following three names from Gloucester:

- Bishop Bungay
- Bishop Lacy
- Bishop Drayton

The following three names from Winchester:

- Bishop Gervaise
- Bishop Gervaise
- Bishop Gervaise
Harry Fairhurst, former Cathedral Architect, reports (7.88):

The pressures of tourism are not very high in Manchester Cathedral; we have had to forbid school children to operate misericords. The greatest damage was done in the nineteenth century when there were 10,000 baptisms a year and choirboys eliminated all engraving on at least one brass by sliding down the aisle over it. That was before all stones were turned over and covered by terrazzo.

Thefts and break-ins are not unknown.

Rosemary McFie, the Cathedral Archivist, reports that, as the cathedral was a parish church until 1847, the records are mainly parochial and do not contain inscriptions.

Jane Fawcett
February 1991
There is an important brass on the wall of the south chancel aisle, a huge double one to Roger Thornton 1429 and his wife 1411, with seven tiers of saints, canopies above and children below. It was formerly in All Saints Church.

Derek Govier, Chapter Clerk, writes (2.91):

This cathedral has a significant number of floor-mounted ledgers. We are currently surveying all areas of the fixtures and fittings of the cathedral in relation to the preparation of a new Terrier and Inventory but this has not yet been completed.

Jane Fawcett
February 1991
NORWICH CATHEDRAL

Norwich has no outstanding historic floor areas, but a large number of handsome black slate and Purbeck ledgers, both in the aisles, the north and south choir aisles, the ambulatory and the north and west walks of the cloisters. There are no brasses on the floor, but a number of brass indents, a small group of medieval tiles without any surface, and a nineteenth century tiled pavement in the presbytery of no particular distinction. The nave, aisles and cloisters were repaved in 1740-43, when many of the earlier ledgers must have been moved or lost. The choir and presbytery were also repaved in 1766-8, and the pavement round the high altar was laid in 1890 by Sir Arthur Blomfield. There is evidence of the use of Antiquax, particularly on the black marble ledgers, which look very fine.

The nave
The maintenance of the floor is excellent. Small rubber-backed Tack mats containing a dust-extracting chemical lie at the entrances, and are cleaned weekly. Do they also extract grit? I suspect that they are too small to be entirely effective; those at St Paul's Cathedral cover the whole of the west aisles and are fixed in position.

There are no ledgers in the nave, but some important black slate armorial ledgers lying beside the piers between the nave and the north and south aisles. These are at risk owing to the placing of the chairs, which have no protective pads and are mostly metal. This needs looking into, as the ledgers all show signs of scratching; their size and position indicates that they are of significance. They are mostly heraldic.

North aisle (west to east)
Between the piers in the first bay, lying by the collecting box and immediately inside the north west door, lies a large Purbeck armorial ledger to Richard Blagrane, Lay Clerk of this Cathedral Church d. 1708/7. This urgently needs protection, owing to its position on the tourist route; perhaps the collecting box could be moved. All the important black slate ledgers are lined up between the piers, and are covered by chairs. They are in poor condition and need protection.

Between the next piers lies a black slate heraldic ledger, with good lettering, to Loveland (?) d. 1728; then a tomb chest to Sir Thomas Wyndham 1521, with indents. Next is another tomb chest to Osbert Parsley 'singing man' d. 1525 with indent, and, in the centre of the walk, a black armorial ledger, illegible. In the next bay, between the piers, is a heraldic ledger to Johannes Crofts; and in the next bay, lying half under chairs and half across the main tourist route leading to the nave altar, is Humphrey Prideaux STP 1648, with heraldry, in need of protection.

Next, between piers, is a heraldic ledger to Dalton d. 1727, with fine lettering, again under chairs. Next is a ledger to Nathanielus Hodges MDCC-+, with a fine heraldic crest, under chairs, and beside it, in the centre of the aisle, are two black slate ledgers to William Smythe, Professor of Modern History, University of Cambridge 1807-1849, and Hannah, wife of Arthur Tanke MD 1848.
In the next bay is a tomb chest to Sir John Hobart d. 1507, with an indent on top, and beside it to the east, a black ledger, indecipherable. In the last bay before the choir screen, in the north-south crossing walk, lies a big Purbeck ledger with a fine coat of arms in deep relief, lettering erased, in need of protection.

Organ screen
Beside the organ screen, bridging the east-west entrance, is a 12' indent to Bishop Lyhart 1422, placed in this position in order that he might lie under the vaults he built. Also under the organ screen are two black slate ledgers to Rececca Garland d. 1800 and Philip Wodehouse 1811.

North transept
There are about forty ledgers in this area, many lying under stalls, about half of them in reasonable condition, many in black slate. There are also four brass indents.

North presbytery aisle
There is one large 12' indent lying beneath the treasury, and another with an inscribed marginal inscription in poor condition. A group of six black slate ledgers, several to members of the Thurlow family, are in good condition.

Presbytery
North side - First is a black ledger to Philip Lloyd DD d. 1790 and his wife Joyce. Centrally, west of the high altar, are ledgers to Bishop Herbert 1968, Mary, wife of Dean Joseph Turner d. 1804 and, roped off, an inscribed slab to Bishop Herbert de Losinga 1119, 'founder of this church', with a Latin inscription.

South side - There are three black ledgers, one obliterated, one to Anne Pretyman 1810, and one to Robert Partridge, Alderman 1817. Under pews lies an indent, a heraldic ledger to Robert Pepper, 'doctor of laws, Chancellor this Diocese', d. 1706, and another heraldic to John Hobart 1685.

A tiled pavement designed by Sir Arthur Blomfield in 1890 surrounds the high altar, with a design of vine scrolls and rather muted colouring, in moderate condition.

Jesus Chapel
This has mostly been repaved, but it contains one dark red pitted ledger to Jane Bacon 1664, and three black marble ledgers, one to Elizabeth Howell 1853. By the altar is a fine ledger by John Sketton to Bishop Cordingly 1976.

Ambulatory (north to south)
A group of small, probably medieval tiles, lies close to the Reliquary Arch, but unfortunately all traces of design have been obliterated. There is a large brass matrix, with an indent of a small figure, and five black slate ledgers, one armorial, two with incised design, and all in poor condition. Next is a fine heraldic black marble ledger to Thomas Bullock 1760, and Sarah his wife, then three brass matrices, one with the indent of a cross, one of a small figure, and one of a plaque. Next, behind the high altar, are two large indents, one of a large and one a small figure. Then there is an old slab to Ain Brett (?) 1681, and more black slate ledgers of the eighteenth century.
**St Luke's Chapel**
This contains a black heraldic ledger to (?) Herring 1714 and another to Sarah Steward 1734.

**South choir aisle**
There is a black slab to David Hemming 1717, then two indents, one of a figure, one fine indent of a knight in armour, with Judith Ellet 1761 cut into the matrix. Next is a medieval fragment with a black letter marginal inscription, in Purbeck stone.

**Bauchon Chapel**
Three highly polished handsome black marble ledgers with armorial crests lie here: to Thomas Batcheler 1729, to Judith Batcheler his wife 1754, and to Robert Nash 1752, all with Latin inscriptions and well preserved.

**South choir aisle**
Three black slate heraldic ledgers and a vault to Elizabeth Steward 1730, Bridget Miller 1725 and John Miller 1708, are all deteriorating. Next is a group of three black eighteenth century ledgers in poor condition, and one to Guilelmus Newbury, Notary, 1699. Next is a Purbeck indent and two black slate ledgers to Guilelmus Herring 17--, and Erasmus Greenwood 1726. Next are two more black slate ledgers, to Isaac Chambers 1725, and Abraham Clerke 1726. To the west is a group of five more black ledgers, one small, one large, one with a crest, all illegible, including of course that immediately east of the exit to the south chancel aisle.

**South transept**
Many ledgers lie here, mostly of black slate, mostly under pews, including, at the back on the south side, Ephraim Megoe, minor Canon for 49 years d. 1786, and Guilelmus Smith 1728, by the collecting box and deteriorating. Could the box be moved? Three indents lie on the main route at the north end of the transept.

**South aisle (east to west)**
Lying in the entrance to the aisle is a worn indent and next, down the centre, several smooth black ledgers. There is a fine ledger, with bold lettering, to Thomas Otway d. 1772, and next a red Purbeck slab to -- Dunch. A big black armorial ledger to Hester 169- lies in front of the information desk and is damaged by its proximity to the desk. Placed on the south wall is an inscribed monument with skeleton to Thomas Goode d. 1590 (?), 'here do staye, waiting for God's Judgement daye'.

Between the piers are lined up, as on the north aisle, a row of fine tomb chests and some important black slate heraldic ledgers, all at risk from the placing of rows of unprotected metal chairs on top. In the first bay is Jacobus Cooper d. 172-, worn, with a Latin inscription. In the next bay is an armorial ledger, 'Sepulta Elizabetha Edmondi Mundford d. 1690 & 1696', which is badly worn and in need of protection.

In the next bay west is a tomb chest to Dean Gardiner d. 1589, with brasses missing, and next is a tomb chest to Bishop Parkhurst d. 1575. The next two bays are filled by the Bishop Nykke Chantry, d. 1536, and there is the tomb chest of Chancellor Spencer, with indent. Beside this lies a black slate ledger to Ann Sayers d. 1790 and Francis her son 1817.
Between the next piers lies Henricus Fairfax STP 1702, a black slate ledger with Latin inscription, 9'x4', damaged by chairs. In the next bay is a black slate armorial ledger to Philipus Bedingfeld, Armiger, d. 1736, cracked and damaged. In the next bay is another black slate armorial slab to Mary, wife of William Burleigh d. 1679, badly scratched. In the next bay is a heraldic slab to -- Clement Corbet (?), damaged, and in the last bay a Purbeck indent on the main visitor route.

Cloisters
These were repaved in 1740, so most of the ledgers post-date this. Their condition, and that of the paving, is poor, and there are signs of subsidence in the north and east walks. The ledgers are in the west and north walks only. Those in the west walk are in reasonable condition, mostly nineteenth century black slate, lined up along the centre, some with good lettering.

The north walk contains largely eighteenth century ledgers, with one or two seventeenth century slabs, obviously moved. The black slate eighteenth century ledgers are in moderate condition, very uneven, owing to subsidence, some with good inscriptions. The York stone paving is also in poor condition.

There are a few large slabs in the cloister garth.

Records
Repertorium by Sir Thomas Browne, 1712, and The History of Norwich by Bolmefield, 1741, both contain information on the monuments and floor slabs with inscriptions and details of heraldry, but neither provides a complete record. The late A J Beck, former Sub Librarian, produced Norwich Cathedral Library, its Foundation, Destruction and Recoveries, which lists some of the contents of the library, but no inscriptions.

A plan, prepared in 1938 by A B Whittingham, Surveyor to the Fabric, shows the position of many of the tomb chests, with dates, but none of the floor monuments.

Cathedral Camps sent a team to record floor slab inscriptions and heraldry in 1987. These were roughly located on a map. The south transept, south aisle and cloisters still remain to be recorded in detail.

Jane Fawcett
January 1991
Keith Darby, the Surveyor to the Fabric, has also prepared a rough schedule of condition. There is no visual record.

I have been able to make a crude analysis of the ledger slab survey of 1988, categorising these as:

1. Poor and so worn as to be illegible, or substantially so. 37
2. Slab only with no inscription, but indents for missing brasses. 6
3. Cracked and partially illegible as a result (this ignores fire cracks in the inscription area, or any cracks at corners, etc) 3
4. Legible, with no missing detail in inscription - but this group has yet to be assessed for potential illegibility by virtue of wear already occurring, or changes in visitor routes/pressures. 85

This is a subjective judgement and a time-consuming one which I have not carried out as yet, nor have I completed the photographic record. The survey is reasonably complete as far as the church floor is concerned - nave, aisles, choir crossing, transepts, presbytery and ambulatory and chapels. We had no camp this summer and the previous one was totally absorbed by physical work, but I have a slot for a suitable recorder if one materialises at this year's camp to tackle the cloisters - at least another 50/60 at a guess, and all in trafficked areas.

As far as visitor control and direction is concerned, this is minimal with regard to floor tablets, except for the relatively modern founder's slab before the high altar (roped off with candle holders but within the public area). The primary concern here, as elsewhere, I am sure - is to inform our visitors by discreet notices (and by loudspeaker as far as timetabled events are concerned - services, video/films). The free handout suggests a route to avoid congestion, and ropes are used to restrict intrusion into chapels, sanctuaries, misericord stalls (which are frail), etc. It is difficult to see how we can protect certain slabs without interfering with their visibility, except by ramps and glass paving (itself subject to wear). The traffic routes are none too wide and the floor/wall/column junctions have their own importance both visually and historically - there have been several changes of floor level which have significance in the development of the liturgy here.

Overleaf:
Floor plan showing positions of some ledger stones, prepared during a survey by Cathedral Camps, Summer 1988
ICOMOS UK CATHEDRAL DAMAGE SURVEY

CHRIST CHURCH, OXFORD

Chancel
The fine Cosmati pavement designed by Gilbert Scott in 1871 contains roundels representing seated virtues, copied from those in the church of the Knights of St John in Malta. It is in reasonable condition.

Most of the rest of the floor surfaces are covered with ledger stones, many of them important and under stress from visitor pressures.

North Transept
It contains some good ledgers and a brass to Henry Dowe d. 1578.

North Choir Aisle
It contains, among many others, a ledger to Antonius Radcliffe, benefactor of the Peckwater Quad, and an anonymous brass figure.

Lady Chapel
Two fine brasses lie here, to John Fitzalyn d. 1452 and to Edward Courtenay d. 1462.

South Choir Aisle
Some badly damaged ledgers, mostly of the eighteenth century.

South transept:
An impressive black slate armorial ledger to Sir John Smith, 'descendant of Sir Michael Carrington, standard bearer to Richard 1st in the Holy Land. He was knighted by Charles I at the battle of Edghill, he redeemed the banner royal, and died, after several battles in 1644, aged 28.'

The richness of these floor surfaces and the pressures from visitors, create in Christ Church an extremely worrying situation, and one for which it is difficult to see a solution.

Jane Fawcett
December 1990

R E Biscoe-Taylor reports:
At Oxford we suffer greatly from wear on floor surfaces, which we mitigate by regular repair. Recently it was decided to remove all brasses from the paving as the wear and tear had become unacceptable. The brasses are repaired and repositioned where people do not walk or mounted on boards and displayed on walls. Ledger stones are recorded but no moves are mooted either to protect or recarve them at the moment.

We are fortunate in having uniformed Porters outside the doors and many volunteer stewards inside acting as guides and guardians. The majority of our visitors are foreigners, who come in parties with an authorised leader, therefore the activities of visitors are constantly supervised and thankfully result in little damage or vandalism.
R P Benthall, Treasurer of Christ Church, reports:
We have been spending quite large sums on the cleaning and maintenance of our organ. It has been suggested that the surprising amount of dust accumulating there is likely to be caused by the tourist traffic in the aisles. The recorded number of tourists, apart from worshippers and other local people, has roughly doubled in the last five or six years and, in the year ended 31st July 1990, reached more than 228,000. A number of others would have come in at times when we were not recording them. These would not all have visited the Cathedral but it is not surprising that wear and tear on the floors is becoming a serious problem.

Anna Hulbert, Conservator, reports she has seen a brass here, punctured by a stiletto heel.

Martin Stancliffe, Surveyor to the Fabric, reports (1.91):
This year the programme of repair and conservation of all the brasses has been completed, and they are now all sound and placed where any wear will be minimal. We have in fact managed to replace all the brasses on the floors; only replicas are mounted on the boards. We propose to make a display of these, with their interesting palimpsests, shortly.
ICOMOS UK CATHEDRAL DAMAGE SURVEY

PETERBOROUGH CATHEDRAL

Alan Rome, former Surveyor to the Fabric, reports that visitor damage is not perceptible as numbers of visitors are as yet relatively small, although increasing. Julian Limentani, present Surveyor to the Fabric, has commented on the condition of the floors.

The porch
There is one ledger and one brass indent, both very badly worn.

The nave
There is one ledger stone which is in good condition.

The north aisle
There are ten ledgers here, three of them in poor condition, several with armorials.

South aisle
A row of black slate ledgers, inscriptions mostly obliterated but some recarved. Important armorial ledgers by the lectern.

North and south chancel aisles
Eighteen ledgers in these areas, of which three are in poor condition.

Quire
The breakdown of areas of the great Pearson pavement is probably due to the failure of the tesserae and to the use of water for cleaning purposes.

Presbytery
The marble section of Cosmati-type pavement is not walked on by the public except at some services.

Retrochoir
There are fifty ledgers in this area, some early in date, eighteen of which are badly worn, the rest in reasonable condition. They add greatly to the character of this wonderful building.

Damage
Alan Rome reports that vandalism includes graffiti, minor glass breakages and railing damage.

Canon Jack Higham, Canon Chancellor, reports that the number of visitors is about 200,000 per annum, and that vandalism is becoming more serious. The Deacon monument, with a fine eighteenth century effigy, has twice been vandalised in recent months; and PUFC (Peterborough United Football Club) was sprayed on a seventeenth century tapestry, which will have to be sent to Hampton Court for restoration at an estimated cost of £24,000. It is now planned to rope off the area in front of the cathedral's two tapestries.

Access to Pearson's Cosmati pavement has also been restricted as it is crumbling due to the thinness of the tesserae and excessive use of water in cleaning. About three years ago a stiletto heel damaged the face of an Alwalton marble effigy of Abbot Benedict d. 1193, and a rope has been put across to restrict access.
Canon Higham reports that the Revd. W.D. Sweeting published a New Guide to Peterborough Cathedral in 1893, which records all monuments within the cathedral including ledger slabs and brasses, but without full details of armorial bearings or inscriptions, although indications of location are included. A list of the gravestones in the churchyard was completed in the 1930s.

Jane Fawcett
January 1991
Reply: wear & tear
damage & vandalism

City Records Officer

arch: T Makins
minimal, by visitors, though erosion by weather of Norman porch of Portchester church. Gravestones brought in to pave floor in 1930s and cut off square to fit. Gravestones disappearing beneath grass in other churchyards.

Glass of case containing processional cross smashed by heavy object thrown by visitor, 1980

theft

16C Flemish doors stolen but regained; now kept in safe.

Gilt finish pyx stolen from position over main altar in 1990. Thieves would have stood on the altar table to cut the wires.
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<th>NAME</th>
<th>RIPON CATHEDRAL</th>
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<tr>
<td>Reply:</td>
<td>wear &amp; tear</td>
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<tr>
<td>arch/lib</td>
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<td>Canon Ford,</td>
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| arch:      | N Macfadyen negligible none c.20,000 pa |

Have a team of voluntary church recorders making 'meticulous' notes and hope to have complete register by 1990.
ROCHESTER CATHEDRAL

Although there are not a great many ledger stones at Rochester, the choir and presbytery having been repaved by Gilbert Scott during his restoration work, there are nevertheless important seventeenth and eighteenth century ledgers, and some outstanding brass indents.

North Aisle
A mat placed at the entrance to the north aisle should remove much of the grit and mud from visitors' feet. It is a pity that more cathedrals have not adopted this simple expedient.

Midway along the north aisle is a fine black slate ledger to Major John Stretch of the Marines d. 1792 and his wife, and to Edward Vernon Ward d. 1802 and his sister, covered by metal chairs without protective pads.

The Nave
There are only three ledgers at the west end, all at the west of the south aisle: one badly damaged, two black slate ledgers, one to Edmund and Mary Strange d. 1756 and one to Robert Unitt d. 1738, both with good lettering.

To the south of the central walk lies a ledger to Mary and Ralph Banks, organist of this Cathedral Church for nearly 52 years d. 1841, and to the south of this a large black ledger to Richard Pickering d. 1718, both covered by wooden chairs without protective pads.

Further east, on the north side lies Edward Mott Allfree, Minor Canon d. 1837, and further east again, under the front row of chairs and badly scratched by both chairs and feet, a black slate ledger to George Gordon d. 1777. To the south also under the front row of chairs lie two large black armorial ledgers with Latin inscriptions to Anna and Francisca Barrell, and to Franciscus Barrell d. 1755, both with handsome lettering and badly scratched.

Further east again, towards the central crossing, lies a fine group of six large black armorial ledgers, all to members of the Barrell family, all eighteenth century. There is also a damaged slab to Issaac Tytton d. 1665, and by the north pier of the central crossing, a grave slab to Adoles Johannis Cod d. 1662, with good lettering. To the south there is a fine burial vault ledger to Mrs Ann Spice 1795 and William Spice 1800, and next a touching ledger to Eleanor, daughter of Rev. Michael Smith and Eleanor his wife, d. 1833, aged 17.

To the south of the nave altar steps lies a ledger to Christopher Fogge, 'who after commanding several of her Majesty's Ships of War, dyed in her Service in 1708 in the 58th year of his age, then Captain of the Rupert'.

North West Transept
To the north of the nave altar steps lie five ledgers: to John Parr d. 1782, Ord nance Store Keeper, Chatham, Mary and Matthew Grain d. 1788, two obliterated, and one large black slate armorial ledger to several members of the Polly family d. 1770-1792, with a brass crest 'Orbitor est Quise', and foliage surround, covered by a rubber mat.
A group of three black slate ledgers, two of them heraldic, lies under chairs: one to Lullum and Elizabeth Wood d. 1724, the second to Augustini Caesaris 1638 and the third to Margaret Pymm 1683/4, all with fine lettering and all damaged.

North Quire Aisle
Nine ancient matrices with brass indents lie in front of the steps to the presbytery. Of these, the central slab to the east is very large, of a bishop with mitre and staff, shields and canopy. Next lies an indent of a priest, with scrolls and then to the north west, an indent of two small figures with children below. The rest are indistinguishable, and the bishop's slab in particular needs protection. They lie below the effigy of Bishop Hamo de Hythe 1352 and on the former pilgrims' route to the shrine of William of Perth whose shrine, and possibly whose tomb, are in the north wall of the north quite transept. The worn steps leading east from this point have been encased in wood for protection.

North Quire Transept
The central walk is paved with encaustic tiles, presumably dating from the Scott restoration. There is a small area of early tiles above the steps from the north choir aisle, and a geometric paving of grey and white slabs over the rest of the transept.

The Quire
This is also paved with encaustic tiles from the Scott restoration, some designs derived from the medieval tiles in the Westminster Abbey Chapter House, which Scott discovered during his restoration there. In front of the High Altar lies an exceptionally large grey marble matrix for a brass indent of a bishop with mitre and staff and heraldic devices.

The Crypt
This contains one brass indent and two ledgers, one illegible, one to Richard Somer 1682 to the south of the new north east altar.

South Choir Aisle
By the south door lies a large, damaged ledger to Elizabeth Robinson 1769, and a black heraldic ledger to Benjamin Newcome DD d. 1775 and wife.

South West Transept
A large burial vault at the south end has a ledger dated 1796. Six large black armorial slabs lie under chairs, one to John Lolly 1700, one to Thomas Cuthbert 1700 and one to George Collinson 1715. There are two black diamond slabs at the entrance to the Lady Chapel. A large matrix of a brass indent of a bishop lies under the chairs.

The Lady Chapel
At the entrance from the south aisle lies one of the most delightful and unusual ledgers in the cathedral, in an exceptionally vulnerable position. It is to Frederick Hill d. 1759, in black Purbeck, with a charming relief of the Good Samaritan, in this case a horseman. The inscription reads: 'Provided for his majesty's sick and wounded seamen at this port. So fair, so just, such his love and care for them as one solely observant of (Abi FacSimile) the seal of his office that thought for or justice to himself was his least concern'. The relief is to some extent protected by a rubber mat, but this is not enough; a
ledger of this quality deserves moving to a more protected position as soon as possible.

Next door lies Frances Hill d. 1706, wife of Daniel Hill, with a Latin inscription. It also needs protection. To the east lies a ledger with a brass plaque inset to Daniel Hill d. 1729.

There are seven other ledgers: Benjamin Crompe d. 1663, John Crompe d. 1718, of Purbeck, Margaret Pulman d. 1717, worn, Jacob Rolt d. 1717, of Purbeck and worn, Emma Essell d. 1810, 8 years, of black marble, Richard Sheafe Generosi d. 1728, of Purbeck and worn, and a Purbeck diamond to William Cabulo and Frederick Robert Busby, deacons of this church. This makes an interesting group with some excellent lettering.

South Aisle
Near the Lady Chapel entrance lies a badly damaged stone ledger to Mary Ruffin d. 1796, and next a black slate heraldic slab to John Trevor, 'only child of Capt. John Trevor, d. 1730 aged 12, and to Mary his mother, d. 17--', which has good lettering and is damaged.

Although steps have been taken to protect some of the more interesting grave slabs, much more care is needed if the surviving evidence is not to be obliterated. In particular, the fine indents in the north choir aisle, the exceptional ledgers in the Lady Chapel and the group round the central crossing and the nave altar need special attention. There is no time to lose.

Records
Alan Ward, an archaeologist, is coordinating a recording survey, and a research project is being carried out with an award from the Royal Institute of British Architects by a former student on the Architectural Association Graduate Building Conservation Course, Diana Holsworth.

Jane Fawcett
February 1991

Dr John Physick, a member of the Fabric Committee, comments:

As compared with many other cathedrals, Rochester has been spared the tramping hordes, and as a result, the ledger stones are in a better state of preservation than might otherwise be expected.

Over the last two years, the newly-formed Fabric Committee has pointed out to the Dean & Chapter the importance of the ledgers, their fair state, and the need to do something to prevent damage, and also the need to record them. The latter is underway.
ICOMOS UK CATHEDRAL DAMAGE SURVEY

ST ALBAN'S CATHEDRAL

This cathedral contains one of the most important collections of brasses and brass indents that I have seen, many of them inadequately protected and a cause for serious concern. Particularly worrying are those in the presbytery, which are covered in chairs without rubber pads and protected by a few haircord mats of quite inadequate size. This will not do. Further brasses, including the outstandingly important one to Abbot de la Mare, mounted on an oak base, lie in the north presbytery aisle.

Several other small brasses, with inscriptions, including Maud Pocock 1380, are at present in store in the library, but will eventually be mounted and displayed in the north choir aisle alongside two already there.

The amount of dust and grit on the floors, and the lack of mats at entrances, add appreciably to the wear of the brasses and ledgers.

The Presbytery

This is paved with nineteenth century tiles, presumably laid during the Grimthorpe restoration. A fine ledger lies in a central position, designed by David Kindersley, 'Here rest the mortal remains of abbots from 1077-1401 ... and also of Adam the Celerer, Robert of the Chamber, father of Pope Adrian IV, and Adam Rous, surgeon to Edward III. Removed in 1978 from the Chapter House.'

In all there are fifteen indents and eight brasses, or fragments, in the presbytery. On the north side, west to east, is a delightful renewed brass to Robert Fairfax 1521, Doctor of Music, and his wife Agnes, children grouped below, 'Rededicated 400 years after his death'; it is covered with a small mat. Next is a small brass indent of a figure with a foliated cross. Next, under a mat, is an indent of a small figure with a brass inscription in Latin. Next, to the south, is a larger indent, also with a brass inscription in Latin; chairs without any protection stand on this brass.

Next, to the east, in front of the altar steps, is a very fine indent of a figure with a brass tripartite canopy and indents of three small figures above, two crests and a black letter marginal inscription, partly in brass, partly indent. This is to Abbot Stone 1451. Next to the south is a small indent of a figure with a brass prayer scroll, black letter Latin inscription with a small dragon. Both these are partially covered in small haircord mats and chairs.

Next to the south in front of the high altar step is a brass of a monk, R Beauver 1461, holding a bleeding heart, with black letter inscription. To the south again is a splendid 9' brass of a knight in armour, Sir A Grey 1489, with a footrest of flowers, elaborately fluted armour, a helmet, foliage round his head and four shields of arms, with its inscription gone. This unusual brass is quite inadequately protected by a small mat.

Next to the west is a 10' indent of a bishop under a canopy, the shafting of the canopy, part of the foot inscription and parts of
Anne Dear, widow, d. 1720: 'The most famous mistress in the west of England for well educating and instructing young ladies and gentlemen.'

The Morning Chapel
This contains a magnificent brass to Bishop Wyville d. 1375, 7ft 6in long, the bishop standing within a castellated fortress. A large brass plaque set in a stone slab to Dr Thomas Whyte d. 1588, Chancellor must be protected; it is still in good condition and should be removed and sited elsewhere. Two fine early brasses are roped off for protection, thus increasing wear on the brass and on the black slate eighteenth century ledgers nearby.

The central crossing
This contains 5 large ledgers including 2 to the Selwyn family, cracked. Heavy stands on wheels were in position, one support resting on an armorial crest and damaging the central plaque of 1737. This is most unfortunate, but I am told by the Clerk of Works that it is not usual to have chair trolleys standing in this area.

South transept
Most of the ledgers here are of freestone, with a few large eighteenth century black slate slabs. There is evidence of damage from furniture at the south end of the transept, and some of the central slabs are breaking up. The breaking up of the surface of two of the slabs is due to the usual layering of the bed of the stone aggravated by wear, the Clerk of Works reports.

There are some early heraldic ledgers in the Chapels of St Margaret of Scotland, St Lawrence and St Michael.

North choir aisle
Much of the eastern end is covered by a stone floor in a geometric design, with 4 large eighteenth century heraldic black slate ledgers, one of them cracked, set into it. A large stone ledger to Giulieuimi Eyre Equitis Aurati 1641, lies centrally and deserves protection. To the west of a step lies a brass plaque to Joanni Jewetto MXLXXI, deteriorating and covered with a dirty rug, and a large stone slab with brass indent, possibly a mitre, by the north entrance to the choir. The small ledger to Thomas Lambert has been recut. There are more badly worn ledgers going west in the north choir aisle, one on the north side looks early.

South choir aisle
There are many ledgers and several indents here, including a heraldic ledger with brass insert to Bishop Strachan d. 1825. A dusty carpet covers the next two brasses and does them no good. Six eighteenth century black slate heraldic ledgers form a fine group, one to Henry Mompesson d. 1731. Their condition is poor. At the south centrance to the chancel lies an important medieval freestone ledger with brass insert and evidence of marginal lettering, suffering heavy wear. There is an important group of armorial ledgers by the monument to Bishop Giles de Bridport.
Chancel
The tessellated pavement designed by Gilbert Scott was unfortunately removed in the 1960s and replaced by the present undistinguished paving.

Lady Chapel
A patch of medieval tiles in the north east corner, protected by railings, is all that remains of the earlier historic floor.

The Cloisters
The north walk, with the exception of 2 nineteenth century ledgers near the entrance to the lavatories, contains very little of interest.

The east walk contains the brass rubbing centre, the counters placed, as at Westminster Abbey, over several ledgers, two of them eighteenth century. A large medieval slab lies opposite the entry to the Chapter House, with an inscription to Francis Price d. 1753, architect, carved into it.

The south walk contains large nineteenth century ledgers, the inscriptions mostly obliterated.

The west walk contains mostly paving, with one or two ledgers at the south end.

Jane Fawcett
January 1991

Damage and Theft
The Clerk of Works, Roy Spring, reports that stone and marble on tombs in the nave has become discoloured through being touched by many hands, and barriers have now been erected to prevent this. In 1969 the main collecting box was set on fire; in 1982 collecting boxes were damaged and the high altar and north transept chapel set on fire. Candlesticks, two crosses, two paintings and four gilded name plates from choir stalls were stolen during the 1970s, and speakers were stolen from the video tent in 1987/8. Prayer books and other items have been removed from stalls at various times.

Records
Mr Spring is compiling a book on the memorials, including those on the floor. A survey of inscriptions, monuments and brasses was made by Norman Drinkwater for the Royal Commission on the Historical Monuments of England in the 1970s.

Suzanne Eward, Librarian and Keeper of the Monuments, reports that there exists a list of monumental inscriptions made in the eighteenth century by James Harris, which is very useful to refer to if an inscription has become worn. Monumental Inscriptions in Salisbury Cathedral, by T H Baker was published in 1927; if a stone needs recutting by Richard Healy, a professional stone-cutter, this work is referred to. One of the cathedral guides, Ron Mathieson, is an expert on heraldry and has copied and painted all the coats-of-arms in the cathedral; it is hoped that this work might be published in book form. A photographer on the works' staff, Joe Proctor, is making a photographic record of wall memorials and will then proceed to floor memorials.
ICOMOS UK CATHEDRAL DAMAGE SURVEY

SOUTHWARK CATHEDRAL

It is surprising that any ledgers or monuments have survived the fires, the dereliction and the subsequent rebuilding of this cathedral. The nave, after becoming totally derelict and roofless, was rebuilt twice, once in 1839 by Henry Rose, and again in 1890 by Sir Arthur Blomfield. The choir was restored by George Gwilt between 1822-24, and the retrochoir, following its use as a pig sty, was restored in 1832. Gwilt is commemorated by a plaque in the retrochoir d. 1856. Despite these events, a number of ledgers have survived, many of them probably moved, many interesting, none outstanding. There are also two patches of Roman mosaic, found in the churchyard.

The Nave
There is a modern wood block floor to the nave and aisles.

North Transept
There are five ledgers in the aisle, four of stone and one large black slate ledger of 1752, all heavily worn, and on the main thoroughfare. A few lie under metal chairs, and a large black heraldic ledger to Richard Blisse 1703 has been scratched and damaged by the placing of a new radiator across it. Above stands his monument, a bust inside an aedicule. Nearby stands a monument to Lionel Lockyer 1672, 'His virtues and his pills are so well known That envy can't confine them under stone . . . his Pill embalmes him safe, to future times without an epitapht'.

North Choir Aisle
One ledger lies at the entrance to the Harvard Chapel, and a group of ten lies further east, including a big heraldic ledger to Ann Orlton 1733 and John. A fragment of Roman mosaic pavement has been relaid against the north wall.

Choir
There are stone ledgers to Edmund Shakespeare 1607, brother of William, and John Fletcher 1625, the playwright. Both have probably been moved, since their place of burial is no longer known. Two black slate ledgers lie under the modern portable organ, both cracked and illegible. Two armorial black slate ledgers lie by the high altar. The rest of this area is paved with black and white marble which is quite handsome.

Retrochoir
Presumably all the ledgers have been placed here from other positions. There are a great many, almost covering the entire floor area. Two large black ledgers, one armorial to Edmund Smith 1743, one over the Amphlets' family vault, lie here, with the magnificent Nonesuch inlaid chest of 1588.

A heraldic ledger commemorates Malachi Blake 1736 'Druggist of this Parish'. There is a large collection of ledgers, mostly eighteenth or early nineteenth century, covering the floor, some lying under the railings of the chapels, including one with skull and cross-bones to Elizabeth Blisse 1679, aged -- months, a big stone armorial to Thomas Taviner 1731, and a black armorial to Dr William Hoare, Chaplain of the parish of St Saviour d. 1687/8, half covered
by a radiator and seat, lying under the Rider memorial window on the south wall.

Two black ledgers lie to the north of the Chapel of St Francis, and a large stone slab of 1812 lies at the foot of the steps and under the altar rail. The Chapel of Our Lady has three black ledgers, one heraldic, and a small heraldic ledger to George Pace 1975, architect to countless cathedrals including Southwark, and his wife.

South Choir Aisle
A few ledgers are to be found here, and above the steps to the south transept, another small area of Roman mosaic, surrounded by nineteenth century encaustic tiles.

Theft and Vandalism
It was reported to me that the carpet lying in front of the high altar was rolled up and stolen by thieves in 1960.

Jane Fawcett
December 1990

Ronald Sims, Surveyor to the Fabric, reports (2.91):

Fortunately, the areas containing most of the ledgers, i.e. Retrochoir, Choir Aisles and Transepts, receive far less traffic than the Nave; even so, some of the ledgers in the Transepts, particularly on the south side, are showing severe signs of wear.
The most outstanding feature of the floors is the large brass indent on the north east side of the chancel to Maud de Burgh, Countess of Gloucester and Hertford, sister of Saint Margaret of Scotland, d. 1315. The matrix, 12'x4', shows the indent of a life-size figure under a canopy. The French inscription, on a brass plaque at the head, was added in the nineteenth century, at the time of the repaving of the quire and presbytery by Sir Gilbert Scott.

Several other early burials are commemorated by nineteenth century brass plaques, including those of Gilbert de Clare, Earl of Gloucester, and husband of Maud de Burgh, killed at Bannockburn in 1314; Hugh Despenser d. 1327, and his son Hugh, responsible for much of the fourteenth century rebuilding of the abbey, who died of the Black Death in 1348; and his nephew Sir Edward Despenser d. 1375, Standard Bearer to the Black Prince at Poitiers. All are buried in front of the high altar and they have magnificent tombs; Edward endowed one of the finest of the chantry chapels, with a life-size kneeling effigy. Edward, Prince of Wales, d. 1471, is also buried in the quire.

The superb encaustic pavement in the quire, designed by Scott, incorporates some coats of arms of distinguished families connected with the abbey. Many of the designs are based on medieval tiles found in the abbey, a few of which survive, in the Beauchamp Chantry, the Founder's Chantry, in a recess in the south aisle, in a recess formerly containing an early fourteenth century tomb on the west side of the south transept, and in a recess at the west end of the south aisle.

Apart from these, there are many seventeenth, eighteenth and nineteenth century ledgers, none outstanding, but a substantial element of this wonderful church. With their inscriptions, if properly researched, they would give a valuable guide to local history. Much of the lettering is excellent.

Many of the ledgers in nave and chapels are covered with coir matting and chairs, and are therefore inaccessible. Although this building is maintained to a very high standard, one wonders about the effect on the floors of the matting, which has a habit of accumulating grit underneath and needs very frequent lifting and cleaning if it is not to become abrasive. This is particularly applicable to the nave, where there are many chairs.

Most of the ledgers are in dark grey stone, possible Purbeck.

**The nave**

At the west end, by the west steps, lie two early nineteenth century ledgers. A further group of four is lined up along the west wall; they are eighteenth century, with good lettering, but are in poor condition, and include the Embury family and one very large slab to the Young family, 1810. Going east there is a sequence of ledgers under chairs, including Florence Jenkins 1812 (possibly recut?).
To the south of the north door, in the centre walk of the nave, lie Elizabeth Read d. 1729, and Sarah Street 1733, with good lettering, Richard Neale Gent 1724/5 and Andrew Woollans Gent 1656 with a table on it, both with good lettering. Coir mats cover both north and south sections of the nave, with chairs. The ledgers underneath are partly visible.

**North aisle (west to east)**
A group of five to Richard Insall 1760, G Insall 1763 (?), Thomas Leyne 1668, heraldic, and Elizabeth Leyne 1658, both damaged.
Under the Gurney stove lie two ledgers and to the east a badly damaged ledger with a foliage design in the corners lies under a table. Next come Francis Tombs 1775 and Mary Takinson 1669, both with good lettering and damaged. A group is lined up along the north wall, all damaged.

The next group includes two with foliage decoration in the corners, as at Gloucester Cathedral. They include Thomas Bartholomew 1711/12, John Williams 1766, and several from which the surface has spalled off. Next is Diana Pebworth 1772, the rest lost. Five lie half under the ramp leading over the pulpitum step, including John Fryer 1807 and Robert Read 1671. Next is a small slab 1641 with Latin inscription, and two with foliage corner motifs. Several more damaged seventeenth century slabs follow, and four eighteenth century slabs under a desk.

**South aisle (west to east)**
A group of medieval tiles in a recess in the south west corner is unprotected; they are laid randomly, indicating a move from the quire when repaving. Nine ledgers lie in the south west corner, all grey slate, mostly eighteenth century, one decorated with urns and flowers in the corners. Chairs stand on top.

Outside the Holy Cross Chapel lies a group of eight ledgers 6'x3' and 8'x5', late eighteenth and early nineteenth century, all worn, some decorated with urns in the corners, with chairs stacked on some of them. In bay 2, east of the font, there are eleven ledgers, worn slate, mide eighteenth to early nineteenth century, one 10'x5' to Thomas Barnes. Nine slabs lie in bay 3, mostly early eighteenth century, some to military men. In bay 4, opposite column 5, lie four stones 6'x3', two with floral corners, early eighteenth century. Bay 5 is occupied by the step of the former pulpitum and ramp, and in bay 6 lie eight stones of various sizes, late seventeenth and early eighteenth century, all worn. Opposite the west pier of the crossing are fourteen slabs, mostly eighteenth century, some cut in half when relaid. Opposite the east pier of the crossing are nine stones, very worn, of various sizes.

**North transept**
The floor here is largely covered by the organ; a few very worn ledgers are visible.

**North quire aisle (west to east)**
The shop is here, the floor covered with coir matting, a small ledger outside has a Latin inscription, dated 1654 (?). By the shop lie seven ledgers, including Thomas Jackson 1759 with foliage corners, Thomas Mann Gent 1747, Charles Bridges 2nd son of Sir Giles Bridges of Wilton Castle d. 1669, with a crest, Gyles Bridges 1705, cracked with foliage corners, John Bridges 1731, heraldic, cracked and possibly recut.
**Beauchamp Chantry, 1430 (Closed to the public)**
The chantry contains some medieval tiles, much damaged.

**Founder's Chantry to Robert Fitz Hamon (Closed to the public)**
In the centre, on a tomb, is a large brass indent to Robert Fitz Hamon d. 1107, a cousin of William the Conqueror. The chantry was built in 1397 and paved with medieval tiles, including crests. They are in good condition and make a fine collection.

**Chapel of St Margaret of Scotland**
This contains seven important ledgers: a heraldic ledger, with a splendid coat of arms, to John Hayward of Forthampton 1708, with a foliage border decoration; one to Richard -- 1758, under stalls; David Kemble 1733, damaged but with fine lettering; a heraldic stone, under kneelers, to Thomas Kemble and Ann 1713; Robert Colles 1690, sandstone with a foliage border; and a fine heraldic ledger to the Culpeper family 1705 etc, under the altar. Parts of this chapel are covered with a rubber-backed carpet, and the protection offered to these ledgers is inadequate. Perhaps a false floor could be used? The chapel is reserved for private prayer.

**Ambulatory (north to south)**
By St Margaret's Chapel lie three ledgers, one heraldic with foliage corners 179-, John Peyton 1694, vault of Joseph Longmore 1819, and a large vault of Philip Godsall 182-.

**St Dunstan Chapel**
A large heraldic ledger to the Hon Eleanor Stanford etc lies under the altar, and a stone to Catharine Watts.

**Ambulatory (continued)**
Several slabs are illegible. Then against the east wall is a stone of 1655 with a foliage head. Next are three to Henry Hatton 1690, Robert Eaton 1687 with a Latin inscription, and a vault of the children of Benjamin Bateman, no date. Next is James Simpson 1689, Wilhelm Saunders 1697 with foliage corners.

**Behind the High Altar**
A brass plaque with crests commemorates the burial vault of George Plantagenet, Duke of Clarence, brother of King Edward IV, drowned in the Tower of London in 1477 in a butt of Malmsey wine.

**Ambulatory (south side)**
There are ten ledgers, one with a coat of arms, three birds above and the palm of a hand, the inscription worn; one to Henry Whitaker 1767, 'Town Clerk of this Borough', with foliage corners.

**Chapel of St Faith**
Five ledgers lie here, all worn, some covered with matting, one with foliage corners to the Guy family.

**Chapel of St Catherine**
Six ledgers, all of black slate and apparently in good condition, were inaccessible.

**South quire aisle (east to west)**
There are twelve ledgers here, of black slate, some with foliage corners. One of white marble with a coat of arms and foliage corners to Mrs Mary Webb 1735, is in excellent condition despite its prominent position. This indicates the relative wearing powers of different materials; all the surrounding ledgers are erased.
A group of ten ledgers, mostly in the centre of the aisle, are very worn, laid in a pattern completed by segments. One is to Joseph Hayward with foliated corners, one with a coat of arms, inscription erased.

In an alcove formerly containing a fourteenth century tomb lies a group of medieval tiles from the chancel, without protection. The position of the notice determines that all visitors stand on the tiles to read it, and it could perhaps be resited and the tiles protected with a rope.

Lady Chapel
This has a nineteenth century tiled floor, with one ledger to members of the Freeman family 1670 etc, with chairs on top.

South transept
The west section of the transept is covered with coir matting and chairs, concealing and possibly damaging by gathering grit many ledgers.

Six ledgers lie in the passage west of the Lady Chapel, one to Thomas Skey 1695, with foliated corners, one heraldic to Edward Bough of Twining 1678.

Records
Many of the archives are in the Cambridge University Library. Tewkesbury by Dr John Blunt contains information on the monuments in the abbey. Records of the inscriptions were compiled at least sixty years ago by a sacristan; they are thought to be only partial records.

Jane Fawcett
January 1991

T E Dryden, Abbey Steward and Secretary to the Fabric Committee, writes (2.91):

Your comments on the use of coir matting in the nave and the south transept and of rubber backed matting in the Chapel of St Margaret are noted with interest. I will discuss these problems with the Architect on his next visit in March. I also note your comment about the siting of the notice in the alcove of the 14th century tomb and I am sure that something can be done about this.

The repair and conservation of monuments and historic floors does, of course, cost money. Although Tewkesbury Abbey is a building of cathedral proportions it is only a parish church and has no endowments from which to meet these costs.
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<td>Principal memorials</td>
<td>listed in Cathedral Church of Wakefield by Walker, publ 1888; a few added since, and a few moved from original position.</td>
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SIR ARTHUR SULLIVAN
MUS·DOC·MVO
BORN·MAY·13
1842
DIED·NOV·22
1900
SIR EDWARD JOHN POYNTER BT
PRESIDENT OF THE ROYAL ACADEMY
1896 – 1918
DIRECTOR OF THE NATIONAL GALLERY
1894 – 1904
DIRECTOR FOR ART & PRINCIPAL OF
THE NATIONAL ART TRAINING SCHOOL
1875 – 1881
FIRST SLADE PROFESSOR OF FINE ART
AT UNIVERSITY COLLEGE LONDON
1870 – 1875
BORN 20 MARCH 1836
DIED 26 JULY 1919

WHATEVER IS WORTH DOING IS WORTH DOING WELL
ICOMOS UK CATHEDRAL DAMAGE SURVEY

WELLS CATHEDRAL

There are a few outstanding medieval ledgers, a number of important brass indents, and many seventeenth, eighteenth and nineteenth century ledgers, often with excellent lettering. Many of them record burials of cathedral officials. They provide a rich floor pattern.

The most exceptional grave slab is that to Bishop Bytton in the south quire aisle, the earliest incised slab in England, now protected. There are also medieval grave slabs to the west of the Bishop Knight Chapel, and in the retrochoir. The largest and probably most important brass indents, both of ecclesiastical figures with canopies, lie in the central crossing, under a piano and a seating stand, and in the retrochoir under a cope chest. There is a number of others in the north and south quire aisles, the north aisle and in the Bubwith Chapel.

The problem of protection remains largely unresolved. There are no brasses on the floor, but the indents are vulnerable, and often placed in positions which attract maximum wear, such as door steps. The north and south quire aisles and retrochoir are thickly laid with ledgers, and here recutting rather than protection seems the best course. A few simple expedients, such as mats at all doors to extract grit, protective pads for all chairs and furniture, and careful consideration about the placing of furniture, particularly for special events, would all help. The exclusion of stiletto heels would also make a considerable difference to the life of the floors.

The problem of the Chapter House stairs is highly complex. I should personally regret any attempt to repair surfaces of such antiquity, and would also resist the idea of an alternative wooden stair. This would be visually intrusive and would impinge upon one of the most famous features of the cathedral. The warning notices are sufficiently prominent, and should act as an adequate deterrent, although there is always the worry of indemnity.

The nave
Inside the west door lies a black Purbeck ledger stone, 3'x2', to James Wilmott, Clerk 1673.

The central aisle
This is of reconstructed stone, but several ledgers survive, mostly under chairs. On the south side lies one to Anne, wife of Charles Prickman 1683 (?), Sarah daughter, and James Oglethorpe husband 1728, and George Barton Gent 1749. Next to the east is a large ledger to Edward Pilcher of this City, Merchant and Draper 1795, and other members of his family. To the south is a conglomerate stone to William, son of William -- 1679. Next are two black ledgers to Sarah Westley 1701 and Giulielmus Westley de Civitate Wellen, Armiger 1719, and then John Andrews 1802, Mary wife of Benjamin -- 1739, and Anne wife of Jno Davidge 1677. The rest are defaced.

Central crossing
Several grave slabs worn smooth lie at the entrance to the chancel. One exceptionally large matrix for a brass indent lies at the north
west corner, with an indent of a bishop with a canopy above. On it were placed a grand piano and the unprotected metal base of a large seating scaffold; it deserves better care than this.

**North aisle**

Several defaced grave slabs in the north west corner, all of black lias, were possibly regrouped here after the repaving of the nave. By the door to the north porch, on the step, is a brass indent containing a bishop's mitre 18" high. Below the step is another indent, 12'x5', also a bishop with mitre and crozier, and four shields, two at the top and two at the base, with the inlay all missing.

To the west of the north porch, beneath chairs, lies a black ledger, 5'x3', to Thomas Linley 1795, the famous composer, together with two of his daughters and granddaughter, Elizabeth Ann Sheridan, wife of Richard Brinsley Sheridan d. 1792 aged 38, Mary Tickell, wife of Richard Tickell d. 1787 aged 29, and Mary daughter of the former d. 1793; this is an important ledger historically, to an eminent family of musicians, and deserves protection.

To the east of the north porch are two adjacent ledgers in black lias: Elizabeth Parfitt 1810 and Frances Parfitt 1816, 8'x4'; and Catherine Parfitt 1799. At the foot of the pier to the west of the Holy Cross Chapel is a black matrix for a brass indent with a bishop's cross, 8'x3' at the head, 2' at the base.

**North transept**

Here there is a group of four, probably relaid, ledgers, all of black lias: Francesca Johannis Paine, conjunx Richard Heath LLD, 1729, the Latin inscription being greatly erased; Johannes Paine Gent 1741, 'Here lies also the body of John Paine, Sub-Dean and Canon of this cathedral church d. 1774'; illegible; and Hilaly 1687.

**Holy Cross (Bubwith) Chantry Chapel**

Here there is a damaged indent 8'x5' approx, with two small shields, flanking a possible mitre; it may be connected with the donor Nicholas Bubwith, Master of the Rolls 1403, Treasurer of England 1406-8, Bishop of Bath & Wells 1407-24. A prayer desk sits on top of this indent, and should be moved.

**North quire aisle** (west to east)

Here there are four large ledgers, the first in the doorway into the choir, the remainder laid in a line: heavily worn, 15'x5', cut to fit the present position, possibly an indent; black lias matrix for a brass indent, 8'x4', with a Latin inscription 'Hic Jacet Williamus Powell, ST Doctor, Archidiaconus Bathoniensis et Canonicus Residentarius Huius Ecclesiae', d. 1673; black lias slab with brass indent, 8'x3'; worn black fossiliferus Purbeck slab, 5'x3', with no visible inscription.

Half a ledger is in use as a doorstep to the Cathedral Office, and then a group of four slabs lies to the west of the north entrance to the choir: black lias ledger, 3'x2', with a decorated border, columns and an arch, 'Here lieth the body of Teophila, the daughter of Nathaniel Selleck, d. 1651, aged 3'; Margaret, daughter of Nathaniel Selleck d. 1676; black lias ledger, 8'x4', inscription worn, date 1617, with two brass plates, one erased, the remaining
Latin inscription to Timothei Revett, Archdeacon of Wells 1638; black lias ledger, 8'x4', to Guido Clinton Gent d. 1728.

In the doorway to the choir, used as a doorstep, lies a black lias ledger, 8'x4', with a coat of arms with helm, to Johannis Chieverly (?), Archdeacon and Canon, d. 1706 or 1711, the inscription is worn. Opposite is a brass plaque set in slate to Edwardi Davies d. 1862, with a Latin inscription.

There are four slabs adjoining the Chieverly (?) ledger: black slate heraldic ledger, 8'x4', with a Latin inscription, the date and inscription much effaced; black slate heraldic ledger, 8'x4', to Radulphus Baker TP, Cathedral Treasurer, d. 1707, with a worn Latin inscription; black lias ledger, 8'x4', to Thomas Lessey AM, Canon of this church and rector of Lydeard, d. 1725; black slab 8'x4', to Joh' es Wickstead, Archdeacon of Wells, d. 1742.

Alongside the effigy of Giso de Lorraine, Chaplain to Edward the Confessor and Bishop of Wells, 1000-1088, lies a group of five slabs: black Purbeck ledger, 4'x2', decorated by an arch supported on two classical columns, to Robert Dawes d. 1677; black Purbeck slab with a similar border of an arch on columns to Johannes Seller STP, Archdeacon of Bath and Canon in Residence of this church d. 1690; black Purbeck ledger, possibly with an indent of a kneeling figure, inscription illegible; coarse conglomerate slab, 5'x3', no inscription; black Purbeck ledger 8'x4', indent possibly of a kneeling figure, 'Here lyeth the body of Mrs Catharine Layng d. 1726 aged 26'.

Outside the entrance to the Corpus Christi chapel lies a group of five ledgers: one 7'x2', eroded and the inscription lost; black fossiliferous Purbeck, 12'x4', to William Pope, son of John Pope, Chancellor of this Diocese d. 1719 in the 10th year of his age; grey stone ledger, badly worn and effaced; black lias ledger, illegible; black lias heraldic ledger, 8'x4', to -- Brydges 1780, Latin inscription badly damaged.

A group of four ledgers lies at the entrance to the Chapter House: black lias with inscribed cross; ledger 9'x4', inscription effaced; black lias 7'x2'6", inscription effaced; grey lias (?), 9'x3'6", badly worn, no surface intact.

A group of four ledgers lies before the Mothers' Union Chapel: grey lias, 13'x5', with a marginal inscription and central indent of a figure just discernible; fossiliferous grey stone ledger with a brass plaque inserted to The Right Honble Lord Francis Seymour 1801, Leonora, wife of Colonel F Seymour 1785, Thomas Payne MA, Canon of this cathedral 1797 and Judith his wife d. 1813; pink conglomerate slab 3'x6' with a marginal inscription to Eila Northville, partly under a dusty carpet; ledger partly illegible, 'Hic Jacet Augustus Tin--, Resurgam, 1642'.

Quire
This is mostly carpeted; there are some encaustic tiles by the High Altar. One brass plaque by the north pulpit is to Guilielmus Thomas Parr Brymer 1850.
Retrochoir
On the north side, near the cope chest, are six ledgers grouped together: black Purbeck, 6'x3', with a border with an arch on two classical columns, to Ann, the eldest --, inscription largely illegible; black Purbeck, 8'x4', inscription erased; ledger 10'x5' with a Victorian brass and enamel inlaid cross, supported on a gothic finial; black Purbeck, 8'x4', to Christopher Lucas 1756; 1757, remainder illegible; fossiliferous stone matrix, very fine brass indent of a bishop under a gothic canopy, badly worn and with a cope chest on top of it.

By the entrance to the Lady Chapel lie two brasses both with foliated crosses to Bishop Blithfield 1854 and Rev Henry Watson 1855, Canon. Next comes a group of ledgers to Canon Roger Frankland 1826, Elizabeth Drewe 1717 and Maria Morris 1705. Next are two armorial ledgers to Johannes Beurland 1746 (?), and Claver Morris 1726, Thomas Godwin DD 1626, John Bourne 1652(?). Some fragments come next, followed by a group of four ledgers beside a fourteenth century chest, all damaged, to Francis -- 1712(?) and Elizabeth his wife, to Isaac Sage (?) and to Carolina Moss 1785.

Lying behind the High Altar, partially covered by the screen, is an important medieval ledger with an inscribed figure, possibly of a priest, and part of a marginal inscription in black letter. Perhaps the other half is covered by the encaustic paving round the High Altar?

Next are two ledgers to Richard Beadon 1821, Rev. John Gooch 1729, Laura, wife of William Sherston 1711, and Dodington Sherston 1701 and son. In front of the south altar lies Elizabeth Ditforth 1613, Johannis Paine 1732, Amos Walrond Guilielmus 1668 with Latin inscription and border, and a white marble armorial ledger to Bishop Law 1845.

Lying under chairs are two ledgers, to Elizabeth Baylie 1678, decorated with an arch supported on classical columns, putti and vine leaves, and one of 1676 with similar decoration, but badly damaged and with inscription erased. Next comes Georgius Dodington, Bishop, 1698, with a crest and marginal design, then Richard Jenkins 1854, and Peter Davis 1748 and Susannah.

In the south chapel to the north of the altar lies a large grave slab with marginal gothic lettering filled with lead (?) 1599, and nearby Grinall Sheafe, Archdeacon and Canon 1680, with a crest and border of fluted columns supporting an arch with vine scrolls.

The floor of the retrochoir is largely covered with ledgers, indents and brasses, many of considerable interest and worthy of preservation.

Lady Chapel
This is paved with nineteenth century encaustic tiles.

Corpus Christi Chapel
A patch of medieval tiles lie under a prayer desk and a chair, and need protection. There are several also on the altar step. To the south of the altar lies a ledger to Thomas Creyghton, son of Bishop Robert Creyghton d. 167-. 
South quire aisle (east to west)
This area is very rich in ledgers, many of them armorials. First is a group of six damaged armorials to Anna Palmer --, Elizabeth --, Mrs M Prowse 1733(?), Catherine Palmer, Elizabeth Palmer 1742, and one totally defaced. Next are three black lias ledgers, one armorial to S Giulielmus Hughes, Bishop and Chancellor 1715, Celia --, and -- Weileen 1715/6.

By the entrance to the choir is a large slab with a brass plaque to Roger Humphreys, Chancellor and Canon of this church 1738. Next is a group of four, to Mrs Rebecca Hooper, then an armorial ledger to Charles -- 1706, Mrs Anne Archer 1733, and a slab with brass inlays to Bishop Lake 1626, with a mitre and crest. Next comes Edmund Archer, Archdeacon of Wells 1739 and Elizabeth his wife; Bishop George Hooper 1727, recently recarved, and Abigail Hooper 1726, with good lettering.

To the north, protected by a polycarbonate cover, and with one side badly scuffed, lies Bishop Bytton 1274, an incised coffin-shaped slab, with a figure under a trefoiled gable. Said by Nikolaus Pevsner to be the earliest incised slab in England, it is therefore the most important floor slab at Wells.

Next come three heraldic ledgers all with corner decoration of foliage panels, to William Baron 1760, Katherine Baron 1726 and one erased. Next is a black lias ledger to Sara Huish (?) 1691 (?) damaged with a Latin inscription. By the entrance to the transept lies a big brass indent and a black ledger.

South transept
Repaved.

South aisle (east to west)
By the central crossing is one large black lias ledger with marginal inscription, to Gulielm Wykes, and one to Richard Hebdon 1668, with crest and border decoration. Next is a pink conglomerate slab with brass plaque to Edward Wykes, late Recorder of this City 1644. By Bishops Knight's Chapel lies a ledger to William Evans 1740, organist of this church, and a white marble ledger to Geraldina Wallace 1820.

Next to the north west are two large brass indents, one a figure with shields, and next is a indent with William Broderip 1726, Vicar Choral organista ac Sub Thesaur carved into it. Between these is an ancient grave slab with a marginal black letter inscription, mostly erased, to Thomas --.

Next to the west are three big slabs, illegible, then a black Purbeck ledger with a foliated cross, then four oval ledgers, three under chairs, virtually erased, possibly eighteenth century.

Next are two slabs: Edward Johnson 1736, Vicar and Precentor of this church and Barbara his wife 1732, and beside it, Abraham Prickman 1682 and Mary his wife, both with fine lettering. Next, lying in the centre of the aisle, with good lettering, is Thomas Webb, Vicar Choral of this church 1715/16 and Eleanor his wife 1727.

At the south west end, lying under chairs without protective pads, is a large ledger to John Mackin 1851, and next Ann, daughter of Joseph Oldham 1800.

Chapter House
No ledgers.
Cloisters
These were repaved with reconstructed stone in the 1960s. According to Dr Warwick Rodwell there were previously many ledgers and burial vaults here, now all filled; do records exist for these? A few defaced ledgers in very poor condition remain. Further tombs and grave slabs are to be seen in the cloister garth.

Damage
The Surveyor to the Fabric, Alan Rome, writes:
Recutting of some very worn inscriptions is proposed. The ledger stone to Bishop Hooper has had to have the lettering recut by Richard Healy but otherwise the floor slabs are unprotected and those at the east end of the nave do suffer considerable visitor wear. We have just removed carpet from the medieval tiling of Corpus Christi Chapel as on the whole I dislike mats and carpets rubbing grit into the surface of tiles and ledgers.

The polycarbonate cover on Bishop Bitton's memorial is free-standing and there is an air space between the top of the cover and the memorial itself, which is slightly raised from the floor. It has been entirely successful and does not seem to create any sort of unfavourable micro-climate. The design is by the Clerk of Works, Peter Cooley.

Mr Rome also reports that stiletto heels are damaging some softer floors, and that finger posts have twice been broken on the West Front.

Thefts
A cross and candlestick were stolen from a side chapel in 1980, and the shop and refectory were twice broken into in 1987.

Records
Wells is fortunate in having a valuable, though not entirely accurate, account of its memorials: A J Jewer's Wells Cathedral; its Monumental Inscriptions and Heraldry, 1892, which covers many of the floor slab inscriptions. The late Linzee Colchester, former Librarian and Archivist, had almost completed a revision of Jewer when he died in 1990. This, when completed by Frances Neale, the Hon Archivist, will include inscriptions and details of heraldry and of lettering, with locations, for all floor and wall monuments. Many of the Jewer inscriptions have now disappeared and even those recorded by Colchester ten years ago are now in some cases obliterated by the passage of innumerable feet. However, it should be possible to recut some of the lost inscriptions, given such a full record, and indeed a proposal for recutting in the south quire aisle is being prepared for the next meeting of the Fabric Committee in March 1991.

I understand from Dr Warwick Rodwell that, using a Manpower Services Scheme, two architects have prepared measured drawings of the whole cathedral, including floors, scale 1:50.

If a photographic survey, supported by rubbings, was prepared to accompany Jewer's Revised, the job would be complete.

Jane Fawcett, January 1991
The position at Salisbury is less serious than that of many cathedrals, since an up to date record has been made of the inscriptions and armorials on all ledger stones, with a location plan. A photographic record of all monuments is being prepared, and I am assured by Roy Spring, Clerk of Works, that it is the intention to follow this up with a photographic record of all historic floor areas, with inscriptions.

This is excellent. However, the problem of protection remains unsolved. Many of the monuments and ledgers were removed by James Wyatt during his restoration, and more by Gilbert Scott. Those that remain are therefore important to the history of the cathedral.

Nave
There are 28 fine ledgers across the west end, some with armorials, mostly dating from the eighteenth century, in slate or freestone. They are subjected to heavy wear and need protection.

There are no engraved ledgers along the central walk of the nave, but many lying under chairs along the south east section, mostly early nineteenth century. There are also some fine eighteenth century heraldic ledgers along the north west section, under chairs.

The north nave aisle
There are 7 large eighteenth century black slate ledgers in the north west aisle, in very poor condition, and 11 more in the north east aisle. A brass to Sir Giles Hungerford d. 1680 and wife is covered by a mat with, underneath, the usual mixture of dust and grit. It would be better without any covering at all and should probably be moved, since it lies on the main tourist route. Roy Spring, Clerk of Works, would like to see the ledger and brass moved and perhaps fixed to the north wall of the aisle.

The south nave aisle
This contains at the western end an important heraldic ledger by the main public entrance from the cloisters; it receives heavy wear and is in very poor condition. The dispenser for guides increases wear in this area and should be moved. Off the main area of wear lies the Rowland Langharne ledger d. 1691; the lettering is in good condition. Further to the east there are two important black armorial ledgers, some irregularly placed slabs, some slate, some stone, a large freestone slab with brass indent and many others worn smooth. The chair stands on wheels, stored here between concerts, are causing considerable damage. As in many other cathedrals, the moving of furniture is a major cause of damage to historic floor surfaces.

North transept
Many armorial ledgers, mostly of black slate and of eighteenth century date, lie here, some with fine lettering, including 7 ledgers in a row to the Wyndham family. The inscriptions on the Harris family slabs were recently recut. They make an interesting group. A charming freestone slab, lying on the west side of the transept, contains an inscription to
the marginal design of griffons and dragons being still in brass. It is only protected by odd bits of mat, and with chairs on top this is quite inadequate.

Next is a small indent of a monk with a brass prayer scroll with black letter inscription in Latin, which is unprotected and scratched by chairs; then an indent of two small kneeling figures. Next is a 12' indent of a bishop with a marginal incised black letter inscription, still partly visible; again, it is unusual and unprotected. Another smaller indent of a monk with a prayer scroll and margin lies next to it.

On the south of the chancel are four matrices, one largely obliterated but showing an indent of the Greek cross, one 12'x4' of a bishop with canopy, crests and margin, one a 12' indent of two small kneeling figures with margin, and one an indent of a small figure with prayer scroll and margin. All these are unprotected and covered with chairs without protective pads.

To the southwest of the high altar lies the matrix from which the great brass to Abbot de la Mare 1396, was removed to the north presbytery aisle; a prayer desk stands on it. Next, with a chair on top, is a brass to Henry Nicholson, Rural Dean 1866, with a marginal inscription.

The problems in the presbytery are the usual ones of no-one having given adequate thought either to the protection of the floors or to the placing of the furniture. If the brasses are to receive proper care then large areas of matting, preferably fixed at the edges, are essential, as is regular cleaning to remove the abrasive grit which always accumulates beneath mats. The existing pieces of matting, although not particularly dirty, are counter-productive, since they moved around, thus creating with the grit, friction on the brasses beneath. They are also far too small to cover the brasses properly. At least three quarters of the indents and brasses have no protection at all.

The placing of the chairs is also most unfortunate. If it is essential to have such chairs in this position, they must be fitted with rubber caps and be placed so as to avoid the most important brasses.

The remainder of the presbytery and chancel are paved with encaustic tiles laid during the restoration by Lord Grimthorpe in the 1880s. Some are very worn.

There are other important brasses in the north and south presbytery aisles.

**North Presbytery Aisle (west to east)**

There is a tessellated pavement with two much damaged indents and an eroded ledger lying under the hanging treasury. Lying centrally and at each end of the superb brass to Abbot de la Mare, are two further indents, damaged and subject to further wear from those looking at the great Abbot's brass.

This outstanding brass, made in 1396 by Flemish craftsmen, has been placed on an oak base and is roped off for protection. It consists of a life-size figure with three tiers of figures of saints under canopies, and two figures above that. Under the top canopy is Our
Lord holding the Abbot's soul in a cloth, with four angels. The Abbot himself is most delicately drawn. There is a marginal inscription in Latin. The brass is a remarkable survival and is in superb condition despite a crack across the centre.

On the north wall are two small brasses, one headless, mounted on plastic frames. To the east is another severely damaged indent, and next, lying centrally, a brass to a man and his wife, with a black letter foot inscription in Latin, and an indent of a crest above. This charming brass is much worn, and the protection offered by a small dusty rubber-backed mat is wholly inadequate. There is a good case for taking up this brass before it deteriorates any further, and mounting it with the other brasses now on the north wall. As it is, the public does not notice its existence, and the damage increases with every pair of feet. At the east end of the aisle lies another indent.

The Shrine
At the entry from the east lies a large black armorial ledger marking a vault to John Gape, 'Justice of Peace and Mayor of said Burrough in the reign of King Charles the 2nd, M.P., d. 1703', and Anne d. 1682. This ledger sustains massive wear and needs recording and eventual re-cutting.

By the Watching Chamber lies a family vault of Mrs Mary Freeman Shepherd 1765 etc.

St Michael's Chapel
There is a small brass to Dean George Blenkin d. 1924.

South Presbytery Aisle (east to west)
First is a brass indent of a small figure, then an indent with prayer scrolls and cross. Next is an important brass to Ralph Rowlatt 1543, merchant of the Staple of Calais, with an indent to his wife (?) and, beneath, a group of daughters wearing wimples and an indent of another group, presumably sons. Part of the brass marginal inscription also survives, with indents of four crests. This is badly worn, and again the dirty mat covering it is quite inadequate.

Next comes a black armorial ledger, and another indent of a small kneeling figure with a prayer scroll, lying under the screens advertising the appeal for the Shrine.

A ramp has been fixed over a large ledger to Samuel Loft and Martha 1707, which will inevitably cause damage.

South Transept (south to north)
Behind the bookcase, by the card stand, lies half of an indent of a small figure with prayer scroll. The bookcase itself is badly placed, half over a freestone ledger to Edward Cobb 167- and one to Thomas Goldsmith, Maltster, 1779 of black slate.

At the base of the new stair lies Elizabeth Drinkwater 1761, badly damaged, and next is a 9' indent of a small figure with canopy, a foliated cross and margin which needs protection. The position of the collecting box ensures that all visitors walk on this indent or on a ledger to Mrs Penelope Evans 1778, Mary Hussey etc, and it should be resited.

Next to the east is an indent of a figure with a scroll at the head
and a foot inscription, and cut into it Matthew Hubbard, Alderman 1713 (?) and Mary his wife 1719; it is cracked and damaged. Next comes a group of three ledgers to members of the Fothergill family, and after that three indents, all of figures, undecorated, one with a brass black letter marginal inscription partially preserved. This lies in the centre of the walk leading to the south choir aisle and must be protected or moved.

South choir aisle
One indent of a foliated cross, with Elizabeth Marston (?) 1693 cut into it, lies here, and several damaged ledgers, one of which is armorial, one to 'Johannes Med doctoris de Lond. MDCLXVIII'. Richard Millard 1663 lies at the north side.

North choir aisle
There are fourteen ledgers, eighteenth and nineteenth century, many under exhibition stands and all damaged. Ledgers to Thomas Neale and Diana 1790 with a foliage design, and to William Benniworth 1821 have good lettering.

The nave - south aisle
The ledgers here, some lined up along the south wall, some heraldic, are all in poor condition. An indent between piers, of a figure with an inscription, is lying under chairs. Two brass indents at the west end on the north side are partly under chairs.

North aisle
Three brass indents between piers and one by the nave pulpit of a bishop are all in poor condition. More ledgers are lined up along the centre of the aisle and under stalls, all badly worn. One black armorial ledger to Ann Halford 1744, has good lettering.

North transept (south to north)
First is a black Purbeck ledger to Robt Baskerfield 1804, '58 years an alderman of very respectable character'. Next to the north, at the upper level, are four indents, one with a canopy and margin. Then eight ledgers, mostly eighteenth century and, in an alcove against the east wall, a group of medieval tiles, unprotected and rather dirty. The nineteenth century tessellated pavement is deteriorating.

Jane Fawcett
January 1991

Overleaf:
Brass to Master Robert Fayrfax, organist, d. 1521, and family, lying in the chancel, near the high altar; renewed 1921.
May the souls of Master Robert Stanier, doctor of music, and Agnes his wife, the which Robert deceased the third day of October, the year of our Lord God M. D. CXLIII, whose souls I pray have mercy. Amen

This brass was dedicated after renewal on the 400th anniversary of the death of Robert Fairfax, 24 October 1921. 55
ICOMOS UK CATHEDRAL DAMAGE SURVEY

ST PAUL'S CATHEDRAL

The nave
Some of the problems at St Paul's become evident upon entering the west door, although the most severe damage is reserved for the crypt. Two and a half million visitors per annum have had, according to the Building Research Establishment, a discernible effect upon the floor of the nave where a dip is apparently visible along the central walk, between the west end and the dome. This deterioration is serious. The black and white marble with which the floor was paved in the seventeenth century by Wren is being gradually renewed. Control over the route taken by parties, avoiding the central nave, could help to prolong the life of the paving. The dividers of the main panels in the floor beneath the dome are of rare black and gold marble, badly eroded. A supply has however been obtained, and repairs to this are also due for 1991.

Equally important is the damage inflicted to the circular grilles designed by Wren, which encircle the floor beneath the dome. Ten years ago I reported their deterioration; today much of the decoration has been obliterated and the brass is becoming dangerously thin. Their purpose was to circulate warm air from a heating system below. They certainly deserve protection and if action is not taken soon, they will be finally destroyed. The details of the incised design – hearts and Tudor roses - have already been obliterated.

Along the aisles, across the west end, and in the transepts and choir aisles are placed at intervals more robust circular heating grilles installed in 1881 and designed by Francis Penrose, when he was Surveyor to the Fabric from 1852-1897.

Although minor damage to monuments has occurred, there is enough space in the nave aisles at St Paul's for large parties to circulate without pushing against the important memorials and wall monuments. The more delicate, and exceptionally important, choir stalls by Grinling Gibbons are only accessible to small parties under supervision, when damage can more easily be controlled. However, the general public is admitted into the eastern arm, where the beautiful and vulnerable choir stalls could be at risk if the pressure of visitors becomes too great. There should be a strict limit set on the number of people admitted into the choir aisles at any time.

The shop, which consists of poorly designed show cases grouped around the west end and continuing up the south aisle, is responsible for a certain amount of deterioration to the black and white marble floor, owing to the concentration of visitors it causes. The resiting and redesign of the shop is being actively explored, and needs to be.

The crypt
Far the most serious problem at St Paul's is however the protection of the crypt. While the number of visitors is, as in the eastern arm, to some extent controlled by the imposition of an entry charge, the damage inflicted is nevertheless extremely serious, and irreversible. The worst affected areas are the floors in the south choir aisle, particularly in the vicinity of the Wren monument, in the eastern bay of the south choir aisle.
As Peter Burman records in his excellent New Bells Guide to the cathedral, the many early ledgers in the eastern arm of the crypt recorded burials of parishioners of St Faith under St Paul's, who were entitled to burial in the new cathedral although their parish church no longer existed. There are also the very fine monuments to Wren and other members of his family, and to Robert Milne, Surveyor to the Fabric of St Paul's.

But apart from a few special cases such as these, the Dean & Chapter resisted the introduction of monuments into the cathedral, and it was not until the end of the 18th century that the erection of four statues under the dome was permitted - to Sir Joshua Reynolds, John Howard, Sir William Jones and Dr Samuel Johnson.

Following the Napoleonic wars, Westminster Abbey became increasingly over-crowded with monuments to national heroes, and in 1891 a Royal Commission was appointed to investigate the use of Westminster Abbey as a national valhalla, and the possibility of building a new memorial hall by Westminster Abbey to accommodate monuments to national heroes was again raised. A number of distinguished architects prepared designs, none of which were implemented.

St Paul's became accepted as an alternative burial place. Both Nelson and Wellington were buried in the crypt, after state funerals, and there followed throughout the 19th and during the 20th centuries monuments to many outstanding heroes. These took the form of wall monuments or free-standing monuments, some of them on horseback, of which Alfred Stevens' memorial to the Duke of Wellington in the north aisle and that to Nelson by John Flaxman in the south transept are the most famous. Grave slabs and brasses commemorated burials in the crypt.

During the past fifteen years it was decided to clear the crypt of some of the larger of these monuments in order to make room for Wren's great model, one of the most important architectural models in the world, the treasury and an exhibition. Despite some losses, the magnificent spatial proportions of the crypt have been greatly enhanced. However, the existence of the treasury and the exhibition has increased the number of people wishing to visit the crypt, despite the charge imposed, and greater damage has therefore resulted. This is most serious in the south aisle, where many important grave slabs are situated. In the first bay lies the fine raised ledger to Robert Mylne FRS, d. 1811, Surveyor to the Fabric and designer of Blackfriars Bridge; "His remains now repose under the Protection of this Edifice which was so long the object of his care." In the 3rd bay lies the massive granite raised ledger to John Rennie, 1761-1821, the great engineer; it lists Waterloo and Southwark Bridges, Plymouth breakwater and Sheerness docks among his achievements. Beside this lies the ledger to CR Cockerell, d. 1863, Surveyor to the Fabric, whose wife Anne was Rennie's daughter. Many of the ten ledgers in this bay are badly worn and need protection. They include one to Thomas Cooke of Bobbin, Kent, d. 1692, and one to Mary, wife of Sir William Robinson of Newby Park, Ripon, d. 1717.

The fourth bay contains a fine black marble and brass ledger to Sir Lawrence Alma-Tadema 1836-1912, the painter, the relief sculpture of which is deteriorating. Next, in the centre of the aisle and almost totally obliterated, lies the ledger to Sir Thomas Laurence FRA, legible ten years ago, but no longer so. The inscription is however recorded, and the stone could be recut.
In the easternmost, fifth, bay of the south aisle the damage is most serious, owing to the proximity of the Wren grave slab, which all wish to visit. It is a large raised ledger of black marble, recording that "here lieth Sir Christopher Wren Rt the builder of this cathedral church of St Paul . . . who dyed in 1723 aged 91."

The magnificent lettering on the white marble panel above records in Latin, "Reader, if you seek a memorial, look around you."

Monuments to other members of his family surround it. So do many ledgers to outstanding artists and architects (seventeen in all), including Benjamin West PRA, George Dance d. 1825, Sir Edwin Landseer d. 1873, George Dawe d. 1825, Henry Fuseli RA d. 1825, J M W Turner RA d. 1851 (in granite), James Barry d. 1806, Sir Joshua Reynolds PRA 1723-92 (seriously damaged), John Opie RA d. 1807, and William Holman-Hunt OM 1827-1910 (armorial), which was designed by Eric Gill. The inscriptions are deteriorating fast; they must be protected or the inscriptions recut while there is still time. There are also two fine heraldic black marble ledgers to Elizabeth Wiseman d. 1694 and to John de la Fontaine d. 1708.

Immediately to the north of the Wren ledger lie two important brasses, both designed by Richard Norman Shaw; one to Frederic Lord Leighton PRA 1830-96 with a coat of arms, and one to Sir John Everett Millais PRA 1829-96, of black marble and brass, also containing a coat of arms. The Building Research Establishment have placed monitoring studs beside these brasses, to measure wear and tear. To the east lies a brass to Sir Joseph Edgar Boehm RA 1834-90, sculptor, by Elkington. All three brasses are seriously worn, and must be protected.

A brass to John Henry Foley d. 1874, sculptor, and some 17th and 18th century ledgers lie in the south eastern arm, behind an iron gate.

In the centre walk of the crypt, to the west of the Chapel of the Order of the British Empire, formerly St Faith under St Paul's, are a number of ledgers, some illegible. These include ledgers to Thomas Felstead d. 1711, Very Rev Robert Gregory d. 1911, and Very Rev Henry Milman, both Deans of St Paul's, and Mary Knight d. 1773, with fine lettering. There is a splendid brass ledger to Canon Henry Liddon d. 1890, designed by Bodley and Garner, one to Major General Sir Ino Wedderburn d. 1803, and one to Alexander Wedderburn, Earl of Rosslyn d. 1805, a famous judge.

In the north aisle lies a fine black marble and brass ledger to Sir Edward Poynter PRA 1836-1919, with a coat of arms, and another fine brass to Sir Arthur Sullivan d. 1900, containing a border of foliage and birds with a lyre, symbolising Orpheus with his lyre, and a raised inscription. This lies centrally, and is becoming badly damaged. Nearby lie William Boyce d. 1779 and Sir Hubert Parry d. 1918, both distinguished musicians. To the west of these and across the west end lie several ledgers partially obliterated, and a granite ledger to General Picton of Waterloo fame.

The Cosmati pavements surrounding the Wellington and Nelson sarcophagi, designed by Penrose, are becoming cracked and damaged. The superb sarcophagus of the Duke of Wellington 1769-1852, designed by Penrose in 1858, of red porphyry with a white granite plinth, is unprotected, but so far has remained undamaged. The Nelson
sarcophagus, sited centrally and surrounded by 8 columns, stands on
a high granite base. The sarcophagus was made for Cardinal Wolsey
by Benedetto da Rovezzano in 1524 but was confiscated by Henry VIII.
Although unprotected, its height makes it less vulnerable than other
monuments.

The ledger to the Nelson family, lying centrally to the west of
this, is now almost totally defaced, although the inscription was
legible ten years ago; it should be recut.

To the north east of this lies a ledger recording the burial
of Cardinal Wolsey and his wife, and nearby a ledger to Field
Marshall Sir Henry Wilson, murdered in 1922, and one to Field Marshall
Earl Roberts d. 1914, by Eric Gill, almost obliterated.

Going west from the Nelson chapel lies a ledger to George Cruikshank
d. 1878, of black, red and white marble, designed by John
Adams-Acton, and a fine brass ledger to Sir George Gray
d. 1898, Governor and Premier of New Zealand, containing a portrait
in relief; it is deteriorating. There is also a red and white
marble ledger to Sir Bartle Frere d. 1884. In the north transept,
needing protection, is a ledger to the Rt Hon Sir George Grey 1898,
Governor of New Zealand, with a portrait roundel in high relief.

The few surviving pre-fire effigies lie to the north and south of
the Nelson Chapel. Those to the north are in a vulnerable position,
close to the entrance to the treasury. They are to William Cokain
d. 1626 and Sir Nicholas Bacon 1509-79, Queen Elizabeth's Lord
Keeper of the Great Seal, and father of Francis Bacon. They deserve
better protection as rare survivals. The fact that they are damaged
by the fire adds to their historical interest.

Records

There are some early records of monuments and inscriptions at St
Paul's. Dugdale's Memorials of St Paul's and Westminster Abbey
records some inscriptions. A further record was made in 1890,
although incomplete. Lord Mottistone, while Surveyor to the Fabric,
prepared in 1959 a plan showing the position of all the grave slabs
in the crypt, and Robert Crayford, while working in the cathedral,
started to record all the inscriptions. It is of the greatest
urgency that a full survey should be undertaken.

We hope that an ICOMOS survey team can be assembled in the near
future to record all the inscriptions that are legible. Decisions
must be taken urgently about the protection or re-ordering of the
most vulnerable and important areas. The type of footwear allowed,
and methods of removing grit from shoes must also be investigated.
There is no time to lose.

Jane Fawcett
April 1990
Martin Stancliffe, Surveyor to the Fabric, reports:

Your report raises quite a number of points, all of which I am acutely aware of, and virtually all of which have clearly been subject to a considerable amount of discussion in recent years. Unfortunately, these are only part of many even wider issues; and such is the scale of St Paul's that it is clearly going to be some time before a proper response can be made to all of them.

The cathedral is well aware of the inadequacy of the shop in almost every respect other than the fact that it makes an absolutely essential amount of money. Investigations for its resiting and redesign are being actively explored.

I am aware of the threat presented to the choir stalls by tourism; but it is not half so great as the threat presented to them by poor conservation measures in the past. In particular, there is an enormous amount of damage which was done when the stalls were stored in the war which has not yet been repaired and conserved. However, this work is going on as funds allow.

The question of access into and circulation around the crypt is being actively discussed as part of a total review of visitor movement around the building.

Overleaf:

(A) Plan of crypt prepared by John Plaice in 1960s, showing position of ledger stones and brasses.
(B) Monumental brass in the crypt to Sir Arthur Sullivan d.1900
(C) Monumental brass in the crypt to Sir Edward Poynter d.1919
(D) Brass floor grille dating from Wren building, at the central crossing, showing wear both of brass and of marble pavement
ICOMOS UK CATHEDRAL DAMAGE SURVEY

WESTMINSTER ABBEY

Introduction
As the recognition and protection of historic floors has, until recently, received very little attention, my surveys are intended to provide a general assessment of the historical importance of specific floor areas with a note of the major historical features and their condition. I have also made recommendations, wherever possible, for the immediate protection of the areas most seriously at risk from over-use.

We are awaiting reports from the Building Research Establishment on various aspects of historic floor protection. We encouraged them to insert studs to monitor the rate of deterioration in sample floor areas, including two positions in the north choir aisle of the Abbey. We have also asked them to advise on suitable protective pads for chairs and moveable furniture to avoid scratching; methods of moving stands and chairs for special events, without damaging floor surfaces; guidelines for protective covering for areas of special historic significance; types of matting found to be most effective in extracting dust and grit from visitors' feet at entrances; and types of footwear where appropriate. We hope that these initiatives will help cathedrals and greater churches to find some solutions to a very difficult problem.

It may be felt that some of my recommendations are unnecessarily stringent. However, since any work carried out on historic floor and monument protection is likely to be expensive, there is a case for quantifying this work now, and making a grant application, perhaps to the Getty Grant Program, to enable it to be carried out. When one is dealing with a building of such importance as Westminster Abbey, one does not want to cut corners, nor should one do so. My own surveys have been partly funded by a Research Award from the Royal Institute of British Architects and partly by ICOMOS UK. They follow on from the work I carried out for the English Tourist Board, published under the title English Cathedrals and Tourism: Problems and Opportunities, in 1979.

There are several areas in the Abbey where damage to ledger stones and brasses has reached very serious proportions and where, if steps are not taken shortly, a number of inscriptions of considerable historical importance will be totally obliterated and lost. These are the nave, the north aisle, the north and south choir aisles, the ambulatory and ambulatory chapels, the sanctuary, the feretory, north & south transepts, Poets' Corner and the cloisters.

The Nave
The most serious damage is visible in the ambulatory, royal chapels and feretory, since this is where the congestion is most marked. However, owing to the uncoordinated arrival of large numbers of coach parties, and the consequent disruption and congestion that this causes in the nave and aisles, and in view of the route taken by many of these parties, there are certain historic areas that are particularly at risk.
The absence of door mats and the movement of the chairs must cause additional wear. Efficient mats and careful thought on the type of chairs and their locations would be a relatively easy way to reduce wear and cleaning.

West End
The floor tablet to Winston Churchill, with its beautiful lettering by Reynolds Stone, is protected by the positioning of the collection boxes. The grave of the unknown warrior is also protected from damage by the fringe of poppies; could this type of treatment be applied to other important ledgers? Christopher Ironside's fine brass to the Earl and Countess of Mountbatten, 1985, to the south east of the west door, is already quite badly worn and needs protection. This should be roped off, as it stands close to St George's Chapel. Also at the west end are two small floor slabs to the great nineteenth century philanthropists, Baroness Burdett Coutts d. 1906 and, further east, George Peabody d. 1869, of Massachusetts. This reads: 'I have prayed to God that I might be enabled . . . to show my gratitude . . . by doing some great good to my fellow men'. The Peabody Trust paid for the recutting of the inscription recently (1991).

To the north lie two modern ledgers to Ramsay Macdonald and Clement Attlee, and to the south, is an iron slab with brass letters to Dean Herbert Ryle d. 1925, Bishop of Exeter and Winchester, a slab to Dean William Norris d. 1937, and to the north a ledger to Lloyd George.

Nave central walk
Proceeding east there are two historic ledgers which, owing to their position spanning the walk, are particularly at risk and should be protected or moved. The re-aligning of chairs might help, either by enlarging the central walk or by altering its position. The first, a black marble ledger with brass letters, is to David Livingstone, with a fine inscription which reads: 'Brought by faithful hands over land and sea, here rests David Livingstone, missionary, traveller, philanthropist. Born March 1813 at Blantyre, Lanarkshire, died 1873 at Chitambo's village, Ulalah. For 30 years his life was spent in an unwearied effort to evangelise the native races. To explore the undiscovered secrets. To abolish the desolating slave trade of Central Africa, where, with his last words he wrote:"All I can add in my solitude is, May heaven's rich blessing come down on everyone, American, English or Turk, who will help to heal this open sore of the world."

Parallel with this lies a fine black slate ledger to Thomas Tompion, d. 1713, and George Graham FRS, d. 1751, watchmakers. The inscription reads: 'Whose curious inventions do honour to ye British genius, Whose accurate performances are ye Standard of mechanic skill'.

Going east, in the centre lies the new slab to Telford, cast in iron with brass lettering. This replaced a ledger in Purbeck stone, the lettering of which in 20 years had become completely obliterated. This gives an accurate measurement of the rate of deterioration, and shows that there is no time to lose if some of the most important ledgers are to be saved.
Dick Reid, the distinguished letterer, at a meeting on historic floors called by the Cathedrals Advisory Commission at York Minster, stated that the floors of cathedrals and churches provide a unique record of the history and development of lettering from the Middle Ages to the present day. As such, they cannot be regarded as expendable, any more than the statues, the monuments, or indeed the fabric itself.

The next casualties, lying in the direct route of visitors proceeding to the eastern arm, are the important Victorian brasses. These are significant both as major examples of an art form revived in the nineteenth century, and also because they are designed by and commemorate previous Surveyors to the Fabric. The only exception is the fine full length figure brass to Robert Stephenson, d. 1859, designed by Sir Gilbert Scott and Hardman. The brass to Sir Charles Barry, d. 1860, has a cross flanked by a plan of the Houses of Parliament and an elevation of the Victoria Tower, and was designed by Bodley; that to Sir George Gilbert Scott, d. 1878, with a cross flanked by a knight, was by Street; that to G E Street, d. 1884, was designed by Bodley; and that to J L Pearson, d. 1898, designed by W D Caroe, is regarded Donald Buttress as one of the finest of nineteenth century brasses. To the east of the Pearson brass is a ledger to Sir Herbert Baker.

All of these are being damaged, either by chairs in the case of Stephenson and Barry, or by feet. Peter Foster put forward a scheme to move them to safer positions between the piers in the north nave aisle. If they are not to be obliterated as works of art, it is extremely urgent that this should be done. There are no existing grave slabs between the piers, and the original positions could be marked by a small plaque. There should be no further delay in carrying out this proposal.

North nave aisle
The chapel at the west end contains a large cracked ledger to Penelope Dutton 167-, with heraldic crest and good lettering, lying to the east of the monument. Lying centrally, and in very poor condition, is the black slate ledger to Revd. Samuel Smith LLD, 'Prebendary of this church and for more than 20 years Master of Westminster School, d. 1808.' His wives and sons are also commemorated and close by, set into the north aisle wall, is the small plaque 'O rare Ben Johnson', recently recarved by Peter Foster. The fine brass, in medieval style with weepers, to Sir Robert Wilson d. 1849, is in a vulnerable contral position, and needs protection. The brass to John Hunter, President of the Royal College of Surgeons, has been repaired at the expense of the Royal College of Surgeons, since this report was prepared.

Even more important, and more heavily walked on as it lies in the centre of the north aisle, is the fine ledger to Sir Charles Lyell of Kinnordy, d. 1875, 'Author of the Principles of Geology. Throughout a long and laborious life he sought the means of deciphering the fragmentary records of the earth's history. In the patient investigation of the present order of nature enlarging the boundaries of knowledge, and leaving on scientific thought an enduring influence'. Several of the brass letters are missing, the whole inscription is standing proud of the stone and, like that to David Livingstone, it deserves better care.
The group of ledgers to outstanding scientists Isaac Newton, Charles Darwin and the astronomer Herschel, lying immediately in front of the entrance to the eastern arm, also merit better attention. Visitors queueing for the eastern arm exert heavy wear.

Charles Darwin, in white marble, and Johannes Herschel in black stone with white lettering are in reasonable condition at present, but need watching. Newton's slab is deteriorating. To the south, in the same area, are modern steel and brass diamond shaped ledgers to Michael Faraday, James Clark-Maxwell and Herschel.

North choir aisle
On passing through the pay desk, visitors reach an area predominantly devoted to musicians, many of them commemorated by new ledgers placed there during the past 20 years. The ledger on the south side to William Croft, the distinguished seventeenth century composer, is seriously damaged and unprotected. More worrying still is the ledger, centrally placed, to Henry Purcell, d. 1695. The brass letters are standing proud of the stone, and several are missing. His fine Baroque wall monument stands nearby.

Beside the Purcell ledger lies one to Samuel Arnold, while to the north west lies a freestone armorial ledger to -- Baronet of Galway, where the name, the heraldry and the inscription are obliterated - the fate of the majority of ledgers in the Abbey.

Lying centrally, to the east of Purcell, lies the life size brass to Bishop Monk DD, d. 1856, Canon of Westminster and Bishop of Gloucester. This has been subjected to various protective experiments. The first was a plastic cover, which increased the rate of damage as grit and dust accumulated underneath it, which were then ground into the brass. The latest was to cover it with a thick sheet of lead which was also used to cover a brass in the Chapel of St Nicholas. The electrochemical reaction of the lead and brass and the rising damp trapped set up a bi-metallic corrosion, and caused parts of the brass to disintegrate.

Since preparing this report, the Monk brass has been sent away for repair and will be replaced in the old matrix when ready. A report has now been commissioned on all the brasses in the Abbey.

By the railings leading to the north transept, in a central position both here and by the pay desk further west, are the studs inserted into the floor by the Building Research Establishment in 1989 to monitor the rate of erosion. They will be inspected every three months.

One solution to the damage in this area would be to rope off the southern section of the north choir aisle, and thus protect the most important ledgers.

North transept
Moving clockwise from south west to north east, there is a large group of black slate armorial ledgers with fine lettering, mostly eighteenth century, lying under and being scratched by chairs on the west side. Many, including particularly those lying nearest to the north transept door, are more or less illegible. A big granite slab with a decorative border, to Viscount Palmerston, d. 1865, lies on the main walk.
In front of the north door lies a large grave slab with brass lettering, to Major General Sir Henry Barnard and five others, 'who died in the Service of the Queen and their Country in India in 1857 - 1858. The six lancet windows of this transept were enriched with stained glass by their relatives, or comrades of Sir James Outram's Division, 1860.' More than half of the brass letters are missing, and should be replaced. This is an important ledger historically, and must be protected. Presumably much of the damage was inflicted when the public entered by the north transept door.

The stained glass was damaged during the War, and has been replaced.

An important black slate ledger to Charles James Fox, 1749-1806, lying in the central walk, is almost obliterated and should be preserved. The inscription on the vast black slab next to it, formerly containing brass indents, has completely gone. Is there any record for recarving?

Lying under the chairs on the east side of the transept are a number of eighteenth century black slate armorial ledgers, much damaged, and also black slate ledgers to George Canning, 1770-1827, and his son, and next to this, to William Wilberforce, 1759-1833. These deserve protection.

A large black slate ledger to William Ewart Gladstone, 1809-1898, of Hawarden Castle and Catherine his wife lies centrally, with brass lettering and a plan of the castle. The letters stand proud of the slate and will soon be kicked out if not protected.

At the entrance to the transept lie three large black slate ledgers, with fine lettering, all damaged. On the west side lie the Earl of Minto, 175- - 181-, in the centre Marie Willis, d. 1670, the middle almost obliterated, and on the east side Mary Illingworth, d. 1758, and her mother and great grandson. These three slabs are vulnerable, and suffering serious damage; each is worth saving for its lettering.

Chapel of St Andrew
There are a number of ledgers here, formerly obscured by furniture, and an 'ancient marble gravestone, covering a stone coffin, about 1350' (Neale & Brayley). There are also an incised cross, covered with a slab of lead which should be removed, an indent of Edmund Kynton 1466, Abbot of Westminster, and group of medieval tiles inside the east door to the chapel.

The Sanctuary
The Great Pavement
There is considerable concern about the condition of this pavement, a uniquely important survival from the rebuilding of the Abbey by Henry III, and recognised as the most important cosmati pavement north of the Alps. The Purbeck base is in places breaking up and has been subjected to crude repairs at various periods. The rarity and antiquity of the decorative purple and green porphyry, the gallo antico, the great central onyx, the Lombardic lettering and the antique mosaic glass all give this pavement exceptional significance, and make its conservation particularly difficult.
It is evident that the rubberised underlay used under the central carpets has, in places, stuck to the pavement. Following the opening to the public in February 1990, more serious damage was inflicted by the laying of a temporary carpet stuck down with double-sided tape. This has removed some of the gilding, and even pieces of the mosaic. Some of this damage has been repaired by conservators. However, it does raise grave doubts as to whether covering with any material is the right answer. In so many cases, the damage is intensified by the friction set up and by the dust and grit trapped underneath the cover, quite apart from the condensation caused by rising damp.

Dr Tim Yates of the Building Research Establishment thinks that covering the pavement seems unnecessary as there is rarely any access to it, and I agree and would strongly recommend that it should be left uncovered. The liturgical significance is so great, and the visual impact of the pavement on the Sanctuary so important, that its reinstatement would come as a revelation. It was designed as the crowning glory of Henry III's abbey, and we have been deprived of it for too long. When it was uncovered recently, the impact was overpowering.

I suggest that the whole pavement should be the subject of a detailed conservation programme, with particular reference to the damaged and badly repaired sections of Purbeck stone. It could then be re-opened with suitable publicity. Visitors could view it from the transepts and the clergy could be encouraged to wear suitable shoes.

**The Feretory**

This, of all the areas in the Abbey, is the most vulnerable, the most significant and the most congested. The cosmati pavement, of equal importance with the Great Pavement, is we hope protected by a timber floor, topped with a non-slip material, which was laid some years ago. An inspection would be a good idea, in view of the deterioration of the Cosmati work of the Great Pavement.

The principal problem in the Feretory is one of circulation, and the extreme difficulty of protecting monuments of such importance from the press of eager crowds. The approach and exit routes, via the bridge erected in the 1950s, inflict the maximum threat to the effigy of Henry V. The gilt silver covering of the wooden core disappeared many years ago, and the head and hands of the effigy are new. The Purbeck tomb chest is however original, and the monument of great historical importance. The crown was stolen recently, and further damage is bound to occur as the crowds file past on either side of this monument.

The whole arrangement makes nonsense, architecturally, of the tiny and beautifully decorated chapel, which was designed as an enclosed space, with an entrance from the Feretory. There is a very strong argument for reinstating this plan and confining public access to the Feretory to the small viewing platform at the top of the nineteenth century wooden staircase in the south ambulatory, perhaps suitably enlarged. If this is considered unacceptable, then urgent steps must be taken to protect the shrine of King Edward the Confessor and the outstandingly important royal effigies, all of which are at present unprotected.

The record of deliberate vandalism to which many of the effigies and tombs have been subjected is wholly unacceptable.
'Details' were included in a report extracted by Peter Foster for me from his Annual Audit reports 1974-1987, and are attached to this survey. The theft of parts of the crown of Henry V (they were later replaced), the removal of many pieces of cosmati work from the shrine of Edward the Confessor, particularly from the barley sugar columns, an attack on the tomb of Richard II by a youth with an umbrella, causing considerable damage to the tomb chest, are only some of the examples of theft and vandalism inflicted by the public. I have observed children leaving chewing gum on the monuments, visitors leaning on the effigies of Eleanor of Aquitaine and Richard II. Above all, the physical damage inflicted by over-visiting, and the pressure exerted by large crowds in a very confined space, cannot continue.

There appears to be an inadequate number of stewards to supervise this area, and the Royal chapels. While there is usually one steward on duty in the Feretory, there is rarely any presence in the other chapels. If it is felt desirable to allow public access, then the replacement of protective grilles should be considered as an immediate priority. There are precedents, such as the grille protecting the Coronation Chair, designed in a medieval style by Stephen Dykes-Bower, and that protecting the tomb of Queen Elizabeth I, designed by Peter Foster. The removal of protective railings and grilles in the early nineteenth century was most unfortunate. With the dramatic increase in visitors, their replacement should be carried out as soon as possible. In the meantime, either the exclusion of visitors or the introduction of protective ropes is highly recommended.

North ambulatory
This contains an exceptionally interesting collection of ledgers. While those to the east are sometimes protected by the placing of ropes, confining crowds to the north side of the ambulatory, those to the west are subjected to the constant pounding of millions of feet, and cannot survive unless something is done to save them. Many have already vanished. How complete are our records of their inscriptions, armorials and lettering?

Among those still legible are an armorial ledger to Dr Edward Willes, Bishop of St David's and of Bath and Wells, d. 1775, and next to it Dame Mary Willes, d. 1818, and Sir Francis Willes, and to the north Edward Willes. Then Rebecca Folliott, d. 1697, and to the south, a huge black heraldic ledger, the armorial containing Hon Soit Qui Mal Y Pense, and the inscription 'Hic Jacet Brianus Winton', badly damaged.

Next, in the centre, lies Johannes Doughty STD, with an inscription in Latin and unusual lettering. There is a magnificent brass to Abbott John Estney, d. 1498, raised on a slab and so protected and, equally fine, one to Sir John Harpenden, 1457. Protected by the ropes at the south east side of the north ambulatory lie the important black slate armorial ledgers to the Fitzhardinge and Longueville families; Lady Fitzhardinge was governess to the Duke of Gloucester in the eighteenth century.

To the east of these lie Esther de la Tour, Christian Ker and finally Edward Hyde, at the bottom of the steps leading to the Henry VII Chapel. All have interesting lettering and deserve protection.
The bases of the royal effigies are also at risk from crowds pushing along the north ambulatory; these include Henry III with its important cosmati work, Edward I, Aymer de Valence and Eleanor of Castille, partly protected by the medieval grille of c 1290 by Thomas de Leighton, replaced in position by Gilbert Scott. Candles were said to have burnt continually on the spikes for two hundred years after her death. These tombs could be protected if visitors were permanently steered along the north side of the ambulatory, which is highly recommended.

The south ambulatory
Here lie several interesting ledgers: three to Sir Peter Apseley d. 1683, Sir Allen Apsley d. 1681, Allen Apsley d. 1691, and Dame Frances Apseley d. 1698, all in the centre of the walk. Then, on the south side, Sir Robert Anstruther, d. 1645, 'Gentleman of the Bedchamber to James I, Privy Councillor to Charles I, Ambassador to Germany and Denmark'.

Then centrally a large black slate slab with a brass indent, lettering indecipherable. To the north an immense medieval freestone slab with the remains of marginal lettering just visible and signs of a brass indent.

Then going west two black slate Cranfield ledgers, one to the Earl of Middlesex, d. 1674, one heraldic to Lyonel, Lord High Treasurer of England, d. 1669, both at risk. Also in the ambulatory, on the north side, are the magnificent tombs of Phillipa of Hainault, 1369, Edward III, 1377, and Richard II and Anne of Bohemia by Yevele, 1394. As in the north ambulatory, these could be protected by the placing of ropes along the centre of the walk, steering crowds along the south side; this should be done immediately.

Royal chapels
Radiating from north west to south east, this section of the report is confined to damage to historic floor surfaces caused by over-visiting. Deliberate theft and vandalism to monuments is included in Peter Foster's reports, attached.

Damage to Historic Floor Surfaces
Abbot Islip Chantry Chapel
Not open to the public and therefore the fine black marble armorial ledger to the Countess of Bath, d. 1758, is protected, as are two raised brasses, one of a crusader and one of a bishop.

Chapel of St John the Baptist
The congestion here is severe and of concern, owing to the important monuments, grave slabs and burial vaults. Ledgers and vaults include Sir Thomas Parry, Sir Thomas Vaughan 1483, Treasurer to Edward IV, Abbot Richard Harounden 1440, Abbot Thomas Millyng 1492, Abbot William of Colchester 1420 and Abbot George Fascet 1500. Above these lie the three fine stone effigies to Abbot William of Colchester, Thomas Ruthall, Bishop of Durham 1524 (the stone in poor condition; has it been outside at some period?), and to Abbot Fascet.

There is also a grave slab to the Earl of Oxford 1625, and to Thomas Cecil, Earl of Exeter 1623; also the burial vault of Lord Hunsdon, d. 1596, and nearby the enormous monument to him and his wife.

Chapel of Our Lady of the Pew
Although there are no ledgers in this tiny chapel, the floor slabs
are in poor condition and its use as a passage leading to the Chapel of St Paul is most unfortunate, in view of the tremendous congestion it causes and the delicacy of the painted decoration. The medieval wall paintings are vulnerable and the original panelled door and iron gate still retain considerable remains of medieval paint, which cannot survive the heavy use now imposed upon them. Should both this and the Chapel of St Paul be closed to the public? I think that they should.

Chapel of St Paul
Again considerable congestion poses a threat both to the effigies and to the floors. There are three black slate armorial ledgers to members of the Belasyse family, a ledger with brass lettering to Jacobi Ussher, Bishop of Dublin, d. 1656, and one to Lord John Hussey Delavel, d. 1808 and his wife. Most importantly, and lying in an extremely vulnerable position close to the statue by Chantry, is a large ledger to James Watt, 'not to perpetuate a name which must endure while the peaceful arts flourish, but to shew that mankind have learned to know those who best deserve their gratitude. The King, his Ministers and many of the Nobles and Commoners of the Realm raised this monument to James Watt who, directing the force of an original genius, early exercised in philosophic research to the improvement of the Steam Engine, Enlarged the resources of this country, Increased the power of man, and rose to an eminent place among the most illustrious followers of science, and the real benefactors of the world. Born Greenock, d. 1819.' Nearby lies a small black ledger to Sir Rowland Hill 1879.

If we are not prepared to take urgent steps to protect the memorials to those who changed the course of history, whose work is commemorated in distinguished epitaphs such as David Livingstone, Charles Lyell and James Watt, to name but three, then it raises the question of whether we are acting responsibly.

The ledger to James Watt is damaged because of its position beside the fine alabaster effigies to Sir Gyles Daubeny, 1507, and his wife. These are protected by a screen placed in position in 1889, but the Watt ledger, on which visitors stand to admire the effigies, has no protection. This should be rectified.

The other important monuments include a tomb chest to Lord Bourchier, 1431 and his wife, and the fine effigies to the Countess of Sussex, to Viscount Dorchester 1640, to Sir Thomas Bromley 1587, to Sir James Fullerton 1632 and wife and to Sir John Puckering 1596 and his wife. There has been considerable vandalism here, in particular to the monument to the Countess of Sussex, whose crown has been stolen recently. The porcupine at her feet has also had numerous quills stolen. In view of this, I suggest that access to this chapel is confined to a small viewing area at the entrance.

Dr Tim Yates (Building Research Establishment) agrees that entry could be restricted without causing too much inconvenience to visitors but with great benefit to the monuments.

Chapel of Queen Elizabeth
There is at the entrance a white marble ledger with brass lettering to Addison, Earl of Ellesmere 1849, with many of the letters and part of the inscription missing. This could perhaps be moved to the north side of the chapel, where it would be less easily damaged. Also in the centre is a ledger marking the vault of the Duke of Albermarle 1670, the Earl of Sandwich, the Marquis of Halifax, the Duke of Northumberland and others, all of late seventeenth or early eighteenth century date. The ledger is badly
damaged. The crown and collar from the very fine statue of Queen Elizabeth have been stolen more than once, and so have their modern replacements (see Peter Foster's report attached). The protective railings Peter Foster designed have improved matters.

Chapel of Henry VII
There is a number of small royal grave slabs, mostly of the Hanoverian period, in white marble diamonds, and many royal burials. The superb choir stalls with misericords of 1520 are to some extent protected from the crush of visitors by the placing of rows of chairs in front of them, but these can inflict their own damage.

The famous Torrigiani monument to Henry VII and Elizabeth of York is protected by the magnificent contemporary screen. This has been vandalised at various periods in its history and pieces are still levered off today. Much of this damage could be avoided if the Abbey were more rigorously guarded.

Mary Queen of Scots Chapel
In front of the altar, by Detmar Blow, lies a ledger marking a royal vault, in which are buried King Charles II, William and Mary, Queen Anne and Prince George of Denmark. The outstandingly important effigy to Lady Margaret Beaufort, 1509, by Torrigiani, is protected by a splendid medieval grate, replaced in position in 1915. The famous monument to Mary Queen of Scots, completed in 1612 by Cornelius Cure, is also protected by a grille. Not so the elaborate monument to the Countess of Lennox, d. 1578, with weepers against the tomb chest. As visitors pass on each side of this monument, some protection is urgently needed, ropes perhaps (see Peter Foster's report attached). Numerous thefts of hands of weepers are reported.

Chapel of St Nicholas
There is a heraldic ledger to Bishop Thomas Sprat d. 1720, and a brass of a knight in armour, Sir Humphrey Stanley d. 1505, 'Son of Lord Stanley. He was a brave soldier of Henry VII in Bosworth Field.' It has a Latin foot inscription, and is in reasonable condition after the recent removal of the lead covering, but needs cleaning. It is a fine piece.

There are also two black slate ledgers, no longer legible. There are important monuments without protection, including those to the Duchess of Somerset d. 1587, Robert Cecil, Lord Burghley and his wife, Sir George Villiers and his wife. These are most vulnerable in their present situation, and there is a case for closing this chapel to the public, with only a small viewing area near the entrance.

Chapel of St Edmund
There are three fine brasses on raised tomb chests, one to a crusader, one to Robert Waldby, Archbishop of York 1397, and one to Eleanor, Duchess of Gloucester 1399. The ledgers are to Edward, Earl Bulwer Lytton 1873, with a good inscription and to Edward, Lord Herbert, Baron of Cherbury 1678, both damaged by visitors wishing to see the exceptionally important monuments in the chapel.

There is a very good case for closing this chapel to the public, in view of the total lack of protection for the monuments. These include the alabaster effigy of the Duchess of Suffolk, whose crown has been stolen and replaced recently; the outstandingly fine alabaster effigy of John of Eltham, Earl of Cornwall, d. 1337, with
the famous alabaster weepers, many damaged; and one of the earliest monuments in the Abbey to William de Valence, d. 1296, half brother to Henry III. This remarkable effigy, in wood, is wholly unprotected and has been seriously damaged at different periods by iconoclasts and others. These tombs are too important to leave without protection from the visiting public, and I believe that the chapel should be closed.

Chapel of St Benedict
Some medieval tiles at the east end of the chapel should be protected. There is a fine alabaster effigy to Cardinal Langham 1376, Abbot of Westminster, with its original iron grille, and a tomb chest brass to Dean Bill, 1561. Marble effigies of the Earl of Middlesex 1645 and his wife are both unprotected.

South Transept (Poets' Corner)
The damage to existing ledgers has been so widespread here that it is difficult to make general recommendations as many of the inscriptions have become illegible. The position of the shop is unfortunate, both in its effect on the ledgers beneath it and in its proximity to the Dryden stone, which is almost illegible. The most important, and most badly damaged ledgers are those to George Frederic Handel with brass lettering, and to Richard Brinsley Sheridan, inscription almost gone. Both are exposed to many feet and are suffering accordingly. The nineteenth century group to Tennyson, Byron, the Brownings etc near the shop, is still in reasonable condition.

Many new ledgers to modern poets have recently been placed in this area, designed by leading letterers, with variable success. I was assured by Peter Foster that none has replaced existing ledgers or burials, in which case it becomes a matter of taste how one handles new insertions. As with the musicians in the north choir aisle, the juxtaposition of old and new is not always a happy one, particularly as the lettering in the new ledgers is filled with white, and sometimes red infill, and seems therefore rather obtrusive. There is also a variety of styles of lettering employed.

Elsewhere in Poets' Corner there are many fine heraldic ledgers, mostly eighteenth century black slate, mostly under chairs. There are also, however, several important ledgers to literary figures exposed to wear and tear, particularly near the shop and down the central walk between the chairs, notably those to Samuel Johnson and David Garrick. These are on the exit route for coach parties at the south east corner of the transept. As in the nave, it is possible that by moving the position of the chairs, the passage of feet could be deflected from some of the most vulnerable slabs, surely worth considering. It would also be useful to assess how many of the individuals commemorated in the ledgers are also represented by wall monuments, and if the evidence they provide differs.

Chapel of St Faith
The whole of the area round the altar and the first two bays of the chapel are covered in medieval tiles. Few designs are recognisable, and there is no overall carpet design; have they been moved, or subjected to heavy wear? They are still an important survival.
South nave aisle
A handsome brass to Dean Bradley d. 1903, with a figure, crests and a marginal inscription lies here, a black slate ledger to Dean Atterbury, Bishop of Rochester d. 1710, in poor condition, a slab to Oldfield d. 1730, and memorial slabs to Lord Baden Powell, all at the west end of the aisle.

Chapter House
This area is in the care of English Heritage, who have carried out various experiments in an attempt to protect the outstandingly important medieval tiles. These were uncovered, in remarkable condition, by Sir Gilbert Scott during his restoration of the Chapter House in the 1860s. Felt slippers were recently abandoned in favour of coir mats, around the circumference of the building. These in their turn have been removed and new experimental matting introduced.

Dr Tim Yates (Building Research Establishment) comments:

There seems to be a general need to monitor the impact of visitors, both on the floor tiles and on the atmosphere, to see if the tiles or the wall paintings are deteriorating. This is an area that the Building Research Establishment could suggest for future research work.

This seems an excellent idea: I suggest that the BRE should be asked to advise on suitable methods of protection of all important ledger stones and brasses in the Abbey, and to carry out experiments on alternative methods, which should be accurately monitored.
WESTMINSTER ABBEY

The Cloisters

The western arm contains ledgers of particular significance to the history of the Abbey. These are to the Surveyors to the Fabric, organists, Clerks of Works, master masons and carpenters. The majority of these lie on the west side of the cloister and could be protected from continued damage by a rope or railing to discourage visitors from walking on them. These stones are, from south to north: Sydney Robert Andrews, Clerk of Works, 1967-81, and his son Anthony, d. 1979, designed and carved by Peter Foster; next to the east, Thomas James Wright, Clerk of Works, b. 1851 d. 1926, A loyal Servant of the Abbey for 55 years; next to the north, William Bishop MVO, b. 1852 d. 1962, Clerk of Works 1928-1955; then Harry Carter MVO, 1906-1966, Clerk of Works 1955-1966, He was a Good Man, Acts xi.24; then William Richard Lethaby 1857-1931, Surveyor to the Fabric from 1906 to 1928, born at Barnstaple, buried at Hartley Wintney, (deteriorating badly); next James Lupton 44 years minor Canon of this collegiate church d. 1873; Emily Tennyson Bradley 1867-1916, historian of the Abbey, and of her husband Alexander Murray Smith; Mr John Broughton, champion prize-fighter of England, and his wife Elizabeth; Walter John Tapper 1861-1935, Surveyor to the Fabric (badly worn); J T Micklethwaite, Surveyor to the Fabric 1843-1906, with an armorial crest; Mr Benj. Fidoe, Clerk of the Works to this collegiate church d. 1780 (cracked and badly worn);
WESTMINSTER ABBEY

Thomas Gayfere, master mason for the restoration of the Henry VII Chapel under James Wyatt, and Frances his wife (badly damaged); Sir Sydney Nicholson MVO, organist of the Abbey 1919-28, Founder & Director of the Royal School of Church Music; Osborne Harold Peasgood CVO, sub organist 1924-41 and 1946-62; Sir William Neil McKie, organist and master of the choristers 1941-63; Thomas Greatorex FRS FLS, organist 1758-1831; John Willis, carpenter to this collegiate church (very badly damaged).

The ledgers under particular threat, lying on the eastern side, or in the centre of the cloister, which should be moved at the earliest possible opportunity are: Walter Tapper/ J T Micklethwaite both Surveyors to the Fabric, the Micklethwaite ledger having a badly worn armorial crest; Thomas Greatorex, organist; and John Willis, carpenter. This last ledger lies immediately below the flight of stairs leading from the Abbey and is trodden on by all those using this exit. It is in a very serious condition, and most of the inscription has been erased.

All these ledgers could be lined up on the western side of the cloister, where there are many spaces, and thus protected from any further deterioration. Where the inscriptions are visible, or are recorded, they should be re-entered or recarved.

The northern arm contains the brass rubbing centre. While it is recognised that this provides valuable income for the Dean and Chapter, it is most unfortunate that it should have been placed over a number of important ledgers, which are being subjected to quite unacceptable wear. Many of these are to Canons, Receiver Generals, Registrars and Chapter Clerks. They are, reading from west to east: Canon Storr; Canon Carpenter, a heraldic ledger; Canon Charles; Canon Percy Dearmer; Canon Kenneth Augustus; Baron Muir Mackenzie,
WESTMINSTER ABBEY

High Bailiff and Searcher of the Sanctuary for XVIII years, with armorial crest; George Vincent, 1774-1859, Chapter Clerk, (partly obscured by the counter); Robert Marsh, Receiver General; John Cro ...; Clerk of ... and Engr. of ...(?), (partly obscured by counter); ... Thomas, Receiver General; Tom Hebron, Registrar and Receiver General, d. 1980.

It would obviously be preferable to move the brass rubbing centre to a new site, possibly in a new interpretation centre, if one is established. While it remains in its present position, the damage will continue, and there seems little chance of controlling it unless all the ledgers are lifted and re-sited elsewhere.

The east walk contains a number of armorial grave slabs on which the inscription and crest have been totally obliterated. If a record exists, recarving would be recommended. The ledger to Aphra Behn, immediately to the south of the exit from the Abbey, has been recarved recently. Just to the west of the Chapter House Shop is an important ledger to Ambrose Fisher 1617, Blind Scholar, Author of the Defence of the Liturgy, which should be moved, since the existence of the shop and of the entrance to the Pyx Chamber and Undercroft Museum increases the wear and tear.

In the south walk, moving from east to west, lie 3 effigies, probably moved from another site. Their position, immediately below the stone seat running along the whole length of the south wall, makes them particularly vulnerable. Visitors sitting on the seat scratch the effigies with their feet, and all three must be protected.

The oldest, one of the earliest surviving effigies in the country, black Tournai marble, to Abbot Gilbert Crispin 1085-1117, is the best preserved and most interesting. The others are to Abbot Laurence 1173, the figure now unrecognisable, and Abbot William de Humen 1222, also badly defaced.
WESTMINSTER ABBEY

A protective railing is urgently needed before any further damage is inflicted.

Further west Edward Tufnell, Master Mason, d. 1719, and Archdeacon Congreve of Armagh. Next is Philip Clark, Plumber to this collegiate church, d. 1707, lying in the centre of the walk; there is an urgent need to move this ledger as all visitors walk over it. Then Edward Glanville, Clerk of Works, d. 1808, on the south side; William Shield, Musician and Composer 1748-1829, and Johann Peter Salomon, musician 1745-1815, "who brought Haydn to England in 1791 and 1794." These two share a ledger; Muzio Clementi, "called the father of the pianoforte. His fame as a musician and composer acknowledged throughout Europe. Procured him the honour of a public interment in this cloister. Born at Rome 1752. Died at Evesham 1832."

These ledgers (Shield and Salomon, and Clementi) lie across the walk from south to north; there is a pressing need to move them as they are both deteriorating very rapidly and are impossible to avoid for those walking along the cloister.

Next comes an important memorial to William Whitfield Dakins, d. 1844, Canon and Precentor of the Abbey Church and Founder of the Royal Military Chapel at Wellington Barracks. The lettering and crests are inlaid with brass. Parallel with this, to the north, lies Richard Smalbroke, Bishop of Lichfield, d. 1765, and Catherine, his widow, William their son, d. 1797, and Richard Smalbroke, Chancellor of the Diocese of Lichfield and Coventry, d. 1805. Next is Samuel Flood Jones, for 25 years Minor Canon, d. 1895; this slab lies in the centre of the walk and should be moved.
Records
The History and Antiquities of St Peter, Abbey Church of Westminster, Neale & Brayley 1823, records many inscriptions on ledger slabs, but a great many of these ledgers have either been lost during repaving in the nineteenth century, or erased by feet. Lawrence Tanner, in the 1930s, prepared notebooks of records, including inscriptions, some details of lettering and some armorials, of ledgers and brasses post-dating the 1823 record of Neale & Brayley. There appears to be no comprehensive record of past and present slabs, however.

Plans
Dean Stanley, in 1870, commissioned floor plans showing the position of many ledgers and brasses, and this has been updated by the present Librarian. Our volunteer team of recorders will attempt to coordinate this material, and to make a complete note of all previously unrecorded inscriptions. This will be accompanied by a photographic record and by rubbings, to enable material to be retrieved that would otherwise have been lost.

Jane Fawcett
February 1991
Queen Elizabeth I's Crown: The Crown was stolen soon after it had been fixed. It was an exceptionally fine piece of craftsmanship by Arthur Ayres. It was apparently grabbed by a thief on Thursday, 27th February, 1986. As it was made of wood a small part remained in position as it broke along the grain.

There is nobody I know of equal skill to replace it and I am therefore, having one made in metal which I hope will be less easy to steal and I think not likely to be of such fine quality.

I had anticipated such an eventuality and therefore, investigated the possibility of making a stereo-type copy of Mr. Ayres' crown but the cost of such a copy was three times Mr. Ayres' price and as a consequence I abandoned the idea.

The date of the theft of the Crown was the 27th February, 1986. I cannot tell you the exact dates of other of the parts of the Regalia but some remained until the beginning of the last century (which I find astonishing considering how the Abbey was used during the great Rebellion). I enclose an extract from London Interiors which mentions the occurrences. (see below, and illustration following)

Sah Oved's necklace is still in place, an attempt was made to remove one of the marble inlay stones, but I did not record when this occurred but it was soon after it was fixed I think. Any way, when I last saw it was intact.

In the recess within the columns, upon a thick slab, supported at each corner by four couching lions, which were originally gilt, lies the effigy of the Queen. It is a finely executed figure in white marble. The features are strongly marked, and the countenance, even now, as expressive as any painting from life which the artists of her own day have left us; there is a determined dignity and yet almost an harshness of outline, that at once speaks of the truthfulness of this excellent bust: She wears a close coif, from which her hair descends in small curls; to her ears are attached pendant jewels. She also wears a necklace of pearls, from the centre of which a large jewel is suspended, and the characteristic broad pleated ruff, below which formerly hung the collar of the Order of the Garter, which was cast in lead and gilt. It was probably considered to be of more valuable materials, for it has been stolen, the last fragment disappearing when the railing that surrounded the monument was removed in 1822. The Crown also is gone, and the sceptre and mound is broken. Her head is supported by an embroidered cushion, and at her feet is a lion couchant. The roof of the canopy is embellished with golden roses, &c., each sunk in square panells which cover the entire surface. There are long Latin inscriptions upon tablets above the entablature at the head and foot of the monument.

Walpole, in his "Anecdotes of Painting," (vol. I, p. 288) gives, from an office-book, in the Earl of Oxford's collection, the date of its erection and its cost; from which it appears to have been put up in 1606, three years after the death of Elizabeth, and the entire amount of expenditure incurred was £965.

This tomb, as we have before observed, was originally surrounded by an iron gilt railing, surmounted by a continued range of fleur-de-lys and roses, and on the frieze were the initials E. R. intermixed with falcons, (the badge of her mother, Anne Boleyn), and lions, several times repeated. The portraiture of Westminster, and other Tudor badges, were also displayed. In the middle and at each corner of this railing standards had been placed.
Tomb of Queen Elizabeth
Henry VIII's Chapel, Westminster Abbey

Extracts from the Annual Audit Reports from 1974 to 1987.

**The Confessor's Tomb:**

Damage was done by an unknown vandal, who knocked several pieces of mosaic off the North West Column which was obscured by the Altar Cloth. The pieces of mosaic were apparently removed and these have now been restored by Mr. Hempel, the Head Restorer at the Victoria and Albert Museum, all with mosaics specially made in Venice.

The Panel gave it as their opinion that recent damage of this kind should be replaced but that it should not be extended indiscriminately to damage done in the past. (1975)

**Tomb of the Countess of Lennox and other Observations**

The damage to the tomb of the Countess of Lennox referred to last year has now been made good by Messrs. J. Whitehead, but once again no less than four pairs of hands have been taken from the weepers.

This raises the point about repairs of various parts of Statues which in the past and from time to time have been broken off and stolen. Wordsworth's finger is I understand the most popular! If nothing is done, presumably in the end all the Statues will become without hands, heads and other members and I am inclined to think that all missing members should be replaced as soon as they are stolen. The absence of fingers I believe, might put into people's minds the suggestion that perhaps others can be obtained elsewhere and thus encourage this undesirable habit. (1974)

**Countess of Lennox:**

The last report (on page 6) is incorrect. I was misinformed. The fingers were not repaired subsequently suffering further damage as I said. The damage took place previously and is now definitely repaired and no further damage had occurred when I last inspected it at the end of February.

**Richard II's Tomb:**

This tomb was damaged by a youth on the North side of the Chest and I understand it was done with an umbrella, but the culprit was not apprehended. Our own mason fixed back the severed pieces with a resin glue.
Miss Plummer and her assistants fixed the flaking paint on the Sedilia and are still continuing with further cleaning of the Crouchback Tomb until the available money from the Insurance is spent.

A small shield stolen in 1975 (Paulet impaling Paulet) has now been replaced in alabaster and painted correctly by Mr. Ayres.

Two heraldic shields were again stolen. Replacements have been made in alabaster, painted and refixed by Mr. Arthur Ayres.

A replacement for the Coronet which was stolen is now being made by Mr. Ivan Smith and should shortly be fixed.

The long delayed replacement Coronet for the Countess of Sussex was made and fixed during the year by Mr. Ivan Smith. The gilding was carried out by J. Wolff & Son.

The crest formerly surmounting the Helm was reconstructed by Mr. Arthur Ayres in wood and water gilded and painted together with the mantling and shield below. The cost was born by a descendant, Mr. Robert G.A. Balchin.

The head of the last Daughter from the left was broken by a vandal, but fortunately recovered and has now been refixed. This head was in plaster and obviously a replacement. The next Daughter was observed also to have a plaster replacement but as the original alabaster head was discovered by the Keeper of the Muniments at this time, I took the opportunity to have the substitute removed and the correct alabaster head refixed. This work was also carried out by Mr. Ayres.
Henry V:

Parts of the crown were torn off, replacements have been made and re-fixed to the crown in a manner which is hoped will be more secure. The work was carried out by Mr. Ayres.

Sir Francis Vere:

The knee of the South West Bearer, previously broken and crudely repaired, was again dislodged, it was supposed when some piece of furnishing was being taken out or into "Nightingale". This has been repaired successfully by inserting a piece of matching alabaster by Mr. Tim Metcalfe. To avoid a repetition of this accident, I have ordered a protection rail. (1977)

Abbey Floor

The Abbey floor continues to provide constant work for our Masons owing to the great wear to which it is subjected. The floor, is mostly of 1 ft x 1 ft pavers of Furbeck stone and is not of great age, but Purbeck is no longer available for replacements. Recent replacements have been in Nabrocia, which I do not regard as a sympathetic substitute. I am now using Koulin a Vent stone from Alsace, which is both hard and a much better match. (1974)

Wall Memorial of Frances Louisa Parnell in West Cloister

This memorial was found to be missing and clearly has been taken down carefully and has been absent for some years. No explanation has yet been forthcoming as to how this occurred. (1974)

Commando Memorial in West Cloister

This figure was damaged by vandals during the summer. One of the sculptured figures was dislodged and part of the Ancaster base badly chipped. The figure has now been reset and the repair of the base is in hand. (1974)
Overleaf:

(A) Floor plan of Feretory and Sacrarium, showing Great Pavement, prepared for Dean Stanley 1870, updated 1988.

(B) List of gravestones and graves relating to the above.

(C) Great Pavement, 1258; print from Ackerman, 1812

(D) Great Pavement in 1991, showing deterioration of Purbeck base.
LIST OF THE GRAVESTONES AND GRAVES.

The Gravestones are tinted Blue, and are marked with numbers beginning with Abbot Ware, near the north-west corner, and proceeding east as with the monuments.

<table>
<thead>
<tr>
<th>POSITION</th>
<th>NAME</th>
<th>DATE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Abbot Ware, Treasurer to King Henry III</td>
<td>1283</td>
</tr>
<tr>
<td>2</td>
<td>John de Waltham, Bishop of Salisbury and Treasurer to King Richard II</td>
<td>1395</td>
</tr>
<tr>
<td>3</td>
<td>John and Margaret, Children of William de Valence</td>
<td>about 1300</td>
</tr>
<tr>
<td>4</td>
<td>Thomas of Woodstock, Youngest Son of King Edward III</td>
<td>1397</td>
</tr>
<tr>
<td>5</td>
<td>Dr. Richard Busby, the famous Master of Westminster School</td>
<td>1695</td>
</tr>
<tr>
<td>6</td>
<td>Dr. Robert South, Prebendary of Westminster, famous as a Divine</td>
<td>1718</td>
</tr>
<tr>
<td>7</td>
<td>Anne Hyde, Wife of Sir Row Carey, Niece of the Great Earl of Clarendon</td>
<td>1660</td>
</tr>
</tbody>
</table>

(Sit Gravestone lies 66 feet west of the Sarcarium steps.)

The Gravestones are indicated by small letters, and dotted red lines.

a. Probable position of "Good" Queen Maude, Wife of King Henry I
b. Probable position of "Good" Queen Edith, Wife of King Edward Confessor
c. Grave containing the small leaden coffin of a child, probably Royal
d. Grave containing a large leaden coffin of an Ecclesiastic, probably Abbot Crokesley
e. Grave containing a large leaden coffin, probably Abbot Wenlock
f. Probable position of the Tomb of Abbot Henley
g. Probable position of the Tomb of Abbot Kydington (Kedington)

(Some indications of the remains of such a Tomb are discoverable at the head of Dr. Busby's Monument.)

k. The Coronation Chair of the Sovereign.
m. The Coronation Chair of the Consort.

The three marble traps which lead to vacuities under floor of Abbot Ware, wherein are the more ancient bases of three of the piers of the Confessor's Church, 1665, and where also is seen the side of Abbot Ware's marble coffin.

X A coffin-shaped marble slab, forming part of Abbot Ware's floor. It is probably a more ancient gravestone utilized by him.

On the parapet of the Chantry, above the Tomb of Henry V, are the Helmet, Shield and Saddle, used by the King at Agincourt.
After Westminster Abbey, Winchester probably has the most important tiled floor, and one posing the most problems, owing to its importance. Not only are there large areas of unprotected medieval tiles, but also many magnificent heraldic ledgers.

South aisle
Some heraldic ledgers lie under the unfortunately sited shop at the west end of the south aisle, and their destruction has been hastened both by the placing of the shop fittings and by the feet of shoppers. Many are of black slate, as are those elsewhere in the south aisle.

The nave
There are further ledgers, mostly eighteenth century, along the central walk of the nave, and under the chairs and along the south side of the nave. In front of the nave altar, and to some extent protected by the altar railings but damaged by the insensitive placing of furniture, is a very remarkable collection of black marble armorial ledgers, mostly dating from the eighteenth century. Their condition is moderate.

North and south choir aisles, and ambulatory
Most worrying, however, because totally unprotected, is the exceptional collection of medieval tiles, interspersed with grave slabs, in the north and south retro choir aisles. As these extend to the full width of the aisles, it is impossible to avoid treading on them, and the deterioration and general condition is deplorable. Something must be done quickly.

No protection is provided for the crusader tomb in the north retro choir aisle, nor for the monument to Peter de Roches, Bishop of Winchester, who signed the Magna Carta in 1215 and gave land for the building of St Thomas's Hospital.

The magnificent monument to de Gaveston, lying in the centre of the north retro choir aisle, also deserves protection. It had been used as a repository for cigarette stubs and plastic cups when I was doing my survey; this is unacceptable for a monument of such quality.

South transept
The floor here appears to be breaking up, with some new paving having been introduced recently.

It is of the utmost importance that steps are taken to protect both the floors and the monuments at the earliest opportunity.

* * *

Since this report was written in January 1990, discussions have taken place between the new Fabric Advisory Committee at its first meeting in July 1990, and the Surveyor to the Fabric, Peter Bird. A report was prepared for the Dean & Chapter, from which the attached Summary is taken. I am grateful for permission to quote from this report, and encouraged that immediate protective action is proposed, and that further long term solutions are being considered. Above all, it is most encouraging to hear that an accurate record by rectified photography is proposed in the near future, to complement the written record and plan made earlier this century.

Jane Fawcett, February 1991
REPORT ON THE MEDIEVAL TILE PAVEMENT IN THE RETROCHOIR, WINCHESTER CATHEDRAL

SUMMARY

The Problem

The retrochoir of Winchester cathedral contains one of the most important spreads of thirteenth-century floor tiles in the country, including large areas where the original 'carpet' scheme has been preserved.

Its condition floor has long given cause for concern. There is evidence that the wear caused by visitors' feet is increasing. Such wear will eventually cause the complete obliteration of the tile patterns in unprotected areas.

Many of the tiles are fragmented; others are loose. To the problem of wear is now added that of theft: four tiles said to come from Winchester cathedral were recently sold at auction for £1200.

Although the nave of the retrochoir, which contains the greatest area of original tile carpet, has been roped off, smaller areas of the 13th-century lay-out also survive on present tourist paths.

Recommendations

The roped-off area should be extended northwards to include the whole of the largest 'carpet'. The other, isolated areas of original lay-out should also be protected with barriers.

Measures should be taken to display and interpret the tile pavements more effectively for the benefit of visitors.

An essential first stage in any repair programme is the detailed recording of the retrochoir floor. This should be done by rectified photography. An advantage of this process is that scaled colour photographs of the retrochoir floor will be available for publicity purposes.

Unique examples of particular tiles in the re-set areas should be taken up and preserved.

Loose tiles and broken tiles in the original carpet areas should be consolidated.

Irreparably broken tiles in the aisles should be replaced, either with replicas or with plain tiles.

Overleaf:
Archaeological floor plan prepared by John Crook, Archaeological Consultant, 1990
RICSOMS UK CATHEDRAL DAMAGE SURVEY

ST GEORGE'S CHAPEL, WINDSOR

A decision has been taken to regard the ledgers here as expendable. Records of positions and inscriptions have been made, and many are now virtually illegible and the armorial crests almost totally defaced. There has been a marked deterioration during the past twelve years since I did my last survey.

Unfortunately many inscribed slabs have been lined up down the centre of the choir aisles and ambulatory, presumably when they were repaved a few years ago, so that it is hard to avoid walking on them. The great black marble slab to Edward III in the north ambulatory is raised and protected from feet, as is that to Henry VI in the chancel. Not so the royal stone to George III nor the grave slab marking the royal burial vault to Henry VIII, Jane Seymour, Charles I and an infant child of Queen Anne, both of which lie in the chancel on the main visitor route. The brass letters are particularly vulnerable and the black marble badly scratched.

The nave and north and south aisles
The floor of the nave has been relaid within the last decade, as has that of the north and south aisles. Several interesting stone ledgers have been set between the piers in the north and south aisles, others lie in the centre, a prey to all feet. An inscribed ledger, much worn, to the Hon. Frederick Kepple 1777, son of the Earl of Albermarle and Dean of Windsor, stands beneath the steps in the north aisle. The Surveyor to the Fabric, Daryl Fowler, reports that during recent repair it was decided not to repair some minor floor monuments but to replace them with plain pavings.

On the south east side of the nave, below the organ screen steps, is an important armorial ledger to John Fisher, Bishop of Salisbury 1821. Also in the nave, behind the new altar, is a cracked stone to Johannes Heauer 1670, Professor of Theology, College of Eton.

The north ambulatory
There are further important ledgers here, most outstanding being the massive black marble grave slab to Edward III; as mentioned above, this is fortunately raised and therefore protected from feet. The fine stone to Sir J effery Wyattville, lying just inside the north east door, is heavily worn. The inscription reads:

In a vault beneath, erected by Sir J Wyattville, were laid the remains of his daughter Augusta Sophia who died in Windsor Castle Oct 14 1825 aged 21 years. Also in the vault below are deposited the remains of Sir Jeffery Wyattville RA, under whose direction the new construction and restoration of the ancient and Royal Castle of Windsor were carried on during the reigns of George IV, William IV and of H M Queen Victoria. He died Feb 18 1840 in the 74th year of his age.

Although it is still legible, it would be a great pity to allow such an important record to be obliterated, as has happened to the ledger to Canon Vaughan immediately beneath the great medieval iron north east door.

The chancel
The black and white marble floor of the chancel is badly worn in places, and the practice of allowing all visitors to walk through the chancel is highly destructive. The two royal stones mentioned
above, one to George III, the other to Henry VIII, Jane Seymour, Charles I and an infant child of Queen Anne, above the royal vault, are in the direct line of feet. The magnificent and extremely vulnerable carved choir stalls are also at risk; surely a better route could be devised?

The south ambulatory
This contains the magnificent alabaster monument to the Earl of Lincoln, fortunately protected by a medieval grille, although the rear of the monument is suffering from being used as a store for cleaning equipment. The many important monuments and floor slabs are unprotected and mostly in poor condition. Daniel Herbst, one of the Poor Knights of Windsor, has a fine heraldic ledger stone; Charles Brandon, Duke of Suffolk d. 1545 has another good heraldic stone, probably eighteenth century. The seventeenth century font stands on top of a heraldic ledger to the 3rd Earl of Courtown KP 1836. Thomas Doughty's ledger is much erased, as are several others.

The Chapel of Oliver King
Under the lectern are several badly damaged brasses of 1630.

Bray Chantry Chapel
This, the most beautiful of Windsor's chantry chapels, has for 12 years been in use as a shop. This has involved several structural alterations, including the construction of a timber floor to protect the inscribed stones beneath, which were becoming increasingly damaged. The effigy in white marble to Napoleon III by Boehm has been moved out to create more space. Nevertheless, the congestion is a times horrific, and the use of such an important chantry for commercial purposes is most unfortunate.

One of the casualties is the remarkable bust to Giles Thompson 1533-1612, 'for ten years Dean of this Chapel ... chosen in 1607 to make a new translation that was to become the authorised version of the Bible'. The splendid Fitzwilliam monument is covered with postcards; that to Radulphus Brideoake 1678, Bishop of Kildare and Dean of Windsor, has the cash box nestling against it and concealing the surrounding putti. It is imperative that an alternative site for the shop be found. The whole chapel is so small, so disastrously overused (1 million visitors per annum), and so vulnerable; something must be done to remove this extra hazard.

The Cloisters
The condition of the paving in the cloisters, where a number of the Poor Knights are buried, is very bad, and most of the inscribed stones are obliterated and many of the early brass indents have been skimmed with cement. There are also many signs of graffiti.

The Dean has said that the income derived from visitors, for whom a charge is compulsory, is an important element in the ability of the Dean and Chapter to maintain the Chapel, and one is delighted that this should be the case. However, having seen the guided parties of tourists being hurried round, one feels that the routing and control of visitors is due for urgent reconsideration before any more damage is inflicted. The present routing of visitors causes the maximum damage in the most sensitive areas. All parties, however short their stay, enter by the south door, follow round the south aisle, across the west front, along the north aisle, up the north choir aisle, through the chancel, into the Bray Chantry.
Damage
Vandalism appears to be confined to the Beauchamp tomb. The beaks of the swans are frequently broken by vandals. Steps are being taken to protect the monument by wooden railings.

There is also concern about the condition of the nineteenth century paving, both in the nave and, more urgently, in the chancel, owing to the increasing number of visitors. Here the surfaces are wearing differentially and trial insertions of sample marbles have been made. The Lady Chapel floor is also a cause for concern.

Records
Ruth Piggot, Cathedral Library Assistant, reports (Jan 1991):

The ledgers in the crypt were investigated in 1986, when efforts were being made to produce a complete update of all memorial inscriptions in and around Worcester Cathedral. It was unfortunate that the major refurbishment of the crypt had already taken place (1984) so that the stones under the altar carpet could not be examined.

M. Piggott also sent an account of the crypt inscriptions which appears relatively complete, plus a bibliography and a copy of a plan prepared by Harold Brakspear in 1926, both of which are attached. She also mentions two other ledgers: a marble ledger to Prebendary John Davison d. 1834 and family, south aisle of Lady Chapel, and in the south west transept, a small ledger to Archdeacon F. Goodman d. 1947.

Jane Fawcett
January 1991

Overleaf:
Description of list of memorial inscriptions in the crypt, with bibliography.
Plan of memorial floorstones in the crypt, made by Harold Brakspear in 1920 and updated in 1986.
WORCESTER CATHEDRAL

Memorial Floorstones in the Crypt

1986
Chapel, along the south choir aisle, out at the north east door and through the cloister.

The north and south aisles were repaved during the past decade and the paving under the organ screen is about to be replaced. The deterioration of the inscribed ledger stones is very evident since the last survey. It would be deplorable if all visual evidence of the past were to be obliterated in a place of such outstanding historical significance. Surely something can be done to protect the more important stones?

Jane Fawcett
January 1991

The Architect, Daryl Fowler, reports that, as far as he is aware, photographic records of the ledger stones are complete, but are probably best described as art historical photographs rather than an attempt to record the wear. There is no intention under the current programme to rephotograph nor to relocate the ledgers.
Worcester Cathedral

With the exception of the crypt, much of the floor surface has been repaved during the restoration of the nineteenth century by Sir Gilbert Scott. There is a very fine tesselated pavement in the chancel and sanctuary. There are a few interesting ledgers surviving, not necessarily in their original positions.

The nave
At the west end of the central walk lie two grave slabs, one to Bishop Wakefield d. 1395 (replacement made 1910), and to Earl Baldwin of Bewdley d. 1947.

North nave aisle
At the extreme south west corner lie ledgers to Bishop Richard Hurd d. 1808, and to Bishop Ernest Harold Pearce d. 1930, and further east, to Sir Ernest Bird d. 1945, Sir Ivor Atkins d. 1953, and W H Read d. 1942.

North transept
A small patch of medieval tiles was placed here when the cathedral was repaved. Also a small patch just outside north east transept.

Central crossing
In front of the chancel steps lie the grave slabs of Bishop Sampson d. 1112 and Bishop Theophilus d. 1123, both formerly canons of Bayeux Cathedral, (by tradition buried by Norman Rood Screen, probably further west than present screen.)

Chancel
In front of the high altar lies the ledger to William, Duke of Hamilton d. 1651, killed at the Battle of Worcester. Round the high altar lay an important area of medieval tiles, moved when the splendid pavement of Godwin tiles was laid by Sir Gilbert Scott.

Crypt
The rich collection of ledgers was moved here from the cloisters as part of the nineteenth century restoration; until then, the crypt had a mud floor. Daily services now take place here and the crypt is included in the visitors' tour of the cathedral, which means that the ledgers will be vulnerable to wear. Although reasonable records of inscriptions do exist, consideration should be given to the protection of the historic floor of the crypt in view of the great historical importance of this area. There are two medieval brass indents, one possibly to William of Moldenis d. 1296, nine seventeenth century ledgers, and many from the eighteenth and nineteenth centuries.

Cloister
At the north end of the west walk lies the grave slab of 'Miserrimus. 'It is the resting place of Thomas Morris, Vicar of Claines who in 1689 refused on conscientious grounds to swear allegiance to William and Mary. He was deprived of his living and spent the rest of his life in retirement waiting and hoping for the Stuart Restoration, which never came. Tradition says the pall-bearers were maidens in white wearing the Jacobite Cockade and that he himself chose the inscription and the position of his grave where passers-by can hardly avoid treading on it.'

Cathedral Parlour Area
There are important medieval tiles here and in the old Music Library above, now an office and carpeted to protect the tiles.
THE MEMORIAL INSCRIPTIONS IN THE CRYPT

According to Hutchinson (p.12ff) the Crypt probably "was not used for burials until the early 19th Century" and then only for about 20 years. In 1817, after the area had been cleared of rubbish the Chapter made an order "for interments on a regular scale of fees for the benefit of the Library and Fabric. The project is said to have originated with the then Dean, Dr Arthur Onslow, and he was appropriately the first to be buried, the allocated space being immediately below his stall in the Quire." Subsequently three members of his family and six others were interred, the last in 1839. The vaults at the west end are marked on the plan accompanying this account.

The grave slabs which now cover much of the Crypt floor came from many parts of the Cathedral and from the Cloisters mostly during the Victorian Restoration when the present marble floors were laid c.1872/73. Not all came then from their original sites for some had already been allocated new 'homes' in the North and South Quire Aisles when the nave was repaved in 1756. According to Green (p.XXVI) the Sacraarium was cleared of memorial stones in 1672 but where they went is not known. Thomas (1736) does not indicate their existence but at least one has found its way to the Crypt — that of Sir Gilbert Gerrard who died in 1644/45 (No. 25 on the plan).

Although many pre-1800 inscriptions can be found in Thomas or Green and some later ones in Hutchinson, for convenience all are repeated in this account. It is not known whether a plan was made in 1873 and is now lost. The numbering is therefore mine and I hope it will make identification easier. The foundation plan was drawn by Brakspear in 1926 and modern alterations have been made. Some of the stones remain in pristine condition; others are incomplete, badly cracked or almost unreadable. A few of the latter are included in the hope that an expert will be able to make out a critical word which will lead to eventual identification. Space has also been left for later inclusion of 5? inscriptions on stones hidden by the Altar carpet glued down in 1984.

I am most grateful to Dr A.V. Butcher for deciphering so much genealogical and other information making my subsequent recording of full inscriptions so much easier; also to the many members of the Cathedral staff who have given advice and drawn my attention to small details.


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ICOMOS UK CATHEDRAL DAMAGE SURVEY

YORK MINSTER

The Nave, Nave Aisles and Transepts
The paving of the nave, nave aisles and transepts was designed by Lord Burlington and William Kent and repaved between 1731-8 when, according to the Royal Commission on Historic Monuments, many grave slabs were destroyed. The east end was exempted from the new scheme and burials continued in this area. Some of the slabs, particularly in the south transept, are breaking up, not surprisingly after the recent fire. However there are no ledger stones in the nave, aisles, transepts or choir, which was repaved in 1735, except the three fine modern ledgers: that at the west end 'Deo Gratias 627-1927'; that under the central crossing commemorating 'those whose gifts and skills saved this tower from collapse' under the direction of Bernard Feilden and the Earl of Scarborough, High Steward; and that in the south transept, a stainless steel ledger with brass lettering, giving thanks for all those who saved and rebuilt the transept roof after the recent fire, under the direction of Charles Brown.

There are a number of important ledgers and several brasses in the north and south choir aisles, in the Lady Chapel and in All Saints and St Stephen's Chapels, some of which are in danger.

North Choir Aisle
Here lies the large armorial ledger to Frances Graham, 'relict of Rev. Dr. Graham of Netherby in the County of Cumberland' d. 1801. The crest is badly damaged and half of the ledger was replaced in 1970 having shattered into fragments according to the Clerk of Works, C Richmond. The fine brass with heraldic crest to Charles Howard, Earl of Carlisle d. 1684, immediately to the north in this aisle, has been roped off for protection, but this tends to channel visitor traffic over the Graham ledger, which is thus being subjected to unacceptable wear. This area needs attention.

The Lady Chapel
To the east of the high altar screen is a series of black slate ledgers, alternating with some earlier stones, on which unfortunately pews are placed.

At the south west corner, next to the Info bar, is a fine black ledger to George Aislabie, principal registrar to the archbishop, who lived in the Treasurer’s house which he bought from Lord Fairfax in 1663 (RCHM). Aislabie was killed in a duel defending a lady's honour in 1674. His wife Mary Mallory inherited the estate of Studley Royal in 1666 and their son John, Chancellor of the Exchequer at the time of the South Sea Bubble, designed the gardens and landscape at Studley Royal, now a World Heritage Site. This ledger is therefore of historical importance and it is being subjected to unreasonable wear by the placing of the info bar. The Dean reports that a new and less intrusive design of info-bar will soon be introduced. Next to the Aislabie ledger lies a stone commemorating a Stanhope who died in 1639 aged 18 weeks, with a skull.

From south to north at the extreme west end of this chapel are ranged several of the earliest ledgers in the Minster, which are of exceptional importance. The first is to Matthew Pollard 'sonne of Sir Richard Pollard, Knight, who departed this present life . . .
June 1589', in alabaster. Next is a facsimile of the damaged original, now in a church at Formby, Lancashire (RCHM), to Richard Pournenebi 1407, shield bearer to Henry IV, with a marginal inscription; this ledger is suffering damage from visitors using the stalls behind it. The third and most important medieval ledger, lying at the north east corner of this line in the north aisle, is to Thomas de Castell d. 1403, Vicar Choral of this church, with a beautiful marginal inscription standing out in relief against a sunk background. This magnificent alabaster slab is seriously damaged and stained; it is also in great danger as it lies in the direct line of feet proceeding from the Lady Chapel down the north choir aisle. It should be protected, as it is probably too important to be moved.

Interspersed with these medieval slabs, and also jeopardised by the positioning of the row of stalls, are several handsome eighteenth century black slate slabs. The first is to -- Clough, Registrar, d. 1789, rendered almost illegible by the placing of furniture; next is one to Naomi, wife of Sir John Royds d. 1814; and lastly one to Tobias Wickham 'of this metropolitan church', in danger as it lies in a similar position to that of Aislabie on the south corner, so that all visitors walk across it before walking on the Castell stone nearby. Rerouting may be the answer, at both corners. Beyond lies a fine ledger to Margaret Wharton of Willingwood Hall d. 1791.

There are several important ledgers in the eastern Lady Chapel: one to the north of the altar to Archbishop Joannus Frewen with a worn heraldic crest, to the south a modern stone to Archbishop Rotherham 1480-1500, and modern ledgers to Archbishop Garbett and Dean Alan Richardson. Seriously threatened by the pressure of feet and badly damaged is a ledger to John Barker d. 1776, near the entrance to the chapel.

St Stephen's Chapel
This chapel also contains important ledgers. By the entrance are three large black slate ones, all under stress: one to Richard Langley d. 1817, of Wykeham Abbey; one to Ann Langley d. 1803; his daughter; and lying immediately across the entrance one to Elizabeth Dealtry, relict of John Dealtry MD, daughter of Richard Langley of Wykeham Abbey, died at Bradenham House, Bucks, 1842, and to her son Peregrine Dealtry d. 1814. The proximity of another Info bar does not help the general wear and tear in this area.

In the south east corner of this chapel lies a plaque in white marble, formerly the top of a table tomb, to 'Frances Cecil, Countess of Cumberland, d. 1643, daughter of the Earle of Salisbury, Lord High Treasurer of England, married Lord Clifford Vetrepsonts Vessey, Earl of Cumberland, Lord Lieutenant of the County of York under Charles I, the last Earl of that most noble family'.

In front of the altar lies a badly worn black slate ledger to Robertus Feild, Archdeacon, d. 1680.

All Saints Chapel
In front of this chapel, and partially obscured by the metal screen designed by Tapper, is a brass marking the Earle of Strafford's vault d. 1687; it consists of coronets and a coat of arms. Next to it is a group of interesting ledgers, damaged by the insertion of
the screen (and by those using the chapel), to members of the Younge family, one to George Younge, Knight, son of Archbishop Younge 'who in the reign of ye late Quene Elizabeth was Captain under ye Right Hon. Robt. Earle of Essex in ye Irish Wars' d. 1620.

South Choir Aisle
Here, by the monument to Archbishop Hutton 1595-1606, there are worn ledgers to Penelope, daughter of Sir Gervas Cutler of Stainborough d. 1686, and another to S M C (Sarah Mapleden Gibbons) d. 1802 aged 24, in black stone. In the centre of the aisle by the monument to Archbishop Lamplugh is a limestone ledger, seriously worn, to Canon Thomas Lamplugh d. 1747, his widow Mary d. 1760, and their daughter Honor d. 1778. The surface is breaking up and its treatment presents problems; should it be moved, since recarving such a damaged surface must be unsatisfactory, or would resiting the original and replacing it with a modern design or a replica be a solution? In a modern frame and let into the south wall is a fine brass to Elizabeth Eynes, gentlewoman in waiting to Queen Elizabeth I d. 1585; its condition is excellent but the glass is unfortunate.

The Crypt
In the crypt there is an armorial ledger in front of the altar, and some medieval tiles, badly worn, to either side of it.

The Chapter House
The Chapter House is floored with a fine encaustic tile pavement designed in the nineteenth century. Although the condition is at present reasonable, the designs should be recorded now before any further deterioration occurs. Should the public be required to walk on mats as at Westminster Abbey, to protect the tiles?

This is not a comprehensive list of ledger slabs, but it is hoped that a complete record, with inscriptions and locations, and with condition reports and recommendations for repair or recutting, will be prepared for the Working Group recently set up by the Dean and Chapter and the Cathedrals Advisory Commission.

Records
The Royal Commission on Historic Monuments has recently completed a record of all the inscriptions of ledgers and brasses in the Minster, but without any visual evidence. This record, taken in conjunction with my survey, will provide invaluable help when a photographic record with rubbings is prepared. It is hoped that this can be carried out in the near future as part of the Dean & Chapter's initiative mentioned above.

Jane Fawcett
November 1990
I suppose it can be argued that with a probable figure of some two million visitors per annum we suffer little vandalism. However, there is sometimes thoughtless behaviour.

Recently we had an attempted theft of a piece of bronze sculpture which was wrenched from a monument, but fortunately proved too heavy to move. A year ago one kneeler was stolen, and some seven years ago a small piece of heraldic carving from a monument. However, these I suppose are examples of theft rather than vandalism.

Wear and tear there certainly is, but fortunately our huge floor area, for instance, means that we do not suffer so greatly from the wearing away of floor surfaces. Ironically the jointing between our floor slabs has suffered more recently from overzealous cleaning by contractors in that frequent vacuuming has sucked away some of the pointing! The situation has been remedied. We do have many floor ledger slabs at the east end of the Minster and some of these are very worn. We are just about to commence a programme of recutting.

Another area where wear and tear has shown is the steps of the staircases to the central tower where we have recently had to renew the nosings.

From the top of the central tower a few years ago we had problems from tourists throwing over empty drink cans which frequently blocked rainwater outlets. However, visitors are now totally enclosed in a 'tiger run' of mesh so that this cannot occur, although the prime reason for that was to prevent suicide attempts. Furthermore, we now have television coverage of the routes to the tower and in the summer a member of staff on the roof itself.

Within the Minster there are few areas which the tourist cannot reach, although there is discouragement to them entering some of the Chapels, but they are not deliberately excluded.

Overleaf:
Plan showing processional paving in the nave, and layout of ledger stones before repaving in 1731-8; reproduced in Greater English Church Screens, Aymer Vallance, Batsford.
York Cathedral: Plan showing the pulpitum (A.A.) and also the nave, with roundels for the procession.
From An Accurate Description and History of the Cathedral and Metropolitical Church of St. Peter, York, 2 Vols. (1768–1770).
As so little thought has until now been given to floor damage in cathedrals, many undesirable practices have arisen which could easily have been avoided. One of the most fundamental difficulties in considering the protection of cathedral floors, or any other architectural element, is that of conflicting patterns of use, some, but not all of them, overlapping. There are first the liturgical requirements of the Dean & Chapter, essential in order to fulfill the primary role of the cathedral. Secondly there are the needs of the cathedral choir, including the provision of pianos, rehearsal and changing rooms. Thirdly, there are the functions promoted by the Chapter, which form an integral part of the life of the cathedral, including concerts, flower festivals, plays, films and television programmes. Fourthly there are the visitors, and all the shops, cash desks, collecting boxes, sales counters, restaurants, lavatories, brass rubbing centres, exhibitions, signs and controls which cathedrals increasingly wish to provide, and from which they derive valuable income. Finally, there is the maintenance and cleaning of the building partly necessitated by these uses.

All of this has an impact on the historic fabric of the buildings, and more particularly on the floors. In order to minimise this impact, we must consider how and where damage is inflicted, by whom or what, and to what extent it could be controlled or modified. In many cases much of it could be avoided if greater care were taken and more visual awareness encouraged, and better supervision and instruction given to all personnel. The siting of all furniture and fittings should be confined, wherever possible, to less vulnerable areas since increased use causes more intensive damage.

1. Worship and Liturgical Needs

Nave altars, sometimes moveable, are usually surrounded by carpets, stalls, chairs, pews, candelabra, lecterns and flower stands. Care should be taken in placing such furnishings, in view of the damaging effect that furniture and carpets can have on important ledger stones, brasses and tiled areas.

There are a number of examples, including Winchester Cathedral and St George's Chapel, Windsor where nave altars and associated furniture have been sited over important ledgers. At Windsor semi-permanent screens have been positioned without apparent regard for the ledgers beneath.

Chancels The placing of lecterns, carpets and other moveable objects should always be considered in the context of valuable floor surfaces.

2. Cathedral Choirs

Pianos needed for choir practice can present problems, particularly if they have to be moved regularly over delicate
surfaces. The example in the Lady Chapel at Gloucester, where an area of medieval tiles round the piano has been replaced after damage is a caution. Music stands, if they are heavy and frequently moved, are also a danger. Pianos hired for special concerts and moved by outside contractors are also a particular hazard.

3. Functions
These can be extremely damaging, since they involve the frequent moving of heavy stands, seats, lights, platforms and other equipment, much of which is dragged from some distance and dropped into position, often causing serious damage to important historic areas. Great care must be taken in moving heavy objects, including scaffolding. Staff should be instructed wherever possible to lift all equipment rather than drag it. The introduction of small electric fork lift trucks with rubber wheels to move stacking chairs and other smaller objects should be considered; sack trucks or trolleys with rubber tyres would also help. Where heavy platforms etc require moving, staff should be provided with rugs or rollers to minimise scratching and abrasion to floors and other surfaces.

All such work should be supervised by cathedral staff, suitably instructed. Both at Exeter and Salisbury Cathedrals I was horrified to see heavy platforms being dragged across important ledgers, causing serious scratching. At Salisbury the stands, when in position under the central crossing, were supported on in one place the armorial crest of an important ledger, and in another on the eighteenth century plaque marking the centre of the crossing. There were no protective coverings to the feet of the stands.

Film and television crews need careful supervision to avoid causing unnecessary damage by fixing lights, platforms or scaffolding. Some years ago sections of very delicate carving in King's College Chapel, Cambridge were broken off by lighting and camera cables, and the Domus Bursar writes that 'the television personnel are prone to regard the Chapel like a functional studio. We now have to ensure that a senior College representative is present in the Chapel at all times when television equipment is being installed so that agreed routes for cables etc are adhered to.' Peter Marsh refers to damage caused by scaffolding and stands brought in by outside contractors and assembled in situ at Canterbury. It is important to have full and detailed contracts signed by both parties specifying precisely what may and may not be done, and the penalties that will be incurred in case of infringement. In all cases, without the most vigorous supervision ignorant operators can and do inflict irreversible damage, often unknowingly.

4. Visitors: Control and Presentation
More attention has so far been paid to providing facilities for visitors than to controlling the damage they inflict, largely by their feet. Many of the installations such as shops, sales counters, collecting boxes, dispensers, exhibitions, information bars, restaurants and brass rubbing centres have been introduced without adequate regard for the surfaces on which they have been placed. Damage is also
caused by roping off one important feature and thus deflecting damage to another, as in the Morning Chapel off the north choir aisle at Salisbury, and in the north ambulatory at York.

Shops, when sited inside cathedrals, attract large crowds and any concentration of people increases the risk of damage to floors. It is important that the siting of all such installations within the cathedral should be reconsidered, and where shops are placed over important ledgers or tiles, these should be moved to less vulnerable areas soon as possible. The damage caused to historic ledgers at Westminster Abbey as a result of installing the brass rubbing centre in the north walk of the cloister is extremely serious. Shop counters and desks have been placed on top of fine heraldic ledgers with devastating results. The same may be said of the shop in Poets' Corner, and the cash desk in the north choir aisle. Although the income generated is valuable to the Dean and Chapter, better locations must be found.

At Canterbury, the shop in the south transept has caused so much damage to ledgers that some have had to be resited in the aisles and replaced by temporary paving. At Salisbury, a leaflet dispenser has been placed close to the public entrance in the south nave aisle, immediately above an important early ledger, causing quite unnecessary damage.

At St George's Chapel, Windsor the shop in the Bray Chantry chapel, with its accretia of postcard stands, book cases and cash boxes has been visually disastrous, and physically highly damaging. The important floor containing many historic ledgers was, before the installation of the shop, in excellent condition, as the Chapel had always been closed to the public. A protective floor has now been laid, but considerable damage had already occurred both to the floor and to the monuments. The fine Boehm effigy to Napoleon III has now been moved to a safer position, but other outstanding monuments are still at risk.

At Winchester the shop in the south aisle is placed across important heraldic ledgers, while at York one of the Info-Bars has been placed immediately beside the ledger to William Aislabie, increasing wear on a grave slab of great historic significance. Many other examples could be quoted.

Controls: Signs Much thought has been given, since our English Tourist Board survey was carried out in 1978, to the design and placing of signs. On the whole, although one regrets the intrusion of signs and regulations into cathedrals, there is today a much greater awareness of the need for a coherent style and, where possible, for siting which while providing the necessary information is not unduly disruptive. There is still room for improvement, but the old days of a miscellany of hand-written notices attached to ad hoc stands by clothes pegs, as at Worcester, are now over.

It would be valuable to carry out a study, using one cathedral as an example, of visitor control, bearing in mind
both the importance of the visitors' experience and the damage that they can cause. The study commissioned by the English Tourist Board at Lincoln, and the report prepared by Robin Wade and Robert Maguire, were never implemented, but could act as a guideline for other cathedrals. In the meantime, controls are often introduced on an ad hoc basis and lessons are learnt by trial and error. Much damage ensues as a result.

Controls: Ropes The least damaging method of control, and the cheapest, is the roping off of sensitive areas. At Winchester, the medieval tiles in the retro choir are protected by ropes and signs, and the mosaic floor of Trinity Chapel at Canterbury now receives the same protection. However, it is hard to envisage a solution, other than the insertion of a protective floor, in the case of the outstandingly important floors in the ambulatory at Winchester, consisting of medieval tiles intermixed with early ledgers; or at Ely, where both north and south choir aisles are entirely covered with ancient ledgers and brasses; or at Bath Abbey, where virtually the whole floor surface is paved with ledgers. Only the exclusion of the public could provide a solution.

When the north half of the north ambulatory at Westminster Abbey is roped off, it protects the fine ledgers lying along the south side and at the foot of the steps leading to Henry VII Chapel. I hope that this will continue. There is also discussion about roping off the severely damaged but remarkably early group of three abbots in the south walk of the cloister. This would protect them from scratching by the feet of those sitting on the stone shelf above, often children. There is also a strong case for protecting ledgers in the west walk of the cloister in the same way.

These are easy and cheap solutions, and only a failure to recognise the problem has prevented action years ago. I hope that this initiative will encourage all cathedrals to carry out surveys to identify sensitive areas, and to initiate methods to protect them as soon as possible.

5. Cleaning
Care in moving heavy objects to avoid scratching inscribed stones or tiles should always be exerted. Heavy cleaning equipment can seriously damage floors and monuments. Operators should be instructed to respect, and if possible avoid, sensitive areas. Strong bleaches, detergents and abrasive cleaners should be avoided.

Other Concerns:
Chairs
It is time that tests are carried out to establish the relative damage inflicted on historic floors by different types of chairs. Guidelines should be prepared and advice given on suitable pads to prevent scratching, and on the relative damage caused by fixed lines of chairs, as opposed
to loose chairs.

Cathedral authorities should also consider the placing of chairs in relation to important floor areas, and also the scratching and damage caused by moving chairs for special events. Stacking chairs are often dragged across floors, causing scratches. Equipment for moving them should be provided wherever possible.

Trolleys and Pushchairs

Many cathedrals now restrict the entry of dogs and of children with chewing gum or ice creams. None forbid shopping trolleys which, like babies' pushchairs, damage both floor surfaces and delicate screens and piers. I have seen the medieval painted screen at St Gabriel's Chapel, Exeter, being banged by trolleys and pushchairs. While it would be unacceptable to prohibit pushchairs, surely shopping trolleys have no place here. Rucksacks are also hazardous in confined spaces containing important monuments, and should be prohibited in small chapels.

Nor have any cathedrals attempted to control the entry of those wearing unsuitable footwear. On the Continent visitors are not allowed to enter cathedrals wearing shorts. How much more damaging are stiletto heels, trainers and clogs. The National Trust prohibits the entry of visitors to its properties wearing stilettos and offers slippers instead. Much damage could be avoided if cathedrals did the same. Trainers have serrated soles in which grit becomes trapped, thus causing scratching, and clogs can also scratch, especially when the owners, often children, slide across delicate surfaces.

Floor coverings: carpets, mats, protective covering, temporary floors

The results of tests by the Building Research Establishment are awaited before definite decisions can be reached. However, much of the available evidence indicates that almost all forms of protective covering do more damage than that incurred by normal patterns of use. To prevent the deep grooves and scratches inflicted by moving furniture and equipment, the best protection is likely to be offered by the installation of a false floor covering the entire area. The central crossing at Salisbury is an obvious example.

The attempt to protect individual brasses, ledger stones or tiles by covering them with mats, carpets, plastic or lead has frequently inflicted greater damage than the impact of feet which they were attempting to exclude.

Experience at Westminster Abbey (and there are many other examples) has highlighted this:

a.) Brasses The magnificent brass to Bishop Monk lying centrally in the north choir aisle has been seriously damaged by efforts to protect it. It was first covered by a sheet of plastic under which grit and dust accumulated. The pressure of feet and the movement of the plastic ground the grit into the brass and caused serious scratching. The next experiment was to cover the brass with
a thick sheet of lead. An electro-chemical reaction was set up as rising damp was trapped under the lead, and a process of bi-metallic corrosion developed, causing both the brass and the lead to break up. No alternative solution has so far been offered.

In many churches and cathedrals brasses have been covered with rugs and mats. Invariably these trap the dust and grit, and scratching occurs. It seems likely that moving important brasses to protected positions is the only answer. At Salisbury, several brasses are covered by dusty rugs as their only protection.

There was a proposal to move the outstanding nineteenth century brasses at Westminster Abbey commemorating former Surveyors to the Fabric, from their present position in the nave to more protected positions between the piers in the north aisle. Cost is, as usual, the difficulty. At present some lie under chairs and are consequently scratched, others on the main route of visitors going from the nave to the pay desk in the north aisle. There is also a fine nineteenth century brass to Sir Robert Wilson in the north aisle urgently needing protection. Even the brass to Lord and Lady Mountbatten by Christopher Ironside, 1985, to the south east of the west door, is showing signs of wear. Perhaps ropes or a protective border, as with the tomb of the unknown warrior, are the answer. Something must be done.

b.) The Great Pavement Dating from the rebuilding of the Abbey by Henry III, Abbot Wade and Odoricus Romanus, the great Cosmati pavement of 1268 is composed of green and purple porphyry, gallo antico and mosaic glass of great antiquity, much of it re-used from ancient Rome. The central onyx, possibly from Persia or Egypt, was surrounded by an inscription in Lombardic lettering and formed the ceremonial centre on which coronations took place, as at old St Peter's, in Rome.

The protection of this, the most important Cosmati pavement north of the Alps, is of unique importance. It has for many years been carpeted. The rubberised underlay has in places stuck to the mosaic floor. Further damage was inflicted in February 1990 when a temporary carpet was laid around the perimeter as a viewing area for the public; parts of this have also stuck. The Purbeck base is also in very poor condition, and a conservation programme must now be carried out. However, it appears that more damage has occurred as a result of the protective carpets than would have been inflicted by the feet of clergy. The public are not admitted to the Sanctuary. The pavement was designed as the culmination, both liturgically and visually, of the Sanctuary, and as an essential part of the setting of the high altar. There is therefore a strong case for sensitive conservation and for subsequently leaving it uncovered.

c.) Chapter House The remarkable medieval tiled floor had been protected since the Reformation by a wooden floor, during the period when the chapel was used as a muniment room. It was re-discovered, in magnificent condition, by Sir
Gilbert Scott. Since then various attempts have been made to protect it. The felt slippers used by visitors were abandoned in favour of a perimeter band of coya matting, after careful research by English Heritage. This however proved unsatisfactory, since it moved and stretched under the impact of visitors' feet, causing unacceptable friction on the tiles beneath. It also produced dust which affected both the tiles and the medieval wall paintings.

A new form of matting has been introduced recently, and the results are awaited.

It seems possible that the only satisfactory protection for floors of this importance is to lay a semi-permanent floor, suitably ventilated, over the entire area. This has been done in the Peretory at Westminster Abbey, to protect the Cosmati pavement surrounding the shrine of Edward the Confessor, in the Bray Chapel at St George's Chapel, Windsor and other places. The disadvantages are that inspection is difficult and that the public are deprived of one of the major experiences that the buildings have to offer. We have to weigh our responsibilities as conservators for the future and the demands of tourism.

The first requirement in protecting historic floors is one of recognition; this has, until now, been almost entirely missing. The second is to identify areas of particular interest, and the third to devise ways of controlling the overuse which is causing the damage. For this, advice is urgently needed, both from scientists monitoring techniques of protection, and from tourism experts with experience in crowd control. Much overcrowding could be avoided by introducing rigorous booking systems for all coach parties to all cathedrals. One should always remember that too many people in confined spaces, even if not carrying rucksacks or babies on their backs, or pulling trolleys or pushchairs, destroy the experience for each other, quite apart from the damage they inflict upon floors and monuments. There should therefore be a strong presupposition that large crowds and small delicate chapels are incompatible. I have suggested that several of the radiating ambulatory chapels at Westminster Abbey should be partially closed to the public.

The final requirement is for further studies, of the kind carried out by Robin Wade at Lincoln, to identify methods of improving the experience of visitors without destroying the buildings they come to see. It is a delicate balance.

October 1990

Jane Fawcett
SUMMARY AND CONCLUSIONS

These survey reports make no claim to be complete. They do, however, represent the first attempt to assess and co-ordinate information on the floors of 44 cathedrals and greater churches and to make some value judgements on their most important features. It is remarkable that this should not have been done before and this is only a start. I have attempted to identify some of the problems; it is for others to implement the recording and conservation that must follow. The timing is auspicious. The printing of this report coincides with the Care of Cathedrals Measure (March 1991). Both the Cathedrals Fabric Commission and a number of Fabric Committees have already responded to the issue. The cathedral inventories required under the terms of the Measure, now to include historic floors, will expedite matters. So will the grant requirements of English Heritage, who will administer the new government grants scheme for cathedrals.

Further research is now required, to determine a methodology for recording, suitable for all cathedrals. The historical significance of individuals commemorated on ledgers and brasses must be established and further research implemented into the different materials and techniques used and the various components of historic floors.

A photogrammetric survey of all floors, on which archaeological and historical data can be entered, would provide the ideal solution, but this is expensive.

Concurrently with this, urgent action must be taken to protect the best floor areas, before they are destroyed. This means research into conservation methods, and suitable controls to prevent further damage from over-visiting. My recommendations briefly address some of these problems.

The naves of many cathedrals were repaired in the late eighteenth century or early nineteenth century, with the loss of much ancient material. The floor plans showing the position of ledgers and processional stones in the late eighteenth century, printed in Aymer Vallance's Greater English Church Screens, demonstrate how much has vanished or been moved to other positions. At Lincoln, for example, there were recorded in Gough's Camden, 1789, many grave slabs, brasses and procession stones in the nave and transepts, and very few in the choir aisles, before the repaving of the nave in 1790. Today, the nave and transepts have no ledgers and the choir aisles contain a remarkable sequence of matrices for brass indenters. The Angel Choir, Morning Chapel and Chantry Chapels are also very rich in ledgers, many of them medieval and many moved after the repaving. The same pattern can be traced in many cathedrals. Furthermore, the chancels in many cathedrals have been repaved, often in the nineteenth century during the restorations of Sir G G Scott and J L Pearson and others. It is therefore in the choir aisles and Lady Chapels that most of the ancient ledgers and brasses and even medieval tiles have survived, for example at Exeter, Winchester, Ely, Westminster Abbey, Gloucester, Southwark, Peterborough and York. These are areas where congestion is particularly serious and the destruction of evidence most difficult to control.
Having completed the surveys, it is now possible to identify some of the outstanding features of English cathedral floors. The Great Cosmati Pavement at Westminster Abbey, of 1248, is unique in Britain, and because of its early date and origins, outstanding in Europe. Recent research, including Patterns of Thought by Richard Foster, 1991, has revealed new facts about its composition and on the materials used, many from ancient Rome. Its conservation and preservation create major problems, at present wholly unresolved. The Cosmati pavement in Trinity Chapel, Canterbury, is of comparable date, but smaller.

Medieval tiled floors are also of particular concern, owing to their extreme delicacy and the speed with which, under heavy use, the surface pattern can be wholly eradicated. An outstanding example is in the Chapter House at Westminster Abbey, where various experimental methods of protection have been introduced by English Heritage. This pavement, of 1257, owes its present condition to the protection offered by a timber floor laid shortly after the Reformation. It has deteriorated more rapidly, since its discovery by Sir Gilbert Scott in 1860, than during the previous 600 years. The past 20 years have accelerated this process alarmingly.

The other medieval tiled pavement at risk is at Winchester, in the Retrochoir, and north and south Presbytery aisles. These areas contain considerable areas of the original medieval tile carpet. However, in the north and south choir aisles, the tiles are interspersed with ledgers and plain floor slabs, all in poor condition and all on the main tourist route. The modern replica tiles laid by Professor Baker 20 years ago in the north presbytery aisle, already show considerable signs of wear.

Other cathedrals containing important areas of medieval tiles are Worcester, Ely, Lichfield, and Gloucester. The tiles in the Lady Chapel at Gloucester present similar problems to those at Winchester, since they are mixed with ledger stones, in poor condition, and on the main tourist route. They have also been damaged by the recent introduction of a font surrounded by a large area of new paving.

There are outstanding medieval brasses at Westminster Abbey, Salisbury, York, Exeter, St Albans, Hereford and Ely Cathedrals, and at Christ Church, Oxford and St Mary Redcliffe, Bristol, and a remarkable sequence of brass indents at Lincoln, Ely and Canterbury. Both St Paul's Cathedral and Westminster Abbey have fine nineteenth century brasses, at St Paul's commemorating leading artists and musicians, and at Westminster to Surveyors to the Fabric, and Robert Stephenson. All are at risk from over visiting.

I found most of the floor brasses covered by mats, mostly dirty, inadequate in size and therefore liable to grind grit into the surface of the brass. I also found several, at Westminster Abbey and Lincoln Cathedral, under lead sheets and deteriorating. These have now been removed. Methods of protection of brasses and of indents is still unresolved.

The best surviving collection of medieval ledger stones are to be found at Exeter and Lincoln Cathedrals. They deserve better care and protection than that offered at present. It is remarkable that so many have been preserved, even though, owing to the repaving, not necessarily in their original position, and therefore probably not related to burials. More research is urgently needed here.
All cathedrals and greater churches have good and undervalued collections of seventeenth, eighteenth, and nineteenth century ledger stones, often with heraldic bearings and many with fine lettering and interesting inscriptions. Much needs to be done, both to record and protect them; their archaeological interest and their relationship to burial vaults and to earlier positioning of screens and other furnishings also needs investigation. Floors contain so much evidence of the past.

Many of the nineteenth century tiled pavements designed by Sir Gilbert Scott and John Loughborough Pearson, among others, are already showing signs of wear. Outstanding examples of nineteenth century Cosmati pavements are at Peterborough, Durham, and Bristol. Some of the most beautiful pavements designed by Sir Gilbert Scott are at Worcester, Lichfield, Chester, Ely, Oxford Christ Church (copied from the church of the Knights of St John in Malta) and at Tewkesbury Abbey.

Until recently, they have been undervalued. Today, many of the tiled surfaces are deteriorating and some of the tesserae are breaking up. Floor records, both of inscriptions of historical interest, are uncoordinated and seldom complete. Floor plans, information on repaving, movement of ledgers, tiles and brasses, loss and salvage, are also disorganised and in many cases non-existent. There is an urgent need to co-ordinate this material, as an essential tool towards proper understanding and treatment. The contents of the tomb of St Cuthbert at Durham and that of Bishop Brewer at Exeter, were identified, recorded and displayed. Many other examples exist. The information they reveal is essential to our understanding of historic floors and the long sequence of history they display. Some suggestions for better maintenance and more methodical recording follow.
ICOMOS UK CATHEDRAL FLOOR DAMAGE SURVEY

RECOMMENDATIONS

I suggest that the following initiatives are now essential in order to retrieve all possible information from historic floors before it is finally obliterated.

1. All cathedral records and plans should be checked and co-ordinated to ascertain what information, if any, is available on inscriptions, armorials, lettering and locations of ledger stones and brasses.

2. Using existing records and plans, making comparisons with documentation from different periods, and adding to them where necessary, to complete a systematic record of all inscriptions. These should be supported by a description of lettering and decoration and with details of armorials. Type of material, condition, and location should also be recorded.

3. The position of all ledgers and brasses should be entered on a floor plan, scale 1:20. Colour coding can be used to indicate archaeological interest.

4. A visual record of each floor slab, brass indent, and brass should be prepared, using photogrammetry, rectified photography, or photography and rubbings. Remote sensing should be employed for the retrieval of severely damaged inscriptions.

5. The design of individual tiles and overall floor patterns for medieval tiles, Cosmati floors, and nineteenth century tesselated pavements should be recorded in the same way.

6. The protection and conservation of historic areas and of individually important brasses, tiles and ledgers, should be undertaken urgently, in the light of recent research carried out by the Building Research Establishment, and the Victoria and Albert Museum, English Heritage and others.

7. The siting of all furniture in sensitive areas should be reconsidered.

8. The moving of heavy equipment, particularly temporary equipment, installed by outside contractors, should be subject to the most vigorous supervision. Operators using heavy cleaning equipment should be given instructions to avoid damage. Strong bleaches and abrasive powders should never be used on delicate surfaces.
9. The placing of protective mats, lead covers, or the introduction of ropes and railings to protect delicate surfaces should be reconsidered as an urgent necessity. Mats should be placed at all entrances, to extract dust, mud, and grit from visitors' feet.

10. Controls to prevent the catastrophic overuse of certain areas at peak hours should be introduced immediately, and some areas closed to visitors completely. Stiletto heels should be forbidden in historically important areas.

11. School parties, tours, and groups should be required to book their visits in advance, to avoid unacceptable overcrowding.

12. Coach operators should be forced to book their parties in advance, payment to cathedral authorities should be made obligatory and a code of conduct introduced. A sliding scale of fees should be charged, according to the size of the party.

13. Public relations staff should be employed at all cathedrals to handle the reception and control of visitors.

14. The number of vergers and stewards employed should be greatly increased, especially at peak times, to avoid theft and vandalism and the anti-social behaviour that is becoming increasingly prevalent.

15. Visitor management studies should be commissioned to improve the experience, and the control of visitors, at all heavily visited cathedrals.

16. Better facilities for visitors would also generate more income for cathedral authorities, and should be developed wherever possible.

17. The preparation of inventories should be initiated as a protection against damage and the loss of valuable artefacts, as soon as possible. These should include historic floors.