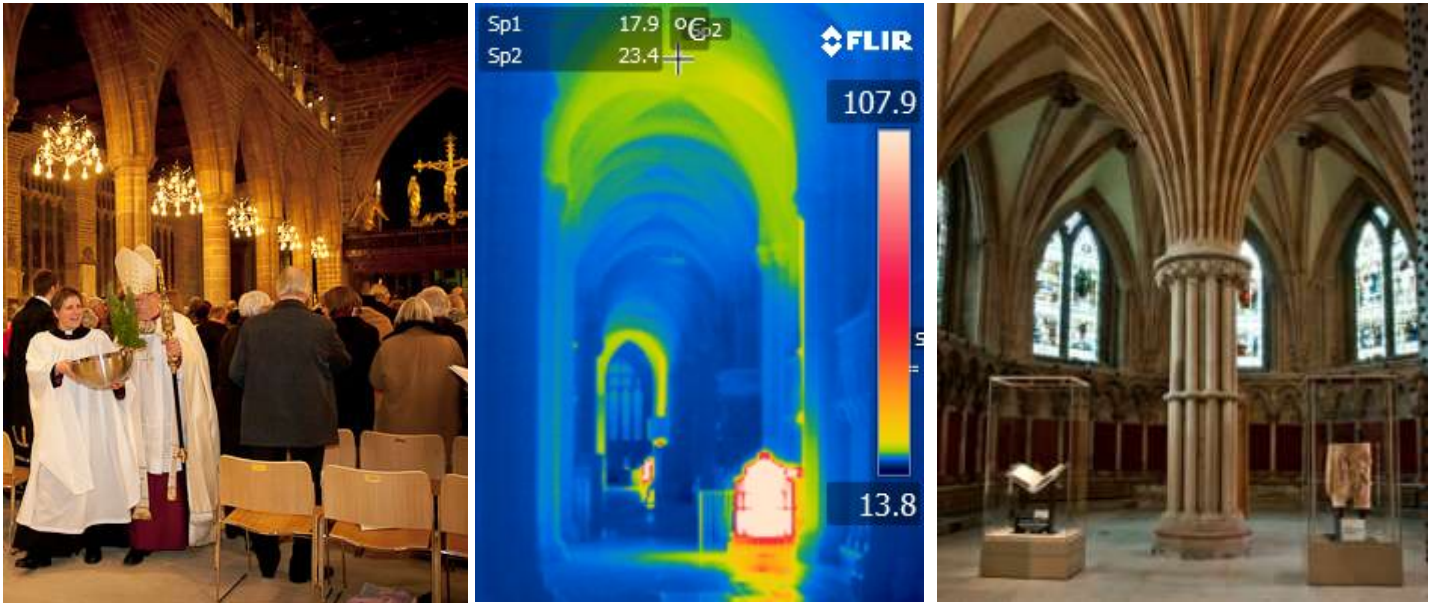




## Building Performance

**Environmental assessments to support the use and development of cathedrals and church buildings**



Cathedrals are complex buildings typically incorporating not only a church constructed over many years, but also ancillary structures of various periods and functions. To fulfil the Church's mission, these buildings must support a vast range of activities; from worship, education and community support, to tourism and the display of museum-quality collections. This imposes great technical demands and at times conservation may conflict with use.

Building performance assessment is a critical tool to successful management, bringing together information not only about the fabric and the microclimate, but also about the services (especially the heating), and current and future uses. By understanding how a building is performing, day-to-day management can be more effective, care and conservation can be more sustainable, and the risks and running costs of alterations minimised.

This conference brings together a range of experts, to explore the assessment of building performance and the control of internal microclimates. It will include a forum to discuss ways of making such assessments possible, and of sharing information and experience. The focus will be on the complex case of cathedrals, but it will also be of interest to those working with environmental problems in greater churches, smaller parish churches, and other types of historic buildings.

**Date:** 2 October 2014

**Venue:** Mercers' Hall | Ironmonger Lane | London | EC2V 8HE



## PROGRAMME

9:30	Arrival and refreshments	
10:00	Welcome	Jennie Page (Cathedrals Fabric Commission)
10:10	Building Performance in Use: the great unknown?	Dr Bill Bordass (Usable Buildings Trust)
10:35	Finding Out How Your Building is Performing: an introduction	Dr Robyn Pender (English Heritage)
11:00	A Little and Often: maximising life expectancy of building fabric and reducing long term costs	Graham Abrey (Ingram Consultancy Limited)
11:25	Building Conservation and Environment: commissioning useful research and understanding practical results	Tobit Curteis (Tobit Curteis Associates)
11:50	Q&A	
12:10	Lunch	
13:05	Exeter Cathedral: working collaboratively to understand the root causes of fabric decay	Camilla Finlay (Acanthus Clews Architects)
13:35	Winchester Cathedral: planning, commissioning and using conservation consultants when managing major projects	Annabelle Boyes and Nick Cox (Winchester Cathedral   Nick Cox Architects)  <i>With introduction by The Very Revd James Atwell Dean of Winchester</i>
14:10	Durham Cathedral: exhibition and display in complex mediaeval spaces. Environmental and conservation strategies	Christopher Cotton (Purcell)
14:40	Conservation of Fabric and Collections in Cathedrals: environmental factors	Tobit Curteis (Tobit Curteis Associates)
15:00	Q&A	
15:20	Tea break	
15:40	Open Forum <i>Chaired by Jennie Page (Cathedrals Fabric Commission) with panel members from The Edge, SPAB, Heritage Lottery Fund, Building and Engineering Services Association, and English Heritage</i>	
16:25	Closing remarks	Jennie Page (Cathedrals Fabric Commission)
16:30	End	

## **Précis and Biographical Notes**

### **Building Performance in Use: the great unknown?**

Dr Bill Bordass  
Usable Buildings Trust

One would expect designers and builders to know a lot about building performance in use. Unfortunately most don't, as they are employed to produce or alter buildings, not to follow through into operation or to feed back the learning. The situation has worsened over recent decades, as government has outsourced its technical skills, put an emphasis on efficient construction, and expected markets to solve problems they are not built for. There is an urgent need for change, including 1). Developing the knowledge domain of building performance in use, in the public interest; 2). Reviewing the role of building professionals, to ensure proper engagement with the consequences of their actions; and 3). Improving client capabilities and procurement systems.

**Bill Bordass** moved from science research to the multi-skilled designers RMJM London, going on to lead its building services and energy groups. In 1984 he set up William Bordass Associates, which studies technical and environmental performance of new, existing and historic buildings in operation and works closely with human factors specialists. He is research and policy adviser to UBT, the Usable Buildings Trust charity, which collects and disseminates information on building performance and considers the implications. His publications include Heating your Church (1984 and 1996); Flying Blind (2001); the Soft Landings Framework (2009); and editing the 2013 Special Issue of Building Research and Information on New Professionalism. His work on risk assessment in energy retrofits is being taken further by UBT with the Sustainable Traditional Buildings Association.

### **Finding Out How Your Building is Performing: an introduction**

Dr Robyn Pender  
English Heritage

The way a building performs depends not just on its fabric, but also on how it is used, and on the alterations necessary for all required uses (from adding windows and partitions, to installing heating and plumbing). A good understanding of building performance serves many purposes: for example revealing the causes of deterioration, and suggesting ways in which it could be controlled; designing services that work effectively but use minimal energy; or helping to understand the implications of potential changes. It provides a firm foundation on which to base planning for the future of a church building, or indeed any historic building.

How, then, is performance assessed? What is the role of the specialist, and what investigations might they need to consider? How can an assessment be planned to provide all the information necessary to answer practical questions, without becoming an expensive exercise in pure research?

This talk introduces the potential and practice of building performance assessment.

**Robyn Pender** is a Senior Architectural Conservator in the Building Conservation and Research Team at English Heritage, advising on the environmental deterioration of buildings and on issues concerning climate change and the built environment. After a first degree in physics from the University of Queensland in Australia, Robyn moved to London to study wall-painting conservation at the Courtauld Institute of Art, staying on to teach there and pursue a PhD looking at the effect of external conditions such as humidity and air movement on the movement of moisture within painted building stone. She was then asked by the Centre for Sustainable Heritage at University College London to undertake an English Heritage-funded study into the effects of climate change on the historic environment, and stayed at the Bartlett for another year to coordinate their Engineering Historic Futures project, before moving to English Heritage to help edit the forthcoming new series of “Practical Building Conservation” books. She is a principle author of three of the volumes: “Building Environment”, “Metals”, and “Glass and Glazing”.

### **A Little and Often: maximising life expectancy of building fabric and reducing long term costs**

Graham Abrey  
Ingram Consultancy Limited

The talk looks at established periodic building surveying practice, maintenance planning and implementation, and programmes of conservation and repair, and ask whether we really consider how long building elements such as roof coverings, masonry, rainwater drainage systems etc., will last and when is the right time to maintain, repair, or replace.

How long do building materials last?

Can small-scale regular maintenance prolong the life of building fabric?

What part does quinquennial building surveys play in taking a long-term view?

**Graham Abrey** is a Chartered Building Surveyor and historic buildings advisor formally accredited in building conservation by the Royal Institution of Chartered Surveyors, dealing in programmes of conservation, repair and maintenance to listed buildings and scheduled ancient monuments. His works covers a wide range of building types from churches, historic houses, castles, nineteenth century rail infrastructure and ruined masonry structures.

### **Building Conservation and Environment: commissioning useful research and understanding practical results**

Tobit Curteis  
Tobit Curteis Associates

Next to mechanical damage, building environment is the most significant factor in the deterioration of both the building fabric and sensitive artefacts. For exhibitions, physical protection is often incorporated into the design and therefore inappropriate environmental conditions can be the primary source of long-term deterioration. The impact of environmental factors on conservation is also integrally linked to energy efficacy and the desire to reduce energy costs and carbon footprint. Much of the deterioration associated with environmental sources can be controlled if the underlying causes are known. However,

identifying what questions should be asked, the way investigation should be conducted, and the cost effectiveness of detailed research is something which is often not sufficiently well understood. In many cases, a simple, low-tech and low-cost approach is all that is needed to identify and control the problem. However in certain cases and in-depth investigations are essential if damage is to be prevented. Understanding how to evaluate which approach is necessary, and how the results should be used, is essential for successful long-term conservation.

Following a degree in the History of Art at the University of Warwick, **Tobit Curteis** trained in the conservation of wall paintings at the Courtauld Institute of Art in conjunction with the Getty Conservation Institute. Since 1992 he has run a practice specialising in the conservation of wall paintings and the diagnosis and control of environmental deterioration in historic buildings. He works in the UK and abroad for private and institutional clients including English Heritage, the National Trust, Historic Royal Palaces and the World Monument Fund. He is an external consultant for the Building Conservation and Research Team at English Heritage and is the National Trust's Advisor on Wall Paintings. Current projects include investigations into the environmental deterioration and control at the cathedrals of York, Canterbury, Exeter, Durham and St Paul's as well as at Westminster Abbey.

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### **Exeter Cathedral: working collaboratively to understand the root causes of fabric decay**

Camilla Finlay, B Arch (Hons), Dip Arch, M Arch, RIBA, AABC  
Acanthus Clews Architects

Camilla will be speaking today on working collaboratively to understand and manage the environmental conditions at Exeter Cathedral and deal with the root causes of fabric decay rather than just focusing on the symptoms alone.

**Camilla Finlay** is an AABC Architect and the Director responsible for conservation at Acanthus Clews Architects. She was appointed Cathedral Architect to Exeter Cathedral in 2012 and was appointed this year as Surveyor of the Fabric at Worcester Cathedral.

She has extensive experience of church conservation and architecture, including designing the new building for the Anglican Benedictine Congregation of Mucknell Abbey, which won the Ecclesiastical Architects and Surveyors Association President's Award in 2011.

Camilla is married to fellow Acanthus Clews Architects Director, David Finlay, and they have 2 children. She is Church Warden for St Mary's Church, Banbury, and her father is Michael Clews who is Cathedral Architect for Coventry and Llandaff Cathedrals.

## **Winchester Cathedral: planning, commissioning and using conservation consultants when managing major projects**

Annabelle Boyes and Nick Cox MA (Cantab), Dip Arch, RIBA, SCA, AABC  
Winchester Cathedral | Nick Cox Architects

*With introduction by*

The Very Revd James Atwell  
Dean of Winchester

Winchester Cathedral – ‘Kings and Scribes, the Birth of a Nation’ is a major project that has received £10.5 million of HLF funding. It includes conservation work in the presbytery – lead roof, stained glass, stone and timber vault – as well as the devolvement and installation of a new exhibition in the south transept. This will incorporate a new display of the twelfth century Winchester Bible together with an exhibition on the early Anglo Saxon Kings and Queens of England and ‘Decoding the Stones; the story of its construction and craftsmanship. Work has just commenced on site for its delivery stage.

This case study will consider the project from the client point of view, presented by Annabelle Boyes, Receiver General and Canon Treasurer, and the perspective of the Cathedral Architect, Nick Cox. Annabelle Boyes will discuss issues in relation to the development of the exhibition in the south transept and Nick Cox will focus more on the conservation issues in the presbytery.

**James Atwell** read theology at Exeter College, Oxford and studied for his Master’s at Harvard Divinity School. After training at Cuddesdon, he was ordained in Advent 1970 to serve as a curate in South London and subsequently was appointed a College Chaplain in Cambridge. He was Vicar and Rural Dean of Towcester (Northamptonshire) where he had a project to conserve the tower of the parish church at high level, turn an historic Chantry House into a Parish Centre and undertake major structural work to the historic Vicarage to win the assent of the Church Commissioners to a lasting solution. He moved to be Dean of St Edmundsbury in 1995 and much of his eleven years in that role was involved with a Millennium Project to complete the Dykes Bower vision for the Cathedral with a Central Tower, North Transept and additional Cloisters. Since moving to be Dean of Winchester in 2006 he has been involved with the Cathedral’s successful HLF bid which includes both conservation work and development of the Cathedral’s educational and visitor outreach.

As the Receiver General and Canon Treasurer of Winchester Cathedral, **Annabelle Boyes’s** overall responsibility, as CEO, for the day-to-day non-liturgical operational running of the Cathedral including its administration, finances and commercial activities. Her title of Receiver General and Canon Treasurer dates from medieval times.

Annabelle’s early career was rooted in retail with many Blue Chip Retail organisations. Annabelle works closely with the Dean and her Chapter colleagues to further the Cathedral’s Mission and Ministry. Her vision, drive and commitment to a secure financial future for the Cathedral led her to conceive a major regeneration project: “Kings and Scribes, The Birth of a Nation” for which

she went on to secure a substantial £10.5million national grant from the Heritage Lottery Fund.

Annabelle is Managing Director of Winchester Cathedral Enterprises Ltd, a Trustee of the Priory of the Order of Saint John of Jerusalem and a non-executive Director of Winchester College Trading Company Ltd. She is a member of the College of Canons and a Trustee of the Friends of Winchester Cathedral. Annabelle was nominated and elected as a Director of the Cathedrals Administration and Finance Association (CAFA) in 2012.

Annabelle is a member of the British Retail Consortium, a Fellow of the Institute of Directors and a Chartered Director.

**Nick Cox** has a long standing love of historic buildings and over 20 years of experience working on them. After studying architecture at Cambridge University and Oxford Polytechnic he was awarded a Lethaby Scholarship in 1990 by the Society for the Protection of Ancient Buildings (SPAB). He is involved with the SPAB and has just completed nine years as a Guardian and Trustee (Vice-Chair). He sits on the SPAB Technical Panel and is also a member of the National Trust Architectural Panel.

He established Nick Cox Architects in 2006. He is the Cathedral Architect for Winchester and Wells Cathedrals and the appointed 'Palace Architect' at Blenheim Palace. He advises on the conservation of historic fabric at Woburn Abbey, Calke Abbey, Kedleston Hall, and other properties for the National Trust. His practice encompasses a number of parish churches and several churches for the Churches Conservation Trust. His competition winning design for the New Music School at Stowe has recently been completed and received an RIBA award.

### **Durham Cathedral: exhibition and display in complex mediaeval spaces. Environmental and conservation strategies**

Christopher Cotton  
Purcell

Chris Cotton's talk will summarise the scope of the Open Treasure project that is currently underway at Durham Cathedral. It will set out a number of the key issues and processes that need to be considered when reusing complex historic spaces for exhibitions with high environmental requirements. Chris will discuss some of the specific environmental performance challenges and strategies that were faced in developing the mediaeval monastic claustral spaces at Durham Cathedral.

**Chris Cotton** is both a conservation and design architect working within the historic environment. He is the appointed architect for Durham Cathedral and is leading their Open Treasure Project. He has developed a specialist understanding in complex historic spaces and their environmental performance. He is a partner in Purcell's York Office.



## **Conservation of Fabric and Collections in Cathedrals: environmental factors**

Tobit Curteis

Tobit Curteis Associates

The display of sensitive artefacts in historic cathedral buildings produces a range of conservation problems, often associated with environmental factors, which are uncommon in modern museums. Cathedral buildings are generally large and well visited spaces with minimal environmental control, which were not designed to provide benign conditions for sensitive objects. Some spaces are illuminated by huge windows, which, while beautiful, provide light levels which will cause severe damage. Other spaces are subterranean and subject to the impact of hundreds of years of drainage combined with the modern desire for high levels of comfort heating, which can result in damage both to exhibited artefacts and the building fabric itself. In such circumstances, standard environmental controls, including exhibition cases, can struggle to perform effectively. Most of the associated risks can be avoided, with careful design. However, understanding the environmental deteriorogens, and incorporating this into the design of an exhibition, the background heating or simply the visitor management is a critical part of successful conservation.

Following a degree in the History of Art at the University of Warwick, **Tobit Curteis** trained in the conservation of wall paintings at the Courtauld Institute of Art in conjunction with the Getty Conservation Institute. Since 1992 he has run a practice specialising in the conservation of wall paintings and the diagnosis and control of environmental deterioration in historic buildings. He works in the UK and abroad for private and institutional clients including English Heritage, the National Trust, Historic Royal Palaces and the World Monument Fund. He is an external consultant for the Building Conservation and Research Team at English Heritage and is the National Trust's Advisor on Wall Paintings. Current projects include investigations into the environmental deterioration and control at the cathedrals of York, Canterbury, Exeter, Durham and St Pauls as well as at Westminster Abbey.

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## Open Forum

### Panel Members

#### **Jennie Page (Chair)**

Cathedrals Fabric Commission for England

Jennie Page has been Vice-Chairman of the Cathedrals Fabric Commission for England since 2006. She was from 1989 to 1995 Chief Executive of English Heritage

#### **Ian Morrison**

Heritage Lottery Fund

The Heritage Lottery Fund (HLF) sustains and transforms a wide range of heritage through innovative investment in projects with a lasting impact on people and places. As the largest dedicated funder of the UK's heritage, with around £375million a year to invest in new projects.

Ian Morrison joined the Heritage Lottery Fund in 2008 as the Head of Historic Environment, and he provides advice and guidance on all aspects of conserving the historic environment. He also has lead responsibility for HLF's Townscape Heritage grant scheme, the Grants for Places of Worship programme and the Heritage Enterprise scheme. Ian had a pivotal role in the development of HLF's current Strategic Framework for 2013-2018 (A lasting difference for heritage and people).

Prior to joining HLF, Ian worked for English Heritage for 15 years as an Inspector of Ancient Monuments and Team Leader, where he accumulated extensive experience across the wide spectrum of historic environment conservation.

He has an Honours degree in Ancient History and Classical Archaeology from the University of Sheffield and an MA in Archaeological Theory from the University of Southampton. He is a Fellow of the Royal Society of Arts and is a member of the Institute of Archaeologists and the Society for the Protection of Ancient Buildings.

#### **Robin Nicholson CBE RIBA Hon FStructE Hon FCIBSE**

The Edge

Robin Nicholson is a senior partner of Cullinan Studio, which he joined in 1979. He is Convenor of the multi-disciplinary Construction Industry think-tank, The Edge, and chairs the Cambridgeshire Quality Panel. Robin is one of the Design Council CABE's Design Review Chairs and has recently been appointed an Honorary Professor at the University of Nottingham.

Previously he was a Vice-President of the RIBA (1992-94), Chairman of CIC (1998-2000) and founder member of the Movement for Innovation Board (1998-2001). He was a CABE Commissioner (2002-10), chaired the DCSF Zero Carbon (Schools) Task Force (2009-10) and was a Board Member of the National House Building Council (2007-14).

Trained at Cambridge and the Bartlett, Robin was job architect for James Stirling's Olivetti Training Centre (1970-73) and then worked in Chile with Cristian Boza. He taught at the Bartlett (1974-76) and then PNL (1976-79).

### **Dr Robyn Pender**

English Heritage

Robyn Pender is a Senior Architectural Conservator in the Building Conservation and Research Team at English Heritage, advising on the environmental deterioration of buildings and on issues concerning climate change and the built environment. After a first degree in physics from the University of Queensland in Australia, Robyn moved to London to study wall-painting conservation at the Courtauld Institute of Art, staying on to teach there and pursue a PhD looking at the effect of external conditions such as humidity and air movement on the movement of moisture within painted building stone. She was then asked by the Centre for Sustainable Heritage at University College London to undertake an English Heritage-funded study into the effects of climate change on the historic environment, and stayed at the Bartlett for another year to coordinate their Engineering Historic Futures project, before moving to English Heritage to help edit the forthcoming new series of "Practical Building Conservation" books. She is a principle author of three of the volumes: "Building Environment", "Metals", and "Glass and Glazing".

### **Douglas Kent**

The Society for the Protection of Ancient Buildings

Douglas Kent is a Chartered Building Surveyor with an MSc in the Conservation of Buildings and the SPAB Technical and Research Director. He oversees the Society's technical activities, including technical advice, publications and events, and its research to support these. Douglas has worked previously in the public and private sectors, advising on historic buildings for a range of organisations, such as the Ministry of Defence and English Heritage. He is a member of the Technical Panels of the Institute of Historic Building Conservation and Property Care Association, the Committee of the Traditional Paint Forum, English Heritage's Stone Roofing Working Group and the Bells Committee of the Archbishops' Council. Douglas writes widely on technical matters and has contributed to various radio and television programmes. He owns a grade I-listed medieval house in Essex and is part-way through a major project of updating, alterations and repair. The conservation of his 17th-century pargeting (decorative external render) was joint-winner of the prestigious 2013 Museums + Heritage Award for Restoration or Conservation.

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**Clive Earp**

Earp Consulting Ltd

Clive Earp joined the building services industry in 1976, receiving a 4-year sponsored training programme with West Midlands Regional Health Authority at Polytechnic of the Southbank, gaining an Honours Degree in 1980. He became MCIBSE in 1982 and Chartered Engineer 1987.

Clive is experienced in both consultancy and contracting throughout the world, and has held board level posts. Has worked on a many historic buildings integrating modern building services and communication systems sympathetically with the building fabric. He has extensive experience of ground and air source heat pump systems and their integration into low carbon building services and process applications. Clive has acted as an engineering expert witness for large corporate clients and has wide experience in the utilities sector providing specialist cable cooling to high voltage cable installations in the UK and overseas.

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## List of Participants

Adrian Male	<i>AMA Associates</i>
Andrew Mottram	<i>Worcester Diocese</i>
Andrew Todd	<i>Southwell Minster</i>
Annabelle Boyes	<i>Winchester Cathedral</i>
Anne Margrethe Andersen	<i>Diocese of Copenhagen</i>
Brig John Meardon	<i>Canterbury Cathedral</i>
Bruce Mumford	
Camilla Findley	<i>Acanthus Clews Architects / Exeter Cathedral</i>
Caroline Rye	<i>ArchiMetrics Ltd</i>
Catherine Townsend	<i>Cathedrals and Church Buildings Division - ChurchCare</i>
Chris Miners	<i>English Heritage</i>
Chris Reading	<i>Rochester Cathedral</i>
Christine Braybrook	
Christopher Cotton	<i>Purcell / Durham Cathedral</i>
Christopher Shiell	<i>Trinity College Dublin</i>
Clive Earp	<i>B&amp;ES - Building and Engineering Services Association</i>
Colin Tolhurst	<i>Rochester Cathedral</i>
Daniel Cull	<i>Historic Royal Palaces</i>
David Baker	<i>Cathedrals Fabric Commission for England</i>
David Drewe	<i>English Heritage</i>
Dawn Whitton	<i>Churches Conservation Trust</i>
Douglas Kent	<i>SPAB</i>
Dr Anna Kefala	
Dr Bill Bordass	<i>Usable Buildings Trust</i>
Dr Dale Dishon	<i>English Heritage</i>
Dr David Walsh	<i>English Heritage</i>
Dr Lucy Wrapson	<i>Hamilton Kerr Institute</i>
Dr M Godfrey	<i>Lincoln Diocese</i>
Dr Pedro Gaspar	<i>Cathedrals and Church Buildings Division - ChurchCare</i>
Dr Robyn Pender	<i>English Heritage</i>
Duncan Withers	<i>St Edmundsbury Cathedral</i>
Eddie Sinclair	<i>Eddie Sinclair Conservation</i>
Elizabeth Hirst	<i>Hirst Conservation</i>
Emily Greenaway	<i>Cathedrals and Church Buildings Division - ChurchCare</i>
Fay Newham	<i>Ramboll Group</i>
Fergus Feilden	<i>Feilden Fowles</i>
Fiona Henderson	
Fran Joel	<i>Sheffield Cathedral</i>
Gilly Wilford	<i>Rochester Cathedral</i>
Graham Abrey	<i>Ingram Consultancy Limited</i>
Gudrun Warren	<i>Norwich Cathedral</i>
H. Tom Küpper	<i>Lincoln Cathedral</i>
Heather Newton	<i>Canterbury Cathedral</i>
Ian M Harper	<i>English Heritage</i>
Ian Morrison	<i>Heritage Lottery Fund</i>

Ian Prescott	<i>Liverpool Cathedral</i>
James Preston	<i>Sally Strachey Historic Conservation</i>
Jan Lindberg	<i>JEFF Electronics AB</i>
Janet Berry	<i>Leicester Cathedral</i>
Janet Gough	<i>Cathedrals and Church Buildings Division - ChurchCare</i>
Jennie Page	<i>Cathedrals Fabric Commission for England</i>
Jennie Schillig	
Jennifer Dinsmore	<i>Halahan Associates</i>
Jim Blake	<i>Guildford Cathedral</i>
Johannes Arens	<i>Leicester Cathedral</i>
John Fowler	
Jon Ellmark	<i>JEFF Electronics AB</i>
Jonathan Deeming	<i>Canterbury Cathedral</i>
K Halliday	<i>Lincoln Diocese</i>
Kate Streeter	<i>SPAB</i>
Keith Dodd	
Kelley Christ	
Kevin Sutton	<i>Church in Wales</i>
Kirstie Robbins	<i>Ptolemy Dean Architects / Westminster Abbey</i>
Krista Blessley	<i>Westminster Abbey</i>
Laurence Owen	<i>Max Fordham</i>
Leonie Seliger	<i>Canterbury Cathedral</i>
Les West	<i>Worcester Cathedral</i>
Lewis Robins-Grace	
Louise Bainbridge	<i>Seymour &amp; Bainbridge / Bristol Cathedral</i>
Lucian Hatfield	<i>Eltek Dataloggers</i>
Lucy Ackland	<i>Westminster Abbey</i>
Luke Hughes	<i>Luke Hughes</i>
Maggie Goodall	<i>Society for the Protection of Ancient Buildings</i>
Marie-Louise Sauerberg	<i>Westminster Abbey</i>
Mark Bonner	<i>Salisbury Cathedral</i>
Mark Sharratt	<i>Canterbury Cathedral</i>
Mary Greenacre	
Matthew Knight	<i>Robert Kilgour Architects</i>
Meriel O'Dowd	
Michael Purvis	<i>Southwell Minster</i>
Michael Tawn	<i>Lincoln Diocese</i>
Mr B Stoker	<i>English Heritage</i>
Mr Neville Doe	<i>English Heritage</i>
Mrs Louise Brennan	<i>English Heritage</i>
Natalie Merry	<i>Oxford Diocese</i>
Nicholas Lee Evans	<i>Lee Evans Partnership</i>
Nicholas Rank	<i>Buttress Architects / Lincoln and Carlisle Cathedrals</i>
Nick Cox	<i>Nick Cox Architects / Winchester Cathedral</i>
Nigel Walter	<i>Archangel Architects</i>
Oliver Caroe	<i>Caroe Architecture / St Paul's Cathedral</i>
Paul Creasser Beckett	<i>Sheffield Diocese</i>
Paul d'Armada	<i>Hirst Conservation</i>

Paul Parkinson	<i>Southwark Diocese</i>
Paul Williamson	<i>Guildford Cathedral</i>
Peter Martindale	<i>Peter Martindale Conservation</i>
Philip Everitt	
Professor Peter Fawcett	<i>Sheffield Cathedral</i>
Ptolemy Dean	<i>Ptolemy Dean Architects / Westminster Abbey</i>
Rhiannon Rhys	<i>English Heritage</i>
Robert Chitham	<i>Hereford Cathedral</i>
Robert Nicholson	<i>South Gloucestershire Council</i>
Robin Nicholson CBE	<i>CULLINAN STUDIO</i>
Robin Perry	<i>Eltek Dataloggers</i>
Ruth Harvey	<i>Birmingham Cathedral</i>
Ruth Harvey	<i>Birmingham Cathedral</i>
Sally Strachey	<i>Sally Strachey Historic Conservation</i>
Sarah Ball	<i>English Heritage</i>
Simon Cartlidge	<i>Simon Cartlidge Architect</i>
Sophie Hammond	<i>Oxford Diocese</i>
Susan Jenkins	<i>Westminster Abbey</i>
Sue Cannings	<i>Salisbury Diocese</i>
Suzi Pendlebury	<i>Caroe Architecture / St Paul's Cathedral</i>
Teresa Heady	<i>St Paul's Cathedral</i>
The Revd Canon Philippa Boardman	<i>St Pauls Cathedral</i>
The Right Revd Mark Boyling	<i>Carlisle Cathedral</i>
The Very Revd James Atwell	<i>Winchester Cathedral</i>
Timothy Bowden	<i>Ramboll Group</i>
Tobit Curteis	<i>Tobit Curteis Associates</i>
Tom Garrud	<i>Roman Catholic Diocese of Hallam</i>
Ulrike Knox	<i>Knox McConnell Architects / Bradford and Liverpool Cathedrals</i>
Vanessa Simeoni	<i>Westminster Abbey</i>
Veronika Vlkova	<i>VA Conservation</i>
Vicki Roulinson	<i>Ely Cathedral</i>
Victoria Poole	<i>Poole Phillips Architects</i>

## NOTES









[www.ChurchCare.co.uk](http://www.ChurchCare.co.uk)

