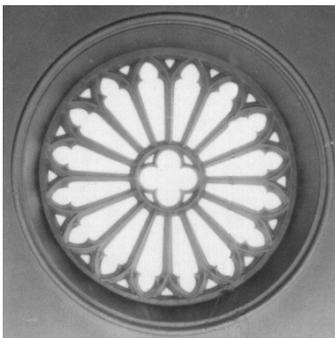


CHURCH WINDOWS

maintenance
protection
repair and replacement
commissioning



An information leaflet from the
Committee on Church Art and Architecture
of the Church of Scotland
August 1998 updated August 2008

“

A church window is not just for letting in the light. It has the functions also of giving glory to God and moving the heart to worship. To do this it must be well designed and crafted. This applies not just to stained or engraved glass but also to plain windows; well designed clear glass windows in a building may be one of its most beautiful features.

”

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wordoc@cofscotland.org.uk.**

Comments and suggestions for inclusion in any revision of this pamphlet are welcomed.

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INTRODUCTION

This leaflet aims to alert congregations to the responsibilities they have for the care of their windows. It outlines the problems which will be encountered during the decision-making process and how the Committee on Church Art and Architecture can help. This duty of care demands respect for the integrity and beauty of the original design; cost-effective prevention of deterioration; and sympathetic and appropriate renewal or enhancement.

Windows on the agenda

Windows come to the attention of a local property committee in a number of contexts:

- a **new window** may be required to mark a centenary, remember an event, or beautify a new church;
- accident or the passage of years may give rise to **damage or deterioration**, making repair or replacement necessary;
- a wave of **vandalism** makes protection essential;
- at the **union** of two congregations it may be felt desirable that a well-loved window be moved from the redundant building to the one chosen as the home of the new united congregation, so that the traditions of both are represented and people feel at home with familiar things around them.

WHAT WINDOWS ARE FOR

Windows in churches fulfil four functions at least. Firstly and most obviously, they let in the light while at the same time protecting against wind and weather.

Secondly, they enrich the quality of worship by appealing to the imagination and/or awakening the faith of the worshippers. They keep before the congregation symbols or stories of the Christian faith, wrought in stained or engraved glass. If they are clear windows, they either focus the attention on an external object (as in the Chapel at Carberry) or on the natural beauty surrounding the church, or they 'frame' a view of the parish area - a reminder of the context out of which worship rises or within which mission is carried forward. Windows mark the place where Gospel and tradition encounter the world of today.

Thirdly, they are integral to the church as seen from the outside, their shape part of the design of the building, itself intended to 'speak' to the people of city centre, suburb or village. When matters of protection are being considered, care must be taken not to distort or deface the integrity and beauty of the building's outer appearance.

Fourthly, a window may serve as a memorial to a person or people whose life has been significant for the congregation and which they hope will continue to inspire them. When such a window is being planned, care will be taken to ensure that the real subject matter of the window is one of the great themes of the Gospel which the commemorated person lived by.

THE ROLE OF THE COMMITTEE

The need for approval

The General Assembly requires that any proposal which involves change to the character and appearance of the inside or outside of a church building must receive approval. Regarding alterations to windows, approval comes from the General Trustees who take into account the opinion of the Committee on Church Art and Architecture. Application should therefore be made in the first instance to the Trustees. In the case of a straightforward repair, or where reinstatement is being made “like for like”, no approvals are required.

Depending on the locality and on the extent of the work, local planning consent may be required. The Presbytery ought also to be approached to ascertain whether its approval is necessary in a particular case. Where a listed building continues in use for regular worship, listed buildings consent is not required since ecclesiastical buildings exemption applies.

Getting advice

The Committee is willing to give advice from the earliest stages of a project. Over the years, every type of circumstance has come before the Committee, resulting in an accumulation of experience which can be placed at the disposal of any congregation with decisions to make about its windows. Which is the right course of action? what gives the best value for money? where is expertise to be found? – these matters are discussed in this pamphlet and can be developed, where appropriate, in a visit to the church.

PROTECTING YOUR WINDOWS

To install protection is to change the appearance of the window. It is therefore necessary to obtain approval. In window protection questions of appearance have to be kept in balance with the likely effectiveness of what is proposed. No system of protection has yet been designed which does not disturb the original look of the windows. Three solutions are commonly proposed: 1) grilles; 2) toughened, laminated or armoured glass; 3) polycarbonate sheeting (e.g. 'Lexan').

1. Grilles

Other things being equal, this option is to be preferred. Grilles expose the window to the cleaning action of wind and rain, are relatively inexpensive, and can be easily removed for repairs or for the cleaning out of debris. They can also be colour matched to the surrounding stone. These should be set into the window opening and not mounted flush with the outer wall. They may be hinged for easy opening.

The screens should be so designed that the internal structure of the window can still be clearly 'read'. They should be fitted at a sufficient distance from the window so that their pattern cannot be seen from the inside. The patterning should be square rather than diagonal (see next page).

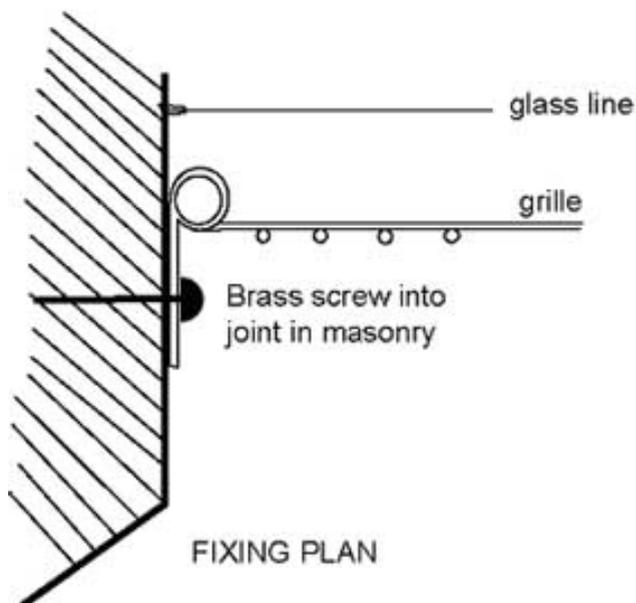
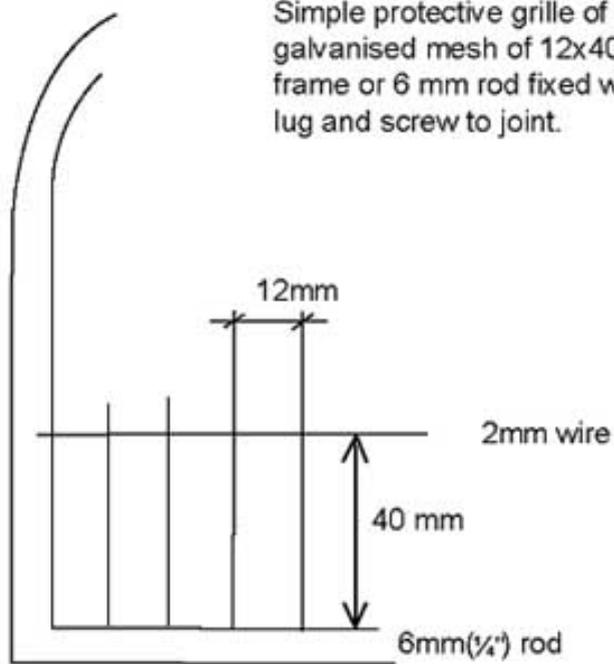
2. Toughened, laminated or armoured glass

In some contexts, the nature of the vandalism (eg sticks, air guns) calls for a more solid covering.

Toughened glass has the disadvantage that it must be cut to the exact size and shape of the area to be covered. It can also shatter on particularly strong impact in the manner of a car windscreen.

Laminated glass (which incorporates plastic sheet) can more easily be cut. While it also is breakable, the lamination holds the glass together, thus resisting damage.

Simple protective grille of bronze or galvanised mesh of 12x40 pattern in frame or 6 mm rod fixed with adjustable lug and screw to joint.



Armoured glass may be useful in extreme situations. The fact that each piece has to be cast exactly to the shape of the opening makes it expensive.

Acrylic materials such as Oroglas or perspex are not recommended since they quickly cloud over and become brittle.

3. Polycarbonate sheeting (e.g. 'Lexan')

Disadvantages include:

- amplification of heat accelerates the deterioration of the inner window;
- the material bulges out over time;
- the tendency over a few years for the material to take on a milky appearance and lose transparency;
- lichen can find a foothold as the surface becomes crazed;
- there can be problems relating to ventilation and cleaning;
- from the outside, when used in single sheets, the effect can be to deaden or 'blank out' the appearance of the original windows as it reflects the light (although mesh screens have sometimes be successfully added to restore a sense of the original shape).

Nevertheless, Lexan may be the only solution in particular instances. It should be installed in panes to match the saddle bar divisions on the stained glass rather than in a single sheet; this also prevents buckling.

Ventilation is of crucial importance. If, say, it is affixed by means of non-ferrous bolts into the stonework, space would be left at top or bottom. This would be true also if the sheet was affixed directly to a wooden window frame. Sometimes non-ferrous frames are used allowing for a gap of about 4mm all round. Sometimes holes are drilled at the top instead of leaving a gap.

Regarding the space between the window itself and the protective material, this should be at least 2" to facilitate the passage of air and to ensure that, if the outer sheet is damaged by impact from a large stone (for example), its implosion will not reach the protected glass. The need to be able to clean the glass should be borne in mind.

Reinstating existing protection

Where grilles are being renewed, no permission is required. Where other solutions had previously been adopted without approval, and the intention is to reinstate these, then the Committee must be contacted for advice and approval.

Keeping things in perspective

Where the problem is vandalism, it is worth first considering whether it might be more cost effective, when the incidents are fairly isolated, to extend the insurance. Also, the pattern of vandalism should be noted. Does this seem to be confined to a small number of people who may soon tire of the 'sport', or mature, or be caught? One congregation found the situation changed overnight when a ringleader left the district. It is worth asking the question whether the plans being considered might amount to a costly 'closing of the stable door'. Often, too, an obvious precaution will be to remove a ready source of 'ammunition' such as a gravel path.

A false solution

Sometimes secondary glazing is proposed when wind and rain are getting through an existing window because of wear or damage. However, the necessity for leaving a ventilation gap round the outer window means that the protection required will not be forthcoming. Wrongly installed secondary glazing is one of the major causes of deterioration encountered by those visiting on behalf of the Committee. Repair is the best option in the long run. Should it be felt, nevertheless, that secondary glazing is still required to prevent heat loss, a more effective solution would be to install a form of secondary glazing on the inside of the window.

REPAIR AND REPLACEMENT

The Committee's permission is not required when the aim is to repair or reinstate exactly what is already there in design and materials ('like for like').

Stained or leaded glass

Lead becomes weathered and thin over time and glass may become loose and fall out. Where the windows are in stained glass, or contain leaded sections, it is advisable to find an established stained glass artist who is willing to undertake repair work, since the intricacy of such windows and the treatments required call for the same skill and knowledge as that employed in the creation of a new window. Many of those on the list on pages 20-21 can undertake such work.

Beware of imitations

Where the windows are of leaded diamond panes or have timber astragals, any replacement should be 'like for like'. This is essential for listed churches and those in conservation areas, and highly desirable elsewhere. Imitation astragals fixed to sheet glass are not a desirable solution; apart from its unconvincing appearance, any breakage will require the replacement of the whole sheet of glass.

Modern and traditional materials

In the case of wooden framed windows, congregations may find themselves under pressure from contractors or salespersons to replace windows in uPVC when a more limited repair may be all that is necessary, e.g. a wooden sill. Fabric committees, therefore, should inspect the existing windows very carefully and gauge the extent of the problem. Only rarely is there a need for total replacement; repair will, in the majority of cases, be the most cost-effective way of proceeding.

The cost factor

In older buildings, window frames will be constructed from exterior quality timber. It is often proposed that replacements be in uPVC, cost and ease of maintenance being cited in support. However the lifespan of uPVC window frames is approximately 25 years, while existing timber frames may already have been in existence for much longer –

even a century or two! Repair or replacement in timber may therefore be the more cost effective solution in the long run – and in some instances in the short run also, since it has been found that the cost of timber frames can often be lower than that of uPVC windows. In any case, there is a cheaper alternative in vacuum impregnated softwood, which can be longer lived than hardwood; this solution is increasingly favoured today.

Relative life-spans

It is sometimes argued that uPVC windows are more suited to harder climates. However, in installing double glazing in the West Highlands (for example), firms will usually only guarantee the work for ten years. When timber frames are used, parts can easily be replaced as necessary, but when uPVC is used the whole unit has to be replaced. Another possible disadvantage should also be noted: some uPVC windows are only *coated* with this substance, and it has often been found that hairline cracks at joints let water into the metal core, spreading corrosion.

Maintenance

That uPVC windows are easier to maintain in the short term is not in question, and the Trustees may sometimes give approval for this if it is clear that maintenance is likely to be a problem. While regular maintenance of wooden windows is essential, such work is now less burdensome than it was at one time due to the introduction of microporous preservative/decorative finishes which are both easily applied and more effective than traditional paints.

Matters of appearance

There remains the matter of the appearance of new uPVC window frames when applied to older buildings. By now, city dwellers have become accustomed to seeing the effect of uPVC replacements in the facades of traditional tenement buildings, and many find the effect disappointing and out of place. Those contemplating a similar solution for their church may wish to consider the possible finished effect. At the very least, consideration should be given to employing colours other than white to make the window less intrusive. Internally, also, the amount of daylight will be reduced since the ratio of glass to frame is less than in timber.

COMMISSIONING A NEW WINDOW

The function of a window

A church window is not just for letting in the light. It has the functions also of giving glory to God and moving the heart to worship. To do this it must be well designed and crafted. This applies not just to stained or engraved glass but also to plain windows; well designed clear glass windows in a building may be one of its most beautiful features.

Approaching an artist

With agreement in principle that both situation and building are suitable for the installation of a new window, the Committee can assist where necessary the approach to an artist. It is not necessarily the case that any stained glass firm has the experience or the capability of providing windows for churches.

Early in the process comes the discussion between artist, donor (if there is one) and congregation of themes for the window. These will be selected from the symbols and stories of the Christian faith. Local references can also be incorporated appropriately. The resulting 'cartoon' is considered by both congregation and Committee, who will sometimes enter into dialogue with an artist over details of the design.

How the Committee is involved

The installation of a stained glass window is one instance where the approval of the General Trustees can be dispensed with so long as the Artistic Matters Committee is satisfied with what is proposed. The Committee is therefore involved at the early stage of deciding whether it is right to go ahead with a window as well as at the later stages of offering encouragement and approval for a particular design, and indeed in celebrating the finished work!

It is essential when the Committee examines the cartoon to have before it information about the building and the other windows in it. This is best provided by a sketch plan and photographs.

The importance of good design

In beginning a design, a stained glass artist will have in mind the architecture of the building and the other windows already in place, since all the features of a building must 'add up'.

A good design will have something 'new' about it. This does not necessarily mean that it must be abstract, but it will contain the 'unexpected', even when traditional themes are used. This means that the attention will be caught, and mind and imagination stimulated. A weak or derivative design will simply, in turn, weary those who live with the window – a missed opportunity, or worse.

A good design 'wears well' – so that both we ourselves and future generations find something fresh and refreshing in it rather than cease to notice it because it has too soon reached its 'sell by date'. It should not be the kind of 'unexpected' that will only be a 'seven day wonder' and then become a spent force, nor should it slavishly follow styles of yesteryear which may be pleasant to look at, when our attention is drawn to them, but do not 'arrest' us and address us in quite the same way. (That is not to say that good Victorian windows in many of our churches do not still speak eloquently to us).

Moving an existing stained glass window

Sometimes it is appropriate to make use of an existing window in a new location (e.g. at the union of two congregations, or where a fine window needs a new home). One of the Committee's tasks is to advise about the reuse or redeployment of furnishings in redundant buildings. This includes the transfer of stained glass windows to other churches in need of them.

Stained glass artists

Included in this publication is a list of artists (which is always being added to) whose work has been judged to be both well-crafted and imaginative, whose designs have originality, energy and a lasting quality. Churches and other public buildings where their work may be inspected are included. However, that does not mean that the work of other artists is not acceptable; the Committee applies the same 'eye' to artists they know and artists whose work they have not yet had the opportunity to meet.

‘Doing it yourself’

Sometimes a member of the congregation will produce a drawing and offer it for conversion into a window. This is unlikely to be successful since creating a window means also understanding the way the idea will be interpreted. It is best when an artist in glass also develops the design and sees it through to the final installation of the window.

This being said, there have been one or two successful attempts by members of a local congregation, community or school, under the supervision of skilled artists, to develop a design and make the window. Recently completed examples can be seen in Colston Wellpark, Hyndland (both Glasgow) and Dalgety (Fife).

A window as memorial

Occasionally, when the window is for a memorial, the Committee may assist by discussing alternative ways persons may be commemorated, since it is often assumed that a window (or a plaque) is the only way.

Where a person or event is being commemorated by a new window, it is best for this information to be mounted on a small plaque adjacent to the window rather than incorporated into the design. Who or what gave rise to the making of the window is of course important, but the finished window will also, it is hoped, have a timeless quality; a prominent name as part of the design may prevent a window having the same value to future generations as it does to us.

Alternatives to stained glass

Reference has already been made to situations where stained glass may not be appropriate, e.g. in Georgian churches with astragal windows, in small rural churches where no stained glass presently exists, in churches which already have a dark interior. Also, it should be realised that *too much* stained glass can have the effect of turning a congregation in on itself and shutting off God's wider world outside.

Engraved glass, which lets clear light shine through, is an attractive alternative in such cases. Excellent examples of this can be seen at Hamilton Old and at Cardross churches.

Appliqué glass combines different plastics and glasses applied in layers to a base glass, using various kinds of glue. There are still, however, difficulties being experienced in this process, mainly in the failure of the glue which does not flex with the thermal movement of the glass; plastics and some glues also appear to suffer from ultra-violet degradation in sunlight. In other cases water has caused damage by penetrating between the adhesive and the glass itself. Solutions have not yet been found to these problems.

Dalle de verre is another twentieth century technique where thick slabs of cast glass are faceted and chipped and set into concrete or epoxy/cement mixtures. Here also problems of structural failure are still being encountered but the finished result can look very well; Ellon Parish Church and Killermont Church, Bearsden, provide examples.

FUNDING and INSURANCE

Provided the appropriate consents have been obtained for the work, costs may be refunded from monies held for the benefit of a congregation by the General Trustees in the Consolidated Fabric Fund. Such work may also competently form the subject of an application for assistance from the Central Fabric Fund.

In cases where the more desirable course of action would cost more than an alternative (e.g. replacement windows in timber rather than uPVC), the Trustees might be sympathetic towards an application for a grant towards the difference. Historic Scotland may be able to make grants in the case of listed buildings, but it is important to note that future grant aid can be jeopardised when an original is replaced with inferior materials. In all cases, requests for grants will be treated with greater sympathy where a proposal shows sensitivity to the character and history of the building in question.

When a building is insured under the scheme run by the Church of Scotland Insurance Co Ltd, damage by the insured perils is covered for the windows as well as for the rest of the building subject to any excess applying to a particular peril.

Separate cover may, however, be taken out in respect of fixed glass including stained glass and other special glass to cover breakage from any cause, subject to certain exceptions; neither an excess nor a Condition of Average applies to this type of cover. **For further information contact The Manager, The Church of Scotland Insurance Co Ltd, 67 George Street, Edinburgh EH2 2JG (Tel. 0131 220 4120).**

Stained glass artists listed at the end of this pamphlet may be approached for valuations. A small fee may be payable. Where an artist knows both church and windows, a visit may not be necessary.

USEFUL ADDRESSES

- Scottish Churches Architectural Heritage Trust, 15 North Bank Street, Edinburgh EH1 2LP, tel. 0131 225 8644. www.scaht.org.uk e-mail: info@scaht.org.uk
- Ecclesiastical Architects' and Surveyors' Association, c/o Elden Minns & Co. Ltd, Chartered Architects and Surveyors, 453 Glossop Road, Sheffield, S10 2PT
Tel: 0114 266 2458 Fax: 0114 266 2459 www.easanet.co.uk
e-mail: eldenminns@co.uk
- British Society of Master Glass Painters, Registered Office: 6 Queen Street, LONDON WC1N 3AR www.bsmgp.org.uk
- The Worshipful Company of Glaziers and Painters of Glass, Glaziers' Hall, 9 Montague Close, London Bridge, London SE1 9DD. Tel: 0207 403 6652
- Council for Scottish Archaeology, Causewayside House, 160 Causewayside, Edinburgh EH9 1PR tel. 0131 668 4189. www.scottisharchaeology.org.uk
e-mail : info@scottisharchaeology.org.uk
- Council for the Care of Churches (Church of England), Cathedral and Church Buildings Division, Church House, Great Smith Street, London SW1P 3AZ, tel. 020 7898 1866; fax 020 7898 1881. www.churchcare.co.uk
e-mail: enquiries@ccc.c-of-e.org.uk
- Historic Scotland, Longmore House, Salisbury Place, Edinburgh EH9 1SH, tel. 0131 668 8600. www.historic-scotland.gov.uk
- Technical Conservation Group, Historic Scotland, Longmore House, Salisbury Place, Edinburgh EH9 1SH tel. 0131 668 8638 fax. 0131 668 8669
e-mail: hs.conservation.bureau@scotland.gsi.gov.uk
- Scottish Civic Trust, The Tobacco Merchants House, 42 Miller Street, Glasgow G1 1DT, tel. 0141 221 1466; fax 0141 248 6952. www.scottishcivictrust.org.uk
- Scottish Redundant Churches Trust, contact the Administrator, Victoria Collison Owen, 4 Queen's Gardens, St Andrews KY16 9TA, tel. 01334 472032
e-mail : contact@srct.org.uk www.srct.org.uk
- Craft Scotland, c/o Innovation Digital, 155 Bath Street, Glasgow G2 4SQ
Tel: 0131 447 6575 www.craftscotland.org e-mail: enquiries@craftscotland.org
- National Association of Decorative and Fine Arts Societies, NADFAS House, 8 Guilford Street, London WC1N 1DT, tel. 02074 300 730. www.nadfas.org.uk
- The Church Buildings Renewal Trust, Glasgow City Council, Development and Regeneration Services, 229 George Street, Glasgow, G1 1QU
Tel: 0141 287 8634 Fax: 0141 287 8444 www.buildingconservation.com
e-mail: john.gair@drs.glasgow.gov.uk
- Scottish Arts Council, 12 Manor Place, Edinburgh EH3 7DD tel. 0131 226 6051. www.scottisharts.org.uk

Addresses of manufacturers of grilles

- Adamson Fabrications Ltd, 360 Strathmore Avenue, Dundee DD3 6RU, tel. 01382 812101; fax 01382 832189. www.adamsonfabrications.co.uk
- G.A.S. Murphy (Falkirk Ltd), Unit 4, Lochlands Industrial Estate, Larbert FK5 3NS tel. 01324 579 140.
- Reid Wire Ltd, 162 Glenpark Street, Glasgow G31 1PG

tel. 0141 554 7081 www.reidwire.com

LIST OF ARTISTS

Note: a full list of artists' commissions is available from the office. What follows is a selection only, in buildings readily accessible, and with a geographical spread where appropriate. Approaches to stained glass artists should be made through the office of the Committee on Church Art and Architecture.

ARTIST	EXAMPLES OF WORK
Jennifer Jayne Bayliss Aberdeen	Aberdeen, Ferryhill Church, Piper Alpha Memorial; Tarland, Migvie Chapel; Aberdeen University, Aberdeen, St Machar's Cathedral; Aberdeen, Royal Aberdeen's Children's Hospital ; Elgin, The Oak's Hospice; MacDuff Church; Fraserburgh United Reformed Church.
Emma Butler-Cole Aiken Edinburgh	Culross Abbey; Airdrie, New Wellwynd; Leith Baptist Church; Edinburgh, Royal Hospital for Sick Children; Cleish Chapel.
Linda Cannon Glasgow	Glasgow, Netherlee; Gourrock , St John's; Glasgow Green, People's Palace; Glasgow, House for an Art Lover; Bearsden, New Kilpatrick.
Cara New Glass (Alec Galloway) Skelmorlie	Several pieces in Dubai & United Arab Emirates and Glasgow, Ashton Lane, the West End Window.
John K Clark Glasgow	Paisley, Abbey; Motherwell, South; Rutherglen, Stonelaw; Glasgow Cathedral; Lockerbie; Paisley, Oakshaw Trinity; Glasgow, Queen's Park Synagogue; Gullane.
Vivienne Haig Melrose	Oxford, Oriel College Chapel, The Newman Window.
Douglas Hogg Gordon, Scottish Borders	Dunbar; Dundee, St. Andrew's ; Bo'ness, Old; Edinburgh, Craigmillar Park; Edinburgh, Dean; Edinburgh, Comely Bank;

	Duns.
Nicola Kantorowicz Sonning Common	Suffolk, Kessingland, St. Edmond's Church; Oxfordshire, Great Coxwell, St Giles's Church; Oxfordshire, Marsh Baldon, St Peter's Church; Sussex, Chichester, Boxgrove Priory, West Window.
Eilidh M. Keith Glasgow	Glasgow, King's Park; Bearsden, New Kilpatrick; Glasgow, Hyndland; Nairn, Old, Muir of Ord.
Lorraine Lamond Glasgow	Glasgow, St. Enoch's Hogganfield; Kilmacalm, Old; Dundee, St. Mary's; Glasgow, St Alphonsus'; Glasgow University, Dept. of Film, Television & Theatre; Arrochar Parish Church; Glasgow St Mungo's R.C. Church.
Lesley Macfie Beith	Bonhill; Elderslie Kirk; Glasgow, King's Park.
Rob McInnes Glasgow	Glasgow: Hyndland Kirkmuirhill, Lanarkshire Rutherglen: Old Perth: St Ninian's Cathedral House for an Art Lover, Glasgow Kilmacalm Old
Shona McInnes Halifax	Dunbar; Rothes; Aberdeen St. Nicholas' (Oil Industry Chapel); Scone Old; Kingswells; Banchory, West; Knockando; Stonehaven, Dunnottar.
Catriona R MacKinnon Glasgow	Aberdeen, Cult's West; Aberdeen, St. Mary's R. C. Cathedral; Mearns; Prestwick, South; Dysart; Colmonell.
Roland Mitton	Lecropt; Glasgow, Cardonald;

Forgandenny	Falkirk, Grahamston; Whitburn, South; Falkirk, St. Andrews West; Strathaven, Rankin; Plean; Cowdenbeath Trinity; Halkirk and Westerdale; Ecclesmachan.
Rainbow Glass Studio (Moir Malcolm) Prestwick	Prestwick, St. Nicholas; Irvine, Girdle Toll; Paisley, Laigh Kirk; Keith, North; Cumnock, Old; Ayr, St. Columba; Darvel; East Kilbride, Westwood; East Kilbride, Mossneuk; Newton Mearns; Campbeltown, Highland.
Ronald Ryan Stained Glass Edinburgh	The New Edinburgh Royal Infirmary, Sanctuary; Maison Hectors Wine Bar.
Liz Rowley Newport-on-Tay	Monifieth, St Bride's R.C. Church; Dundee, St Andrew's; Dundee, St Boswell's; Ballingry, St. Serf's; Dundee, Broughty Ferry, Our Lady of Good Counsel; Dunfermline, Queen Margaret Hospital, Chapel.
Christian Shaw Edinburgh	Tranent; Connel; Keith, North; Edinburgh, St. Giles' Cathedral; Arran, Whiting Bay; Arran, Lamlash; Inverkeithing, St Peter's; Mortlach; Stirling, St. Columba's; Edinburgh, The Hub.
The Stained Glass Partnership (Susan Bradbury & Paul Lucky) Kilmarnock	Dreghorn, Old; Dailly; Bellshill, West; Cambuslang, Trinity St Paul's; Symington; Kilmarnock, Laigh Kirk; Dundee, Balgay; Glasgow, Sherbrooke St Gilbert's; Alloway; Stewarton, St Columba's; Lossiemouth, Milngavie, St. Paul's.

ENGRAVED GLASS ARTISTS

John Lawrie Edinburgh	Cardross; Edinburgh, Canongate Kirk.
Anita Pate East Linton	Hamilton, Old; Kirkcaldy, Victoria Hospice; Stafford District General Hospital, Pilgrims' Chapel; Airdrie, New Wellwynd; Falkirk Hospital, Chaplaincy Centre.

PUBLICATIONS

Historic Scotland publish these Conservation Guides: *'Repair of Historic Buildings in Scotland – Advice on Principles and Methods'*; *'Glasgow's Great Glass Experiment'* by Richard Fawcett; *'Guide for Practitioners – the Conservation of Timber Sash Windows in Scotland'*; *Research Report – 'The Historical and Technical Development of Sash and Case Windows in Scotland'*; *Inform booklet - 'Maintaining Traditional Plain Glass and Glazing'*; *Inform booklet - 'Sash and Case Windows'*.

Cathedral Communications (High Street, Tisbury, Wilts SP3 6HA, www.buildingconservation.com) publish: *'The Building Conservation Directory, Conservation and Repair of Ecclesiastical Buildings and Historic Churches'*.

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