



OPUS SECTILE Art from recycled scrap

Dennis Hadley

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Preface

It is now 17 years since TACS first published Dennis Hadley's Powell's list: *Opus sectile work by Powell's of Whitefriars* on our website. While this list remains online and is uncorrected at 2018 it continues to have considerable research value and is freely available to all. In October 2006, Dennis Hadley was invited by TACS to present a paper to a well attended conference on Church Ceramics at Coalbrookdale. The title of his paper was then as now: *Opus Sectile: Art from recycled scrap*.

This new publication, written in late 2014, is an updated and revised version of that 2006 paper, and together with the Powell's list represents a comprehensive record of one man's personal research on this specialist subject. Dennis Hadley wished TACS to have his collection of photographs of opus sectile and these were donated to the Society in 2014. A number of these images, captioned by him, are reproduced here. The quality of the images is sometimes variable but we offer no apologies for this. It is a publication intended as an article of record only, a setting down of almost everything that Dennis Hadley had to say about opus sectile and contained within it is his hope that others might want to take his research further.

The term 'opus sectile' continues to be used in descriptions of medieval tile production or to refer to medieval pavements of stone and marble mosaic. See for example, Elizabeth Eames' *Catalogue of Medieval Lead-glazed Earthenware Tiles* which was published in 1980 for the British Museum, or Alun Graves' *Tiles and Tilework of Europe*, published by the V&A in 2002. However, the term as used by Dennis Hadley in this paper employs opus sectile's contemporary meaning and refers to tile pieces of varying shapes assembled in jigsaw-like designs and placed on walls rather than as part of a floor.

Sadly, Dennis Hadley died in April 2015 and before he was able to see this paper published. We have not attempted to alter anything that he wrote. Consequently, it is possible that there will be one or two references in the notes to further research or small corrections to the text which on rereading the first proof he might have wished to alter. When TACS was in discussion with Dennis Hadley about the publication of this paper on opus sectile, it was understood that permission for reproduction of particular images that were not his copyright had been granted to him by the relevant individual or organisation. If this is not the case and there are objections, then please notify TACS and we will ensure that such images are withdrawn.

Penny Beckett, TACS Chair, April 2018

Front cover: All Saints Church, Reading. Photo by Dave Hutchins

TACS is grateful to our membership secretary, Elaine Godina, for typing up Dennis Hadley's handwritten 80 page manuscript

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Introduction

Opus sectile (Latin for cut work) describes a form of opaque stained glass, composed of vitreous sheets with a thickness of 3/16 or ¼ of an inch, which are cut, painted and fired before being fitted together and cemented to a rigid backing; often a thin sheet of slate. Unlike stained glass, where the individual pieces are held firmly in position and separated by H-section lead calmes, they need to butt up neatly against each other. Sometimes the background is formed of gold or coloured mosaic tesserae. Confusingly the term is also applied to the thin sheets of material before they have been cut.

The craft and material as described in the present paper were developed during the 1860's in the Window Department of James Powell and Sons Whitefriars Glassworks, close to the Thames in the City of London, but the first appearance of the term appears to be April 1877, describing three decorative panels recently made for a reredos for Evercreech, Somerset. ¹ The designer was Thomas Graham Jackson (1835-1924), also an architect and scholar, and a close friend of the Powell family. He may have coined the phrase, which was subsequently applied to Roman period decoration made from cut pieces of marble or stone, and to more recent decorative work made from ceramic materials. The development of the basic material, through a process of trial and much error, and its gradual adoption as an affordable form of decoration will be discussed. Several major schemes of decoration by James Powell & Sons are described, followed by a few examples of notable work by other artists and firms.

Any conclusions are tentative, as they have been deduced from scraps of information scattered throughout the Order and Window Cash Books of the Powell firm. ² The author is unaware of any lengthy description of the manufacturing process when the material was fashionable, or of any recent publication other than his own contribution to a Society of Glass Technology conference, subsequently published in the journal *Glass Technology*. ³ (That article contains several errors and omissions). Opus sectile flourished because it was a more affordable alternative to British made mosaic; hence it is necessary to commence with a brief resume of the development of mosaic during the mid-nineteenth century.

References: Introduction

¹ AAD 1977/1/4, p.173; 57, p.47.

² Order Books were compiled when an order was confirmed, Cash Books when the completed order was ready for dispatch. Ideally an entry will give the name and address of the person to whom the bill will be sent, the building for which the item was intended, the subject, size, price per sq ft, any additional costs and the overall price. Sometimes, but without consistency, the names of the designer and/or cartoonist are added, or a reference made to an earlier use of a design.

³ Hadley, D. W. 2004. From Rees mosaic to opus sectile, *Glass Technology*, 45, pp. 192-196.

[The same author presented a short paper (without references) entitled Opus sectile: art from recycled scrap at the TACS Church Ceramics Conference, October 2006.]

Salviati's Venetian Mosaic

Soon after Antonio Salviati (1816-1890), a lawyer, arrived during 1851 in a Venice whose ancient glories had long departed he resolved to revive the earlier arts of glassmaking and mosaic.¹ These proposals received support locally, as success would bring much needed employment to the impoverished island of Murano, and by the end of the decade the craft skills of Lorenzo Radi (1803-1879) and others had resulted in the development of a wide range of coloured smalti, including laminated gold and silver varieties.

True mosaic is a slow, costly process, which must be carried out in situ, usually involving the erection of scaffolding. A small area of wall is coated with cement, into which the mosaicist must insert his tesserae after consulting an adjacent cartoon. Salviati claimed to have invented a new method of prefabricating mosaics in the workshop, which could then be transported long distances and quickly erected. However, Sheldon Barr states that this technique had long been in use in the Islamic countries of North Africa and the Middle East. Cartoons, usually supplied by designers working for the client, were transferred to heavy paper, said to have been divided into numbered sections about two feet square. The paper was placed on a rigid surface and the tesserae fixed to it using a water-soluble glue (a sort of mosaic by numbers process). Completed sections were then fixed by applying a thin layer of rigid cement. After transportation to their destination the panels were fixed in position and the cover paper soaked off. The design was then reversed, with its outer surface flat, and so not creating the sparkling appearance of true mosaic, where the less even edges of the tesserae are exposed.

Recent close inspection of the Salviati reredos (1866) at All Saints Church, Reading, revealed that its surface is far from flat, suggesting the panel *might* have been formed directly by drawing the cartoon on a firm substrate to which the tesserae were cemented. Where a panel was not too large or heavy to be transported as a whole this method could be simpler than the reverse process.

In 1860 Salviati was introduced to Sir Austen Henry Layard (1817-1894), the archaeologist who had excavated the ruins of Nineveh and Babylon, and also an astute politician and diplomat who moved in court circles. Layard encouraged Salviati to exhibit his wares in the Italian section of the 1862 International Exhibition in London where, according to its manufacturer, it attracted huge crowds. Albert, the Prince Consort, had died in December 1861, and Salviati obtained several large orders for memorials that commemorated his death; for the Royal Mausoleum at Frogmore, Windsor; for the Queen's personal tribute in the form of decoration of the Wolsey chapel at Windsor; and a little later for the decoration of Gilbert Scott's Albert Memorial in Hyde Park. In addition there was a large new reredos for Westminster Abbey, and the start of a tortuous process for installing mosaics beneath the dome of St Paul's Cathedral. It may have been more than a coincidence that Layard became in 1865 the Queen's chief adviser in artistic matters.

In a pamphlet published in 1865 ² Salviati attributed the success of his new product both to the speed of its installation and to its affordability, commenting that in Venice 'her peculiar conditions allow of the artisan living at the lowest rate'. At the Wolsey chapel an order for 2,100 sq ft of mosaic was completed in ten months at a cost, including fixing of £4,725, compared with several years and £20,000 for true mosaic. At St Paul's a pendentive with an area of 250 sq ft was completed in two months for £600.³ These prices of rather more than £2 per sq ft were similar to those charged by London manufacturers for a figurative stained glass window.

At least one London firm, James Powell & Sons quickly began experimenting with mosaic, for in May 1863 they submitted a design for mosaic decoration of the apse at the House of Charity, Rose Street, London,⁴ but no work seems to have been carried out presumably because of the high cost. Ten years later, South Kensington Museum, the precursor of the Victoria & Albert,

ordered a series of life-size full length portraits in mosaic of famous artists, designed by F W Moody, a member of the Museum staff. Several manufacturers, both British and overseas were involved in this commission, which is still on display in the V & A. The Powell firm's contribution was a figure of Giotto,⁵ for which they charged £120, i.e. £4-10-0 per sq ft, despite being provided with the cartoon. Labour costs, which were responsible for much of this high price, will be examined in detail later.

References: Salviati's Venetian Mosaics

¹ The author thanks Martin Brandon for information about Salviati mosaic. The history of the Salviati firm is discussed in Barr, Sheldon. 2008. Venetian glass Mosaic 1860-1917, Woodbridge: Antique Collectors Club. [This book concentrates on large international commissions, and has little to say on the type of order placed by a typical English parish church.]

² Salviati, A. 1865. On mosaics...and...enamel mosaics, London. [Martin Brandon drew my attention to this pamphlet and provided a photocopy.]

³ Salviati, A. 1865 Op.cit. p.37.

⁴ AAD 1977/1/2 p.100.

⁵ AAD 1977/1/56 p.125.

Discovering and perfecting opus sectile as a material

Harry J Powell (1853-1922) was prominent in the family business and was a chemistry graduate who supervised many investigations into the properties of glass, so it might be anticipated that his *Glass-Making in England* ¹ would be a major source of information about opus sectile. Surprisingly, the term is never mentioned, although a short section on glass mosaic includes the following relevant statement, 'It had been the practice to scrap as useless all fragments of flint-glass contaminated with clay, but experiments proved that this waste glass, if ground to a fine powder and baked, yielded a solid durable material with an eggshell surface suitable for wall tiles and mosaic.' A fuller description of this product had already been given by A L Duthie in 1908.

² Opus sectile (which) may be described as standing halfway between tile painting and stained glass...an opaque glass of a peculiar nature in which the ingredients appear to be only half vitrified. Slabs are about a quarter of an inch thick, the bulk of the slab being coarse in quality and grey in colour, and bearing on its surface a thin coating of a finer quality in a variety of colours. The texture of the surface is somewhat similar to that of a large coarse eggshell. The ingredients are sifted into moulds in powdered form and are fixed in a kiln, from which they emerge in slab form. They are painted in enamel colours and fixed at a lower temperature than ordinary glass! Pressing glass in a mould was not a novel development for the Powell firm, for it had been producing ornamental pressed glassware since the 1830s, and by 1845 had developed pressed glass quarries: lozenges of patterned glass that could be leaded together to provide inexpensive church windows. In the above process the glass was in a molten state, but opus sectile was formed at a lower temperature.

Slabs of compacted opaque glass appear to have been invented by George Rees, probably one of several members of a family employed at the Whitefriars glassworks. The first recorded purchase was made in August 1863 by James Forsyth, on behalf of the architect W Nesfield.³ He purchased some circles of gold mosaic, and 12 coloured squares 5 ½" x 5 ½". There is a note that 'Rees charges for these squares two shillings each'. Another customer with repeat orders was the short-lived partnership of [H] Moborley and [J T] Lyon, both of whom had previously

designed windows for Powell & Sons. Between February and April 1864 ⁴ the firm bought sizes up to 12 inches by 6 inches in light blue, dark blue, green (different tints) and white. February orders were charged at 8/- per sq ft, but a month later the cost had halved. By the end of the decade ⁵ prices for what was then referred to as 'plain mosaic glass' with a nominal thickness of three-sixteenths of an inch had been further reduced, implying that the material was now produced in significant quantities: a square, one foot each side now cost only 1s 8d, i.e. 12 sq ft for £1; 9 inch squares cost 12s per dozen, i.e. 2s 3d per sq ft; tiles down to 3 inches square were also listed. A footnote added, 'strong colours cost 50% higher' without giving an explanation.

The development of Rees mosaic appears to have been beset with problems, as two references to James Forsyth indicate. November 1863 ⁶ 'Rees cementing mosaics, 9 pieces 5 ½ x 5 ½, one basket [?]. Not to be charged. The plaster was bad.' Almost two years later, ⁷ '9 October 1865, James Forsyth called. Mosaics burnt again. Wants to know what he is to do. Give him an answer this week. Ask A P.' Arthur Powell's advice is, unfortunately, not on record. During the 1870s, several reredoses had to be replaced within a few years, because the applied detailing had flaked away from the substrate. It is not recorded whether the failure was a result of inadequate firing, or consequence of using borax as a flux, which ruined many windows of this period. ⁸

With present knowledge the above problems might have been anticipated, for hot pressing powdered glass is an example of sintering, a process used for moulding ceramics, refractory materials and solids that degrade before attaining their high melting point. The initial void space between particles is minimized by using a carefully selected range of particle sizes. Pressure is then applied to form the powdered mass into the required shape without permanently deforming the grains, before firing, which increases the mechanical integrity through a reduction of porosity. Therefore shrinkage occurs, which needs to be taken into consideration in advance. Initially a small neck forms between adjacent particles, transforming the original interparticle voids into isolated pores. Within each neck, there is a grain boundary, which is a disruption of structure on a molecular level between adjacent particles. Sintering is an example of the physical principle that the energy of any system tends towards a minimum. Raising the temperature increases atomic and molecular mobility, permitting energy thresholds to be passed, so that new processes, which reduce the total energy of the system, can occur. Although the energy of a grain boundary is higher than that of the bulk material it is smaller than that associated with the formation of surfaces. Thus, although the final product indicates that overall mass transport has occurred, this takes place below the melting point through atomic and molecular diffusion, in contrast with the bulk movements that characterize the liquid state. Readers requiring more quantitative information should consult any good graduate-level text on materials science, which will probably include electron micrographs of a material such as alumina, which illustrate how increasing the sintering time at a fixed temperature results in a decrease in porosity and an increase in grain size.

The theory of sintering, developed during the mid twentieth century, is quite complex, being dependent on the material, or mixture of materials, the presence of impurities, average grain size and grain size distribution, temperature, pressure and the gradients of each. Since the reaction occurs in the solid state, with grains changing size and shape rather than migrating substantial distances, a thin surface layer of coloured glass will bond with the cheap recycled bulk material, but not mix with it. Possibly, early samples of Rees glass were coloured throughout the bulk, and additional problems arose with the pigments required for deep colours, so giving a lower success rate and a higher price. A simpler explanation would be that deep colours necessitated more intensive cleaning before the equipment could be reused.

With so many variables requiring optimization it is not surprising that early experiments gave inconsistent results, as both overall composition and the extent of contamination could change, and it is unlikely that grinding would be closely controlled. Recycled glass melts at a temperature

below that of the initial state, which is dependent on the variables mentioned above, so explaining the problems experienced by James Forsyth when firing Rees glass for which decorative work had been painted. Too low a temperature and the applied mixture of pigment and powdered glass would not fuse with the main surface at a molecular level, but flake away and 'go bad'. Too high a temperature and the substrate would be 'fried' and melt. The critical temperature range would be significantly smaller than for window glass. Powell & Sons would have avoided many problems if they had been content to add an opacifier to normal window glass, particularly as the advantage of 'a coarse egg-shell finish' is not obvious. A simpler solution to the re-use of scrap glass was devised by Jesse Root ⁹ of Battersea, London, who in 1866 obtained a patent on a mosaic material which initially consisted of a mixture of powdered recycled glass and sand, which was melted before being cast into sheets.

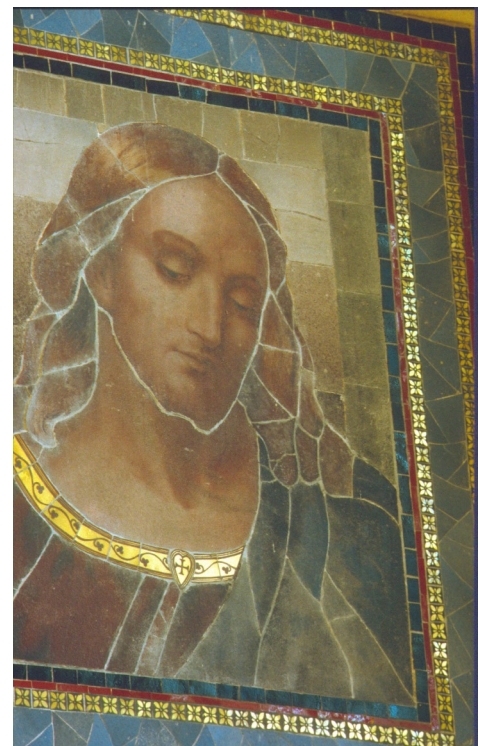
References: Discovering and perfecting opus sectile as a material

- ¹ Powell, H. J. 1923. Glass-making in England. Cambridge University Press, p.133.
- ² Duthie, A. L. 1908. Decorated glass processes. London: Constable, p.222.
- ³ AAD 1977/1/53, p.246.
- ⁴ AAD 1977/1/53, p.320, 322, 332, 341, 355.
- ⁵ AAD 1977/1/128 (no page numbers).
- ⁶ AAD 1977/1/53, p.292.
- ⁷ AAD 1977/1/2, p.300.
- ⁸ Adding borax to the pigment mixture reduced the temperature at which it fused with the glass substrate. Unfortunately, subsequent chemical reactions produced a water-soluble component, which enabled much of the painted detail to be washed away.
- ⁹ The author thanks Dr Neil Moat for information on Jesse Root, his firm and his mosaic.

Finding uses for Rees mosaic

The Powell Cash Book for 2 May 1864 ¹ records that the architect and designer of stained glass Frederick Preedy was charged £2-19-0 for a 'Figure of Elias cut in rough mosaic glass for painting, 3 ft 9 in by 1 ft 6 in'. Preedy also purchased some 'opaque red' and 'Rees odd pieces', possibly for use as background, material for the figure was costed at 6s per sq ft, rather than the 4s paid a short time earlier by Moberley and Lyon, possibly because it was cut from larger sheets. The figure, now lost, was probably intended for a summer exhibition at South Kensington Museum, at which a select group of craftsmen and firms had been invited to display their creations. ² The catalogue records Preedy as showing 'examples of new techniques in wall decoration'. The Powell firm almost immediately plagiarised this innovation, with the final Cash Book entry for May 1864 ³ reading: 'Warehouse, in stock. 1 head of Christ, opaque glass, 2 ft 3 in by 1 ft 9 in. Miss Shepherd painted. 1 painted angel, opaque glass (Kensington). 2 ft 2 in by 2 ft. 1 mosaic arms Oxford 1 ft 9 ½ in by 1 ft 9 ½ in. Mr Grieves

Fig 1 Tyntesfield, Somerset, 1864. © The National Trust.



painted.' In the margin alongside these entries is the word 'Rees'. The angel exhibited at South Kensington was kept in stock in the showroom for many years, but the head of Christ, to which a 5 inch wide rich border had been added, was in March 1865 sold to Mr William Gibbs of Tyntesfield, Somerset, for £16-16-0, giving an overall price per sq ft of £2-2-0. ⁴ The panel survives in the later private chapel at Tyntesfield, now a property of the National Trust ⁵ (Fig 1). The new colour range is very restricted, the overall execution is less confident than in later examples, and the individual pieces of glass are slightly separated, perhaps to emphasise the relationship with a stained glass window.

The first order for painted opaque glass was placed in March 1865 by the artist Henry Holiday ⁶ who had previously designed several windows for Powell & Sons. Two panels each about a foot square were painted to Mr Holiday's design, and his cartoon returned. A charge of £2 was made, so the panels were probably decorative rather than containing figures. Holiday, an artist always interested in innovations, placed no repeat-orders, so the result may not have been satisfactory. However, after 1890, when he established his own workshop, Holiday produced several examples of opus sectile (see later section). Two months later, a mosaic reredos, designed by the architect G E Street, was supplied to the Rev A B Cotton, a member of the extended but closely knit Powell family, for his church at Bow Common, London. ⁷ Since no charge was made no details were given, and the church has long been demolished.

An Order Book entry of January 1866 ⁸ indicates the market intended for Rees mosaic: 'Rev Brymer Belcher [of St Gabriel, Pimlico, London, who had ordered a Powell window in 1864] called to see some mosaic work. Says he likes real mosaic best. Painted mosaic would do for him. Thirty shillings a sq ft including figures and background.' Nothing was reported for a further year, until ⁹ 'one mosaic angel [probably a figure illustrated in Harry Powell's book ¹⁰] one painted mosaic angel [that from the 1864 Exhibition?] to be put up in St Gabriel's Church.' No order was placed until 1897 ¹¹, but it is evident that painted mosaic made from opaque glass was a less expensive substitute for genuine mosaic.

In November 1867, under the heading Rees Mosaic Work, ¹² the Order Book summarises the comments of several architects on the recently developed material. [T] Graham Jackson [a member of the Powell circle of friends] stated simply 'Very good', and in 1869 ordered a reredos incorporating the material for the church at Slindon, Sussex. ¹³ 'W[illiam] Butterfield thinks the material very nice and would like to see a larger piece. The colour should be divided with black.' 'Lewis [no initial stated] is much pleased with the material and feels that the colour should be divided with sharp black lines. Would like to see a specimen of this.' Here were two architects thinking only of stained glass windows with lead lines, rather than a new form of artwork. The evidently small size of the sample exhibited suggests that Powell & Sons were not yet ready to commit themselves to producing large figurative panels: the reredos that T G Jackson ordered for Slindon featured only symbols of the Evangelists in small quatrefoils.

Not all comments were complimentary: 'W[illiam] Burges fears that dirt will hang to the material and will not be easily removed' which suggests the rough mosaic glass supplied to Frederick Preedy, rather than the later 'eggshell finish'.

William Nesfield, who would have been fully aware of the serious problems encountered by his partner James Forsyth 'thinks it quite in its infancy; may come to something very good; colours must be made harmonious and better quality. Outline very much more precise; try white with simple black pattern.'

Four months later the firm was confident enough to issue the following circular: ¹⁴ 'March 1868. Dear Sir, We have on view at our glassworks a new material in glass for permanent wall decoration which is applicable for Memorial inscriptions, Medallions and pavements. We should be much obliged if you could call to see it.' At this time large decorative tablets and reredoses are not mentioned, so it is not surprising that most of the orders placed for 'opaque glass' were either

inscriptions or tablets with text; its use for flooring also made an appearance. A notable order for this range of non-figurative work, ready in June 1871, was that placed by the northern architects Paley & Austin for St John's Church, Manchester: 'A band of opaque glass ornamental work round [the] apse. 44 ft 2 in x 1 ft. 1 ¼ in at 6s per sq ft.'

Further uses quickly appeared, and a handbill of the period around 1870 ¹⁵ advertised Permanent painting on opaque glass for wall decoration. This glass to be used for Reredoses and the highest class of Fireplaces, Pavements, Mosaics and all kinds of Tablets. Diaper pattern from 5s per [sq] ft. Figure work from 25s per [sq] ft.'

References: Finding uses for Rees mosaic

¹ AAD 1977/1/53, p.359.

² Kerney, M. 2001. *The stained glass of Frederick Preedy*. London: Ecclesiological Society. p.6, 25.

³ AAD 1977/1/5, p.364.

⁴ AAD 1977/1/54, p.108.

⁵ The author is grateful to Mary Greenacre of the National Trust who arranged for him to take photographs in the chapel before it was regularly open to the public, which was also before the superb and ornate pavement by Powell & Sons was covered to protect it. He is also grateful for her permission to reproduce a photograph of the historic tablet in not-for-profit publications.

⁶ AAD 1977/1/54, p.104.

⁷ AAD 1977/1/54, p.121.

⁸ AAD 1977/1/2, p.325.

⁹ AAD 1977/1/2, p.396.

¹⁰ Powell, H. J. .1923. op.cit. p.131.

¹¹ AAD 1977/1/12, p.122.

¹² AAD 1977/1/2, p.455.

¹³ AAD 1977/1/55, p.137.

¹⁴ AAD 1977/1/2, p.473.

¹⁵ Reproduced [very small] in Evans, W., Ross, C. and Werner, A. 1995. *Whitefriars Glass*. Museum of London. p.34. [This book gives a good history of the Powell family and firm, together with many large photographs of the glassworks in operation. It emphasizes Powell & Sons decorative tableware.]



Fig 2 Middleton Cheney, Northants, 1871.
A window design by Henry Holiday adapted.

An Expanding Market

The first large opaque glass reredos was ordered in August 1864 by the retiring incumbent of Cheddington, Bucks,¹ who hoped that a design based on a photograph of a painting of the Last Supper could be made for about £30. When the reredos was ready for fixing the following March ², the price was £42, which probably included the full-size cartoon and the not inconsiderable expense of fixing in position (see later). The piece, which survives in quite good order, exhibits surer workmanship than the earlier example at Tyntesfield, although in some prominent places strips of cement are visible between adjacent pieces of glass. The range of colours is also wider, but the several shades of blue and green areal rather subdued.

A good illustration of how the craft developed can be seen by comparing two wall panels at Middleton Cheney, Northants, a church usually visited for its East window, an early product of

Morris, Marshall, Faulkner & Co. The earlier circular panel (Fig 2) of March 1871 ³ is a reduced version of a window (destroyed) designed earlier by Henry Holiday for St Matthew's Church, Upper Clapton, London, which shows mothers bringing their children to Christ. The simple composition is well suited to the medium and the execution is technically of a much higher quality than that at Cheddington, but the colour range is still small. By contrast, the larger tablet of December 1885, ⁴ designed by Charles Hardgrave, Powell's studio foreman, which depicts Christ with four disciples (Fig 3), is a rather banal composition executed with technical virtuosity, which displays a wider range of deeper colours.

Fig 3 Middleton Cheney, Northants, 1885. Charles Hardgrave.



The use of opus sectile to decorate a blocked window aperture was first seen at Thorpe Mandeville, Northants ⁵, where during the first half of 1872 Powell & Sons embellished the whole of the chancel. This scheme marked the debut of Harry Burrow (1846-1882), a freelance designer who proved popular with Powell's clientele, despite his drawing skills falling short of his sometimes grandiose ambitions. St Nicholas (Fig 4) looks more a ruffian than a protector of children.

Fig 4 Thorpe Mandeville, Northants, 1872. Harry Burrow.



There were several more pleasing later designs for blind windows, including the angels with crown and lily of 1894 in Kiltennel church, Courtown, Ireland, ⁶ by Ada Currey (1852-1913), who appears to have been influenced here by the work of Henry Holiday (Fig 5).

Opus sectile is most effective when it is used to decorate a complete section of a church. Such schemes are costly, and two large early twentieth century projects, at St Barnabas, Oxford, and St John the Divine, Boreham, Warminster, Wilts, were abandoned before completion. The earliest example is the chancel decoration of 1873-74 at Kelmarsh, Northants ⁷, designed by Harry Wooldridge (1845-1917). [There appears to have been a lot of cash available in the country at that period, a substantial fraction of which flowed in Powell's direction.] Five single figures of saints, each about four feet in height, are placed in gothic niches on the side walls of the chancel, with life-size figures of St Peter and St Paul, in rectangular panels with a gold mosaic background, on either side of the East window.

Their haloes, painted on top of the mosaic, have partly flaked away. The price for this work was about £2-10-0 per sq ft, which became typical for opus sectile with figures (Fig 6). Wooldridge was a skilled and versatile artist so the static, almost stilted, portrayal of each saint is likely to be deliberate, as is the use of some very large sheets of glass, which are separated by sharp black line of cement. Powell & Sons also supplied the chancel pavement at Kelmarsh.

A later and more conventional display of single figures in a row is that of the early 1890's at All Saints Church, Reading. ⁸ When the church was extended westwards in 1874 it was intended to



Fig 5 (left) Kiltennel Church, Courtown, Ireland, 1894. Ada Currey. Photo by Dr David Lawrence.



Fig 6 (right) Kelmarsh, Northants, 1873-74. Henry Wooldridge.

decorate the new wall with painted figures which would symbolise the fruits of the spirit. However, no funds were available until a legacy in 1891 enabled the work to be carried out in opus sectile. ⁹ Powell & Sons commissioned sketches from George Parlby (1856-1944), a freelance artist who began his career as Harry Burrow's assistant, but by 1890 his work was quite close to the regular Powell house style; the cartoons were drawn in the Powell studio. The large figures are placed next to the font directly above a panel by Parlby in a somewhat different style but a second legacy enabled the two elements to be linked successfully by a patterned screen of tiny tiles in an array of light colours containing two roundels and six small angel figures (Fig 7 and 8).



Fig 7 & 8 All Saints, Reading, 1891-94. George Parlby.

Small tablets, often with inscriptions only, formed a significant market for opus sectile, and one small design, of three cherubs holding a scroll, was popular enough to become a stock item;





Fig 9 Woolton Hill, Hampshire, 1902. An inexpensive stock design.

in 1890 one was bought from the London showroom by the wife of a Scot who had emigrated to raise cattle in California, and sent back to the USA. **10** Versions of this tablet have been seen at Woolton Hill, Hampshire (1900) **11** (Fig 9) and Stowe, Shropshire (1902). **12** The basic version of the tablet cost no more than £5-5

-0, but added glass tiles would increase the price. A new variant (sketch at the Museum of London) was ordered for St Mary, Stratfield Mortimer, Berks as late as 1924 **13** bearing the message 'Peace, Perfect Peace'. The cost had by this time risen to £50.

The innovative architect T G Jackson placed the first order for a domestic application of opaque glass in 1870, when the material was used to cover three sides of Mr Cubitt's house at Denbies, near Dorking **14** [long demolished]; the roof was similarly treated two years later. **15** Figure work could not have been involved, as the cost was only 14 shillings per sq ft. Then in 1873, Mr Cubitt paid £208 for 'wall decoration in corridor' at Denbies **16**, a price that 'does not include the figures in four panels'. By contrast the majority of domestic orders were for small tablets with informative lettering. Towards the end of the nineteenth century there were several orders from large houses that were refurbishing or adding bathrooms. Few were as large, and no other as risqué, as that which Mr Brotherhood ordered for 15 Hyde Park Gardens **17** The window, designed by George Parlby, included a figure and a verse: 'A nymph to the bath undressed, who unveiled the depths of her glowing breast'. All four walls were covered with blue opus sectile and mosaic, with a frieze of water wave and a band of dolphins. The total cost was little short of £110.

Many commercial applications of opus sectile were no more than lettered tablets that indicated the purpose of a room or gave directions, or larger tablets that carried the name of a firm or business, but several examples of direct advertising use are recorded. The first, in 1872, for Southeran bookshop, Piccadilly, London **18** would have been a joy to behold: five panels beneath the shop windows illustrated the history of lettering, from Egyptian hieroglyphs to Caxton's printing press. Unrecorded subjects were painted on tiles above the windows. In 1901 three opus sectile panels were ordered for the bookstall at Salisbury House, London Wall **19**, which reproduced posters for Ladies Field, Tatler and Jacob's Oil. This expensive experiment, costing £10 for each poster 29 in x 20 in, was not repeated. Further information would be appreciated on the two large advertising panels ordered for Platform 9 of Victoria Station in 1907. **20** A sketch indicated that each was 9 ft 6 in wide, but the height, which was longer, and the subjects were not mentioned. The price, £60 per panel, was about 10 shillings a square foot so the display must have been simple.

Powell & Sons were the only firm producing opaque stained glass, so it is not surprising that other manufacturers of stained glass placed orders to be completed to their own designs. Clayton & Bell began the practice in 1872, with a reredos for St Alban, Wood Street, City of London. **21** Within two years Clayton & Bell had placed seven substantial orders including, in 1873, a reredos of the Last Supper for Wilstead, Beds **22**, which in December 1875 was 'replaced in new material "enamel" on account of the first having gone bad.' [nb: The two sets of inverted commas were given in the original Order Book entries]. Since the Wood Street reredos was 'Executed in opaque enamel glass' the actual situation is unclear. Clayton & Bell also placed

small orders for tablets with inscriptions, several of which, for convenience were combined into a single order, including the following 23: '21 April 1877. Inscription on opaque glass...21 May 1877 "opus sectile" inscriptions"...'. This entry is the first appearance of the new term in the Order Books. [note the inverted commas] Further orders from Clayton & Bell were received until at least 1924. In 1901 Clayton & Bell placed two orders relating to their decoration of the Chapel of St Gregory and St Augustine in Westminster Roman Catholic Cathedral. 24 Patrick Rogers, who illustrates some of this work, 25 states that the donor stipulated Clayton & Bell despite their style being out of keeping with earlier decoration in the Cathedral. The initial order, for panels depicting episodes in the life of the two saints was followed by another, in which Powell supplied only the opus sectile material cut to shape, as in Preedy's initial order. Later, in 1915, Powell received an important commission directly from the Cathedral authorities: 26 the semicircular tympanum, 12 ft x 24 ft, over the West door, which was designed by Robert Anning Bell (who is best known for his decoration above the entrance of the Horniman Museum).

A few small trial orders were made for Heaton, Butler & Bayne, and a small reredos at Netherseal, Derbys, made to a Burlison & Grylls design. 27 There was also a single large commission designed by Nathaniel Westlake, at the once fashionable but now redundant church of St Mark, North Audley Street, London. 28 It is not clear whether Westlake's firm was involved in this depiction of the Transfiguration flanked by the four Evangelists, as the account for £350 was sent to the Rev J W Ayre.

Between 1895 and 1899 the Birmingham firm of Hardman, much of whose output was made for Roman Catholic churches, [placed several substantial orders for opus sectile, including two for the United States: Corpus Christi, Baltimore 29 in 1895, and Roxburgh, Philadelphia 30, also in 1895, completed in 1897. The price quoted in 1895 for five large panels and for a reredos included fixing, and indeed Mr Wheeler, the fixer, was away from London for 138 days, including thirty one days travelling. Some of the work at Baltimore is illustrated in the Rev John Fisher's monograph on the Hardman firm. 31 There is no indication in the Hardman Order Book that Powell & Sons were in any way involved with this work. 32 In 1898 Hardman's ordered a set of Stations of the Cross in opus sectile for Notre Dame Convent, Blackburn, 33 followed a year later by a reredos. A note in the Powell Order Book stated 'our name not to appear on the [packing] case if possible'. It may not have been possible, for ten further orders for opus sectile were placed direct with Powell, including in 1912 the walls of the nave and the chancel arch, at a cost of £967-10-0. 34 No further orders from Hardman have been recorded.

Wippell & Co of Exeter placed seven orders for opus sectile panels between 1911 and 1931, but the locations, most likely in south west England were not given. The first two orders 35 were probably indistinguishable from Powell's own work, for sketches and cartoons were prepared by Charles Hardgrave, who had recently retired as the Foreman of Whitefriars' studio. The Scot Douglas Strachan, well known for his somewhat expressionist stained glass, in 1922 and 1923 placed orders for six panels of mosaic and opus sectile to his design for St Salvator's Chapel, St Andrew's University, 36 at a total cost of £336-10-0.

A few further orders of this type were received, but only in three cases was the destination recorded. In 1934 J Trinick ordered an opus sectile panel of the Virgin and Child for Westminster Cathedral 37 at a cost of £50, and a year later a set of Stations of the Cross for St Saviour, Lewisham, London, 38 which cost £485. More unusual was the order from Morris & Co for a small panel of opus sectile representing a Guardian Angel with a child, 39 price £23-10-0, which was to be set into a gravestone in Speldhurst churchyard, near Tunbridge Wells, Kent.

Many European resorts contained an English church with a resident chaplain. Opus sectile was supplied to four of these churches in France, two in Switzerland, and one each in Belgium, Italy, Spain and Germany. The last of these, All Saints, Dresden between 1891 and 1899 installed Old Testament figures and angels in the apse, a reredos with the Crucifixion and an altar

depicting Christ in Majesty and the Apostles, 40 possibly all designed by Charles Hardgrave, at a cost of £320. Naturally there were exports of opus sectile to the major British colonies, but outposts such as Norfolk Island, Sarawak and Zanzibar University Mission were not forgotten. In 2011 Bronwyn Hughes, a stained glass consultant based near Melbourne, Australia, came across a Powell panel depicting the Road to Emmaus in St Nicholas, Lakes Entrance, a church much newer than its opus sectile. 41 The panel, which is a replica of that made for Easthampstead, Berks in 1905, 42 could be identified as part of a collection of stock items of opus sectile purchased from the Powell showroom in London in 1906, by Brooks, Robinson of Melbourne. 43 Identification was not completely straightforward, as the Order Book stated that the panel was as Leckhampstead, Herts (which is not an Emmaus scene). The whereabouts of figures of Charity and St Matthew, also bought by Brooks, Robinson has yet to be discovered. (Fig 10)

Once the production of opus sectile became a reliable process, sales of figurative designs increased steadily (Fig 11), which indicates the number of orders in successive five-year periods. The trend is very similar to that for stained glass, apart from the sharp peak between 1916 and 1921, resulting from the many war memorials incorporating opus sectile that were made at this time. Some memorials consisted of a list of names of those commemorated, surmounted by a small figure or a military badge, but the majority portrayed a single heroic figure, usually one of several variants of St George or St Michael (Fig 12). Although the composition is frequently uninspired these tablets do not plumb the mawkish depths of some war memorial windows which depict a moustachioed soldier in the arms of a sentimental Christ. This bounteous post-war flowering of the craft was short lived, soon to be shrivelled by the chill winds bringing inflation and economic depression, which almost bankrupted James Powell & Sons and resulted into the firm's transformation into James Powell & Sons (Whitefriars) Ltd. 44

References: An Expanding Market

- 1 AAD 1977/1/2, p.527.
- 2 AAD 1977/1/55, p.185.
- 3 AAD 1977/1/55, p.283.
- 4 AAD 1977/1/7, p.83 and 58, p.302.
- 5 AAD 1977/1/55, p.389.
- 6 AAD 1977/1/12, p.59.
- 7 AAD 1977/1/3, p.93.
- 8 The author is grateful to Dr Tony Pretlove for informing him of the early history of All Saints Church.
- 9 AAD 1977/1/10, pp.199, 308; 11, p.375; 12, p.17.
- 10 AAD 1977/1/9, p.324. [Two years earlier she had visited the London showroom and taken home a larger panel of opus sectile.]
- 11 AAD 1977/1/15, p.21.
- 12 AAD 1977/1/15, p.313.
- 13 AAD 1977/1/25, p.52.
- 14 AAD 1977/1/55, p.210; 5, p.244.
- 15 AAD 1977/1/56, p.4.



Fig 10 Easthampstead, Berkshire, 1905.
J W Brown

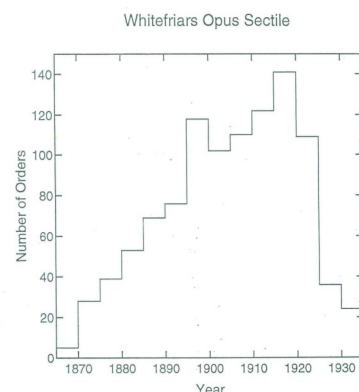


Fig 11 Sales of figurative opus sectile in successive five-year periods

- 16 AAD 1977/1/3, p.14.
- 17 AAD 1977/1/8, p.317.
- 18 AAD 1977/1/72, p.382.
- 19 AAD 1977/1/15, p.310.
- 20 AAD 1977/1/18, p.55.
- 21 AAD 1977/1/56, p.40.
- 22 AAD 1977/1/3, pp.59, 208.
- 23 AAD 1977/1/4, p.222.
- 24 AAD 1977/1/15. pp.132, 225.
- 25 Rogers, P. 2010. Reflections. The Westminster Cathedral Mosaics. London: Oremus. pp.21-24.
- 26 AAD 1977/1/21, p.156.
- 27 AAD 1977/1/5, pp.59, 83.
- 28 AAD 1977/1/5, p.363; 58, pp.189, 315,379.
- 29 AAD 1977/1/12, p.272; 13, p.311.
- 30 AAD 1977/1/12, p.273.
- 31 Fisher, M. 2008. Hardman of Birmingham, Landmark, Ashbourne, p.148.
- 32 Private communication from Fr. Michael Fisher.
- 33 AAD 1977/1/13, p.368; 14, pp.17, 153.
- 34 AAD 1977/1/15, p.96; 16, pp.96, 152; 17, pp.2, 117, 257; 18, pp.27, 224; 20, pp.138, 214.
- 35 AAD 1977/1/19, p.333; 20, p.313.
- 36 AAD 1977/1/24, pp. 85,272.
- 37 AAD 1977/1/28, p.9.
- 38 AAD 1977/1/28, pp.87-88.
- 39 AAD 1977/1/29, p.22.
- 40 AAD 1977/1/10, p.162; 11, p.49; 13, p.99; 14, p.219.
- 41 Private communication from Bronwyn Hughes 2011
- 42 AAD 1977/1/20, p.121.
- 43 AAD 1977/1/17, p.377.
- 44 Whitefriars Glass .1995. Ref 32 pp.117-123.



Fig 12 Hungerford, Berks. First World War memorial

Other Members of Opus Sectile Memorials

In an Appendix to this book *Stained Glass as an Art* (1896) ¹ the artist Henry Holiday, who had experimented with opaque stained glass as early as 1865 gave an assessment of the potential of the material and compared it with true mosaic. 'When treated broadly and simply with little work



Fig 13 a, b & c: St Chad, Kirkby, Lancs, 1899. Reredos by Henry Holiday



on the surface it has a dignity and severity peculiarly suitable for mural decoration.’ He considered that opus sectile had been much misused, as its dignity is ruined by overmuch enamel painting. True mosaic was a superior material, but was much more expensive and needed to be viewed at a distance. ‘From the simplicity of the method of working [opus sectile] costs less than stained glass’ [Not true of Powell & Sons]. “It can be successfully treated on as small a scale as stained glass, and looks well at any distance.’ There is an adjacent photograph of a rectangular panel with an ornate border depicting a life-size Angel of Judgment. A panel of that subject, which was probably his first large design for opus sectile, ² was by 1930 fixed to the exterior wall of the apse of St Andrew, Ilford, Essex, but has long disappeared. ³



Fig 14 Kensal Rise, London, 1908. (From Notting Hill Unitarian Church). Henry Holiday.

Holiday had in 1887 designed and worked a large mosaic panel of the Last Supper for St Stephen, Philadelphia, USA. ⁴ For the majority of the work he employed three mosaicists, who required very detailed coloured drawings, but he relied on the nimble fingers of his wife Kate, one of the most renowned embroiderers and needlewomen of the period, for creating all the faces. A replica of the Last Supper was produced in 1899 for St Chad, Kirkby, Lancs, where it was shortly to become the centrepiece of an ornate surround in opus sectile

and other materials, featuring Virtue[s], Angels and Cherubs (Fig 13). Another less ornate reredos that combines mosaic and opus sectile is that made in 1908 for Notting Hill Unitarian church and since removed to Church of the Transfiguration, Kensal Rise. As was common in Unitarian



Fig 15 Bethnal Green, Unitarian Church, London, 1903. Henry Holiday.
Photo by William Featherstone.

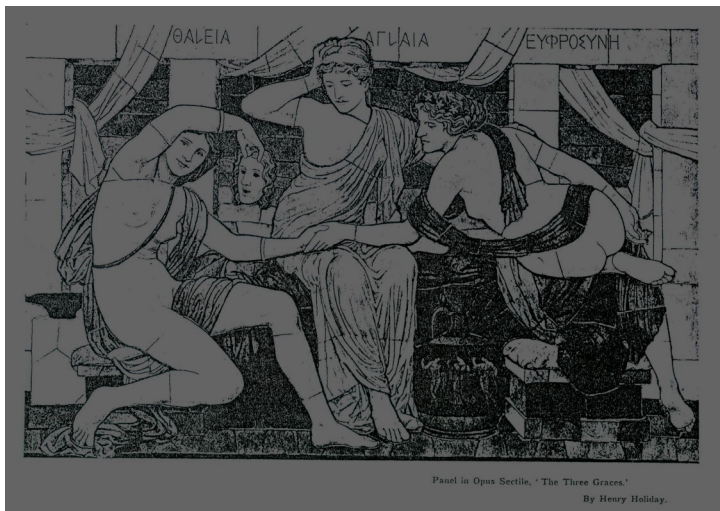


Fig 16 Henry Holiday, Three Graces panel.
From *Art Journal* 1906.

churches, the figures represent Virtues: in this case Courage, Love, Faith and Generosity (Fig 14). A virtuous life is depicted in a very beautiful large panel of 1903 in Bethnal Green Unitarian Church, London, which shows Dorcas distributing clothes to the poor (Fig 15). Unlike scenes that depict specific biblical events this subject gives complete freedom to the artist's interpretation, so the panel probably represents the assessment of opus sectile that Holiday had discussed in 1896.

Holiday also produced several panels of opus sectile on secular subjects, including one illustrated in 1906 (Fig 16) of the Three Graces, named in Greek and dressed in flimsy aesthetic garments, thereby combining the artist's passion for the classical world and non-constricting dress for women. A panel of opus sectile about six feet high, in East Claydon Primary School, Bucks, shows children climbing a hill towards a garden enclosed by a stone balustrade (Fig 17), the moral of this Hill of Difficulty is that children have to make an effort to achieve the good things in life. Much of the correspondence relating to this

panel, which was a gift from Sir Edmund and Lady Margaret Verney, survives, so giving an insight into Holiday's business methods and his relationship with clients. The Verneys, who had recently received a gift of £70 in celebration of their fortieth wedding anniversary, wished to spend it on something for the school that the Arts & Crafts architect Raymond Unwin was building for them, so they asked Holiday, whom they had evidently met previously on social occasions, if he could design either a window or a mosaic panel for them. He replied that the amount was inadequate for either purpose, but he could make a

panel of opus sectile, particularly if he kept the price down by working on the design in otherwise spare moments. Lady Verney sent along a sketch by a Miss Pearse of the subject she had in mind: children climbing a hill to a castle. Holiday kept to the general theme, but told Lady Verney that he had put Miss Pearse's sketch aside when developing his own composition. The panel took longer to make than anticipated, but Holiday told the Verneys that he would charge only the agreed £70, although his normal price for opus sectile was 4½ guineas (£4-14-6) per sq ft. (By comparison Powell's price at that time was £2-10-0 to £3 per sq ft.) When the panel was delivered the Verneys were concerned that the surface was not completely flat. Holiday considered that some irregularity permitted light to be reflected at varied angles, but wrote that

since the cement would not yet have set hard, they could flatten upstanding pieces by pressing down using wooden blocks, and should leave the panel lying horizontally for a while. This technical point is not known to have been described elsewhere. Despite Holiday's obvious interest in opus sectile, and his expertise in handling the material, no examples of his work are recorded after 1908, although he continued to design windows until the mid-nineteen twenties.

William Glasby was an extremely skilful glass painter for Powell & Sons, Henry Holiday and Morris & Co, and had been encouraged by Holiday to enter design competitions for stained glass windows. ⁹ From about 1906 he began to design and paint his own windows, made by Lowndes and Drury and marketed by the London firm of W B Simpson (well-known for their ceramic panels). Considering his previous experience it is no surprise that by 1915 Glasby was making tablets and reredoses in opus sectile, some of which carried the Simpson monogram. Two early reredoses were made for buildings in London that have been demolished: St Saviour, Wood Green, and the chapel of St Mary Abbot's Hospital, Kensington. The large War Memorial of 1921 in St Botolph Bishopsgate, London, survives in good condition. ¹⁰ (Fig 18) It is signed, as it was made after Glasby had established his own firm. His most popular design comprised two kneeling angels, usually flanking a panel containing the name of the deceased, but sometimes holding a scroll. One of the latter tablets of Gorey, Church of Ireland, Co Wexford, Ireland, made about 1924, had been attributed to the Irish artist Ethel Rhind, until Donald Green found documentary evidence that it was a Glasby production.

The Honan chapel at University College, Cork, Ireland, consecrated in 1916, ¹¹ was intended by its 'guiding spirit' Sir John Robert O'Connell, the administrator of the Honan bequest to be a showcase

Fig 18
William Glasby, WW1 memorial in *opus sectile* (1921), St Botolph, Bishopsgate, London. Reprinted by permission of *The Journal of Stained Glass*, photograph by Helen Dunstan Smith.



Fig 17 (above) East Claydon School, Bucks, 1908. Henry Holiday.



for every element of the Irish Arts & Crafts Movement. Sir John wanted opus sectile Stations of the Cross as a more permanent alternative to the usual paintings, but believing, mistakenly, that work of that type was not made in Ireland, the contract was awarded to Oppenheimer of Manchester, England, who were also responsible for the chapel's ornate mosaic pavement. O'Connell did not identify the firm responsible for this work, as their employment was inconsistent with the aim of fostering the crafts in Ireland. Consequently, few details about this commission are known, as Oppenheimer's role has only recently been acknowledged. The fine workmanship of the opus sectile ¹² and the mosaic pavement is evident from illustrations in the 2004 coffee table book about the chapel. Ludwig Oppenheimer had made mosaics in Germany before moving to Manchester in the mid nineteenth century. ¹³ The majority of the firm's output, in mosaic, is found in Roman Catholic churches in the north west of England, but several commissions had been for Irish churches, so it is probable that O'Connell was already familiar with their work. This firm, which continued in business until after the Second World War, merits further research. For the final thirty years or so of its existence most of its designs were the work of Eric Newton (born Oppenheimer, but later adopting his mother's maiden name), who was better known as an art critic and the author of popular books on art history.

It seems surprising that Sir John O'Connell did not find an Irish craftworker to carry out the opus sectile at the Honan Chapel, for An Túr Gloine (The Tower of Glass), a cooperative enterprise established by the artist Sarah Purser (1849-1943), and which made several of the windows for the chapel, had as early as 1908 invited Ethel Mary Rhind (1879-1952) to join the group. She had earlier spent three years studying mosaic at Dublin College of Art, and it was intended that she would provide designs in both mosaic and opus sectile. A panel of 1908 at St Patrick, Cork, is said to be her work, but entries in the *Gazetteer of Irish Stained Glass* ¹⁴ otherwise all date from after the consecration of the Honan Chapel. Ethel Rhind designed at least three sets of Stations of the Cross: Spiddal Roman Catholic Church, Co Galway 1918-1928, Loughrea Cathedral, Co Galway 1929-1932 and Athlone Friary, Westmeath 1934-1936. The *Gazetteer* states that her 'opus sectile shows the influence of Wilhelmina Geddes' stiffly, stylized archaized style', but that can hardly apply to some of her memorial tablets, because of confusion with the work of William Glasby at Gorey. Two other An Túr Gloine artists worked with opus sectile as well as stained glass. Catherine O'Brien (1891-1963), whose work is dismissively described as 'having no particular style or character' is credited with four panels, the first in 1936 but the final one, an Adoration of the Magi at St Bartholomew, Dublin, as late as 1960. Hubert McGoldrick (1897-1967) designed Stations of the Cross for Westport Church, Co Mayo in 1929, and a few other panels of opus sectile up to 1940. No other areas of the British Isles are known to contain opus sectile made in Ireland. NADFAS Church Recorders have reported First World War memorials where the names of the fallen are recorded on glazed ceramic tiles, above which are motifs made of similar cut ceramic material that superficially resembles opus sectile; e.g. St Saviour, Retford, Notts, where the cut work consists of the familiar arrangement of a lettered scroll held by two angels. ¹⁵ When in 1966 Brooks Robinson of Melbourne, Australia supplied a memorial inscription tablet of ceramic tiles, set within a ceramic mosaic border, to St Andrew, Walkerville, South Australia, the work was described as being opus sectile. ¹⁶ This type of work is worth researching further, but will not be referred to again in the present paper, which is restricted to vitreous opus sectile.

References: Other members of opus sectile memorials

¹ Holiday, H. 1896. *Stained Glass as an Art*. London: Macmillan. pp.164, 165.

² Holiday, H. op.cit. p.166.

- 3 The author thanks Ilford Public Library for finding a [poor quality] photograph of the 1930s which showed the panel in place.
- 4 Holiday, H. 1914. *Reminiscences of My Life*. London: Heinemann. pp.319-323.
- 5 Baldry, A. L. 1930. *Henry Holiday*. London: Walker's Galleries. P.74. [The author thanks William Featherstone for information about the church and for supplying several photographs.]
- 6 *Art Journal*. 1906. P.20.
- 7 The Headmistress of Claydon School, Mrs J Hubble, in 1994 permitted the author to photograph the panel, which was mounted on a wall in a wooden case which was normally kept closed. She gave permission to transcribe photocopies of the correspondence between Holiday and Sir Edmund Verney, the originals having been deposited with the Buckinghamshire Record Office, Aylesbury.
- 8 Miss Pearse may have been the lady with an address in Onslow Square, London, who in 1885 ordered a window by Henry Holiday for Harlington Church, Beds: AAD1977/1/7, p.60.
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Collections Clashes & Schemes

The nave of St Martin, Dorking, Surrey, one of Henry Woodyer's finest churches, houses a collection of Powell & Sons windows and a range of opus sectile that spans a thirty year period.¹ It is no coincidence that Arthur, one of the sons of James Powell, was a churchwarden and prominent fundraiser. The opus sectile Crucifixion above the chancel arch was designed by G W Rhead (1855-1920), who was a frequent supplier of drawings in the period after 1890 when several experienced designers ceased to work for the firm. The flanking Archangels were not added until more than ten years later, although three panels of angels (£25 each) had been placed in the nave in the intervening period. Charles Hardgrave was possibly the designer of the South Chapel decoration of 1905, groups of angels, which differ in style from the earlier work.

The Dowager Duchess of Marlborough is commemorated by a very attractive monument depicting the Resurrection, designed by Mr Coakes of the Powell studio in 1910. Coakes was probably the designer of two panels added in 1914: the Flight into Egypt on the south side and Angels in the North Chapel. E Penwarden, also of the studio staff designed the St Michael and the Warrior, added to the North Chapel in 1918. Christ in Glory on the East wall of the chapel, ordered in the same year, is a late design by Charles Hardgrave. The final items of opus sectile in the collection are the Gabriel and George, added in 1921, the latter being adapted from a window that E Penwarden designed for St Thomas, Salisbury. Although much of the work in St Martin has

an angelic theme, it is a collection in several styles, assembled piece by piece, rather than a scheme planned in advance.

Also a collection, because of the reuse of earlier designs in a range of styles, is the remarkable amount of opus sectile to be found in St Paul, Clifton Bristol. ² The reredos of 1903, with its ornate wooden housing, is a flamboyant composition which cost £347. In contrast, some of the later single figure panels are much quieter, both in colour and pose. The central panel of the reredos depicts the Ascending Christ worshipped by angels with censers or haps. Beneath, a panel with a highly stylized floral design separates scenes of the Nativity and Crucifixion. A panel of Purity with a lily, a much earlier design for stained glass by Hardgrave, was ordered at the same time. Panels of an Angel of Praise and a Good Shepherd by Penwarden (recorded as being 'in stock') were added in 1905, followed by Love a year later and Faith, clasping a bible rather than the more usual cross, in 1910. Two war memorials ordered at the same time in 1919, are set in heavier and more ornate marble frames than the earlier virtues. The smaller, which depicts an Angel of Victory standing on rocky ground littered with a shell, a sword and barbed wire, has an inscription that includes 'We will remember them', while the larger, which lists individual names, is another Good Shepherd, this time with a flock of sheep and lambs, standing in front of a vineyard, with three tiny crosses standing out from a distant hill. A Virgin and Child panel added in 1923 reused the cartoon for a recent window in St Sebastian, Wokingham, Berks. The final order for opus sectile, placed in 1927, was for two very different, but both somewhat out of date panels: a St John the Evangelist, rather in the style of the earlier Virtues, but with a heavier frame, and a smaller replica of J W Brown's Road to Emmaus, designed for Easthampstead in 1905. (see Fig 10)

In a few churches neighbouring panels of opus sectile clash unhappily with each other, a mismatch exacerbated when an adjacent window displays a completely different range of hues. In two cases that stand out Powell & Sons opus sectile detracts from the pleasure of viewing outstanding East chancel windows by William Morris and Edward Burne Jones. Easthampstead, Berks, has three contrasting Powell & Sons reredoses, ³ none of which is a good neighbour for Burne Jones's magnificent Last Judgment window (1876) an early example of his mature style. In 1873 Powell supplied a reredos panel of the Crucifixion by Harry Burrow which, although better in composition, colour and execution than much of his work, is overwhelmed by the much more powerful decoration of the East wall, dating from 1877, consisting of single figures originally designed by Henry Holiday for a window in St Matthew, Upper Clapton, London. Not unlike the earlier arrangement at Kelmarsh, Northants, each figure stands against a mosaic background: coloured below and gold above. The final panel was the first appearance of W Brown's Road to Emmaus, which is a good example of work of its period, but appears out of place here. Reredos panels of different periods need not clash, a good example being Old Malden, Surrey. ⁴ The Annunciation and Nativity panels at the sides of the main altar are very early works by Ada Currey, who also designed the Christ with Children panel for the South aisle reredos. The centre portion of the main reredos was not supplied until 1920, several years after Miss Currey's death, and although it is a much busier scene, with Christ on a rainbow accompanied by angels and a whole company of prophets and saints, it matches the earlier work in colour range and general style.

The East window of St Michael, Waterford, Herts, features a Nativity by Burne Jones in his earlier style, and four beautiful angels with musical instruments by William Morris, completely out-classes the contemporary reredos with six nondescript figures, probably the work of Harry Burrow, ⁵ which is notable only as an example of the unreliability of early specimens of opaque stained glass.

Complaints about its appearance were made soon after its installation, causing Powell workmen to twice visit to clean it. Then in 1875 the reredos was completely remade using opal

glass. With the new century came a scheme to embellish the walls of the sanctuary with real mosaic and opus sectile, where large triumphant angels stand out against a richly coloured background. ⁶ (Fig 19) This powerful scheme overwhelms both the earlier reredos and the delicate window.

A harmonious contrast to the above is provided by schemes that were planned in advance: some were confined either to the chancel or a transept, while others were intended to decorate the whole church, but were rarely completed. The decorative scheme in opaque glass for the chancel of Kelmarsh church, Northants (see note 39) in 1873 was influenced by much earlier Christian mosaics, but by the end of the century schemes were handled in a freer contemporary manner. The decoration of the chancel of St Mary, Balham, London, during 1897 and 1898 ⁷ is a good example, with four panels, each 6 ft by 2 ft 6 in, depicting the Christian story from the Annunciation to Pentecost, both sides of a central Crucifixion with Angels, based on Rhead's design for St Martin, Dorking.

An ornate scheme of chancel decoration in the former parish church at Todmorden, Yorks, ⁸ is no longer readily viewable, as the building has been converted to domestic use. It is perhaps better described as a collection, being the work of at least four artists, spread over thirty-three years beginning in 1892, when George Parlby provided a Pool of Bethesda scene adjacent to the sedilia, which was followed shortly afterwards by decoration at the sides of the East window. In 1896 J W Brown, recently returned after several years spent in Australia, designed a large panel (50 sq ft) of Christ feeding the multitude for the North side of the sanctuary, which was charged at £3 per sq ft, significantly more than average for similar work. The alabaster reredos of 1897 included two side panels, each more than six feet in length, which depicted a Te Deum procession of Prophets, Apostles, Saints and Martyrs, also designed by Brown. Brown, who was trained as a painter, had little experience of designing and working with opus sectile. What he has designed here, possibly at the behest of the donor, are mural paintings with complicated groups and natural perspective which, with enormous skill, Powell's craftsmen have managed to translate into a different medium – hence the high price. Charles Hardgrave may have been less skilful than Brown in depicting the human figure, but he was fully aware that good opus sectile required simple groupings confined to a few planes, with some large areas of a single colour. Brown's Emmaus reredos of 1905 (see Fig 10) is less spectacular, but a more appropriate design for the medium. There were no more additions until an Adoration of Angels group, probably designed by Charles Hardgrave in 1904. Work was then suspended for fifteen years before James Hogan, the main designer for the Powell studio since 1913, was responsible for a Crucifixion on the south side of the chancel and a Resurrection on the north. Finally in 1925 the decoration of the chancel arch included two



Fig 19 & 19a: Mosaic and opus sectile, Waterford, Herts. 1901-12.



Angels with Trumpets. The 1927 scheme of opus sectile and mosaic in the chancel of St Michael, Mytholmroyd, Yorks, designed by James Hogan and financed by a gift of £3,500 from the Sutcliffe family, ⁹ has not been seen by the author, but the *Heritage Shell Guide* (2012) ¹⁰ states 'it is a revelation to gain entry to the church'. The Order Book mentions a Nativity and Ascension with Angels on the East wall, but the *Shell Guide* refers to 'The Godhead with seven lamps...a rainbow...and a crystal sea.' Demi-figures of the Apostles with their emblems decorate the North wall, with Northern Saints, both male and female, on the South.

A complete scheme for a South transept, financed by a wealthy donor and executed within a short period is to be found in the Barcote aisle of St Mary, Buckland, historically Berks, but now in Oxon, which is a memorial to the wife of William West of Barcote. Powell & Sons were responsible for the complete ensemble, ¹¹ comprising windows, walls covered with opus sectile, a painted ceiling, the paving, seating which included carved stalls, furnishings and fittings which included 'fancy iron screens' for the hot water pipes, although much of this work was farmed out to sub-contractors. About forty years ago the aisle looked uncared for, with some of the furnishings missing, but it has since been lovingly refurbished.

Work began in 1889 with the South window, which is an amalgam of parts of two earlier designs by Henry Holiday. The attribution to Holiday of the opus sectile of 1890, given by the *Buildings of England, Berkshire* (2010) is an error, as George Parlby was paid £7-7-0 for a sketch with the cartoons being drawn by the Powell studio. All four walls are decorated with opus sectile; the principal features being a Te Deum with Archangels on the East wall, with kneeling angels beneath. On the opposite wall are single figures from the Bible, with medallions in the lower wall. Musician Angels decorate the arches of both North and South windows. The scheme of opus sectile is fully documented in a ledger at the Museum of London ¹² which tabulates the time spent by each craftsman on the work, together with detailed costings. Eight 'draughtsmen' who included Misses Currey, Harrison and Marshall, devoted 2,500 hours to preparing the cartoons, at a cost in wages of £142-18-11. Painting, mainly the work of Stammers (the father of Harry Stammers, who produced many stained glass windows in the mid-twentieth century) and an apprentice called Hardy, whose work was costed at only 2 ¾ d per hour, cost £36-14-6 for 976 hours work. Eleven cutters and mosaicists were occupied for 6199 hours at a cost of £155-15-7½ d. Mr Allen spent 148 days, including 20 Sundays and 246 hours overtime in fixing the opus sectile in position. He was allowed one shilling per night for his lodging on each of the 144 nights that he spent away from London. The retail cost of materials was given as £316-4-0 giving a total, 'including sundries of £730-11-0 ½d.' Powell & Sons who quoted an overall price of £1,000 probably made a loss on the contract, as evidence elsewhere indicates that in order to cover overheads the estimate should equal the cost of materials plus twice the cost of wages.

St Cross, Owlpen, a small, much altered nineteenth century church in remotest Gloucestershire, stands close to the Manor House which paid for two ornate decorative schemes: the chancel in 1887 ¹³ and the Baptistry beneath the tower in 1913. ¹⁴ Both were designed by Charles Hardgrave. The Order Book for 1887 gives precise costings for different types of work: texts, arcading, canopies, dado and window splays. Most expensive were the altar panels at 47 shillings per sq ft and single figures of the Virgin, the Evangelists and St Helena at 45 shillings. The total cost of the work was £441. A further £400 was spent on the Baptistry, where all three walls were covered with opus sectile, including angels on both side walls. Chip mosaic was used for the ceiling.

Comprehensive schemes of opus sectile have an unfortunate history: only one was completed as planned and that, Notre Dame Convent, Blackburn (already described) has been long demolished. A noteworthy incomplete scheme is that in St Barnabas, Oxford, a High Anglican church, built of brick in an Italianate style, in Jericho which, until recent gentrification was one of the poorest areas of the city. ¹⁵ The church contains no colourful windows, but the North wall of the

nave depicts at clerestory level, a Te Deum of Prophets, Saints and Martyrs in opus sectile, with decorative opus sectile in the spandrels of the arches beneath.¹⁶ The figures are clad in white garments, which have occasional edges outlined in gold, and stand on short grass, sprinkled with tiny white flowers. This is not a Te Deum procession, as at Todmorden, but a formal display, intended to remind the worshipper of those who have gone before. Above each group a decorative band proclaims 'We Praise Thee O God', while beneath is the name of each figure, and an inscription in larger letters: 'The Goodly Fellowship of the Prophets', etc. Rather bizarrely, considering the flowering meadow, each group is separated from its neighbours by a stylized palm tree. A saint that one might not expect to find in an Anglican church is Ignatius Loyola. If completed, the scheme would have provided a modern interpretation of the mosaic decoration of an early mediaeval Italian basilica.

Orders, which began in June 1905, were placed at intervals as funding was raised until May 1911. In that year Father Cyril Hallett, who had hoped that the decoration would extend to both sides of the nave, moved to Putney, and orders for opus sectile ceased. Anne Abley has seen a plan of 1919 in Oxford City Library which mentions 'Mosaics intended in apse ceiling and upper walls'. In 1907 a local periodical¹⁷ commented, 'Whether any of the congregation of moderate age will ever see this finished depends largely on the extra parochial admirers of the church.' These 'admirers' included the partners of Powell & Sons, for charges for the opus sectile at 12s 6d per sq ft for the decorated spandrels, 30s per sq ft for figures and only 8s per sq ft for ornament were so much lower than the usual price that they are unlikely to have covered the cost of the work. Such benevolence was not unique: the Powell family, who had been prominent and influential High Anglicans for many years, on several occasions gave windows to new churches, and when an appeal for a memorial raised only a small sum would provide a more expensive window than the sum justified. Matters had to change after the First World War, when the partnership had been transformed into a limited company battling to avoid bankruptcy. (Fig 20)

Between 1911 and 1938 Powell supplied at least nineteen panels of opus sectile with single figures for the chapel of Eastney Barracks, Portsmouth.¹⁸ This was not a planned scheme, so the figures, often utilizing existing designs, were the work of several artists, but the individual items conformed to a pattern, and most of those represented were either patron saints or men of valour from the Bible or Christian legend. The Second World War caused a halt, and afterwards opus sectile, even if it had been available, was out of fashion and very expensive. Reductions in the Armed Forces rendered the chapel redundant, and it has been converted for domestic use.

Those seeking an instructive introduction to the decorative properties of Powell & Sons opus sectile should arrange to visit St John the Evangelist, Boreham, Warminster, Wilts,¹⁹ where the overall effect is greater than the sum of its individual parts.²⁰

A panel of the Presentation in the Temple had been placed on the North wall of the nave



Fig 20 St Barnabas, Oxford, 1905-11.
Charles Hardgrave.



Fig 21 & Fig 22 a, b & c St John the Evangelist, Boreham, Warminster, Wilts, Chancel decoration 1911. Charles Hardgrave.



in 1893 and a very sentimental representation of the Good Shepherd was fixed next to it in 1909. The Reverend Brocklebank, who must have been quite wealthy, then decided to improve his church with a comprehensive scheme of opus sectile. By 1911 he had obtained a Faculty to decorate the chancel to designs by Charles Hardgrave, who was now in semi- retirement. This work would be done at his own expense, but parishioners were persuaded to donate further



Fig 23 a & b
St John the Evangelist, Warminster

panels, depicting the early life of Christ, for the nave North wall. Powell's Estimate Book 21 indicates that by early 1911 there was a draft scheme of decoration that would embrace the whole of the South and West walls, but no Faculty was approved and funding was not available.

The glory of the chancel lies in the concentrated intensity of its decoration, which symbolizes at least four aspects of Christianity: the Path to Salvation, Judgment, Praise and Joy. On the North wall a powerful and active Moses stands purposefully by the cross with a brazen serpent as a huge sun rises in the background. Opposite is the risen Christ, sword in hand, in the seat of judgment, with the streams of flowing water at His feet. In the background, intently watching, are six figures representative of the Te Deum. Above is a rainbow and beyond it angels carry scrolls praising the Lord. Panels on either side portray larger angels with censers or musical instruments. Above these scenes is a scheme of rich but uncomplicated decoration, which includes a broad band of horizontal ellipses, each occupied by an angel holding a continuous scroll in both hands. The scheme was completed in 1915 by representations of four very calm Archangels. Michael spears his dragon in a nonchalant manner, and one cannot imagine Raphael wielding in anger the large

Fig 24 a & b St John the Evangelist, Boreham, Warminster, Wilts, Chancel decoration 1914. Charles Hardgrave.

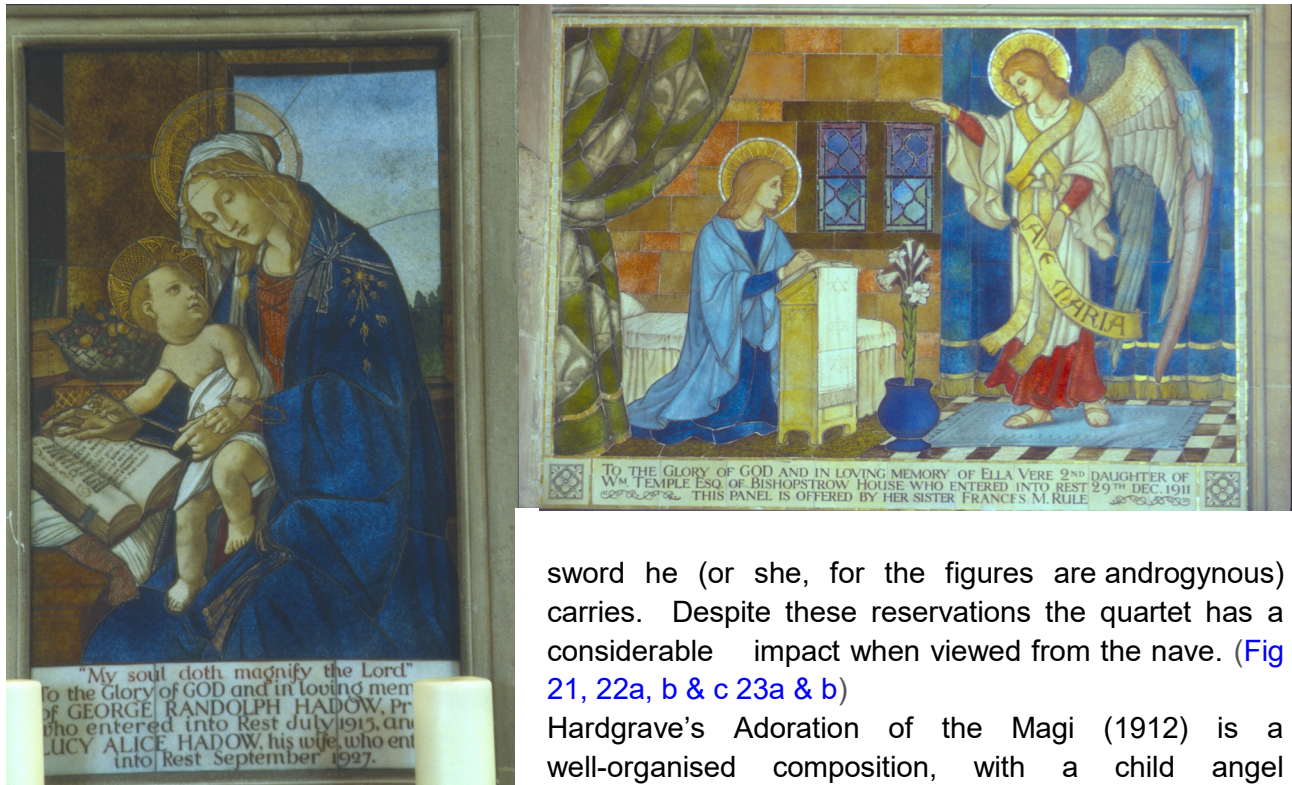
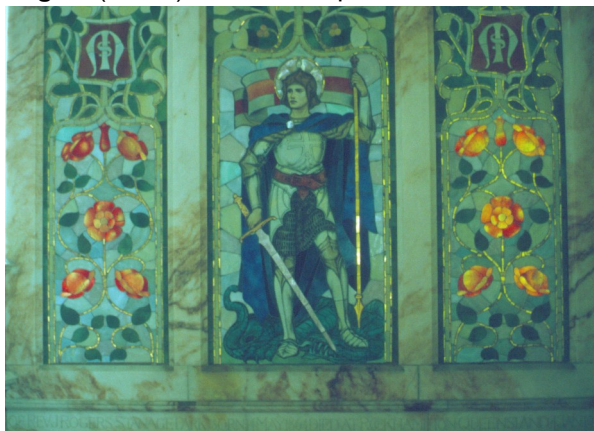


Fig 25 (below) Stowe, Shropshire. M for Michael (or Mary) tiles.



Fig 26 (below) Stowe, Shropshire, 1902.



sword he (or she, for the figures are androgynous) carries. Despite these reservations the quartet has a considerable impact when viewed from the nave. (Fig 21, 22a, b & c 23a & b)

Hardgrave's Adoration of the Magi (1912) is a well-organised composition, with a child angel introduced between Joseph and Mary to balance the

three kings on the opposite side of the Christ child set against the golden rising sun. This panel can be compared with the artist's Adoration of the Shepherds (1905) at Holy Trinity, Marylebone, London (now SPCK), where the same models, but in different poses, are used for Mary and Joseph and, by adding a pattern to his robes, the foremost shepherd is transformed into the foremost king.

The Annunciation (1914) could be used as an exemplar of designing for opus sectile (Fig 24a & b) with its lack of clutter, simplified perspective and unintrusive overpainting. Christ with the Doctors in the Temple (1915) is less successful, for the small child sitting in a central chair is dominated by groups of adults on either side. The Reverend Brocklebank's proposals were then abandoned, but Powell did provide a final small panel of opus sectile in 1930: a Virgin and Child that attempted to simulate a painting by Botticelli. Though technically highly accomplished its style would not have amused Henry Holiday.

An historical review inevitably becomes a catalogue of trial and error, success and failure and profit and loss, without emphasising that the reason why the author and most of his readers developed an interest in opus sectile was because of the added and sometimes unexpected enjoyment it brought when visiting a church. A good example is St Michael, Stowe, Shropshire, which is beautifully sited, high up on a hillside north of the river Teme, which forms the



Fig 27 Stowe, Shropshire, 1902.

boundary with Radnorshire, Wales.

Although the nave is mediaeval the chancel was replaced late in the nineteenth century, and as recently as 1951 authorities such as John Piper and John Betjeman wrote that the church 'was severely treated by the Victorians'. ²² That treatment is a source of pleasure to the present author because the replacement chancel has been embellished with memorials to the Rogers family of Stanage Park, across the border in Wales, several of which are attractive examples of opus sectile. ²³ An East window of the Ascension with Angels, and two smaller South windows depicting Hope and Charity were made by Powell & Sons in 1896. Six years later the dado of all three walls of the chancel was covered by patterned glass tiles, called stencil tiles by Powell, which were the modern equivalent of encaustic tiles.

(Fig 25) Some of the tiles

bear the letter 'M' for Michael, used elsewhere to represent Mary. Higher up on the East wall are opus sectile figures of Michael, (Fig 26) (The dedication of the church) and George (to commemorate George Rogers) and also angels (Fig 27), separated from one another by panels of richly coloured opus sectile, forming a formalised floral design in an Art Nouveau style. A light-hearted contrast is provided by a stock design of three cherubs holding a scroll (as in Fig 9). The decoration was completed in 1913 by filling a blind window on the North side with a figure of Faith, using a bolder treatment than that seen in her stained glass companions opposite. (Fig 28) However, the figure does not look out of place, as it was adapted from a window design of 1899. Stowe on a summer's day is a delightful spot to end our tour.



Fig 28 Stowe, Shropshire. Blind window, 1913 (from an earlier design).

References: Collections clashes & schemes

- 1 AAD1977/1/9, p.348; 12, p.22, 302; 15, p.200, 337; 17, p.199; 19, p.154; 21, p.69; 22, p.170, 205, 310, 381.
- 2 AAD1977/1/16, p.157,281; 17, p.137,247; 18, p.15; 19, p.271.
- 3 AAD1977/1/3, p.26; 4, p.300; 20, p.121.
- 4 AAD1977/1/9, p.163;11 p.247; 23 p.223
- 5 AAD1977/1/56, p.5, 274.
- 6 AAD1977/1/15, p.273; 20, p.145.
- 7 AAD1977/1/13, p.162, 326; 14, p.126.
- 8 AAD1977/1/11, p.47,203; 13, p.97,152; 17, p.16; 22, p.295; 23, p.42; 25, p.102.

- 9 AAD1977/1/26, p.91,121.
- 10 Glossop, W. 2012. West Yorkshire: a Heritage Shell Guide. London: Canterbury Press, p.165.
- 11 AAD1977/1/10, p.19,23,212,273.
- 12 ML 3275 [not paginated]
- 13 AAD1977/1/8, p.7; 9, p.9.
- 14 AAD1977/1/20, p.262, 325.
- 15 Anne Abley supplied much useful information about the church proposal for extending the decorative scheme.
- 16 AAD1977/1/17, p.168, 355; 18, p.151, 341.
- 17 The Treasury. 1907. June, p.218.
- 18 AAD1977/1/20, p.47,154, 312; 21, p.15,154,360; 22, p.96,259,260; 23, [.388; 27, p.277; 29, p.38.
- 19 Sheelagh Wurr supplied much useful information about the church and the Revd Brocklebank.
- 20 AAD1977/1/11, p.209; 19, p.45; 20, p.23,125; 21, p.33,115,241; 27, p.43.
- 21 AAD1977/1/37, p.50.
- 22 Piper, J. and Betjeman, J. 1951. Shropshire: a Shell Guide, p.56.
- 23 AAD1977/1/13, p.358,381; 15, p.313; 20, p.266.

Costs and Prices

Materials accounted for only a small part of the cost of figurative stained glass and opus sectile, as the manufacturing process was lengthy and labour intensive. A few clients of Powell & Sons, particularly overseas visitors, purchased stock designs direct from the show room, but the usual procedure was to inspect watercolour sketches, at a scale of one inch to one foot, and photographs of recent designs which could be reused as they were, enlarged or reduced in size (usually photographically), or modified, or figures from different designs could be combined. If none of these alternatives was acceptable, a new design would be drawn, leading to a higher final price. At all stages of what was a prototype production line process as much use as possible was made of apprentices and less skilled workers, with the highest paid draughtsmen and painters usually working only on the faces and sometimes hands of figures. Successive ranks of the lower paid dealt with garments, background scenery, ornament and lettering. The situation at Powell & Sons can be evaluated using the Wage Books 1 (where they exist), Leger 116 at the Archive of Art & Design and Ledger 3275 at the Museum of London (which covers only random examples in the years around 1890). The typical price for opus sectile figure work rose from fifty shillings per sq ft in 1880 to sixty in 1910. This figure had doubled by 1918 or 1919, and rose slowly over the next two decades. Less fashionable provincial firms would have lower costs and charges, but orders placed with fashionable artists such as Henry Holiday were considerably more expensive: £4-14-6 per sq ft for opus sectile in 1908.

Staff employed in the studio, or as painters enjoyed a 45 hour week, but manual workers had to endure an additional six hours per week. In 1879 the highest paid employees were Charles Hardgrave in the studio and J W Brown, a painter who also designed windows, both on £3-10-0 per week. The next tier of employees in these departments received around £2 per week, but the majority were paid between £1- 15-0 and £1-0-0. A few cutters and mosaicists were paid around £2 per week, but £1-10-0. i.e. 7d per hour, was more common. Kilnmen and cementers were

favoured if they received as much as £1-10-0 per week. These rates had risen only slightly by 1908, with the exception that three members of the studio received £5, £4, and £4.

An inventory compiled early in the twentieth century ² reveals that the price of opus sectile sheet had remained stable since 1870, even though the material had become much more consistent. There were sixteen hundredweights of sold opus sectile sheet in stock, priced at 1s 8d per pound i.e. 4s per sq ft, together with eight hundredweight of 'varied chip' at only 4p per pound, 150 pounds of 'gold dip chip' and 38 pounds of 'pearl shell'. Six hundredweights of unground glass was waiting to be converted into opus sectile. The figures above enable the costs of several schemes of opus sectile to be analysed in some detail

For Owlpen chancel in 1887 Hardgrave spent 272 hours directing the production of cartoons. His work was charged at 2s per hour, although he was paid only £3-10-0 for 45 hours, i.e. little more than 1s 6d per hour, but the charges recorded for other employees were consistent with their weekly wage. Most of the drawing was done by Osborn, who was rated at only 6 ³/₄ d per hour. Manufacturing the opus sectile figures and background took 3,200 hours: about 1,400 hours was costed at 8d per hour, the remainder at between 2d and 3 ³/₄ d. On average it took about 12 hours to complete 1 sq ft of opus sectile.

The decoration of the East wall of Christ Church, Epsom Common, Surrey, with opus sectile figures of the Four Evangelists under canopies, ³ also in 1887, was charged at only £2-2-0 per sq ft for figure work, £1-10-0 for canopy work and 17s 6d for background. Using these charges would give a cost of more than £268, yet the church was charged only £230, which included £16 net labour costs in preparing the cartoons and the costs of fixing. The net labour costs in manufacturing 157 sq ft of opus sectile were £48 for 1740 hours work: i.e. just over 6s per sq ft, which took over 11 hours to make. (The sums listed in the Order Book and Ledger 3275 are inconsistent, but the differences are not large.) Manufacturing costs for figurative stained glass and opus sectile appeared to be broadly similar, averaging between six and fifteen shillings per sq ft for 10 to 25 hours work, dependent on the proportion and complexity of the figure work.

Two examples of Powell & Sons work in mosaic emphasise the high cost and resultant unprofitability of the ventures. In 1887 an enlarged replica in mosaic of Holman Hunt's painting Christ Among the Doctors in the Temple was made for the Chapel of Clifton College, Bristol. ⁴ The charge made for just over 33 sq ft of fine scale work was £250, so figures of £4 per sq ft in the Order Book must refer to the estimated manufacturing costs. In practice the net cost of wages totalled £156. Doubling that figure and adding £30 for materials and other expense, indicates that the estimate ought to have been at least £340, or more than £10 per sq ft. The loss would have been offset to some extent by the significant amount of publicity that the Powell firm received.

Four years later an altar panel in mosaic, with an area of just under 13 sq ft, was made for the now demolished, St Michael, Newcastle-upon-Tyne. ⁵ The cost was estimated at £5-5-0 per sq ft, and the church was charged £75. The design was new and Bladen (a former Powell employee) charged £10-10-0 for a cartoon, with a further net labour cost of more than £3 being required in the studio. Mosaicists then spent 1205 hours the majority at rates of 8½ d or 6½ d per hour, in fabricating the panel. The net total of wages was £35-18-4: i.e. £2-16-0 per sq ft, which took more than 94 hours to fabricate. Mosaic materials cost only £3-18-0, but a further cost of £3-15-0 was incurred for fixing on a slate panel. Using the standard formula the price charged should have been at least £97, or £7-10-0 per sq ft.

References: Costs & prices

¹ AAD1977/1/116 [unpaginated]; 123 and 124, various entries.

² ML 3490.

3 AAD1977/1/8, p.95.

4 AAD1977/1/9, p.134.

5 AAD1977/1/10, p.57.

Decline, disfavour, and renewed appreciation

The flood of orders for war memorials that incorporated opus sectile continued for a short time after the severe deterioration in the economy, but by the mid-twenties orders had slumped, and James Powell & Sons (Whitefriars) Ltd, as the reorganised firm was called, had to make staff redundant. The expensive commission for Mytholmroyd was not repeated elsewhere, only a handful of orders was obtained from the Empire, and although James Hogan kept the company afloat by obtaining numerous orders for windows in the USA, only two American churches bought opus sectile as well as windows: Heavenly Rest, New York [1](#) ordered a reredos in 1929 and decoration for the Baptistry walls in 1932, at a total cost of \$3650 (about £750 at the then rate of exchange); Ascension, Mount Vernon, New York State, where Powell's USA agent was a vestryman, in 1931 paid \$3,000 to fill a blind window.

Wippell of Exeter placed a couple more orders in the nineteen twenties, and there were also orders from Boulton & Sons of Cheltenham for five panels of their own design, [2](#) and from the artist J Trinick for two orders from Roman Catholic churches. (Refs 69, 70) Unexpectedly the name Clayton & Bell reappeared in 1924, when that firm purchased several hundred tiles at a cost of £90. [3](#)

Some of James Hogan's designs for tableware, and a few of his windows, showed that he could be imaginative and innovative in a modern manner, but he was overworked and unable to supervise his assistants adequately, and was obliged to provide what the client wanted. However, his figure of Christ in the church designed by Norman Shaw for the village of Richard's Castle on the Shropshire/Herefordshire border [4](#) is a simple and original interpretation of Christ the Light of the World, ([Fig 29](#)). Figure panels of opus sectile had largely fallen out of favour in the nineteen thirties, but the material continued in use for inscription panels, and in small quantities for decorating stone tablets. The two final figurative designs, both described as mosaic, were made for St Mark, Hamilton Terrace, St John's Wood, London: [5](#) St Cecilia with Angels in 1941 and a figure of St Leonard, in memory of a former curate, who died as a prisoner of war, in 1948 ([Fig 30](#)). There is no entry in the Order Book, but the Cash Book records that the price was £65.

An appropriate swansong was provided by a panel ordered in 1941 by the Society of Glass Technology, of which James Hogan was a prominent committee member, for the department of Glass Technology at Sheffield University [6](#) (now in the Turner Glass Museum, Sheffield). It features a map of Europe and North Africa with 23 labels indicating towns and cities notable in the history of glassmaking: number one reads: 'Here in Sheffield, the first University to study glass 1915'. Two corner insets illustrate ancient Egyptian, Saracenic, Syrian and Roman glass.

Much opus sectile was made for Victorian churches in the spreading suburbs of London and industrial towns, the areas which suffered most in the Blitz of 1940-1941. These districts often changed greatly in character after the war, and numerous churches that survived the bombs soon became redundant and were demolished. As religious vocations dwindled monasteries and convents closed, and some, such as Notre Dame Convent, Blackburn, the only complete scheme of opus sectile, were demolished. Liturgical changes in the post-war years caused altars to be moved away from the East wall often into the nave, causing notable reredoses and other decoration to be removed and sometimes destroyed. Crondall, Hants [7](#) has lost its 1870 reredos and at St Saviour, Walthamstow the 300 sq ft of reredos installed in 1879 [8](#) has been replaced by a brown curtain covering a bare wall.

Attitudes started to change around 1970, when long-despised Victorian decoration began to be appreciated once more, leading to an exhibition of Victorian Church Art at the Victoria & Albert Museum in 1971. ⁹ The activities of NADFAS Church Recorders have become an important practical factor in drawing attention to the work that has survived, and national bodies such as the Victorian Society, together with similarly minded local groups have prevented much destruction. One serendipitous rescue effort at Winchester, Hants, has been described in *Glazed Expressions*.¹⁰ In 2003 cracks appeared in the East wall of the chapel of King Alfred's College just above the altar, and flaking paint revealed some mother of pearl set into the wall. A photograph of 1920 was found which showed a reredos with kneeling angels set in decorative tile work, which could be identified with an entry in Powell & Sons Order Book for 1905,¹¹ recording a reredos ordered for the Training College Chapel, Winchester, at a cost of £92-10-0. This memorial for the wife and son of a former Principal was revealed after removing paint layers of 1998, 1964 and 1953, together with a sheet of gummed paper, and is once again much appreciated.

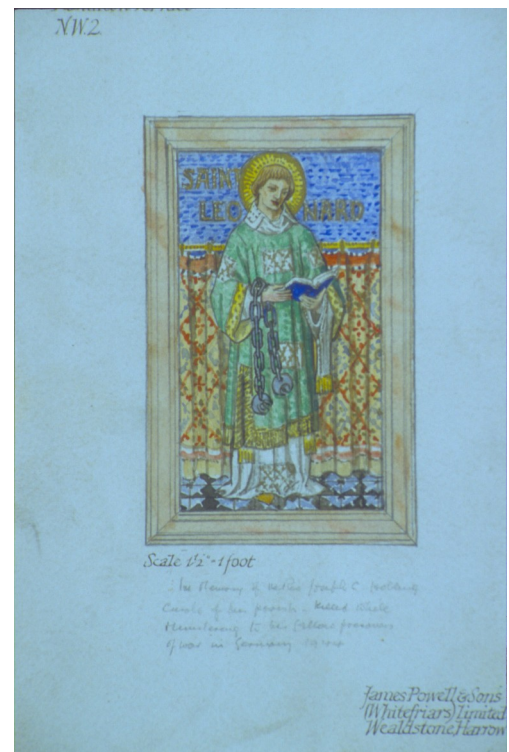
References: Decline, disfavour, and renewed appreciation

- ¹ AAD1977/1/26, p.382; 27, p.182,284.
- ² AAD1977/1/26, p.260.
- ³ AAD1977/1/24, p.342.
- ⁴ AAD1977/1/25, p.2.
- ⁵ AAD1977/1/29, p.157; 73, p.242.
- ⁶ AAD1977/1/29, pp.153-155.
- ⁷ AAD1977/1/55, p.311.
- ⁸ AAD1977/1/5, p.176; 57, p.316.
- ⁹ [Anon] 1971. Victorian Church Art. London: Victoria & Albert Museum.
- ¹⁰ Feldwick, M. 2003. King Alfred's College Chapel, Winchester. *Glazed Expressions*, 48, p.6.
- ¹¹ AAD1977/1/17, p.148.



Fig 29 Richard's
Castle, Herefordshire/
Shropshire, 1924.
James Hogan.

Fig 30 St Mar, St John's
Wood, London, 1948. Sketch
design © Museum of London



Appendix 1. Powell & Sons Glass Tiles

'These tiles, which are composed entirely of glass, are made throughout by hand and have a delightfully varied colour surface so different from the ordinary glazed tile. The surface has an "egg-shell" finish, and the great variety of colours makes it possible to use in every sort of building...For domestic purposes they are used for walls of bathrooms, fireplace surrounds, and stables, etc...The tiles can be painted and fired, which enables them to be used for inscription panels and name plates, and also in "opus sectile" mosaic figure panels.'

Tiles pre-dated opus sectile, for the earliest specimens of Rees' new material are described as being 5½ in x 5½ in with a nominal thickness of 3/16 in. These dimensions are consistent with ground glass filling a mould six inches square and a quarter of an inch deep, which on heating results in a reduction of pore volume that gives an overall shrinking of about 20%. By 1871 opaque glass wall tiles were advertised in sizes 9, 6, 5, 4 and 3 inches square, with the largest size costing twelve shillings per dozen before any trade discount. (ref 13) Some typical prices

during the 1890's are cited in ledger 116: ordinary colours 8 in x 8 in, 9 shillings per dozen; 6 in x 4 in, 6 shillings per dozen; ground edges 1 shilling per dozen extra. Sometime before 1890 stencilled tiles which have a coloured pattern fired into their surface were developed in an ever-increasing range of designs. Usually four or six inch tiles formed a repeat unit that consisted of a stylised sinuous floral pattern. Large panels of the main design might be edged with, possibly narrower, border tiles in a different but compatible design. These tiles were more expensive than plain colours: 8 x 8 inches, 15 shillings per dozen; 8 x 4 inches or 6 x 4 inches, 10 shillings and 6 pence per dozen; 4 x 4 inches or 3 x 3 inches, 5 shillings and 6 pence per dozen. No information except the name is available about two very expensive tiles: 6 x 6 inches, designed by [G P] Hutchinson, probably in 1898. Coloured, 24 shillings per dozen; ruby, 42 shillings per dozen. For comparison purposes Ledger 116 lists typical prices charged for ceramic tiles during the 1880's by other manufacturers: Earthenware Minton, glazed and white 6 x 6 inches, 25 shillings per hundred: i.e. 3 shillings a dozen. Dutch (?), cream glazed, 16 shillings per hundred; Godwin 4 ¼ x 4 ¼ x ½ inches unglazed tiles: black red, buff, chocolate, drab: 6 shillings per sq yd. Packing and delivery to Withington station: 6 pence per sq yd extra; Webb & Co 6 x 6 inches cream glazed, 2 shillings and 10 pence, 4 shillings per dozen. Tiles in patterns and borders, 5 shillings and 6 pence per sq yd, direct from Birmingham works, less 10% discount; 8 shillings from 294 Euston Rd; Craven Dunnill & Co. Dark peacock blue glazed tiles 6 x 6 inches: 4 pence each.

Stencilled tiles were named after the town where they were first used: e.g. Slough. A popular design called Eastbourne, since it was first used in the baptistery of St John (destroyed) in that town, is described as 'a colour scheme of blues, yellows and greens with lines of gold tesserae. The colours are kept low in tone, thus producing the soft appearance of tapestry.' The wide range of tiles for domestic use, including bathrooms and fireplaces, comprised a variety of animals, birds, fish, flowers and trees in both simplified realistic and highly stylised forms. By the 1930s 'Vitro-Plaque "Mirrored" Tiles' were being advertised as 'made by a new process, coloured glass, either plain or in the form of a design, being fused on to slabs of glass of uneven surface, and the

PRICES.			
WHITEFRIARS GLASS TILES			
PLAIN TILES			
8 in. x 8 in. (Standard size)	.	.	2/- each
8 in. x 6 in. and 6 in. x 6 in.	.	.	2/- "
5 in. x 5 in.	.	.	1/8 "
8 in. x 4 in. and 6 in. x 4 in.	.	.	1/1 "
8 in. x 2 in. and 6 in. x 2 in.	.	.	7d. "
4 in. x 4 in. and 3 in. x 3 in.	.	.	7d. "
4 in. x 2 in.	.	.	4d. "
PATTERNED TILES			
8 in. x 8 in. and 6 in. x 6 in.	.	.	3/- each
4 in. x 4 in.	.	.	1/6 "
8 in. x 2 in. and 8 in. x 1½ in. (borders)	.	.	1/- "
VITRO-PLAQUE "MIRRORED" TILES			
PLAIN TILES			
8 in. x 8 in. and 6 in. x 6 in.	.	.	3/- each
8 in. x 4 in. and 6 in. x 4 in.	.	.	1/7 "
8 in. x 2 in. and 6 in. x 2 in.	.	.	10d. "
4 in. x 4 in. and 3 in. x 3 in.	.	.	10d. "
PATTERNED TILES			
8 in. x 8 in. and 6 in. x 6 in.	.	.	4/- each
8 in. x 2 in. and 8 in. x 1½ in. (borders)	.	.	1/4 "

Fig 31 Tiles price list 1930s
© Museum of London

back silvered to give a brilliant lustre.’ Prices of these and other tiles are given in a contemporary list (Fig 31)

A rather special order for tiles was that placed in 1889 by Mrs Daubeney, the wife of the Vicar of Winkfield, Berks, 3 who wished to decorate the chancel wall with tile figure images of her own design, which she would also paint. Powell’s draughtsmen made ‘full-size drawings of figure panels and wall design from her own sketches for North side of chancel.’ Subsequently Mrs Daubeney was sent tiles and pigment ‘to paint chancel to her own design’. Powell & Sons also fired the painted tiles, referred to as ‘burning’, and fixed them in position. A panel eight tiles high and six wide, depicting a kneeling Archangel Gabriel within a Gothic arch, has been issued as a Christmas card by the Royal County of Berkshire Churches. (Fig 32)



Fig 32 Winkfield, Berks, 1889-91.
Tiles, designed and printed
by Mrs Daubeney
© Berkshire Churches Trust

A special order of a very different variety was that received in 1902 from HRH the Crown Prince of Roumania. 4 [The spelling is that in use at the time.] Tiles 4 x 4 inches, 4 x 2 inches and 2 x 2 inches were supplied with designs ‘plain, cross, rose, thistle, sham- rock’. The cost was 24 guineas (£25-4-0). These designs provide a vital clue to the reason behind the order: the Crown Princess was Marie of Edinburgh, a granddaughter of Queen Victoria. The Crown Princess evidently appreciated these tiles, for in 1905 she placed another order, when staying at Cliveden, the mansion overlooking the River Thames, not far from Windsor. 5 This order, to be sent to HRH at the Palace, Bucharest, was described as: ‘Floor of bedroom to be laid with special blue tiles, extra thick, stencil and plain, 4 x 4 inches. Net £100, fixing and carriage extra. 8 in stencilled tiles, cut into 4 @ 2s 9d each. 4 in plain colour @ 6d each. 10 tiles = 5 lb wt.’ Below is an additional order for ‘Plain blue 4 x 4 in (2500) at special [half] price £30-12-6.50 extra @ 6d’. Four 8 x 8 in tiles formed a repeat pattern that included two stylised birds facing one another. Figure 33 illustrates a copy of this design, made for the American market more than 20 years later. Glass tiles were advertised for use on walls, not floors, which probably accounts for these in the Romanian order being ‘extra thick’, so reducing the risk of breakage under heavy loading. Cutting 8-inch tiles into four tiles 4 x 4 in was a further safeguard against cracking under load when laid on an uneven [wooden?] floor.



Fig 33 Queen of Roumania tiles (1926 replicas).
Photo by Barry Gilbert.

The financial problems that afflicted the Whitefriar’s glassworks during the 1920s have already been mentioned. Pre-Depression USA was seen as a possible market, so causing G P Hutchinson, the Director of the Window Department, to make several visits, during one of which, not later than 1923, he was able to persuade the Robert Rossman Company of New York to act as selling agents. Amongst the orders obtained were at least four reuses of what were now called tiles for ‘The Queen of Roumania’s Boudoir.’ 6 The

author has not attempted a study of the glass tiles produced by James Powell & Sons; the examples mentioned here being found fortuitously when researching figurative stained glass windows. Powell Order and Cash Books describe many thousands of sales of tiles, to local jobbing builders as well as renowned architects and artists. If a team of TACS members living close to London set about a pre-planned detailed investigation, it is likely that more fascinating stories would be revealed.

References: Appendix 1

- 1 M L. Advertising pamphlet, c 1930.
- 2 The maximum shrinkage would occur for uniform sphere packed in a regular cubic lattice. In this case the initial fraction of occupied volume is $n/6$, or little more than 50%.
- 3 AAD1977/1/9, p.11,209; 10, p.140.
- 4 AAD1977/1/16, p.89.
- 5 AAD1977/1/17, p.212; 64, p.374; 65, p.18.
- 6 The author hopes to publish in *Glazed Expressions* an article giving further details of these orders for USA, including some of the problems encountered. **Note:** TACS published Hadley's article in *Glazed Expressions*, the magazine of the Tiles & Architectural Ceramics Society, Issue No. 77 2016 pp 19-20 .

Appendix 2. Some Relevant Names

Harry John Burrow (1846-1882)

Born in London, son of a fret glazier, but of Cumbrian origins and a cousin of the contemporary designer and manufacturer of stained glass in the region. A freelance designer of stained glass and opus sectile, and also a painter of reredoses and murals. His work was surprisingly popular, considering this artistic aspirations were not matched by his lack of skill as a draughtsman. He provided many designs for Powell & Sons from 1872 until his premature death. He probably designed also for Fouraire of Plymouth and for Daniel Bell, who produced some windows in his almost inimitable style. Burrow died of heart disease, leaving a widow and five young children. Some outstanding commissions were completed by his assistant George Parlby in his mentor's style.

Ada Currey (1852-1913) ¹

A member of an eminent legal and architectural family, much of whose work was done for the Duke of Devonshire in Buxton and Eastbourne. Although born in Westminster most of her life was spent in Weybridge, Surrey, as a companion for her father and stepmother. She donated and partly designed the East window in St James, Weybridge, which was made by Powell & Sons. Within a short time the firm was paying her one shilling per hour as a designer and cartoonist, a rate which had increased to the high value of 1s 8d per hour within a few years. By 1901 she had produced over a hundred, generally well composed designs. Her figures are often sentimental, although the Byzantine Christ in the apsidal semi-dome at Hoarwithy, Herefordshire, is very impressive.

William Glasby (1863-1941)

A Londoner of humble origins, who joined Powell & Sons straight from school. By the late eighties

he had become the most highly paid glass painter, and was responsible for the much-improved appearance of windows of the period. When Henry Holiday opened his own business in Hampstead in 1891 Glasby became the foreman glass painter. After Holiday closed the Hampstead establishment Glasby moved to Putney, but continued to paint for Holiday, and also for Morris & Co, from a studio in Lowndes and Drury's Glass House. About 1906 he began to design and paint windows on his own account, and by 1920 had his own establishment in Putney, where he was assisted by his elder daughter. It was about this time that he began to design memorials in opus sectile.

Charles Hardgrave (1848-after 1920)

He was born in York and joined Powell & Sons in 1871. By 1880 he was foreman of the design studio, a position he retained until 1908, when he retired from full-time work. He continued to supply designs to the firm, and also to Wippell & Co of Exeter, for a further twelve years. He was a competent and versatile designer, often at his best when working with opus sectile, when he appeared to appreciate the strengths and limitations of the medium.

James Hogan (1883-1948)

He joined Powell & Sons in January 1898. His talent was quickly recognised and he was sent to study part-time at several art colleges. He became chief designer in 1913, and was later Art Director and Company Chairman. In 1936 he became one of the first Royal Designers for Industry, served as Master of the Artworkers Guild, and was a Fellow of the Society of Glass Technology. He designed tableware as well as windows and opus sectile. His American travel diaries ² illustrate his gift for making friends of prospective clients which caused him to be a good salesman. He was a workaholic, whose efforts were mainly responsible for Whitefriars surviving through the Depression years of the 1930s. He died in January 1948, shortly after returning from one of many exhausting visits to the USA. Hogan rarely had the opportunity of expressing his talents to their full extent, for, in order to keep Whitefriars in business, he had to provide what the paying customer wanted.

Henry Holiday (1838-1927) ³

He was born in the Fitzroy Square area of London, where his father ran a private school, and resided in Hampstead from the late 1860s. His initial ambition was to become a painter in the style of Rossetti, but finished few subjects because he was committed to carrying out lengthy research before beginning to paint. He began designing stained glass for Powell & Sons in 1863 in order to earn an adequate enough income to marry Kate Raven, a daughter of the wealthy vicar of Preston, Lancs. He was the preferred freelance designer for Powell & Sons until 1890, and also provided designs for several other firms. He set up his own workshop in Hampstead, and for several years experimented with opus sectile, and also with panels of raised enamel work. The excellence of Holiday's best work has become well known during the past thirty years, before which it was frequently wrongly attributed to his older friend Edward Burne Jones.

Gerald Paul Hutchinson (c1870 – ?)

The son of a clergyman he joined Powell & Sons in 1889. His extraordinary rise to a wage of £5 a week is unexplained, as his designs were run-of-the-mill. He is credited with designing at least two top-of-the-range tiles. He later became Manager of the Window Department and a Director. He became

an expert in composing tactful letters to soothe disgruntled customers and agents.

Thomas Graham Jackson (1835 – 1924)

Architect, scholar and designer of stained glass, mosaic, opus sectile (a term that he probably coined) and tableware. A close friend of the Powell family. He is best known for his academic buildings in the 'Angle-Jackson' style.

George Parlby (1856 – 1944)

A freelance designer of windows and opus sectile who was born and worked in London. He was Harry Burrow's assistant, and completed several outstanding commissions in a similar style after Burrow's premature death. Over the next twenty years he provided many designs for Powell & Sons, in a style that was similar to that of the firm's own studio, including two prestigious commissions for opus sectile in St Margaret, Westminster. His style changed again in the twentieth century, when he designed many windows for Curtis, Ward & Hughes.

James Powell & Sons (1883 – 1976)

James Powell was a wealthy London wine merchant and a prominent Anglican layman. He had a large family including four sons, the eldest of whom became a priest. James realised that the wine business would not support his other three sons, so bought on their behalf the old-established Whitefriars glass-works, close to the Thames in the City of London. The firm was well known for its scientific and industrial glassware, and for tableware and ornamental glass, but was not permitted to manufacture window glass, which was subject to strict excise regulations. The window department opened in 1845, after these regulations were relaxed. Much of the firm's output involved white (i.e. clear) glass which, if contaminated, provided the raw material for opus sectile. Although the firm had its own design studio it made frequent use of freelance artists, only a few of whom have been mentioned in the present article: e.g. J W Brown, who designed the opus sectile panels at Todmorden as though they were mural paintings, was a prolific designer of windows, whose work is found in several cathedrals. The cost of moving to a large modern glass-works in Wealdstone, Middlesex, which was delayed by the First World War, almost bankrupted the Partnership, which was forced to reform as a Limited Company, but thanks largely to James Hogan survived the Depression and another war. The final years of Whitefriars were viable because of the production of large quantities of precision glass tubing for thermometers, but the expensive to run window department closed at the beginning of 1973. Final closure came when the thermometer process became obsolete.

References: Appendix 2

- 1 Hadley, D. 2000. Ada Currey (1852-1913): a forgotten artist. *Journal of Stained Glass*, 24, pp.29-37.
- 2 Hadley, D. 2004. James Hogan in the United States: the interwar years. *Journal of Stained Glass*, 28, pp.95-114.
- 3 (i) Baldry, A. L. 1930. *Henry Holiday*, London: Walker's Galleries.
(ii) Cormack, P. 1989. *Henry Holiday*, Walthamstow: William Morris Gallery.
(iii) Hadley, D. and Hadley, J. 1989. Henry Holiday 1839-1927. *Journal of Stained Glass* 21, pp.48-75.

Notes & References

The Archive of James Powell & Sons are the main sources of reference for the present review. Most material relating to the Window Department, which covered also opus sectile, mosaic and tiles, is held by the Victoria & Albert Museum's Archive of Art & Design, Blythe House, Kensington (close to Olympia) in Archive AAD 1977/1. * The main sources used are the Order Books AAD 1977/1/1 to 32. A few volumes are missing, but the Window Cash Books AAD 1977/1/47 to 73 can be used to fill in the gaps. Another useful source of information has been AAD 1977/1/116 begun about 1879, which lists miscellaneous subjects in alphabetic order. The remainder of the Powell Archives is found at the Museum of London (ML), where the majority of the collection relates to tableware. Items of relevance include the history of the firm, advertisements and water-colour designs of memorial tablets and tiles fireplaces. Each numbered item, which may include a folder or box file of pamphlets, is identified by a four-digit number.

Measurements and prices are quoted using the units given in the Order and Cash Books: sizes were recorded in feet and inches, costs in Pounds (£), shillings (s) and pence (d). Prices were normally quoted per square foot, except sometimes for pavements, where the unit area was a square yard. 1 yard = 3 feet = 36 inches, e.g. two feet six inches is given as 2 ft 6 in or 2'6". 1 in = 25.4 mm; 1 ft = 304.8 mm; 1 yd = 912.4 mm. A price of two pounds, five shillings and six pence would be written as £2-5-6; five shillings and six pence would be 5s 6d or 5/6. Material priced at eight shillings per square ft would be recorded as 8/- ft. Figurative opus sectile cost between 40/- ft and 60/- ft.

*Notes:

2018/TACS understands that the V&A's Archive will be relocated from Blythe House in the near future.

References are shown in text in red as in 1

The Journal of Stained Glass published Dennis Hadley's last paper on stained glass (focusing on Henry John Burrow and George Parlbay), along with a cover image on Vol. XXXIX dedicated to him (Vol. XXXIX, 2015). The issue includes an obituary: [http://bsmgs.org.uk/Publications/Vol. XXXIX \(2015\).htm](http://bsmgs.org.uk/Publications/Vol. XXXIX (2015).htm)

Acknowledgements

Lynn Pearson unwittingly was responsible for the author becoming interested in opus sectile. She noticed its appearance in his list of figurative designs by Powell & Sons that she was consulting at Archive of Art & Design, and assumed mistakenly that he was an authority on the material. He quickly discovered that nobody knew much about opus sectile, and so decided to undertake the research described herein. Penny Beckett then offered to prepare the current (still uncorrected) list of Powell opus sectile from a handwritten list in chronological order. Penny suggested after the 2014 Tiles & Architectural Ceramics Society (TACS) Annual General Meeting of 2014 that the author might like to write down his current state of knowledge before old age takes its toll, which she would then convert into a document of respectable appearance. He is grateful for her offer.

Until she became ill in 2002 the author's wife Joan was deeply involved with the research into the work of Henry Holiday and William Glasby, and when visiting churches she wrote down the details while he took photographs. Because of the fragile state of her health, he has undertaken only a small amount of work since that time.

The helpful staff at the Archive of Art & Design and the Museum of London have made useful suggestions about documents worth consulting and Catherine Ross has granted permission to reproduce illustrations in the Museum's collection in not-for-profit publications. Thanks are due to the priests,

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END