PART A

ENGLISH GLASS
CHAPTER I

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1. Early Ecclesiastical Stained and Painted Glass in the Sydney Area

When the Church of St Peter, Cooks River, was opened in 1839, it already had "two handsome painted windows". Nothing else is known about these windows. No windows in this church are inscribed with dates earlier than 1873; the windows appear to have been installed from the late 1870's to 1884.

Referring to the newly built Anglican church at Appin, a small coal mining settlement 43½ miles from Sydney, "The Herald" reports: "The east window is ornamented with stained glass, the gift of the Reverend R. Forrest." The statement could refer to the use of unpainted, coloured glass in a leaded window, or to a window painted on white or coloured glass, baked or unbaked, ornamental or figural, imported or locally made, but the fact that it has been mentioned in the newspaper at all, suggests that it was a rare and important occasion.

The first issue of the "Sand's Sydney Directory", published for the years 1858-59, reflects both the lack of specialisation and of skilled tradesmen in general, in Sydney town. "Painters, Glaziers, Plumbers, Decorators, and Paper Hangers" are all listed under the same heading. The majority
practised most of these trades, as individual entries in the alphabetical section show.

With the passing of Governor Bourke's Church Act in 1836, church building for all denominations was equally subsidised by the government. ³ The earliest Roman Catholic churches in the Sydney area were founded after 1836. The foundation stone for the first Campbelltown church was laid in 1835. ⁴ The second Campbelltown church, replacing the first one, opened in 1886; ⁵ the earliest windows in the present, very much altered church, appear to be of that date. ⁶

For the Roman Catholic Church of St Patrick, Parramatta, the foundation stone was laid in 1836 and the church was opened in 1839. ⁷ It was rebuilt from 1854 onwards and again in 1936. ⁸ It is claimed that some of the windows in this present church are from the superseded buildings. ⁹

The east window (plate 1), and a small two-light window in the side wall, have obviously come from smaller openings and have been reset in the present church, with some ornamental glass of poor quality making up the difference in size; it matches neither the colouring nor the style of the original windows. They are painted figural windows;
their provenance is not at all clear. The face of St Patrick in the east window is obviously a replacement — ugly, and smudgily painted with black enamel. 10

In 1843, the still uncompleted original St Mary's Roman Catholic Cathedral in Sydney already had "three lofty and slender lancet windows of stained glass" above the main altar; "in the arch over the pillars, is a circular window, with an intricate pattern, and most brilliant description of coloured glass ..." The roof over the sanctuary consisted of three canopies with vaulted ceilings, the centre canopy being larger; "the arches forming these canopies are, moreover, ornamented with spandrils enclosing quatrefoils, which are also illuminated with stained glass." The effect of "pleasing mellowness" was said to have been spoiled by strong light "on every other side by the double row of windows," 11 A picture of the interior, by J.S. Prout, 12 shows three tall windows filled with what appears to be diamond quarry glass, the centre window having no dividing mullion, but a tall cross worked among the quarries. There is an eight-part wheel window in the spandrel above, but no quatrefoils are in sight.

A letter to the editor of "The Chronicle" 13 confirms that in 1844 there were no new stained glass windows installed in St Mary's Cathedral, and the answer to this letter is
printed immediately below it and dated 16th November, 1844. It answers 'Ignotus' (pseudonym of the writer who wished for a cathedral filled with stained glass) that "our good Archbishop would first wish to see the windows of St. Patrick's glazed in any way, in lieu of the present calico blinds", before procuring the "dim religious lights" for St Mary's.

A number of the earliest entries in E.T. Blacket's "School- book Diary" very briefly refer to his painting of projects for church windows. The first such project was for the east window of "the present St Andrew's Cathedral which architect James Hume had begun in 1837 and which had been building steadily until work was brought to a stop by the financial depression of 1842." It is unlikely that Blacket was painting on glass. It must have been a project for a design formed from coloured unpainted glass and leadlines. On the 6th May, 1843, Blacket issued the glazier with four colours - twice as much of each blue and red, than of yellow and green. By the 11th May, the window was made and installed. The Bishop came to see it, did not like the green and ordered it to be replaced with purple glass. The operation was completed on the 15th May and the result was approved by the Bishop. If the glass had been painted, even with impermanent colours, it is doubtful if the Bishop would have asked for such a substantial change, although Blacket was always prepared to accord the Bishop higher authority
in all matters, including those of art.

St. Andrew's Cathedral was permanently glazed with painted glass windows, mainly from Hardman, beginning in the early 1860's.

For the temporary church of St Mary, Balmain, which he himself had designed, 18 Blacket also made a project for the east window. This church was replaced in 1859; all windows in the new church are from the 1880's and the Art Nouveau period.

While the glazing at St Andrew's Cathedral was done by Burton, 19 at Christ Church St Laurence, in 1845, Blacket had the windows glazed by a certain Shipway. 20 The price of only about four pounds per window, suggests something very plain, a kind of glazing to make do until proper stained and painted glass windows could be installed, as they gradually were, by 1864.

Throughout the years of Blacket's involvement with Christ Church St Laurence, where he also was the Minister's Warden, he records in his diary the arrival of windows, and his going to inspect them together with the Bishop and with another warden. Unfortunately, on no occasion did Blacket mention the origins of these windows, or which particular windows they were. 21
The despatch from England of a three-light window by Thomas Willement, in 1847, destined for "Wollongong Church, Sydney", coincided with the probable completion date of the first Anglican Church of St Michael in Corrimal Street, Wollongong. The second church was completed and opened late in 1859. The church was re-opened after alterations to the east end, etc., 10th October, 1911. There is no mention of Willement's window in contemporary or later references checked. The present east window is of an early 20th century style. The Willement window could have been made for some other locality in the vicinity of Wollongong, and not necessarily for an Anglican church, as Willement's despatch note is more than a little vague.

The earliest still existing signed and dated stained glass window in Sydney could be the 1851 coloured pattern window by William Wailes, now at St Barnabas', The Broadway, Sydney (plate 2). An inscription on the window, inside a painted shield, reads: "WILLIAM WAILES NEWCASTLE UPON TYNE ENGLAND 1851". It was originally made for Christ Church St Laurence, Sydney, and moved to its present position when a figural window replaced it at Christmas 1863.

A later description of St Barnabas', Sydney, states that
over the sacrarium "is a stained glass window, which was formerly the east window of Christ Church, Sydney, and is consequently of the same tracery as that one. It is without figure, and is of a pattern too like brussels carpet to be ecclesiastical." Having received such a fine recommendation, it is a wonder that the window has survived at all. It has remained to this day (as did some of the best windows the firm of Lyon, Cottier & Co. ever made) because St Barnabas' has always been a poor parish and could not afford to replace pattern windows with figural ones. Besides, one side of the church has no coloured glass at all.

The colours in this 1851 Wailes window are mainly ruby, blue and white. The window cannot be properly seen because there is a hall immediately behind it and the window is lit by a few artificial lights from the other side, when it is lit at all. Daylight illuminates only the top part.

It is a kind of coloured pattern window which, according to Winston, was not common in England but was prevalent on the Continent. The main pattern is placed on a coloured diapered ground: in the centre light the little squares are in ruby, surrounded by blue glass, while in the side lights the arrangement is reversed. Such grounds were used in filling the spaces between figural medallions, in European 13th century cathedrals, e.g., Chartres or Bourges.
The very geometric nature of the design and its Gothic inspiration appears to have been a conscious attempt to match the east window with the Early English architectural simplicity of Christ Church St Laurence, with emphasis on colour. The eye never gets bored with the subtle variations in the flow of the pattern, and with the way colours and motifs alternate, while they may have appeared uniform at first glance.
2. Pressed Patterned Glass

Many early churches in Sydney and in the country centres of New South Wales appear to have had quarry or other pattern windows, before acquiring figural windows. The Church of St Philip in Sydney still retains all its quarry windows (plate 3 shows the motifs used) except for the east and west end windows. Over the years, many quarries have been replaced, when broken, with the same designs painted on slightly uneven glass, so that the match is quite good, in most cases.

St. Philip is one of E. T. Blacket's early churches. The foundation stone was laid in 1848. There is much confusion in various accounts, the jubilee booklets in particular, about what happened after 1848, as the writers of church histories seldom acknowledge sources of information; but the fact that the second east window (plate 9) was completed in 1855 and replaced the original window of quarries (which appears to have been broken soon after it was installed), should date the earliest quarry windows in this church from not later than 1854. Only one quarry window bears a memorial inscription and the date 1855; it is in the chancel.

A. Houison, who has written many historical accounts,
planned to give the following description of the windows of St Philip's, in a lecture in 1889:

At last, though certainly not least, come the windows, all of which were imported from England; they are of stained glass, and a very neat design; 33

This passage in the notes for the lecture is crossed out, so that Houison probably never read it, but decided to mention the east window only (see plate 9).

Morton Herman, in 1963, saw the same building in this way:

The interior has rows of six arches down each side, and twelve clearstory windows above them. The lightly tinted glass filling the latter gives a pleasantly subdued light to the nave, and this prepares the eye for the skilful arrangement of the greatest intensity of light at the chancel. 34

The chancel quarry windows are taller. The east window is of 7 very tall lights. In the body of the church, mullions divide the windows into three rather narrow lights; there are fine Perpendicular traceries in the heads of the windows. Quarries of five different simple designs (plates 3a, b, c), painted with black enamel and yellow stain, blend perfectly with the architecture and its smaller details, although such motifs originated before the Perpendicular style. The use of the yellow stain is historically correct in this setting because it originated early in the 14th century and because it is a warm yellow, no longer a cold lemon yellow, as it was in the beginning. 35
The Bishop of Newcastle advocated quarry windows for churches because of their beauty and practicality:

I will take immediate steps to purchase glass for your Windows from England - the only drawback to the beautiful and cheap coloured glass, is the breakage - of course it could not be repaired in this colony, except, as seems to me desirable, if we had the same pattern in many of new little Churches - and then an extra supply sent to provide for breakage. In the beautiful new Church of St Philip - where windows of the same kind were being put up, while I was at Sydney, I now hear that 19 diamonds of the East Window have been broken by stones thrown at them; and the windows cannot be repaired without sending to England. 36

The non-existence of craftsmen capable of duplicating simple quarry designs, (let alone repairing figural windows), must have deterred many churches from sending orders for windows, particularly for the figural ones.

The author of this thesis has not found any evidence proving that the pressed quarry windows of St Philip's Sydney and of several other churches are by James Powell of Whitefriars, London. It has been assumed that they are by Powell on the evidence of Winston's references to Powell's quarries in his book, and a short summary of how unrealistically heavy duties on the manufacture of glass 37 "compelled Mr. Powell, who had attained great eminence in the making of coloured flint glass, to turn his attention to stamping small pieces of it, in imitation of painted glass." 38 The "poor and thin appearance" of glass made in
the 1840's, even when quite a few colours of medieval glass could be reproduced, was a cause of great concern to Winston, especially when such glass had to be used in windows "which are not thoroughly Mosaic in character, as in the medallion windows of the Early English style, and many of the coloured borders and ornaments of that and the Decorated style." Purely pattern windows would probably be more satisfactorily executed by Mr. Powell's machinery than by hand. "Some glass, such as the ornamented quarries of the 15th century, - whose charm consists of their silvery appearance, - can I think only be properly imitated in pressed glass."

International Exhibition Commissioners in Sydney, exhibited in 1861 "Specimens of church glazing in Powell's patent Quarries; the workmanship of, and exhibited by, J. Cooper, Woolloomooloo", for which he received a bronze medal. It appears that English quarry windows were not always imported ready-made, but that they were sometimes assembled by the local glaziers. At the International Exhibition, London, in 1862, thick glass quarries and borders were on display. Powell's name is not mentioned; it is not stated that it was pressed glass, but if they were pressed glass quarries, they must have been Powell's because he had a patent for their manufacture.
The imitation of 15th century quarries in Powell's pressed glass, did not mean "exact reproduction" to Winston because of the different material of which he was very conscious:

It should also be borne in mind, that the modern imitations of the two earlier styles of glass painting, do themselves in effect constitute collectively, a new style of glass painting. For they bear the manifest stamp of the 19th century in the material of which they are composed, notwithstanding their design and details belong to an earlier period. 45

Winston stressed that

... the style of the glass should be appropriate to that of the building for which the painting is intended ... so that the whole work may, as far as possible, appear consistent with itself. 46

This could be achieved by selecting

... a style which was contemporaneous with the architectural style; or by modifying the style of a different period ... or by the employment of a new style of glass painting, of a character so comprehensive and flexible as to admit of adaptation to the style of architecture of any building. 47

Quarries, being one of the simplest forms of decorative glazing, had existed over a very long period in the Middle Ages and were still in use in the 15th century. By using quarries in 19th century Norman and Gothic Revival buildings, it was therefore easy to agree with the character of each particular style and period revived.
The easternmost window in the north wall, of four subjects and two lights, at Christ Church St Laurence, was made in 1855 by James Powell & Son of Whitefriars, London (plate 4). 48

The background to the medallions is made up from square quarries of various designs. The motifs appear to be part of a rambling pattern, typical of English Decorated white pattern windows, cut up and doubly outlined on two sides of each square. As the pattern has been rearranged, the tendrils do not always continue from one quarry into the next, but individual motifs are arranged so that each quarry has its mirror image, in each light.

The window is high up in the wall, but the glass looks substantial and textured enough to be pressed glass. It differs in its warmer tint and thickness, from the much thinner appearance of glass in other English medallion and pattern windows, directly across the church (such as plate 15). Generous application of the yellow stain is largely responsible for the warmer background colouring of this Powell window, as compared with the greenish grisaille ground in the above mentioned window. The Powell window is on the sunny side. The sun enhances colour and sparkle, without the window ever becoming glary. All windows on this side of the church contain four medallions, so that
a larger proportion of the total area is filled with strongly coloured glass. The background of one of these windows is ruby-coloured (plate 18). On the south side, which, in the southern hemisphere gets little direct sunlight, the windows in this church are somewhat lighter-toned.

Two Sydney churches contain pressed glass windows of a practically identical pattern. They are the Church of St Mark, Darling Point, and the Church of St Paul, Redfern (sold to the Greek community; now the Greek Orthodox Cathedral of Sydney). Both churches were designed by E. T. Blacket. The Church of St Mark was in use in 1854, although it was not consecrated until 1864. The Church of St Paul was opened in 1856.

The east window of St Paul's (plate 5a) was given in 1856. Already in 1855 this church was said to have windows of "quarry glass, richly stained", of which only one is left in the body of the church, of quarries painted with black enamel and yellow stain, surrounded with a brightly coloured border. The east window is of five lights. The small single-light window in the west end of St Mark's,
Darling Point (plate 5b), is made to the same pattern of white pressed glass and coloured strips of plain glass. The white glass is treated with black enamel only.

The placing of the leadlines is irregular, and differently arranged in both windows and all lights. It appears that the white pressed glass could have been made in larger pieces, and then cut in order to introduce some irregularity into an otherwise regular pattern.

The east window of St Paul's, Redfern, contains more blue than the little window at Darling Point; it has a cool, silvery filigree appearance. The use of the silver stain is consistent with the 14th century revival architecture of the church. Every window of St Paul's bears a different stone tracery head, some of the traceries being flamelike.

As is the case with other pressed glass windows in Sydney churches, the black enamel has almost completely perished in some parts.

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St John's Anglican Church in Parramatta reopened on the 1st July, 1855. The nave and aisles were ready, but the chancel was not yet rebuilt. It was consecrated on the 19th March, 1858, but the present transepts were not completed
until November, 1883. Constructor for the 1850's masonry work was James Houison, while the architects for the transepts were Blacket & Sons. The periodical press of the 1850's described the church as "Saxon" in style. "It is said that the windows were suggested by some views of the east end and transept of Winchester Cathedral, and that the doors will be similar, though on a much smaller scale, to the north entrance of Peterborough Cathedral."  

"Some stained glass windows arrived in 1857 including two large windows for the front of the church provided by Mrs. Bobart, and those in the east paid for by the rector and the Church wardens." The ground level windows (plate 6) were of pressed quarries. They are almost exact imitations of mid-13th century glass from Westwell Church, Kent, England, as illustrated in the very first colour plate in Winston's 1847 book. The differences are minor, apart from the shapes of the windows. The quality of light is greyish, not warmed up by yellow stain, which had not been invented until the early years of the 14th century. Small pieces of yellow, ruby and blue are of glass coloured in the body. In his discussion of a style of glass suitable for a Norman or an Early English building, Winston considers the character of both figural and patterned glass. The following passage sums up his choice:

Some patterns in the Early English style are, for want of the requisite material, at present
utterly incapable of imitation: but there are others, - those for instance in which but little colour is introduced, - not liable to the same objection; especially if imitated in "pressed glass" according to Mr. Powell's invention.

The choice of the windows for this church could not have been different, even if Winston himself were consulted in person, as they had to be pattern windows because of economic considerations.

A good pattern window is no doubt always preferable to a bad picture window, and in large buildings an intermixture of both pattern and picture windows is generally desirable, but I think as a general rule that patterns should not be used to the total exclusion of pictures, unless this is rendered expedient by economy, or such other circumstances as have already been adverted to. 65

The east (plate 7) and west (plate 8) windows are true grisailles, too, as they have not been treated with yellow stain, although they contain strips and small areas of strong colour, as was common in Cistercian windows of the 12th and 13th centuries. 66

The International Exhibition Catalogue, London, 1862, lists quarries and borders of thick glass, which could be Powell's and of the kind used in St. John's, Parramatta, windows of the 1850's. 67

Viollet-le-Duc, writing about French windows, 68 says that late in the 13th century grisailles were still colourless,
except for coloured borders, but that sometime soon after 1250 coloured bands, rosettes and borders were used in larger windows, in order to break up the typical optical scintillation of large areas of white glass criss-crossed with black. The colours he mentions are saffron-yellow, blue and red. Green also appears in other examples. These are precisely the only colours in the west windows at Parramatta, while in the east only three colours are used.

The design in the east windows (plate 7) derives from an Ancient Roman style of ornament. The foliage is the same as in the 12th century border of a Romanesque grisaille window, from the Abbey Church of Saint-Jean au Bois près Compiègne, France – a window in which coloured glass had been removed from the main field, about 1230. While the patterns of French grisailles shown by Viollet-le-Duc are characterised by long stems and tendrils with some foliage, the east windows of St John's Parramatta, are more related to German Cistercian glass: their patterns consist of tightly packed, curly foliage, leaving very little hatched ground between them and the coloured bands.

The two lights and a small round opening in the western gable of St John's, Parramatta (plate 8), are simpler. Their design is based on quatrefoils. In their simplicity, their character is Early English. Long afternoons of sun-
shine flood the interior with light, from high up in the gable, above the loft. A golden yellow border warms up the grisaille of pressed glass with blue quatrefoils. Apart from small diamond quarry windows in the clerestory (which are not of pressed glass) generously painted with yellow stain, the western gable windows are the warmest in colouring of all original windows.

A. W. Freame, in his description of this church, judged its windows as being "infinitely inferior" to those of St James, Sydney; St Luke's, Liverpool; St Matthew's, Windsor; St Patrick's, Sydney, and of other not specifically mentioned churches. "One reason for this is that the Norman architecture does not lend itself to the display of stained glass as readily as the Gothic." 72 By 1915, the churches listed above most certainly contained a variety of windows, mostly imported from England and France, some locally made, and all figural. In the given list, only one church happens to be in the Gothic style (St Patrick's); other churches are Georgian. Besides, stained glass had already achieved a high degree of development and harmony with architecture before the rise of Gothic. Such prejudiced or ill-informed pronouncements by persons who were good local historians but inconsequential art critics, have possibly contributed to the neglect and destruction of many interesting early windows which were designed with the utmost care to harmonise with the style of architecture.
3. Other Early Pattern Windows from England

The 1855 east window at St Philip's, Sydney (plate 9), was designed by Alfred Bell and made by James Powell & Son. It replaced the original diamond quarry window which had been damaged soon after its installation. The glass is very transparent and the colours are brilliant, although the range of colours and their tones is not yet as wide as became possible only a few years later, when the Powells began to reproduce glass in medieval colours from chemical analyses initiated by Winston. The soft, pale tones are not yet in evidence. Warm and cool colours are juxtaposed so as to increase intensity by contrast.

In 1889, when Sydney churches were already well filled with coloured windows, A. Houison, in his lecture on this church, described the east window as follows:

... the Chancel window at the Eastern end of the building is certainly the handsomest in the Colony - like others it was imported, and cost 100 guineas; the neatness of the design consisting of leaves and flowers intermingled with scriptural quotations, and the brightness of the colours surpass anything of the kind now in existence in the Colony.

Apart from an exaggerated appreciation, the statement is misleading because not all windows at St Philip's were English. The west end window, signed by Falconer & Ashwin (before it was mutilated by an amateur repairman in 1979
or 1980) was made in 1873-74. Houison's description of the design of the east window fits the west end window very well, because it was meant to complement the east window. They are the only two multi-coloured windows in this church, all others being the original diamond quarry windows, painted with black enamel and yellow stain.

The design of the east window, with its upward growing plant motifs and diagonal bands with inscriptions, is suitable for both the tall, narrow openings and for the setting where the chancel is the best lit part of the church and the focus of attention. In its style, it is more Continental than English.

At present, the black enamel is beginning to flake from the diagonal bands with inscriptions in particular, worked on white glass, so that the whites are becoming very glary, even on an overcast day. Even apart from these diagonal bands, the original control of all parts made of white glass appears to have been less than satisfactory. A. C. Sewter makes the following point: "Whereas Lavers and Barraud interpreted the cartoon freely, especially in the matter of tone, Powells tended to follow the designer's colour indications as closely as possible." As the effect of translucent glass cannot be exactly rendered in an opaque medium, such as a small project for a window, an on-the-spot choice of suitably toned glass is necessary
for a successful interpretation of a project.

A series of highly decorative English windows at All Saints', Parramatta, dates from 1861-62. Some of the windows contain figural panels. No identifying documentation has been discovered so far.

These windows are true mosaics: each colour is cut as a separate small piece of coloured glass and is surrounded by a leadline. The glass is very thin and transparent, yet the effect is of an unusual richness of colour.

It was only from 1856 that many new colours became possible, for the first time since the Middle Ages, following Winston's collaboration with Dr Medlock and with Powell of Whitefriars, London, in the reproduction of medieval colours from scientifically analysed examples of medieval glass. These Parramatta windows could be some of the earliest made from the new colours. The quality of the glass and the range of colours here resemble another early set of windows in Sydney — the Great Hall windows at the University of Sydney, made by Clayton & Bell, c. 1855, installed in 1858.

Instead of suggesting more "body" in the glass by painting, something which had been carried to extremes by some 19th century pioneers in the revival of this art, the artists
chose to emphasise the "glassiness" and fragility of fine
glass. That which had been treated as a shortcoming by
many others, was made a virtue in these Parramatta windows.
The colours are so pure that with changes in intensity of
light, they become either lighter-toned or more intense,
but never opaque. The amount of painting with black enamel
is minimal: in small patterns, traditionally used to
control light, and just enough to define foliage and other
details. In the spacious but dimly lit interior of All
Saints' Church, Parramatta, this series of windows along
the north side and in the chancel, imparted a particular
character to the interior and was an outstanding example
of the high quality of craftsmanship originating from
English workshops in the 19th century. Before the windows
were mutilated by unqualified and irresponsible "restorers",
they were uninterrupted brilliant screens of coloured light.
The windows have a unity of style, in spite of a variety of
designs. They were all made within a few years, c. 1860-
62, during the rectorship of the Reverend W. F. Gore.81

The windows on the opposite side fail to draw similar
attention, as a whole, because they vary in style, colouring
and quality. Crude repairs appear to have done less harm
to them, except for a very fine Lavers, Barraud & Westlake
window of the early 1880's (plate 34).

One of the earliest windows in the north wall (plate 10)
has been designed in an intricate organic pattern of sprays of foliage and flowers, constructed of tiny pieces of glass in many colours. Its style of ornament appears to have derived from Romanesque and Gothic sources. Transformed, it has become almost a new invention, devised to bring out a psychedelic intensity of the new colours in fine, transparent glass.

The window was once inscribed with the date of its manufacture (or presentation?) - "A.D.1861" - removed by the glaziers in their second clumsy attempt, within a few years, at reconstructing it. The borders have also suffered two "restorations". They are now patched up with fragments of borders removed from other windows in the same wall (plate 10b).

The east window at All Saints Church, Parramatta (plate 11), is a coloured screen: flat in effect, finely patterned, its colouring and decorative quality reminiscent of Persian tiles. It strikes a fine balance between the geometric and the organic. Geometric figures, picked out in white over colours, impose an order on organic ornament and are a reminder of medieval preoccupation with mathematical sciences and symbolic meanings attached to numbers and geometric figures. In its organic aspect, the east window is related to another purely ornamental window in the north
wall (plate 10) and to ornamental backgrounds of some figural windows in this series. While plant motifs in plate 10 would be difficult to identify, those in the east window are vine leaves and grapes, some of the oldest Christian symbols and often used in medieval religious art.

In its geometry, the east window is related to a pair of pattern windows, practically identical in design. These two windows are largely abstract mosaics. The disposition of ruby and blue, among other colours, changes the balance of colouring from ruby to a predominant radiant blue, with changes in light quality and direction. It appears that the artists were thoroughly familiar with the ways colour was controlled in medieval windows.

In the entire series of these windows, the main drawing consists of leadlines, and particularly so in the ornament. As the pieces of glass are so small, leadlines are almost sufficient by themselves to separate the colours, so that no unintended mixtures occur. The minimum amount of painting with black enamel is sharp and clear and the purity of colours is preserved. Even the figural motifs in one of the latest windows of the same series, at All Saints', Parramatta, are decoratively treated (plate 12a). Repeated similar shapes and light tones form a rhythmical overall pattern within the underlying geometry. The faces
of angels and children are delicately painted and all
tonal modelling is translucent. No flashed glass is used
in this or other windows from the same workshop.

The window is remarkable for its inventive, untraditional
ornament. While in the earlier windows of this series the
ornament tends to be multi-coloured, the colouring of the
east windows as well as of this children's memorial window
is predominantly cool.

This window has recently been completely re-ledged, (plate
12b) and its fine original craftsmanship has been lost, as
is the case with most other windows in this church. Small
pieces of yellow-green glass in the borders were beginning
to perish. They were taken out and replaced with blue-
green glass of a washy tone, so that the colour balance of
the window has been upset. Apart from this, in just one
openable panel on the right hand side light, twenty seven
pieces of glass have been reset inside out, on the wrong
side of the panel, or upside down. The replaced pieces
have been smudgily painted with grey - a complete travesty
of the original style and craftsmanship. Entire motifs
(such as medallions) have been replaced at crazy angles,
in this and in other windows "repaired" by the same firm
of self-styled restorers.
Most windows have lost about five inches of glass from their height, in order to accommodate thick, heavy black metal frames which swivel sideways at the centre, to open. The borders were removed from the openable sections. Dedications were rearranged to fit a narrower space; in some windows, parts which did not fit and could not be discarded, were inserted among ornament above. Some dedications were completely remade in new, brighter colouring which violently disagrees with the original window. The destruction of the original lettering style amounts to the loss of one of the chief traits of style by which unidentified windows can be attributed to a particular workshop, period or even a particular artist within the workshop. The removal of original inscriptions is almost as serious as the removal of the firm's or artist's signature.

Saddle-bars, which were originally spaced at regular close intervals, as they were meant to support a very fine fabric, have in some cases been removed altogether, or placed where they are most irritating visually; for example, across the eyes of the figures, or where they obscure some vital connection in the design. The eye tends to ignore saddle-bars, as long as they are placed at regular intervals and not too far apart; they merge with the overall rhythm. As their placing is a part of the designing process in which both the practical and the aesthetic sides of the
medium are considered, their removal or displacement can be easily perceived even by a layman as a gap or as a visual annoyance.

The following ideas of Louis Grodecki are relevant to some aspects of the destruction committed at All Saints', Parramatta, and at a number of other historic churches in New South Wales:

Releading is one of the most frequently used procedures to give an impression that stained glass has been repaired. ... The network of lines that has lasted ...does in fact contribute to the authenticity of the work of art; in a certain sense, it is as precious as the glass itself; the life of the original mounting should be maintained with the help of every modern technique. ... In the rare studies of good restorers ...the aim now is to employ for re-leading models close to the original ones ...

The problem of repairing and restoring 19th century glass in Sydney is becoming acute. Even the glass of the 1880's has in some cases changed colour or deteriorated. Some older glass, in addition to corrosion by atmospheric agents, is threatened by deteriorating mullions and traceries. Storms, vandals and unscrupulous repairmen have done their share.
The east window at a small church of St Paul in Cobbitty, N.S.W. (plate 13), 37½ miles from Sydney, is the only identified window by William Warrington of London, in the Sydney area. It was made in 1856. Only the main part of the window is by Warrington: this excludes the borders and an additional panel below the angel (not shown). The original window was obviously made for a smaller opening. The additions are not recent. They are very well colour-matched and painted.

The window still retains timber framework and curvilinear tracery, as well as original saddle-bars, placed independently of the more recent timber subdivisions.

When this window was made, the range of colours available to most glass painters was still very limited, although the Great Hall windows at the University of Sydney, made by Clayton & Bell about 1857 (installed in 1858), included many subtle tints.

The Cobbitty window consists of white and ruby glass, two greens, some mauve and very little yellow glass. Most yellows, all the browns, as well as various ruby-coloured decorations on white glass, are painted. The head covering
of the mother is modelled in grey enamel and edged with yellow stain. Glass of stronger colours is modelled or decorated with black enamel.

Warrington may have had a reputation for antiquing the glass with boot polish, but nothing of this is evident here.

A large proportion of the original window is occupied with ornament which is of 15th century Gothic origin. Above the main figural panel, the golden green arch is a touch of the organic, as it transforms itself from an architectural element to a growing grapevine. The grapevine motif is repeated in a fine and gracefully meandering background pattern on blue glass, in the lowest portion. The ruby ground to grapevine leaves, in the top portion, is decorated with a damask pattern, such as seen in costumes, in 15th century painting.

Although the artist's aim was to avoid the flatness associated with the Gothic style and to render the subject in a more realistic way, as if it were a coloured sculptural relief, the sense of crowdedness, meagre figures and their angular movements look back to pre-15th century medieval art. Only the scroll-bearing angel is at home in the 15th century, with its natural grace and flowing forms.
The Cobbitty window is an attempt to find a compromise between tradition and an acceptable contemporary style, particularly in figural subjects. It only approximately agrees with the simple style of the building. As no other work by Warrington has been identified by the author of this thesis, in Sydney or in New South Wales, it is not possible to observe any changes in his style.

Winston was not aware of Warrington's work when he was writing his "Inquiry". Warrington's "History of Stained Glass" appeared the year following the publication of Winston's "Inquiry".

Christ Church St Laurence still contains possibly the largest collection of some of the oldest English figural windows in Sydney, in the one building. They come from various sources. Few have been positively identified. Ten windows date from not later than 1864; some of these were made in the 1850's.

The church was glazed with plain glass between January and September, 1845, in the year of its consecration, in a still unfinished state. No permanent coloured windows could therefore date from earlier than 1845. The east
window is likely to have been made before others: the first east window was made in 1851; it is signed by William Wailes (plate 2). It could have been this window which Blacket went to see, on its arrival from England, on the 14th July, 1852.

The original wooden window frames have been gradually superseded by jambs and mullions of stone, at the cost of the various benefactors who have erected memorials to their dead in painted glass, and all the north and south windows (except one, opposite to the south gallery) are now brightly alight with colour.

The three-light eastern window of the chancel was originally filled with coloured glass of too light a tone to accord with the richer colours of the aisle windows, and a desire was therefore expressed to see it supplied with glass more in keeping with the whole.

The chancel has been further decorated with a beautiful memorial window erected by Sir Alfred Stephen's family. The south window has also been sent for.

Provided the easternmost windows in the aisle walls were made before the ones further west, which is not necessarily always the case, then none of these windows should date from before 1855 (the date of the Powell window, the easternmost one in the north wall). Windows could have also been rearranged. The easternmost window in the south aisle wall was made not earlier than late 1858. All English windows were installed before 1864, excepting the window in the south side of the chancel, that is, the Canon Walsh jubilee window, commemorating the 25th year of his ministry.
in this church (rector 1839-67), 1864 being the jubilee year. The present position of the Stephen family window is to the south of the main east window, while the window on the north side no longer exists. Some seven years before the date of this thesis, tracery lights were still in place, but they have since disappeared. It is possible that the two windows were switched, for some unknown reason, but it is more likely that "The Sydney Mail" has made a mistake.

Most windows in Christ Church St Laurence are memorials to deceased parishioners. The custom of memorial windows had been revived in England only very recently.

At least three different makers' styles are evident in these English windows. Some of them arrived when E. T. Blacket was engaged in the completion of the building and when he was the Minister's Warden there. With William Grant Broughton, the first Anglican Bishop of Australia, Blacket received and inspected every window as it arrived, although he never recorded their makers' names in his "schoolbook diary".

Rather a strange history surrounds the erection of the east window. Consisting of three panels, the centre portrayed Christ as the Good Shepherd, the other two representing S. John and S. Peter respectively. The glass had been prepared in England, but for some unfathomable reason Bishop
Broughton refused to sanction its erection. This seems all the more strange when one remembers the Bishop's wide outlook and his avowed love of beauty in worship. So, for five years after its arrival from England, the glass remained in its packing case; it was erected in 1853.\textsuperscript{102}

The east window was finally erected in 1863, just before Christmas, with a dedication panel dated "A.D. mdcclxiii".\textsuperscript{103}

It replaced the first William Wailes' window, which was given to the Church of St Barnabas, Sydney (plate 2).

Knowing that this second, figural, window by Wailes had been rejected by Bishop Broughton, and that some alterations were made before it was finally erected, this alone could have encouraged the local critics and the public to look for faults in it. A black and white photograph of this window exists in the possession of the church, showing a figure in each light, with tall canopies above.\textsuperscript{104} The criticism took anti-medievalist direction.

In 1871, an anonymous writer, in his fifth and last installment of a series of articles entitled 'Stained Glass', in the daily paper "The Sydney Mail",\textsuperscript{105} criticised this window for the "unsightly mass of pinnacle work in the upper portion of the window - a feature in the general design which is unendurably heavy, and lamentably out of all drawing and perspective." In the same article, the writer also attacked Hardman for his "leaning to this
affectation of mediaevalism ... this offensive and most uncalled for peculiarity", while he praised John Falconer, the pioneer glass painter in Sydney, who had come from "the celebrated establishment of Messrs. Gibbs and Warrington, known in the trade as the great "Early English House", in London. He, however, seems to cherish a very prudent and wholesome distaste for that extravagant affectation of mediaevalism which some have deemed inseparable from the art." 106

The window was reportedly badly damaged by fire in August, 1905, 107 and replaced by a new one, by the local firm of F. Ashwin & Co., in July, 1906. 108 Only the figure of the Good Shepherd has been preserved, without any "pinnacle work"; it is installed in a small window, high up in the western gable.

\[ X \times X \times X \times X \times X \times X \]

A set of four unidentified two-light windows in Christ Church St Laurence, Sydney, 109 two on each side and directly across the church, are the only 19th century canopied windows in this church. Their style is completely unlike that of other windows here or anywhere else in the Sydney area, seen by the author of this thesis.
As the church originally stood in an open space, its northern windows have a deeper colouring and less white glass. The northern pair of this set of four windows have two panels with figural subjects in each light, under Gothic canopies which are more subdued in colouring than the brightly coloured canopies on the south side. On the north side, square ornamental panels on grisaille ground alternate with figural panels. On the south side, much more space is given to grisaille—octagon-based ornament of brightly coloured strips, on a pale ground (plate 14), as the sun comes in only for very short periods, at an oblique angle.

The range of colours is quite restricted, which suggests that the windows must have been made before 1860. Particularly lacking are the lighter tones of full colours such as ruby, blue, violet and green. Strong colours are concentrated in the figural panels and in the canopies of the southern windows. The canopies have no architectural substance but are conceived as flat ornament. A vivid blue-green is prominent on the south side, where it contrasts with the joint effect of a very bright vermilion and yellow-orange. The only other early window in the Sydney area with prominent greens is the 1856 window by William Warrington (plate 13), but it is entirely different in style and in the cutting of glass.
The white glass contains several cool and neutral tints, but it has no sparkle. It could have been covered on the outside with a fine film of white enamel.\textsuperscript{110} Thomas Willement is known to have been using white enamel to make the glass look antique.\textsuperscript{111}

The artist did not try to conceal his admiration for the Gothic style, but he had no intention of adhering to it without discrimination. While the ornament is in general agreement with the cusped arches and traceries of the Decorated Style, this ornamental framework accommodates a Renaissance-based figural style which the majority of 19th century artists and critics believed to be superior to a medieval figural style. The sources of inspiration appear to have ranged from the Italian Proto-Renaissance to the early 16th century. Figures and compositions vary from rather static and stilted, to quite agitated ones, as in the 'Massacre of the Innocents' panel in plate 14. The compositions appear against diapered blue or ruby grounds. This works well, as long as we are not expected, at the same time, to imagine a deep recession into space, as in the above example.

The grisaille grounds are very finely cross-hatched, with clear edges against the leadlines, with one leaf in each larger piece. This neutral ground helps to emphasise the importance of the figural panels; coloured strips provide
colour continuity over all areas and relieve the neutrality of white and black. Yellow stain is used sparingly, in canopies and in figures.

The glass is cut into small pieces, into many awkward shapes, acute angles, L-shapes and shapes with formless outlines. Some adjacent shapes, of the same colour and tone, were cut separately, where they could have been cut in one and where modelling with brown enamels could have done the rest - bearing in mind that the scale of these figural compositions is very small.

The painting of skin tone, fair hair and pale draperies is very indistinct and lacks definition - something medieval glass never lacked. Darker enamel is used to model strongly coloured draperies, taking care not to obscure the colour of glass unduly.

It is as if the artist had been a painter at heart and had tried to re-learn the art and craft of mosaic windows, without having good quality glass. Being still bound to tradition having to provide glass in harmony with historic revival architecture, he tried to break new ground by finding a contemporary idiom in figure work, in an obsolete medium unlike any other used in pictorial art.

That the artist was aware of the unsuitability of thin and
even glass, is shown by his uneven application of transparent modelling, meant to suggest varying thicknesses in glass. Some clear margins left next to the headlines, as well as the treatment of white glass with a milky matt, were also meant to give an impression of more body, although this diminished the lustre. It becomes easy to understand why Winston rejoiced in Powell's pressed glass, the use of which was comparatively limited, and in another kind of thicker glass produced by W. Miller.  

The unidentified artist succeeded in creating a complement to the architecture. The space is decoratively filled and screen-like, as he would want it to be in an imagined perfect medium. While his figure work leaves much more to be resolved, the best features of these windows are associated with a sense of decoration: a strong feeling for order and directional emphasis, rhythm and colour. Broader masses of colour alternate with elaborate ornament - colourful and decorative canopies, slender finials and a web of coloured geometries over a filigree-like grisaille ground. It appears the artist knew Winston's historic classification of glass painting and tried to follow his advice, with a degree of latitude. Colour and light remained very important, even if the sparkle of the glass was largely lost. His lively contrasts of colour are very decorative. On the north side, where the sun intensified colours before this
wall was darkened by another building, they are in quieter, more harmonious moods, closer to Renaissance paintings than to medieval glass. The artist's sense of colour is fresh and decorative, without the gloom and dark opacity seen in some windows of the mid-19th century.

As William Wailes had made two successive east windows for Christ Church St Laurence, it is possible that other work by him could exist in the body of this church. The only window which could be his, is a two-medallion window with a grisaille background and scrolls (plate 15). The grisaille style is very similar to an example shown in A.C. Sewter's book: the bands outlining the elongated quatrefoils are decorated with the same pattern in both examples; the same centre motif has been used; the colour bands overlap in an asymmetric way; foliage and tendrils, though not of the same plant, flow organically, in agreement with the coloured bands, not at angles with them.

Figural compositions are different from other English windows in this church; they are well ordered, their placing is in relation to the vertical emphasis of the window and in agreement with the curved sides of the vesica-shaped medallions. Tonal modelling is very neat and does not create black shadows, as it does in some other
windows in this church, which are probably by Clutterbuck. Draperies betray strong Classical influence as they reveal figure forms.

Simplified and quite sculptural rendering of the figures bears some similarity to the 1860's windows from Newcastle-on-Tyne, at the Church of St Matthew, Windsor, N.S.W., as far as figural panels on such different scales could be compared (plate 16). Many of the colours are the same; their arrangement is very similar. Hair and beards are painted in a light and warm brown enamel on pale-tinted glass. The ornament style differs because the two windows were made to agree with two different styles of architecture. The lettering in these two windows is not completely identical, but it is done in tightly packed, narrow Roman capitals, on yellow glass painted with black enamel.

The Christ Church St Laurence window would be the earlier one because by 1864 all 1860's windows in this church were completed, the last ones being two windows in the chancel, installed after the English windows in the longitudinal walls.

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The style of windows from Newcastle-on-Tyne, at St Matthew's Church in Windsor, N.S.W., is more pictorial than that of any other windows seen in the Sydney area, with the exception
of the many French windows in Roman Catholic churches, dating from the 1880's and the 1890's. There are areas painted in coloured enamels, executed in a very accomplished manner. Earthy, warm enamel colours were used in the landscape backgrounds, with brighter accents. Pot metal glass in figures and ornament is modelled by tone, in darker enamels. Yellow stain is also used. 'The Raising of Lazarus' window (plate 16), one of the two earliest windows installed in the Windsor church, is one such example.117

The landscape in deep recession does not destroy the relationship between the window and the wall, as the figural group is brightly coloured; the lightest tones also stay on the picture plane, level with the scrolled ornament. The ornament derives from the Classical tradition and is modelled in shallow relief. The borders are inspired by Romanesque glass. Their style is similar in its geometric, regular character and the use of colour, to the ornament in thirteenth century windows in the apse of St Cunibert's Church, Cologne,118 or that in the twelfth century 'Crucifixion' window at Poitiers Cathedral.119 At that time, wide borders were made up of small chips of glass, using up glass remaining from cutting larger pieces for the main part of the window. The more recent windows at St Matthew's, Windsor, from Newcastle-on-Tyne, completed by 1869,120 have borders and other ornament based on more natural plant motifs, although the layout of the main divisions in all windows is the same.
The later ornament lacks the visual strength present in the earliest two windows. The more geometrically ordered ornament harmonises better with the severe Georgian interior. Lively colour and generous areas of ornament help to maintain the coloured screen effect.

The classical tradition is evident in the sculptural quality of figure forms, in spite of the slightly awkward quality of movement. The figure forms are geometrically simplified, with ovoid heads and cylindrical limbs. The grouping and the use of colour prevent an illusion of real space between the figures. The modelling extends over a wide range of tones, but large areas of glass are left unpainted, so that translucency is little impeded, except in the areas treated with coloured enamels. Brilliant colour is enhanced by contrast to dark leadlines and deep shadows.

The windows are at least four feet wide and set above eye level. Outside, they are not darkened by any trees or buildings. Fully saturated colours are very suitable, as they can take the full force of the sun all day long, without causing glare or having an ill effect on the windows in the opposite wall.
Viollet-le-Duc wrote:

...the first condition for an artist in stained glass is the ability to control blue. Blue is the light in the windows, and light has value only by contrast. But this luminous colour is also the one which gives value to all others. Compose a window without blue, and you will have nothing but a dreary or a crude area which your eye will try to avoid; spread a few touches of blue among these colours, and you will immediately obtain striking effects, if not a skilfully conceived harmony. 121

The east window of the Church of the Holy Trinity, Millers Point (plate 17), was made by Charles Clutterbuck of Stratford, England, and installed in November, 1861. 122 The project could have been made in 1859, as a reply to the enquiry from Dr James Mitchell of Sydney was received from Clutterbuck early in 1860. 123

The main attractions of this window are its large masses of colour dominated by the diagonal sweep of blue-purple in the drapery. The composition is asymmetrical. The centre light could be seen as a medallion window in its own right, while the outer lights are much freer compositions, pictorial, rather than iconic or symbolic. Tonal areas are clearly organised.

It is the only window in the chancel which is deep enough not to allow interference from extraneous light sources. The balance between ruby and blue is very fine, particularly in the tracery and in the centre light. On a cloudy day, if the sun breaks through, the rubies glow, but when clouds pass
over the sun, the rubies suddenly shrink and sink, it seems, beyond the window. At the same time, the blue expands and radiates, melting away the traceries and making the head of the window appear much larger.

The glass is very thin, but modelling gives an impression of such substantiality, especially in the purple-blue drapery arranged across the two lights on the left. The shadows in all parts of the window reach dark and opaque depths, while the highlights are sharp.

Colour range is not wide, but flashed glass and some yellow stain are used. The white is silvery, as mentioned by Winston.\[124\]

The 'Ascension' is an obvious borrowing from Raphael, while the 'Adoration of the Shepherds' and the 'Adoration of the Wise Men' is a combined subject, related to 17th century Northern European painting, in its open landscape setting and tight grouping. The striding figure of a king on the extreme left has affinities with the 1635 portrait of Charles I, by Anthony van Dyck, in its costume and pose, but is rendered in reverse.

The movement of the figures gravitates towards the centre light, where it stops, in the scene of the Baptism. This
would have been a suitable point of culmination, but for the visual annoyance of St John's figure being halved. The simplicity and directness of the poses point to the Early Renaissance in Italy, as an inspirational source. The arrangement of three subjects in five lights is as suggested by Winston, but it could have been modelled directly on actual examples of windows known to Clutterbuck.125

Neither the landscape background, nor the clouds, nor the purple-blue drapery continue across all lights; much of the centre light is occupied by ornament, inscriptions and symbols. The three scenes take place in different locations and at different times. The figures are not quite equal in size. In spite of all this, the whole window looks unified and monumental in its position, because of the massing of colours. The prominent diagonal sweep of colour across the whole composition is very Baroque; it does more than anything else to unify all parts. Tonally, the darkest part and heaviest visually is at the base; it also is the warmest and the most colourful. The visual weight lightens upwards. Under particular light conditions, when the blues are prominent, the organisation of colours becomes particularly clear. A spiral of blue rises from the right lower corner, diagonally upwards, where it becomes a large circular curl in the tracery rose.

At least one window in Christ Church St Laurence could be
attributed to Clutterbuck (plate 18).\textsuperscript{126} Its exact date has yet to be established, but it could have been made no earlier than 1859 and no later than 1863, according to the dates of deaths inscribed in it and because by 1864 all English windows in this church were installed.\textsuperscript{127} The window is next to Powell's 1855 window (going west). While the Powell window has a white quarry ground between the medallions, this window is an expanse of ruby and blue diaper, with golden quatrefoils — of Gothic inspiration. The white glass is of a more neutral tint, silvery, as in the east window at Millers Point, when compared with Powell's quarry glass.

The dedication panels are executed on white glass painted black, the lettering is Gothic. The decimals and units of the dates are characteristically written in the lower case: MDCCClvi and MDCCClviii, as in other windows from the same workshop, with the exception of one made about 1868 (St John's, Darlinghurst).\textsuperscript{128} The colour scheme is more basic than that in the east window at Millers Point. All other medallion windows in the style of the Clutterbuck workshop use a little wider colour range; it is therefore possible that this window was made earlier than that at Millers Point.

The scrolls with inscriptions are arranged asymmetrically, as at Millers Point and in most other windows attributable to this workshop. The scrolls are fragmented by deep shadows; the letters are narrow and tightly packed, similar to the
the style at Millers Point.

Figural compositions are rather awkward, unlike the compositions on a much larger scale at Millers Point. A different cartoon artist appears to have been involved. The arrangement of the figures bears little relationship to medallion shapes and the overall rhythm of the entire window design. The figures are crowded, the action lacks fluidity and naturalness, the colour areas are cut into awkward shapes and are not improved by tonal painting with enamel. The tonal modelling creates opaque areas and black shadows, concealing the true colour of the glass. By contrast, skin tone areas and some draperies, painted on white glass, appear very pale. These shortcomings are redeemed by glowing colour in the large areas of background ornament and the fine balance between ruby and blue, and between these and other colours. These points apply to practically all windows from Clutterbuck, identified in Sydney, with the exception of what could be the latest of the series, at St John's, Darlinghurst, dating from about 1868.

One positively identified window by Clutterbuck is at St Andrew's Cathedral, Sydney, in the south porch,\textsuperscript{129} and three more very similar windows at clerestory level, in the transepts, one of them documented.\textsuperscript{130}

Christ Church St Laurence has recently undergone restoration
of stonework and had its windows cleaned. Being on one of Sydney's main throughfares, its windows were blackened by carboniferous deposits on the inside and coated by an opaque film of chemicals on the outside. The windows which had been excessively blackened from the start, such as the above window in the style of Clutterbuck, looked worst before the cleaning, especially because the windows in the longitudinal walls of this church are badly lit, due to the proximity of other buildings.

Another window in the style of Clutterbuck's workshop, dating from the early 1860's, is in the north wall, the second window from the east, at St John's Darlinghurst (plate 19). It is similar to other medallion windows, such as two documented windows at St Andrew's Cathedral, Sydney, reportedly installed in 1868, but they could have been planned years earlier.

The similarities of this window at St John's, Darlinghurst, with other documented windows by Clutterbuck are as follows.

The background ornament is very dense, as in the centre light of the east window at Millers Point, so that strongly coloured areas of background are small enough to appear like a part of the ornament itself, especially because they are well designed and are colourwise related to other parts of the window. Cool and warm colours are grouped and juxta-
posed so as to increase each other's brilliance. The glass is fine and transparent; the ornament is not excessively blackened, but is painted with black line, transparent shadows and sharp highlights. The strongest tonal accents are the areas of white glass - the bands with quotations, some draperies, skin tone and parts of ornament.

The dedication panels are either of warm yellow glass or of white glass, painted black, with dense Gothic characters. In this window at Darlinghurst, the dates are inscribed as MDCCCXI and MDCCCLX - the decimals and the units in the lower case, as in other windows. The white bands with inscriptions are in short, asymmetrically arranged pieces.

Again, while the figures in the much larger east window at Millers Point were drawn with much more ease of pose and movement, as well as in good proportion, the compositions in the small medallions are quite awkward; the choice of colour accents also helps to draw attention to this fact. Ruby and blue are important colours. A new colour appears here - magenta - in the form of suspended drapery, in the background.

Two more windows at St John's Darlinghurst date from about seven years after the death of Charles Clutterbuck. Both these windows follow the same plan as four three-light windows in St Andrew's Cathedral and one earlier window in
the Darlinghurst church. They face each other, across the body of the church.

In the southern aisle window, background ornament has become less dense than in the earlier window, therefore ruby predominates: this works well because the south side receives practically no direct sunlight.

The northern aisle window shows deterioration of the workshop style. The ornament is no longer allowed to flow organically and the whole arrangement has a rigid appearance. Two awkwardly placed figures of Christ are of different sizes in the adjacent lights; one of them is in a blue garment, on a blue ground. The greatest shortcomings are an unsatisfactory control of light, for a window facing the sunny side and a sharp colouring. The modelling of the typical curly leaves appears to have been done by the same hand as in other windows: highlights are lifted out from the matter to give a relief effect.
CHAPTER II

1. Old St Mary's Cathedral, Sydney, and John Hardman & Co., before 1861 53

2. Hardman Windows in St Andrew's Cathedral, Sydney: The 1860's 61

3. Hardman's Windows in the New St Mary's Cathedral, Sydney: the 1880's and the 1890's 70
The foundation stone of St Mary's Roman Catholic Chapel in Sydney was laid 29th October, 1821.\textsuperscript{136} This chapel was extended and it became a cathedral with the arrival of the first Roman Catholic Bishop, the Most Reverend Bede Polding, in September, 1835.\textsuperscript{137} The new cathedral had some fifty windows,\textsuperscript{138} some of which were filled with stained glass by 1842. An impression of the interior has been recorded by John Skinner Prout who emigrated from England in 1840,\textsuperscript{139} in a lithograph.\textsuperscript{140} Robert Hughes describes him as "an illustrator of considerable talent", but not very factual; "he 'wrote' his impressions with cursive penstrokes, embellishing them with rapidly laid and summary washes."\textsuperscript{141} Prout's picture of Old St Mary's interior dates from 1842. It shows three very tall windows in the apse, the centre one featuring a simple, elongated Latin cross, on what appears to be diamond quarry ground. Mullions, most certainly of timber\textsuperscript{142} as their shaping also suggests, divide the head of the window rather awkwardly into five tracery lights. Patterned glass borders surround each subdivision. The side windows of the apse are simple: they are subdivided into two tall, narrow lancets, with a small pointed light between them. All three windows appears to be filled with the same kind of patterned glass and borders. A circular
window in the lunette above the apse is divided by eight spokes. Concentric patterns in the lithograph suggest a more elaborate design in glass. Windows in the most unusual place - spandrels - do not appear to receive any direct light. Those in the body of the church are glazed with small rectangular panes, in what must have been plain glass.

A description of the interior and the windows, in "The Benedictine Journal" in July, 1843, corresponds with the picture by J.S. Prout: at the back of the altar are three lofty and slender lancet windows of stained glass; in the arch over the pillars, is a circular window, with an intricate pattern, and most brilliant description of coloured glass; the arches forming these canopies are, moreover, ornamented with spandrels enclosing quatrefoils, which are also illuminated with stained glass.

The effect of "pleasing mellowness", the report continues, is spoiled by strong light "on every other side by the double row of windows", which contained no coloured glass, as the lighograph shows.

An unsigned watercolour, dated 1853, shows a very similar view of Old St Mary's interior.

It is not yet known where these very early windows for Old St Mary's came from, but they could not have been Hardman's. Although he started manufacturing metal articles in 1837, he did not produce stained glass windows until about 1847.
In 1844, a correspondent under the pseudonym of Ignotus, wrote a letter to the editor of "The Chronicle", overcome with regret, because unlike European cathedrals, St Mary's had practically no stained glass. He suggested that the windows "could be painted in transparent colours at little expense, and the effect would be little inferior to the other" (i.e., genuine stained and painted glass). The correspondent's awareness of an impermanent method of painting on glass suggests that some temporary windows for Sydney churches may have been painted in that way, before properly manufactured stained and painted glass windows could be made overseas. Both Gessert's treatise and Mrs Merrifield's book contain various media and methods of painting, including the painting on glass with oil colours (which, unbaked, have a degree of translucency), and with varnish (also without firing). However these publications appeared in 1844 (by Weale) and in 1849 respectively, therefore Australian colonial painters must have known these methods from sources older than Weale's publication of Gessert and Mrs Merrifield's two-volume study. The first English translation, by Mrs Merrifield, of Cennino Cennini's "Il Libro dell' Arte" appeared in 1844. The method of painting on glass with oil colours, without firing, is barely mentioned by Cennini, and is meant only for details on the already fired painted glass. As described by Gessert, another method involves a more complex process of taking an off-print of a ready-made mezzotinto
print and then simply painting it with oil or varnish colours. The method of painting itself is so simple, it could have been a matter of common knowledge among painters and craftsmen. As described by either author, the method is more appropriate for miniatures than for entire windows, especially for windows in monumental buildings.

Late in 1851, enlargements of Old St Mary's began. The next passing reference to windows was made, when reporting the erection of six statues made by one of the priests, for the already completed new western end. Two "colossal" statues were flanking the "chief window - a window of no ordinary pretensions to beauty." It is not certain that the correspondent meant a coloured glass window, as he was describing the placing of the statues on the exterior. The window had five main lights and traceries in three clusters of three quatrefoils each. Such elaborate tracery could have been described as beautiful on its own.

It is not known how many painted glass windows were in Old St Mary's, nor where they came from; but when the cathedral burned down on the 19th June, 1865, only one window remained in a condition to be reused - the one commemorating the wreck of the ship "Dunbar", and more specifically - Mrs Egan and her two children who perished in the wreck.
It is the oldest Hardman window identified in the Sydney area so far. Installed in December, 1860 (see Appendix, item 1), it must have been made in 1859-60. It originally consisted of three main lights and five tracery lights. Of these, only two outer main lights remain (plate 20). The centre light with the figure of the Immaculate Conception and a representation of the wreck of the "Dunbar" is missing. It had apparently suffered most damage in the fire, "the whole of the head of the Blessed Virgin being irreparably disfigured, and the representation of the wreck has also suffered, but only in a trifling way." (See Appendix, item 2.) The two side panels, reported as being almost entirely uninjured, reveal on closer inspection many cracks from the heat of fire and water, some of which an unknown restorer had reinforced with false leads. The faces of both St Gertrude and St Henry appear to have been replaced; most likely, by copying them from the originals.

The surrounding very dark borders must have been added when the window, or what was left of it, was moved to the Subiaco Monastery near Parramatta, at an uncertain date. (See Appendix, item 3.)

To get an idea of what the original style of the faces was like, we should perhaps examine the choir windows at St Andrew's Cathedral (such as in plate 22), where the figures
are on a similar small scale; where the modelling of the figures and draperies, the drawing of graceful hands, and most of the fine pattern work, are very close to the style of the glass from Old St Mary's.

Although the replaced faces of St Gertrude and St Henry are drawn with precision and delicacy, their drawing style is tonally weaker than that in the original glass. The new glass used for St Gertrude's head is also paler than the natural white wool tint of her habit, further enriched with dark brown enamel and yellow stain. Black enamel used to paint the new face of St Henry, makes the already neutral white glass appear even colder.

Hardman's use of a white figure of St Gertrude against a darker ground is highly decorative; it happened some six years before William Morris did the same. 155 White is also important in the light of St Henry, as it is in the canopies of white lilies. They are designed much more freely than any ornament from only a few years later, in St Andrew's Cathedral windows. They are unmatched in freshness and invention by Hardman's later work in Sydney churches.

The limitations in the possible choice of colours have been turned into virtue, as in the earliest medieval glass. The total effect is very decorative from a distance, while carefully controlled fine detail can be appreciated from a close inspection.
The window from Old St Mary's would be separated by only about three years, from the oldest windows Hardman made for St Andrew's Cathedral. "...two portions of a window for the choir of Sydney Cathedral. Australia" were displayed at the 1864 Exhibition of Stained Glass, Mosaics, etc., at the South Kensington Museum, England. In these early 1860's windows, the same colours can be seen as those used in Old St Mary's windows, as well as other colours which had become recently available, including the prominently used streaky ruby. The same kind of fine ornament decorates areas of strong background colour; colourful haloes against coloured backgrounds also occur in the early 1860's windows of St Andrew's Cathedral.

Before his death in 1852, Pugin was the chief designer of windows for John Hardman & Co.; Birmingham was at that time the leading Catholic centre during a revival period following the Catholic Relief Act of 1791. The Egan family memorial window made for Old St Mary's Cathedral was designed after Pugin's death, as were the windows for St Andrew's Anglican Cathedral, when John Hardman Powell, Pugin's son-in-law and John Hardman's nephew, was chief designer. Stylistic relationship in windows designed only a few years apart, for the two cathedrals, under the same artistic direction in Hardman's workshop, could therefore be expected.
The images of these two very uncommonly seen saints can be identified by the symbols of their status. St Gertrude holds the staff of an abbess; her white habit is patterned with fleur-de-lys denoting her royal lineage. She could only be the daughter of Pippin the Elder, abbess of the Nivelles convent; born in 626, she died in 653 or 659. She used to be invoked during rat and mouse plagues. Her special day, the 17th of March, announced the coming of the spring. Ironically, she also happened to be the patron saint of travellers.160 This youthful messenger of spring has recaptured the mood of Botticellian grace. She is wrapped in cascading folds of white drapery; the three-leaf scroll terminating her pastoral staff repeats the inclination of her head.

Henry II (973-1024), Holy Roman Emperor,161 wears a royal crown and holds a model of a cathedral (he established the see of Bamberg). A sword in his hand tells the onlookers that he was a warrior and a defender of the Church.162 (See Appendix, items 1 and 2.) The children at the feet of their patron saints are probably being commended to the Virgin; they are miniature adults and their iconographic derivation could be from fifteenth century examples of kneeling donors and saints.163
2. **Hardman windows in St Andrew's Cathedral, Sydney; the 1860's**

For St Andrew's Anglican Cathedral in Sydney, orders for more than half of the windows were sent "home" in October, 1861. These did not include the east window and the choir windows for which an order was sent a few months later.

... in November 1861, it was reported that all the windows of the nave, twelve in number, and the windows in the north transept were actually in process of execution in England. In a few months afterwards, the windows in the choir were disposed of in a similar manner, and a special subscription was commenced for the east window, to be erected in memory of the late Bishop Broughton.

Twelve windows arrived sometime in 1865, including the west window. Early in 1866, a tender was accepted "for fixing nine windows of coloured glass in the north transept and choir." The northern transept window was the nine-light, three-tier window on the life of the patron saint of the Cathedral, made by Hardman (Cat. B-1864-65). Very soon it was built over with a gallery for the organ, so that none of it is visible from the inside now.

There are two five-light windows on either side of the large east window, facing east, and three four-light windows in each longitudinal wall, eastwards from the transept. They completed the order from Hardman, except for the main east
window, which was reported as having been approved of, in May 1866.\textsuperscript{171}

The east window was already installed early in 1868,\textsuperscript{172} therefore it must have been made in 1866–67 (Cat. B -1867).

Throughout St Andrew's Cathedral, there are variations in style, concerning approach to ornament, the treatment of figures, juxtaposition of colours, control of light, the amount and character of detail, as the making of the windows took about seven years.

The windows of the choir, excluding the great east window which was installed last, are most expertly executed. The west end windows are tenative in some ways, especially regarding the control of lights, but they are fresh in their approach to ornament.

The 'Transfiguration' window (plate 21), as well as its counterpart - 'The Baptism of Our Lord' (C . B -- 1861-64) -- both facing west, have canopies of foliage and tendrils arranged on an ogee curve, in light and dark tones, over a ruby ground. With its pale-toned main figures over a diapered ruby ground, the 'Transfiguration' window is tonally more effective than its counterpart, in which colour relationships become less satisfactory when the window is not brightly illuminated: in the 'Baptism', both the ground and the figures are in strong colours of medium to dark tones.
All the west end windows have almost completely avoided any suggestion of architectural canopies; in these Perpendicular openings, they could have been a temptation to many designers. A mere reminder of architectural ornament is applied to the underside of the ogee arches. In the aisle walls, architectural canopies and pedestals are very fine, attenuated and decorated with coloured floral ornament. Lightweight pedestals suggest some three-dimensionality, as their middle parts come forward, framing the ground under the figures' feet. The style of decoration is fine, to suit the narrow lights.

Two portions of the choir windows were displayed at the 1864 South Kensington Museum 'Exhibition of Stained Glass, Mosaics, etc.', together with the work from other major English firms, including William Morris, Clayton & Bell and N.H.J. Westlake who appeared with a very forward-looking secular panel. It is not known which particular panels were exhibited. Most windows in the eastern portion of St Andrew's Cathedral, with the exception of the main east window which was made later, show an exceptionally accomplished technique of painting on glass. Translucent stippled shadows are combined with strong line work; very fine detail is contrasted with broader masses of colour; the white glass is a silvery white, the colours are saturated.
In a panel 'Women at the Sepulchre' (plate 22), white drapery is modelled by line and decorated with superimposed black enamel motifs typical of damask patterns which occur in 15th century Italian painting. Smaller motifs are painted in blue enamel; yellow stain has also been used. The effect is that of silver and gold brocade. The fluid drawing style of the figures and the use of clear colours are reminiscent of manuscript illuminations of the International Gothic style. A special attention appears to have been given to this panel, therefore it could have been one of the two exhibited in 1864, at South Kensington.

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In the 'Last Supper' window (plate 23), as in many other windows of the eastern portion of the cathedral, the heads of the male saints are particularly well drawn. The facial features are sharp and well defined; the hair and beards are rendered in wavy parallel lines, with dark brown enamel; each hair is a continuous line, with even spaces between the lines, as thick as the hair itself. This could be somebody's personal style of drawing. The head of St Henry, from the window made for Old St Mary's Cathedral (plate 20a), although apparently replaced, could have been done in the same style, as the replacement suggests. (Its restorer most probably copied it from the original, on white glass but with
black, instead of brown, enamel. The neutrality of its colouring is the most obvious hint that it is a replacement, although it is expertly drawn.)

A broken piece in the 'Last Supper' window (plate 23) reveals coloured glass about \(\frac{3}{4}\) inch thick - much thicker than the glass used in Old St Mary's windows, or the glass in other early windows from England, excepting the pressed glass by Powell. It appears that Hardman's exhibits at South Kensington, in 1864, could have employed 'antique' glass which had just been produced by William Edward Chance in 1863,\(^ {174}\) and which Hardman is said to have been the first to use.

Streaky ruby, which became possible in 1856,\(^ {175}\) has been most effectively used in several choir windows, in slender Gothic columns, including the 'Last Supper' window. Everywhere in the choir, excepting the main east window, the canopies are filigree-like and steeply pointed. Female faces are fine-featured and simplified in their drawing, without losing structure, which cannot be said of all the aisle windows and especially of some styles of drawing which appear in the main east window. In this large body of glass made by Hardman for St Andrew's Cathedral, variations of quality exist.

In some of the aisle windows, figures occur which were drawn and cut by persons with an imperfect grasp of anatomy.
Likewise some styles of painting are "boneless", without feeling for bone structure beneath the surface. Dropping draperies occur in parts of the main east window, the last one to be installed. Such occasional lapses in anatomical correctness and in the rendering of the draperies are shortcomings, because they were not done for the sake of any formal aims; they occur randomly, beside better work. Various personal styles are distinguishable also, as many artists and craftsmen must have worked on these windows for approximately seven years.

The main east window at St Andrew's Cathedral, 1867 (plate 24), was described in the worst of terms in a daily paper. "The Sydney Mail" printed in 1871 a series of articles entitled "Stained Glass", by an unknown writer. They were very informative and detailed. Drawing from a wide range of literature available in the English language, paraphrasing most authors and transcribing Winston almost verbatim, in parts, the author aimed at informing the reader on the subject of the history and technology of glass making and glass painting, besides exalting and encouraging the local glass painting industry, in the person of John Falconer, and at the expense of Hardman in particular. (John Falconer had originally come to Sydney from Scotland and began working professionally in 1863-64.)
In the east window of St Andrew's Cathedral, the critic saw a "palpable want of tone, which now shocks everybody" and was displeased with "crude appositions of colour" (see Appendix, item 4). As "an admirable contrast thereto, both in tone and choice of colours", the 'Apostles' window of 1864-65 was offered, in the west end. The difference in modelling between the two main east and west windows is that the 'Apostles' window has black enamel very noticeably applied, not only in modelling but also in ornamental details, while the colours of the main east window are left more pure. As in the great international exhibitions, glass painting in the 19th century was often judged according to the standards of academic painting on canvas which happened to be carried out on a translucent ground.

The "Sydney Mail" critic did not find fault with the over-crowded arrangement of the subjects. As in many 19th century windows, especially when laymen or the clergy dictated their choice of subjects to the artists, too many subjects have been crammed into this window, with the intention of making the focal point of the chancel most meaningful and a part of the total iconographical programme of the cathedral. The fourteen subjects range from representation of events to iconic images. They are presented in a variety of settings in adjacent lights, in different kinds of pictorial space and on varied scales of size.
In spite of this, the whole is unified by a large proportion of blue in the background, against which other colours appear ("a most unhappy choice of colours"; "cold, glaring"—according to the critic); by ornamental complement and by the gravitation of the figures towards the centre light of each tier. The most outstanding decorative motifs are the white roses in the cusps of the arches, placed against blue and green grounds, and the "Gothic trees", with their slender serpentine trunks and curling branches. In some lights, the roses in the cusps grow from the trees. Although a large part of the window remains obscured by the gallery, the colouring of this window remains one of its best points.

The cathedral was reorientated in 1941. The building of the gallery across the east end has obscured not only the best windows in the cathedral, some of which Hardman made for the very special exhibition at South Kensington in 1864; it has also destroyed a unique setting—a chancel surrounded by stained glass on three sides, with little masonry between.

Some recent restorations are noticeable in the choir and aisle windows, individual pieces replaced in canopies, with glass shabbily repainted, in complete contrast to the crisp style of Hardman—a suggestion of fine relief resembling a silversmith's work.

The general tone of the windows in the cathedral may appear too dim, in the aisle windows in particular, but this is
owing to protective glazing with wired glass, worsened by a deposit of grime on its exterior surface. When the true colour can be seen, in odd panes recently reglazed with clear glass, the tone is perfect.
3. **Hardman windows at the new St Mary's Cathedral, Sydney: the 1880's and the 1890's.**

The windows for the new St Mary's Cathedral were commissioned by a letter dated 10.1.1881, from Dr. John J. Donovan to Hardman Bros., Birmingham.\(^{178}\)

In March of the same year Henry Austin, a member of the Committee responsible for stained glass windows, went to England, authorised by the Committee to finalise the arrangements "so that if he should approve of your [i.e., Hardman's] sketches, and determine to order the Windows, no delay need occur in commencing the work."\(^{179}\) Austin arrived in England on the 4th May and travelled to Birmingham where he had an "interview with Mr. Hardman". He carried paper templets for windows "B, Al, and Cl..."\(^{180}\)

> Passing through Munich I made it my business to go view the factory of Mayer and I cannot say I was impressed with their stained glass. I find Hardman's superior in every way. I think Altar furniture and Statues are Mayer's specialities.\(^{181}\)

An order for some or all windows was contemplated from other firms as well. Late in 1881, a Mr. A. Lambragin sent a letter from France to Sydney, with price lists from Maison Bulteau in Rheims. He thought Mr Bulteau was one of the best French artists in glass, as well as being a restorer of historic windows.\(^{182}\) (See also Appendix, items 5 and 7.) No windows from Maison Bulteau have been found in Sydney to this date,
but the window facing east, in the Irish Saints' Chapel, appears to have been made by Mayer in Munich, after W.W.I. (See Cat. G - 1918-.) It had been intended originally to have it made at Hardman's in Birmingham, as late as 1902. 183

To Hardman, the windows of St Mary's must have been one of the most worrying commissions he had to carry out.

The first window, the 'Annunciation' was completed and sent in June, 1882. 184 It appears to have been installed in its place in August. The architect, William Wilkinson Wardell, condemned it as being too pale, after other "competent judges" (whom Donovan did not name) had admired it, and after Donovan had already sent a letter to Hardman, expressing approval. Another letter had to be sent by Donovan very soon, stating the architect's opinion. 185

Among all other windows, it is the second-lightest in the cathedral, but it stands up very well to afternoon sun: its large areas of white glass are appropriately controlled with black enamel detail. The subject includes the representation of the Trinity. In this Roman Catholic cathedral, God the Father is shown in human form. This kind of imagery is not found in the churches of other denominations. Winston has expressed his opposition to representations of the Trinity in Protestant churches:
They cannot by any possibility convey to us an adequate idea of these awful mysteries of the Christian religion, and may excite very false notions in the minds of the ignorant...\textsuperscript{186}

The choice of subjects, the style of representation, iconography and sacred symbols, as well as the general attitude towards figural windows, differ in various denominations. The Roman Catholic Church has the most liberal attitude towards the choice of subjects and their interpretation, while many Methodist, Presbyterian and Congregational churches have a larger proportion of pattern windows.\textsuperscript{187}

The 'Assumption' window (plate 25) is the lightest. It was made and installed second,\textsuperscript{188} directly across the choir from the 'Annunciation' window. In the very first letter, dated 1.10.1881, by which the windows were commissioned, the makers were informed that "our Cathedral is built north and south, the choir being at the north end. ...all the windows will have strong light, particularly the western ones, such as Al." (The 'Annunciation'.)\textsuperscript{189} This must have been the reason why this east-facing window was made lighter than the corresponding west side window. The installation of only two comparatively small windows in the choir could obviously not have made much difference to glare, but Donovan became anxious and wasted no time, communicating to Hardman & Co. the Committee's disappointment regarding glare, thin glass
and "the preponderance of blue colouring". Donovan seems to have had a particular liking for red and a dislike of blue, about which he complained more than once. The 'Assumption' window contains more blue than ruby, apparently because it must have been a part of an overall colour scheme. Other windows emphasise other colours, such as leaf-green or golden yellows and rubies. The great north window has areas of colour emphasis, without any one colour predominating.

Hardman & Co. kept darkening the tone of the windows until the members of the Committee for the Cathedral Windows were satisfied. On either side of the 'Assumption', colours are deeper and tones are darker, therefore continuity is lacking. On the western side, some ruby grounds to canopies are almost black, even in fierce afternoon light; very pale tints are avoided. On the eastern side, a new solution was found for the transept windows of the early 1890's - a contrast of tones between white glass for flesh colouring and larger areas of dark-toned colours, with accents of pure colours. It is more effective than the overall gloom of many windows on the same side of transept and choir, particularly when not lit up by direct light.

The figural style and the brocaded draperies in the 'Assumption' window are close to 15th century European pictorial art and are especially reminiscent of Botticelli
in their fluidity and delicacy of treatment. From this point of view, a relationship of style exists with an early 1860's window in the choir of St Andrew's Cathedral, Sydney, 'The Women at the Sepulchre' (plate 22). Silvery white glass was used in both windows and the brocaded white robes were treated as a relief, meticulously decorated with fine ornament which controls light.

The lower subjects at the base of the 'Assumption' window create a restless foundation, as the colouring is thinner and sharper, with abrupt contrasts. This part of the window does give an impression of having been made of thinner than usual glass.

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The great northern window of St Mary's Cathedral (plate 26) was completed in 1884. It was awaited with a growing anxiety, as windows for the northern part were arriving one by one, and some of them appeared to be too light, others too blue.

Its general colouring tends to coolness and neutrality; silver rather than gold. Mid-toned blues and rubies are in a fine balance. A row of silver and "old gold" canopies rise in a wave of crescendo, over the Coronation. A warm green harmonises with all other colours. Each panel or compositional group has its own colour key. This main window is therefore colourwise linked with all other windows in the northern portion of the cathedral.

Flesh colour is almost white throughout, except for very pale warm tinting in some areas.

While a lush green dominates the Paradise panels across the base, the luminous blue gown of the Virgin dominates the centre, counterbalanced by the white and bright ruby draperies of Christ. Groups of angels in massed blue of several tones are placed below and above the main figures, the lower group overlapping the Paradise zone and forming a visual continuity between the two main zones.
In its almost concentric distribution of colour areas around the main figures, this window is reminiscent of the 1495-1505 west window at Fairford, Gloucestershire, England, attributed to an English master, Barnard Flower. The rendering of entire zones of a composition in tones of one colour, such as groups of angels or the visions of Hell, occurred throughout the Middle Ages and particularly in International Gothic illuminations, emphasising the other-worldliness of such subjects. It can be expected that such examples of medieval art were well known to Hardman's designers.

In relation to its very large size (as wide as the nave), the great northern window of St Mary's is more detailed than any other window in the building. Smaller, less detailed windows appear more monumental by comparison. The filigree-like canopies look more decorative in the smaller windows, while in the great northern window their intricacies are lost to the eye, except when standing directly beneath it. As the main altar structures occupy most of the choir, the great window cannot be viewed from a comfortable distance. When seen from the nave, the multitude of subjects and the intricacies of ornament do not stand up very well to the heavy, almost Romanesque character of the architecture and the large spatial units.
The Sacred Heart Chapel is a spatial extension between the choir and the western transept, with its own lower roofing. The most successful window in this part is the 'Presentation' (plate 27) of 1890. Two Presentation subjects are combined in three lights, almost like a narrative. Attention is concentrated on the main subjects. The base panels are decorative and subordinated to the tonal-colour scheme of the whole.

The subject appears to grow in size and intensify in colouring, culminating in the ruby and pale-toned glass of the High Priest holding the Infant. The importance of this light is further emphasised by the ruby colouring in the heads of all lights. An irregular mosaic pattern makes the ruby glow like embers between the tall pinnacles.

These Gothic canopies may not be original, but they are very decorative, when all the windows with their strongly coloured canopies are seen together in the chapel. They are related to fourteenth century English glass, such as the east window of Eaton Bishop church, Herefordshire, a window which is also divided into main and subsidiary subject zones. Narrow, decorative borders are another stylistic link with the 'Presentation' window discussed.195

The background is a Gothic interior, with elegantly shaped, coloured columns, capitals and archways; with a Jewish
temple candelabrum in the centre light. These details act as canopies below the tall conventional canopies, without destroying the picture plane. Subtly blended, neutralised colours in the background remain subdued, a perfect foil to the full colours and light tones. (Similar backgrounds were used some twenty seven years earlier, in the choir windows of St Andrew's Cathedral, such as plate 23 with greater simplicity and more emphasis on flat decoration.) A correct spatial view of vaults in the background may have been inspired by 15th century windows, such as the Annunciation at Bourges. 196 Warm, glowing colours are reminiscent of Venetian Late Renaissance.

No windows appear to have been made for the cathedral between 1887 and 1889 inclusive. A change of style became evident in Hardman's work in the late 1880's and in the 1890's. A greater realism of figures and sometimes vigorous but controlled movement, are related to High or Late Renaissance rather than to 15th century style, which had been a strong influence before this late period in the nineteenth century.

Idealised figures are drawn with an eye for sculptural values; large areas of exposed skin, or limbs in skin-tight clothing, appear in the early 1890's. Subjects like 'The Scourging of Our Lord', 'The Crowning with Thorns' (plate 28), both from
1892, or 'The Crucifixion' of 1894, were particularly suitable for this unidentified designer's style.

Most compositions dating from between 1886 and 1894 walk a tightrope between decoration and pictorialism. The importance of gently modelled figure forms and broad areas of colour take precedence over fine ornament. Some windows of this period reconcile both attitudes, such as the 'Presentation' window of 1890 (plate 27).

The 'Crowning with Thorns' (plate 28) is a composition which appears to owe its inspiration to Titian.

Its pictorial space is more real than that of other 19th century Hardman windows in this cathedral, although it is not deeper than a shallow stage. The sizes of the figures are slightly graded; the foreground features suggest enough depth to accommodate three figures; architectural forms in the background also suggest space beyond the group, but the distribution of light tones and bright colour accents save this composition from spatial realism. The pale-toned diagonals of the long canes, bare arms and legs, appear on the picture plane and are also used to express turmoil. Well planned tonal contrasts prevent the composition from appearing crowded.

In the 'Crowning with the Thorns', pale-toned plant motifs form graceful arabesques as they merge with stylised,
dematerialised, Gothic canopies. Ornament of such strongly calligraphic nature was already evident in Hardman's 1888 east window for the Church of St Canice, Elizabeth Bay (Cat. B - 1888), also carried out in pale tones on a darker ground. While the delicacy of the ornamental style could be seen as being related to Art Nouveau, the figural style of the 1890's was decidedly Classical; the Gothic vocabulary has never been abandoned and the colour schemes for the windows remained very traditional.

In the 1890's, and on some occasions already in the 1880's, Hardman made windows without Gothic architectural canopies. The 'Crucifixion' window of 1894, at St Mary's Cathedral, has no canopies at all. The main figures are placed rather high up, to allow space for 'Deposition' below. Medieval associations persist: the backgrounds are filled with ruby cloud-waves; they form a mandorla around the cross; grapevine leaves surround the angels in the hexafoils and underline the window at the base.

In 1904, an anonymous writer to "The Journal of the Institute of Architects of New South Wales" appeared less than wholeheartedly enthusiastic about the windows:

The stained glass windows were specially designed and executed by Messrs. John Hardman and Co., of Birmingham. Some of them, especially the later ones, are very fine, but many are unworthy both of the position they occupy and of the firm that made them.
The writer has not explained further but, first of all, he may have been aware of the lack of unity of scale and treatment in the windows of the choir and transepts, considering the windows in their architectural setting. At St Mary's, windows containing spacious single-subject compositions with a few large figures, occur next to windows crammed with several subjects in several tiers, with figures of several smaller sizes. Dark windows are next to very light windows, facing in the same direction.

At least some of the blame for less than perfect windows should fall on orders given from Sydney, which Hardman & Co. tried to fulfill as best they could. Precisely what went into each window, was decided not by the artists but by the patrons. More rather than less subjects, figures and accessories was often the case.

'Our Lady Help of Christians' window (Cat. B - 1894-95) was meant to accommodate ten figures in two rows, in five lights - an impossibility because the main lights are not sufficiently tall.²⁹° Hardman politely answered:

...we have ventured to depart somewhat from your instructions...it did not appear to us that that arrangement gave sufficient dignity, considering its position, to the window which meets the eye directly as you enter the church by the West Transept door.²⁰⁰

The bottom tier of saints now consists of smaller half-figures, their attributes and names on scrolls. A mass of
fine details, in keeping with the scale of the figures, would be suitable for the east window in a parish church, but in one of the key positions of a massive cathedral, this lack of monumentality is disappointing.

The least effective in their architectural setting are the rose windows of the transepts, completed in the same year - 1895. The traceries of the western rose window are filled with the Old Testament Patriarchs and Prophets, the eastern one with New Testament figures. The traceries themselves are heavy and the openings very small, which may have something to do with the quality and expected durability of Sydney sandstone. As an order for the largest possible number of figural subjects was sent from Sydney, Hardman's designers had the task of fitting them into small, variously shaped Gothic openings. The result is totally unimpressive as decoration for a cathedral, because of weak colouring. Human heads, beards and shoulders do not make very decorative designs, when realism of appearances is expected. As the windows are high up in the gables, the subjects cannot be visually appreciated, either.

Nave and crypt windows were made in this century, as the nave was begun after 1909. In the middle of 1923, the nave was still without a roof. The completed cathedral was opened in 1928.
CHAPTER III

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1. **Lavers, Barraud, Westlake**

The most outstanding characteristics of the 'Supper in Bethany' windows by Lavers and Barraud, installed some time between the middle of 1866 and late in 1868, in the northern porch of St Andrew's Cathedral, Sydney (plate 29), are its unusual all-pervading orange-red colour, facility of figure drawing and composition, and what appears to be original ornament, or at least, ornament designed to be a part of a fine balance between the verticals and the horizontals in the figural composition.

This and some other windows in both transepts of the cathedral have been partly built over by the organ loft, the floor of which is fifteen feet above the tiled cathedral floor. This decision was taken in 1866. Furthermore, the whole central pane of ornament is covered by a timber board bearing a coat of arms.

While most Hardman windows in the longitudinal walls are somewhat too dark to be seen in detail, even during the brightest hours, this window by Lavers and Barraud has perfect clarity of colour and tone most of the day.

The ease with which the figures have been arranged around the table, and particularly the figure of Mary Magdalen, is strongly reminiscent of the same subject drawn by Burne-Jones.
for William Morris, 1863. The mood of the moment is expressed in the same way, in the contrasting attitudes of the figures - aloof, watchful ones surrounding the two main figures, emotionally self-contained in the foreground of the centre light, preoccupied with the meaning of Mary Magdalen's action which escapes everybody else present.

There are reasons why Michael F. Halliday could have been the designer of this particular window. It has similarities with two other windows made by the same firm, both designed by Halliday and dating between about 1860 and 1865. They are: a chancel window in the Church of St Columba, Topcliffe, Yorks, and a window at Brightwalton Church, Berkshire, both in England.

An immediate impression of these three windows is that they share an unusual colouring, with the same colour used to paint hair, and the choice of particular greens and a smaller amount of blue to complement the oranges and the orange-reds. They also share a very similar decorative style of draperies, the way the lights are closely filled with figures arranged on staggered levels and on individual approach to ornament.

All three windows are more closely related in style to one another, than is any one of them to the windows of the 1870's and the 1880's, made by the same firm for the churches in Sydney. These later windows became strongly dependent on
Gothic decorative detail and were realised in a different colour key, with much ruby, blue and white; there were also changes in the figural style.

As Halliday was closely associated with the Pre-Raphaelites, the previously mentioned similarities with one of the Burne-Jones and Morris windows could be expected. He designed windows for Lavers and Barraud up to 1866.\(^{212}\) As the window was installed late in 1868, it could have been one of Halliday's last designs for Lavers and Barraud.

Following Hardman, the firm of Lavers, Barraud & Westlake, as well as Clayton & Bell, received more orders from Sydney than any other English glass painting firm. Windows were well made, and they satisfied the patrons, because further commissions followed. The firms delivered what the churches and the donors expected and appreciated — Classically-based figure work, in traditional trappings of Gothic ornament; the windows were decorative and sometimes very pictorial. Great importance was attached to the choice of subjects and the meaning. Originality was not expected. The situation regarding new church windows is little different today.

The 1860's window by Lavers and Barraud, at the Anglican Cathedral (plate 29), may be the earliest work by the firm in Sydney. After this period of varied and personal experimental styles,\(^{213}\) the firm of L., B. & W. settled for
the comfortable and (from the business point of view) effective, eclectic historicism of the 1870's and the 1880's, as the majority of the other firms also did, under the pressure of an unprecedented demand for painted windows.

Nathaniel Hubert John Westlake (1833–1921) became a partner and took over practically all the responsibility for designing windows. By that time, he had already been involved for eighteen years in the preparation of his history of painted glass. For a number of Sydney churches, and perhaps for many more country churches in New South Wales, the firm supplied windows reflecting Westlake's historical studies.

For the strongly Romanesque Church of St John the Bishopthorpe, Glebe, built by E. T. Blacket and John Horbury Hunt, Lavers, Barraud & Westlake supplied, in 1871, three round-arched lights for the chancel and four single-light windows for the south wall of the aisle. They are medallion windows with diapered grounds, small versions of large 12th and 13th century medallion windows in European cathedrals. Figural compositions in circular medallions have the appearance of medieval subjects redrawn in a realist way and in natural attitudes. The modelling is transparent. The bare skin and
some draperies are modelled on white glass. Some white glass shows curved streaks of bubbles, which have been effectively used in draperies. This may be crown glass. Some flashed ruby occurs. Twelfth century specimens of streaky and flashed ruby have been found by Winston himself. He has remarked that Gessert dated the invention of flashed ruby glass at the 14th century, and also that the relevant part of Theophilus' treatise is missing.\textsuperscript{219} No other flashed glass is used in the Bishopthorpe windows. Winston had not discovered glass coated with any other colour from before the end of the 15th century, either.\textsuperscript{220}

Because of the absence of yellow stain, the dominance of blue, ruby and white distinguishes the Lavers, Barraud & Westlake windows from all others in this church, as much as does their general style. All yellow glass is coloured in the body. Each window has a dominant colour key, such as blue, or ruby, or a fine balance between ruby and blue.

The styles of the windows at the Bishopthorpe, Glebe, are almost completely archaeologically correct in themselves, down to the smallest details of painting on diapered grounds, except for the contemporary figure style and glass (plate 30).
A pair of tall two-light windows in the northern transept of the Church of St John the Evangelist, Darlinghurst, one of them signed and dated 1877 (plate 31), is Late Gothic in inspiration. Both are set in very similar elaborate 14th century architectural framework which, in the 1877 window in particular, resembles the style of a window from Winchester College Chapel. Yellow stain suggests gilded marble and is generously used in other parts of the window.

The figural compositions are in the Renaissance tradition. The grouping is harmonious and orderly. The two main subjects are so well related, they appear like one. The figures are idealised. Curves and circular shapes contribute to the decorative quality and, together with tone and colour, control pictorial depth so that the main subjects remain on the plane of the glass.

A limited amount of depth is present in the decorative Gothic framework to the figures - turrets, flying buttresses, finials, a slim shaft continuing down to the pedestal with ogee arches and a niche for an angel in each light. In the heads of the lights, these architectural fantasies are marred by a thick iron frame installed for the purpose of opening the upper parts of the windows.

The dedication is beautifully scripted in Gothic letters with gilded capitals. The craftsmanship is flawless throughout.
The colouring is very basic – almost a safe formula. Colours and tones are well balanced.

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In the lower part of the other window a pair of some of the most graceful angels in Sydney (plate 32), fiery-winged and celestial in their turbulent, sun-patterned (or are they the sunflowers of the Aesthetic movement?) gowns, adorned with floating golden ribbons, genuflect weightlessly on blue cloud-waves, holding up blazing signs of Alpha and Omega. They are a different race from the angels in the 1877 window, which are less sophisticated and more in keeping with the main figural subjects in both windows. The Alpha and Omega bearers are very refined descendants of the angels surrounding "Notre-Dame de la Belle Verrière" of Chartres and are more directly related to hovering angels in 15th and early 16th century European art, where they attend the Nativity and other important occasions. In the same period, artists had indulged in labyrinthine abstractions of drapery folds, for their own sake. The drapery folds of these two Darlinghurst angels are defined by a very sure calligraphic line, by the hand of a superior draughtsman. Modelling consists of a very thin matt of neutral brown, with highlights lifted out along the ridges and with superimposed line work for a deeper tone. The technique is very individual:

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the lines radiate and taper, from the deepest part of each crease outwards; only rarely are they crossed. Wavy lines of the hair, over yellow stain applied on the other side, echo the blue cloud-waves, as does the curvilinear, meandering pattern of the deep blue ground. All details are correlated.

The style of both L., B. & W. windows at the Darlinghurst church can be said to be a complement to architecture, although it is hardly exciting from the creative point of view.

An unidentified 'Nativity' window occupies the tallest openings between the two L., B. & W. windows. Its style is not English or French; it could originate from Melbourne, from the 1880's. It is as if this arrangement of the three windows had been invented with the sole purpose in mind, that all three should go on mutually annihilating one another forever. The unidentified 'Nativity' window comes out the greatest loser. Compared with the carefully defined forms and clear colours in the other two windows, its painting technique looks like a rough sketch, its colouring mud-like. At the same time, some of the effect of the jewel-like colouring of the L., B. & W. windows is lost, as if by contamination.
The largest window from the workshop of Lavers, Barraud & Westlake, in Sydney, is the five-light altar window (facing west) at All Saints' Church, Petersham, installed late in 1880. The person commemorated died only the year before. Allowing time for communications and for shipping, the window was made very quickly.

A three-light window of similar proportions, in the east end of the same church, commemorates a person deceased in mid-1881 (plate 33). Both these windows at Petersham are signed by Lavers, Barraud & Westlake. A small two-light window exists at All Saints', Parramatta (plate 34) designed in a very similar style. It also was signed in the same way, until the signature was recently removed during "restorations".

These two windows may lack invention, to varying degrees, but they are in excellent harmony with the architecture and very effective as coloured glass screens. Their designs are related in a general way to fourteenth century Gothic examples, such as those at Koenigsfelden, Switzerland. There is a similar emphasis on verticality, slim figures and attenuated limbs. An element of perspective is present, mostly in the form of paved floors. Gothic canopies were not used in the Petersham and Parramatta windows. Glowing colour is their most immediately appealing quality, as it is in most fourteenth century Continental windows. At Petersham,
where the two large windows at either end of the church dominate the interior, light from one window does not destroy the effect of the other, but renders it more luminous, because the colouring is strong, and ruby prevails in both.

A correspondent reported that the five-light window at Petersham was Pre-Raphaelite in style. This should be interpreted as what the correspondent saw as an affinity with the glass of Burne-Jones and William Morris, probably due to warm colouring, to some particularly difficult to define natural colours, to the importance of white glass, as well as to the unmedieval figure style, because everything else in both windows is heavily indebted to the Middle Ages. From 1875, Burne-Jones was the chief designer at the Morris firm. In the late 1870's, the firm produced windows in which Gothic canopies no longer occurred; the backgrounds were an expanse of decorative, colourful and entirely un-traditional patterns and textures (such as flames, foliage, sky and stars). Sewter calls them the "beautiful" windows of the period, because not all work was of an equally high standard. Lavers, Barraud & Westlake never quite let the traditional elements go. In their windows so far discovered in the Sydney area, nothing approaches the originality of Westlake's 'Advent of Beatrice' window exhibited at the South Kensington Museum in 1864.
The small window at All Saints', Parramatta (plate 34a), is the most intensely coloured and the most interesting in its figural design. It is the only window on the southern side of the church which holds its own, in the face of the brilliantly coloured English windows in the opposite wall and in the chancel, dating from twenty years before (plates 10, 11 and 12). The artist has used the power of just one colour - ruby - in the conventional background pattern of the simplest kind, as well as in one figure in each medallion.

Other colours are mostly warm and have an affinity with ruby. The most brilliant contrast is a strong blue, followed by a cool green, both used to emphasise some of the important figures and to outline the borders. There are several yellows, including yellow stain, a range of earthy browns and greens, fawn, mauve and, of course, the structurally important white. The colours are the choice of an imaginative colourist with a gift for decoration.

The figures are arranged with more naturalness and ease than in other windows of this series. The effect of uncomfortable crowdedness has been avoided by a rhythmical repetition of gentle curves and a decorative placing of haloed heads. In this respect, the Parramatta window is closer in style to the 1877 window at St John's Darlinghurst (plate 31), than it is to the other windows of the very early 1880's. Figure drawing in the small Parramatta window echoes the swelling
curves of the medallions and of the arch forms, rather than stressing verticality and the straight sides of the openings as it does in the three-light Petersham window. More important still - the serpentine curve is very significant.

Elliptical rhythms tie the figures together psychologically and unify the grouping inside the medallions. An organic flow continues throughout the length of each light. In the lower right panel, the red-robed figure of a Church Doctor overflows into the ruby background. The serpentine sweep of its strongly abstracted shape looks forward to Art Nouveau. It is almost viscous. A flow of pale tones continues down from the upper medallion, particularly from the figure of Mary Magdalen. The flow forms spirals in the hands holding a scroll; the spiral folds of the ruby gown flow in the same direction. The saffron-robed Church Doctor also oversteps the confines of the medallion, but it is the profile figure in ruby that acts as a kind of repoussoir. Clear outlines and tonal contrasts keep the compositions flat.

In the three-light Petersham window of 1882 (plate 33), every composition overlaps its medallion frame, as figures often do in Victorian vignettes. The William Morris' workshop also occasionally allowed figures and objects to overlap the framework, in order to draw these shapes slightly forward.
An interesting feature in the Parramatta window is the mauve drapery thrown over a rail, hanging in a loop, forming the background of the upper left medallion. Principally the same motif occurs in a window from William Morris, dated 1882. A.C. Sewter suggests "it was either actually designed or at least suggested by Morris himself ..." Unless there is another explanation, the same motif has either been introduced independently by each workshop, at the same time; or the designers of one workshop borrowed it from the other, as soon as this motif appeared. If the motif is a borrowing from William Morris, then the small Parramatta window by Lavers, Barraud & Westlake should be dated somewhat later than 1882.

In the Parramatta window, both the cutting of the glass and the painting of the figural medallions are a part of one continued process and the same feeling for form, as if originating from the same mind and hand. The style is unified throughout. A window of this small size could have easily been made by one person, with some assistance from others in the more repetitive tasks.

The window has been completely re-leaded recently, by ordinary glaziers, and wrongly re-assembled (plate 34b). It has lost just about everything that made it outstanding. The organic flow has been crudely interrupted by thick black
metal frames, particularly across the most sensitively designed scene in the temple. The scale of this medallion has become inconsistent with the rest, because the two tallest figures in the foreground have become further elongated, dwarfing the Magi in the next medallion. The whole 'Epiphany' medallion has been turned inside out. With the removal of most of the ruby ground below the figural medallions, the entire design of the window has lost its visual weight at the base. The destruction of the fine dedication panel and the insertion of a kind of acid blue glass of thin and flimsy appearance, is particularly offensive; so is the removal of the borders in the lower part.

A small window at All Saints', Petersham, dates from after 1901 and is signed "Lavers & Westlake London" (plate 35). Barraud had died in 1900. The window must be one of the earliest 'Light of the World' interpretations in glass, in Sydney. It had probably been commissioned independently before the 1906 exhibition of the picture by the same name by William Holman Hunt, at the Art Gallery of New South Wales, as it is not a copy of it.

The background has been simplified; the figure occupies much more of the picture space; the costume has been changed to better suit the medium of coloured and painted glass - with
a very decorative effect. The idea is communicated without
the morbid sentimentality of fifty years earlier.

A large proportion of the window is made from pale glass.
This makes a very attractive setting for the darker-toned
picture containing strong colours. The overall network of
leadlines form a beautiful design by themselves. The drawing
is neat; stippled, transparent shading is used. There is
some coloured enamel work and much gilding with yellow stain.

An unobtrusive diamond quarry ground emerges in the head of
the window and in the area surrounding the coat of arms.
The Gothic architectural framework does not culminate in a
pointed canopy - it merely spans the width of the light. At
the summit is an angel with a scroll, in the same neutralised
colouring.

The highest-coloured part of the whole window is the ruby
cloak with a deep blue lining; it relates to other nocturnal,
less intense colours. There is no ivy or other wild growth -
both the decorative emphasis and the content concentrate on
the essential - the figure of Christ. The outlines are
strong, simplified and very sure. The leads are wide; they
have the effect of intensifying the colours and the tonal
contrasts. The glass is cut into very simple shapes, with
some horizontal cuts straight across the pieces.
On pale glass, the robe of Christ has a damask pattern in three colours: yellow, black and moss-green. The latter was obtained by stippling grey on one side and painting with the silver stain on the other. The painting of the face and hands and the modelling of the draperies are of a very high standard.

The dedication is inscribed in very neat, closely packed Gothic characters, in two rows, each over a band of yellow stain - a concentrated area of gold colour underlining the window.

Such richness of fine detailing in all parts of the window, combined with restraint of the general effect, stands out as particularly English among all the workshop styles represented in Sydney. The window is a combination of strength and delicacy, emphasis and understatement. It looks good from a distance and yet it bears the closest scrutiny. It suggests that the artists had the potential to try new directions, in this period of exciting events in Western Art in general, and in stained and painted glass in particular, yet, for some reason, they remained embedded in the 19th century.

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2. Clayton & Bell, c.1874-1882

Persons who took initiative to erect the earliest windows at St John's Church, Camden, N.S.W. (plates 36 a and b), showed a rare understanding of what stained and painted glass should be like. The following is an extract from a letter from Sir Charles Nicholson to James K. Chisholm written in 1871 from London:

It is now recognized as an established axiom that **in stained glass used for architectural purposes** the first effect to be considered is **colour**. The picture or drawing whatever it is must be subordinated to the harmonious contribution of various tints. In truth an old picture of any artistic pretension can be produced in glass and most attempts of the kind offend against real Esthetic rule. Glasgow Cathedral \(^{235}\) and many of our churches have been spoiled by the introduction of the Modern glass, the effect of which is so widely different from that of the medieval period.\(^{236}\)

All the windows in the chancel and the two easternmost windows in the aisle walls appear to be from Clayton & Bell.\(^{237}\) The single-light chancel windows feature the four Evangelists. The two-light window with the figures of St James and St John (plate 36 b) is very similar. None of these windows have Gothic canopies, and all appear to have been made in close succession, including the 'Transfiguration' window above the altar (plate 36 a). The despatch and arrival of the single-light windows for the chancel, from Clayton & Bell, is recorded in the correspondence between Sir George Macleay and Sir
William Macarthur, in 1875 and 1876.238 (See also Cat. B - 1874?, B - 1875-76.)

All these windows, including the later window memorial to Capt. Arthur Onslow (plate 36), bear the characteristic Clayton & Bell lettering style. It is also the same kind of lettering as used in a transept window at St John's, Darlinghurst (plate 38). A slightly different script appears in the dedication panels in the window of St James and St John (plate 36 b), but the saints' names are inscribed in the usual style.

The style of the Camden windows is eclectic and it relies on traditional Gothic decorative detail; it lacks the invention of the windows made about two decades earlier for the Great Hall of the University of Sydney (Cat. B - 1857). Typical of Decorated Gothic ornament are canopies with steep gables, cusped arches and miniature rose windows; many pinnacles; brassy-yellow leaf ornament on the gables, croquets and finials; lots of tiny openings; flying buttresses; and some horizontal features to counteract verticality.239 This kind of supporting ornament relates the east window at Camden particularly closely to the Decorated-Curvilinear style of the masonry openings. The tracery lights are filled with convoluted tendrils and leaves on strongly coloured grounds, often observed in 14th century English and Continental European windows.
The simpler windows of the chancel and the window of St James and St John bear no canopies and are adapted to the cusped arches of the openings. The east window is the most ornate, but the least monumental. The division of the background into main ruby and blue areas saves it from too much fragmentation. The painting style is very neat and precise, therefore each window can be enjoyed from a close distance. From further away, colour areas and tonal organisation create a flat screen effect in sparkling glass.

In the east window, the figures at the ground level are more natural in their poses, while in the upper part they are in hieratic poses as they constitute a vision. Stylised draperies, of the larger figures in particular, do not only express movement, but something of the meaning and mood of the moment.

Clusters of stylised plants in radiating arrangements fill the foreground, painted on green glass of various tones. Such motifs appeared very early in the workshop of William Morris and have been adopted by many nineteenth century glass painters. The origin of this kind of decoration is in the pictorial and decorative arts of the later Middle Ages in Europe, such as painting or tapestry weaving.

J. R. Clayton is known to have made a serious study of historic and contemporary stained glass windows, at the insistence of Sir Gilbert Scott, for the sake of better understanding of the art. Like the majority of 19th century glass painters,
Clayton & Bell succumbed to eclecticism, after a short initial period of considerable originality.

The craftsmanship of their windows at Camden is of a very high standard. The way the glass is cut and the use of the leadlines are an integral part of the design. The network of leadlines in particular is itself a pleasure to contemplate, as it draws rhythmical patterns of varying density, especially in the east window which contains more ornate detail than do the windows with single figure in each light. Line is very important in drawing and modelling; the leadlines are the thickest lines. The shadows are transparent and the greatest part of the glass is left unobscured in any way. The lettering is a part of the crisp style of drawing and pattern work.

The placement of darker figures on pale quarry grounds, as in the chancel windows at Camden and in the two-light window of the aisle (plate 36 b), makes these windows immediately recognisable as English work, because this combination practically never occurs in Australian-made windows.

The statuesque figures and their backgrounds have been consciously planned in every detail, to draw attention to the plane of the glass. Clear outlines, precise drawing, honesty about the leadlines, decorative massing of light and dark tones, simplified cutting of the glass, transparent shadows, modelling no deeper than a shallow relief, the brilliance of the glass preserved - are, in essence,
the qualities which Winston would have admired; even the "defects" associated with lack of complete realism stem from the chief virtue of glass—its translucency. 241

In spite of their perfection of design and craftsmanship, such figural windows appear to have been produced to a well-tried formula, to fit varying dimensions. Even without any proof, a window of three lights, in the clerestory of St Andrew's Cathedral, Sydney, can be identified as Clayton & Bell's of the same period (Cat. B - mid-1870's?), as it is of the same kind. Another rather sterile example is a large four-light transept window at the Church of St Thomas, North Sydney (Cat. B - 1880): small, rather rigid figural compositions on diapered grounds (three rectangular panels per each light) alternate with panels of square quarries. The colouring is based on blue and ruby, with a large proportion of white. The style is a kind of medieval affectation, even without the use of canopies.

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Lettering, canopy style, the drawing of the head and the fine detailing of the Captain Arthur Onslow memorial window (plate 37; Cat. B - 1883- ) are related to the style of earlier Clayton & Bell windows at the same Camden church.

The window contains a considerable proportion of white glass. The colours are clear and intense, the glass sparkles. Black
enamel and yellow stain are used to extend the range of tones. The glare is well controlled. Some very decorative water and timber textures were worked on flashed glass. Everything is finely decorated, especially the Gothic details and the draperies painted on white glass - even the sails are patterned.

The treatment of the main figures has more sculptural substance than that of the earlier windows in the same church and is similar to the 'Dorcas' window at Darlinghurst (plate 38).

The composition is dynamic. A boat with agitated but ordered figures and billowing sails extends over both lights. The composition remains undivided, through horizontal colour distribution and the overlapping of an inner border by the hand and drapery of Christ. It is an interesting study of directions and balance. There is a perfect equilibrium in the base panel. Above it, the directions and the quality of movement gradually change, from almost horizontal, choppy waves, the boat, the moving figures and the billowing sails, to the slightly inclined masts which connect this dramatic composition with the row of six small canopies, which echo the rhythm of the waves and resolve the mounting agitation, at the same time.

The very narrow borders are a means of separating the coloured glass picture from the dark expanse of the wall. A strong sense of decoration has prevented pictorialism.
An 1881-82 Clayton & Bell window in the south transept of St John's Church, Darlinghurst (plate 38), needs better light than it gets during the day, to reveal its true beauty. Its particular merits are an extraordinary use of a large expanse of nacreous white glass and an important visual link between the strong linear rhythms traced by the leadlines which are a complement to the stone traceries.

Arranged in zones across the window, typical of historic Decorated style, it is very much a composition by tonal contrast. The large proportion of pearly white glass admits sufficient light inside, but the figural zone remains somewhat too dark at most times. 242

Dark figures against pale grounds, as well as figural compositions extending across the middle zone, were often used in the William Morris workshop, particularly in the 1860's when Webb was responsible for the final arrangement and the decorative elements; 243 Webb also used medallions to relieve quarry grounds.

The stone tracery of this window is similar but more elaborate than that of the east window at Millers Point (plate 17); both windows incorporate a rose. Clutterbuck used the tracery to display the alternating effects of ruby and blue light, observable under changing natural light conditions. The Darlinghurst traceries stress linear rhythms rather than colour. This window, being larger, although made a little
earlier than the Onslow memorial at Camden (plate 37), has a more complex system of rhythms and directions. From a stable base of circular medallions and the wide zone with figures, the movement accelerates as it rises vertically through canopies with tall pinacles, and culminates in circular and radiating movements of tracery lights, seemingly suspended above. Organic loops drawn by the leadlines enliven the more stable elements in the main part of the window and enhance the circular rhythms in the traceries.

The figures are ordered in groups of several, but a single large, statuesque figure emphasises the centre and imparts monumentality to the whole composition.

The figural compositions in each light are similar in character to traditional fourteenth century work, with their "Gothic trees" and decisive, although sombre, colouring. 244

Intentionally or by accident, this window, with its subdued colouring of the figural zone, does not compete with the east window by Shrigley & Hunt (plate 40) and its fresco-like colouring.

Although the overall design of this south transept window is typical of the Decorated period, its background is a true grisaille, without yellow stain. The white glass consists of warm and cool "whites", giving it a mother-of-pearl effect, which Viollet-le-Duc admired in 13th century grisailles. 245
The leadlines and the rambling pattern (based on oak) are partly independent of each other, but like strands in a fugue they play together. This characteristic also belongs to the Decorated style. This grisaille is like a mosaic made up of large seashells.
3. Ward & Hughes: an 1884 window

The only window by T. Ward and H. Hughes, London, so far identified in Sydney, is in the chancel of St Andrew's Church, Summer Hill (plate 39). A warm, golden colouring is the immediate impression. One could almost be forgiven for mistaking it for the work of Lyon, Cottier & Co., for this reason, and because of the voluminous, Classically-based, colourful figures, the fine style of painting, as well as the absence of architectural Gothic canopies.

The similarities in colouring and the use of tone are: the strong, dark blue-green in backgrounds to figures (compare with plate 90); paler-toned figures against darker-toned backgrounds; warm strong colours, such as dark ruby, emphasised in draperies; fine patterns drawn in brown line and stained yellow; strongly coloured floral medallions over pale grounds of rambling plants - characteristic of the Decorated style for which Lyon, Cottier & Co. artists had a particular liking.

Lyon, Cottier & Co. windows of the same period, the 1880's, are generally superior to the Summer Hill window by Ward & Hughes, in their more unified, free from cramming compositions; more exciting colour juxtapositions; and ornament designed to complement figure work, with carefully coordinated colour, tone, intensity, proportion and detail.
In the 1880's when most major English glass painting firms had firmly settled for conventional architectural canopies, the Ward & Hughes firm was in the minority, using other kinds of ornament for this purpose. There is only a reminder of a Gothic arch, in the Summer Hill window; it has become a scalloped edge for naturalistically treated wild rose bowers which form the canopies. The ornament filling the heads and the bases of the lights is in agreement with the Decorated style openings.

Ward is mentioned in Winston's "Inquiry". Winston had a high regard for him as a glass painter and collector of historic glass. The firm of Ward and Hughes restored damaged historic windows; replacements were "almost indistinguishable from the genuine early-fourteenth-century work".

In 1862, Ward & Hughes had a window on display at the International Exhibition in London. It was designed by Henry Hughes and it received an honourable mention "for general executive merit", but not a medal. This window could have been made just after Lyon had departed for Australia. It throws, therefore, some light on the workshop style as it could have been when Lyon, and probably Cottier as well, were still there.

As John Lamb Lyon left London before the William Morris' production of stained glass windows had properly begun, both the firm of Ward & Hughes and Lyon himself must have been
independently influenced by Pre-Raphaelitism.

The description of the 1862 window by Ward & Hughes, in the illustrated catalogue of the exhibition, reflects some of the prevalent attitudes to glass painting in search of a contemporary style. Waring deplores its "pitiable state" mainly because of the wide-spread imitation of medieval examples, with all their "faults and peculiarities". Among "two or three exceptions" to this tendency, Waring must have included the window by Ward & Hughes. It had practically no medieval vestiges. Waring regretted that out of eight medals awarded to glass painters at this exhibition, seven were given for medieval designs. He remarked that "an incongruous combination of old and modern characteristics" in contemporary glass painting makes it fall "lamentably short of the art of painting as practiced by the best artists of the day."

As Waring did not differentiate the excellence of painting on canvas from that of painting on glass (problem which even Winston was not able to solve completely), he wholeheartedly endorsed a window which had "fully merited" a medal - by G. Bertini from Milan. The window was a painting on glass, and little else; Waring's text suggests that it was not even sufficiently transparent. It was clearly based on Italian Renaissance painting, which Waring liked, instead of being on another historic style - medieval - which Waring detested.
Individual figural compositions in the 1862 window by Ward & Hughes would have passed for good paintings, to a contemporary art critic. In the 1884 Summer Hill window, pictorialism is more controlled and the style has become more decorative and more monumental, although the tendency to crowd and to work on different scales of size remained.

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In spite of many traditional elements, the east window of the Church of St John the Evangelist, Darlinghurst (plate 40), differs from all windows in Sydney in its cool, subdued colouring and large areas of pale glass; it is perhaps the most unified, very large, figural composition extending over more than three lights. It is the only ecclesiastical window by the firm, known to the author of this thesis, anywhere in Australia (Cat. B - 1888.)

White and yellow are in a gentle contrast to cool colours; even the reds are neutralised. This kind of colouring is reminiscent of frescoes. The firm was, no doubt, familiar with European fresco painting, as it carried out restorations on the frescoes of important public buildings, such as the Houses of Parliament, London. The arrangement of the figures, their graded sizes and controlled colour impart the composition with a sense of spaciousness which, however, does not destroy the screen effect and which should also be attributed to the influence of fresco painting, that of Italian Renaissance in particular. Renaissance calm pervades all; the figures are in natural, relaxed poses; directions are balanced. The stronger colours, blue in particular, are massed in a semi-circle, in the main part of the window, so that visual weight and stability are stressed and translucency is preserved by a lighter-toned row of putti across
the base. The putti - realistically rendered figures of small children with wings - are a frequently encountered subject in Italian Renaissance art, particularly in sculpture. Lighter and darker-toned zones alternate, from the base of the window and into the traceries.

Olive branches in trefoils appear to be a borrowing from William Morris, drawn in an even more organic, fluent manner. Morris windows featuring similar leafy branches are in the north transept of St Peter's, Bramley, Yorks., dating from 1875.\textsuperscript{253} (Sewter calls this motif 'willow foliage', but in the Darlinghurst window the motif may be olive, as the leaves are broader.)

The very pale and unobtrusive canopies are of the 14th century style. The window is truly eclectic, yet unified, so that it amounts to what may be a recognisable workshop style of this period. The figural style is identical with that of a colour reproduction of Shrigley & Hunt work dating from about 1890 (location not indicated), in "Decorative Stained Glass" by S. Adam,\textsuperscript{255} as far as this basically one-figure (Madonna and Child) design surrounded by an architectural Gothic frame can be compared with a large composition, spread across five lights, with many figures, each one in a different pose.
When both the above-mentioned windows were made, the firm of Shrigley & Hunt was under the direction of C.F. Turner, "a distinguished stained glass artist", when, "in the first sixty-five years after the take-over of 1870, over five thousand windows were delivered to sites all over the world". The firm carried out restorations of stained glass as well as frescoes. Joseph Shrigley, the last of a line of versatile artists, had died in 1868 and the firm was taken over in 1870, by A.W. Hunt from London. He brought with him "four pioneers of the craft in the provinces..." which "served the firm of Shrigley and Hunt for half a century." The high standard of craftsmanship in the firm's work was, no doubt, due to the seven-year apprenticeship, which the chief artist, C.F. Turner, had undergone from the age of fourteen.  

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The All Saints' Church at Hunters Hill contains two windows from the late years of the William Morris workshop. One of these, the 'Transfiguration' window (plate 41) is made up purely from 1874 cartoons by Edward Burne-Jones while it has been dedicated as late as 1926. The three crouching figures in the original were omitted because of the different proportions of this window.

The most attractive features are the colouring and the cutting of the glass, a method which goes back to the earliest cartoons of Burne-Jones; the method was taken up again in the late 1870's, as a very decorative abstraction filling the backgrounds; it was increasingly used in the 1880's and the 1890's, together with other bold methods of cutting, emphasising medium and technique, while William Morris and Edward Burne-Jones were still alive. After their deaths (in 1896 and 1898 respectively), John Henry Dearle became chief designer and extensively used this method of cutting the glass for the backgrounds.

Continuous horizontal ripples of related blues and greens, cut in exceptionally sparkling glass, suggest continuity of space behind the rather wide mullions. Some of the cutlines and other features in the figures take up this horizontal direction and repeat it throughout the entire composition.
The adjacent window was probably made in the same year or a little later. It contains a figure of a young bishop in the left hand side light, which is static enough to have been designed by Dearle rather than by Burne-Jones. The knightly figure with a portrait face of the young man who was killed at war, is a reinterpretation, in a duller colouring, of a figure from an 1880 window by Burne-Jones. The figure of an old patriarch most probably comes from some other cartoon by Burne-Jones.

The colouring of this second window does not equal the freshness, sparkle and harmony of the 'Transfiguration' window. In the side lights, dark figures are placed against dark, dense foliage backgrounds with flowers; only the centre figure is in a greater tonal contrast. In the rigid figure of the youthful bishop, the cutting of the glass, mainly horizontally, across the folds, is different from the cutlines in the other two figures. On the whole, it is a very unexciting window.

In the 1920's, in his last phase as a designer, Dearle produced many war memorial windows, of which the Hunters Hill windows are a part. They were filled with sentimental and knightly figures, described by Sewter as being "slightly ridiculously, retrospective..." Sewter continues:

No doubt this is indicative of the reasons for the firm's eventual failure; instead of keeping abreast of the developments of twentieth-century art, it
contented itself with an empty continuation of the style of forty years before. Not only were innumerable examples of designs of the 1870s and 1880s still being repeated in the 1920s, but even Dearle's new designs—often adaptations of Burne-Jones'—were still in the mood and spirit of an earlier generation, though weakened and softened in sentiment, and deprived of all passion and drama.264

The style of lettering and decoration of the dedication panels across the bases of both windows is identical. It is worked in thin capitals, in white on black ground. Such lettering appears in the majority of windows made in the Morris workshop in the 1900's.265 It is unobtrusive but dull; it does not contribute anything to the whole appearance of the window.

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English Glass in Sydney Churches: Summary

The oldest English glass in the Sydney area, identified so far, dates from 1851. From this time onwards, English windows represent most stages of revival and development throughout the nineteenth century. Over the period extending to about the end of World War I, the most completely represented firms are John Hardman & Co., Lavers, Barraud & Westlake, and Clayton & Bell.

The influence of Thomas Willement and of Charles Winston was crucial, in the abandoning of the ideals of painting on canvas which had caused the decadence of glass painting. There was a return to, and a revision of, the basic principles of making stained and painted glass windows as a complement to architecture, with a special emphasis on the qualities of the medium - translucency, brilliancy and colour.

Winston made the glass painters acutely aware of the quality of glass, as compared with medieval glass. Some early glass painters, such as Charles Clutterbuck, used an extreme chiaroscuro, in imitation of much thicker medieval glass encrusted with dust and patina. In this way, much translucency and brilliance were lost. In the work of many others, drawing and modelling were somewhat too gentle for the medium, as the artists, the critics and the public were still very strongly
conditioned by the Classical tradition in painting, unable to realise fully that painting on glass must have standards of its own. The medieval practice of bold drawing, where sunlight was left to do the modelling in half-tones, was a principle understood by Viollet-le-Duc,\textsuperscript{266} but rejected by Winston as defective drawing, even caricature.\textsuperscript{267} Tonal weakness in the modelling of faces, when exposed to strong sunlight, was a danger not every nineteenth century glass painter managed to overcome.

The early period which extended into the early 1860's, was the most creative and varied in workshop styles, as evidenced in Sydney. All English windows were made in the mosaic enamel method recommended by Willement and Winston, with leadlines playing an essential part in design and structure. The works of John Hardman & Co. and of Clayton & Bell\textsuperscript{268} were exemplary in this respect.

The most exciting colour experiments belong to the years immediately following the reproduction of medieval colours and tints, although the glass itself still remained very thin.

English glass was most inventive in ornament in the 1850's and the early 1860's.

Very few designs were reproductions of historic glass; these were limited to quarry windows of the 1850's, but were manufactured by an entirely new method. Windows were designed not to imitate medieval designs, but to agree with architecture
which, in church building, was mostly in medieval revival styles. Designs were historically more correct in the earlier years, but windows which were appropriate in character rather than in period authenticity, were made at all times.

The Early Renaissance was the strongest influence in figure work of the earlier years. Preference for the Classical ideal remained, although the influences widened to include other post-Renaissance painting of the European tradition. The sources of ornament remained mostly medieval (Romanesque and Gothic) and sometimes Renaissance. Ornament was the element most closely related to the style of the building, followed by the whole composition; the figural style remained strongly conditioned by the Classical ideals, in medieval revival and Georgian buildings alike.

Immediately after the introduction of "antique" glass in 1863, some windows by Hardman in the east end of St Andrew's Cathedral, Sydney, exhibited an exceptionally effective technique suitable for the improved medium. Translucent stippled shadows were combined with strong line work, not at all related to painting on canvas; silvery white glass was used next to the new range of strong colours. This work shows an understanding of the medium and is adapted to the scale of the windows and to the viewing distance.
Much of the English glass in Sydney may be different in tone and colouring from contemporary examples in England, as in some cases the firms were expressly requested to adopt darker tones and stronger colours. As a result, such glass is often too dark even for Australian light, and is darker than most Sydney-made glass of the nineteenth century.

During the building boom of the 1880's, the demand for church windows increased. At the same time, the earlier ornamental inventiveness was long abandoned and most English-made windows featured very conventional Gothic canopies. A greater variety of ornament design appeared in the Art Nouveau period, without becoming completely original. In other ways, English ecclesiastical glass remained virtually unaffected by developments in the decorative arts and in the mainstreams of painting.

Pictorialism in English glass was kept under control and it seldom approached a degree comparable to that seen in French painted glass, which dates mostly from the 1880's and the 1890's; some of it is pure painting on glass.

The influence of English glass painting on windows produced in Sydney was vital. English glass was imported at least a quarter of a century before the establishment of the first local workshop, in 1863-64. The pioneers of glass painting in Sydney were British-trained. Their staffs included many
British-trained artists and craftsmen; Lyon, Cottier & Co. kept recruiting staff from Britain for about twenty years. A thorough craftsman's training was given to local apprentices.

No ecclesiastical glass from the William Morris workshop, dating from his lifetime, has been found in the Sydney area, but the influence of his ideals and workshop style was particularly strong in the work of Lyon, Cottier & Co. (est. 1873), stronger than in the imported English glass.

Another important English influence was a wide range of printed books, beginning with Charles Winston's "Inquiry" of 1847 (of which the architect E.T. Blacket owned a copy), followed by various other histories and pattern books, owned by glass painters, architects and other interested persons. In the periodical press, opinions and attitudes of art critics from the "old country" were studied with interest, involving controversies between the "gothicists" and those who aimed at a contemporary style.

Nineteenth century English glass painting may have been the slowest pictorial art form to respond to changes affecting all the arts, but it maintained its own distinct standards and character which set it apart from contemporary glass painting produced in other countries. When live contact between the local firms in Sydney and Britain ceased, glass painting in Sydney rapidly declined - with only a few exceptions.
Although the early period of nineteenth century glass painting in Sydney was most creative, most individualistic and promising, the development was held back, not so much by thematic and iconographical limitations of ecclesiastical art, as it was by being bound to historic revival buildings, usually Gothic.