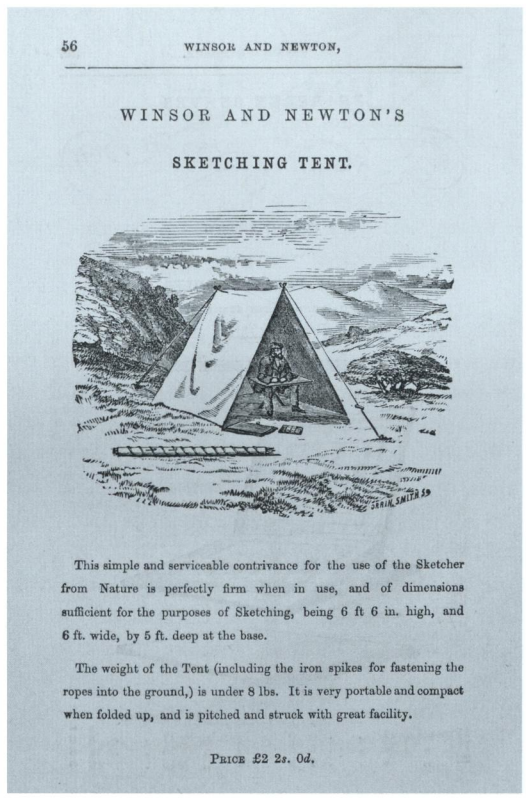
A 'born rebel': Edward Burne-Jones and watercolour painting 1857–80

by FIONA MANN

THE DRAWING AND oil painting techniques and materials used by the original members of the Pre-Raphaelite Brotherhood have been closely analysed in recent years, yet no technical investigations have been made of the work of their friend and associate Edward Burne-Jones (1833–98), an omission which this article aims to redress. Until now, most of our knowledge of the artist's painting techniques has relied primarily on early sources written by his contemporaries. His works exerted a powerful influence on following generations of artists, both in England and abroad, and the story of their creation deserves to be better understood today.

The artist W. Graham Robertson, a young admirer and friend, observed that Burne-Jones's methods were 'very amazing [. . .] Whether working in oil, in watercolour, in pastel or in pure line, he appeared wilfully to ignore the possibilities of his medium and to put it to uses for which it was never intended. In water colour he would take no advantage of its transparency, but load on body colour and paint thickly in gouache'.[1] A 'born rebel',[2] as Burne-Jones himself later confessed, and with little formal training, he developed his own highly original way of painting, paying little attention to conventional distinctions between oil and watercolour techniques. Following only Rossetti's advice to 'have no fear or shame of my own ideas, to design perpetually, to seek no popularity, to be altogether myself',[3] Burne-Jones's continual quest for improvement led him to experiment throughout his career with processes using the latest innovative nineteenth-century art materials. In the Roberson Archive at the Hamilton Kerr Institute near Cambridge, detailed handwritten personal account ledgers list year-by-year all the art materials the artist purchased from the colourman Charles Roberson in London, between 1857 and 1898. They provide a fascinating insight into Burne-Jones's developing watercolour techniques during that period, from his beginnings as an eager but inexperienced young apprentice to Rossetti to his later years as a celebrated and highly creative innovator. This article focuses on Burne-Jones's purchase and use of watercolour materials up to 1880 and identifies major changes in his technique and practice during three main periods: 1857–60; 1861–70 and 1871–80. After 1880 the ledgers reveal his growing preference for the medium of oil, with fewer orders for watercolour materials, as his compositions increased in size and his fame spread.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19. New sketching tent, from Winsor & Newton catalogue of watercolour materials (1858), attached to T. Rowbotham and T.L. Rowbotham Jr: *The Art of Landscape Painting in Water Colours*, London 1858, p.31.

In the early years, however, according to Thomas Rooke, who later became his studio assistant in 1869, it was Burne-Jones's delicate health which affected his choice of medium. 'Oil made him sick so he had to take to water colour'.[4] Between 1857 and 1860 Burne-Jones mainly worked on a small scale, predominantly in pen and ink and watercolour, absorbing many ideas and methods from the guidance of Rossetti. During those years he bought sketchbooks, tracing paper, fine sable brushes, ink and pigments, mainly, it would appear, in powder form,[5] although he also began to experiment with the new ready-prepared moist watercolours in pans, which had first been introduced in 1832 by Winsor & Newton. Moist colours were prepared incorporating glycerine to make the pigment easy to lift

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[1] W. Graham Robertson: *Time Was: The Reminiscences of W. Graham Robertson*, London 1931, p.83.

[2] F. de Lisle: *Burne-Jones*, London 1904, p.177.

[3] G. Burne-Jones: *Memorials of Edward Burne-Jones*, London 1904, I, 1833–67, p.149.

[4] T.M. Rooke: 'Note on Burne-Jones's Medium', in W.S. Taylor, ed.: exh. cat. *Burne-Jones: Catalogue of an exhibition held at the Mappin Art Gallery, Weston Park, Sheffield, from 23rd October to 28th November 1971*, Sheffield (Mappin Art Gallery) 1971, p.8.

[5] While between 1857 and 1860 Burne-Jones bought several hard cakes of watercolour and one or two moist watercolours from Roberson, many of his purchases are simply recorded as 'colors' and priced (eg. 'color 1/6' or 'ex ver 2/–'; 'Mad Car 4/–'). In the absence of a description of form or container, it is thought that they were supplied as 'loose powders either in glass tubes or paper folders' ready for grinding in gum arabic or oil in the artist's studio; see J.H. Townsend, J. Ridge and S. Hackney: *Pre-Raphaelite Painting Techniques*, London 2004, p.42. His purchase in 1869 of a glass muller and slab confirm that he was still preparing some of his colours himself. From 1861 onwards, however, the ledgers increasingly refer to 'moist cols', 'water cols', 'w cols', 'tube water colors', 'tubes moist colors' and 'oil cols', indicating his growing preference for readymade pigments.

20. *Self-portrait caricature in Red Lion Square*, by Edward Burne-Jones. c.1856. Pen and ink on paper, 12.1 by 19.7 cm. (Mark Samuels Lasner collection; on loan to the University of Delaware Library).

with a wet brush, thus eliminating the tedious rubbing and grating required with traditional hard cakes of watercolour. Heralded by colourmen for their ease of application and increased 'depth of tone',[6] they were well suited to the production of Burne-Jones's early small-scale, jewel-like compositions. There is a handful of orders for oil materials, including bladder and oil colours, linseed oil and copal, but it is only from the 1870s onwards that these begin to occur more frequently in the ledgers.

To set himself up for painting outdoors, Burne-Jones was tempted by some of the latest gadgets that had been developed to satisfy the growing Victorian amateur art market, purchasing a japanned palette box, a folding easel and a lightweight deal sketching easel, a huge sketching tent (Fig.19) and a sketching umbrella. In a self-caricature made in his Red Lion Square studio (Fig.20), two sketching easels are visible (one is being used as a clothes-horse) while a life-sized wooden lay-figure basks by the fire. The irony is, however, that Burne-Jones soon discovered his intense dislike for working outdoors, as Georgiana Burne-Jones describes in 1864:

> Edward made one unsuccessful attempt to work out of doors, but he said that first of all the flies came and settled on his drawing, and then rain came and glued them on, so not much resulted. Indeed [. . .] there seemed little reason for him to torment himself by a struggle with the outer world.[7]

These early years were ones of experimentation and learning for the young Burne-Jones and he had much to discover about the working properties of the materials he bought. Alongside traditional pigments, such as yellow madder, red lead, chrome (yellow), dark carmine and Antwerp blue, he purchased expensive, brilliant and permanent newly introduced materials such as the improved Field's vermilion, orange mars and madder carmine, the latter pigment only introduced in 1852. The poisonous Permanent White, made from the mineral barium sulphate and used by many of the Pre-Raphaelites in their early oil paintings,[8] was also initially chosen by Burne-Jones during the late 1850s. As he found out, many of the traditional pigments he ordered were unstable and liable to fading or blackening in watercolour, while a recently introduced colour he purchased at this time, strontium yellow, had a tendency to rapidly turn green.[9] Some of his early watercolours, such as *Clerk Saunders* (Fig.21), *The backgammon players* (Birmingham Museums & Art Gallery) and *Merlin and Nimue* (Victoria and Albert Museum, London), now appear muddy and discoloured, possibly due to the darkening or fading of unstable pigments or the use of experimental mediums. The degree to which the colours have deteriorated since they were first painted may be judged by comparing their current appearance with contemporary descriptions. These speak of their 'simple, bright colours', resembling stained glass; of *Merlin and Nimue*'s 'ineffable and overwhelmingly lovely colour', with a 'cloak of golden yellow lined with scarlet'; and of the 'wonderful harmony of colour' in *Clerk Saunders*.[10] Always highly self-critical, Burne-Jones was later to lament the technical inadequacy of his early watercolours. 'There was such a passion to express in them and so little ability to do it. They were like earnest passionate stammering'.[11]

Like William Holman Hunt and many of his contemporaries, Burne-Jones took very seriously the problem of impermanent or fugitive colours. In 1858 he purchased one of the handbooks published by the respected chemist and colourman George Field. *Chromatography, or A Treatise on Colours and Pigments and their Powers in Painting* was first published in 1835 and in it Field outlined the origins, performance and durability of 308 pigments. It was recommended by Ruskin in his manual *The Elements of Drawing*. In 1850 Field published *Rudiments of the Painter's Art or a Grammar of Colouring*, a copy of which was bought in 1856 by Holman Hunt.[12] Artists' knowledge of the durability of individual colours had been lost with the disappearance of the workshop tradition and the arrival of the colourman, so that in the nineteenth century artists relied on books such as Field's. Philip Burne-Jones later wrote that his father 'never employed a colour about the durability of which chemists had expressed any doubt'.[13] When Rossetti used red lead, which, as a watercolour, was known to blacken with time, Burne-Jones asked: 'Why do you paint with colours that you know are not permanent?', but Rossetti 'had the deepest scorn for the whole of that aspect of it'.[14]

It is clear even from his early watercolours that texture was important for Burne-Jones. One of his followers, Edward Clifford, described the artist's textured application of paint as sometimes being 'scumbled like an impalpable mist', sometimes 'dragged on thick', while his 'finest effects are got by scraping'.[15] Areas of the background in works such as *Clara von Bork* (Tate) and *Clerk Saunders* have been scratched and scraped, in an attempt to produce an impressed pattern on the paper, an unconventional technique that he adopted from Rossetti.[16] There are many orders for metal scrapers in the Roberson ledgers at this time, 'small, double-edged, triangular points set in handles', some designed

[6] George Rowney & Co. catalogue attached to G. Rosenberg: *The Guide to Flower Painting in Water Colours*, London 1852, p.2.
[7] Burne-Jones, *op. cit.* (note 3), I, p.280.
[8] R.D. Harley: *Artists' Pigments 1600–1835: a study in English documentary sources*, London 2001 (2nd rev. ed.), p.175; and Townsend, Ridge and Hackney, *op. cit.* (note 5), pp.46–47.
[9] R.J. Gettens and G.L. Stout: *Painting Materials: A Short Encyclopaedia*, New York 1966, p.160.
[10] E. Clifford: *Broadlands as it Was*, London 1890, pp.51 and 54; and De Lisle, *op. cit.* (note 2), pp.58–59.
[11] M. Lago, ed.: *Burne-Jones Talking: His Conversations 1895–1898 Preserved by his Studio Assistant Thomas Rooke*, London 1982, p.106.
[12] C. Jacobi: *William Holman Hunt: Painter, Painting, Paint*, Manchester and New York 2006, pp.119–23.
[13] P. Burne-Jones: 'Notes on Some Unfinished Works of Sir Edward Burne-Jones, Bt.', *Magazine of Art* 232 (February 1900), p.160.

21. *Clerk Saunders*, by Edward Burne-Jones. 1861. Watercolour and bodycolour, with scratching out, on paper, stuck to another sheet of paper, mounted on canvas and stretched over a four member pine stretcher, 69.9 by 41.8 cm. (Collection and copyright of Tate, London).

22. *The Annunciation*, by Edward Burne-Jones. 1857–61. Watercolour and bodycolour with gum arabic on two sheets of paper, 52.4 by 37.4 cm. (Birmingham Museums & Art Gallery; photograph copyright of Birmingham Museums Trust).

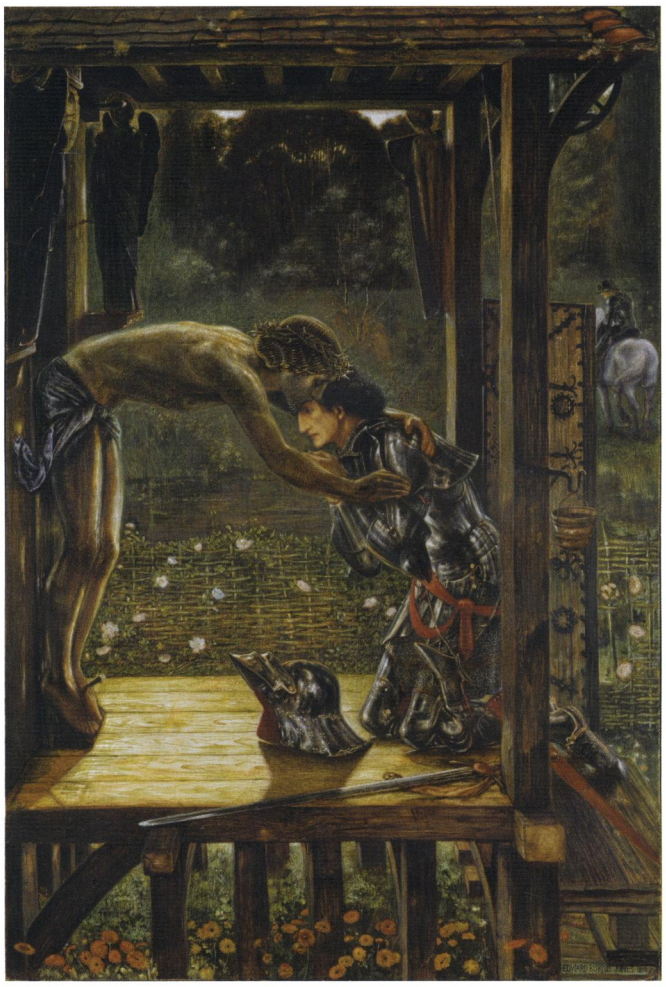
for watercolour and others for illuminating and oil painting.[17] Fairfax Murray, his first studio assistant, describes how, in an early unfinished picture of Eleanor and Fair Rosamund, after painting in the background and draperies with violet carmine, Burne-Jones set about scraping 'until the whole surface of the paper was more or less destroyed for the purpose of painting into'.[18] These textured backgrounds took on the appearance almost of an embroidered or woven surface. 'No surface is left uninteresting', wrote Fortunée de Lisle, 'whether it absorb the light or reflect it, whether it be plain or covered with rich ornament [. . .] there is always about it that subtle quality which pervades all Burne-Jones's work'.[19] During the 1870s Burne-Jones employed even more radical methods to achieve a textured surface in his watercolours.

Such vigorous scratching and scraping was only possible on the strong new hard gelatine-sized wove papers produced by manufacturers such as Whatman from pure linen rag from the late eighteenth century onwards. Many of Burne-Jones's early sketches, such as the Tintoretto study from his second trip to Italy in 1862 (Ashmolean Museum, Oxford), were made on wove paper. He also employed it, stretched over strainers, for finished paintings such as *Fair Rosamund and Queen Eleanor* (Tate), also of 1862. An order of 1876 from Roberson requested six strainers covered with Whatman paper over linen.[20]

Up to 1860 Burne-Jones ordered sketchbooks of half imperial size (20 by 14 ins.), and it was possibly in one of these that he painted his early watercolour *The Annunciation* (Fig.22), later adding a strip of paper along the bottom edge, just as Rossetti did with many of his early watercolours. Burne-Jones initially adopted the Pre-Raphaelite practice of painting the backgrounds first, a method in direct opposition to that taught by the Royal Academy of Arts, London, and one which had its problems. When he encountered difficulties in painting the heads of the figures in *The Annunciation*, rather than start the picture again, he clumsily cut out and removed both heads, then stuck in new patches of paper and repainted them. This practice, again, was one he adopted from Rossetti.[21]

Between 1861 and 1870, Burne-Jones purchased art materials in increasing quantities from Roberson. They reflect his growing

[14] On the discolouring of red lead, see Gettens and Stout, *op. cit.* (note 9), p.153; and Lago, *op. cit.* (note 11), p.47.
[15] Clifford, *op. cit.* (note 10), p.50.
[16] For a transcript of Fairfax Murray's notes on technique, see J.R. Holliday: *Account book of Edward Burne-Jones and Fairfax Murray annotation on technique*, unpublished MS, Birmingham Museums & Art Gallery, inv. no.2006.1330.
[17] M.B. Cohn: exh. cat. *Wash and Gouache: A Study of the Development of the Materials of Watercolor*, Cambridge MA (Fogg Art Museum) 1977, p.47.
[18] Holliday, *op. cit.* (note 16).
[19] De Lisle, *op. cit.* (note 2), pp.171–72.
[20] Cambridge, Hamilton Kerr Institute, Roberson Archive (hereafter cited as Roberson Archive HKI) MS 248–1993, p.178.
[21] F. Mann: 'Rossetti's Watercolours: Materials and Techniques', *The Review of the Pre-Raphaelite Society* 13/3 (Autumn 2005), pp.19–29, esp. p.25.



23. *The merciful knight*, by Edward Burne-Jones. 1863. Watercolour and bodycolour, 100.3 by 69.2 cm. (Birmingham Museums & Art Gallery; photograph copyright of Birmingham Museums Trust).

mastery of the medium of watercolour, gradually cutting loose from Rossetti's influence and taking on studio assistants to help with the production of larger works. This period saw him accepted into the Old Water Colour Society, although he was intensely aware of 'the want of sympathy between us in matters of art' and that they considered his work 'antagonistic'.[22] In 1864, at his first OWCS exhibition, they hung his *Merciful knight* (Fig.23) 'high out of sight behind the door', in 'what they call the naughty boy's corner'.[23] By 1870 he had angrily parted company with the Society. Critical reception of his revolutionary work was frequently hostile: James Dafforne of the *Art Journal* found *The merciful knight* and *The Annunciation* (1862–63; private collection) 'a violence upon what the great masters have taught as beautiful and true and good [. . .] forms such as these are absolutely abhorrent',[24] while Tom Taylor in *The Times* lamented that these works 'would provoke scorn and gnashing of teeth from those who demand masterly drawing and compliance with modern conceptions of beauty and composition'.[25]

Fortunately, Burne-Jones refused to read the reviews and continued to pursue his vision. 'Imagine a set of fellows getting their living by selling their opinions about other men's work', he commented, 'and imagine a set of fools paying them to do it [. . .] I think it's much better to do as I do and never read them'.[26]

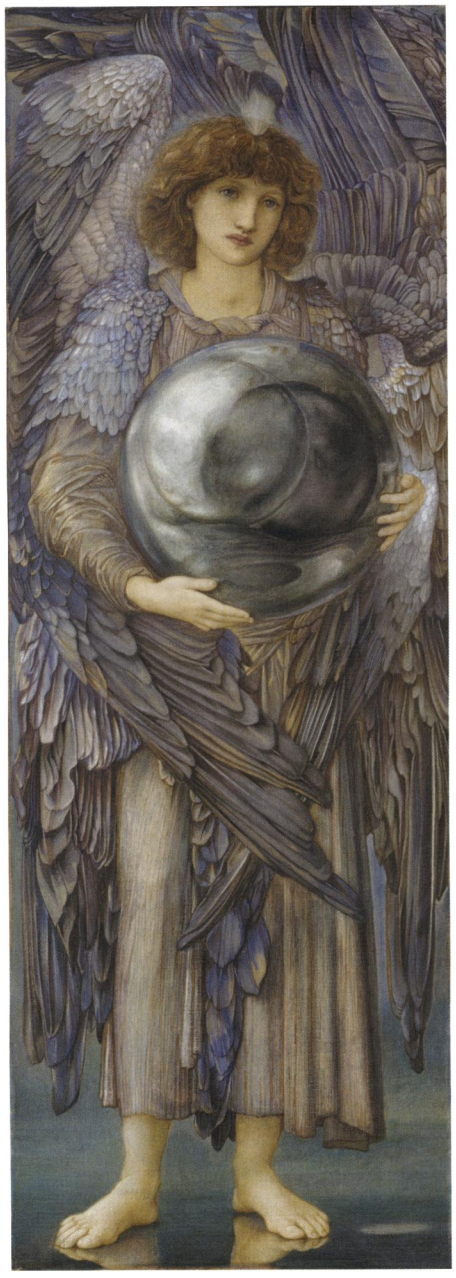
Painfully aware of his lack of skill in drawing, however, he was encouraged by his friend G.F. Watts to improve this aspect of his art, tirelessly sketching details and figures in search of perfection. A second visit to Italy in 1862, funded by Ruskin, gave him the opportunity to observe the techniques and colouring of paintings and frescos in Milan and Venice.

During the 1860s he began to experiment with different supports for his watercolours, as they steadily increased in size, destined for the walls of exhibitions and the homes of important new patrons, such as the Glasgow MP William Graham and the Liverpool shipowner Frederick Leyland. Large designs for stained glass also occupied much of his time. In 1863 Roberson supplied him with an order for extra thick Double Elephant paper, a sheet of which measured 40 by 26¾ ins. Both *The merciful knight* and *The wine of Circe* (private collection) are of these dimensions and date from this period. Two years later, in July 1865, possibly for one of his large stained-glass designs, such as *Caritas* (private collection), Burne-Jones ordered extra thick Antiquarian paper, measuring an enormous 53 by 31 ins., the largest sheet of handmade paper in Europe, which had been developed by Whatman towards the end of the eighteenth century.[27] A type of new nineteenth-century paper he tested was seamless paper, made using a revolutionary flat drying process which eliminated the rope marks of earlier papers. It was first available in 1861 from Winsor & Newton, only four years before Burne-Jones experimented with it, conceivably in his *Chant d'amour* (Museum of Fine Arts, Boston). At that time Whatman's seamless paper was only available in two sizes: Imperial (22 by 30¼ in.) and Double Elephant (40 by 26¾ in.). *Le Chant d'amour* is one of the few watercolours of Imperial dimensions completed by Burne-Jones in 1865.

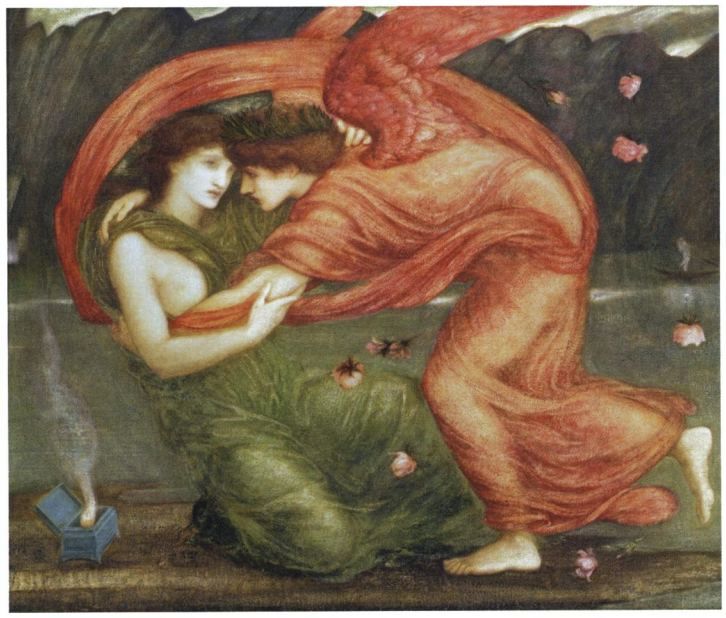
Such large sheets required strong supports to carry the weight and tension of his impressive watercolours, as well as protecting them against damage in transit and at exhibitions. Between 1866 and 1870, Roberson supplied Burne-Jones with numerous orders for vellum, seamless, Antiquarian and brown paper ready strained over linen or canvas onto panelled board. In 1869 he bought no fewer than twenty-seven of these complex supports. Orders from Roberson during 1866 and 1867 for extra thick Imperial paper strained over linen or calico over panelled boards match the dimensions of his *Cupid finding Psyche* (British Museum, London) and *Cupid delivering Psyche* (Higgins Art Gallery, Bedford). Subsequently (for example, for his 1870 watercolour *Night*; Harvard University, Cambridge MA), he turned to paper and canvas stretched over strainers, a much lighter alternative to the wooden panels. A more radical departure for the artist, which he initiated in 1870 with his *Days of Creation* series (Fig.24), was painting in watercolour directly onto canvas. By means of this unconventional technique Burne-Jones gave his pictures the texture of oils, with the weave of the canvas often deliberately being allowed to show through the impasted brushwork.

Working on such a large scale required enormous quantities of paint. The pans of moist colours were tiny and clearly insufficient for such big areas, so in 1865 Burne-Jones took his first order of tubes of watercolour paint. Watercolours in collapsible metal tubes were first introduced in 1842 by Winsor & Newton, who described them as 'particularly adapted for large works, as any quantity of colour can be immediately obtained, thus affording

[22] Burne-Jones, *op. cit.* (note 3), II, 1868–98, p.12.
[23] Lago, *op. cit.* (note 11), p.107.
[24] *Art Journal* (1st June 1864), p.170.
[25] *The Times* (25th April 1864), p.14.
[26] Lago, *op. cit.* (note 11), p.124.
[27] T. Fairbanks Harris and S. Wilcox, eds.: *Papermaking and the Art of Watercolor in Eighteenth-Century Britain: Paul Sandby and the Whatman Paper Mill*, New Haven and London 2006, p.107.



24. *The days of Creation: the first day*, by Edward Burne-Jones. 1870–76. Watercolour, gouache, shell gold and platinum paint on linen-covered panel prepared with zinc white ground, 102.2 by 35.5 cm. (Harvard Art Museums/Fogg Museum, Cambridge MA; bequest of Grenville L. Winthrop 1943.454; photograph copyright of the President and Fellows of Harvard College).



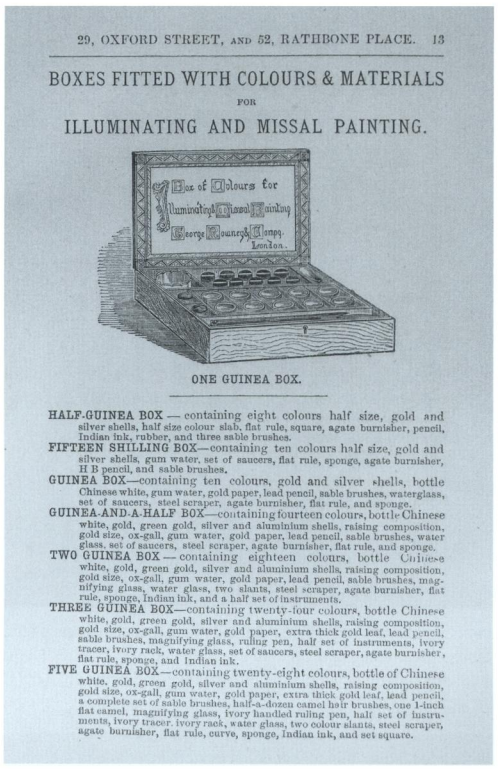
25. *Cupid delivering Psyche*, by Edward Burne-Jones. 1867. Watercolour and bodycolour on paper, 80 by 91.5 cm. (Cecil French Bequest, Hammersmith and Fulham Council, London; photograph Bridgeman Art Library).

26. Detail of Fig.25.

additional facilities for rapidity and increased power; they present a range of pigments which, in brilliancy and similarity of manipulation, much resemble Oil Colours'.[28] Like oils, they offered the opportunity for thick and textured application and, because of their opacity, they also allowed the artist to paint from dark to light and to work on coloured papers or grounds. Burne-Jones seized the opportunity to employ these innovative methods in watercolour, scumbling thick layers of 'very dry powdery' white highlights over layers of strong dark colour, repeating the process until his picture was completed, as illustrated by a detail taken from his 1867 *Cupid delivering Psyche* (Figs.25 and 26).[29] Thomas Rooke confirmed that Burne-Jones ordered 'tubes and cakes by the dozen. [. . .] putting them on with hog-hair bristles made for oils' to create what he called 'a tempera of gum and water',[30] although sables were still used for 'finishing and small works'.[31] Hog brushes, such as those first purchased from Roberson from 1864 onwards, had longer handles than sables, and were stronger and able to survive much rougher manipulation. Other new types of brush were also tried out, from 'sky' brushes, designed for covering large areas with wash, to large 1½ inch flat sables, introduced in the middle of the nineteenth century thanks to the new metal ferrule, now recognised as 'the most significant innovation in brush-making since medieval times'.[32] The revolutionary flat brush produced a different type of brushstroke from the traditional round-section brush and was widely used, for example by the Impressionists.

Burne-Jones continued to experiment with some of the most recently introduced and brilliant pigments, such as extract of vermilion, cobalt blue, violet, madder carmine, the mixed green, oxide of chromium, and the beautiful and durable new greeny blue, ceruleum. These jewel-like colours he bought and used in

[28] Winsor & Newton: *Catalogue of Materials for Water-Colour Painting, and Sketching, Pencil, and Chalk Drawing, &c*, London 1849, p.15.
[29] Holliday, *op. cit.* (note 16).
[30] Rooke, *op. cit.* (note 4).
[31] Holliday, *op. cit.* (note 16).
[32] D. Bomford, J. Kirby, J. Leighton and A. Roy: exh. cat. *Art in the Making: Impressionism*, London (National Gallery) 1990, p.93.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GUINEA-AND-A-HALF BOX—containing fourteen colours, bottle Chinese white, gold, green gold, silver and aluminium shells, raising composition, gold size, ox-gall, gum water, gold paper, lead pencil, sable brushes, water glass, set of saucers, steel scraper, agate burnisher, flat rule, and sponge.
TWO GUINEA BOX — containing eighteen colours, bottle Chinese white, gold, green gold, silver and aluminium shells, raising composition, gold size, ox-gall, gum water, gold paper, lead pencil, sable brushes, magnifying glass, water glass, two slants, steel scraper, agate burnisher, flat rule, sponge, Indian ink, and a half set of instruments.
THREE GUINEA BOX—containing twenty-four colours, bottle Chinese white, gold, green gold, silver and aluminium shells, raising composition, gold size, ox-gall, gum water, gold paper, extra thick gold leaf, lead pencil, sable brushes, magnifying glass, ruling pen, half set of instruments, ivory tracer, ivory rack, water glass, set of saucers, steel scraper, agate burnisher, flat rule, sponge, and Indian ink.
FIVE GUINEA BOX—containing twenty-eight colours, bottle of Chinese white, gold, green gold, silver and aluminium shells, raising composition, gold size, ox-gall, gum water, gold paper, extra thick gold leaf, lead pencil, a complete set of sable brushes, half-a-dozen camel hair brushes, one 1-inch flat camel, magnifying glass, ivory handled ruling pen, half set of instruments, ivory tracer, ivory rack, water glass, two colour slants, steel scraper, agate burnisher, flat rule, curve, sponge, Indian ink, and set square.

27. 'Boxes fitted with colours and materials for illuminating and missal painting', illustrated in George Rowney & Co. catalogue, attached to R.P. Noble: *A Guide to Water Colour Painting*, London 1867, p.13.

conjunction with one of the oldest pigments available, gleaming gold, which had been frequently used in illuminated manuscripts. During the 1860s gold pigment was supplied to Burne-Jones by Roberson as gold powder mixed with gum arabic in porcelain pans, known as 'shell gold'. Gold highlights, halos and lettering were applied in pictures such as *St Theophilus and the angel* (destroyed), *Fair Rosamund* (private collection), *Lucretia* (Birmingham Museums & Art Gallery) and *Maria Zambaco* (Clemens-Sels-Museum, Neuss), in which Maria's hands rest on a highly gilded illuminated manuscript showing, in miniature, the artist's own *Chant d'amour* painting. The revival of interest in the art of illumination from the late 1850s onwards, stimulated by Ruskin among others, had inspired colourmen to publish detailed instruction manuals and to create special ranges of pigments for 'Illuminating and Missal Painting', such as Rowney's handsome box (Fig.27), which contained ten colours, including gold and silver shells, Chinese white and gold paper.

Chinese white, prepared from zinc oxide, was one new nineteenth-century pigment that Burne-Jones ordered in increasingly large quantities from 1862 onwards. In November and December 1869 alone he purchased eighteen tubes from Roberson. This new opaque zinc white introduced in 1834 by Winsor & Newton, initially only as a watercolour, became the subject of intense public debate during the 1850s and 1860s, with many traditionalists labelling it 'illegitimate', and incompatible with the transparent effects of conventional watercolour painting. Technical analyses undertaken by the Tate Gallery of watercolours such as *Clerk Saunders* and *St Dorothy*, painted in 1866 (Fig.28), confirm Burne-Jones's early use of Chinese white underpainting, although he strongly denied it in a letter to Spencer Stanhope in 1883, saying 'I neither paint on wet white, nor get drunk every night, nor do any other of the things that are reported of me'.[33] Fig.28 shows the watercolour following conservation treatment to remove a crust of zinc white underpaint which had erupted through the blue layer above in the child's robe, an effect known as 'efflorescence'.[34] Fairfax Murray noted that when he worked for him, between 1866 and 1868, Burne-Jones applied coloured glazes over his underpainting in watercolour, using a 'dangerous' method, in which 'the colour on the surface could be mixed with the ground by slightly moistening it [. . .] sometimes it was worked up almost as far as the paper often spoiling the brush by breaking and spreading the hairs'.[35] Roberson's records reveal that, even if he did not prime his own paper for watercolour with zinc white, he was supplied in December 1870 with two canvas supports 'prepared with W. C. [water colour] Chinese White', 40 by 14 inches, the same dimensions as his *Days of Creation* panels, with similar orders being noted during 1871 and 1878. Ruskin had recommended mixing Chinese white with other colours for 'bodycolour drawing' in his *Elements of Drawing*[36] and in 1864, among a range of advice, he suggested Burne-Jones restrict the number of colours he used and to brighten his palette, using only 'vermilion and the violet carmine, and the cobalt and smalt, and chinese [*sic*] white, and perhaps a little emerald green, so as not to leave any nasty black and brown things to make me look at'.[37] Certainly Burne-Jones's pictures become much more luminous after this.

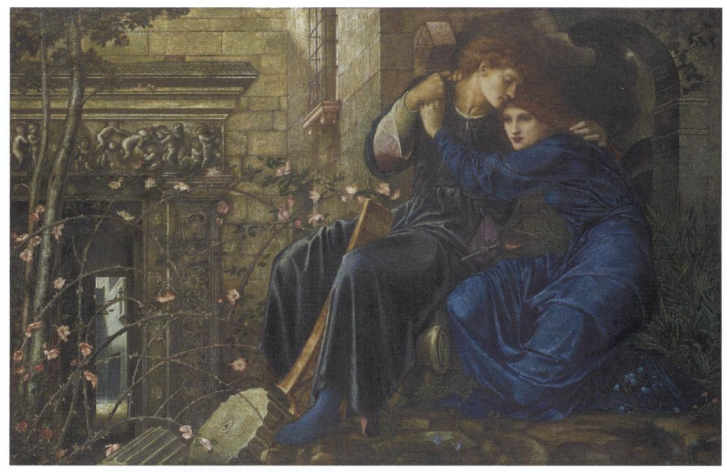
A variety of other recently introduced materials were purchased in the late 1860s, including Faber's pencils, from Germany, high quality Creta Laevis pencils, conté crayons, and Rouget's fixing machine, the very latest French device for applying fixative to pencil, chalk and crayon drawings. The fixative was also claimed to protect 'water-colour drawings, photographs and engravings [. . .] from discoloration – even from damp'.[38] Over the ensuing ten years, large quantities of Rouget's fixative was purchased, possibly for his watercolours as well as his chalk drawings. Watercolour medium or megilp appears in the ledgers for 1863. A new product, invented by Winsor & Newton in 1849 and named after its oil counterpart, watercolour megilp was a gelatinous thickening agent, made from gum tragacanth. Its use was praised in a number of contemporary watercolour painting manuals for its ability to 'prevent the colours flowing' and for allowing the colours to be applied 'pulpily, after the manner of Oil Painting'.[39] Burne-Jones's preference for 'a stiff pigment of the texture of soft cheese which he could liquefy with diluents when it was wanted to run easily', described by Thomas Rooke, would have made this product particularly tempting.[40]

According to notes made by Fairfax Murray, ox gall was applied in 'considerable quantities' in Burne-Jones's early watercolours and orders for it can be found in both the 1861 and 1865 ledgers.[41] It was used mixed with the pigments to 'make them flow freely upon paper which has a greasiness of surface' and was also said to increase the brilliancy and durability of delicate colours.[42]

[33] Lago, *op. cit.* (note 11), p.32; John Roddam Spencer Stanhope's letter to Rooke had asked: 'Does Jones always cover his paper with Chinese white before painting in water colours?'.
[34] For an image of *St Dorothy* prior to conservation, see sale, Bonhams, London, 9th November 2004, lot 105.
[35] Holliday, *op. cit.* (note 16).
[36] J. Ruskin: 'The Elements of Drawing', in E.T. Cook and A. Wedderburn, eds.: *The Works of John Ruskin*, London 1903–12, XV, p.137.
[37] Letter from Ruskin to Burne-Jones, 5th March 1864; *ibid.*, XXXVI, p.468.
[38] *Art Journal* (1st April 1870), p.114.
[39] A. Penley: *A System of Water Colour Painting*, London 1850, p.46; and *idem*: *The English School of Painting in Water Colours*, London 1868, p.29. It was also recommended in W. Duffield: *The Art of Flower Painting*, London 1856, p.14.
[40] Rooke, *op. cit.* (note 4).
[41] Holliday, *op. cit.* (note 16); Roberson Archive HKI MS 104–1993, p.317 (1861); and HKI MS 246–1993, p.115 (1865).
[42] F.W. Fairholt: *A Dictionary of Terms in Art*, London 1854, p.201.
[43] *Art Journal* (1st June 1870), p.173.

28. *St Dorothy*, by Edward Burne-Jones after treatment for efflorescence. c.1866. Watercolour and bodycolour, 94.6 by 38.7 cm. above. (Private collection; Christie's Images, 2005).

The thick impasto achieved by Burne-Jones by means of bodycolour, mediums and tube paints at this time, and his widespread use of gum arabic, which imparted depth to the shadows and a glossy sheen to the surface, led to much confusion among both critics and patrons about whether they were oils rather than watercolours. James Dafforne in the *Art Journal* complained in 1870 that Burne-Jones's 'pigments are opaque with a vengeance; indeed his drawings are literally in tempera, and in substance and surface might almost be mistaken for oils'.[43] Even Ruskin could not tell the difference, proclaiming *The mirror of Venus* (Caloutste Gulbenkian Museum, Lisbon), which was an oil, to be 'Pure water-colour, my lord'.[44] Disaster struck when his beautiful masterpiece *Love among the ruins* (Fig.29), which carried a 'printed warning on the back that it was painted in water-colour and would be injured by the slightest moisture', was assumed to be an oil and was irreparably damaged by the application of egg white in Paris.[45] Burne-Jones did eventually manage to restore it, but was forced to repaint the girl's head, replacing the



29. *Love among the ruins*, by Edward Burne-Jones. 1870–73. Watercolour, bodycolour and gum arabic on paper, extended along the lower edge, 96.5 by 152.4 cm. (Private collection; Christie's Images, 2013).

face of his dark-haired former mistress, Maria Zambaco, with that of a red-haired beauty. This picture has recently reappeared at auction in London, where it sold for a record price.[46] Heavily gummed and textured, with lumps of paint visible on the surface of the paper, this work really does have the appearance of an oil painting, as Comyns Carr observed in the *Pall Mall Gazette*. 'It is all very well to say water-colour, but these thick and loaded vehicles of Mr Jones, this force and body of colour, have a result much more like the richest results of oil painting than like those of any water-colour painting properly so called'.[47]

During the 1870s, freed from the stifling constraints of the OWCS and inspired by his Italian travels, Burne-Jones threw himself into numerous commissions for patrons with renewed creativity and energy, and increasingly into oil painting. Orders for painting materials from Roberson began to rise dramatically. The tide of critical opinion was beginning to turn in his favour and in 1871 the young art critic Sidney Colvin penned a glowing essay on Burne-Jones's watercolours in the volume *English Painters of the Present Day*, while the *Pall Mall Gazette*'s 1873 review of Burne-Jones concluded 'we used to hear much of the shortcomings and little of the genius. It is evident that the day for such criticism must be drawing to a close'.[48]

Working simultaneously in oil and watercolour, Burne-Jones began to develop a method which was very similar in both mediums and highly unorthodox as a result. If he could apply thin washes of paint to his oil compositions, then why not paint thickly in watercolour onto canvas? From 1869 to 1878 Roberson began to supply him with 'white canvas for water color' and 'extra fine canvases prepared w Water Color Chinese White' strained over stretchers.[49] Traditionalists at the OWCS would have been scandalised; even Rossetti had not attempted this.

All the panels of his *Days of Creation*, painted for his patron William Graham and displayed to great acclaim in 1877 at the first Grosvenor Gallery exhibition, were created directly on canvas primed with Chinese white. The Roberson Archive lists orders in

[44] Burne-Jones, *op. cit.* (note 3), II, 1868–98, p.61.

[45] *Ibid.*, p.237. The painting had been sent to Paris to be reproduced by photogravure and it was there that it was 'washed over with white of egg or some such substance'. The intention may have been to protect or brighten the work in this way. Van Gogh applied egg white to his oil paintings at times as a 'traditional, temporary alternative to resin-based varnish that protected the surface of the paint until it was sufficiently dry to varnish. It also enhanced the work's colour saturation'; M. Vellekoop and N. Bakker: *Van Gogh at Work*, New Haven and London 2013, p.73.

[46] Sale, Christie's, London, 11th July 2013, lot 3 (£14,845,875).

[47] *Pall Mall Gazette* (5th March 1873), p.11.

[48] S. Colvin: 'Edward Burne Jones', in J.B. Atkinson, S. Colvin, P.G. Hamerton, W.M. Rossetti and T. Taylor: *English Painters of the Present Day*, London 1871; and *Pall Mall Gazette* (5th March 1873), p.12.

[49] Roberson Archive HKI MS 247–1993, p.96 (1869); and HKI MS 247–1993, p.158 (1870).

30. *The death of Medusa II*, by Edward Burne-Jones. c.1881–82. Watercolour and bodycolour on smooth paper laid on linen canvas on stretcher, 152.5 by 136.5 cm. (Southampton City Art Gallery; photograph Bridgeman Images).

1870 and 1871 for six canvases primed with Chinese white watercolour, the dimensions of which match those of his *Days of Creation* paintings.[50] As a curator has recently commented, in these works, Burne-Jones's purpose seems to have been 'to make watercolour look like anything but itself: the matte surface recalls fresco or tempera; the small brushstrokes and cross-hatching also recall tempera; the fine weave of the linen support shows through like canvas through oil paint'.[51] The texture of the canvas is similarly exploited in other 1870s watercolours such as *The wheel of fortune* (Cecil French Bequest, London Borough of Hammersmith and Fulham) and *The triumph of love* (private collection).

Work on a smaller scale also continued. During the early 1870s Burne-Jones painted a number of jewelled watercolour compositions on vellum, including *The king's wedding* (Clemens-Sels-Museum) and *Sleeping beauty* (Manchester Art Gallery). Painting on vellum was a painstaking and slow procedure, requiring the gradual building up of layers of colour. Roberson's ledgers indicate that they mounted Burne-Jones's own vellum over linen onto panelled boards, the vellum probably having been acquired via William Morris.[52] Burne-Jones purchased a pumice stone in 1874 for smoothing the surface of the vellum.

Following his success in exhibitions, such as those at the Dudley Gallery and the Grosvenor Gallery during the 1870s, Burne-Jones's fame grew fast. Commissions poured in, including one in 1875 from Arthur Balfour for a cycle of paintings based on the Perseus legend, which was to occupy him at intervals, virtually up to his death. According to Philip Burne-Jones, around this time:

> It was my father's almost invariable custom, after he had roughly sketched out the plan of the picture [. . .] to draw out upon brown paper, the same size as the intended canvas, an elaborate scheme in colour for the picture he was about to paint. This preliminary design or cartoon was usually drawn in pastel or watercolour, often a mixture of the two.[53]

While no technical analysis has been made of the Perseus cartoons (Southampton City Art Gallery), it would appear that some, at least, are painted on brown paper. Their five foot dimensions suggest that the works must be on two or three conjoined pieces of paper, as the maximum paper size available at the time was 53 inches. In the unfinished *Death of Medusa II* (Fig.30) large areas of dark brown paper are visible, squared up with white chalk, ready for painting. During 1877 Burne-Jones purchased three strainers covered with 'linen and brown paper' whose dimensions exactly match those of the first three Perseus cartoons.[54]

Between 1871 and 1880 Burne-Jones's orders for moist and tube watercolours were reduced, as he worked increasingly in oils, although he continued to purchase large quantities of Chinese white watercolour in tubes. Pots of ox gall and pints of Rouget's fixing liquid continued to feature in his orders too. Many of the watercolours from this period incorporated gold and/or aluminium, mainly acquired by Burne-Jones in cake form, but also, in 1879, as powder. Aluminium powder was a very recent introduction as an art material at this time, offered only in the boxed sets of specialist illuminating colours such as the one illustrated here (Fig.27) and it was only produced on a large commercial scale after 1886.[55] 'I love to treat my pictures as a goldsmith does his jewels', Burne-Jones once remarked.[56] *The days of Creation*, *The Annunciation* (1876–79), *Maria Zambaco* and *The altar of Hymen* (private collection), all sparkled with gleaming metallic highlights, a decorative effect about as far removed from traditional watercolour painting as was possible. But Burne-Jones's reputation was made: in 1881 he was awarded an honorary doctorate by Oxford University and in 1886 the 'rebel' was re-elected to the Old Watercolour Society.

While much of his work after 1880 was in oils, destined for exhibition at the New Gallery or the Grosvenor and for his enthusiastic patrons, Burne-Jones also continued to paint a number of important commissions in watercolour. Further exploration of the Roberson ledgers after 1880 is now required to throw light on these later works to discover the range of materials and methods he employed in their creation. Burne-Jones has often been accused of being archaistic and immersed in a past world, yet the information revealed by the Roberson Archive to date clearly shows that on a technical level he was very much rooted in the present, a progressive artist whose genius lay in his ability to express his vision through the use of experimental methods and innovative materials.

[50] *Ibid.*, HKI MS 247–1993, p.158 (1870); the ledger lists '2 Extra fine Canvases prep[are]d with W.C. Chinese White strained over reversed prep[are]d Oil canvas on Panel'd Stret[che]r 40 x 14'; and in HKI MS 247–1993, p.379 (June 1871) '4 panel'd boards with prep[are]d canvas reversed and extra fine cloth prep[are]d [with] Chi[nese] White & bound at edges 40 x 14 1/8'.

[51] S. Wolohojian and A. Tahinci, eds.: exh. cat. *A Private Passion: 19th Century Paintings and Drawings from the Grenville L. Winthrop Collection, Harvard University*, New York (Metropolitan Museum of Art) 2003, p.376.

[52] D.B. Elliott: *Charles Fairfax Murray: The Unknown Pre-Raphaelite*, Lewes 2000, p.53, confirms that Morris wrote to Fairfax Murray in 1874 when he was in Rome 'asking him to obtain an estimate of the cost of 100 skins of the finest grade and hardness of vellum from the Vatican, the only source of skins of the size and quality he sought'. The original letter, dated 9th March 1874, is in the Harry Ransom Humanities Research Center, Austin TX.

[53] Burne-Jones, *op. cit.* (note 13), p.159.

[54] Roberson Archive HKI MS 248–1993, p.178.

[55] Gettens and Stout, *op. cit.* (note 9), p.92.

[56] De Lisle, *op. cit.* (note 2), pp.170–71.