

**BRUSHING THE SURFACE: THE PRACTICE AND CRITICAL RECEPTION
OF WATERCOLOUR TECHNIQUES IN ENGLAND 1850-1880**

Volume 1

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Abstract

Twentieth-century art historical research has devoted little attention to the study of watercolour painting techniques and artists' materials. This is especially true of the period following Turner's death, when watercolour is said to have been in decline. Yet the period 1850 to 1880 was a period of intense innovation and experimentation, when watercolour painting finally came to be accepted on an equal footing with its rival, the medium of oil. The expansion of annual exhibitions brought dazzling, highly finished works to the attention of the new middle-class buying public, who eagerly scanned the latest press reviews for news and guidance.

For the first time, I combine unpublished material from sources including nineteenth-century colourmen's archives, conservation records and artists' descendants' collections, with an analysis of contemporary watercolour manuals and art critical writing in the press, to give a picture of the dramatic changes in technique which occurred at this time.

Brilliant new pigments and improved artists' papers and brushes flooded onto the market via a growing network of artists' colourmen. Affordable instruction manuals, aimed at the swelling ranks of amateur artists, were published, their successive editions highlighting the changing character of watercolour practice, in particular the growing use of bodycolour, microscopic detail and new tube pigments. Progressive artists such as John Frederick Lewis, Samuel Palmer, Myles Birket Foster, John William North and Edward Burne-Jones, developed revolutionary ways of incorporating the new artists' materials into their watercolours, often to great commercial success. Exhibition reviews by critics in the growing number of journals often commented loudly on the bright colouring, minute detail, texture and opaque effects produced by their use of the latest pigments, papers and brushes.

The impact made on watercolour painting by improved artists' materials was far-reaching, bringing power and status to a medium which had previously been considered an inferior artform.

Contents
VOLUME 1

Acknowledgements		1
List of illustrations		2
Introduction		14
PART ONE	NEW ARTISTS' MATERIALS	
Chapter 1	Developments in Artists' Materials 1850-1880	28
1.1	Suppliers in London: the rise of the colourmen	28
1.2	New nineteenth-century pigments: 'Fruits of the fecundity of modern chemistry.'	34
1.3	'Paper made by hand of every practicable size, quality of surface, and tint of colour': new developments in papermaking.	39
1.4	From sable quill to 'brights' and 'fans': the watercolour brush	46
1.5	Mediums and fixatives	49
1.6	Portable sketching equipment	52
1.7	Conclusion	52
Chapter 2	'Shilling vade-mecums:' Watercolour manuals and the promotion of new materials	60
2.1	The impact of new pigments	64
2.2	The legitimacy of Chinese White	68
2.3	The 'Paper Question'	70
2.4	Brushes: Quills or new metal ferrules?	73
2.5	Crayons, fixatives and watercolour megilp	75
2.6	Conclusion	77
PART TWO	WATERCOLOUR PRACTICE – FIVE CASE STUDIES	
Chapter 3	John Frederick Lewis 1804-1876: 'The Painter of greatest power, next to Turner, in the English School'	82
3.1	Lewis's early years	83
3.2	'The subject, the manipulation, the peculiar colouring, were alike novel and singular': Lewis's Watercolours After 1850	85
3.3	New pigments supplied by Roberson	89
3.4	Japanned boxes, brushes and gum arabic from Roberson	91
3.5	Paper supports used by Lewis	92
3.6	Lewis's use of Chinese White	94
3.7	Conclusion	96
Chapter 4	Samuel Palmer 1805 – 1881	101
4.1	The early watercolours: 'timidity of execution'	102
4.2	'Sunbeams in a crucible': the impact of new pigments on Palmer's later watercolours	104
4.3	A late adoption of Chinese White	107
4.4	Vehicles, gums, additives and crayons	108
4.5	Palmer's brushes	110
4.6	Palmer's watercolour supports: an 'intermediate between paper and ivory'	111
4.7	Conclusion	113
Chapter 5	Myles Birket Foster 1825-1899	119
5.1	Three sources on Birket Foster's pigments	121
5.2	Foster and Chinese White	125
5.3	Foster's choice of paper and board supports	128
5.4	Brushes, lay figures and gum arabic	130
5.5	Chromolithographs and forgeries	131
5.6	Conclusion	132

Chapter 6	John William North 1842-1924: ‘Painter and Poet’	136
6.1	Beginnings as an illustrator	138
6.2	North’s later technique	142
6.3	North’s use of new pigments	145
6.4	Chinese White	147
6.5	North and the drive for a ‘practically imperishable’ paper	148
6.6	Brushes and other materials	150
6.7	Conclusion	150
Chapter 7	Sir Edward Coley Burne-Jones 1833-1898	154
7.1	Blurring the boundaries: ‘His drawings are literally in tempera, and in substance and surface might almost be mistaken for oil’	156
7.2	1857-1860	158
7.2.1	Watercolours completed	158
7.2.2	Pigments purchased from Roberson	159
7.2.3	Supports and other materials	161
7.3	1861-1865	165
7.3.1	Watercolours completed	165
7.3.2	Pigments purchased from Roberson	167
7.3.3	Supports and other materials	170
7.4	1866-1870	171
7.4.1	Watercolours completed	171
7.4.2	Pigments purchased from Roberson	172
7.4.3	Supports and other materials	175
7.5	1871-1880	178
7.5.1	Watercolours completed	178
7.5.2	Pigments purchased from Roberson	179
7.5.3	Supports and other materials	180
7.6	Conclusion	182
PART THREE	CRITICAL RECEPTION	187
Chapter 8	‘All sorts of unnecessary and unpalatable impertinencies’: Critical responses to watercolour painting, methods and materials 1850-1880	188
8.1	The critics	190
8.2	Anonymity: ‘an inflexible rule for journalists’	191
8.3	Background, training and prejudices	194
8.4	Critical language and professionalism	196
8.5	‘The agencies which endow great colourists with a power that is absolutely without limit’: critical writing on new pigments	198
8.6	‘Every variety of substance and surface, from the smoothness of an ivory tablet to the roughness of a brick and plaster wall’: critical writing on new papers	203
8.7	Critical writing on new fixatives, mediums, brushes and portable equipment	206
8.8	‘It has, indeed, been rather revolution than evolution, and the whole change may be ascribed to the use of opaque white’: critical writing on the use of bodycolour.	208
8.9	‘More stitches than cloth’: critical writing on manipulation	211
8.10	Reviews of watercolour and drawing manuals	217
8.11	Conclusion	222
Conclusion		231
Bibliography	Bibliography	243

Appendices I	Nineteenth-century definitions of terms	254
II	Dates of introduction of new nineteenth-century pigments	261
III	Colours listed in watercolour catalogues 1849-1879	266
IV	Roberson Archive – Materials bought by John Frederick Lewis 1852-1875	270
V	Palmer’s expanding use of pigments between 1830 and 1856	273
VI	Samuel Palmer’s recipe for Blake’s White, 1866	274
VII	Myles Birket Foster’s palette – three sources	275
VIII	J. W. North watercolours 1854-1880	276
IX	Year-by-year analysis of Burne-Jones’s purchases from Roberson 1857-1880	280
X	Art critics of periodicals and papers 1850-1880	293
XI	Some watercolour and drawing manuals reviewed by the <i>Art Journal</i> , the <i>Athenaeum</i> and <i>The Graphic</i>	298

VOLUME 2 Illustrations 1-191

See pages 2-13 for a full listing and sources of the illustrations in vol. 2 of this thesis

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Abbreviations:

Hardie

Hardie, Martin, *Water-colour Painting in Britain*, 3 vols., London, 1966-68.

Harley

Harley, R. D., *Artists' Pigments 1600-1835: a study in English documentary sources*, 2nd revised ed., London, 2001.

Letters

Raymond Lister, (ed), *The Letters of Samuel Palmer*, 2 vols., Oxford, 1974.

L&L

A. H. Palmer, *The Life and Letters of Samuel Palmer*, London, 1892.

Lister

Raymond Lister, *Catalogue Raisonné of the Works of Samuel Palmer*, Cambridge, 1988.

Roget

Roget, John Lewis, *History of the 'Old Water-Colour Society'*, vols. I and II, London, 1891.

Ruskin, *Works* with the volume number:

Ruskin, John, *The Works of John Ruskin* (Library Edition), ed. E.T. Cook and Alexander Wedderburn, 39 vols., London, 1903-12.

SPWC

Society of Painters in Water-Colours (1804-), also known as the Old Water-Colour Society from 1832 and as the Royal Society of Painters in Water-Colours in 1881.

List of Illustrations

Figure 1	An Apothecary's shop, shown in a fifteenth-century Italian manuscript (Christopher de Hamel, <i>Medieval Craftsmen: Scribes and Illuminators</i> , London, 2002, p. 63)
Figure 2	Powdered pigments from ancient times (http://www.winsornewton.com/about-us/our-history/explore-our-museum/pigments-used-since-ancient-times/)
Figure 3	Ackermann's 'Repository' 101 Strand and Fuller's 'At the Temple of Fancy', Rathbone Place, London. (R.D. Harley, <i>Artists' Pigments c.1600-1835</i> , London, 2001, pp 186 and 177)
Figure 4	1850 Map of London, major artists' colourmen's locations. (Cross's New Plan of London http://london1850.com/cross12.htm)
Figure 5	The North London School of Drawing and Modelling, Camden Town, <i>Illustrated London News</i> , 17 th January 1852 (Stuart Macdonald, <i>History and Philosophy of Art Education</i> , 1970, facing page 81)
Figure 6	Embossed hard watercolour cakes (Don Pavey, <i>The Artists' Colourmen's Story</i> , London, 1984, p. 14).
Figure 7	Moist watercolour cakes in pans (W&N 1863 catalogue; Reeves 1862 and 1879 catalogues)
Figure 8	Winsor & Newton's new Chinese White watercolour 1834 (Winsor & Newton <i>Catalogue of Materials for Water-Colour Painting, and Sketching, Pencil, and Chalk Drawing</i> , 1849, p. 14.)
Figure 9	Winsor & Newton's new collapsible tube watercolours (<u>top</u> : D. Pavey, <i>The Artists' Colourmen's Story</i> , London, 1984, p. 19; <u>middle</u> : W&N <i>Catalogue of Materials for Water-Colour Painting, and Sketching, Pencil, and Chalk Drawing</i> , 1849 p. 15 ; <u>bottom</u> : W&N catalogue 1878, attached to Henry Murray, <i>The Art of Painting and Drawing in Coloured Crayons</i> , London, 1878, p. 23)
Figure 10	Reeves & Sons' octagonal cake watercolours (Reeves & Sons 1862 catalogue, p. 8)
Figure 11	Reeves & Sons' Saucer of Moist Water Colour (Reeves & Sons 1862 catalogue, p. 8)
Figure 12	Winsor & Newton's watercolour preparation room and oil-tube filling room at the new North London Colour Works 1844 (Don Pavey, <i>The Artists' Colourmen's Story</i> , London, 1984, p. 29)
Figure 13	Reeves' steam-powered colour works Dalston 1868 (Reeves & Sons, <i>Price List for the Trade Only</i> , London, 1873, facing title page.)
Figure 14	Burne-Jones watercolour, <i>St Dorothea</i> , c. 1866, 94.6 x 38.7 cm (37 ¼ x 15 ¼ in) (top), showing detail of efflorescence (below). Cartoon for stained glass for the east window of All Saints Church, Cambridge. (Photos: Piers Townshend, Conservation Department, Tate Britain, 2009)
Figure 15	Making paper by hand c 1898 (Photograph: Bower Collection, published in Scott Wilcox, <i>Sun, Wind and Rain: the Art of David Cox</i> , New Haven, 2008, p. 98)
Figure 16	Laid (left) and wove (right) papers (Harris and Wilcox, <i>Papermaking and the Art of Watercolor in Eighteenth-Century Britain: Paul Sandby and the Whatman Paper Mill</i> , with essays and contributions by Stephen Daniels, Michael Fuller, and Maureen Green, New Haven and London, 2006, p.79)

Figure 17	Three surfaces of white drawing paper: hot pressed (left), NOT (middle) and rough (right) These papers were made by Barcham Green & Company Limited, Hayle Mill, Maidstone, Kent. The papers have the same composition and are of the same weight but are given a different finishing treatment. (Photograph: Collection of John Krill: published in Harris and Wilcox, <i>Papermaking and the Art of Watercolor</i> , p. 104)
Figure 18	Artists' Drawing Papers sold by Winsor & Newton 1878 (Winsor & Newton price catalogue, attached to Murray, <i>Drawing in Crayons</i> , London, 1878, pp. 36-37)
Figure 19	Flecked blue wove watercolour paper by Bally, Ellen & Steart. Sheet showing <i>Petworth Church from the River</i> , by J.M.W. Turner, 1830, watercolour and bodycolour, 191 x 281 mm (7 ½ x 11 ins.), Turner Bequest, Tate Gallery. (Peter Bower, <i>Turner's Later Papers: A Study of the Manufacture, Selection and Use of his Drawing Papers 1820-1851</i> , London, 1999, p. 67.)
Figure 20	Drying handmade paper over ropes ca. 1906 (Photograph: Bower Collection, published in Scott Wilcox, <i>Sun, Wind and Rain: the Art of David Cox</i> , New Haven, 2008, p. 98)
Figure 21	Drying paper flat on sails in racks ca. 1906 – 'seamless paper' (Photograph: Bower Collection, published in Scott Wilcox, <i>Sun, Wind and Rain: the Art of David Cox</i> , New Haven, 2008, p. 99)
Figure 22	An early papermaking machine possibly from the 1830s. (<i>The Useful Arts and Manufactures of Great Britain</i> (1840), London, p.3)
Figure 23	Winsor & Newton papers 1849 (<i>Catalogue of Materials for Water-Colour Painting, and Sketching, Pencil, and Chalk Drawing</i> , London, pp. 19-20.)
Figure 24	Tails used in brush-making: (left to right) two varieties of squirrel, ermine, red sable. (Photograph: R.D. Harley, "Artists' Brushes – Historical Evidence from the Sixteenth to the Nineteenth Century", <i>International Institute for Conservation Lisbon Congress 1972: Conservation of Paintings and the Graphic Arts</i> , London, 1976, p. 127)
Figure 25	Sables in quills 1849 (Winsor & Newton, <i>Catalogue of Materials for Water-Colour Painting, and Sketching, Pencil, and Chalk Drawing, &c</i> , London, 1849, p. 21)
Figure 26	Red and Brown Sable Brushes 1849 (Winsor & Newton, <i>Catalogue of Materials for Water-Colour Painting, and Sketching, Pencil, and Chalk Drawing, &c</i> , London, 1849, p. 22)
Figure 27	New brush shapes – 'brights', 'riggers', 'fan' brushes and 'extra fine hog hair' brushes, 1863 (Winsor & Newton <i>Catalogue – for Trade only, Brushes for Water and Oil Colour Painting</i> , London, 1863, pp. 86-7.)
Figure 28	Foliage, glass painting and Harding's Stiff Watercolour Brushes, 1863 (Winsor & Newton <i>Catalogue – for Trade only, Brushes for Water and Oil Colour Painting</i> , London, 1863, p. 75)
Figure 29	Winsor & Newton 'Special' hog hair brushes 1863 (Winsor & Newton <i>Catalogue – for Trade only, Brushes for Water and Oil Colour Painting</i> , London, 1863, pp. 88-89)
Figure 30	<i>Punch</i> magazine's portrayal of artists sketching outdoors with a range of portable equipment, 1865 (<i>Punch</i> , August 19, 1865, p. 72.)
Figure 31	Winsor & Newton watercolour manual, c1900, 16 th thousand edition of Charles William Day, <i>The Art of Miniature Painting</i> , first published in 1852.

Figure 32	The introduction of Aureolin, Winsor & Newton, <i>Catalogue – for Trade only, Brushes for Water and Oil Colour Painting</i> , London, 1863, pp. 2-3.
Figure 33	Watercolours in glass gallipots for Illumination and Missal Painting, Winsor & Newton catalogue, attached to Henry Murray, <i>The Art of Painting and Drawing in Coloured Crayons</i> , London, 1878, p. 24.
Figure 34	Illustration of hatching, cross-hatching and stippling, Sydney Trefusis Whiteford, <i>A Guide to Figure Painting in Water-Colours</i> , London, c.1878-80, facing page 24.
Figure 35	Wide Flat Camel Hair Brushes, ½ inch to 4 ½ inches, Reeves and Sons Price Catalogue, London, 1879, p. 58.
Figure 36	John Frederick Lewis, <i>The Hhareem</i> , 1850, watercolour, 88.6 x 133 cm (33 ¾ x 52 ½ in), Private Collection.
Figure 37	Ghirlandaio <i>The Birth of the Virgin</i> , 1485-90, fresco, church of Santa Maria Novella, Florence.
Figure 38	John Frederick Lewis, <i>The Hhareem</i> , c.1850, watercolour and bodycolour, 47 x 67.3 cm (18 ½ x 26 ½ in), Victoria and Albert Museum, London.
Figure 39	John Frederick Lewis, <i>The Noonday Halt</i> , 1853, watercolour and bodycolour reinforced with gum arabic over traces of graphite on smooth finished, very fine quality pure linen paper, mounted with false margins, 40.5 x 56.5 cm (15 7/8 x 22 ¼ in), Syndics of the Fitzwilliam Museum, Cambridge.
Figure 40	John Frederick Lewis, <i>A Frank Encampment in the Desert of Mount Sinai. 1842 – The Convent of St. Catherine in the Distance</i> , 1856, watercolour, gouache and graphite, 66.7 x 135.9 cm (26 ¼ x 53 ½ in), Yale Centre for British Art, Paul Mellon Collection. B1977.14.143
Figure 41	John Frederick Lewis, <i>An Arab Scribe – Cairo</i> , 1852, pencil, watercolour and bodycolour and gum arabic on paper, 47 x 61 cm (18 ½ x 24 in), Private Collection.
Figure 42	John Frederick Lewis, <i>Hhareem Life, Constantinople</i> , 1857, watercolour and bodycolour with gum arabic on conjoined pieces of paper, 62.2 x 47.6 cm (24 ½ x 18 ¾ in), Newcastle-upon-Tyne, Laing Art Gallery.
Figure 43	John Frederick Lewis, <i>The Siesta</i> , c1876, watercolour over bodycolour reinforced with gum arabic over traces of graphite with white heightening on paper, the edges of which are folded round a wooden panel, 46.5 x 59.1 cm (18 3/8 x 23 ¼ in), Syndics of the Fitzwilliam Museum, Cambridge.
Figure 44	John Frederick Lewis, <i>The Siesta</i> , 1876, OIL on canvas, 88.6 x 111.1 cm (34 7/8 x 43 ¾ in), Tate Gallery.
Figure 45	Anonymous artist, <i>Official in a Green Robe</i> , watercolour and bodycolour, c. 1809, 32.3 x 18.6 cm (12 ¾ x 7 ¼ in), Victoria and Albert Museum, London, D.68- 1895. Commissioned by Stratford Canning (1786-1880). Artistic style is described as being in the 'dense and brilliant water and bodycolour used by Ottoman artists'. (http://collections.vam.ac.uk)
Figure 46	John Frederick Lewis, <i>Interior of a School, Cairo</i> , 1865, watercolour and bodycolour on stiff paper, 47.1 x 60 cm (18 ½ x 23 5/8 in), Victoria and Albert Museum, London. (68-1890)
Figure 47	John Frederick Lewis, <i>Hhareem Life, Constantinople</i> , detail

Figure 48	John Frederick Lewis, <i>Life in the Hhareem, Cairo</i> , 1858, watercolour and bodycolour, 61.5 x 49 cm (24 ¼ x 19 ¼ in), Victoria and Albert Museum, London.
Figure 49	John Frederick Lewis, <i>Caged Doves, Cairo</i> , 1864, watercolour and bodycolour, reinforced with gum arabic over traces of graphite on thin card, mounted with false margins, 32.6 x 22.7 cm (12 7/8 x 9 in), Syndics of the Fitzwilliam Museum, Cambridge.
Figure 50	Japanned Palette Box. Reeves and Sons catalogue 1852, attached to <i>Reeves and Sons' amateur' and artists' companion with an almanack for 1852</i> , London, 1852, p. 216.
Figure 51	John Frederick Lewis, <i>A Cairo Bazaar: the Della'l</i> , 1875, watercolour heightened with bodycolour and gum arabic, 67.5 x 51 cm (26 ½ x 20 in), Private Collection (Christies sale, 25 November 2009, lot 14)
Figure 52	John Frederick Lewis, <i>Oriental Interior</i> , 19 th century, graphite, watercolour, bodycolour on paper (light buff), 25.3 x 37.3 cm (10 x 14 ¾ in), The Courtauld Gallery, London.
Figure 53	John Frederick Lewis, details - <i>A Cairo Bazaar: the Della'l</i> (above) and <i>Life in the Hhareem, Cairo</i> (below), showing inscriptions.
Figure 54	John Frederick Lewis, <i>A Suliot warrior</i> , indistinctly signed, inscribed 'Suli[ot] JF Lewis' (lower right, partially overmounted), pencil and watercolour with gum arabic heightened with touches of bodycolour, 35 x 22.2 cm (13¾ x 8¾ in), Christies sale, 5 July 2011, lot 185.
Figure 55	John Frederick Lewis, <i>Interior of a School, Cairo</i> , detail, showing white underpainting.
Figure 56	John Frederick Lewis, <i>The Pipe Bearer</i> , 1859, pencil, watercolour and bodycolour on paper, 38.3 x 21.3 cm (15 x 8 3/8 in), Cecil Higgins Art Gallery.
Figure 57	John Frederick Lewis in oriental costume Undated photograph, Private Collection.
Figure 58	Samuel Palmer, <i>Evening</i> , 1821, brown ink and brown wash, 19 x 26.7 cm (7 ½ x 10 ½ in), Victoria and Albert Museum, London.
Figure 59	J M W Turner, <i>Entrance of the Meuse: Orange-Merchant on the Bar, going to Pieces; Brill Church bearing S.E. by S., Masensluys E. by S.</i> , exhibited 1819, oil on canvas, 175.3 x 246.4 cm (69 x 97 in), Tate Gallery, London.
Figure 60	Samuel Palmer, <i>A Rustic Scene</i> , 1825, brown ink and sepia mixed with gum, 17.9 x 23.5 cm (7 1/8 x 9 3/8 in), Ashmolean Museum, Oxford.
Figure 61	Samuel Palmer, <i>Coming from Evening Church</i> , 1830, mixed media on gesso on paper laid down on panel, 30.5 x 19.7 cm (12 x 7 ¾ in), Tate Gallery, London.
Figure 62	Palmer's expanding use of watercolour pigments between 1830 and 1857, based on (L) <i>Coming from Evening Church</i> , 1830 (analysis in Joyce H. Townsend, <i>William Blake: The Painter at Work</i> , London, 2003, p. 188) and (R) 'Notes taken during the Lessons in Watercolor Painting from Samuel Palmer to Louisa Twining', 1856, Ashmolean Museum, Oxford, pp. 1-2.
Figure 63	Samuel Palmer, <i>Christian Descending into the Valley of Humiliation: Vide 'Pilgrim's Progress'</i> , 1848, watercolour, gouache, black ink, black chalk and gold over faint squaring notations in graphite on off-white lightweight artist's board, 51.9 x 71.4 cm (20 3/8 x 28 1/8 in), Ashmolean Museum, Oxford.

Figure 64	Samuel Palmer, <i>Shady Quiet</i> , 1852, watercolour, bodycolour and gold leaf, 18.7 x 41.2 cm (7 3/8 x 16 1/4 in), Royal Watercolour Soc. London
Figure 65	Samuel Palmer, <i>The Waters Murmuring</i> , c1880, watercolour and bodycolour, 50.8 x 69.8 cm (20 x 27 1/2 in), ING Bank N.V., London Branch.
Figure 66	Samuel Palmer, <i>A Chase in Venezia</i> , 1861, watercolour over pencil with gum arabic heightened with bodycolour on card, 19.5 x 43cm (7 3/4 x 16 7/8 in), Private Collection.
Figure 67	Samuel Palmer, <i>Western Shores</i> , 1879, watercolour and bodycolour, with some pen and ink, on card, 12.7 x 18.9 cm (5 x 7 1/2 in), Victoria and Albert Museum, London.
Figure 68	Samuel Palmer, <i>The Bellman</i> , 1881, watercolour and bodycolour on London board laid down on wood panel, 50.6 x 70.5 cm (19 7/8 x 27 3/4 in), Trustees of the Chatsworth Settlement.
Figure 69	Samuel Palmer, <i>The Eastern Gate</i> , 1881, watercolour and bodycolour, on London board laid down on wood panel, 49.5 x 70.5 cm (19 1/2 x 27 3/4 in), Private Collection.
Figure 70	Samuel Palmer, <i>The Lonely Tower</i> , 1868, watercolour and bodycolour with thick gum in places, 51 x 70.5 cm (20 1/16 x 27 3/4 in), Yale Center for British Art, Paul Mellon Collection, New Haven.
Figure 71	Samuel Palmer, <i>A Towered City or The Haunted Stream</i> , 1868, watercolour and bodycolour with gum on London Board, 51.1 x 70.8 cm (20 1/8 x 27 7/8 in), Rijksmuseum, Amsterdam.
Figure 72	Samuel Palmer, <i>Tityrus Restored to his Patrimony</i> , c.1874, watercolour and bodycolour with touches of gum arabic on card laid down on paper, 50.2 x 69.9 cm (19 3/4 x 27 1/2 in), Birmingham Museums and Art Galleries.
Figure 73	Samuel Palmer, <i>The Prospect</i> , 1881, watercolour and bodycolour on London board, 50 x 70.4 cm (19 3/4 x 27 3/4 in), Ashmolean Museum, Oxford.
Figure 74	Samuel Palmer, Detail of <i>The Prospect</i> , showing the white primed ground left in reserve (Image from W. Vaughan, Elizabeth E. Barker, Colin Harrison, <i>Samuel Palmer: Vision and Landscape</i> , (exh. cat.), London, 2005, p. 40.)
Figure 75	Samuel Palmer, <i>A Dream in the Apennine</i> , 1864, watercolour, bodycolour and glue on four-ply laminate of white watercolour papers, with an initial priming of white, laid on wood 66 x 101.6 cm (26 x 40 in), Tate Gallery, London.
Figure 76	Top: Samuel Palmer, <i>The Waters Murmuring</i> , c.1868, chalk and brown wash, heightened with white, on thick paper, 20.3 x 28.2 cm (8 x 11 in), Victoria and Albert Museum, London. Bottom: Samuel Palmer, <i>The Eastern Gate</i> , May 1879, black chalk, brown and white wash and white highlights, on buff card, 19 x 26.7 cm (7 1/2 x 10 1/2 in), Victoria and Albert Museum, London.
Figure 77	George Richmond – <i>Sambo Palmer</i> , 1825, pencil, 15.5 x 10.8 cm (6 x 4 1/4 in), Victoria and Albert Museum, London.
Figure 78	Samuel Palmer, <i>The Waters Murmuring</i> , c1880 – detail.
Figure 79	Samuel Palmer, <i>The Sleeping Shepherd</i> , c1854, watercolour, bodycolour, gum arabic, brown ink over graphite with scratching-out on off-white wove paper, laid down onto secondary support, 24.5 x 17.8 cm (9 5/8 x 7 in), Fitzwilliam Museum, Cambridge.

Figure 80	Samuel Palmer, <i>A Chase in Venezia</i> , 1861 – detail.
Figure 81	Samuel Palmer, <i>Tintagel Castle; approaching Rain</i> , 1848-49, watercolour, gouache, graphite, black chalk and brown ink on buff wove paper, 30.2 x 44.2 cm (11 7/8 x 17 3/8 in), Ashmolean Museum, Oxford.
Figure 82	Samuel Palmer, <i>Storm and Wreck on the Cornish Coast</i> , c.1858, watercolour, bodycolour, brown wash and black chalk on grey paper, 18.8 x 27.4 cm (7 3/8 x 10 3/4 in), Manchester City Galleries.
Figure 83	Letter from Myles Birket Foster to Robert Spence, 19 February 1860, p.2 City Library, Newcastle-upon-Tyne, SL 920 756 (original image by Sarah Mulligan, City Library).
Figure 84	John Frederick Lewis's <i>The Hhareem</i> hanging over the fireplace in 'The Hill' at Witley, with four small Turner watercolours just above Polly Brown's head, from Jan Reynolds, <i>Birket Foster</i> , London, 1984, p. 90.
Figure 85	Birket Foster's folding watercolour palette, Royal Watercolour Society, London. Below: Figure - Detail of lumps of pigment on the palette.
Figure 86	Winsor and Newton Japanned Tin Boxes of Moist Water Colours in Patent Collapsible Tubes, Winsor and Newton, <i>Trade Catalogue</i> , London, 1863, p. 27.
Figure 87	Mahogany box of cake watercolours from Birket Foster, now in the collection of John Foster, date c1852 to 1858.
Figure 88	Newman's Pricelist in the Birket Foster watercolour box now in the collection of John Foster, c1852-1858.
Figure 89	Reeves & Sons Mahogany watercolour box, 1862 Reeves & Sons, 113 Cheapside, London, price catalogue, 1862, p.14.
Figure 90	Birket Foster, <i>At the Spring</i> , c1863, watercolour and bodycolour, 21 x 17cm (8 1/4 x 6 11/16 in), Private Collection (Bonhams sale, London, 29 September 2010 lot 131.)
Figure 91	Birket Foster, <i>The Little Shepherds</i> , c1863, watercolour heightened with bodycolour, 22.5 x 25.6 cm (8 7/8 x 10 1/16 in), Private Collection, (Bonhams sale, London, 29 September 2010 lot 132.)
Figure 92	Birket Foster, <i>The Little Nurse</i> , exhibited 1862?, watercolour over pencil with bodycolour & touches of gum, 13.3 x 18.6 cm (5 1/4 x 7 3/8 in), sold by Sotheby's 22 November 2007, lot 183.
Figure 93	Birket Foster, <i>Young Gleaners Resting</i> , c1862, watercolour and bodycolour, 30.2 x 45.4 cm (11 7/8 x 17 7/8 in), Victoria and Albert Museum, London.
Figure 94	Birket Foster, <i>The Chair-Mender</i> , c1875, watercolour, 26 x 19.6 cm (10 1/4 x 7 3/4 in), Victoria and Albert Museum, London.
Figure 95	Birket Foster, <i>A Peep at the Hounds: Here they Come!</i> , c1875, watercolour and bodycolour, 22.5 x 35.2 cm (8 7/8 x 13 7/8 in), from Jan Reynolds, <i>Birket Foster</i> , London, 1984, facing page 88.
Figure 96	Birket Foster, <i>A Lace-Maker</i> , c1880-8, watercolour and bodycolour, 46.4 x 41.3 cm (18 1/4 x 16 1/4 in), private collection, (sold by Laurence Oxley, Alresford).
Figure 97	Birket Foster, <i>Ben Nevis</i> , 1891, bodycolour, pencil and watercolour on paper, 117.9 x 78.5 cm (46 3/8 x 30 7/8 in), Laing Art Gallery, Tyne & Wear Museums, Newcastle.

Figure 98	Drawing by Birket Foster onto nine boxwood engraving blocks, c1852, pencil, Chinese white and grey paint, 19 x 24.2 cm (7 ½ x 9 ½ in), City of Bristol Museum and Art Gallery.
Figure 99	Birket Foster, <i>A Cottage near Witley, Surrey</i> , c1861, watercolour over pencil with bodycolour, 22 x 32 cm (8 ¾ x 12 ¾ in), Sotheby's sale, London, 22 November 2007 lot 178, catalogue p. 82.
Figure 100	Birket Foster, c1876, sketch showing bodycolour used to highlight areas and for correction, 13.5 x 17.8 cm (5 1/3 x 7 in), sketchbook P5-1922, Victoria and Albert Museum, London.
Figure 101	Birket Foster, c1876, sketch showing bodycolour used for correction, 13.5 x 17.8 cm (5 1/3 x 7 in), sketchbook P5-1922, Victoria and Albert Museum, London.
Figure 102	Birket Foster, <i>Figures waiting on the shore at Hastings</i> , c1864, signed with monogram and inscribed 'Hastings' (lower left), pencil and watercolour, heightened with white, on buff paper, 29.3 x 55.6 cm (11 ½ x 21 7/8 in), Christies Sale 5617, 30 June 2010, London.
Figure 103	Birket Foster, c1876, sketch of <i>The Donkey that would not go</i> , pencil, ink/black paint and bodycolour, 13.5 x 17.8 cm (5 1/3 x 7 in), sketchbook P5-1922, Victoria and Albert Museum, London.
Figure 104	Birket Foster, <i>The Donkey that would not go</i> , exhibited OWCS 1876, 44.5 x 71.1 cm (17 ½ x 28 in), location unknown, illustrated in Cundall, <i>Birket Foster</i> , London, 1906, p. 166.
Figure 105	Birket Foster, <i>The Harrow</i> , c1860-1865, watercolour and bodycolour, 35 x 85.8 cm (13 ¾ x 33 ¾ in), City of Bristol Museum and Art Gallery Below: Detail showing where the white paint has flaked off the basket and white headscarf to expose the colour underneath.
Figure 106	Birket Foster, <i>The Little Nurse</i> (detail).
Figure 107	Birket Foster, <i>Arrival of the Dover Packet</i> , 12 th May 1866, graphite, chalk, watercolour and bodycolour on blue paper, 17.2 x 8.6 cm (6 ¾ x 3 3/8 in), Fitzwilliam Museum, Cambridge.
Figure 108	Birket Foster, <i>Rottingdean, near Brighton</i> , 1865, watercolour, 34.3 x 71.7 cm (13 ½ x 28 ¼ in), Bury Museum and Art Gallery.
Figure 109	Charles Keene, <i>Birket Foster sketching</i> , illustrated in H.M. Cundall, <i>The Life and Work of Birket Foster</i> , London, 1906, p. 162.
Figure 110	Birket Foster, <i>Fishing</i> , exhibited 1862, watercolour over pencil with bodycolour and gum Arabic, 13.1 x 19 cm (5 3/8 x 7 ½ in), Sotheby's sale, London, 22 November 2007, lot 183, catalogue p. 87.
Figure 111	After Birket Foster, <i>Three Children playing with a toy boat in a pond</i> , Chromolithograph, 13 x 18 cm (5 x 7 in), British Museum.
Figure 112	After Birket Foster, <i>Children Playing on a Woodland Fence</i> , undated, watercolour over pencil heightened with bodycolour and gum Arabic, 27.2 x 41.1 cm (10 ¾ x 16 ¼ in), Sotheby's sale, London, 23 November 2006, lot 265.
Figure 113	Details from (top) copy after Birket Foster <i>Children Playing on a Woodland Fence</i> and (below) genuine Foster, <i>Young Gleaners Resting</i> .
Figure 114	Details from (top) copy after Birket Foster <i>Children Playing on a Woodland Fence</i> and (below) genuine Foster <i>Young Gleaners Resting</i> .

Figure 115	<i>The Home Pond</i> wood engraving of J. W. North's design for <i>A Round of Days</i> , 1866 (illustrated in Paul Goldman, <i>Victorian Illustration</i> , Aldershot and Burlington VT, 2004, p. 181)
Figure 116	<i>Reaping</i> , wood engraving of J. W. North's design by Dalziel for <i>Wayside Posies</i> , 1867 (illustrated in Forrest Reid, <i>Illustrators of the Sixties</i> , London, 1928, opposite p. 164.)
Figure 117	J. W. North, <i>In an Orchard, Devon</i> , 1864, watercolour, 11.6 x 21 cm (4 5/8 x 8 1/4 in), Victoria and Albert Museum, London. P34-1925.
Figure 118	G J Pinwell <i>King Pippin</i> from <i>Wayside Posies</i> (illustrated in Paul Goldman, <i>Victorian Illustration</i> , Aldershot and Burlington VT, 2004, p. 159.)
Figure 119	J. W. North, <i>Halsway Court, North Somerset</i> , c1866, pen/brush and ink and pencil drawing, touched with Chinese white, 11.7 x 17 cm (4 5/8 x 6 11/16 in), Victoria and Albert Museum, London (E.4176-1909). 'The two standing figures in 'Halsway Court' are by G.J. Pinwell'
Figure 120	Frederick Walker, <i>Mushroom Gatherers – their return home</i> , under North's 'great sketching umbrella', 1868, ink sketch (published in J. G. Marks, <i>The Life and Letters of Frederick Walker A.R.A.</i> , London, 1896, p. 148)
Figure 121	J. W. North, <i>The Haystack: Halsway Manor Farm Somerset</i> (also called <i>At Old Court Somerset</i>) 1864, watercolour and bodycolour, 25.7 x 19cm (10 1/8 x 7 1/2 in), signed and dated 'JN/64', Private Collection.
Figure 122	J. W. North, <i>Halsway Court</i> (also sometimes called <i>The Old Bowling Green</i>), 1865, watercolour and bodycolour, 33 x 45 cm (13 x 17 1/2 in), British Museum (AN184418001).
Figure 123	Photographs of Halsway Manor, as it is now called, today, showing major extension to the left of the main entrance (above) and the original part painted by North (below), with the exposed stonework.
Figure 124	J. W. North, <i>Halsway Court</i> 1865 – detail showing dry brushstrokes of thick pigment to indicate plaster surface of the building.
Figure 125	J. W. North, <i>A Young Lover</i> , 1867, watercolour and gouache with graphite and scratching out, 16.8 x 17.8 cm (6 5/8 x 7 in), Yale Center for British Art, Paul Mellon Fund (B1978.16.1).
Figure 126	J. W. North, <i>The Pergola</i> , c1868-72, watercolour, 29.2 x 44.4 cm, (11 1/2 x 17 1/2 in), Private Collection.
Figure 127	J. W. North, <i>A Bit of Southern England</i> , 1868, watercolour and bodycolour, 24.8 x 17.5 cm (9 3/4 x 6 7/8 in), Tate Gallery, London.
Figure 128	J. W. North, <i>May on the Hill</i> , c1871, watercolour and bodycolour, 27.5 x 26.6 cm (10 3/4 in. x 10 1/2 in), Ashmolean Museum, Oxford.
Figure 129	J. W. North, <i>A Gipsy Encampment</i> , 1873, watercolour, 64.1 x 92.7 cm (25 1/4 x 36 1/2 in), Victoria and Albert Museum, London (Ac no.68-1895).
Figure 130	J. W. North, <i>January in Algiers</i> , 1874, watercolour, 66 x 94 cm (26 x 37 in) signed 'J W North, Algiers, 1874', Harris Museum and Art Gallery, Preston.
Figure 131	J. W. North, <i>Imprisonment</i> , 1876-7, watercolour with gum arabic, bodycolour and scratching out, signed 'JWN/1876-7', 65.5 x 94 cm (25 3/4 x 37 in), Christies sale, 3 June 2004, lot 13. Inscription on artist's card on back: 'Mr John William North 119 Church Street, Fitzroy Sq, London, Dar el Ouard Mustapha Superieur Algiers'.

Figure 132	J. W. North, <i>The Return from the Harvest Field</i> , 1880, pencil, watercolour and bodycolour, 30.1 x 44.7 cm (11 3/8 x 17 3/8 in), Whitworth Art Gallery, Manchester.
Figure 133	J. W. North, <i>Raking Hay</i> , 1872, watercolour and bodycolour, inscribed 'J W North/1872', 27 x 20 cm (10 5/8 x 7 7/8 in), Bonhams Sale, 15 June 2010, lot 88.
Figure 134	Colour sample showing the bright green made by combining Aureolin with Ultramarine.
Figure 135	J. W. North, <i>The House of Roses, Tripoli</i> (Algeria, c1874), watercolour over pencil with touches of white, signed with initials, 93.5cm x 65.4cm (26 x 37 in), Sotheby's sale, 13 July 2010, lot 79.
Figure 136	Frederick Walker - Sketch, from J. G. Marks, <i>The Life and Letters of Frederick Walker A.R.A.</i> , London, 1896, p. 56.
Figure 137	J. W. North, <i>A View of East Quantock's Head Farm 1873</i> , watercolour and bodycolour, inscribed 'J W North 1873', 28.2 x 44.9 cm (11 x 17 1/2 in), British Museum (AN313132001).
Figure 138	Prices for swan quill brushes, W&N 1863 catalogue, p. 66.
Figure 139	Edward Burne-Jones, <i>The Goldfish Pool</i> , 1861-2. Watercolour and bodycolour and gum arabic, 28.6 x 21 cm (11 1/4 x 8 1/4 in), Carlisle Art Gallery. Note on back: "E.B. Jones, this is water-colour, so don't varnish it."
Figure 140	Edward Burne-Jones, <i>The Annunciation</i> , 1857-61. Watercolour and bodycolour with gum arabic on two sheets of paper, 37.4 x 52.4 cm (20 1/2 x 14 3/4 in), Birmingham Museum and Art Gallery.
Figure 141	Edward Burne-Jones, <i>The Blessed Damozel</i> , 1856-61. Watercolour, bodycolour, shell gold on paper mounted on canvas, 40 x 20.3 cm (16 x 8 1/8 in), Grenville L. Winthrop Collection, Harvard University.
Figure 142	Edward Burne-Jones, <i>Woman in an Interior</i> , c.1861. Pencil, watercolour bodycolour and gum, with scratching out on a laminate of two pieces of cream NOT wove drawing paper, 22.5 x 31.8 cm (8 7/8 x 12 1/2 in), Tate Gallery, London.
Figure 143	Edward Burne-Jones, <i>Fair Rosamund and Queen Eleanor</i> (unfinished), 1862-3. Pen, ink, watercolour and bodycolour, 35 x 44.5 cm (13 3/4 x 17 1/2 in), Birmingham Museum and Art Gallery.
Figure 144	Edward Burne-Jones, <i>Belle et Blonde et Colorée</i> , 1860. Watercolour and gum arabic on paper (with linseed oil top right), 32 x 15 cm (12 1/2 x 6 in), Private Collection.
Figure 145	Edward Burne-Jones, <i>Sidonia von Bork</i> , 1860. Watercolour, bodycolour and oxgall, on heavy weight watercolour paper on secondary support inscribed '1860 E. Burne-Jones fecit' lower left, 33.3 x 17.1 cm (13 x 6 3/4 in), Tate Gallery, London.
Figure 146	Edward Burne-Jones, <i>Clara von Bork</i> , 1860. Watercolour, bodycolour and oxgall (and gold paint around hair), with scratching out, on thick white paper stuck onto a second sheet of cream, NOT, cartridge-type paper, and stretched over a four member, unkeyed stretcher, inscribed 'E. Jones pinxit 1860' lower left and on mount 'Clara von Bork 1560', 34.2 x 17.9 cm (13 1/4 x 7 in), Tate Gallery, London.
Figure 147	Edward Burne-Jones, <i>The Backgammon Players</i> , 1861-2. Watercolour and bodycolour, on paper laid down on canvas, 22.2 x 35 cm (8 1/4 x 13 7/8 in), Birmingham Museum and Art Gallery

Figure 148	Edward Burne-Jones, <i>The Backgammon Players</i> , 1861. Black chalk with some bodycolour on paper, 60.2 x 102.9 cm (23 ¾ x 40 ½ in), Fitzwilliam Museum, Cambridge.
Figure 149	Sample squares of Yellow Madder paint on spandrel of Ford Madox Brown's <i>Work</i> 1857 (illustrated in Joyce H. Townsend, Jacqueline Ridge and Stephen Hackney, <i>Pre-Raphaelite Painting Techniques</i> , London, 2004, p. 167.)
Figure 150	Sketching Easel. Winsor & Newton catalogue of watercolour materials 1858, attached to the manual by Thomas Rowbotham and Thomas L. Rowbotham Jr., <i>The Art of Landscape Painting in Water Colours</i> , London, 1858 (15 th edition), p. 30.
Figure 151	John Everett Millais, <i>Pre-Raphaelite Sketching Inconveniences in windy weather</i> , 1853. Pen and ink on paper, 22.5 x 20 cm (8 7/8 x 7 ¾ in), Tate Gallery, London.
Figure 152	Sketch by Burne-Jones, showing his studio at Red Lion Square, London, undated, published in Georgiana Burne-Jones, <i>Memorials of Edward Burne-Jones</i> , Vol. I, London, 1904, p. 220.
Figure 153	New Sketching Tent. Winsor & Newton catalogue of watercolour materials 1858, attached to Thomas Rowbotham and Thomas L. Rowbotham Jr., <i>The Art of Landscape Painting in Water Colours</i> , London, 1858 (15 th edition), p. 31.
Figure 154	Solid Sketch Book. Winsor & Newton catalogue of watercolour materials 1858, attached to the manual by Thomas Rowbotham and Thomas L. Rowbotham Jr., <i>The Art of Landscape Painting in Water Colours</i> , London, 1858 (15 th edition), p. 24.
Figure 155	Portecrayon, F. W. Fairholt, <i>A Dictionary of Terms in Art</i> , London, 1854, p. 348.
Figure 156	Metal Scrapers and Erasers. Winsor & Newton catalogue of watercolour materials 1863, London, 1863, p. 151.
Figure 157	Edward Burne-Jones, <i>The Merciful Knight</i> , 1863. Watercolour and bodycolour, 100.3 x 69.2 cm (39 ½ x 27 ¼ in), Birmingham Museum and Art Gallery.
Figure 158	Edward Burne-Jones, <i>The Annunciation</i> , 1862. Watercolour and bodycolour, 61 x 53.5 cm (24 x 21 in), Private Collection.
Figure 159	Edward Burne-Jones, <i>Clerk Saunders</i> , 1861. Watercolour and bodycolour (zinc white), with scratching out, on paper, stuck to another sheet of paper, mounted on canvas and stretched over a four member pine stretcher, 69.9 x 41.8 cm (27 ½ x 16 ½ in), Tate Gallery, London.
Figure 160	Edward Burne-Jones, <i>Merlin and Nimïe</i> , 1861. Watercolour and bodycolour, 64.2 x 52.1 cm (25 ¼ x 20 ½ in), Victoria and Albert Museum, London.
Figure 161	Edward Burne-Jones, <i>Fair Rosamund and Queen Eleanor</i> , 1862. Pen, ink, watercolour, bodycolour and gum, on wove handmade paper, pasted onto another sheet of wove handmade paper and lined with a fine linen canvas (originally mounted onto a stretcher, now missing), 26 x 27.3 cm (10 ¼ x 10 ¾ in), Tate Gallery, London.
Figure 162	Edward Burne-Jones, <i>The Lament</i> , 1865-6. Watercolour with bodycolour on paper, laid down on canvas, 47.5 x 79.5 cm (18 ¼ x 31 ½ in), William Morris Gallery, Walthamstow.

Figure 163	Edward Burne-Jones, <i>Cupid Finding Psyche</i> , 1865. Watercolour, bodycolour and pastel on paper, mounted on linen, 70.3 x 48.3 cm (27 ¾ x 19 in), Yale Center for British Art, New Haven. Carries the label: “This picture being painted in watercolour would be injured by the slightest moisture. Great care must be used whenever it is removed from the Frame. Edward Burne-Jones.”
Figure 164	Edward Burne-Jones, <i>Cupid delivering Psyche</i> , 1867. Watercolour, bodycolour, chalk and oil pastel on paper, 52.1 x 61 cm (21 ¼ x 24 in), Cecil Higgins Art Gallery.
Figure 165	Edward Burne-Jones, <i>Fair Rosamond and Queen Eleanor</i> , 1861. Watercolour and bodycolour, touched with gold, 51 x 38 cm (20 x 15 in), Private Collection.
Figure 166	Edward Burne-Jones, <i>Cupid Finding Psyche</i> , 1866. Watercolour and bodycolour with gum arabic, 66.8 x 47.6 cm (26 ¼ x 18 ¾ in), British Museum.
Figure 167	Edward Burne-Jones, <i>Phyllis and Demophöon</i> , 1870. Watercolour and bodycolour with gold medium and gum arabic on composite layers of paper on canvas, 93.8 x 47.5 cm (36 x 18 in), Birmingham Museum and Art Gallery.
Figure 168	Edward Burne-Jones, <i>The Prioress’s Tale</i> , 1865-98. Watercolour and bodycolour, 112 x 63.5 cm. (40 7/8 x 24 ¾ in.), Delaware Art Museum, Wilmington, USA.
Figure 169	Edward Burne-Jones, <i>The Days of Creation</i> , 1875-76. Watercolour, bodycolour, shell gold and platinum paint, on linen-covered panels prepared with zinc-white ground, six panels, each approx. 102.1 x 36 cm (40 3/16 x 14 1/8 in), <i>Day One, Two, Three, Five and Six</i> Grenville L. Winthrop Collection, Harvard University. [<i>Day Four</i> originally in same collection, but now missing.]
Figure 170	Edward Burne-Jones, <i>Maria Zambaco</i> , 1870. Watercolour and bodycolour, 76.3 x 55 cm (30 x 21 ½ in), Clemens-Sels-Museum, Neuss.
Figure 171	Edward Burne-Jones, <i>Spring</i> , 1869. Watercolour and bodycolour, 122.5 x 45 cm (48 ¼ x 17 ¾ in), Private Collection. <i>Autumn</i> , 1869. Watercolour and bodycolour, 125.5 x 45 cm (49 ½ x 17 ¾ in), Private Collection.
Figure 172	“Colours & Materials for Illuminating and Missal Painting”, illustrated in George Rowney & Co catalogue, attached to R.P. Noble, <i>A Guide to Water Colour Painting</i> , London, 1867, p. 13.
Figure 173	Panelled boards
Figure 174	Strainers/stretchers
Figure 175	Creta Laevis Pencils and Conté crayons, illustrated in George Rowney & Co catalogue, attached to R.P. Noble, <i>A Guide to Water Colour Painting</i> , London, 1867, p. 25.
Figure 176	Article on Rouget’s Fixative – <i>Art Journal</i> , 1 April 1870, p. 114.
Figure 177	Sky Brushes and flat sables – Reeves and Sons Price Cat. 1879, p. 57.
Figure 178	Edward Burne-Jones, <i>The Triumph of Love – Fortune, Fame, Oblivion, Love</i> , 1871. Watercolour with bodycolour, heightened with gold, on canvas laid down on paper, signed, inscribed and dated, ‘painted in water colour, London, 1871. E. Burne-Jones’ upper right on paper mount. <i>Fortune and Love</i> 30.2 x 16.2 cm (11 7/8 x 6 3/8 in); <i>Fame</i> 30.5 x 14.3 cm (12 x 5 5/8 in); <i>Oblivion</i> 30.5 x 13.6 cm (12 x 5 3/8 in), Private Collection. (Christie’s sale 5 June 2008)

Figure 179	Edward Burne-Jones, <i>Venus Epithalamia</i> , 1871. Watercolour, bodycolour, metallic gold paint and varnish on linen prepared with Chinese White, 37.5 x 26.9 cm (14 ¾ x 20 5/8 in), Grenville L. Winthrop Collection, Harvard University.
Figure 180	Edward Burne-Jones, <i>The Triumph of Love</i> detail – <i>Fame</i> , 1871. Watercolour with bodycolour, heightened with gold, on canvas laid down on paper, 30.5 x 14.3 cm (12 x 5 5/8 in), Private Collection.
Figure 181	Edward Burne-Jones, <i>The Call of Perseus</i> , <i>Perseus and the Graiae</i> , <i>Perseus and the Sea Nymphs</i> and <i>The Death of Medusa II</i> , 1875-8, watercolour and bodycolour on smooth paper laid on linen canvas on stretcher, 152.5 x 127 cm (60 x 50 in); 152.5 x 170.5 cm (60 x 67 1/8 in); 152.8 x 126.4 cm (60 x 49 ¾ in); 152.5 x 136.5 cm (60 x 53 ¾ in), Southampton City Art Gallery.
Figure 182	Edward Burne-Jones, <i>Perseus and the Graiae</i> , c1876, watercolour and bodycolour and gold paint on smooth paper laid on linen canvas on stretcher, 152.5 x 170.5 cm (60 x 67 1/8 in), Southampton City Art Gallery.
Figure 183	Edward Burne-Jones, <i>The Death of Medusa II</i> (detail), 1875-8. Watercolour and bodycolour on smooth paper laid on linen canvas on stretcher, 152.5 x 136.5 cm (60 x 53 ¾ in), Southampton City Art Gallery (photographs by Tim Craven, Southampton City Art Gallery).
Figure 184	'The Artist and his Critics', <i>The Graphic</i> , 29 April 1871, p. 311.
Figure 185	Honoré Daumier, <i>The Critics: Visitors to an Artist's Studio</i> , 1866-68, black chalk, pen, watercolour and gouache, 36 x 45 cm (14 ¼ x 17 ¾ in), Montreal, Museum of Fine Arts.
Figure 186	Art Critical Language. <i>Punch</i> , 1 May 1875, p. 192.
Figure 187	Buying attitudes - art as a commodity. <i>Punch</i> , 20 February 1869, p. 70.
Figure 188	<i>Art Journal</i> 'A Dictionary of Terms in Art' - first page of first installment, 1 January 1850, p. 17.
Figure 189	<i>A Dictionary of Terms in Art</i> , edited and illustrated by F.W. Fairholt, London, 1854.
Figure 190	Outdoor sketching with the latest equipment <i>Punch</i> , 19 August 1865, p. 72.
Figure 191	Myles Birket Foster, <i>The Way Down the Cliff</i> , exhibited 1867, watercolour and bodycolour, 21.9 x 34.6 cm (8 5/8 x 13 5/8 in), location unknown (illustrated Cundall, <i>Birket Foster</i> , London, 1906, p. 120)

Note: Underlined dates are my estimation, as the originals are undated.

Introduction

The Art of Painting in Water Colours has attained in this country, so high a state of perfection, as to be undoubtedly placed in successful competition with the time-honoured sister art of oil-painting. This result is due, in no small degree, to the superiority of the materials now in use, in comparison with those of the early school of the art; as well as to a more extensive appreciation of the powers of colour, a better taste, and a bolder manipulation.¹

The preface to the first edition in 1850 of *The Art of Landscape Painting in Water Colours*, one of the one shilling Handbooks on Art series published by the artists' colourmen, Winsor & Newton, celebrates the accomplishments of the medium of watercolour over a period of some one hundred years, and acknowledges the contribution made by improved artists' materials available to the mid-Victorian art market. By 1866 *A Century of Painters of the English School* by Richard and Samuel Redgrave was declaring the 'perfect knowledge and perfect mastery' of Turner in the medium of watercolour, giving him 'the highest place, both for art and execution'.² Turner's widely acknowledged technical virtuosity of the late 1840s, however, has cast a shadow over the work and techniques of those artists who came immediately afterwards. Even today many critical evaluations of British watercolour painting end with or before the year 1850, implying a peak had been reached by that time.³ My thesis shows that 1850 was not the end of an era of innovations in watercolour technique, but rather a time when artists continued in the spirit of exploration and diversification, pushing the boundaries of the medium of watercolour to its extremes.

Over the next thirty years, another generation of highly skilled watercolourists emerged, many from beginnings in the world of book illustration, while ongoing technical improvements in the field of paper and pigments offered new opportunities for experimentation and effect. The watercolour market experienced many changes, not least of which was a growing recognition of the artist's responsibility for the permanence of his works, and for a proper knowledge of his materials, as famously expressed by William Holman Hunt in 1880 in his address to the members of the Royal Society of Arts on "The Present System of Obtaining Materials in Use by Artist Painters, as Compared with that of the Old Masters".⁴ Artists' materials and techniques became the subject of wide press and public debate within a circle of increasingly educated and knowledgeable art critics, although to date there has been little academic material published on assessing the content of such debate about the artist and his techniques. It is for this reason that I intend to focus my thesis on the practice and critical reception of watercolour techniques in England between 1850 and 1880.

There are many reasons why the evaluation of ‘material evidence’ is an important subject for research, as Kirsh and Levenson suggest in *Seeing through Paintings: Physical Examination in Art Historical Studies*.⁵ We may be able to identify which pigments and papers an artist used at different stages of their career, whether they are traditional or new products and the name of their supplier. Knowledge of these materials allows us to relate variants of a painting from different periods and even to identify fakes and copies. We can evaluate the impact of new materials on an artist’s technique and on the size and scale of their work, or the influence of travel, other artists or schools of art upon a painter. By understanding the origins of the materials used, it makes it possible to estimate when an undated painting was created: for example, a watercolour painted using Aureolin would tell us that the earliest possible dating would be 1861, the year that pigment was first introduced. We may establish the degree to which the colouring of a painting has altered over time, whether it has faded or darkened, and if it has been altered or enlarged by the artist, or by others. Much can be learned about the artist, too, from his or her choice of materials and the care taken in their preparation. An understanding of painting methods and techniques is useful for resolving restoration, conservation or art historical issues, but it also, importantly, provides ‘a positive way of advancing the art of painting,’ so that creative artists today can build on this knowledge.⁶

Yet twentieth-century art historians continue to accord such studies secondary importance, thus separating theoretical and historical knowledge from the very objects and creative processes on which they are based. Conservators have expressed ‘a need to recognise the importance of understanding a painting as a physical entity,’ pointing out that ‘for the art historian to ignore the material aspects of paintings is to leave out something of vital importance to the artist.’⁷ It is these ‘material aspects’ which my thesis explores, from their location within the rapidly changing economic and social environment of Victorian Britain, to their role in the creation of innovative works of art, and to their impact on critics and critical writing. Each of these aspects will be treated within three main sections of the thesis, under the following titles: new artists’ materials; watercolour practice; and critical reception.

New Artists’ Materials

The first two chapters of this study analyse the development of new artists’ materials in England and their application in contemporary usage, as recorded in a range of popular watercolour painting manuals.

In Chapter One I explore the changes occurring within the realm of artists' materials between 1850 and 1880, a time of great technological and industrial change. Roget explains in his *History of the 'Old Water-Colour Society'*:

As culture advanced and taste improved, other and higher tasks were set before them, and then they employed new methods and needed and obtained better materials. Thus the history of technical progress...derives a wider interest and higher value from the indication it affords of the progress of national taste.⁸

The most detailed guide to the history of watercolour materials and methods to the present day is Marjorie B. Cohn's 1977 *Wash and Gouache: a Study of the Development of the Materials of Watercolor*. However, it is designed around an exhibition of international, and often modern, works from the Harvard collections in America and its descriptions indiscriminately and confusingly combine French, English and American sources from the late eighteenth to the twentieth centuries.⁹ In his *Water-Colour Painting in Britain*, Martin Hardie's analysis of the development of materials almost universally takes its references from sources which predate the first half of the nineteenth century such as Varley, Gainsborough and Pyne.¹⁰ My work refers to sources from the second half of the nineteenth century.

Other more recent works on nineteenth-century watercolours, which devote brief attention to contemporary techniques and materials, are Christopher Newall's *Victorian Watercolours*, first published in 1987, and Jane Bayard's 1981 *Works of Splendor and Imagination: The Exhibition Watercolor 1770-1870*.¹¹ Newall's study is also useful in referring on occasion to criticisms which appeared in one of the major art periodicals of the time, the *Art Journal*, 'in the belief that this contemporary source conveys a feeling of both the minutiae and of the generality of Victorian art'.¹² On a purely technical level, scientific reference works by Gettens and Stout and Meyer provide comprehensive descriptions and histories of the full range of art materials used in different media over the ages.¹³

Specialists in the field of paper and pigment technology have contributed important studies on their respective subjects, of which the majority, however, choose the mid-nineteenth century as their end point. Much has been written by Peter Bower and John Krill on the development of drawing papers in Britain and their use by specific artists, during the period leading up until 1850.¹⁴ A specific reference to the use of papers by watercolourists can be found in Lyles and Hamlyn's *British Watercolours from the Oppé Collection* of 1997, which devotes a chapter to an analysis of the papers used by

artists in the collection, although the main focus is on works from the eighteenth century.¹⁵ R.D. Harley has contributed a highly respected study on the history of artists' colours in England which, again, takes as its finishing point the early years of the nineteenth century, a shortcoming which she has subsequently rectified in part.¹⁶ Other publications on watercolours in national and private collections in England during the last fifteen years, including works by Parkinson, Gere and Johnson, do not tackle the subject of watercolour materials and techniques at all.¹⁷

The second chapter of my research assesses the role played by watercolour instruction manuals and handbooks in promoting new materials and in documenting changes in artistic practice between 1850 and 1880, a subject little discussed in academic work to date. It has been suggested that growing demand for manuals at this time resulted directly from the establishment of the Society for the Encouragement of Arts and Manufactures in 1754, and the conscious desire to promote the arts in England.¹⁸ By the 1850s watercolour manuals were appearing in increasing numbers, in small format and at affordable prices, targeted by colourman and publisher at the expanding amateur market. The progression of drawing and watercolour manuals from the eighteenth to the mid-nineteenth century is traced in Bicknell and Munro's *Gilpin to Ruskin: Drawing Masters and Their Manuals, 1800-1860*, although the majority of manuals described fall into the first half of the nineteenth century. They observe that 'after 1850 the private teaching of the drawing masters was giving way to teaching carried out in schools and institutions, such as the Victoria and Albert Museum and the National School of Design'.¹⁹

Early nineteenth-century manuals feature more strongly in academic research than those of the second half of that century. Krill and Hardie have both contributed to this field, whilst Cohn also draws on French and American treatises up to the twentieth century.²⁰ On the history of English oil painting manuals, Carlyle has produced an encyclopaedic volume, which affords interesting insights into the comparative materials and processes produced for, and used in, the 'time-honoured sister art of oil-painting'²¹ during the nineteenth century, although its content is predominantly technical.²² Unfortunately, a corresponding work on watercolour manuals does not exist. It is clear, then, that much still remains to be discovered about watercolour treatises from the second half of the nineteenth century, a period of great expansion in this field, as will be seen in Chapter Two. An analysis of the way in which new

nineteenth-century materials and unconventional watercolour techniques are presented in twenty manuals and handbooks forms the basis of this study.

Watercolour Practice – five case studies

The second section of my research looks at the way in which the latest nineteenth-century materials and methods were adopted into contemporary usage, using detailed case studies of the creative processes of five very different and innovative artists. John Frederick Lewis, Samuel Palmer, Myles Birket Foster, John William North and Edward Burne-Jones will each form the subject of a separate chapter. Unpublished and little explored material from the Roberson Archive in Cambridge is used alongside a broad range of biographical accounts, unpublished family records belonging to artists' descendants, exhibition catalogues, conservation records, private letters, and examination of the paintings themselves, to illustrate how these artists created their extraordinary and sometimes controversial paintings.

More has been written about the wider subject of the development and progress of watercolour painting in England than on the technical development of individual artists. Traditionally the development of watercolour painting in England has been portrayed as a well-defined progression over the space of about one hundred years, from the eighteenth-century tinted drawing carried out by the 'humble labourers' described by William Henry Pyne to the technically complex exhibition paintings of the professional watercolourist of the early nineteenth century and the innovative works of Turner.²³ Scott Wilcox documents the beginnings of this progressive approach in his essay, "Looking Backward: Victorian Perspectives on the Romantic Landscape Watercolour", from the first nineteenth-century accounts of Pyne and Richard and Samuel Redgrave, to Roget in 1891, and the historical exhibitions of watercolours mounted in later years, such as that by the Burlington Fine Arts Club in 1871.²⁴ He observes the difference in emphasis placed by the respective authors on the relationship between materials and technique. 'Whereas in Pyne's formulation naturalism was the engine driving developments in watercolour techniques and materials, the Redgraves saw the medium as actually encouraging and enabling a more naturalistic painting'.²⁵ This interdependence between new materials and the creative process is also recognised in Stainton's 1991 exhibition catalogue for the British Museum, *Nature Into Art: English Landscape Watercolours*, although little is said about techniques as such. 'Technical advances may have made possible new attitudes to landscape painting, and a new naturalism, but they cannot be said to have caused

them. The two developments went hand in hand'.²⁶ Wilton and Lyles's 1993 exhibition catalogue entitled *The Great Age of British Watercolours 1750-1880* carries the development of watercolour further into the nineteenth century and acknowledges the 'later flowering in the second half of the nineteenth century' of the watercolour school, in the work of Palmer and in the 'sheer opulence' of the watercolours of Alfred William Hunt, Goodwin, Boyce and North.²⁷ However, there is little in the way of detail on techniques or critical reception, both areas on which I will be focussing attention in my thesis.

In *The Emergence of the Professional Watercolourist: Contentions and Alliances in the Artistic Domain, 1760-1824*, published in 2002, Smith questions the traditionally accepted portrayal of a perfectly linear progression in watercolour painting. He argues that the progressive theory was one initially cultivated by the Society of Painters in Water Colours in order to emphasise the degree of technical excellence achieved by contemporary watercolourists and for reasons of commercial profit, involving the interests of 'patrons and publishers, professional artists and their spokesmen in the Press'.²⁸ Not only were stained drawings still being produced in the nineteenth century, he maintains, but watercolour paintings had been framed and exhibited as early as the 1760s, among them works in bodycolour by Goupy and Paul Sandby.²⁹ In a recently published book on Samuel Palmer, Smith further describes the way in which, in the 1830s, watercolour practitioners were supported 'by a variety of commercial interests, including print publishers, the sellers of art materials and dealers, all centred on London'.³⁰ Smith's social historical perspective attempts to fill in what he sees as the gaps left by traditional connoisseurship methods. My study will continue some of his themes into the period which follows, some twenty-five years later.

Amongst nineteenth-century writers, Roget displays considerable knowledge of and interest in the techniques of the artists he describes, including Lewis and Palmer, and a keen awareness of the impact of the changing regulations of the Old Watercolour Society on their output in the medium.³¹ Still more important, however, are works such as *A Century of Painters of the English School* of 1866 and *A Descriptive Catalogue of the Historical Collection of Water-Colour Paintings in the South Kensington Museum* of 1877, by the artists Richard and Samuel Redgrave.³² Their volumes contain important and technically informed descriptions of the development of watercolour methods and materials during the nineteenth century, together with serious discussions concerning the preservation of paintings. The Redgraves' involvement with the South

Kensington Museum and their friendship with progressive artists such as Samuel Palmer enabled them to embrace the more radical aspects of nineteenth-century art such as Pre-Raphaelitism and the use of bodycolour with understanding and balance.

Of twentieth-century works which explore individual artists in some technical detail, the most important, Martin Hardie's comprehensive *Water-Colour Painting in Britain*, is now forty years old and somewhat dated.³³ Although it contains much technical understanding of physical painting processes, it completely omits a number of innovatory artists such as John Brett and J. W. Inchbold and only fleetingly refers to others such as A. W. Hunt and Edward Burne-Jones. Greathead and Shelley have written informative, if short, chapters on Palmer in the 2005 exhibition catalogue,³⁴ while other catalogues have focussed on aspects of the work of Burne-Jones and Lewis.³⁵ Wilcox and Newall's *Victorian Landscape Watercolors*³⁶ and monographs on artists by, amongst others, Cundall, Lewis and Reynolds (now very dated)³⁷ provide some commentary on technique. Important nineteenth-century sources for my case studies include journal articles;³⁸ the correspondence of Birket Foster, Frederick Lewis and Samuel Palmer;³⁹ contemporary memoirs and autobiographies by J.G. Marks and Georgiana Burne-Jones;⁴⁰ and archival material from the Royal Watercolour Society in London, the Ashmolean Museum, and from family descendants of Foster and North.⁴¹ No exhibition catalogues exist at all for North and only a number of small regional ones have been found for Foster, a clear sign of twentieth-century academic neglect of both artists. My work provides important new insights into the watercolour output of not only Foster and North, but also Lewis, Palmer and Burne-Jones, whose mid-nineteenth-century watercolours have been little studied.

In recent years the importance of the study of the history of painting techniques has been increasingly recognised, as evidenced by the success of the National Gallery's series of *Art in the Making* exhibitions, involving the collaboration of conservators, scientists and art historians; by the continuing publication of the same gallery's Technical Bulletin since 1977; and by the growing range of recent Tate publications on painting techniques, in particular studies by Townsend on *Turner's Painting Techniques*; *William Blake: The Painter at Work*; and *Pre-Raphaelite Painting Techniques*.⁴² The emphasis, however, has been on oil painting, or on watercolours which predate 1850. In Carol Jacobi's 2006 work on Holman Hunt, she regrets the fact that 'technical analysis tends to be the province of texts on painting conservation, conservation records, or painting manuals,' rather than of art historical treatments and

chooses to devote considerable attention to the artist's relationship with his materials, particularly those used for oil painting.⁴³ Indeed there is a wealth of publications available generally on oil painting materials and techniques throughout the nineteenth century and beyond, and these only serve to accentuate the scarcity of material that exists, in comparison, on the medium of watercolour.⁴⁴ It would seem then that the domination of the medium of oil, so fiercely resented and challenged by watercolourists in the early and mid-Victorian era, continues into the twentieth century in the realms of both art criticism and technical analysis. More deserves to be done to understand the connection between the watercolour artist and his working methods. After all, that is what the watercolourists of the age fought for – 'a fairer ground of appreciation', as the catalogue of first exhibition of the Society of Painters in Water Colours stated in 1805.⁴⁵

Critical Reception

The final chapter of my thesis evaluates critical writing in the press on watercolour techniques and new materials, a subject not widely treated in academic studies to date. The role of the art critic between 1850 and 1880 was becoming increasingly important, due to the steady rise in the number of London and provincial exhibitions, which all needed reviewing. Reductions in taxation on paper and newspapers had led to an increase in the number of newspapers and magazines, which were eagerly purchased by a growing reading public, 'which by the second half of the century already included many members of the working class.'⁴⁶ Painting 'was acquiring far larger audiences than ever before.'⁴⁷ Art critical writing on watercolour painting during this period provides a rich resource for art historians, which, however, has yet to be fully explored.

In her 1991 publication, *Constable and the Critics 1802-1837*, Judy Crosby Ivy regrets that 'analysis of the public arena represented by the periodical press in pre-Victorian England, at least in the realm of art criticism, is still in its early stages'.⁴⁸ That this is also true for the later nineteenth century is confirmed by Elizabeth Prettejohn in her 1997 article, "Aesthetic Value and the Professionalisation of Victorian Art Criticism 1837-78", in which she notes the 'calls for a more nuanced and historical attention to Victorian art criticism', an area in which research has 'lagged behind that into French art criticism, for which comprehensive bibliographies and general studies are now available'.⁴⁹ Whilst her article is interesting in its discussion of the development of the role of art critics from anonymous generalists prior to 1850 to well-informed

professional specialists thereafter, it does not relate specifically to the art of watercolour painting.

Short studies have only appeared on subjects such as those relating to the press and the Royal Academy⁵⁰ and to the reception of the 'Burne-Jones Circle' at the Grosvenor.⁵¹ Houghton's *Wellesley Index to Victorian Periodicals* crucially identifies the anonymous authors of articles within forty-five major titles between 1824 and 1900, although it only indexes monthly and quarterly publications, such as *Blackwood's Edinburgh Magazine*, and omits all daily and weekly papers and magazines. The *Victorian Periodicals Review*, established in 1968 as the *Victorian Periodicals Newsletter*, has published a number of articles providing useful analyses of the work of individual critics, such as Oliphant and Rossetti,⁵² and checklists of critics and of lesser known art periodicals,⁵³ but many do not relate to the period 1850-1880. Furthermore, they do not specifically treat the reception of watercolours or of art journalism outside of exhibition reviews. Background historical and biographical information on individual editors, journals, and the nineteenth-century press is provided by Marchand, Robertson Scott and Herd, but these do not refer to art critical writing specifically.⁵⁴

My research responds to the calls for attention to Victorian art criticism mentioned above. It analyses, within eight influential daily, weekly and monthly titles, as well as Ruskin's *Academy Notes*, critical reviews on the watercolour exhibitions, noting reactions to the techniques of Lewis, Palmer, Foster, North and Burne-Jones and to changing watercolour practice in general. Factual scientific articles on the subject of artists' materials are also identified and examined for the first time, showing the breadth of journalistic writing during this period. The anonymity, training, style of writing and growing professionalization of critics are all issues which are explored.

Conclusion

It is clear that much can be learned from an investigation into new artists' materials and watercolour techniques during the period 1850-1880. We can understand not only the relationship between the artist and his or her materials, but also the wider relationship between manufacturing and the arts in Victorian England, and between artist and critic. The post-Turner period was undeniably one of enormous energy and progress, and one which presents great scope for academic study. The following chapters provide an exciting opportunity to explore some of the ways in which new

artists' materials so dramatically changed the medium of watercolour painting in mid-nineteenth-century England.

¹ Thomas Rowbotham and Thomas L Rowbotham, *The Art of Landscape Painting in Water Colours*, London, 1850, p.iii.

² Richard and Samuel Redgrave, *A Century of Painters of the English School*, London, 1890 (first published 1866), Vol. 1, pp. 146-147.

³ Andrew Wilton, *British Watercolours 1750 to 1850*, Oxford, 1977; David Blayney Brown, "Original Eyes: Progressive Vision in British Watercolour 1750-1850", *Original Eyes*, exhibition catalogue, London, 1991; Kim Sloan, 'A Noble Art': *Amateur Artists and Drawing Masters c.1600-1800*, London, 2000; Greg Smith, *The Emergence of the Professional Watercolourist: Contentions and Alliances in the Artistic Domain, 1760-1824*, Aldershot, 2002; Anne Lyles and Robin Hamlyn, *British Watercolours from the Oppé Collection*, London, 1997.

⁴ William Holman Hunt, address to the Royal Society of Arts published as "The Present System of Obtaining Materials in Use by Artist Painters, as Compared with that of the old Masters", *Journal of the Society of Arts*, April 23, 1880, p. 492. Carol Jacobi, *William Holman Hunt: Painter, Painting, Paint*, Manchester and New York, 2006, p. 119, notes that this was reprinted in the *Architect* in 1880 and summarized in William Holman Hunt, *Pre-Raphaelitism and the Pre-Raphaelite Brotherhood*, 2 vols., London, 1905.

⁵ Andrea Kirsh and Rustin S Levenson, *Seeing through Paintings: Physical Examination in Art Historical Studies (Materials and Meaning in the Fine Arts)*, New Haven and London, 2000, p. 2.

⁶ Stephen Hackney (ed), *Completing the Picture: Materials and Techniques of Twenty-Six Paintings in the Tate Gallery*, London, 1982, p. 10.

⁷ Leslie Carlyle, "Design, Technique and Execution: the Dichotomy between Theory and Craft in Nineteenth-century British Instruction Manuals on Oil Painting", E.Hermens (ed.), *Looking Through Paintings*, Baarn and London, 1998, pp. 23 and 26.

⁸ Roget, Vol. 1, p. 6. On the subject of regulations, he notes, on p. 68, Cattermole's decision to retire from the Society in 1851 in part due to his opposition to their insistence on heavy gold frames, which he felt did not suit his work.

⁹ Marjorie B. Cohn, *Wash and Gouache: A Study of the Development of the Materials of Watercolor*, exh. cat., Cambridge, Mass., 1977.

¹⁰ Hardie, Vol. I, pp. 10-40.

¹¹ Christopher Newall, *Victorian Watercolours*, London and New York, 1987; Jane Bayard, *Works of Splendor and Imagination: The Exhibition Watercolor 1770-1870*, exh. cat., New Haven, 1981.

¹² Newall, *Victorian Watercolours*, p. 140.

¹³ Rutherford J. Gettens, and George L. Stout, *Painting Materials: A Short Encyclopaedia*, New York, 1966; Ralph Meyer, *The Artists' Handbook of Materials & Techniques*, New York and London, 1970.

¹⁴ Peter Bower, "Blues and Browns and Drabs: The Evolution of Colored Papers", in Harriet K. Stratis and Britt Salvesen (eds.), *The Broad Spectrum: studies in the materials, techniques, and conservation of color on paper*, London, 2002, pp. 42-48; Peter Bower, "The Evolution and Development of Drawing Papers and the effect of this development on Watercolour Artists, 1750-1850", *The Oxford Papers* (Studies in British Paper History, vol. 1), 1996, pp. 61-74; Peter Bower, *Turner's Papers: A Study of the Manufacture, Selection and Use of his Drawing Papers 1787-1820*, London, 1990; Peter Bower, *Turner's Later Papers: A Study of the Manufacture, Selection and Use of his Drawing Papers 1820-1851*, London, 1999.

John Krill, *English Artists' Paper: Renaissance to Regency*, New Castle, Delaware, 2001.

¹⁵ Peter Bower, "'Displaying the Colours to Advantage': The Papers used in the Oppé Collection," in Lyles and Hamlyn, *Oppé Collection*, pp. 32-37.

¹⁶ Harley; R.D. Harley, "Some New Water Colours in the Nineteenth Century," *The Conservator*, No. 11, London, 1987, pp. 46-50.

¹⁷ Ronald Parkinson, *British Watercolours at the Victoria and Albert Museum*, London, 1998; J. A. Gere, *Pre-Raphaelite Drawings in the British Museum*, London, 1994; Lewis Johnson, *Prospects, Thresholds, Interiors: Watercolours from the National Collection at the Victoria and Albert Museum*, London, 1994.

¹⁸ Leslie Carlyle, *The Artist's Assistant: Oil Painting Instruction Manuals and Handbooks in Britain 1800-1900 with Reference to Selected Eighteenth-century Sources*, London, 2001, p. 1.

¹⁹ Peter Bicknell and Jane Munro, *Gilpin to Ruskin: Drawing Masters and Their Manuals, 1800-1860*, exh. cat., Cambridge, 1988, p. 14.

²⁰ John Krill, "The Drawing Master's Assistant: Early Manuals for Landscape Drawing in Watercolour," in Sheila Fairbrass (ed.), *Conference Papers Manchester 1992*, (Institute of Paper Conservation), 1992, pp. 7-11; Hardie, Vol. I, pp. 10-40 and Vol. III, pp. 284-288 (bibliography of "Drawing-Books, Technique and Instruction" from the seventeenth to the mid-nineteenth century); Cohn, *Wash and Gouache*.

²¹ Rowbotham, *The Art of Landscape Painting*, 1850, p. iii.

²² Carlyle, *Artist's Assistant*, 2001.

- ²³ Anon (William Henry Pyne), "Observations on the Rise and Progress of Painting in Water Colours", *The Repository of Arts, Literature, Commerce, Manufactures, Fashions, and Politics*, Vol. viii, November 1812, p. 259.
- ²⁴ Scott Wilcox, "Looking Backward: Victorian Perspectives on the Romantic Landscape Watercolor", in Michael Rosenthal, Christiana Payne and Scott Wilcox, *Prospects for the Nation: Recent Essays in British Landscape, 1750-1880*, New Haven and London, 1997, pp. 307-325.
- ²⁵ *Ibid*, p.325.
- ²⁶ Lindsay Stainton, *Nature into Art: English Landscape Watercolours*, London, 1991; p. 13.
- ²⁷ Andrew Wilton and Anne Lyles, *The Great Age of British Watercolours 1750-1880*, Munich, London, Washington, 1993, p. 180 and p. 264.
- ²⁸ Smith, *Emergence of Professional Watercolourist*, p 196.
- ²⁹ *Ibid*, pp. 18-20.
- ³⁰ Greg Smith, "Ancients and moderns: Samuel Palmer and the 'progress of water colours', 1822-33", in Simon Shaw-Miller and Sam Smiles (eds), *Samuel Palmer Revisited*, Farnham and Burlington VT, 2010, pp.29-45.
- ³¹ Roget, Vol. II, pp. 137-147 (Lewis); pp. 272-283 (Palmer); pp. 108-109 (impact of framing).
- ³² Richard Redgrave and Samuel Redgrave, *A century of painters of the English school*, London, 1866; Samuel Redgrave, *A Descriptive Catalogue of the Historical Collection of Water-Colour Paintings in the South Kensington Museum*, London, 1877.
- ³³ Joyce Townsend (ed), *William Blake, The Painter at Work*, London, 2003; and Joyce H. Townsend, *Turner's Painting Techniques*, London, 1993; Hardie, 3 volumes.
- ³⁴ Alexandra Greathead, "Samuel Palmer's Materials and Techniques: The Early Years", and Marjorie Shelley, "Samuel Palmer's Materials and Techniques: The Later Years", in W. Vaughan, Elizabeth E. Barker, Colin Harrison, *Samuel Palmer: Vision and Landscape*, (exh. cat.), London, 2005, pp.33-41.
- ³⁵ Birmingham Museums and Art Gallery, *Hidden Burne-Jones: Works on paper by Edward Burne-Jones from Birmingham Museums and Art Gallery, with essays by John Christian, Elisa Korb and Tessa Sidey*, London, 2007; Arts Council of Great Britain, *Burne-Jones: the paintings, graphic and decorative work of Sir Edward Burne-Jones, 1833-98*, London, 1975; Nicholas Tromans (ed), *The Lure of the East: British Orientalist Painting*, exh. cat., London, 2008.
- ³⁶ Scott Wilcox and Christopher Newall, *Victorian Landscape Watercolors*, exh. cat., New York, 1992.
- ³⁷ H. M. Cundall, *The Life and Work of Birket Foster*, London, 1986 (first pub 1906); Major-General Michael Lewis, *John Frederick Lewis, R.A., 1805-1876*, Leigh-on-Sea, 1978; Jan Reynolds, *Birket Foster*, London, 1984.
- ³⁸ Marcus B. Huish, "Birket Foster, His Life and Work", *The Art Annual for 1890* (Christmas Number of the *Art Journal*), London, 1890, pp. 1 – 28; Hubert Herkomer, "J. W. North, A.R.A., R.W.S.: Painter and Poet", *The Magazine of Art*, 1893, pp.297-300, 342-8.
- ³⁹ Unpublished letters from Birket Foster to Robert Spence, Rosella Place, North Shields, 1844-1880, City Library, Newcastle-upon-Tyne, SL 920 756; Unpublished letter from John Frederick Lewis to John Noble dated 23 April 1854, MS Autogr. C.17 fols. 228-229, (Bodleian); Raymond Lister, (ed), *The Letters of Samuel Palmer*, 2 vols., Oxford, 1974.
- ⁴⁰ J. G. Marks, *The Life and Letters of Frederick Walker A.R.A.*, London, 1896; G. Burne-Jones, *Memorials of Edward Burne-Jones*, Vol. 1 1833 – 1867 and Vol. II 1868- 1898, London, 1904.
- ⁴¹ The RWS has Birket Foster's folding watercolour palette; Unpublished manuscript: 'Notes taken during the Lessons in Watercolor Painting from Samuel Palmer to Louisa Twining', 1856, Ashmolean Museum, Oxford, 1954.131.2; John Foster has a paintbox and notebooks and sketches of Birket Foster; Steve Milton has records on the history and works of J. W. North.
- ⁴² Townsend, *Turner's Painting Techniques*; Townsend (ed), *William Blake*; Joyce Townsend, Jacqueline Ridge and Stephen Hackney, *Pre-Raphaelite Painting Techniques*, London, 2004.
- ⁴³ Jacobi, *Holman Hunt: Painter, Painting, Paint*, p. 118.
- ⁴⁴ For example, Townsend, Ridge and Hackney, *Pre-Raphaelite Techniques*; Waldemar Januszczak (consultant editor), *Techniques of the World's Great Painters*, London, 1990; Andrea Kirsh, *Seeing Through Paintings: Physical Examination in Art Historical Studies (Materials and Meaning in the Fine Arts)*, New Haven and London, 2000; Carlyle, *Artist's Assistant*; The National Gallery's *Technical Bulletin* 1977-2005; S. Hackney, R. Jones and J. Townsend (eds), *Paint and Purpose: A Study of Technique in British Art*, London, 1999.
- ⁴⁵ Simon Fenwick, *The Enchanted River: Two Hundred Years of the Royal Watercolour Society*, Bristol, 2004, p. 21.
- ⁴⁶ George P. Landow "There Began to Be a Great Talking about the Fine Arts", in Josef L Altholz (ed.), *The Mind and Art of Victorian England*, Minneapolis, 1976, p. 125.
- ⁴⁷ *Ibid*, p. 127.
- ⁴⁸ Judy Crosby Ivy, *Constable and the Critics*, Woodbridge, 1991, p. xiii.
- ⁴⁹ Elizabeth Prettejohn, "Aesthetic Value and the Professionalization of Victorian Art Criticism 1837-78", *Journal of Victorian Culture*, Spring 1997, Vol. 2.1, pp. 71-94; p. 71.

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- ⁵⁰ Mark Hallett, "The Business of Criticism: The Press and the Royal Academy Exhibition in Eighteenth-Century London", in David Solkin (ed), *Art on the Line: The Royal Academy Exhibitions at Somerset House 1780-1836*, London, 2001, pp. 65-75.
- ⁵¹ Colleen Denney, *At the Temple of Art: The Grosvenor Gallery, 1877-1890*, Madison, N.J., and London, 2000, pp. 85-106.
- ⁵² Barbara Onslow, "'Humble Comments for the Ignorant': Margaret Oliphant's Criticism of Art and Society", *Victorian Periodicals Review*, Vol. 31, No. 1, (Spring, 1998), pp. 55-74; R. W. Peattie, "William Michael Rossetti's Art Notices: In the Periodicals, 1850-1878: An Annotated Checklist", *Victorian Periodicals Review*, Vol. 8, No. 2, (June 1975), pp 79-92; Roger Peattie, "William Michael Rossetti's Contributions to the 'Athenaeum'", *Victorian Periodicals Review*, Vol. 23, No. 4 (Winter, 1990), pp. 148-155.
- ⁵³ Helene E. Roberts, "British Art Periodicals of the Eighteenth and Nineteenth Centuries", *Victorian Periodicals Newsletter*, No 9 [vol. 3, No.3] (July 1970), pp. 1-10, 1-3, 3a, 4-183; Christopher Kent, "Periodical Critics of Drama, Music, & Art, 1830-1914: A Preliminary List," *Victorian Periodicals Review*, Vol. 13, No 1/2 (Spring-Summer, 1980), pp. 31-55.
- ⁵⁴ Leslie Alexis Marchand, *The Athenaeum: a mirror of Victorian culture*, Chapel Hill, University of North Carolina Press, 1941; J.W. Robertson Scott, *The Story of the Pall Mall Gazette, of Its First Editor Frederick Greenwood and of its Founder George Murray Smith*, London, New York, Toronto, 1950; H. Herd, *The March of Journalism: The Story of the British Press from 1622 to the Present Day*, London, 1952.

PART ONE

NEW ARTISTS' MATERIALS

Chapter 1 Developments in Artists' Materials 1850-1880

When, therefore, we consider the paper, the improved colours, and the other materials now adapted to his convenient use, and compare them with those at the command of artists who first practised in water colours, we feel how many difficulties have been removed, how many advantages gained.¹

Since the beginning of time, man has used whatever local materials were available, often earth, mineral and vegetable colours, to decorate his dwelling place and his prized possessions, record events and portray religious and ceremonial stories. With time, the materials he used became increasingly sophisticated, as a result of discovery, adaptation and the growth of trade and travel. Towards the end of the eighteenth century the discovery of new chemical elements such as zinc, cobalt and chromium led to the production of many new dazzling pigments and advances in chemistry and manufacturing led to many changes in papermaking in England. This chapter looks at the impact of new developments in artists' materials during the mid-nineteenth century on British watercolour painting methods.² It includes a table (Appendix I) explaining contemporary definitions of particular materials and methods, as terminology has changed between the nineteenth century and today.³

1.1 Suppliers in London: the rise of the Colourmen

One of the earliest documentations on the rise of the artists' colourman in Britain can be found in Redgrave, who, as the quotation above demonstrates, believed the progress of watercolour painting in nineteenth-century England was directly related to the introduction of new and improved materials.⁴ In his history of British watercolour painting, Hardie focuses on developments up until 1850, whilst a number of more recent studies trace the growth of individual companies, such as Winsor & Newton, Roberson or Reeves.⁵ There are also excellent websites for individual colourmen and a comprehensive directory of artists' suppliers on the National Portrait Gallery website.⁶

Up until around the middle of the seventeenth century, artists acquired their pigments from apothecaries and herbalists⁷ (Figure 1) and their apprentices then prepared the pigments, panels and grounds in the studio.⁸ Watercolour pigments were ground by hand and mixed with a medium of gum arabic, formed into lumps and allowed to dry.⁹ A detailed knowledge of all the properties and characteristics of each pigment was required, as they were made from a wide range of often exotic raw materials including semi-precious stones, such as lapis lazuli (ultramarine), gum resins (gamboge), dried

bodies of cactus insects (carmine) and plant roots (madder). Others contained toxic materials including arsenic (orpiment yellow), lead (red, white, and black lead) and mercury (vermilion) (Figure 2).¹⁰

During the seventeenth century the artists' workshop system began to decline,¹¹ while an increasing number of wealthy amateurs became attracted to the practice of topographical drawing, a pastime recommended in manuals such as Henry Peacham's *The Compleat Gentleman* of 1622.¹² Draughtsmen were also accompanying foreign expeditions (such as that of Captain Cook's to Tahiti and Australia in the late 1760s), or travelled to China and Europe with gentlemen of substance.¹³ Leading military schools such as Woolwich and Addiscombe employed eminent drawing masters to teach drawing and chart-making and were closely linked with regiments maintained in India by the East India Company.¹⁴

A pressing need arose for ready-prepared artists' pigments and papers. Artists' colourmen, businesses offering a wide range of ready-made materials and equipment for the artist, as well as supplies of colours for housepainting and theatrical scene-painting purposes, began to flourish.

By 1800, the colourmen Reeves, Newman, Rowney and Ackermann were all established in London,¹⁵ with Roberson, Fuller, Winsor & Newton and others joining their ranks by 1832.¹⁶ Fuller's imposing premises, 'At the Temple of Fancy', together with those of Winsor & Newton and Rowney, were all located at Rathbone Place,¹⁷ near to a number of artists' studios (Figure 3), whilst Newman, Roberson and Ackermann's fashionable "Repository of Arts" were grouped between the RA Schools at Somerset House on the Strand and the British Museum in Great Russell Street (Figure 4).¹⁸ In 1855 Cornelissens opened in nearby Great Queen Street. Reeves, on Cheapside, with a thriving stationery business, were located near flourishing engraving businesses,¹⁹ markets and the London docks, from where they could despatch their growing export orders to India, Peru, Brazil, Russia and the United States.²⁰ On the roof of their small premises, they ground and mixed their colours in a temporary workshop.²¹ By 1851 Lechertier Barbe, in Regent Street, was also selling many French products, from brushes and ivories to tinted crayon papers.²²

The rise of art education in mid-nineteenth-century Britain also contributed to the growing demand for art materials. In 1837 the first Government School of Design was

established by the Board of Trade in London and other schools spread to the provinces;²³ by 1847 there were fourteen and in 1870 the *Art Journal* was reporting further new branches opening in Leeds, Derby and Winchester (Figure 5). By 1869 over 157,000 individuals were being taught at these establishments, compared with 123,562 in 1868.²⁴ The course included not only drawing, composition and the history of ornamental art, but also ‘painting in Water Colour, Tempera, Fresco, Oil, and Encaustic’.²⁵ Art education spread to the national curriculum from 1852, when ‘boys and girls in public day schools in the London area were taught drawing from a Government syllabus, and by 1854 the subject was being taken throughout the country as a result of the recommendation of the Committee of Council on Education’.²⁶

The colourmen’s shops appealed to amateurs and professional artists alike, and many famous names held accounts with the different colourmen. The Roberson archive details itemised lists of clients’ purchases during this period, and as we will see in later chapters, they included John Frederick Lewis, Myles Birket Foster, John William North and Edward Burne-Jones, as well as many Royal Academicians.²⁷ Birket Foster is also known to have bought sketchbooks from both Newman and Lechertier Barbe whilst Newman often supplied Samuel Palmer with his London Boards.²⁸ Some artists ordered materials to be made to their own recipes.²⁹ From 1850 colourmen were offering an increasingly wide range of pigments, papers, crayons, boards, quills, brushes, palettes, easels and outdoor sketching equipment and their published price catalogues between 1850 and 1880 provide crucial information on changing product ranges and prices during this time. These will be discussed in more detail in the following sections of this chapter. Roberson also supplied life-size lay figures for sale or hire, made out of ‘stuffed knitted textile over a wooden and metal frame with papier-mâché and gesso heads.’³⁰ The lay figure was used ‘for the arrangement of draperies for study purposes and has had a wide utility in professional portrait painting because it permitted the artist to work on costume without a sitting.’³¹ In addition Roberson provided other services, often on the artist’s premises, such as enlarging stretchers and remounting paintings or transporting artists’ work to and from their studios.³² That Burne-Jones in particular made use of such services will be seen in Chapter Seven.³³

Strong competition amongst the colourmen resulted in a series of important technical innovations, which would revolutionise the way in which watercolours were used. In 1780 Reeves added honey to their pigments, which they shaped into convenient small

cakes and embossed with their company trademark. The following year their achievement was awarded the Greater Silver Palette by the Society of Arts.³⁴ These little cakes could be grated or rubbed into a saucer of water, although they were liable to crumbling (particularly problematic in the hot colonies, such as India) and still rather laborious to use.³⁵ They were widely copied by other colourmen and popular with artists for many years (Figure 6).

In 1832 Winsor & Newton made further improvements, by adding glycerine to the watercolour preparation, forming moist cakes in porcelain pans, which could be used straight away 'by the application of a wet brush', eliminating the 'tedious method of rubbing'³⁶ (Figure 7). Supplied in lightweight japanned tin 'sketching boxes', these were ideal for rapid outdoor sketching and for use in hot climates, a factor particularly important in view of the increasing export trade at the time to India and Australia by companies such as Reeves and Winsor & Newton.³⁷

A host of beautiful new pigments began to arrive on the market, many by-products of new industrial processes, and these will be explored in section 1.2. One new pigment in particular, however, was to revolutionise traditional watercolour painting methods: an opaque and durable zinc white, called Chinese White (Figure 8), introduced by Winsor & Newton in 1834.³⁸ Unlike existing White Lead (also known as Flake White), it would not react adversely with other pigments or blacken on exposure to the atmosphere.³⁹

A further development by Winsor & Newton was glass tubes and syringes for paint and in 1842 they purchased the patent for collapsible metal tubes from the American portrait painter Thomas Goffe Rand, replacing his stopper with their own patented screw cap (Figure 9).⁴⁰ Now watercolour painters could squeeze paint straight onto the palette, in direct imitation of oil colours. Winsor & Newton's 1849 catalogue claimed that tubes were 'particularly adapted for large works, as any quantity of colour can be immediately obtained, thus affording additional facilities for rapidity and increased power; they present a range of pigments which, in brilliancy and similarity of manipulation, much resemble Oil Colours.'⁴¹ Here was the chance watercolour painters had been waiting for. Frustrated with the way they were being treated by the Royal Academy, who relegated their work to badly lit back rooms, they had formed their own societies in 1804 and 1832, with annual exhibitions purely for watercolour, and they increasingly sought ways to imitate what was held to be the superior art of oil

painting. Watercolour artists now had a choice of obtaining colours in four completely different forms: dry powder for their own preparation, hard cakes, moist cakes, and tubes and it gave them the freedom to experiment with new ways of using them. Indeed, it has been argued that ‘since the mid-nineteenth century the colourman has been more influential in painting technique than the art schools, so many of which have effectively continued the academic tradition by teaching a great deal of drawing but hardly any craft.’⁴²

Innovations continued and Reeves went on to produce a unique alternative version of wax watercolour, which was widely promoted in the press during the 1851 Great Exhibition and in their *Amateurs’ and Artists’ Companion with an Almanack for 1852*, which stated: ‘*Pure Virgin Wax*, chemically prepared, being the medium used in the manufacture of these colours; the old method of Gum is entirely superseded.’⁴³ At the same time they advertised a new octagon-shaped watercolour (Figure 10) and a novel ‘Saucer of Moist Colour’ (Figure 11), both products unique to Reeves. Rowney introduced ‘Holland’s Tints for Flower Painting’, which they claimed were ‘prepared only by G. Rowney and Co.’⁴⁴

From the 1860s Winsor & Newton creatively marketed a range of watercolours in glass Gallipots, specifically designed for ‘Illumination and Missal Painting’ (see Figure 172) and we will see in Chapter Seven how Burne-Jones incorporated cakes of aluminium and gold shells in his works of the 1860s and 1870s.⁴⁵ Reeves offered affordable ‘Boxes of Children’s Illuminating Colours’ in 1873.⁴⁶ Winsor & Newton’s 1863 catalogue clearly states that the art of illumination ‘is still continually increasing and extending its influence’ and continues:

The old Illuminators had to prepare their own colours, and to invent and make their own implements; now, everything is prepared for Illuminators. They need make no experiments, nor fear any failures. The best of everything is within their reach.⁴⁷

During the 1840s Winsor & Newton, Rowney and Reeves began to publish small shilling handbooks and manuals to help amateur artists with their technique and choice of materials. Written by respected artists, these often had the colourman’s catalogue attached at the back. Newman published a small number, such as *The Principles and Practice of Harmonious Colouring in Oil, Water, and Photographic Colours*

*especially as Applied to Photographs on Paper, Glass, and Silver-Plate.*⁴⁸ Colourmen responded to current fashions such as the growing popularity of illumination and missal painting during the 1860s, when a number of titles were published on the subject, as we shall see in Chapter Two. Other publishers and booksellers such as Smith, Elder & Co., Longmans, and Hamilton, Adams & Co. also recognised the potential of such works and began to offer their own versions (Appendix XI). Chapter Two will analyse a range of these manuals, and the degree to which new materials and techniques were recommended.

By 1844, rising demand resulted in Winsor & Newton opening their steam-powered North London Colour Works in Kentish Town, complete with a chemical laboratory to make colours and mills for colour grinding.⁴⁹ There were separate rooms for preparing watercolours and filling tubes of oil colour (Figure 12). In 1868 Reeves opened a brand-new three-story steam-powered colour works four miles away in Dalston (Figure 13). In contrast, Woodcock notes that Roberson, ‘composed of rather reactionary colormen’, were less innovative and preferred to emphasise the ‘hand-prepared nature of the company’s products until long after many of the other colormen had introduced a degree of mechanization.’⁵⁰

Winsor & Newton and Reeves received Royal Warrants and won medals for their artists’ materials at the 1851 and 1862 International Exhibitions in London.⁵¹ Reeves also won medals at international exhibitions in Paris in 1867 and Moscow in 1872.⁵² The trade of artists’ colourman had, by the second half of the nineteenth century, become a highly professional and profitable one and a source of national pride, although, as we shall see, there were issues concerning the adulteration and permanence of pigments which threatened to damage their reputation. John Ruskin even proposed the establishment of a ‘government colour manufactory’ in 1857 to regulate the quality of pigments, although he admitted such measures might not be necessary, as he had ‘no doubt that any painter may get permanent colour from the respectable manufacturers, if he chooses.’⁵³ Marjorie Cohn’s study of Continental manuals in the late nineteenth century suggests that the new English machine-ground pigments were considered superior to domestic European products because of their ‘fineness and homogeneity.’⁵⁴

Colourmen promoted their new products by sending samples to leading artists to try out and by publishing their favourable comments in price catalogues. Winsor &

Newton's 1849 catalogue listed sixty names of 'artists of eminence', including Maclise, Etty, Stanfield, and William Hunt, who 'have expressed their approbation by written Testimonials' of their moist colours.⁵⁵ Reeves and Sons' 1852 *Amateurs' and Artists' Companion* published five pages of artists' testimonials for their wax colours and three pages of favourable press reviews from the 1851 Crystal Palace exhibition.⁵⁶

Many artists had close associations with their colourmen. Turner, who frequently visited the Winsor & Newton establishment, is said to have responded one day to Mr William Winsor's observation that he often used fugitive colours, with the words: "Your business, Winsor, is to make colours..., mine is to use them."⁵⁷ Interestingly, contemporary writers, from the Redgraves to Thomas Salter, also considered that the responsibility for the choice of unstable pigments lay with the artist and not the colourman, 'for where there is a demand there will be a supply.'⁵⁸ However, there was growing distrust amongst artists such as William Holman Hunt about the quality of artists' materials being supplied by colourmen. As we shall see in Chapter Eight, Hunt was by 1863 calling for the appointment of a Professor of Chemistry at the Royal Academy to test the durability of pigments and to 'devote his time to the study and giving lucid explanations of all the properties of colours.'⁵⁹ Jacobi notes Hunt's growing concerns over unstable pigments he was using in the 1870s, and in particular his discovery of adulterated Orange Vermilion pigment supplied to him by Roberson.⁶⁰ Analysis of the pigment showed it to contain red lead, causing it to blacken on the canvas. On 21 April, 1880, he delivered an address to the Society of Arts entitled "The Present System of Obtaining Materials in use by Artist Painters as Compared with that of the Old Masters," which was published in the *Journal of the Society of Arts*⁶¹ and also reprinted in the *Architect*.⁶² It resulted in a barrage of correspondence and a leading article in the *Times*.⁶³ The same year William Muckley's handbook attributed the growth of adulteration of pigments to the mounting pressure on colourmen to maintain competitive prices.⁶⁴

1.2 New Nineteenth-Century Pigments: 'fruits of the fecundity of modern chemistry.'⁶⁵

The evolution of artists' pigments has been widely treated to date, but one of the most respected summaries can be found in Gettens and Stout's *Painting Materials: A Short Encyclopaedia*.⁶⁶ Harley's valuable book, *Artists' Pigments c. 1600-1835* is based on contemporary documentary evidence only up to 1835, although she has also separately published a paper about later nineteenth-century watercolour pigments.⁶⁷ Townsend

has contributed much towards an understanding of the range of watercolour pigments used by specific artists, such as Turner and Blake, although most of her work focuses on oil painting and pigments.⁶⁸ Amongst significant contemporary works, George Field's *Chromatography* (first published in 1835 and updated by Salter in 1869) outlined the origins, performance, and durability of 308 pigments available to artists at that time and was highly respected. In 1850 he published *Rudiments of the Painter's Art or a Grammar of Colouring*. As will be seen in later chapters, Samuel Palmer consulted *Chromatography*, Burne-Jones bought a copy of one of Field's handbooks in 1858, and William Holman Hunt purchased the *Grammar of Colouring* in 1856.⁶⁹ J. Scott Taylor's *A Descriptive Handbook of Modern Water Colours*, of 1887, also provided important advice on the permanence and mixing specifically of watercolour pigments, covering the introduction of later pigments. In view of the distance which now existed between the artist and the supply of his raw materials, such volumes were indispensable to serious artists.

The number of new pigments introduced began to rise from the last quarter of the eighteenth century, beginning with the discovery of copper arsenite by Scheele in 1775 (Scheele's Green).⁷⁰ The discovery of other new chemical elements including zinc, cobalt and chromium soon led to the arrival of a host of other new pigments, from zinc white and cobalt green and blue to orange and yellow chrome. According to Redgrave, 'chemistry made large additions to the material on which the skill of the "artists' colourman"...was employed, and both the range of scale and the manufacture of the colours of the water-colour painter had made great advances.'⁷¹ Appendix II lists thirty-nine important new watercolour pigments introduced between the beginning of the nineteenth century and 1870. This is by no means an exhaustive list, for different colourmen used different recipes to produce their own variations on colours, which they often called by new proprietary names. It should be noted, too, that not all pigments were suitable for both oil and watercolour, and that some appeared as a watercolour long before being available as an oil, or vice-versa. Zinc White, or Chinese White, was first available as a watercolour pigment in 1834 but was not offered in oil until 1860.⁷² This will be further discussed below.

Whilst Carlyle has produced an impressive analysis of oil pigments recommended in manuals and offered by colourmen for the period 1800-1900, nothing similar has been published on watercolour pigments for that period.⁷³ Appendix III shows for the first time the range of watercolour pigments appearing in the sales catalogues of four major

colourmen between 1849 and 1879. This shows that while a core number of traditional pigments such as Ochre, Lakes, Madders, Gamboge, Indigo and Genuine Ultramarine were being sold by all colourmen, they all also had their own exclusive proprietary colours. In some cases, colourmen creatively renamed pigments which had acquired a bad reputation for durability. Reeves, for example, replaced the name Red Lead with the attractively sounding alternative 'Saturnine Red'. At other times a unique colour name was introduced, such as Mutrie Yellow (Roberson), which was a pale cadmium yellow. Different names for variations of the same pigment could cause confusion amongst customers, but were probably devised in order to distinguish one colourman's products from those of his competitors. Artificial ultramarine was known as both New Blue (W&N) and French Blue or French Ultramarine (all five colourmen);⁷⁴ Cerulian Blue (W&N and Roberson) was the same as Coelin Blue (Reeves).

It is significant, when we think of the complaints raised by critics (see Chapter Eight) about the garish colours used in the watercolour exhibitions of the 1850s to 1870s, that most of the new nineteenth-century varieties appearing in colourmen's catalogues at this time are brilliant reds, yellows, greens and oranges. Appendix III includes 15 new reds, 12 new yellows and 11 new greens, in addition to 11 new orange colours (all of those listed) and 7 new purples. The lack of 'one shade alone...hovering between crimson and purple', particularly for flower painting, had been expressed by artists as recently as 1856.⁷⁵

Prices for a specific colour were the same whether in hard cake, moist cake or tube form, and the price levels remained virtually static throughout the thirty year period under review, although Winsor & Newton actually substantially reduced the price of eight watercolour pigments in their 1863 catalogue,⁷⁶ possibly in reaction to price cuts introduced by Reeves and Sons at the end of 1862.⁷⁷ Between 1849 and 1879 the cheapest pigments (the majority) were priced at 1/- per whole cake or tube, rising to 1/6 for a handful of colours such as Sepia, Indian Yellow, and the Crimson, Scarlet and Purple Lakes; 2/- for new colours Cobalt Blue and Violet Carmine; and 3/- for many new arrivals such as Green Oxide of Chromium, Lemon Yellow, French Ultramarine, Aureolin and Cadmium Yellow. A small number of pigments were priced at 5/- each: Mars Orange, Smalt, Purple Madder, Ultramarine Ash, Madder Carmine and Field's Orange Vermilion. Cakes of Genuine Ultramarine, prized for its permanence and colour, remained at a constant high price of 21/- throughout the thirty-year period under review, because demand greatly exceeded supply (it was never available in tube

form). Cheaper half cakes were also available. To put these prices into perspective, at this time factory workers and agricultural labourers took home little more than 1 shilling a day, teachers 4/- a day, and clerks and government workers 13/- a day.⁷⁸ Such materials were by no means cheap, and for this reason in 1852 George Rowney & Co. introduced tiny 'Quarter Cake Colors', 'in order to bring them within the means of pupils and students, who might otherwise be compelled to make use of inferior materials.'⁷⁹ Reeves, who specialised in the educational market, in 1873 added a limited range of 'Water Colours for Children' costing twopence, one penny or a halfpenny each depending on size, together with affordable boxes of 'Elementary Water Colours for the Use of Art Students, Schools, &c.'⁸⁰

There was often a delay between the date of the discovery of a colour (noted in scientific journals) and the date of its commercial application. For this reason, Harley argues that 'the date a pigment in water colour was first commercially available is in many ways more important' than the date of discovery.⁸¹ The commercial availability can only be ascertained by studying the price lists of pigments being supplied by colourmen at specific dates. For example, cadmium sulphide was first discovered in 1817 but was only first available as a watercolour pigment, Cadmium Yellow, from Winsor & Newton in 1843.⁸² Aureolin, another yellow pigment, was first synthesised in 1831 but did not appear in Winsor & Newton's catalogues until 1861.⁸³ For this reason an analysis of colourmen's price lists is a vital way of actually assessing the arrival of new colours in the marketplace.

Whilst the arrival of so many brilliant new colours provided the artist with an exciting choice, there were problems of which he or she had to be aware. As has been mentioned, the adulteration of expensive pigments with fillers or other cheaper pigments was common practice among unscrupulous colourmen. The later chapter on Samuel Palmer will show him warning P.G. Hamerton against the common adulteration of white and pale coloured crayons, too, with lead or flake white.⁸⁴ In *The Artists' Manual of Pigments* of 1886, H. C. Standage notes that expensive madder lake paints 'are often adulterated with brick dust, red ochre, red sand, clay, mahogany sawdust, log wood, sandal and Japan wood, and bran'.⁸⁵ As pointed out in Salter's 1869 edition of *Field's Chromatography*, 'new colours have to be *learnt*, for each pigment has its own peculiar habitudes, chemical, physical, artistic' and 'too many resplendent pigments, fruits of the fecundity of modern chemistry, have been found deficient.'⁸⁶ As can be seen from Taylor's comments in Appendix II, new pigments

such as the Chrome Yellow, Emerald Green, Pure Scarlet and the new Indian Purple and Violet Carmine, either discoloured on exposure to impure atmosphere or reacted badly in combination with certain other pigments. Others such as Mauve were highly fugitive.

On the other hand, colourmen were also working tirelessly to achieve improved permanence of many existing pigments and to create cheaper alternatives to expensive traditional colours, such as Genuine Ultramarine. The new synthetic French Ultramarine (or French Blue) was available from Winsor & Newton as early as 1849 for only 3/- a cake. As can be seen from Appendix III, other unstable or poisonous traditional pigments such as Red Lead, Orpiment and Verdigris were gradually phased out by colourmen as new and better alternatives became available. For this reason the overall number of watercolour pigments offered throughout the period remained between 80 and 90 for the major colourmen studied. A further complication for colourmen during this period was the adverse reaction of some pigments used in watercolour paintings displayed on exhibition and parlour walls to rising levels of sulphuretted hydrogen in an atmosphere increasingly polluted by factories and by the fires from crowded urban housing estates and from gas lighting.⁸⁷ This was a phenomenon new to Victorian Britain.

Arguably the most important new watercolour pigment introduced by colourmen at this time was a zinc oxide produced by Winsor & Newton in 1834, which they named Chinese White. The 1849 catalogue proudly claimed: 'Neither impure air, nor the most powerful re-agents, affect its whiteness. It is not injured by, nor does it injure, any known pigments.'⁸⁸ Heavily marketed by W&N and promoted by Ruskin in *The Elements of Drawing* and in other manuals, the new Chinese White soon began to appear in the range of other major colourmen.⁸⁹ Previously only the poisonous lead white (also called Flake White), which would blacken on exposure to light, or the transparent barium sulphate known under the name of Constant White or Permanent White was available in watercolour. In oil, however, zinc oxide was very transparent and only became available as an oil colour in 1860, with lead white remaining the preferred choice for oil painters.⁹⁰ As we shall see in Chapter Eight, watercolourists' use of bodycolour (white mixed with other pigments) became increasingly widespread between 1850 and 1880, often to the disgust of critics. It is not known to what extent the pigment Chinese or Zinc White was employed by the majority of watercolourists as against other alternative white pigments, but amongst the five artists studied in later

chapters, it was used by John Frederick Lewis, Birket Foster and in the early work of John William North, although he later stopped using it. Edward Burne-Jones used both Permanent White and Chinese White simultaneously, the latter increasingly in tube form, for his (oil and watercolour) work. Samuel Palmer used or recommended to friends an interesting mixture of different whites during his painting career, from lead white in the 1830s, to Blake's White (homemade using 'whiting' or calcium carbonate and carpenter's glue) and Chinese White in the 1860s.

In recent years, however, several problems with Zinc White have become apparent. Efflorescence, embrittlement of the paper, 'chalking', and fading of other pigments such as Prussian Blue, Cobalt Blue, Cadmium Yellow and Vermilion when mixed with Chinese White,⁹¹ have all now been observed in nineteenth-century watercolours. Efflorescence, where zinc white from an initial priming layer has erupted through an overlying layer of paint of another colour to form a crust, has been detected and stabilised by Tate Britain in at least two of Burne-Jones's watercolours of the 1860's, *Clerk Saunders* (Tate) and *St Dorothea* (private collection, Figure 14).⁹² The long-term effects of new nineteenth-century pigments were clearly uncertain in the early days of their use.

1.3 'Paper made by hand of every practicable size, quality of surface, and tint of colour'⁹³: New Developments in Papermaking

Historical research to date on artists' paper has rarely looked past 1850 and Turner's later works.⁹⁴ John Krill's *English Artists' Paper: Renaissance to Regency* is a comprehensive and readable account of developments in the manufacture and usage of artists' papers until the early years of the nineteenth century.⁹⁵ Paper historian Peter Bower has also contributed important research into the changing patterns of eighteenth- and early nineteenth-century paper production and usage, particularly focussing on artists such as William Blake, David Cox and J.M.W. Turner, whilst Harris and Wilcox have traced the relationship between Paul Sandby and the Whatman paper mill in the eighteenth century.⁹⁶ Martin Hardie's description of the development of British papers ends at 1849.⁹⁷ Cohn's *Wash and Gouache* covers similar ground, although she does extend the period to include J W North's determined efforts in 1895 to produce a highly durable new "O.W" paper.⁹⁸

Peter Bower is in no doubt as to the role played by new papers and pigments in the innovative techniques of great nineteenth-century artists. 'It is no accident that the

advent of a generation of great painters in watercolour, Turner, Girtin, Cotman, Cox and others, coincided with a time of great change and experimentation in the industries providing them with their raw materials.’⁹⁹ In 1877, Samuel Redgrave had also expressed the view that superior new papers recently developed by James Whatman and Thomas Creswick had ‘led to a more vigorous and spirited style of art; the timidity with which the painter had previously proceeded was abandoned.’¹⁰⁰ Turner’s generation may have been the first to have access to these improved papers, but those following immediately afterwards also profited from these advances and from further new developments, pushing the boundaries of watercolour technique even further. It is in the work of these later artists, such as Lewis, Palmer, Foster, North and Burne-Jones, that I will later explore the impact of such new papers and other artists’ materials, for little has so far been written about this aspect of their work.

Traditionally paper had been made by hand, a laborious and highly-skilled craft, requiring years of extensive training (Figure 15). A useful description is given in the recent book on Paul Sandby and the Whatman Paper Mill:

In its most basic steps, papermaking involved preparing paper pulp from worn clothing and other textile rags. The sievelike mould was immersed in a vat of paper pulp suspended in water, lifted, and then gently shaken to align and settle the fibers evenly. The water drained through the mould, leaving an even covering of paper fibers on the mould’s surface. The newly formed paper was removed from the mould, dried, and then sized to give it strength and provide some resistance to water. Finally the paper was dried again and finished to impart the desired surface characteristics.¹⁰¹

In volume one of his *Watercolour Painting in Britain*, Martin Hardie observes that the so-called ‘laid’ papers of the seventeenth and eighteenth centuries (made using a specific ‘laid’ wire mould) were ‘entirely unsuited in texture and solidity for the manipulative methods of washing-out, scraping, etc. which came into practice later.’¹⁰² Between 1787 and 1850, (the years of Turner’s working life) Bower states that ‘everything in papermaking changed: raw materials and their preparation, the design and construction of the moulds used in forming the sheets by hand, presses, sizing and finishing techniques and drying methods.’¹⁰³ These changes affected many aspects of the handling properties and surface textures of papers which form such a crucial role in the creative process of any watercolour painting and will be discussed in more detail below.

Prior to the 1750s, all papers produced had been either destined for writing, wrapping or printing purposes, not specifically for watercolour. Artists had to adapt whatever

they could find which suited their method of working.¹⁰⁴ High quality white paper was imported from Holland and France.

In 1739 one British papermaker, James Whatman, established a mill in Kent, which would soon become famous for its development of a revolutionary new type of paper.¹⁰⁵ Wove paper, a product with a smooth even surface, was developed by Whatman during the 1750s and eliminated the pronounced chain wiremarks characteristic of earlier types of 'laid' paper (Figure 16).¹⁰⁶ By the 1780s the manufacture of wove paper spread quickly to other paper mills in England, although wove remained hard to come by until the 1790s.¹⁰⁷ The early wove papers were not designed for watercolour, but by the 1790s they had been adapted to meet the needs of this market, using hard gelatine sizing, which 'allowed watercolorists to work and rework the paper without disturbing the size and disrupting the paper fibers.'¹⁰⁸ Whatman's wove papers, made from pure linen rag provided strong, regular surfaces, which, unlike many earlier papers, would stand up to repeated washings and scrubbing and they were quickly adopted by artists, including William Blake, David Cox, and most famously, J.M.W. Turner. In 1773 Whatman created the largest handmade paper in Europe, Antiquarian, measuring 53 x 31 inches. 'This massive, thick paper could take up to a year to properly dry before being sold. Antiquarian was the king of all watercolor papers, never to be surpassed in scale.'¹⁰⁹ The evolution of the exhibition watercolour in the nineteenth century has been attributed by some scholars to the introduction of a larger size of watercolour sheet.¹¹⁰

By 1850, Whatman had introduced wove papers in a range of finishes: 'hot-pressed' (H.P.) or very smooth; 'NOT' (N), meaning 'not hot pressed' or 'cold-pressed'; and 'rough' (R.) (Figure 17),¹¹¹ although the terms did not appear in catalogues as a triad until about 1861.¹¹² 'Hot-pressed' refers to the process of inserting 'one or several sheets of paper between metal plates, then pressing the plates,' giving a smooth surface to the paper.¹¹³ Such differences in surface finish allowed artists to create different effects and required different techniques. 'NOT' was generally advised for large landscape works employing washes and broad effects, as the pigment was absorbed easily into the paper.¹¹⁴ Cohn notes that 'smoother papers were generally recommended for figure studies, flower paintings, and other intricate subjects, with the finest surfaces reserved for miniature portrait painting.'¹¹⁵ Because they were less textured, such smooth surfaces favoured the use of detail, since the paint was applied in small strokes, with the pigment sitting on the surface. We will see in later chapters

the way critics remarked on the increasing use of smoother papers by artists exhibiting in the watercolour exhibitions between 1850 and 1880, as the surface better suited techniques using microscopic detail and fine brushwork which were popular at that time, and which were widely promoted by Ruskin.

By the second half of the nineteenth century, Whatman's wove papers were widely recommended in watercolour manuals for landscape painting, as we shall see in the next chapter, and were popular with successful artists such as Myles Birket Foster, John William North and Edward Burne-Jones, who often used Whatman paper as one layer of a complex support for their work. In 1873 North placed an order with Roberson for a large panelled board covered with cartoon paper, with Antiquarian paper stretched on top, while Burne-Jones in 1877 requested from Roberson a seven foot stretcher, covered with canvas and then with Antiquarian paper (Appendix IX). Needless to say, such expensive specialist supports were never described in contemporary manuals for amateur use.

The main advantages of Whatman paper were fourfold: 'extreme suitability of texture'; 'toughness of surface, which will bear moderate friction with sponge or rubber without abrasion'; the sizing being neither too hard and greasy nor too soft and absorbent; and the 'purity of the paper itself and of the materials used in its manufacture.'¹¹⁶ The London Board used by Palmer for his later watercolours was made up of six layers of hot-pressed Whatman paper laminated together, with a glossy surface 'intermediate between paper and ivory'.¹¹⁷ London Board was developed in the 1830s as an upmarket competitor to the cheaper Bristol Board, which first appeared around 1800.¹¹⁸ Evidence has shown, however, that the main distinction between the two materials lay in the better quality glazing of London boards rather than the raw materials used.¹¹⁹ Both boards had a smooth surface and high rigidity, which were perfectly suited for detailed renderings, but required careful handling. The glossy surface of London Board was so slippery, that Palmer at first 'felt like a baby on a slide'.¹²⁰ Palmer particularly prized this surface, because it 'reflects light through the pigments' and 'shows the full depth of the colours laid on.'

Other popular manufacturers of upmarket artists' watercolour papers at this time were Thomas Creswick, who operated a mill at Hatfield and a manufactory in north London between 1803 and 1839, and George Steart of Bally, Ellen & Steart near Bath. Wove

papers from both manufacturers were, like Whatman paper, carefully made from pure linen rag and gelatine sized.¹²¹

Creswick specialised in papers and boards, ranging from white to a deep buff in colour and from very smooth to rough in surface finish.¹²² When Creswick retired in 1839, demand for further supplies of a similar drawing paper ‘led several colormen (including Winsor and Newton, Newman, and George Rowney) to persuade William Balston, ...one of the makers of Whatman paper, to produce a copy of Creswick’s “Improved Drawing Paper”, which they marketed as “Imitation Creswick.”’¹²³ As can be seen in Figure 18, this paper was still being sold at a premium price in 1878.

From the 1820s the company of Bally, Ellen & Steart made sophisticated coloured artists’ papers, from blue and grey to buff, designed for use with chalks or crayons and bodycolour (Figure 19). Steart’s development of coloured watercolour papers ‘paved the way for makers throughout Europe’ and when he retired thirty years later, Winsor & Newton began to sell versions of his papers produced by other makers.¹²⁴ Such toned papers were designed (in response to demands from the colourmen) in imitation of early coloured ‘academy’ strong wrapping papers, which had been used in the French Academy Schools for chalk drawing. The different colours were created by the addition of pigments such as smalt and indigo to the pulp during papermaking, rather than resulting from the colour of the unbleached rags used in the early ‘drab’ papers.¹²⁵

Figure 18 also lists “J.D. Harding’s Drawing Papers”, made for and named after the watercolour artist James Duffield Harding. These were made specially for Winsor & Newton initially from the 1830s (until 1910). Supplied in white and various tints, from pale cream to deep buff and grey, they were very popular with many artists, professional and amateur alike and were later also offered by Reeves between 1856 and 1878.¹²⁶ Samuel Palmer, John Frederick Lewis, Birket Foster and Edward Burne-Jones all produced many sketches on buff, grey and blue papers, while Burne-Jones even used a deep brown paper for some larger works in later years (see Chapter Seven).

The first appearance of sketch ‘blocks’ is thought to date from about 1830,¹²⁷ which were initially sold under the name of ‘solid sketch books’, consisting of ‘a number of sheets of paper, compressed so as to form an apparent solid substance: each sheet can, however, be immediately separated, by passing a knife round the edges.’¹²⁸ It is likely

that sketch blocks were designed for the amateur market, alongside other portable equipment, which will be discussed below.

Yet another innovation in watercolour paper listed in Winsor & Newton's 1878 catalogue and which was developed during the mid-nineteenth century by Whatman was the imitation "Vellum Paper", made from a very smooth, hot-pressed wove paper. Devised as a more affordable alternative to real vellum (made from the skin of young animals), this paper was particularly recommended for illuminating and flower painting.¹²⁹ "Seamless Drawing Papers" were a result of new drying methods for sheets of paper, introduced in the early part of the nineteenth century, although seamless papers may not have become widely available until later, as they are not listed in Winsor and Newton's catalogue until 1861.¹³⁰ Traditionally paper had been hung to dry over hair-covered ropes (Figure 20), which left a visible rope mark on the back and distorted the sheet (problems recognised, as shall be seen in the next chapter, by manual writers such as George Barnard), but a new system of canvas or muslin 'sails' allowed the sheets of paper to dry flat and free from disfiguring lines (Figure 21).¹³¹ Again, they commanded a premium price. Cartoon, or continuous drawing cartridge paper, was not new, but was bought by the yard and mainly used for large-scale works. Burne-Jones frequently ordered cartoon paper, and in 1869 he purchased large panelled boards and strainers from Roberson, in which cartoon was requested as an intermediate layer under an Antiquarian top layer (Appendix IX).

Other improvements in manufacturing processes had also contributed to major changes in paper quality during the early years of the nineteenth century. The introduction of the Fourdrinier machine (Figure 22) revolutionised papermaking in England, speeding up production and reducing the workforce needed. 'A stream of pulp was flung on to the endless wire-cloth and, when formed, the paper was pressed on a felt and reeled into a continuous web in a wet state. It was then unreeled, cut into sheets and loft dried.'¹³² The impact can be seen by comparing the production of paper by hand with that of machine-made paper over a period of fifty-five years. Note, too, the overall increase in paper output, which reflects growing demand for books, prints and newspapers as well as art:

1805	Hand-made 16,502 tons	Machine-made 557 tons
1824	Hand-made 12,750 tons	Machine-made 14,459 tons
1860	Hand-made 3,839 tons	Machine-made 95,971 tons ¹³³

Hand-made papermakers were forced to specialize in order to survive, and as the colourmen's catalogues of the second half of the century testify, handmade watercolour paper continued to be sought after for many years.

Other manufacturing changes included the introduction of new presses, which gave greater surface strength to the paper, making it less absorbent, so that paint remained on the surface and appeared brighter rather than being soaked into it.¹³⁴ Bleaching agents were discovered at the turn of the century, which meant that in addition to traditional linen rags, papermakers could now utilize lower quality raw materials such as waste and sweepings from cotton, linen, and flax mills.¹³⁵ This was important if alternatives were to be found to help alleviate the constant shortage of linen rags. Manufacturers experimented with other fibers such as straw, hemp, bamboo, peat and sugar-cane, as we shall see in Chapter Eight. Cotton rag, however, could not take the vigorous working of contemporary watercolour techniques.¹³⁶ Furthermore, the use of chlorine as a bleach was reported by Field to have a deleterious effect on colour: 'both the texture and the colours will suffer in permanence.'¹³⁷ Winsor & Newton were at pains to point out in their 1848 trade catalogue, that, in Whatman's Antiquarian sheets, 'no chemical bleach whatever has been employed. The good colour of the paper is due to the quality of the linen rags, and the severe washing they have undergone.'¹³⁸ Samuel Palmer was only too aware of the damage done by bleaching agents to colours.¹³⁹

As well as the great advantages achieved by such dramatic changes in papermaking practice, it was inevitable that there would also be quality issues and many artists complained, as the century progressed, of problems with their paper supplies. Increasingly dissatisfied with paper quality available, in 1895 John William North developed a particularly hard gelatine-sized paper, called "O.W.", which could take any amount of reworking and was manufactured by J. Barcham Green & Son of Hayle Mill in Maidstone.¹⁴⁰ Winsor & Newton and other colourmen constantly searched out supplies of "Old and Choice" papers, including Whatman, which they sold at double the normal price of other papers (see Figure 18).

When we compare the variety and complexity of the papers on offer in Winsor & Newton's 1878 catalogue with the list which appeared in the 1849 catalogue (Figure 23), it is clear just how many more new developments had occurred in the production of artists' papers for watercolour painting in the second half of the nineteenth century.

Whilst quality issues undoubtedly occurred, these new papers offered many advantages to artists. They could apply pigments using different techniques to a wide variety of surfaces, both hand-made and machine-made, giving a textured dimension to their work, from ivory-smooth to rough as woven canvas. The stronger papers allowed for a vigorous manipulation impossible to eighteenth-century artists, the increased sheet size meant larger works could be attempted, and the specialist coloured papers encouraged the use of bodycolour.

1.4 From Sable Quill to ‘Brights’ and ‘Fans’: The Watercolour Brush

Harley, Cohn and Hardie have examined the origins and methods of production of artists’ brushes from the sixteenth to the nineteenth century and Gettens and Stout provide a concise summary of Western and Oriental brush history, but little has been written specifically about nineteenth-century developments in artists’ brushes.¹⁴¹ Original sources for earlier periods, such as Cennini’s late fourteenth-century *The Craftsman’s Handbook* and a seventeenth-century manuscript by Henry Gyles, explain brush-making methods from those times.¹⁴²

Watercolour brushes, called ‘pencils’ from the fifteenth century,¹⁴³ were traditionally carefully handmade using hair from the tails of miniver and calaber, the most likely identities of these being ermine and ‘camel’ (actually squirrel) hair respectively (Figure 24).¹⁴⁴

Sable pencils (made from the hair of Siberian minks) first appeared in the late eighteenth century, mounted in quills (Figure 25). Only the quills of water fowl were considered suitable, due to their resistance to water.¹⁴⁵ The larger swan, goose and duck quill sizes, originally used for ermine and squirrel-hair brushes in the seventeenth century, were later added to by the smaller ‘lark’ and ‘crow’ sizes, these names referring to the size of the brush rather than the source of the quill.¹⁴⁶ The fine taper and resilience of sable brushes has made them highly valued up until the present day. Both red and brown sable brushes were available throughout the period 1850-1880, the red being noted for their ‘greater stiffness’ and the brown (also called black in Charles Day’s 1852 manual on miniature painting) for their ‘better points’.¹⁴⁷ Red sable, from the kolinsky, is now considered better than brown sable, although it is interesting that in Winsor & Newton’s 1849 and 1863 catalogues, brushes made from brown sable are more expensive than the red (Figure 26). These catalogues also include ‘dyed sable’ brushes at a fraction of the cost of the finest brown sables. John Frederick Lewis

bought huge quantities of tiny crow quill red sables from Roberson in 1870 for his highly detailed watercolour work, as well as eleven dozen duck quills in 1869.¹⁴⁸ Edward Burne-Jones, too, almost invariably bought sables from Roberson, both for his watercolour and oil painting. Today sable hair is said by Cornelissen to be ‘more expensive than gold and is characterised by its unrivalled spring and pointing ability.’¹⁴⁹

I suggest that it was possibly in order to remove confusion with the new ‘patent lead drawing pencils’ from Cumberland which were now appearing in their range, that colourmen such as Winsor & Newton had, by 1849, replaced the name ‘pencil’ with ‘brush’, listing both red and brown sable and camel hair brushes, alongside the hog bristle brushes, which were traditionally used for oil painting.¹⁵⁰ This is fifty years earlier than previously thought.¹⁵¹ By 1859, Gullick and Timbs confirmed that the ‘use of the word “pencil” instead of “brush,” as distinctive of and peculiar to water-colour painting has become obsolete’.¹⁵² Camel hair provided a cheaper alternative to sable, but it also had different handling properties. ‘It is a finer hair than sable in brushes of the best quality, and is much softer and less resilient. Thus although a comparable size will not hold so full a wash as sable nor take so perfect a point, it can be used with great gentleness in shading with single strokes.’¹⁵³ For the fine work required in miniature painting, however, Day wrote that camel hair brushes suffered from a ‘want of elasticity’.¹⁵⁴

By the mid-nineteenth century, watercolour brushes were offered both in traditional quills and in new metal ferrules of silver or tin (Figure 26). By 1849, Winsor & Newton were advertising quality French brown sable brushes in quills of seven sizes, ranging from crow, duck, goose, small swan and middle swan to large swan, which was very expensive and cost 7/6. Cohn mentions an even larger size quill, Eagle, but none of the colourmen’s catalogues I have seen include this size of brush.¹⁵⁵ French sable was said by Winsor & Newton to be the best quality at that time.¹⁵⁶ Today quill brushes are still available from specialist suppliers such as Cornelissen, but, designed for signwriting, they have replaced all the swan sizes with goose quills.

The metal ferrule brush, introduced in the mid-nineteenth century, was available alongside quills and could be purchased with either round or flat ferrules, with the size being indicated by a number ranging from 0 (smallest) up to 12, although in the 1850s the main range was limited to the smaller brushes from size 0 to 6.¹⁵⁷ Cohn states that

these brushes were introduced ‘as approximations of the oil painters’ brushes.’¹⁵⁸ Both sable and camel hair versions were offered, and were cheaper than quills for the larger sizes (Figures 25 and 26). Metal ferrules were also stronger than quills, which were prone to splitting. Camel hair brushes in flat tin ferrules could also be purchased ranging from ¼ inch wide to 4 inches wide. As we shall see, Samuel Palmer used very large flat camel hair brushes for his later watercolours.

In 1849 extra large brushes made of cheaper ‘Siberian Hair’ and ‘Dyed Sable Hair’ were being sold by Winsor & Newton, in both round and flat metal ferrules, ‘for skies, washes, and large works’, costing 3/6 each, at least half the price of the large sable swan quills.¹⁵⁹ Rowney listed similar products in their 1852 catalogue, as did Reeves in 1862. In November 1870 Winsor & Newton placed an explanatory note in with their catalogue:

Messrs. Winsor and Newton beg respectfully to state that the cost of
BROWN AND RED SABLE HAIR

*Having gradually increased for some time past, and having culminated in a rapid and enormous rise, they are compelled to raise the prices of many of their Brushes as follows:*¹⁶⁰

As the years progressed, further changes emerge in brush design. Firstly, there is an increase in the number of larger brushes being advertised. Winsor & Newton’s 1878 catalogue includes a new series of brown and red sables in metal ferrules called ‘Extra Large Series’, sized from No 1 to No 6 (different sizes completely to the existing brush sizes), the latter costing 21/- !¹⁶¹ This demand for larger brushes must reflect the growing trend during the 1860s and 1870s for watercolour artists to produce work on a larger scale, probably for exhibition.

Secondly, interesting changes were taking place in the design and range of brushes for oil painting, and watercolour artists were increasingly experimenting with these, in the same way that oil painters were using sables in addition to hog brushes. A process of cross-fertilisation of ideas and methods was occurring between watercolour and oil painting, leading to a blurring of boundaries with regards materials used. With artists such as Edward Burne-Jones painting in watercolour onto rough canvas during the 1870s, for example,¹⁶² it was either a question of using hog brushes in imitation of oil painters, or of finding another alternative. Colourmen soon came up with new ideas. Short-haired ‘bright’s’; fan-shaped sable brushes for glazing and foliage; long, thin ‘riggers’ for delicate work; and ‘extra fine hog hair brushes’, which were said to combine the softness of sable with the firmness of hog hair, all appear in the 1863

catalogue for Winsor & Newton (Figure 27). Other designs included flat foliage brushes and a range named ‘J.D. Harding’s Stiff Water Colour Brushes’, which were made of ‘finest Lyons hair’ (Figure 28), a type of hog hair which was used to make the ‘extra fine hog hair brushes’ mentioned above. James Duffield Harding (1798-1863), a longstanding member of the Society of Painters in Water Colours, wrote a number of manuals for Winsor & Newton and practised what the critics called the ‘drawing master style’.¹⁶³ It is interesting that an ageing artist like Harding, who both practised and recommended traditional techniques in his manuals, was clearly promoting new products aimed at innovative painting methods. As we have seen, he also had a paper marketed in his name, and other products appear in colourmen’s catalogues bearing his name.

The 1863 Winsor & Newton catalogue also contains a fascinating page of ‘Special’ hog hair brush designs, ‘specially made at the suggestion, and after the patterns, of some of the most eminent Artists of the day’(Figure 29), with all sorts of remarkable brushes, from double-pointed to feathery-edged, and one which contains a ‘hollow which when full of colour acts as a feeder and enables the brush to be used for some time without being stopped for fresh supply of colour.’ Any effect could be achieved by means of any one of such incredible brushes.

1.5 Mediums and fixatives

All of the catalogues of Winsor & Newton, Reeves and Rowney which have been included in this research contain three mediums which were sold as an aid to watercolour painters: ‘prepared gum water’, ‘colourless liquid ox gall’ and ‘water colour megilp’.

Prepared Gum Water was sold in small, middle or large size bottles costing between 6d and 1s. 6d. and came with no description in the catalogues, so clearly it was expected that everyone knew how to use it. Still available today, it is made from gum arabic (also known as Senegal gum), which exudes naturally from certain species of Acacia tree and is often sold in colourless rounded lumps.¹⁶⁴ Gum arabic has from the start been one of the ingredients used in the manufacture of moist watercolours, acting as a binder to help the dry pigment adhere to the page.¹⁶⁵ While its main use was said to have been by figure and miniature painters, many artists, including John Frederick Lewis, Dante Gabriel Rossetti and Edward Burne-Jones used gum to strengthen their

shadows or occasionally as an overall varnish.¹⁶⁶ Burne-Jones's watercolours were described by his studio assistant, Thomas Rooke, as 'a tempera of gum and water.'¹⁶⁷ Because his heavily-gummed opaque watercolours were often mistaken for oils, Burne-Jones took the precaution of writing notes on the back of the works explaining they were in watercolour. *Love Among the Ruins* was unfortunately ruined as a result of such a misunderstanding.¹⁶⁸ The Redgraves suggest a reason for the growing popularity of gum: 'The use of gummy solutions to strengthen and give force to the darks of the picture, has certainly been promoted by the law of close framing,' a regulation introduced by the Society of Painters in Water Colours.¹⁶⁹ Other artists used gum arabic as a protective coating over unstable pigments, such as Pure Scarlet, preserving them from contact with air or metallic substances, which would fade or discolour them.¹⁷⁰

Colourless liquid ox gall also came in bottles, priced at 1s. 6d. from Winsor & Newton and Rowney and 1s. from Reeves. The Rowney catalogue carries the following description: 'This limpid extract of Gall possesses all the strength and properties of the Gall as it is usually sold in the paste state, but is deprived of its unpleasant qualities.'¹⁷¹ The 'Prepared Ox Gall' was sold separately in covered pots.

The use of ox gall in watercolour painting was explained by George Barnard in 1871. 'Should the colours or washes not be evenly laid on, or attach themselves to the paper, a little gall may be dissolved in the water: a small piece about the size of a pea, dropped in the glass of water, or a few drops of the solution, will be sufficient.'¹⁷² In modern terminology, ox gall 'reduces the surface tension of the liquid (water, when mixed with pigment) but is also an efficient wetting agent for the surfaces,' as some grounds repel water.¹⁷³

Pots of ox gall are listed amongst Burne-Jones's purchases from Roberson in 1865 and 1872 (see Appendix IX) and the medium has been identified in works such as *Sidonia von Bork* of 1860 (Figure 145). Field writes that '*animal gall* is necessary only to attach the colours to the ground when it rejects them, or they work greasy, as is often the case on ivory and very smooth vellum or polished substances, or over certain pigments.'¹⁷⁴ As many of Burne-Jones's early watercolours were on vellum, this may explain his purchase of ox gall at this time.

Water Colour Megilp

Watercolour Megilp was listed in Winsor & Newton's 1849 catalogue as a new product

invented and prepared by Winsor and Newton, for the use of Water Colour Painters. A most desirable medium, imparting additional depth, brilliancy, and transparency in Water Colour Painting, improving the working of the colours, and preventing them running into one another.¹⁷⁵

Named after its oil counterpart, the watercolour version was made from gum tragacanth.¹⁷⁶ This gelatinous medium acted as a thickening agent, allowing colours to be 'applied pulpily, after the manner of Oil Painting'.¹⁷⁷

Reeves and Rowney also advertised watercolour megilp in their catalogues at this time, with Reeves in 1862 offering a variation called 'Reeves and Sons Wax Water Megilp' ('Magulph' in the 1879 price list). This medium was said to give 'a brilliancy, transparency, and depth to the colours never before attained, with a certainty of their never cracking or peeling off.'¹⁷⁸

In *Chromatography*, Field suggests the use of tragacanth 'when colours are required to lie flat, or not bear out with gloss, and also when a gelatinous texture of the vehicle is of use to preserve the touch of the pencil and prevent the flowing of some colours.' Isinglass and starch, he says, are also suitable for the same purpose.¹⁷⁹ John Chase writes that tragacanth 'fixes the underneath colour so that other tints may be washed over with freedom.'¹⁸⁰ Watercolour manuals dating from 1850, 1857 and 1861 all contain descriptions of the use of gum tragacanth and more will be said in the next chapter about this.¹⁸¹

Other products

Rouget's Fixative, known to Palmer and ordered in quantity from Roberson by Burne-Jones at regular intervals between 1869 and 1879,¹⁸² may have been a relatively new product in England at that time, because it was only being promoted in the press in 1870 as a way of preserving both charcoal and pencil drawings and watercolours (Figure 176).¹⁸³ By 1861 Carl Haag also devised a fixative composed of White Wax and spirits of lavender, designed to preserve watercolour paintings from damp and to give the colours used 'all the brilliancy of oil-painting'.¹⁸⁴

Other innovative nineteenth-century watercolour vehicles were reported by Field, including two which won their creators gold medals from the Society of Arts: Mr.

Robertson's 'varnish' made from isinglass (fish glue) and alcohol, and Mr J Hammond Jones's solution of borax in water and gum tragacanth, which 'dried sufficiently firm to allow tints to be repeatedly laid one over another without moving or washing up.'¹⁸⁵ It is clear that two issues were driving such innovations at this time – the desire for watercolour painting to take on the powerful appearance of oil-painting, and the need to render watercolours permanent and durable.

1.6 Portable Sketching Equipment

The range of portable sketching equipment which began to appear from 1850 is worthy of a whole chapter of its own, especially as almost no academic research has been carried out into this subject. However, unfortunately it is not possible within the scope of this current project to devote more than a few lines to this subject. Some of these items were purchased by Burne-Jones and are discussed in more detail in that chapter.

Innovative items such as folding deal easels, sketching umbrellas, stools and tents, numerous designs of folding palette and japanned ware all featured increasingly in Winsor & Newton's catalogues up to 1880, although less in the catalogues of other colourmen. The popularity of these products with the general public may be judged by the number of illustrations which appear in the press of amateurs painting in the open air, surrounded by all their expensive sketching paraphernalia (Figure 30). Doubtless such equipment contributed to the spread of outdoor sketching amongst the genteel public, although amongst the artists studied in this project, apart from John William North, few can have spent serious amounts of time painting outdoors with such cumbersome gear. Samuel Palmer set off for sketching trips with the pockets of his voluminous coat stuffed full of small sketchbooks and painting materials. Birket Foster's laborious and intricate works were mainly completed in the comfort of his studio. Similarly John Frederick Lewis's microscopic brushwork would have required the shelter of a studio for successful completion and although Burne-Jones bought many expensive portable items, he had an intense dislike for outdoor work and its discomforts, and avoided it as much as possible.

1.7 Conclusion

Throughout the second half of the nineteenth century, every aspect of the watercolourists' daily working practice was affected in some way by changes to the raw materials he was using. A regular stream of vibrant new pigments in moist and tube forms appeared, which could be applied thickly onto the paper or board support

and could be easily used for outdoor sketching. Many, although not all, pigments had improved permanence and stability and so no longer faded or blackened. Amongst these was a new opaque zinc white which could be safely mixed with any colour (it was said) and provided body and luminosity, allowing watercolourists to work from dark to light as oil painters did and to paint onto new ranges of brown, blue or gray papers, which were strong enough to take some vigorous handling. The wide use of bodycolour amongst exhibitors at the annual watercolour shows was a phenomenon remarked on frequently in the press at this time, and this will be discussed in Chapter Eight.

The fashion for greater use of detail was possible thanks to the development in England of new hard sized and 'Hot Pressed' wove papers which had very smooth surfaces and would withstand the repeated scrubbing and scraping demanded by innovative techniques. Rough and intermediate surfaces were available for other techniques. Imitation 'Vellum Paper' was able to offer an economical alternative to the traditional animal skin product and 'Seamless Papers' eliminated the unsightly drying marks found on earlier papers. Machine-made papers increased the speed of paper production for many purposes.

The flow or appearance of watercolour paints could be altered by mixing them with gum arabic, liquid ox gall or the new watercolour 'megilp' using tragacanth. The finished work could be 'varnished' with gum or sprayed with new fixatives. Different shapes of brushes could be employed to create a range of textural effects, while the new metal ferrule meant that larger brush sizes were possible and allowed working on a bigger scale.

Folding easels and palettes were part of a huge range of portable equipment increasingly available from colourmen, who took great pains to match the needs of artists with suitable materials, often made to order. New ranges of watercolour manuals lined the shelves, too, offering advice on painting techniques and materials.

With so many products now supplied ready-prepared by the colourmen, artists were, however, increasingly vulnerable, having lost the ability to control the content and quality of the paints, mediums and supports they used. So much was now possible, but so much could still go wrong. Yet change encouraged much experimentation

and innovation amongst the artists of the second half of the nineteenth century, which has until now remained unexplored.

- ¹ Samuel Redgrave, *A Descriptive Catalogue of the Historical Collection of Water-Colour Paintings in the South Kensington Museum*, London, 1877, p. 19.
- ² Note that new nineteenth-century products will be underlined in the text, in order to make them easily distinguishable from other products described.
- ³ See below, *Nineteenth-Century Definitions*, Appendix I.
- ⁴ Redgrave, "The Materials of the Art and Improved Methods", *A Descriptive Catalogue*, pp. 15-22.
- ⁵ Hardie, Vol. I, pp. 17-22; Don Pavey, *The Artists' Colourmen's Story*, London, 1984 (Reckitt & Colman Leisure Ltd); Sally Woodcock, "The Roberson Archive: Content and Significance", *Historical Painting Techniques, Materials, and Studio Practice*, University of Leiden, the Netherlands, 26-29 June, 1995, pp. 30-37;
- Michael Goodwin, *Reeves: Artist and Colourman*, Enfield, 1966.
- ⁶ <http://www-hki.fitzmuseum.cam.ac.uk/archives/Roberson.html>;
<http://www.winsornewton.com/about-us/our-history/>; <http://www.reeves-art.com/heritage.lasso>;
<http://www.npg.org.uk/research/programmes/directory-of-suppliers.php>
- ⁷ Goodwin, *Reeves: Artist and Colourman*, p. 16.
- ⁸ Lynda Fairbairn, Mary Beal, Winsor & Newton, Tate Gallery, *Paint and Painting: an exhibition and working studio sponsored by Winsor & Newton to celebrate their 150th anniversary*, London, 1982, pp. 35-6. Hardie, Vol. I, p. 17, states that 'it is difficult to give with any certainty the date when an "artist's colourman" began to supply his clients with paints, canvases and brushes', although he suggests Kneller as the first colourman to set up a colour shop in London, soon after 1675. Pavey, *Artists' Colourmen's Story*, p. 2, confirms Kneller's 'colourman's shop-for the artist' as the 'first of its kind.'
- ⁹ Pavey, *Artists' Colourmen's Story*, p. 2.
- ¹⁰ For the composition of all these pigments, see Harley.
- ¹¹ R. D. Harley, "Background and development of the Artist Colourmen", *Winsor and Newton Colour Review: The Art Teacher's Journal*, Wealdstone, Harrow, Summer 1973, p. 3.
- ¹² Kim Sloan, 'A Noble Art': *Amateur Artists and Drawing Masters c.1600-1800*, London, 2000, p. 11.
- ¹³ Goodwin, *Reeves: Artist and Colourman*, pp. 20 and 22.
- ¹⁴ *Ibid*, pp. 24-5.
- ¹⁵ *Ibid*, p. 28, states that, by the end of 1799, Reeves, Rowneys, Blackman and Newman all existed in London. Fairbairn, Beal, W&N, Tate Gallery, *Paint and Painting*, p. 41, notes that in 1801 'Ackermann, print seller and colourman of 101 Strand was offering sixty-eight prepared watercolours for sale'.
- ¹⁶ Pavey, *Artists' Colourmen's Story*, pp. 18 and 26, notes that Winsor & Newton's new enterprise was established in 1832, while Fuller's "At the Temple of Fancy" was already in existence in the late 1820s. Woodcock, "The Roberson Archive", p. 30, states Roberson's shop at Long Acre dates from 1819.
- ¹⁷ Pavey, *Artists' Colourmen's Story*, p. 26.
- ¹⁸ Woodcock, "The Roberson Archive", p. 30.
- ¹⁹ *Art Journal*, 1 September 1860, p. 273, "Art in the City", notes that 'The art of engraving flourishes as vigorously in Cornhill and Cheapside, and Gracechurch Street, as it does in Pall Mall.'
- ²⁰ Goodwin, *Reeves: Artist and Colourman*, p. 35.
- ²¹ *Ibid*, p. 36.
- ²² <http://www.npg.org.uk/research/programmes/directory-of-suppliers/l.php>
- ²³ Stuart Macdonald, *The History and Philosophy of Art Education*, London, 1970, pp. 73, 84, 102-110.
- ²⁴ *Art Journal*, 1 September 1870, p. 280.
- ²⁵ *Reeves and Sons' Amateurs' and Artists' Companion with an Almanack for 1852, Containing Hints on Painting, Anecdotes on Artists, Notices of Works of Art, And other Useful Information*, London, 1852, p. 152.
- ²⁶ Macdonald, *History and Philosophy of Art Education*, p. 166.
- ²⁷ Sally Woodcock and Judith Churchman, (eds.), *Index of Account Holders in the Roberson Archive 1820-1939*, Cambridge, 1997.
- ²⁸ See this thesis below, CH. 5, p. 130 and CH. 4, pp. 112-3.
- ²⁹ Woodcock, "The Roberson Archive", p. 33.
- ³⁰ *Ibid*.
- ³¹ R.J. Gettens and G.L. Stout, *Painting Materials: A Short Encyclopaedia*, New York, 1966, p. 296. See excellent article by Sally Woodcock, "Posing, Reposing, Decomposing: Life-size Lay Figures, Living Models and Artist's Colourmen in Nineteenth-Century London", in E. Hermens (ed), *Looking Through Paintings*, Baarn and London, 1998, pp.445-464.
- ³² Woodcock, "The Roberson Archive", p. 32.
- ³³ See below, CH. 7, p. 181 and Appendix IX (see 1879).
- ³⁴ Goodwin, *Reeves: Artist and Colourman*, pp. 17-19.
- ³⁵ Hardie, Vol. I, p. 19.
- ³⁶ Pavey, *Artists' Colourmen's Story*, p. 22; Winsor & Newton, *Catalogue of Materials for Water-Colour Painting, and Sketching, Pencil, and Chalk Drawing, &c*, London, 1849, p. 2.
- ³⁷ *Winsor and Newton Colour Review*, Summer 1973, p. 4; and footnote 20 above.

- ³⁸ Hardie, Vol. I, p. 16.
- ³⁹ George Field, *A Grammar of Colouring: Applied to Decorative Painting and the Arts*, London, 1850, pp. 17-21.
- ⁴⁰ Pavey, *Artists' Colourmen's Story*, p. 19.
- ⁴¹ Winsor & Newton, *Catalogue of Materials*, 1849, p. 15.
- ⁴² Rica Jones, "Introduction", in S. Hackney, R. Jones, and J. Townsend (eds.), *Paint and Purpose: A Study of Technique in British Art*, London, 1999, p. 16.
- ⁴³ *Reeves Amateurs' and Artists' Companion*, 1852, p. 213.
- ⁴⁴ George Rowney & Co., price catalogue attached to George Rosenberg, *The Guide to Flower Painting in Water Colors*, London, 1852, p. 6.
- ⁴⁵ See this thesis below, CH.2, p. 66; CH. 7, pp. 168 and 175.
- ⁴⁶ *Reeves & Sons, Artists' Colourmen, Black Lead Pencil and Mathematical Instrument Makers, Manufacturers and Importers, Price List for the Trade Only*, London, 1873, p. 63.
- ⁴⁷ Winsor & Newton, *Catalogue – for Trade only, Brushes for Water and Oil Colour Painting* London, 1863, p. 30.
- ⁴⁸ *The Principles and Practice of Harmonious Colouring in Oil, Water, and Photographic Colours especially as Applied to Photographs on Paper, Glass, and Silver-Plate by an Artist-Photographer*, London, 1863 (James Newman publisher).
- ⁴⁹ Pavey, *Artists' Colourmen's Story*, p. 28.
- ⁵⁰ Woodcock, "The Roberson Archive", p. 31.
- ⁵¹ *Winsor and Newton Colour Review*, Summer 1973, p. 4; Goodwin, *Reeves: Artist and Colourman*, pp. 28 and 35.
- ⁵² Reeves and Sons price catalogue, London, 1879, p.12, proclaims 'Prize Medals, International Exhibitions: London, 1862. Paris, 1867. Moscow, 1872.'
- ⁵³ Ruskin, "The Political Economy of Art", Lecture I: "The Discovery and Application of Art", *Works*, XVI, p. 45.
- ⁵⁴ Marjorie B. Cohn, *Wash and Gouache: A Study of the Development of the Materials of Watercolor*, exh. cat., Cambridge, Mass., 1977, p. 34.
- ⁵⁵ Winsor & Newton, *Catalogue of Materials*, 1849, p. 3.
- ⁵⁶ *Reeves Amateurs' and Artists' Companion*, 1852, unnumbered pages between the Preface and Contents pages.
- ⁵⁷ Pavey, *Artists' Colourmen's Story*, p. 19.
- ⁵⁸ George Field, *Field's Chromatography or Treatise on Colours and Pigments as Used by Artists, revised by T.W. Salter* (new edition), London, 1869, p. 44. Salter added this section to the 1869 edition, showing it was an important topical question at that time. Richard Redgrave and Samuel Redgrave, *A century of painters of the English school*, London, 1866, Volume II, p. 591, also commented: 'The artists' colourman was called on to supply the demand for orpiment and carmine, for vegetable yellows and pitchy browns; and after a while these fugitive pigments...became accepted as of the same value as those sanctioned by use for centuries.'
- ⁵⁹ *Athenaeum*, 3 October 1863, p. 440.
- ⁶⁰ Carol Jacobi, *William Holman Hunt: Painter, Painting, Paint*, Manchester and New York, 2006, pp. 119-123.
- ⁶¹ W Holman Hunt, "The Present System of Obtaining Materials in Use by Artist Painters as Compared with that of the Old Masters," *Journal of the Society of Arts* 28, 23 April 1880, pp. 485-499.
- ⁶² Jacobi, *Holman Hunt: Painter, Painting, Paint*, p. 119.
- ⁶³ *The Times*: 22 April 1880, p. 12 (report on the lecture); 23 April 1880, p. 9 (lead article); 26 April 1880, p. 14 (letter to the editor); 28 April 1880, p. 8 (letter to the editor by Holman Hunt).
- ⁶⁴ William J. Muckley, *A Handbook for Painters and Art Students on the Use of Colours Etc: Their Permanent or Fugitive Qualities, and the Vehicles Proper to Employ. Also Short Remarks on the Practice of Painting in Oil and Water Colours*, London, 1880, p. 54.
- ⁶⁵ George Field, *Chromatography; or, a Treatise on Colours and Pigments, and of their Powers in Painting, etc.*, London, 1835, p. 51.
- ⁶⁶ Gettens and Stout, *Painting Materials*.
- ⁶⁷ Harley; R.D. Harley, "Some New Water Colours in the Nineteenth Century," *The Conservator*, No. 11, London, 1987, pp. 46-50.
- ⁶⁸ Joyce H. Townsend, "Painting Techniques and Materials of Turner and other British Artists 1775-1875," in A. Wallert, E. Hermens, and M. Peek (eds.), *Historical Painting Techniques, Materials and Studio Practice*, Los Angeles, 1995, pp.176-185; Joyce H. Townsend, "The Analysis of Watercolor Materials, in Particular Turner's Watercolors at the Tate Gallery (1790s to 1840s)," *The Broad Spectrum*, London, 2002, pp. 83-88; Joyce H. Townsend, (ed), *William Blake, The Painter at Work*, London, 2003; Joyce H. Townsend, Jacqueline Ridge and Stephen Hackney, *Pre-Raphaelite Painting Techniques*, London, 2004; Joyce H. Townsend, "The Materials Used by British Oil Painters in the

Nineteenth Century,” *Tate Papers*, Issue 2, Autumn 2004, (Tate’s online research journal), <http://www.tate.org.uk/research/tateresearch/tatepapers/>

⁶⁹ Jacobi, *Holman Hunt: Painter, Painting, Paint*, footnote 10, p. 133.

⁷⁰ Harley, p. 83.

⁷¹ Redgrave, *A Descriptive Catalogue*, p. 17.

⁷² Leslie Carlyle, *The Artist’s Assistant: Oil Painting Instruction Manuals and Handbooks in Britain 1800-1900 with Reference to Selected Eighteenth-century Sources*, London, 2001, pp. 516-7.

⁷³ *Ibid.*

⁷⁴ Harley, p. 59.

⁷⁵ Mrs William Duffield, *The Art of Flower Painting*, London, 1856, p. 42. Describing the method for painting blue flower such as cinerarias and petunias, she writes that ‘the resources of chemistry have hitherto proved inadequate to the production of one shade alone. This, which, hovering between crimson and purple, can scarcely be called by either name...and would in painting be most valuable.’

⁷⁶ Chinese White and Constant White were reduced to 1/- from 1/6; Pure Scarlet, Burnt Carmine, Carmine, Gallstone and Cadmium Yellow were all reduced to 3/- each from 5/-; and Orange Vermilion fell to 2/- from 5/-.

⁷⁷ Unpublished letter found attached to Reeves 1862 catalogue in the Museum of London. Dated 15th November 1862 it reads: ‘MESSRS. REEVES & SONS beg to call the attention of the trade to an alteration in the prices of the under-mentioned Water-Colours (in cakes, half-cakes, pans, half-pans, and tubes); the *reduction* in the *Wholesale Price* to take effect from this date, but that in the *Retail* not until the commencement of 1863.’ Prices of pigments such as Carmine, Burnt Carmine, Cadmium Yellow, Gallstone and Royal Scarlet were reduced from 5 shillings each per whole cake/pan (retail) to 3 shillings, and from 36 shillings per dozen to 24 shillings (wholesale).

⁷⁸ Jeffrey G. Williamson, “The Structure of Pay in Britain, 1710-1911”, *Research in Economic History*, 7, 1982, pp. 1-54.

⁷⁹ Rowney & Co., price list, 1852, attached to Rosenberg, *Guide to Flower Painting*, p. 3.

⁸⁰ Reeves, *Price List for the Trade Only*, 1873, pp. 58-63.

⁸¹ Harley, “Some New Water Colours,” p. 46.

⁸² *Ibid.*, p. 47.

⁸³ *Ibid.*, pp. 47, 48.

⁸⁴ See below, CH. 4, p. 110.

⁸⁵ Quoted in Melissa R. Katz, “William Holman Hunt and the ‘Pre-Raphaelite Technique’” in A. Wallert, E. Hermens and M. Peek (eds.), *Historical Painting Techniques, Materials, and Studio Practice*, Los Angeles, 1995, p. 159.

⁸⁶ Field, *Chromatography* (Salter edition), 1869, pp. 43 and 41. Salter added the comments on the artist’s need to educate himself about new pigments to the 1869 edition.

⁸⁷ See CH. 8, below, p. 202, for press concerns about the damage done by smoke and gas lighting.

⁸⁸ Winsor & Newton, *Catalogue of Materials*, 1849, p. 14.

⁸⁹ Ruskin, “The Elements of Drawing”, *Works*, XV, p. 137.

⁹⁰ J. Scott Taylor, *A Descriptive Handbook of Modern Water Colours*, London, 1887, p. 35.

⁹¹ My thanks to Jane Colbourne, of Northumbria University, for explaining these phenomena to me, June 2010.

⁹² My thanks to Piers Townshend, at Tate Conservation, for allowing me to visit and discuss the subject, in addition to granting me permission to access the conservation records.

⁹³ Redgrave, *A Descriptive Catalogue*, p. 19.

⁹⁴ Theresa Fairbanks Harris and Scott Wilcox, *Papermaking and the Art of Watercolor in Eighteenth-Century Britain: Paul Sandby and the Whatman Paper Mill*, with essays and contributions by Stephen Daniels, Michael Fuller, and Maureen Green, New Haven and London, 2006;

Townsend (ed), *William Blake*; Raymond Lister, *Infernal Methods: A Study of William Blake’s Art Techniques*, London, 1975; Greg Smith, *Thomas Girtin: the Art of Watercolour*, with contributions by Peter Bower, Anne Lyles, Susan Morris, London, 2002; Scott Wilcox (ed.), *Sun, Wind, and Rain: The Art of David Cox, with essays by Peter Bower, Charles Nugent, Victoria Osborne, Greg Smith and Stephen Wildman*, Newhaven, 2008.

⁹⁵ John Krill, *English Artists’ Paper: Renaissance to Regency*, New Castle, Delaware, 2001.

⁹⁶ Peter Bower, “The Vivid Surface: Blake’s Use of Paper and Board”, in Townsend (ed), *William Blake*, pp. 54-60; Peter Bower, “A Remarkable Understanding: David Cox’s Use of Paper”, in Wilcox (ed), *Sun, Wind, and Rain*, pp. 97-111; Peter Bower, *Turner’s Papers: A Study of the Manufacture, Selection and Use of his Drawing Papers 1787-1820*, London, 1990; Peter Bower, *Turner’s Later Papers: A Study of the Manufacture, Selection and Use of his Drawing Papers 1820-1851*, London, 1999; Harris and Wilcox, *Papermaking and Watercolor*.

⁹⁷ Hardie, Vol. I, pp. 26-31.

⁹⁸ Cohn, *Wash and Gouache*, pp. 16- 23.

- ⁹⁹ Bower, *Turner's Later Papers*, p. 13.
- ¹⁰⁰ Redgrave, *A Descriptive Catalogue*, p. 18.
- ¹⁰¹ Harris and Wilcox, *Papermaking and Watercolor*, p. 64.
- ¹⁰² Hardie, Vol. I, p. 29.
- ¹⁰³ Peter Bower, "The Evolution and Development of Drawing Papers and the effect of this development on Watercolour Artists, 1750-1850", *The Oxford Papers* (Studies in British Paper History, vol. 1), 1996, p. 62.
- ¹⁰⁴ *Ibid*, p. 61.
- ¹⁰⁵ For a detailed history of Whatman, see Harris and Wilcox, *Papermaking and Watercolor*, pp. 61-119.
- ¹⁰⁶ *Ibid*, p. 64.
- ¹⁰⁷ *Ibid*, pp. 100-101.
- ¹⁰⁸ *Ibid*, p. 102.
- ¹⁰⁹ *Ibid*, p. 107.
- ¹¹⁰ *Ibid*, p. 106.
- ¹¹¹ Cohn, *Wash and Gouache*, p. 16.
- ¹¹² Krill, *English Artists' Paper*, p. 37. Certainly the three terms are not used in Winsor & Newton's 1849 catalogue.
- ¹¹³ *Ibid*, glossary, p. 154. 'NOT' is described on p. 155.
- ¹¹⁴ See below, CH. 2, 'The Paper Question', p. 70.
- ¹¹⁵ Cohn, *Wash and Gouache*, p. 17.
- ¹¹⁶ John Scott Taylor, *Modes of Painting Described and Classified*, London, 1890, p. 15.
- ¹¹⁷ Raymond Lister (ed), *The Letters of Samuel Palmer*, vol. 1, Oxford, 1974, p. 735.
- ¹¹⁸ Krill, *English Artists' Paper*, p. 209.
- ¹¹⁹ Peter Bower, *Turner's Later Papers*, p. 115.
- ¹²⁰ Lister (ed), *Letters*, vol. 1, p. 735.
- ¹²¹ Peter Bower, "Blues and Browns and Drabs: The Evolution of Coloured Papers", Harriet K. Stratis, and Britt Salvesen, (eds.), *The Broad Spectrum: studies in the materials, techniques, and conservation of color on paper*, London, 2002, p. 46.
- ¹²² Bower, "All the Colors of White: the Changing Nature of White Papers", Stratis and Salvesen, *The Broad Spectrum*, p. 134.
- ¹²³ Bower, "A Remarkable Understanding", in Wilcox (ed.), *Sun, Wind, and Rain*, p. 101.
- ¹²⁴ Bower, "Blues and Browns and Drabs", pp. 46, 47.
- ¹²⁵ Personal conversation with Jane Colbourne, Northumbria University, May 2010.
- ¹²⁶ Peter Bower, *Turner's Later Papers*, pp. 129-30.
- ¹²⁷ Hardie, Vol. I, p. 31.
- ¹²⁸ Winsor & Newton, *Catalogue of Materials*, 1849, p. 28.
- ¹²⁹ Harris and Wilcox, *Papermaking and Watercolor*, p. 106.
- ¹³⁰ Bower, "Evolution", pp. 67-8.
- ¹³¹ George Barnard, *The Theory and Practice of Landscape Painting in Water-Colours*, London, 1871, pp. 62-63. 'It is much to be regretted, that there is not some process by which paper can be dried without hanging the sheets across rods, as this always causes some difference in the grain at the part touching the rod; and even with the most perfect stretching, the paper is rarely strained flat.'
- ¹³² A. H. Shorter, *Paper Making in the British Isles*, Newton Abbot, 1971, p. 101.
- ¹³³ *Ibid*, p. 109.
- ¹³⁴ Bower, "Evolution", p. 66.
- ¹³⁵ Cohn, *Wash and Gouache*, p. 20.
- ¹³⁶ Bower, "Evolution", p. 66.
- ¹³⁷ Field, *Chromatography*, 1835, p. 215. This subject was removed from the revised 1869 edition – maybe the issue was no longer a problem by then.
- ¹³⁸ Bower, *Turner's Later Papers*, p. 125.
- ¹³⁹ See below, CH. 4, pp. 112-113.
- ¹⁴⁰ See below, CH. 6.
- ¹⁴¹ R. D. Harley, "Artists' Brushes – Historical Evidence from the Sixteenth to the Nineteenth Century", *International Institute for Conservation Lisbon Congress 1972: Conservation of Paintings and the Graphic Arts*, London 1976, pp.123-130; Cohn, *Wash and Gouache*, pp. 30-33; Hardie, Vol. I, pp. 31-33; Gettens and Stout, *Painting Materials*, pp. 278-281.
- ¹⁴² Cennino d'Andrea Cennini, *The Craftsman's Handbook – 'Il libro dell'Arte'*, (trans. D.V. Thompson), New York, 1960 (first published 1933), pp. 40-41; 53v-54v, British Museum MS. Harley 6376, 12-16 and 87-89 (Henry Gyles, seventeenth century), quoted in Harley, "Artists' Brushes", pp.123-130.
- ¹⁴³ Hardie, Vol. I, p. 31.
- ¹⁴⁴ Harley, "Artists' Brushes", p. 123.
- ¹⁴⁵ *Ibid*, pp. 123-4.

- ¹⁴⁶ Ibid, p. 124.
- ¹⁴⁷ Charles William Day, *The Art of Miniature Painting*, London, 1852, p. 14.
- ¹⁴⁸ See below, CH. 3, p. 91.
- ¹⁴⁹ www.cornelissen.com/pdf/brushes.pdf, p. 150. Historical description of brushmaking.
- ¹⁵⁰ Winsor & Newton, *Catalogue of Materials*, 1849, pp. 18, 21 -26.
- ¹⁵¹ Cohn, *Wash and Gouache*, p. 30 (endnote 1), put the date at which the term 'pencil' became obsolete at around 1900.
- ¹⁵² John Thomas Gullick and John Timbs, *Painting Popularly Explained*, London, 1859, p. 295 (See below, Appendix 1, *Nineteenth-Century Definitions*).
- ¹⁵³ Cohn, *Wash and Gouache*, p. 32.
- ¹⁵⁴ Day, *Miniature Painting*, p. 14.
- ¹⁵⁵ Cohn, *Wash and Gouache*, p. 30.
- ¹⁵⁶ Winsor & Newton, *Catalogue of Materials*, 1849, p. 21.
- ¹⁵⁷ Cohn, *Wash and Gouache*, p. 32; Winsor & Newton, *Catalogue of Materials*, 1849, pp. 22-3.
- ¹⁵⁸ Cohn, *Wash and Gouache*, p. 32.
- ¹⁵⁹ Winsor & Newton, *Catalogue of Materials*, 1849, pp. 23-26.
- ¹⁶⁰ Unpublished letter included with the 1863 Winsor & Newton catalogue in the copy at the Winsor & Newton archive, Harrow.
- ¹⁶¹ Winsor & Newton catalogue 1878, p. 31, attached to Thomas Hatton, *Hints on Sketching in Water-Colour from Nature*, London, 1878.
- ¹⁶² See below, CH. 7, p. 180.
- ¹⁶³ See below, CH. 8, p. 213.
- ¹⁶⁴ Gettens and Stout, *Painting Materials*, p. 28.
- ¹⁶⁵ Ralph Mayer, *The Artists' Handbook of Materials and Techniques*, New York, 1981, p. 286.
- ¹⁶⁶ Aaron Penley, *The English School of Painting in Water Colours*, London, 1861, p. 29. Penley notes that this gum is 'glossy in character, and employed chiefly by Figure and Miniature Painters. It is seldom required for landscapes, except, perhaps, to... give additional force...to the deepest parts of foreground objects.'
- ¹⁶⁷ T.M. Rooke, "Note on Burne-Jones's Medium", in William S. Taylor, *Burne-Jones: Catalogue of an exhibition held at the Mappin Art Gallery, Weston Park, Sheffield, from 23rd October to 28th November 1971*, Sheffield, 1971, p. 8
- ¹⁶⁸ Malcolm Bell, *Edward Burne-Jones: a record and review*, London, New York, 1899, p. 50. See also below, CH. 7, p. 164. *Love Among the Ruins* was subsequently restored by Burne-Jones.
- ¹⁶⁹ Richard Redgrave and Samuel Redgrave, *A century of painters of the English school*, vol.1, London, 1866, p. 477.
- ¹⁷⁰ Duffield, *Flower Painting*, p. 30. Painting the geranium flower using Pure scarlet is said to require being finally 'glazed thickly with a solution of gum-arabic, which will, by excluding the air, obviate the former difficulty.' [ie 'exposure to the atmosphere, and the contact of metals']; George Field, *Rudiments of the Painters' Art or a Grammar of Colouring*, London, 1850, p. 129, also recommends gumming fugitive colours to retard fading.
- ¹⁷¹ George Rowney and Co., price list, attached to George Rosenberg, *The Guide to Flower Painting in Water Colours*, London, 1852, p. 13.
- ¹⁷² Barnard, *Landscape Painting in Water-Colours*, 1871 (3rd edition), p. 74.
- ¹⁷³ Meyer, *The Artists' Handbook*, p. 335.
- ¹⁷⁴ Field, *Chromatography*, 1835, p. 200.
- ¹⁷⁵ Winsor & Newton *Catalogue of Materials*, 1849, p. 16.
- ¹⁷⁶ Cohn, *Wash and Gouache*, p. 57.
- ¹⁷⁷ Penley, *The English School*, p. 29.
- ¹⁷⁸ Reeves and Sons price catalogue, London, 1879 (Museum of London archive), p. 36.
- ¹⁷⁹ Field, *Chromatography*, 1846, p. 346.
- ¹⁸⁰ See below, Appendix I, John Chase.
- ¹⁸¹ R.P. Noble, *A Guide to Water Colour Painting*, London, 1850 (1st ed), Appendix, p. 63; George Barnard, *The Theory and Practice of Landscape Painting in Water-Colours*, London, 1857 (1st edition), p.73; Penley, *The English School*, p. 29.
- ¹⁸² See below, CH. 7, p. 178.
- ¹⁸³ *Art Journal*, 1 April 1870, p. 114.
- ¹⁸⁴ Penley, *The English School*, p. 131.
- ¹⁸⁵ Field, *Chromatography*, 1835, pp. 198 and 200.

Chapter 2 ‘Shilling vade-mecums:’¹ Watercolour Manuals and New Materials

This is a colour-seller’s manual, with fifty pages about Art and a hundred about Messrs. Rowney’s colours.²

The expansion in the range of new watercolour materials which we have explored in Chapter One and their easy availability from the growing number of colourmen’s shops provided a bewildering wealth of choice, especially now that artists no longer knew the composition of the pre-packed, ready-made pigments on the shelves. To help with the selection of materials and their correct application, colourmen and publishing houses began to produce affordable small instruction manuals, which often had catalogues attached at the back. This combination of manual and catalogue can be seen as an enterprising new marketing tool devised by colourmen to promote their products to an unsuspecting but highly receptive amateur audience. Popular series, such as Winsor and Newton’s paperback One Shilling Handbooks on Art, which were introduced during the 1840s, were made possible by the recent reduction in paper duties and improvements in printing and papermaking processes. Today they provide a valuable source of information on changing patterns of usage of new materials and of developments in artistic practice at this time.

In this chapter I will assess the degree to which the new ranges of ‘colour-seller’s manual’ which began to flood the market between 1850 and 1880, heavily promoting the latest products, may have influenced the development of watercolour techniques at this time. A list of the twenty manuals studied, indicating the dates of successive editions analysed, is included in the bibliography at the end of the thesis.³ Authors range from the famous critic, John Ruskin, and the chemist, George Field, to the accomplished fruit and flower painter, Mrs William Duffield, and two Professors of Drawing, Thomas Rowbotham and Aaron Penley.⁴

The twenty manuals studied have been selected to provide a representative range of styles and dates, although the majority first appeared between 1850 and 1860, with revised editions appearing regularly up to 1880 and beyond. Where possible, successive editions have been compared and significant updates noted. William Muckley’s handbook, published in 1880, provides a valuable assessment of the state of the art of watercolour and oil painting and usage of materials at the very end of the period. By this date the subject of durability of pigments, both new and old, had become a topic of earnest debate. It is worth noting that its first page carries the

following comment: ‘This manual was in the press, some weeks before Mr. Holman Hunt read his paper on “Painters’ Materials”, at the Society of Arts, April 21, and its appearance at the present time is purely a coincidence.’⁵

Whilst landscape painting in watercolour was the main topic of eight of the manuals studied for this project, a selection of other titles, which were available during this period, have also been included, as they provide valuable information on the latest trends and on materials and methods used alongside watercolour by some of the artists featured in later chapters of my research. For this reason Henry Murray’s *The Art of Painting and Drawing in Coloured Crayons*, Charles William Days’ *The Art of Miniature Painting*, J.W. Bradley’s *A Manual of Illumination on Paper and Vellum* and Edwin Jewitt’s *Manual of Illuminated and Missal Painting*, all first published between 1852 and 1860, have been included. These explain contemporary preparation and usage of such materials as vellum and London or Bristol Board; shell and leaf gold, silver and aluminium; conté crayons; and fixing liquids.

In addition, two manuals on flower painting and two on figure/portrait painting have been included, as they give important insights into stippling and hatching techniques, which were becoming increasingly adopted into landscape painting by the mid-nineteenth century by artists such as Birket Foster and John Frederick Lewis, as we shall see in later chapters. Furthermore, the flower manuals provide evidence of the early adoption of very new purple and red pigments, vital for the faithful representation of flowers such as the geranium and cineraria and convolvulus. This issue will be discussed in more detail below.

During the same period, other more technical handbooks appeared, written by specialists including George Field (1777-1854) and William Muckley, which became important reference works not only for amateurs, but also for many serious artists, keen to understand the latest scientific evidence on the permanence, purity and application of the different pigments, in the light of contemporary fears about adulteration and durability. Field’s *Chromatography: A Treatise on Colours and Pigments and of their Powers in Painting* and his *Grammar of Colouring*, first published in 1835 and 1850 respectively, were regularly updated and revised over the period in question, to include many new pigments.⁶ They analysed the permanence and stability of all the pigments available at that time, including Field’s own range of new and improved colours. Importantly, the 1875 edition of the *Grammar of Colouring*

included a notably extended chapter on Modes of Operation, giving ‘ample and practical instructions as to the methods of mixing colours, and the manipulation generally adopted in Sepia, Water-colour, Tempera, Oil, and Fresco Painting, with information as to the materials and implements used.’⁷ The new section on watercolour, entirely absent from the 1850 edition, included information on brushes, types of paper (HP, ‘Not’ and rough), usage of cake, moist pan and tube watercolours and applying washes.

Watercolour manuals from the early years of the nineteenth century had generally contained a series of progressive illustrations for copying and little or no text, were often of large dimensions and expensive to buy.⁸ David Cox’s *Treatise on Landscape Painting and Effect in Water Colours* of 1813, thought to have been used by Samuel Palmer,⁹ contained 24 soft-ground etched plates and 16 hand-coloured aquatint plates and measured 289 by 473 mm. Designed to be consulted at home, it was clearly not intended for the mass market. By comparison, the Winsor and Newton One-Shilling Handbooks, which were probably the most successful in the market, measured only 122 x 180 mm and could be carried around in the pockets of the amateur on his sketching trips (Figure 31). They were generally not illustrated (apart, interestingly, from the images promoting their products for sale in the catalogue at the back) and many gave suggested lists of colours, gums, papers and brushes, together with directions on how to apply them. Commissioned by Winsor and Newton mainly from artists or illustrators who either taught at respected art schools or belonged to one of the two watercolour societies, their popularity can be gauged by the number of editions to which many of them ran over the course of the next forty years. The Rowbothams’ manual, *The Art of Landscape Painting in Water Colours*, first published by Winsor and Newton in 1850, was in its 39th edition by 1883 and Aaron Penley’s *A System of Water Colour Painting*, also first published in 1850, reached its 38th edition by 1879. In some manuals, subsequent editions had updated lists of pigments (to include the latest colours), or completely new sections containing commentary on, and sometimes disapproval of, new methods of manipulation, particularly the growing and often controversial trend in the use of bodycolour (directly attributed to the recent introduction of Chinese White). Such details provide evidence of the ways in which new materials were affecting artistic practice and the speed at which change was taking place, although it must be stated that some manual writers were reluctant to alter or update their treatises in any way. The 1850 and 1858 editions of the Rowbothams’ manual, for example, remain identical. After the first edition of Ruskin’s manual *The*

Elements of Drawing (issued by Smith, Elder and Co. and written by Ruskin in response to requests from the public) sold out so quickly that a second edition was issued only four months later in October 1857, the author stated his opinion that it was not ‘desirable otherwise to modify the form or add to the matter of a book as it passes through successive editions’.¹⁰ He placed any additional comments in an appendix.

As well as Winsor and Newton, Rowney and, to a much lesser extent, Reeves, produced similarly sized instruction manuals between 1850 and 1880, as did a range of publishers, such as Kent and Co. (Gullick and Timbs’ *Painting Popularly Explained*); Smith, Elder and Co. (Ruskin’s *The Elements of Drawing*, illustrated with 48 small woodcuts), Cassells (Leitch’s *A Course of Water Colour Painting*) and Hamilton, Adams & Co. (Barnard’s *The Theory and Practice of Landscape Painting in Water-colours*). Occasionally much more expensive larger format works appeared, such as Penley’s *The English School of Painting in Water Colours*, which was published by Day and Son in 1861, and which contained 45 chromo-lithographic plates. Despite the ‘costly character of the work’,¹¹ such was its success, that a second edition was printed in 1868.

The value of manuals in identifying both contemporary artists’ practices and the materials in use has been clearly acknowledged by Carlyle and Cohn in their important studies of oil and watercolour instruction manuals respectively, although Cohn’s work, which encompasses both twentieth-century and French and American watercolour manuals, is less focussed on purely British nineteenth-century developments than my study.¹² Martin Hardie provides valuable references to selected eighteenth- and early nineteenth-century manuals but little from 1850 onwards¹³ and John Krill focuses on the years 1790 to 1820, the period when, he suggests, manuals for drawing landscapes in watercolour first began to appear and evolve. He concludes that ‘much can be learnt from the manuals on the subtleties of taste, new techniques, and new materials.’¹⁴

Chapter Eight of this thesis throws light for the first time on the reaction of critics to the arrival of many of the manuals and to the different techniques and materials advocated in them, increasingly objecting to the old-fashioned drawing master methods of such authors as Rowbotham, J. D. Harding and Thomas Hatton, but praising works such as those by Barnard and by Gullick and Timbs, which discussed not only the latest techniques but also different media, the legitimacy of bodycolour and the permanence of pigments. The unconventional methods advocated by Ruskin,

‘in which all academic conventions were abandoned’, were unfavourably received by critics, yet successfully practised by progressive artists such as John Frederick Lewis, Myles Birket Foster and Edward Burne-Jones.¹⁵

2.1 The Impact of New Pigments

The adoption of new nineteenth-century pigments by manual and handbook writers at this time is surprisingly swift and widespread. Of the works studied, only one, on sketching (Hatton), recommended just one new pigment, Chinese White, although this was alongside a limited palette of only five traditional colours.

Most other manuals listed palettes of between 20 and 40 colours, although Rowbotham included as many as 56, and in many of these at least one third were new nineteenth-century pigments. The earliest new nineteenth-century pigments (pre 1820) widely included were Cobalt (recommended by almost all the manuals), Chrome Yellow, Emerald Green and Oxide of Chromium.

Of the new pigments (underlined) introduced between 1820 and 1840 which appear on the lists, the most popular are:

Extract of Vermilion/Orange Vermilion

French Blue (Synthetic Ultramarine)

Chinese White

The synthetic French Blue was a cheaper alternative to traditional Genuine Ultramarine, and could be obtained for between 2/- and 3/-, compared with 21/- a cake or tube for the original counterpart. It also had much better working properties. Extract of Vermilion and Orange Vermilion were new improved variations on the traditional vermilion pigment, offering more transparency together with better washing properties.¹⁶ Both Samuel Palmer and Edward Burne-Jones used Extract of Vermilion as we shall see. The use of Chinese White will be discussed below in more detail, as it created such a diversity of reactions amongst manual writers.

Of the pigments introduced after 1840, the most popular included in the manuals were yellows and purples:

Cadmium Yellow

Lemon Yellow

Aureolin

Mars Yellow

Mars Orange

Purple Madder

The new yellows were often recommended in addition to traditional (but less durable) yellows such as Indian Yellow, Italian Pink and Gamboge and the more opaque Yellow Ochre. Field describes Cadmium as ‘glowing, lustrous, brilliant’, Lemon Yellow as ‘of a vivid lemon tint’ which ‘exceeds gamboge in brightness’, and Mars Yellow as ‘brighter and purer than native ochres’.¹⁷ Aureolin, one of the latest pigments introduced in 1861 (thirty years after it was first synthesised),¹⁸ was in some of the later editions of manuals substituted for one of the traditional yellows. For bright foreground foliage, for example, Noble replaced the original Indian Yellow of his 1850 edition¹⁹ with Italian Pink in 1867 and subsequently with Aureolin. The year of its introduction, Penley included it as a new colour in the first edition of his *English School of Painting in Water Colours*, with the words ‘Mr. Winsor has been upwards of three years in bringing this colour to perfection.’²⁰ Winsor and Newton themselves promoted the new pigment heavily in their 1863 catalogue (Figure 32). Aureolin and Cadmium Yellow were recommended in later years by both Palmer and North.

In addition, for flower painting, Rosenberg, as early as 1852, also selected: Violet Carmine, Extract of Madder Carmine and Dahlia Carmine.

All three pigments were recent introductions into Rowney’s colour range, and were not available from other colourmen until some years later.²¹ Rosenberg’s manual was a good way of promoting these new products, which may have been developed specifically for the use of flower painters. Previously, as has been noted, artists had to mix their own purples and pinks but could not achieve such bright colours until the arrival of these new pigments. Field notes, however, the fugacity of Violet Carmine.²² Madder Carmine, an improved, richer and less fugitive form of carmine, was one of the more expensive pigments at this time, costing 5/- a tube or cake, and was favoured by Burne-Jones in his earliest work.²³

New mixed greens were only occasionally recommended for landscape painting as many authors still preferred students to prepare their own from combinations of Indigo with transparent yellows such as Gamboge, Indian Yellow or Italian Pink, according to traditional principles. Indian Yellow is fugitive and was recommended despite

warnings from George Field; Italian Pink, an organic vegetable yellow, was also considered fugitive.²⁴ By 1880 Muckley was lamenting: ‘The transparent vegetable yellows have been used during the last three centuries, in combination with blues, to form greens. In all cases these yellows have flown away, and only the blue colour with which they were originally mixed has remained.’²⁵ Leitch, however, whilst finding new Emerald Green ‘bright’, found it ‘very heavy, and ...constantly sinks to the bottom of the water.’²⁶ Of the landscape manual writers, only Ruskin, Rowbotham and Penley included the new Emerald Green and/or Oxide of Chromium in their palette.

These three authors also embraced a large number of other new pigments, including all of the yellows mentioned on the previous page (Aureolin being included only in Penley, however, as Ruskin and Rowbotham’s books predate this) and Orange/Extract of Vermilion. The addition by Ruskin of Violet Carmine to his list in 1857 was particularly adventurous, as this had only been introduced by Rowney in 1852.

The two missal painting manuals are particularly interesting for their inclusion of pigments not found in any other types of watercolour manuals at this time: metallic pigments, for gilding. Field notes that, due to the ‘paucity of fine yellows among those antients [sic],’²⁷ gilding was used to replace yellow in illuminated manuscripts. Frederick Lewis and Samuel Palmer used gold in some of their later work and Edward Burne-Jones bought metallic pigments to incorporate into his watercolours between 1861 and 1879 (see Appendix IX). From the early 1860s gold, silver, and to a lesser extent, bronze pigments were advertised ready-prepared in a variety of forms: leaf, powder, cakes, shells, ink, saucer and moist, the latter being contained in new glass gallipots which enabled the colour to be seen and kept them free from dust (Figure 33). Bradley also included Shell Aluminium and Platina, accompanied by four pages of directions for their application.²⁸ Winsor and Newton’s 1863 catalogue promotes their new range of Colours and Materials for Illumination and Missal Painting over several pages, describing the ‘popularity of Illumination...still continually increasing and extending its influence.’²⁹ Could it be that the growing popularity of this art owed its origins once again to John Ruskin? In November 1854 he had presented a lengthy paper at the Architectural Museum in Westminster, with the ultimate aim ‘to make this art of book illumination fashionable.’³⁰

Manual writers differed in the form they recommended for their pigments, and presented cakes, moist pans or tubes as each being suitable for specific purposes.

Interestingly, despite his keen promotion of new pigments and techniques, Ruskin was one of the few manual writers not to recommend using the newer forms of moist pans or tubes of colour, insisting on ‘hard cake colours, not moist colours’.³¹ Hard cakes and powder colours were generally recommended for miniature painting (traditionally powder colours had been mixed with glair or white of egg) and by authors, such as Barnard, for pure washes, whilst moist pans and gallipots were the choice of manuals on missal painting, which required the colours to be kept very pure and clean. Moist colours were also preferred to dry cakes ‘as giving out the greater volume of colour, and possessing the greater tenacity or power of adhering to the surface of the material on which they are used.’³² Moist pans were widely advocated amongst manual writers for their convenience and were considered best for beginners.

Portrait and figure painters preferred the use of tube colours squeezed out into small wells on the palette.³³ Tube colours, only introduced in 1847, were also recommended in landscape manuals by Noble and Rowbotham (as early as 1850), in Barnard’s 1858 edition (but not in his first edition of 1855), and by the 1873 Leitch manual, as being suitable for rapid outdoor sketching and for large works ‘when a very considerable body and breadth of colour is required to be laid on in a short time.’³⁴ It is certain that the new tube pigments had been aggressively promoted by colourmen amongst the leading artists of the day since their introduction, in order to solicit persuasive testimonials for catalogues and manuals. Indeed Leitch’s words echo almost exactly those from Winsor and Newton’s 1849 catalogue [see Chapter One]. However, there were disadvantages with tubes, as some colours did not keep well in this form ‘and moreover there is waste in using them when only moderate quantities are required, as the colour cannot be replaced in the tube when once squeezed out’.³⁵ By 1879, Winsor and Newton’s catalogue admitted tubes were ‘somewhat wasteful and troublesome in use’ and that they did not ‘keep so long or so well as the ordinary solid or “Pan” form of Moist Colour.’³⁶ By 1890, John Scott Taylor was writing that ‘the colours in pans are now used far more extensively than those in cakes or tubes; they furnish a supply of colour with greater convenience than the former, and are more compact and less wasteful than the latter.’³⁷ Professional artists, however, such as Burne-Jones, Lewis, Palmer, Foster and North, continued to purchase pigments in a variety of forms, as we shall see, although hard cakes of colour and powdered pigments seem to give way to an increasing usage of tubes and moist colours over time.

2.2 The Legitimacy of Chinese White

Of the new pigments, Chinese White created the most discussion regarding the ‘legitimacy’ of its use. Whilst Rosenberg and Leitch omitted white of any sort from their palette, Noble allowed limited usage of Chinese White. Recommended either in bottle or tube form by the remaining writers, Penley regretted that ‘any person should condemn its use, and call it illegitimate,’³⁸ whilst Gullick and Timbs discussed the advantages and disadvantages of the pigment over five pages of their 1859 manual (admiring both William Hunt and Frederick Lewis’s use of it), admitting ‘all that is characteristic in the water-colour art of our own time, in so far especially as it is imitative of oil painting, being attributable to the abundant use of white, it is evident that an eligible white pigment is extremely desirable.’³⁹ John Ruskin clearly advocated Chinese White mixed with other pigments as ‘body-colour’, which he considered ‘just as legitimate as oil-painting.’ The reason he gave for using bodycolour was because it was ‘infinitely liker Nature than transparent colour’.⁴⁰

The speed at which high levels of Chinese White were being adopted into watercolour painting may be judged by the fact that, between the appearance of the first edition of Barnard’s landscape painting manual in 1855 (which advised that the artist should avoid ‘as much as possible, the employment of opaque body colour’⁴¹) and the second edition in 1858, an entirely new four page section was added on ‘the use of body colour in water-colour painting’.

Since the publication of the first edition of this work, the use of Chinese white or oxide of zinc has greatly increased; and the constant recurrence of this mode of gaining effects by artists of established reputation, in fact, by nearly all the first men of the school, has doubtless caused these demands. It will, therefore, be as well if we consider without prejudice the advantages and disadvantages of this alteration of style in the use of water-colours.⁴²

The two main advantages observed are the improved facility of pigments mixed with Chinese White for laying a wash of ‘broad flat tint’, and the brilliance of Chinese White which ‘appears brighter than the best white paper,’⁴³ allowing the artist to key-up the colours significantly, an advantage also noted by Whiteford.⁴⁴ However, there were doubts about the stability of the pigment when exposed to ‘the innumerable foul gases...found...in our houses,’ and a reluctance to lose the transparency and atmosphere achieved by of the older method of working.⁴⁵ New commentary was also added in the 1858 edition on stippling, hatching, blotting-in, stopping out, dragging and the use of new vehicles and mediums.⁴⁶

In his 1870 manual, Sydney Whiteford, who had studied under William Henry Hunt, made some very interesting and important observations comparing the modern use of bodycolour (using Chinese White) with the older method. These also help us to understand the differences perceived at this time between the terms Distemper, Tempera and Bodycolour, and why contemporary critics often any used one of these three terms to describe the exhibition works they were reviewing.

Body-colour, as formerly used, was what would now be more correctly termed Tempera or Distemper. The colours, generally in powder, were mixed with white to give them substance, and isinglass or other size was added to fix them on the paper or canvas. It was necessary to lay them on rapidly and with precision, as the lighter tints at least could not be re-touched or corrected...

By the method now in favour, and which affords very superior results, the Body-White is spread over the paper and forms a slightly absorbent and very luminous ground. When dry, colours, transparent or opaque, occasionally mixed with a little white, are touched over or blotted into it.⁴⁷

If a thick layer of white is required, Whiteford's advice is to firstly prepare the paper by rubbing down with fine sandpaper and then to spread 'Body-White' thickly with a palette knife or the thumb. After allowing the white to dry, it is scraped completely flat using a round bladed knife or eraser (which is a metal scraper and not an india-rubber). Thin colours may then be glazed over or blotted into it, taking care not to disturb the white layer underneath. The fragility of works painted on a white ground is acknowledged, as 'portions of the thick pigment, when quite dry, are very easily detached'.⁴⁸ Lewis, Palmer, Foster and Burne-Jones (*Clerk Saunders, Days of Creation*) all employed white grounds in their watercolours at different times and this will be discussed at more length in later chapters.

The handbook produced by artist William Muckley in 1880 looked back at the changes he had observed in watercolour practice in recent years and was in no doubt as to the important role played by the new zinc white pigment:

The discovery of Zinc White, soon gave a new expression to water-colour art. It was first used in a sparing manner...As the powers of this new pigment became obvious to the artist...it was made to do that work in water-colour painting which Flake White was doing in oil, until at last Zinc White (Chinese White) was combined with all the pigments used in water-colour painting, much in the manner of tempera painting...Of course there were, and still are, cries against the use of white in this form...But when we see how thoroughly this material has been made subservient to the intention of the painter, as in the works of William Hunt,... Burne-Jones, and others, it must be felt/ that water-

colour painting has gained enormously by the discovery of Zinc or Chinese White.⁴⁹

2.3 The Paper Question

The three surfaces of wove paper offered by Whatman by 1850, HP (Hot Pressed), Not (Cold Pressed or Not Hot Pressed) and Rough, each allowed the artist to create different effects and were very popular with writers of traditional landscape manuals. ‘Papers of Whatman’s manufacture are esteemed for possessing sufficient hardness to resist moderate friction without becoming “woolly,”’ explain Gullick and Timbs in their 1859 handbook. ‘That the paper should be properly sized is of great importance. If sized too strongly, colour will not float or work well upon it...If sized too little, the colour will be absorbed into the fabric and appear poor and dead.’⁵⁰ Whatman paper is recommended by Rowbotham, Hatton, Barnard and Penley, in particular the rough Imperial size (30 x 22 inches). For larger works, thick Antiquarian and Double Elephant papers of 140 lbs (per ream) weight are suggested. The Rowbothams (father and son), Barnard and Penley were all at one time professors of drawing or landscape painting at important naval, public and military colleges and advocated traditional methods of transparent washes.⁵¹ Such a technique, with its focus on atmospheric effects, relied on a granular, slightly absorbent, paper, with its ‘many little hollows and projections, which receive transparent washes of colour, whereby an alternation of light in the protuberances and half-light in the cavities, is maintained.’⁵² Krill observes that roughness was ‘a primary component in Picturesque theory,’⁵³ and coarse papers were considered to enhance the irregularity of the forms being portrayed.

As the Picturesque gave way to increasing naturalism during the mid-nineteenth century, the concept of roughness and irregularity was replaced by a desire for detail and ‘truth to nature’, achievable only by means of a smoother surface. Ruskin rejected rough papers, noting in his manual that ‘coarse, gritty, and sandy papers are fit only for blotters and blunderers; no good draughtsman would lay a line on them’.⁵⁴ Critical reviews of the Society of Painters in Water Colours’ exhibitions from this period (see Chapter Eight) certainly reflect a general move away from rough papers in favour of ‘smoother surfaces,’⁵⁵ which were better suited to detailed work.

For minute techniques such as stippling and hatching, for example, borrowed from the art of the engraver⁵⁶ and used in flower, miniature and missal painting, a smooth and even surface was required. Jewitt and Bradley both select traditional vellum and either

London or Bristol Boards (which ‘supersede anything we can make with our own hands’) or paper ‘with a fine, firm grain, and having an ivory-like surface’.⁵⁷ For flower painting Rosenberg chooses ‘cold-pressed Antiquarian, Whatman’s make, as possessing a sufficiently smooth and even surface, together with good substance or body.’⁵⁸ Day’s book on miniature painting discusses the relative virtues of the three surfaces suitable for such intricate work: ivory, Bristol Board and vellum. Bristol Board, developed around 1800, preceded the higher quality London Board, and allowed ‘larger and bolder drawings being made on it than ivory; it washes more easily, and ...is not so highly worked.’⁵⁹

During the 1850s, the techniques of stippling and hatching (Figure 34) became increasingly translated across into landscape watercolour painting. Ruskin in particular championed the use of these techniques. He writes of achieving gradation of colour by means of ‘breaking one colour in small points through or over another’ and of ‘interlacing’ colours in ‘rather vigorous small touches, like finely chopped straw’,⁶⁰ admiring William Henry Hunt’s dexterity in this technique. By the time the second edition of *The Theory and Practice of Landscape Painting in Water-Colours* was published in 1858 (a year after Ruskin’s manual), George Barnard felt compelled to expand the section on “Modes of Working” from four to thirty-six pages, referring not only to the increased use of bodycolour discussed above, but also to hatching and stippling, originally used from ‘the earliest oil-painters’ but now said to be ‘more particularly practised by the water-colour school.’⁶¹

It is significant, when we look at the way watercolour painting was developing throughout this period, with more use of fine detail and bodycolour, that, of all the landscape manual writers, Ruskin alone promoted the use of smooth surfaces rather than rough or Not papers. In fact, Ruskin stands out generally as the most radical of all the manual writers, in his advocacy of smooth paper, bodycolour, new nineteenth-century pigments and stipple and hatching techniques. Colin Cruise notes that Ruskin’s ideas ‘were conceived in opposition not only to the traditions of the Royal Academy but also to the newly formulated system of instruction at the Government Schools of Design.’⁶²

Whiteford, in his *Guide to Figure Painting* of 1870, makes some interesting observations on Ruskin’s choice of paper support. ‘Ruskin recommends the use of “White” or “Grey paper as smooth as silk;” “Bristol Board” or “Hot-pressed Imperial”.

The texture of such papers, though suitable for work in body colour, would render it impossible to spread a flat transparent tint evenly.’⁶³ The emphasis here on the suitability of such slippery smooth-surfaced papers for painting in bodycolour is interesting, because it suggests that the physical consistency of paints mixed with Chinese White from the tube or bottle was more viscous than washes made using ordinary cake watercolours, which would have simply run off the page. We will see in the case studies to follow, that innovative artists employing bodycolour and intricate detail, often chose hot pressed papers and boards. Birket Foster found London Board (introduced in the 1830s) ideal for the painstakingly detailed images he produced using bodycolour and Palmer used the same board for his later landscape work requiring vigorous handling, although he struggled with the slipperiness of the surface at first. We also know that Lewis’s intricate watercolours in 1866 were produced on Imperial, Extra-Thick Imperial and Double Elephant Hot Pressed papers (see Chapter Three) and that Burne-Jones regularly ordered medium sized (Royal 4^{to} [quarto]) HP solid sketch blocks during the late 1870s (see Chapter Seven).

Further advances in the drying processes of paper had produced a Seamless paper from Whatman, listed for the first time in Winsor and Newton’s 1861 catalogue and available in all three finishes (HP, Not and Rough). Described as being ‘perfectly flat, and without any seam mark across the centre of the sheet’,⁶⁴ seamless paper was purchased from Roberson by Burne-Jones in the mid 1860s, as Chapter Seven will show. Not all manual writers were aware of this new development, however, for in 1871 Barnard was complaining: ‘It is much to be regretted, that there is not some process by which paper can be dried without hanging the sheets across rods, as this always causes some difference in the grain at the part touching the rod; and even with the most perfect stretching, the paper is rarely strained flat.’⁶⁵ It is only in Whiteford’s 1870 manual that Whatman’s seamless “Not” paper is first recommended.⁶⁶

Considered especially useful for painting in bodycolour, the new range of Harding’s paper, available from the 1830s, is described by Rowbotham as ‘valuable for its equality of surface’ and ‘distinguishable by a warmth of tint’ and it was said to be particularly popular made up into solid blocks or sketchbooks.⁶⁷

The choice of paper for watercolour was becoming increasingly complex at this time, as Penley recognised, in his *English School of Painting in Water Colours* of 1861. Here he refers to the different qualities of paper needed for different styles of painting,

from a ‘finely-grained surface’ for ‘subjects minute and detailed’, to ‘more decided texture’ where ‘evenness of tint and manipulative dexterity can be readily produced’ and finally to the ‘roughest kind’ in which ‘both of these qualities are combined with increased power and general effect.’ ‘There is so much difference of opinion respecting paper,’ he concludes, ‘that it has given rise to the term “paper question”.’⁶⁸

The ‘paper question’ concerned not only different types of paper, but also the inconsistent quality and unreliability of papers whose production methods were continually undergoing change at this time. The ‘highly esteemed’ J.D. Harding’s paper, ‘a machine-made paper, and different in character and grain from that which is “hand-made”...but not so well adapted for drawings requiring frequent spongings or washings,’ was considered by Penley to have declined in quality in recent years.⁶⁹ Thomas Creswick’s paper, the ‘finest of all’, had ceased to be made, as we have seen, in 1839, and was extremely difficult to obtain. However, in his 1868 edition, Penley was able to report that Newman was now offering ‘some excellent paper called Imitation Creswick, which is admirably adapted for water-colour painting.’⁷⁰ Once again Ruskin expressed strong opinions on the subject, this time in public lectures given during the Manchester Art Treasures Exhibition in 1857. Gullick and Timbs’s 1859 handbook quotes sections from Ruskin’s speech, on *The Political Economy of Art*, in which he proclaims that future generations will say: ‘Those wretched nineteenth century people! they kept vapouring and fuming about the world ...and they couldn’t make a sheet of paper that wasn’t rotten.’⁷¹ Gullick and Timbs blamed the use of chlorine as a bleaching agent in modern papermaking processes as ‘the chief cause of the deleterious preparation of paper’,⁷² echoing George Field’s concern. John William North’s attempts during the later years of the nineteenth century to develop for watercolourists ‘a paper that would be practically imperishable and in every way fit for their work’ will be followed in Chapter Six.⁷³

2.4 Brushes: Quills or New Metal Ferrules?

In Chapter One, the term ‘pencil’ was shown to have been superseded by the term ‘brush’ by 1849. Field’s *Grammar of Colouring* of 1875 distinguishes clearly between the terms as follows:

This latter term [pencil] has been applied to small brushes, such as “camel-hair” and “sable” pencils, and is generally used symbolically in relation to painting...Still, in general terms, a brush is understood to mean the implement with which wet colour is applied, in opposition to the dry point, such as a crayon or lead pencil.⁷⁴

The growing usage of the word 'brush' during the mid-nineteenth century would thus seem to be related to an increase in the size of the implement being used. Indeed as we have seen, watercolour brushes with recently introduced metal ferrules which could be either round or flat, were no longer restricted to the dimensions of birds' feathers as the quills had been, but could be obtained in widths up to four inches across. Gullick and Timbs confirm the change in terminology:

The smaller kinds of brushes are still sometimes termed "pencils;" but the use of the word "pencil" instead of "brush," as distinctive of and peculiar to water-colour painting has become obsolete; and with reason, for to cover rapidly with floating colour the large surfaces of modern works in water-colour, requires brushes almost as large as any needed for painting pictures in oil.⁷⁵

All of the manuals employ the word 'brush' with only Noble referring to a 'flat camel's-hair pencil'.⁷⁶ Whether the colourmen were responsible for the change in terminology we are as yet unable to judge, although they certainly featured increasing numbers of illustrated pages of watercolour brushes of a dazzling array of shapes and sizes.

Round sable brushes, mainly in quills, were recommended in manuals for most purposes, often a combination of red and brown varieties, as they possessed different working qualities. The brown sable, sometimes also called black, was considered best for general purpose use in conventional landscape and flower painting, as it was 'firm and elastic, with the desirable quality of keeping the point fine, and the body of the brush united when charged with colour.'⁷⁷ Red sable was preferred for illumination, figure and miniature painting, being stiffer and 'firmer at the point'⁷⁸ and, as Barnard added in an expanded section in 1858, was considered 'more useful in dragging or making separated touches than in laying on washes'.⁷⁹ According to Rowbotham, the firmness of the red sable brush also made it particularly suitable for painting in bodycolour.⁸⁰ Whilst these sables were still frequently preferred in traditional quills, the majority of manuals also acknowledged the usefulness of other types of brush in the new flat metal ferrules.

Flat brushes had very specific uses and created distinctive effects. The metal ferrule being much stronger than the fragile quill, more pressure could be applied to the bristles, allowing for more vigorous brushstrokes and the manipulation of thick paint. Students were advised to use flat camel's hair (squirrel) brushes of up to two inches wide when painting 'large pieces of water...to soften distant reflections, and produce

an appearance of atmosphere'⁸¹ (Figure 35), while Penley recommended flat sable brushes for the application of both Chinese White and watercolour megilp.⁸² Especially suitable, too, for painting foliage, 'where it is desirable to preserve a square, sharp, and well-defined touch', flat brushes were said by Rowbotham to create a similar style of manipulation to oil painting, with their long handles making easel work particularly successful. In this case, a mahl stick was also suggested, making the similarity to oil painting complete. The same manual also recommends the use of flat hog-hair brushes 'used in oil painting, if made with a fine soft bristle' as suitable for use with bodycolour. 'Their strength and stiffness enable the painter to employ thicker colour than can be worked with sable brushes, as well as to force it more effectually into the texture or grain of the paper.'⁸³ Whiteford also suggests the use of soft hog's hair brushes 'with ground tips for giving texture and partially or entirely removing colour'.⁸⁴ In 1880 Muckley goes even further by recommending the 'ordinary sable and hog-hair brushes used for oil-painting' as being not only well suited for watercolours, but at times preferable.⁸⁵ Palmer's 'emphatic touches and bold foreground work' during the late 1850s were achieved by an unconventional use of large flat brushes, palette-knife or fingers, and Burne-Jones created strong and textured effects in watercolour using wide flat sables, large sky brushes and hog tools.⁸⁶

2.5 Crayons, Fixatives and Watercolour Megilp

Henry Murray's *The Art of Painting and Drawing in Coloured Crayons*, first published in 1856, introduces us to the preparation and use of crayons, an art which had been long practised in France and Germany, but had only in recent years become popular in Britain.⁸⁷ Coloured crayons and chalks had often been employed for rapid sketching, but were now becoming incorporated into watercolour painting as part of a technically complex creative process for finished pictures. Both Palmer (*Tintagel Castle; approaching Rain*, Figure 81) and Burne-Jones (*Cupid Finding Psyche* and *Cupid delivering Psyche*, Figures 163 and 164) combined chalks or coloured crayons with watercolour in the 1860s and 70s to reproduce transient effects and vigorous textures.⁸⁸ The crayons recommended by Murray for landscape painting 'are somewhat harder than the soft powdery kind required in portraiture...and in their consistency resemble the substance of firm chalk'.⁸⁹ The technique Murray recommends is that of Mr. Henry Bright, a style 'entirely different from all other methods employed in ...portraiture or landscape.' Murray's book gives instructions for making coloured crayons (also called pastels) from a base such as chalk or pipe-clay, mixed with gum tragacanth or gum arabic, sugar and ground pigments.⁹⁰ In Murray's manual, a range

of bright yellows, blues and red crayon colours are complemented by White Italian Chalk and by black Conté crayons in three levels of hardness. ‘Nos. 1 and 2, the harder degrees, are used for outlining; and the softest degree, No. 3, may be blended with many colours to reduce their tones.’⁹¹ By the 1850s and 1860s Conté crayons were available from colourmen in red and brown as well as black (see Figure 175). Roberson supplied Burne-Jones with conté crayons in 1866, as we shall see in Chapter Seven.

One of the difficulties of crayon painting was the ‘extreme volatility’ of the medium, where the colour ‘may be blown from it by a breath.’ ‘Fixing’ the colours, according to Murray, involved one of four lengthy, dubious and potentially damaging processes; ‘transudation, or moistening at the back, immersion, aspersion, and steaming.’⁹² It is clear why the invention of the easily applied Rouget’s fixative around 1870 was so well received, although it was not mentioned in any of the manuals studied.

The growing preoccupation with the preservation and permanence of works in watercolour during the later years of the period resulted in attempts to find other types of fixative which would protect finished watercolours from being damaged by damp atmosphere. In 1861 Penley’s *The English School of Painting in Water Colours* described in considerable detail Mr. Carl Haag’s Fixative, a new wax medium developed by that artist to protect finished watercolour paintings from ‘any injury that might arise from a moistened state of the atmosphere.’⁹³ Whilst imparting to pigments ‘all the brilliancy of oil-painting’, Penley warned against its use with bodycolour.

Winsor and Newton’s newly developed Watercolour Megilp, promoted from 1849 in their catalogues, featured in three of the manuals studied. Mrs Duffield’s flower painting treatise of 1856 was the earliest to write of its usefulness, while Penley’s two works on landscape painting praised its ability to ‘prevent colours flowing’ and the way it allowed colours to be applied ‘pulpily, after the manner of Oil Painting’.⁹⁴ Muckley, too, mentioned ‘meguilps’, but in the context of oil-painting, referring to their ‘comparatively modern introduction’ and sounding a note of caution concerning the ‘ruin of many fine works’ caused by ‘indiscreet use of them.’⁹⁵ In 1863, Burne-Jones’s purchase of Water Colour Medium from Roberson probably refers to his early and experimental use of megilp. More detail will be found on this in Chapter Seven.

Around half of the manuals discuss the suitability of other materials, such as Gum Arabic, Gum Tragacanth (used in watercolour megilp), Isinglass, Borax and Ox Gall, for creating particular effects in watercolour painting. Noble recommends applying a 'solution of borax and shellac' to a painted area which requires more work, as 'this will prevent the second colouring from rising or tarnishing the colours employed in the first painting.'⁹⁶ Rosenberg even mentions a Spirit Varnish, for glazing fugitive pigments such as pure scarlet, and 'manufactured expressly for use in such cases by the Messrs. Rowney.'⁹⁷ The gum resin, Gum Ammoniac, is listed by Field alone, as being useful as a kind of varnish in watercolour, 'to protect the more fugitive colours over which it may be glazed, or with which it may be mixed.'⁹⁸ Ruskin notably abstains from any reference at all to such materials.

2.6 Conclusion

Many important issues emerge from studying the content of these manuals. Firstly the range of affordable pocket watercolour manuals being produced at this time provided an innovative and effective means of promoting colourmen's products to the burgeoning amateur market. Secondly we can see how quickly many of the new nineteenth-century pigments became incorporated into everyday usage and how rapidly the convenient new moist and tube forms of colour were replacing traditional usage of dry cake or powdered colours. Clearly the advantages of speed of use and convenience for outdoor sketching were making them popular for both amateur and professional artist alike. However, increasing similarities perceived between newly developed watercolour materials and those used in the rival art of oil painting may have played a more important role in their growing popularity. The tubes of bright watercolour, which could be squeezed directly onto a palette and then applied using strong, flat, long-handled brushes (no longer the delicate 'pencils' in quills of the past) to impart a sense of texture and movement and then finished off with an application of shiny gum or 'varnish', were designed to ape the alternative medium completely. Furthermore, the development of a durable white pigment, Chinese White, significantly only available first of all as a watercolour, which was both brilliant and highly opaque, meant that now watercolour could be applied from dark to light in the same way as oils, instead of working from light to dark, as traditional methods dictated. Within twenty years of its arrival, Chinese White, often referred to as bodycolour, had become a national preoccupation, argued and discussed by major figures within the art world and the press.

The adoption of new types of paper, however, was slower to catch on and many of the authors of traditional drawing-master style handbooks clung to a preference for rougher paper surfaces, on which aerial effects could be achieved, by means of 'left lights' showing the white highlights of the paper surface below. Whatman papers in many forms had become very popular. John Ruskin alone, amongst the landscape watercolour authors, promoted the use of smooth papers or boards, on which highly detailed and stippled images could be produced, which would honestly reflect nature.

Whilst many of the nineteenth-century innovations in artists' materials were celebrated in manuals, there also remained an acute awareness of the vulnerability of watercolour painting in the face of damaging atmospheric pollutants, dampness and sunlight and the need for continuing improvements to be made in the discovery of permanent, stable materials.

In the next five chapters, I will explore the personal response of five very different artists, John Frederick Lewis, Samuel Palmer, Myles Birket Foster, John William North and Edward Burne-Jones, to the arrival of such an extraordinary array of new artists' materials.

- ¹ *Athenaeum*, 19 September 1857, p. 1179, review of *Hints for Sketching Trees from Nature in Water-Colours*, by Thomas Hatton.
- ² *Ibid.*
- ³ See bibliography below, pp. 243-244.
- ⁴ Thomas L. Rowbotham was Professor of Drawing at the Royal Naval School, London. In 1861 Aaron Penley was Professor of Landscape Painting at the Royal Military College, Addiscombe.
- ⁵ William J. Muckley, *A Handbook for Painters and Art Students on the Use of Colours Etc: Their Permanent or Fugitive Qualities, and the Vehicles Proper to Employ. Also Short Remarks on the Practice of Painting in Oil and Water Colours*, London, 1880, p. 1. Muckley was successively headmaster of Burslem, Wolverhampton and Manchester Schools of Art.
- ⁶ George Field, *Field's Chromatography or Treatise on Colours and Pigments as Used by Artists, revised by T.W. Salter* (new edition), London, 1869. The 1869 revised edition, included six new yellows (such as Aureolin, Cadmium, Chrome and Mars Yellow), which were not included in the 1835 edition.
- ⁷ George Field, *A Grammar of Colouring: Applied to Decorative Painting and the Arts*, (new edition), London, 1875, pp v-vi (preface by Ellis A Davidson).
- ⁸ Such as John Laporte's *The Progress of Water-Coloured Drawing*, c1800-1810 and Joshua Bryant's *Progressive Lessons in Landscape*, 1807.
- ⁹ See below, CH. 4, p. 102.
- ¹⁰ Ruskin, "The Elements of Drawing", "Advertisement to the Second Edition, 1857", *Works*, XV, p. 21.
- ¹¹ Aaron Penley, *The English School of Painting in Water Colours*, London, 1868, p. iii.
- ¹² Leslie Carlyle, *The Artist's Assistant: Oil Painting Instruction Manuals and Handbooks in Britain 1800-1900 with reference to selected eighteenth-century sources*, London, 2001; Marjorie B. Cohn, *Wash and Gouache: A Study of the Development of the Materials of Watercolor*, Cambridge, Mass., 1977.
- ¹³ Hardie, Vol. I, pp. 10-40 and Vol. III, pp. 284-288.
- ¹⁴ John Krill, "The Drawing Master's Assistant: early manuals for landscape drawing in watercolour", in Sheila Fairbrass (ed), *Conference Papers Manchester 1992*, p. 7.
- ¹⁵ Colin Cruise, *Pre-Raphaelite Drawing*, London, 2011, p. 87.
- ¹⁶ See below, Appendix II.
- ¹⁷ Field, *Chromatography* (new ed., 1869), pp. 88, 101 and 102. Cadmium is not in the 1835 edition.
- ¹⁸ Harley, p. 48, states that Aureolin was first synthesized in 1831.
- ¹⁹ R.P. Noble, *A Guide to Water Colour Painting*, London, 1850, p. 32.
- ²⁰ Penley, *The English School*, p. 26a.
- ²¹ See below, Appendices II and III.
- ²² Field, *Chromatography* (new edition, 1869), p. 303. Violet Carmine is not listed in the 1835 edition.
- ²³ Field, *Chromatography*, 1835, p. 101. For Burne-Jones, see below, Appendix IX, 1857.
- ²⁴ George Field, *Rudiments of the Painters' Art or a Grammar of Colouring*, London, 1850, p. 36; Field, *Chromatography*, 1835, p.84; Harley, p. 114, notes that 'the fugitive nature of brown pink...is mentioned in a number of books.'
- ²⁵ Muckley, *Handbook for Painters*, p. 4.
- ²⁶ R.P. Leitch, *A Course of Water Colour Painting*, London, 1873, p. 6.
- ²⁷ Field, *Chromatography*, 1835, p. 74.
- ²⁸ J.W. Bradley, *A Manual of Illumination on Paper and Vellum*, London, 1860, p. 27; pp. 51-54.
- ²⁹ Winsor & Newton *Catalogue – for Trade only, Brushes for Water and Oil Colour Painting*, London, 1863, p. 30.
- ³⁰ Ruskin, "Addresses on Decorative Colour" (1854), I: The Distinction between Illumination and Painting", *Works* XII, p. 484.
- ³¹ Ruskin, "The Elements of Drawing", *Works*, XV, p. 136, S156.
- ³² Bradley, *Illumination*, p. 22.
- ³³ Sydney T. Whiteford, *A Guide to Figure Painting in Water Colours*, London, 1870, p. 19; Mary Philadelphia Merrifield, *Practical Directions for Portrait Painting in Water-Colours*, London, 1851, pp. 35 (palette) and 49.
- ³⁴ John Thomas Gullick and John Timbs, *Painting Popularly Explained*, London, 1859, p. 295.
- ³⁵ Bradley, *Illumination*, p. 22.
- ³⁶ Winsor and Newton catalogue for 1879, attached to Mrs Duffield's manual *The Art of Flower Painting*, London, 1879, p. 23.
- ³⁷ J. Scott Taylor, *Modes of Painting Described and Clarified*, London, 1890, p. 14.
- ³⁸ Penley, *The English School*, p. 8.
- ³⁹ Gullick and Timbs, *Painting Popularly Explained*, p. 293.
- ⁴⁰ Ruskin, "Elements", *Works*, XV, pp. 137-8 and p. 139.
- ⁴¹ George Barnard, *The Theory and Practice of Landscape Painting in Water-Colours*, London, 1855, p. 107.
- ⁴² Barnard, *Landscape Painting in Water-Colours*, 2nd edition 1858, p. 125.
- ⁴³ *Ibid.*, p. 126.

- ⁴⁴ Whiteford, *Guide to Figure Painting*, p. 42.
- ⁴⁵ Barnard, *Landscape Painting in Water-Colours*, 1858, p. 126.
- ⁴⁶ *Ibid*, pp. 118-24; pp. 72-74.
- ⁴⁷ Whiteford, *Guide to Figure Painting*, c.1870, pp. 37-38.
- ⁴⁸ *Ibid*, pp. 38-9.
- ⁴⁹ Muckley, *Handbook for Painters*, 1880, pp. 93-4.
- ⁵⁰ Gullick and Timbs, *Painting Popularly Explained*, p. 287.
- ⁵¹ See footnote 4 above (p. 79).
- ⁵² Aaron Penley, *A System of Water Colour Painting; being a complete exposition of the present advanced state of the art, as exhibited in the works of the modern water colour school*, London, 1850, pp. 25 and 6.
- ⁵³ Krill, "Drawing Master's Assistant", p. 9.
- ⁵⁴ Ruskin, "Elements", *Works*, XV, p. 140.
- ⁵⁵ *Art Journal*, 1 November 1852, p. 331.
- ⁵⁶ Whiteford, *Guide to Figure Painting*, c. 1870, p. 28.
- ⁵⁷ Bradley, *Illumination*, p. 24.
- ⁵⁸ George F. Rosenberg, *The Guide to Flower Painting in Water Colours*, London, 1852, p. 20.
- ⁵⁹ Charles William Day, *The Art of Miniature Painting*, London, 1852, p. 54.
- ⁶⁰ Ruskin, "Elements", *Works*, XV, p. 151 S.172.C, and p. 152 S.174(b).
- ⁶¹ Barnard, *Landscape Painting in Water-Colours*, 2nd edition 1858, p. 119.
- ⁶² Cruise, *Pre-Raphaelite Drawing*, p. 72.
- ⁶³ Whiteford, *Guide to Figure Painting*, c. 1870, p. 26.
- ⁶⁴ Winsor and Newton, *Catalogue – for Trade only*, 1863, p. 46.
- ⁶⁵ Barnard, *Landscape Painting in Water-Colours*, 1871, p. 62.
- ⁶⁶ Whiteford, *Guide to Figure Painting*, c. 1870, p. 10.
- ⁶⁷ Thomas Rowbotham and Thomas L. Rowbotham, *The Art of Landscape Painting in Water Colours*, London, 1850, p. 13.
- ⁶⁸ Penley, *The English School*, 1861, p. 27.
- ⁶⁹ *Ibid*, 1861, p. 28.
- ⁷⁰ *Ibid*, 1868, pp. 28-29.
- ⁷¹ Ruskin, "The Political Economy of Art" – Lecture 1: "The Discovery and Application of Art", July 10, 1857, given during the Manchester Art Treasures Exhibition, *Works*, XVI, p. 44. Also quoted in Gullick and Timbs, *Painting Popularly Explained*, p. 302.
- ⁷² Gullick and Timbs, *Painting Popularly Explained*, p. 302.
- ⁷³ Herbert Alexander, "John William North, A.R.A., R.W.S.", *Old Water-Colour Society's Club*, V [fifth annual volume], 1927-8, p. 44.
- ⁷⁴ Field, *A Grammar of Colouring*, 1875, p. 151.
- ⁷⁵ Gullick and Timbs, *Painting Popularly Explained*, p. 295.
- ⁷⁶ Noble, *Guide to Water Colour Painting*, 1850, p. 49.
- ⁷⁷ Penley, *The English School*, 1861 and 1868, p. 28.
- ⁷⁸ Bradley, *Illumination*, p. 26.
- ⁷⁹ Barnard, *Landscape Painting in Water-Colours*, 2nd edition 1858, p. 70.
- ⁸⁰ Rowbotham, *Landscape Painting in Water Colours*, 1858, p. 13.
- ⁸¹ Noble, *Guide to Water Colour Painting*, 1850, pp. 49-50.
- ⁸² Penley, *System of Water Colour Painting*, 1879, pp. 34, 46.
- ⁸³ Rowbotham, *Landscape Painting*, 1858, pp. 14-15.
- ⁸⁴ Whiteford, *Guide to Figure Painting*, c. 1870, p. 12.
- ⁸⁵ Muckley, *Handbook*, p. 96.
- ⁸⁶ *L&L*, p.113. For Burne-Jones, see below, CH. 7, p. 178.
- ⁸⁷ Henry Murray, *The Art of Painting and Drawing in Coloured Crayons*, London, 1856, p. 7.
- ⁸⁸ For Palmer on combining coloured crayons and watercolour, see below, CH. 4, p. 110.
- ⁸⁹ Murray, *Drawing in Coloured Crayons*, p. 44.
- ⁹⁰ *Ibid*, pp. 13-21. (We will see below, in CH. 7, that Burne-Jones bought large quantities of pipe-clay in the late 1860s and 1870s. It is possible he was making his own crayons.)
- ⁹¹ *Ibid*, p. 45.
- ⁹² *Ibid*, pp. 52-3.
- ⁹³ Penley, *The English School*, 1861, p. 32.
- ⁹⁴ Mrs William Duffield, *The Art of Flower Painting*, London, 1856, p. 14; Penley, *System of Water Colour Painting*, 1879, p. 46; Penley, *The English School*, 1861, p. 29. Also see below, Appendix I.
- ⁹⁵ Muckley, *Handbook*, pp. 43-44.
- ⁹⁶ Noble, *Guide to Water Colour Painting*, 1867, Appendix, pp. 53-4.
- ⁹⁷ Rosenberg, *Flower Painting*, p. 35.
- ⁹⁸ Field, *Rudiments*, 1850, p. 129.

PART TWO

WATERCOLOUR PRACTICE – FIVE CASE STUDIES

Chapter 3 John Frederick Lewis 1804-1876:

'The painter of greatest power, next to Turner, in the English school'¹.

Ruskin's admiration for the work of John Frederick Lewis, expressed in the late 1880s, reflected the widespread critical opinion of the day. During the 1850s, the art reviews of the *Art Journal* and *Athenaeum* devoted entire columns to lengthy and breathless descriptions of Lewis's highly original watercolours. *The Hhareem* (Figure 36), exhibited at the Society of Painters in Water Colours in 1850 after the artist's long absence abroad, 'excited a furore' at the private view.² It was considered 'the most extraordinary production that has ever been executed in water-colour', 'unique in the history of water-colour Art' and 'one of the most remarkable productions of this age of English Art'.³

How did Lewis achieve such sensational works, with their 'ultimate perfection of finish'?⁴ What was so unique about the way he painted in this medium? This chapter will explore the materials and techniques he used in the watercolours he painted between 1850 and his death in 1876, using evidence from the Roberson Archive in Cambridge, from conservation records in museums, contemporary accounts of his work by Roget, Ruskin and Redgrave, and Hardie's important twentieth-century oeuvre.⁵ Appendix IV contains a transcript of the entries recorded for Lewis in the Roberson Archive between the years 1852 and 1875, listing the materials he purchased from them during that period. This chapter will assess the degree to which new artists' materials affected changes in Lewis's watercolour practice.

Disappointingly little has been written about Lewis's watercolours, which have fallen out of favour in recent years. Emily Weeks has suggested that the continued neglect of the artist is due to the lack of biographical evidence such as diaries, memoirs and letters, and the aura of mystery that surrounds his years in the Middle East.⁶ In 2008 the Royal Academy mounted their exhibition *The Young Lion: Early Drawings by John Frederick Lewis RA (1804-1876)*, in which the problematic absence of documentary records for Lewis is similarly acknowledged.⁷ Whilst exhibitions such as the 1984 *The Orientalists: Delacroix to Matisse; European Painters in North Africa and the Near East* and Tate Britain's 2008 *The Lure of the East: British Orientalist Painting* have included both oils and watercolours by Lewis, the emphasis has been on subject-matter rather than the creative process involved. Themes of cultural, architectural, religious, gender and social significance have dominated these displays.

Many of these themes also form the subject of interesting and influential articles by Caroline Williams and Briony Llewellyn.⁸ The only monograph on Lewis dates from 1978 and this does discuss at least some aspects of his technique and the materials he used.⁹ Newall has described Lewis's technical innovations as being as remarkable as those of W.H. Hunt, with both artists 'equally dependent on the use of bodycolour to manipulate the minute detail and to control the balance of light and shade.'¹⁰ The importance of bodycolour in Lewis's later work, in particular of the new Chinese White introduced in 1834, is especially significant in the formulation of his evolving style, and will be further discussed in the following pages.

3.1 Lewis's Early Years

John Frederick Lewis did not start out as an illustrator, although his father had originally intended him to follow in his footsteps as an engraver. Displaying an independent spirit from the start, Lewis pronounced his determination to become a painter, and by copying etchings at home and by studying and sketching wild animals in the Exeter 'Change in the Strand, he achieved such a level of competence that his first work, *A Donkey's Head*, was hung in the British Institution by the time he was fifteen years old.¹¹ This very single-mindedness would remain a feature of his work for the rest of his life, leading him to strike out on his own and to explore new horizons and concepts which would captivate the public imagination. Ruskin later commented that 'there never, perhaps, in the history of art, was work so wholly independent as Lewis's.'¹²

In his youth, Lewis was using both oils and watercolours. It is evident from his earliest sketches in watercolour in the Royal Academy, that he knew how to exploit the dramatic effects which could be achieved by using white paint for highlighting onto toned buff or grey paper.¹³ Already an Associate Member of the Old Water-Colour Society by the age of twenty-three, he began to look for fresh challenges. Rivalry with his close friend Edwin Landseer in the field of animal painting may have prompted him to change direction and set off in 1827 to study the rich architectural and cultural heritage of Europe. During his trip to Spain in 1832-33, he made small watercolour copies of works from the Prado Museum in Madrid, including works by Velazquez, Titian and Veronese.¹⁴ He sketched bullfights and fiestas, studied the exotic architecture of the Alhambra at Granada, and brought back to England enough sketches to furnish him with material for finished watercolour paintings for the next few years. The *Art Journal* of 1858 considered that Lewis's artistic output underwent a

‘complete revolution’ during his time in Spain.¹⁵ New subjects and a new vibrancy of colour in the Spanish compositions exhibited by Lewis at the Old Water-Colour Society in 1833, caused John Sell Cotman, who himself had raised the level of colouring in his watercolours, to comment, ‘My poor Reds, Blues and Yellows for which I have in Norwich been so much abused and broken-hearted are but *faded fades* to what I saw there.’¹⁶ This keying up of colour in Lewis’s Spanish works resulted from Lewis’s youthful exposure to the rich colourings of the Prado masters, to the colourful customs and lifestyle of the Spanish people and to the powerful sunlight of the country itself.

In 1837 Lewis once again departed on his travels, travelling through Paris to Italy, where, in 1838, he spent some time in Florence, making careful copies of frescoes by Massaccio and Lippi in Santa Maria del Carmine and of Ghirlandaio’s fresco, *The Birth of the Virgin*, in Santa Maria Novella (Figure 37).¹⁷ Lewis would have noted how the blocks of primary colour, mixed with a tiny amount of lime white,¹⁸ were brightened by being painstakingly applied directly onto a layer of wet white plaster underneath, an effect later adopted by the members of the Pre-Raphaelite brotherhood in England. It is possible that this encouraged Lewis to incorporate increasing amounts of white or bodycolour into his work from this time, in an attempt to emulate the appearance of fresco, although his paintings from this period were not as solidly worked with bodycolour as many of his later compositions.

In 1841 he reached Cairo, where he remained for nearly ten years. It is clear that, whilst, with the help of his friend Thackeray, who famously described him in his book *Notes of a Journey from Cornhill to Grand Cairo* of 1846, he cultivated an image of lazy indulgence away from the social restrictions of English society, he was quietly productive and associating with a wide range of British travelling ambassadors, merchants and scholars. Among his list of contacts, many of whom commissioned portraits from him, were Lord Ponsonby, British Ambassador in Constantinople; Mme Linant Bey; Sir John G. Wilkinson, eminent Egyptologist; and Viscount Castlereigh, nephew of the Regency Foreign Secretary.¹⁹ With no other evidence existing about Lewis’s financial arrangements during his lengthy stay in Cairo, we must assume that he made enough money from selling portraits and landscapes to visiting or resident Western dignitaries to cover his expenses. Around four hundred drawings completed in Turkey, Egypt and Nubia returned to Britain with Lewis and were still in his possession when he died.²⁰

3.2 ‘The subject, the manipulation, the peculiar colouring, were alike novel and singular’: Lewis’s Watercolours After 1850²¹

As the years went by and nothing appeared from Lewis at the annual exhibitions the Old Water-Colour Society back in England, in 1848 they threatened to withdraw his membership. Lewis’s subsequent promise to comply with the exhibition regulations was followed in 1850 by his submission of a picture completed during his stay in Egypt, and commissioned by Joseph Arden, *The Hhareem*.²² It preceded Lewis to London and created a sensation. For many years there was some confusion over this work, as the original was untraced till 1986 when it was rediscovered in a private collection in Japan.²³ Both the exotic subject matter and the ‘novelty’ of its production were widely described and praised by the critics.

It took everyone by surprise; the subject, the manipulation, the peculiar colouring, were alike novel and singular; and few came away from examining it without acknowledging that “The Hhareem” was the most extraordinary production ever executed in water-colours.²⁴

The *Athenaeum* declared it to be ‘one of the most remarkable productions of this age of English Art.’²⁵ The light falling through windows on the left and the coloured textiles in the foreground recall compositions by Vermeer, but it is the subdivision of light by the intricate trellis-work and stained glass which turns this work into a kaleidoscope of detail. Roget noted ‘that the volcanic fire of his art, after its long quiescence, was bursting forth from a new crater.’²⁶ It sold for £1,000.²⁷ Birket Foster acquired a smaller version of *The Hhareem* (Figure 38), which, for many years, until the larger version was rediscovered in 1986, had been thought to be the original work cut down in size to protect Victorian sensibilities.²⁸

The ‘novel’ and ‘singular’ manipulation and colouring became a feature of Lewis’s work from 1850 onwards. Whilst the critic of the *Athenaeum* found the ‘variety of delicate tones and tints...made up of light and silvery grey tones’ was ‘harmonious in effect,’²⁹ the colouring was considered almost offensively discordant by one French critic when the picture was shown at the Paris Universal Exhibition in 1855.³⁰ Not long after that, however, the Impressionists were to adopt similarly luminous colours also inspired by fleeting light patterns. Lewis told Joseph Jenkins in 1856 of the attempts he had made in Cairo to understand the effects of intense sunlight on colour.

When at Cairo...he used to try experiments by putting coloured pieces of drapery in the courtyard of his residence to see the effect of the sun upon them. The light being so intense that he could not distinguish any difference in the

grey coloured materials, the colour could only be seen in the reflections. The vivid light robbed the colours upon which it fell, and rendered all a sort of white. His object had been to paint intense light.³¹

This bleaching effect, which enveloped all colours in a delicate grey film, had been earlier observed by earlier visitors to the Near East, including Delacroix.³² The increasing reliance on the use of bodycolour, and specifically of the new pigment Chinese White, in Lewis's watercolours from 1850 onwards, enabled him to translate this effect into reality, particularly in his heat-hazed outdoor desert scenes, such as *The Noonday Halt* (Figure 39) and *A Frank Encampment in the Desert of Mount Sinai 1842* (Figure 40). Only by means of bodycolour could Lewis have portrayed the detail and textures of the rich embroidered velvet and silk fabrics, the peacock feathers and animal fur which so enthralled Ruskin and the Victorian public. It also enabled him to paint out an unwanted background figure from *A Frank Encampment*, which is only visible upon close examination, positioned to the left of the figure in the pale green turban behind the table. When *A Frank Encampment*, commissioned while he was in Egypt by Viscount Castlereigh, was exhibited in 1856, this large watercolour was placed in prime position within the main room of the gallery.³³ John Ruskin devoted seven pages of his *Notes on some of the Principal Pictures exhibited in the Rooms of the Royal Academy and the Society of Painters in Water-Colours* of 1856 to a detailed eulogy of the picture, pronouncing it 'among the most *wonderful* pictures in the world',³⁴ comparable to the work of Veronese in colour and design. It was so detailed, continued Ruskin, that a magnifying glass would show that 'any four square inches of it contain as much as an ordinary water-colour drawing.' Yet it was precisely this excessive amount of detailed working that was causing Lewis to weary of the medium of watercolour and to begin to look again at oil painting. Ruskin too was beginning to criticise his minute manipulation, as I will discuss below.

That Lewis's technique was unique in its time is undisputed. Even Ruskin conceded that Lewis's innovations in technique had been developed long before the Pre-Raphaelites had revealed their revolutionary ideas to the art-going public.³⁵ The *Art Journal's* 1851 review of an August exhibition of 175 watercolour sketches from his travels, which included his *Hhareem* of 1850, considered his work had 'a freshness and originality arising from that kind of earnest industry which acknowledges no conventional method of meeting difficulties.'³⁶

After 1850, Lewis continued to submit pictures of oriental subjects regularly to the Old Water-Colour Society, although the laborious execution of his new technique slowed down the rate of output. Only one watercolour appeared in the 1852 exhibition, *An Arab Scribe* (Figure 41), praised for ‘the most marvellous finish’,³⁷ and only two or three in 1854 and 1855, when he was elected President of the Old Water-Colour Society. In 1857, Lewis exhibited his last watercolour at the Old Society. It was a smaller, but equally detailed, work, called *Hhareem Life, Constantinople* (Figure 42), full of jewel-like colours and minute patterns, embroidered across every inch of the paper. This time Ruskin found fault with the amount of labour involved. ‘It seems questionable...whether so much invention, toil, intensity of observation and of mechanical skill, should be trusted to one poor little piece of white linen film, fifteen inches square.’³⁸ Three months was too long to spend on one picture, especially for so little financial reward. Ruskin had already sowed the seeds of doubt in Lewis’s mind in 1856, when he wrote to him: ‘Are you sure of your material – If one of those bits of white hair stroke fade – where are you? – Why don’t you paint in oil only now?’³⁹ Ruskin had consistently questioned the durability of the medium of watercolour in the context of Lewis’s later work, believing that damp and excess light would destroy pictures incorrectly displayed and stored.⁴⁰ (Yet, as we shall see, Lewis was very particular about his choice of pigments and paper, and little of his work has been damaged over the years.)

In any case, Lewis had begun to work again in oils some years before, hoping for acceptance into the RA and for a higher income. In 1858, he retired from his post as President of the Old Water-Colour Society, to concentrate on oil painting, although he continued to paint in watercolours until the end of his life.⁴¹ *The Siesta* (Figure 43) was possibly his last work in watercolour, completed as a half-sized study for the oil version dated 1876 (Figure 44). From 1858 until his death, he made both oil and watercolour versions of many of his works. Whilst the oils were often exhibited at the Royal Academy, it has not been recognised that he also regularly continued to exhibit his watercolours throughout the 1860s and early 1870s, often for the benefit of philanthropic causes. Reviews from contemporary journals reveal that his watercolours were shown at the Historical Exhibition of Water-Colour Paintings (in aid of the Female School of Art) (1861), the Royal Institution Manchester (1861), Crystal Palace (1865), McLean’s gallery in London (December 1865 and 1872), Leeds Exhibition (1868), a Loan Exhibition in aid of the Hospital for Consumption (1871) and Agnews watercolour exhibition (1872).⁴² Not only did Lewis sell to the dealers McLean and

Agnews, but he also took private commissions for watercolours, which he much preferred, as can be seen from private correspondence from Lewis to John Noble in 1854:

I cannot say how pleased I am to find that you prefer placing yourself in communication with the artist himself, than/purchasing of others, an act which believe me I estimate as I ought to, for although I have but one price to all, either to the gentlemen who deal in pictures or to ultimate possessors, yet it is of course more agreeable to place one's labours at once into good hands.⁴³

Lewis kept no diaries during his life, his private thoughts being only consigned to letters to friends and family, fifty of which remain within the Lewis family, and no reference is made in these as to his arrangements for sourcing and acquiring his materials.⁴⁴ Whilst we can fill in some of the gaps by referring to the Roberson Archive for the years 1834/37 and 1852/75, when Lewis was in England (and which will be discussed later), it is impossible to know how he managed for painting and drawing materials during his travels in Europe and the Middle East. Roberson was commonly sending artists' materials across the globe to India, China, and America, and between 1898 and 1934, they supplied Howard Carter, the famous Egyptologist, in Cairo.⁴⁵ The most likely answer is that Lewis secured his painting materials mostly by post from England. During his stay in Constantinople in 1841, the *Art-Union* reported Lewis had 'recently ordered a supply of drawing materials from England'.⁴⁶ On the other hand, artists such as Turner, travelling in Europe in the 1830s and 1840s, are known to have supplemented the supplies they took with them with local materials obtained in the countries through which they were travelling.⁴⁷ Whilst Islamic tradition proscribed human and animal representation in a religious context, Ottoman miniature painting in secular manuscripts dated back to the sixteenth century,⁴⁸ and fine brushes and strongly coloured pigments must have been available in Egypt for this form of art for many years. Lewis is known to have possessed at least one illustrated Turkish manuscript and a number of illuminated Koran texts.⁴⁹ Nineteenth-century Ottoman artists used dense and brilliant water and bodycolour (Figure 45). Materials for the widely practised Islamic art of calligraphy would also have existed, its highly skilled and decorative lines being used to decorate pottery, metalwork and architectural features. Edward William Lane comments in *Manners and Customs of the Modern Egyptians*, first published in 1836, that there was a huge trading industry in the country, with imports of cloth, wine, beads, carpets, spices, and even slaves, arriving into Egypt from Europe, Arabia, Constantinople, Asia Minor and Abyssinia.⁵⁰ He specifically mentions the import of writing paper from Venice, so it is possible that drawing paper may have also come from this source. Lewis was not only in contact

with Lane during his Cairo years, but he referred to Lane's illustrations and text on many occasions, to give his work added authenticity.⁵¹ It has been suggested that Lewis was compiling a visual record of Egyptian life to complement Lane's written account.⁵²

3.3 New Pigments supplied by Roberson

Lewis's use of specific watercolour paints and papers has not been the subject of academic research to date, but we know from Roberson, who supplied him with materials in Britain between 1834/37 and 1852/75, that he continued to buy watercolours throughout his life. Appendix IV of this thesis provides a transcript of the materials purchased from Roberson between 1852 and 1875. A student of Lewis's during the 1860s commented that he was 'particular as to materials. Essentially a water-colour man, rigidly adhering to his own methods, he could not adapt himself to any other.'⁵³ The same student also recorded that 'his wife cleaned his brushes and set his palette, and he always began to paint at eight o'clock.'⁵⁴ Lewis's industriousness and devotion to his art is confirmed by Roget, who quotes Lewis's letter to the Secretary of the Society of Painters in Water-Colours, Joseph Jenkins, around 1857: 'I work always from before 9 in the morning till dusk, from half-past 6 till 11 at night, always.'⁵⁵ The long days often stretched into months before a watercolour was completed. 'I think I have devoted about seven months (perhaps more) to two large drawings – These I have now been *absolutely* obliged to put aside in order to finish a picture for the Academy...I am worked to death,' he wrote in 1858.⁵⁶

As can be noted from Appendix IV, he generally bought watercolours in tubes or pans of moist colours, apart from the occasional cake of genuine ultramarine. He began buying tube colours in 1854 and in 1871 he placed no less than seven orders for tube watercolours. His preference for ultramarine in dry cake form was common amongst artists of the period and we will see that North continued to purchase cakes of ultramarine whilst preferring tubes for other colours. It is interesting that Lewis has taken up the use of tubes so quickly after their introduction into the marketplace in 1847. In Lewis's case, he may have begun using tubes and moist colours during his time in Cairo, as colourmen such as Winsor & Newton were busily promoting the new tubes for their ability to retain 'their *solubility* and *dampness*... to the fullest extent in the *hottest climates*, and they are on this account particularly adapted to parties going out to INDIA, as the *dry cake colours*, from the atmosphere and heat there, generally break up and crumble into small pieces.'⁵⁷ In addition, the tube paints could be applied

directly onto the brush, eliminating the need for quantities of water for washes, a distinct advantage in the hot Egyptian climate.

Only a few pigments are specifically mentioned in Lewis's accounts in the Roberson Archive, as, tantalisingly, many are simply listed as 'moist colours' or 'tube water colors' [sic]. Whilst it is unlikely that these are the only colours he was using, it suggests that he was employing a deliberately limited palette of colours, as was often common with artists during the nineteenth century. Indeed, it was evident from looking at a number of Lewis's oriental watercolours together in the *Lure of the Orient* exhibition at the Tate Gallery in June 2008 that the same blue, red and green pigments have been employed in *A Frank Encampment* (1856), *Hhareem Life, Constantinople* (1857), and *Interior of a School, Cairo* (1865) (Figure 46). Close examination of *Hhareem Life, Constantinople* also reveals that Lewis employed touches of gold paint both in the intricate patterns of the wallpaper in the background and in the dress fabrics of both figures⁵⁸ (Figure 47).

From 1855, Lewis often specifies 'extra ground' tube colours, meaning that these were specifically prepared to order, ground to make the pigment particles finer than usual. This demonstrates his desire to achieve the best results. As Appendix IV shows, in addition to the Genuine Ultramarine in cake form already mentioned, Lewis bought other colours from Roberson. These are listed below, showing the dates they were ordered, together with finished watercolours completed around the same dates, and for which they may have been bought:

Tube Moist <u>Madder Carmine</u> (1854, 1858)	<i>Hhareem Life, Constantinople</i> <i>Life in the Hhareem, Cairo</i> (Figure 48)
Tube Moist <u>Purple Lake</u> (1871)	<i>Lilium Auratum</i> (Private Collection)
Cake <u>Vermilion</u> (1864)	<i>Caged Doves, Cairo</i> (Figure 49)
Moist <u>Intense Blue</u> (1870)	<i>Lilium Auratum</i>
<u>Chinese White</u> (1853, 1865, 1871 and 1874)	

Madder Carmine was a very recent introduction as a pigment, being first listed by Field in 1835 and only offered by Winsor & Newton in 1858 and by Reeves in 1862. It was said to offer improved texture and transparency to the previously used Rose Madder.⁵⁹ Recent conservation work on *Hhareem Life, Constantinople* carried out at Tate Britain confirms the use of Madder in the seated woman's dress and in the

patterned wall in the background.⁶⁰ Tiny fragments of the paint have flaked off over the years as a result of the cracking of the gum Arabic used by Lewis in this work.

Intense Blue was the name of a nineteenth-century improved form of Indigo, refined to create a more permanent pigment. Purple Lake and Vermilion, a bright orangey red, were traditional colours which had been commonly used by watercolourists for years. The strong opaque greens and turquoise employed by Lewis in many of his works from the 1850s and 60s have to date not been identified, but they are of such force and brilliance that they are undoubtedly products of the mid-nineteenth century, such as Cobalt Green, Viridian or Emerald Green, which replaced the muddy and transparent mixed greens which artists of previous generations were forced to use. Thus it can be seen that Lewis was not only using the older tried and tested colours, but was keen to make use of the newer products which offered improved permanence and handling. His insistence, too, on Ultramarine, which was the most expensive pigment, but totally durable, reinforces the idea that the quality of his materials mattered greatly to Lewis. Chinese White will be discussed in detail in section 3.6.

3.4 Japanned boxes, brushes and gum Arabic from Roberson

In 1864 and 1865 Lewis bought two japanned 'plated boxes', which were new nineteenth-century products designed specifically for outdoor watercolour sketching (portable oil sketching still made use of mahogany palettes). The art of japanning (covering papier mâché, wood, leather or metal with a thick coat of protective varnish) was well-established in Britain in the West Midlands by the end of the eighteenth century, with the result that such japanned wares would have been widely available by 1864 (Figure 50).⁶¹ The boxes contained separate compartments for either cake or tube colours, together with a folding palette and were considerably lighter and smaller, although not especially cheaper in price, than the solid mahogany boxes designed for studio use. The tin palette was also less liable to break than the conventional china variety. Edward Burne-Jones bought a japanned box in 1857.

When it came to brushes, Lewis preferred using the traditional round sables in quills, rather than any of the newer brushes which were being produced with round or flat metal ferrules, although the one exception is the flat hog hair brush he purchased in 1871 for 8 shillings. As Appendix IV shows, he bought sable quills in large quantities, mainly in the smallest, crow, size (1 gross purchased by him in 1870); and also duck (the second smallest – 11 dozen ordered in 1869) and goose (medium). From 1864

onwards, the Roberson records show red sables in particular being ordered. As has been explained in Chapter Two, red sables were stiffer and had a firmer point than brown sables, and were considered especially suited for miniature painting and for using with bodycolour. Lewis's students described how he used sable quills for both watercolour and oil painting, and this might explain the large number of brushes he ordered each year.⁶² Furthermore, the quills would often split after use and become unusable, and would need to be replaced.⁶³ A quick glance at the annual orders reveals that he was often spending far more on brushes than on paints! The round Schneuman brush, bought in 1871, cannot be identified in any of the colourmen's catalogues, but presumably was a new type of European brush designed for a specific purpose.

It is interesting to note Lewis's purchase of 'gum' or 'gum water' in 1865, 1872 and 1874. Recent catalogue descriptions of later watercolours such as *The Kibab Shop, Scutari* (1858 Private Collection); *Caged Doves, Cairo*; *Lilium Auratum*; and *A Cairo Bazaar: the Della'l*, 1875 (Figure 51), include references to his use of gum Arabic to heighten the colour, a tradition which began in earlier times simply to help the pigment adhere to the paper, but which, by the mid-nineteenth century was increasingly employed by artists to produce a kind of varnish effect on a finished watercolour.⁶⁴

3.5 Paper Supports used by Lewis

From his earliest drawings, Lewis had experimented with coloured paper to provide a strong emphasis for his sketches in bodycolour, chalk and pencil. Grey, green and buff paper were often used, on which delicate drawings in pencil or chalk are highlighted with white, in some cases before any other touches of colour have been added.⁶⁵ Many sketches exist, dating from his stay in Turkey and Egypt, which display Lewis's continuing reliance on tinted supports, which were especially successful at rendering swift impressions of intense lighting conditions (Figure 52).⁶⁶ This method was also popular with Birket Foster and Samuel Palmer.

It is not easy to identify the paper supports used by Lewis in his finished watercolour paintings, but it may be assumed that they would need to be strong and durable to accommodate the long hours of minute working which his technique required. The Roberson list only specifies two orders for paper, one in 1853 for 'Drawing Paper' and another in 1866 for 'Extra Thick Double Elephant Drawing Hot Pressed'; 'Extra thick Imperial Drawing Hot Pressed'; and one sheet of 'Imperial Drawing Hot Pressed paper'.⁶⁷ Hot Pressed paper had a very smooth surface, produced by passing the paper

between 'hot plates or rollers and running them through a glazing or calendaring machine' and was, as we have seen, a recent development.⁶⁸ For an artist like Lewis, who worked in his later years in such minute and painstaking detail, it was essential to have a highly smoothed support surface, which would actually hold the individual touches of paint on top of the paper layer, and prevent them disappearing down into the paper. As we shall see, J. W. North and Frederick Walker would become obsessed with developing a uniform, flat paper surface which would actually allow them to eliminate the need for a layer of bodycolour to smooth out imperfections. The paper historian Peter Bower has confirmed Lewis's preference for smooth surfaces, by identifying the paper used for his 1853 watercolour, *The Noonday Halt*. It is a 'smooth finished, very fine quality pure linen paper...made with precisely Lewis's working methods in mind.'⁶⁹ Bower contrasts this with the low grade coarse surfaced paper used in Gainsborough's 1785 work, *Figures in a Wooded Landscape* (Private Collection, Leger Galleries, London), manufactured before changing technology revolutionised the paper industry in Britain. The dimensions, 15 ¾ x 22 ¼ inches, make it approximately half a sheet of Imperial paper. Paper made from one hundred percent linen pulp was strong enough to take vigorous washing, sponging, scraping and cutting.⁷⁰ The Fitzwilliam Museum's *Caged Doves, Cairo* of 1864 is described as being painted on 'thin card',⁷¹ suggesting that it was painted on thin London or Bristol board, which was also smooth surfaced and used by Palmer amongst others.

The tracing paper purchased by Lewis in 1858 may have been for the transfer of Arabic inscriptions from books onto his compositions. Caroline Williams has commented on the meaning of the inscriptions which commonly decorated traditional Cairene houses and which appear (accurately reproduced) in several of his watercolours, including *Life in the Hhareem, Cairo* of 1858 and *A Cairo Bazaar: The Della'l* (Figure 53) of 1875.⁷²

Several of Lewis's larger works are produced on several conjoined sheets of paper, probably as a result of expanding the composition once started. *Hhareem Life, Constantinople* and the four foot wide *Courtyard of the Painter's House* of c1851 (Birmingham Museum and Art Gallery) each consist of up to five pieces of paper spliced together.⁷³ The original 1850 *Hhareem Life* too, on close inspection, appears to have a vertical join running down the left hand side of the painting, dissecting the gazelle and being concealed by the line of the first arch, whilst a second, horizontal, join may exist along the top edge, running along the ledge directly beneath the ceramic

vase. The picture's dimensions, at 34 $\frac{3}{4}$ x 52 $\frac{1}{2}$ inches, exceed the size of the largest sheet of drawing paper available at the time, Antiquarian, which measures 30 $\frac{1}{2}$ x 52 $\frac{1}{4}$ inches, and would confirm the need for at least one additional strip of paper. This would explain About's description of the watercolour falling apart at the Paris Universal Exhibition in 1855 and needing to be sent back to England to be reglued.⁷⁴ Such devices were often used by Burne-Jones as we shall see.

Little is known about Lewis's methods of correcting his work, but it is clear that a strong paper was required to withstand the vigorous handling to which Lewis submitted it. An entry in the Roberson sales ledger for 6 April 1858 shows an order for a "blade eraser", which would allow him to scrape away mistakes prior to repainting, or to create textural effects.

3.6 Lewis's Use of Chinese White

Both Major Lewis's biography and Martin Hardie incorrectly state that John Frederick Lewis was employing Chinese White in his watercolours as early as 1827.⁷⁵ As Chinese White was only introduced by Winsor and Newton in 1834, Lewis would have been using another kind of (less stable) white pigment in 1827. It is quite conceivable that the arrival of the new Winsor and Newton white zinc oxide pigment shortly afterwards completely transformed Lewis's painting methods during his stay in Egypt. Whilst we cannot be sure which white pigment Lewis was using during the 1830s and 40s, we do know that by 1853, he was purchasing Chinese White from Roberson (Appendix IV). Hardie acknowledges the dramatic impact of this pigment on the work of artists such as Lewis:

His later works, especially, were painted in a solid impasto of Chinese White. By no other method could he – or Hunt, or Birket Foster – obtain such a high degree of manipulative finish, such amazing virtuosity. All of them were harking back to the method of painting 'in little' followed by Holbein and Hilliard. I suspect Lewis followed Hunt in covering his paper with a sort of gesso of white before he used the brush and colour, and that upon this he drew mainly with the brush.⁷⁶

It might, in fact, be truer to suggest that he was drawing on the traditions of ancient Ottoman miniatures. Lewis was certainly aware of the difficulty of competing in watercolour with the intense colours achieved by miniature painters on highly burnished ivory surfaces. A commission from John Noble for a watercolour by Lewis to 'be a companion to one Thorburn was painting' for him in 1855, caused Lewis to panic.⁷⁷ 'I think a drawing in water colors and on papers does not give me the same

chance which Ivory does to Thorburn = [sic] the power of color attainable by him is mainly attributable to his material.⁷⁸ He concludes with the comment that he would rather do it in oils.

It is interesting to note the small quantities of Chinese White purchased by Lewis, especially when compared with the dozens of tubes bought by Burne-Jones, although Lewis's works are much smaller in size and he was much less prolific than his contemporary. That he not only mixed white with his colours, but at times also painted directly onto an initial priming of white, to achieve luminosity, soon becomes clear, although no other research exists on this subject. I have studied at close quarters Lewis's unfinished and undated sketch, *Study for a Halt in the Desert* in the V&A, which is painted in watercolour onto a panel of wood. There is evidence of a layer of white paint having been applied over the entire surface of the panel as a preparatory layer, as it is now flaking off in places. The work has been described in a 1971 exhibition catalogue as 'watercolour on deal board covered with gesso',⁷⁹ whilst the 1980 V&A catalogue describes it as a 'plaster ground.'⁸⁰ This is a fascinating insight into Lewis's experiments, around or before, 1855, with painting in watercolour onto wood, using a priming of white, which would probably have been smoothed down to a highly polished surface prior to painting. We will never know if this was inspired by Egyptian practices or his knowledge of the processes of wood engraving, in which the wood is first painted with white to provide a smooth surface.

A watercolour sketch on paper which has very recently come to light (Figure 54) provides exciting new evidence that Lewis applied an initial priming of white to his coloured paper support (the area behind the man's head), working over it afterwards with vibrant colours to achieve detail and luminosity. Examination of the lattice-work in the window on the right of *Interior of a School Cairo*, of 1865 (Figure 55), reveals it to have also been painted directly onto a layer of solid white paint and there are clues in other pictures. In *A Frank Encampment*, the red of the standing Bedouin sheikh's dress is flaking off, disclosing a layer of white paint underneath, and in many places of the picture the colours look blotchy, as if they have been applied piecemeal onto a ground of white, rather than as a smooth wash straight onto absorbent paper. Furthermore, the reds and blues are subdued and chalky in tone, as if either mixed with white or applied onto white. *The Siesta* (Figure 43) has been recently described by the Fitzwilliam Museum as being in 'watercolour over bodycolour', while the Cecil Higgins catalogue entry for the luminous 1859 watercolour, *The Pipe Bearer* (Figure

56) states that ‘like the Pre-Raphaelites, Lewis adopted the technique of painting watercolour on a white ground to reinforce the intensity of colour.’⁸¹

As we will see, Lewis’s watercolours were often criticised in the press for their employment of white.⁸² *The Hhareem* (Figure 36) was described by the *Art Journal* as being ‘painted almost entirely in body colour, or it may be white tinted with colour; and the manner, distinguished with each surpassing finish, is peculiar to its author.’⁸³

Lewis was obsessed with maintaining a smooth surface to all of his work, both in watercolour and oil, to create the most brilliant effects. As he commented to Millais, on meeting him one day after his return from Egypt, ‘I am sure that oil painting could be made more delicate than either of you make it; not sufficient pains are taken to make the surface absolutely level. Why should it be more piled up than in watercolour?...The illusion of all modern painting is destroyed by its inequality of surface.’⁸⁴ In 1857 *The Times* described *Hhareem Life* as having ‘the smooth, flat, highly-finished appearance of a Chinese screen.’⁸⁵

Apart from the raw materials required for painting, Lewis filled his studio with many beautiful oriental costumes, musical instruments and swords, which he had brought back from his travels, and which allowed him to copy every detail exactly in his paintings. The same costume can be found in several of his works.⁸⁶ There were models of camels, too, and lay figures, male and female, as well as a large collection of photographs of Cairo and Egypt.⁸⁷ In 1854 the Roberson archive shows the purchase of a male lay figure for £21 and another lay figure at 5/-, on which the costumes would be draped, with Lewis and his wife Marian often acting as real-life models.⁸⁸ Lewis’s face stares out at us from many of his watercolours (Figure 57).

3.7 Conclusion

John Frederick Lewis demanded high standards of himself. In 1857, Ruskin wrote that, ‘I know well that Lewis could not have satisfied himself with less than the exquisite accomplishment of every detail which he has given us here; nay, I know that he is not satisfied even with what he has given, and would forbid me that word “accomplishment,” if he saw it being written.’⁸⁹ His microscopically detailed watercolours were produced slowly and meticulously, but left him exhausted by the ‘incessant application’ of work. ‘Generally in spite of all my hard work, I find water colour to be thoro’ly *unremunerative* that I can stand it no longer – it is all, all always,

rolling the stone up hill – no rest, and such little pay!’⁹⁰ However, his quiet dedication to painting, working daily, with few breaks, created masterpieces in watercolour which continued to be admired long after his departure for the Royal Academy. In 1868 his *Frank Encampment* ‘which, twelve years ago, called forth a rhapsody from Mr. Ruskin that scarcely even now ...reads extravagant’, was still considered ‘worthy of a pilgrimage’ at the Leeds Exhibition.⁹¹

Lewis’s technical virtuosity demanded only the best raw materials. His groundbreaking pictures, working in bodycolour, often on white grounds and at least once on wood, and weaving intricate patterns of light and colour like exotic oriental carpets, opened up new avenues which would later be explored, respectively, by the Pre-Raphaelites in England and the Impressionists in France. Known for his careful selection of well-prepared materials and his strict adherence to his own methods and routines, Lewis understood and exploited new nineteenth-century pigments and papers to maximum effect. Above all, without the development of a non-toxic, stable and workable Chinese White, which would combine successfully with all pigments, cover and wash well, and was without the ‘clogging or pasty qualities’⁹² of previous whites, Lewis would never have been able to create remarkable watercolours which can still be considered, in Ruskin’s words, ‘among the most *wonderful* pictures in the world’.⁹³

- ¹ Ruskin, "Praeterita", *Works*, XXXV, 1904, p. 373.
- ² *The Builder*, 4 May 1850, p. 211
- ³ *Art Journal*, 1 June 1850, p. 179 (first two quotations); *Athenaeum*, 4 May 1850, p. 480.
- ⁴ *Art Journal*, 1 June 1857, p. 178.
- ⁵ Roget, Vol. II, pp. 137- 148; Samuel Redgrave, *A Descriptive Catalogue of the Historical Collection of Water-Colour Paintings in the South Kensington Museum*, London, 1877, pp. 63-64; Ruskin, "Academy Notes", 1856, 1857, 1858, *Works*, XIV; Hardie, Vol. III, pp 48-55.
- ⁶ Emily M. Weeks, *The 'Reality Effect': The Orientalist Paintings of John Frederick Lewis (1805-1876)*, unpublished PhD thesis, Yale University, 2004, pp. 4-5.
- ⁷ Briony Llewellyn, "The Royal Academy Album: illuminating the early biography of J. F. Lewis," in Briony Llewellyn and Sally Doust, *The Young Lion: Early Drawings by John Frederick Lewis RA (1804-1876)*, London, 2008, p. 1.
- ⁸ Caroline Williams, "John Frederick Lewis: 'Reflections of Reality'", in *Muqarnas: An Annual on the Visual Culture of the Islamic World*, XVIII, New Haven, 2001, pp. 227-243; Briony Llewellyn: "Observations and Interpretation: Travelling Artists in Egypt", in Jan Marsh (ed), *Black Victorians: Black People in British Art 1800-1900*, Aldershot, Burlington, VT, 2005, pp. 35-45; and "A Masquerade Unmasked: An Aspect of John Frederick Lewis's Encounter with Egypt", in J. Thompson (ed), *Cairo Papers in Social Science*, Vol. XXIII, 2000, pp. 133-151.
- ⁹ Major-General Michael Lewis, *John Frederick Lewis, R.A., 1805-1876*, Leigh-on-Sea, 1978.
- ¹⁰ Christopher Newall, *Victorian Watercolours*, London and New York, 1987, p. 32.
- ¹¹ Lewis, *John Frederick Lewis*, p. 11.
- ¹² Ruskin, "Academy Notes", 1858, *Works*, XIV, p. 160.
- ¹³ See catalogue, Llewellyn and Doust, *The Young Lion*.
- ¹⁴ John Sweetman, "John Frederick Lewis and the Royal Scottish Academy: the Spanish connection", *The Burlington Magazine*, May 2005, p. 312.
- ¹⁵ Anon, "British Artists: Their Style and Character, No. xxxii – John Frederick Lewis", *Art Journal*, 1 February 1858, pp. 41-43.
- ¹⁶ Letter to Dawson Turner, 6 Jan 1834: S.D. Kitson, *The Life of John Sell Cotman*, London, 1937, p.306.
- ¹⁷ Lewis, *John Frederick Lewis*, p. 45, note 2. Lewis's copy of the left part of *The Birth of the Virgin* fresco is now in the Royal Scottish Academy.
- ¹⁸ Cennino d' Andrea Cenninni, *The Craftsman's Handbook: "Il Libro dell'Arte"*, translated by D.V. Thompson, Jr., New York, 1960 (original dates from 15th century).
- ¹⁹ Lewis, *John Frederick Lewis*, lists these and other contacts on p. 21.
- ²⁰ Hardie, Vol. III, p. 53.
- ²¹ Anon, "British Artists - Lewis", *Art Journal*, 1 February 1858, p. 43.
- ²² Roget, Vol. II, pp. 142-3.
- ²³ Ronald Parkinson, *British Watercolours at the Victoria and Albert Museum*, London, 1998, p. 115.
- ²⁴ Anon, "British Artists - Lewis", *Art Journal*, 1 February 1858, p. 43.
- ²⁵ *Athenaeum*, 4 May 1850, p. 480.
- ²⁶ Roget, Vol. II, p. 143.
- ²⁷ Lewis, *John Frederick Lewis*, p. 26.
- ²⁸ Arts Council of Great Britain, *Great Victorian Pictures and their paths to fame*, exh. cat., London, 1978, pp. 51-52.
- ²⁹ *Athenaeum*, 4 May 1850, p.480.
- ³⁰ Ed. About, *Voyage à Travers l'Exposition des beaux- arts*, Paris, 1855, p. 32.
- ³¹ Roget, Vol. II, p. 144, footnote 1.
- ³² Caroline Bugler, "'Innocents Abroad': Nineteenth-Century Artists and Travellers in the Near East and North Africa", in Mary Anne Stevens (ed), *The Orientalists: Delacroix to Matisse. European Painters in North Africa and the Near East*, exhibition catalogue, London, 1984, p. 20.
- ³³ Roget, Vol. II, p. 145.
- ³⁴ Ruskin, "Academy Notes", 1856, *Works*, XIV, p. 74.
- ³⁵ Ruskin, "Academy Notes", 1858, *Works*, XIV, p. 160.
- ³⁶ "Mr Lewis's sketches", *Art Journal*, 1 August 1851, pp. 221-222
- ³⁷ Anon, "British Artists - Lewis", *Art Journal*, 1 February 1858, p. 43.
- ³⁸ Ruskin, "Academy Notes", 1857, *Works*, XIV, p.130.
- ³⁹ Letter to J. F. Lewis, 'Tuesday' (1856), coll. Brigadier J. M. H. Lewis, No. 108 in exhibition, quoted in Laing Art Gallery, *John Frederick Lewis, 1805-1876*, exh. cat. compiled by Richard Green, Newcastle-upon-Tyne, 1971, p. 10.
- ⁴⁰ Ruskin, "Academy Notes", 1856, *Works*, XIV, p. 78, re *Frank Encampment*: 'I trust, whatever its destination, that measures may be taken to preserve it from excess of light and from damp. Body-colour

preserved (as in manuscripts) in shade, and kept dry, has stood unchanged for six hundred years; but the slightest adverse influences are to be dreaded for a work of this delicacy.’

Ruskin, “Academy Notes”, 1857, *Works*, XIV, p. 132, re *Hareem Life, Constantinople*: ‘If the slightest spot or injury touched the trellis-work and drapery in Lewis’s pictures, no one would ever be able to look at them again till they had been “restored”; and still less, after such restoration, any one who knew the master’s work.’

⁴¹ Roget, Vol. II, p. 147.

⁴² Reviews appear respectively in: *Athenaeum*: 8 June 1861, p. 769; 13 July 1861, p. 55; 29 July 1865, p. 154 (*Caged Doves*); and *Art Journal*: 1 December 1865, p. 371; 1 December 1872, p. 304; 1 September 1868, p. 180 (*A Frank Encampment*); 1 November 1871, pp. 273-4; and 1 April 1872, p. 124.

⁴³ Unpublished letter from John Frederick Lewis to John Noble dated 23 April 1854, MS Autogr. C.17 fols. 228-229, (Bodleian).

⁴⁴ Personal conversation with Sally Doust, 29 May 2008.

⁴⁵ Sally Woodcock and Judith Churchman (eds.), *Index of Account Holders in the Roberson Archive 1820-1939*, Cambridge, 1997, p. 37.

⁴⁶ *Art-Union*, 3 March, 1841, p. 49, quoted in Weeks, *Reality Effect*, p. 13.

⁴⁷ Peter Bower, *Turner’s Later Papers: A Study of the Manufacture, Selection and Use of his Drawing Papers 1820-1851*, London, 1999, p. 102 (cat. No. 57); p. 81 (cat. No. 41); p. 111 (cat. No. 64) refer to paper obtained in Germany, Switzerland and Italy.

⁴⁸ Nasser D Khalili, *The Timeline History of Islamic Art and Architecture*, Worth Press, 2005, pp 64-65, 74-75.

⁴⁹ Weeks, *Reality Effect*, p. 19, footnote 42, notes that these texts were listed in *The Remaining Works of that Distinguished Artist, John Frederick Lewis, RA, Deceased, 4-7 May 1877*, published by Christies in London, lot no. 11.

⁵⁰ E. W. Lane, *Manners and Customs of the Modern Egyptians*, The Hague, 1978 (facsimile reproduction of 1895 edition), p. 314.

⁵¹ Nicholas Tromans (ed), *The Lure of the East: British Orientalist Painting*, exhibition catalogue, London, 2008, p. 80.

⁵² Llewellyn, “Observations and Interpretation: Travelling Artists”, p. 40.

⁵³ Stokes, “Lewis”, *Walker’s Quarterly*, p. 45, quoting letter to the author from W. S. Spanton, who during the 1860s was a student at the Royal Academy, where he had received lessons from Lewis.

⁵⁴ W. S. Spanton, *An Art Student and His Teachers in the Sixties with other Rigmaroles*, London, 1927, p. 44.

⁵⁵ Roget, Vol. II, p. 147.

⁵⁶ Letter from Lewis to Joseph Jenkins, 5 February 1858: Simon Fenwick and Greg Smith, *The Business of Watercolour: A Guide to the Archives of the Royal Watercolour Society*, Aldershot, 1977, p. 194.

⁵⁷ Winsor & Newton *Catalogue of Materials for Water-Colour Painting, and Sketching, Pencil, and Chalk drawing*, London, 1849, p. 2.

⁵⁸ Personal observation revealed the gold in the wallpaper, and Weeks, *Reality Effect*, p. 182, notes the use of ‘gold paint’ in the woman’s dress.

⁵⁹ Harley, p. 142.

⁶⁰ Personal conversation with Piers Townshend, Paper Conservation, Tate Britain, November 2009.

⁶¹ Wolverhampton Art Gallery and Museums, *Georgian & Victorian japanned wares of the West Midlands : catalogue of the permanent collection and temporary exhibition : Wolverhampton Art Gallery & Museums, 23rd October-27th November, 1982*, Wolverhampton, 1982, p. 2.

⁶² Spanton, *An Art Student*, p. 44, quotes that when Lewis was a visiting master at the Royal Academy, he ‘always worked in a water-colour method, preferring sable brushes in quills, and panel to canvas.’

⁶³ Marjorie B. Cohn, *Wash and Gouache: A Study of the Development of Materials of Watercolor*, exh. cat., Cambridge, Mass., p. 32.

⁶⁴ *The Kibab Shop, Scutari* was described in Sotheby’s sale catalogue, 21 November, 1986, lot 144 and *Lilium Auratum* in Sotheby’s sale catalogue, 20 November, 1996, lot 252 – both images Witt Library.

⁶⁵ See catalogue entries in Llewellyn and Doust, *The Young Lion*.

⁶⁶ See examples: Lewis, *John Frederick Lewis*, pp. 80-1 and Tromans (ed), *Lure of the East*, pp. 170-1.

⁶⁷ Double Elephant Size paper = 40 x 27 inches

Imperial Size paper = 31 x 22 inches

⁶⁸ Theresa Fairbanks Harris and Scott Wilcox, *Papermaking and the Art of Watercolor in Eighteenth-Century Britain: Paul Sandby and the Whatman Paper Mill*, New Haven and London, 2006, p. 106.

⁶⁹ Peter Bower, “The Evolution and Development of ‘Drawing Papers’ and the Effect of this Development on Watercolour Artists, 1750-1850’, in P. Bower, (ed), *The Oxford Papers*, London, 1996, p. 62.

⁷⁰ Cohn, *Wash and Gouache*, p. 20.

⁷¹ <http://www.fitzmuseum.cam.ac.uk/opac/search/cataloguedetail.html?&prire=11940>

⁷² Williams, “JFL: Reflections of Reality”, pp. 236-8, 242.

⁷³ Information from Ana Flynn, Conservation Officer, at the Laing Art Gallery, Newcastle-upon-Tyne, 2008 (*Hhareem Life*) and from the BMAG webpage <http://www.bmagic.org.uk/objects/1948P44>.

⁷⁴ About, *Voyage à Travers l'Exposition des beaux-arts*, p. 32. The original words describing Lewis's methods of repairing a section of watercolour where he had made a mistake are as follows: 'Lorsqu'il avait manqué un morceau, il l'enlevait proprement, remplaçait le papier par une pâte de fabrique anglaise, et recommençait la besogne. Un jour, il trouva l'aquarelle fendue en deux. Il l'envoya en Angleterre, fit recoller soigneusement les morceaux, et reprit la suite de son travail.'

⁷⁵ Lewis, *John Frederick Lewis*, p. 13; Hardie, Vol. III, p. 50.

⁷⁶ Hardie, Vol. III, p. 54.

⁷⁷ Robert Thorburn (1818-1885) painted miniature portraits of Queen Victoria from 1846 and his work was awarded a gold medal at the Paris International Exhibition of 1855.

⁷⁸ Unpublished letter from John Frederick Lewis to John Noble dated 18 January 1855 at Walton-on-Thames, MS Autogr. C.17 fols. 230-231 (Bodleian).

⁷⁹ Ralph Meyer, *The Artists' Handbook of Materials & Techniques*, London, 1991, p. 306, notes that 'Gesso is a viscous or liquid material applied as a coating to surfaces in order to give them the correct properties for receiving painting...It is made by mixing an inert white pigment such as chalk, whiting, or slaked plaster of Paris, with an aqueous binder such as a solution of glue, gelatine, or casein...When finally dry, its surface is normally sandpapered to a smooth, ivorylike finish.'

⁸⁰ Laing Gallery, *John Frederick Lewis*, p. 26; Lionel Lambourne and Jean Hamilton, *British Watercolours in the Victoria and Albert Museum: An Illustrated Summary Catalogue of the National Collection*, London, 1980, p. 228.

⁸¹ Evelyn Joll, *Watercolours and Drawings: Cecil Higgins Art Gallery*, Bedford, 2002, p. 168.

⁸² See below, CH. 8, p. 209.

⁸³ "Visit to Private Galleries – Joseph Arden", *Art Journal*, 1 October 1857, p. 309.

⁸⁴ William Holman Hunt, *Pre-Raphaelitism*, London, 1905, Vol. I, p.270.

⁸⁵ *The Times*, Tuesday 28 April 1857, p. 7.

⁸⁶ For example, the same vibrant green velvet jacket is used in both *Hhareem Life, Constantinople* (1857) and *Life in the Hhareem, Cairo* (1858).

⁸⁷ These studio aids are listed in Lewis, *John Frederick Lewis*, p. 41.

⁸⁸ See above, CH. 1, p. 30.

⁸⁹ Ruskin, "Academy Notes", 1857, *Works*, XIV, p. 130.

⁹⁰ Copy of letter from Lewis to Griffiths, dated 3 February, 1858, in Major-General Lewis's collection: Lewis, *John Frederick Lewis*, p. 30.

⁹¹ *Art Journal*, 1 September 1868, p. 180.

⁹² Winsor & Newton *Catalogue of Materials for Water-Colour Painting and Sketching, Pencil and Chalk Drawing*, 1849, p.14.

⁹³ Ruskin, "Academy Notes", 1856, *Works*, XIV, p. 74.

Chapter 4 Samuel Palmer 1805 – 1881

But the real charm of art seems to me not to consist in what can be best clothed in words, or made a matter of research or discovery. Its technical means are conversant with several branches of science; and it demands lifelong investigation of phenomena; but I do not think that the *result* is a science, though Constable very truly said that every picture was a scientific experiment.

Samuel Palmer¹

Samuel Palmer's understanding of the 'chemical complexity'² of painting was more sophisticated than that of possibly any of the other artists studied in this thesis, and was the result of a lifelong process of discovery and experimentation with materials, which he often prepared himself, in the same way that artists' apprentices had done in medieval times. His son wrote of 'the rich succulent masses of colour my father delighted to use, mixed with the last of a long series of vehicles invented successively, since the days of the notable "egg-mixture"' and of the 'long tables relating to colours' which Palmer wrote down in one of his many notebooks.³ He consulted eminent textbooks on colour and techniques, from the latest mid-nineteenth-century publications such as Field's *Chromatography* and Sir Charles Eastlake's *Materials for a History of Oil Painting*, to *Goethe's Theory of Colours* (first translated into English in 1840) and versions of medieval texts such as Cennini's *Il Libro dell' Arte* and Marco Boschini's *Le Minere della pittura*.⁴

This chapter will investigate the impact new nineteenth-century materials had on Palmer's painting methods between 1850 and his death. In particular, the dramatic expansion in Palmer's palette during his later years will be explored here for the first time, based on a Tate technical analysis of an early Palmer work and on unpublished notes taken by Louisa Twining during her lessons with Palmer in 1856, a significant source little discussed until now.⁵ The colours identified in these two sources are given in Appendix V below. Many of Palmer's letters and memoranda, published by Lister and by Palmer's son, Alfred Herbert, also contain vital details on the artist's use of materials.⁶ These are particularly important since there are no records on Palmer in the Roberson archive, although he did buy items from Roberson in the 1830s.⁷ Lister's important *Catalogue Raisonné*, too, throws light on Palmer's developing technique during different periods of his life. Lister briefly deals with Palmer's technique in his 'middle to later years', describing how work on the later watercolours on Milton subjects was often carried out at night by the light of a candle.⁸

Palmer's son has provided further unique insights into his father's eccentric watercolour practice, describing the fascinating contents of his studio and of his vast sketching coat, although his accounts may at times be unreliable.⁹ Since then the British Museum's 2005 catalogue, which accompanied their exhibition of Palmer's works, has been the only publication to explore Palmer's materials and techniques, looking at both the early and later years. In her fascinating chapter on Palmer's use of materials after 1833, Marjorie Shelley has noted Palmer's tendency to combine a taste for eccentric old fashioned materials and practices with the latest pigments, papers and media, and his insistence always on products of the highest quality and price. Palmer's unconventional use of a range of additives and binders to create oil painting effects in watercolour, however, still remain to be explored.¹⁰ Shelley's references are necessarily limited to the Palmer works which are included in the British Museum exhibition, and as three-quarters of the exhibits pre-date 1850, many of Palmer's later watercolours are not included. Other academic research on Palmer to date has focused mainly on works from the Shoreham period, whilst Hardie devotes little space to Palmer's watercolours after 1860, declaring that they 'do not compare with those of his Shoreham period or of his middle period.'¹¹ A recent addition to Palmer scholarship, *Samuel Palmer Revisited*, perceptively points out that since work from his later period actually accounts for nine-tenths of his total output, it deserves wider recognition, especially from the academic community.¹² My chapter will widen the focus by also comparing Palmer's usage of new nineteenth-century materials with that of several of his contemporaries, as well as drawing on technical information derived from recent museum analyses.

4.1 The Early Watercolours: 'timidity of execution'¹³

Palmer's early sketchbooks (Figure 58) reveal the influence of David Cox's 1813 *A Treatise on Landscape Painting and Effect in Watercolour*, a manual which is thought to have been used during lessons with Palmer's drawing master in 1818.¹⁴ Cox's manual recommended the use of only twelve basic pigments, intended for use in transparent washes.¹⁵ Cox does not mention the use of white pigment at all, for highlights were meant to be created by leaving areas of the white support paper underneath exposed, as was conventional in transparent watercolour painting at the time. Palmer was also influenced from an early age by Turner and his use of dramatic lighting effects, after seeing *The orange merchant on the bar* at an exhibition when he was 14, 'and being by nature a lover of smudginess, I have revelled in him from that day to this'¹⁶ (Figure 59).

His introduction first to John Linnell, in 1822, and then to William Blake, in 1824, was to have a dramatic impact on his use of materials, for both were highly original artists, as well as skilled and knowledgeable craftsmen. They delighted in experimentation and concocted their own paints, varnishes and media, and were keen to pass on their ideas to the young Palmer. After a visit with Linnell to Dulwich Picture Gallery, Palmer decided that Cox's style no longer suited his. 'Cox is pretty – is sweet, but not grand, not profound. Carefully avoid getting into that style which is elegant and beautiful but too light and superficial.'¹⁷ His revolutionary sepia pictures of 1825 (Figure 60) demonstrate a radical departure on a technical level from his previous work and even from Blake, with his unique combination of sepia washes and Indian Ink outlines sandwiched between layers of gum Arabic, and finally varnished with gum.

From 1826 to 1833, Palmer lived in Shoreham, creating idealistic rural idylls of 'peace, abundance, and honest, rewarding toil' often begun in tempera and finished in oils.¹⁸ Whilst many of his Shoreham works were painted in monochrome, he gradually extended the palette of colours he used, recognising 'Some of my faults. *Feebleness* of first conception ...and consequent timidity of execution...Whites too raw. Greens crude. Greys cold. Shadows purple...Let everything be colour, and not sullied with blackness.'¹⁹ In his 1830 tempera work *Coming from Evening Church* (Figure 61), he was using nine colours (Figure 62), including Lead White and Blake's White (see Appendix V).²⁰ All of the colours he used in this work, with the exception of Blake's White, were traditional pigments, many of them the same as those used by Blake, who 'shied away from any newly developed ones.'²¹ Like Blake, Palmer chose to exclude green pigments from his palette at this time, preferring to use red, blue and yellow pigments, with black and white, in accordance with Newtonian colour theory.²²

The most obvious difference between the conventional restricted palette of Cox and that of Palmer lies in Palmer's defiant use of two whites. The chalk white was probably made by Palmer himself, according to Blake's own recipe, which Palmer in turn passed on to his friend Henry Acland in 1866 (Appendix VI).²³ It was mainly used to prime the paper and for highlights. More will be said about Palmer's use of white pigments later in the chapter. The Shell Gold refers back to medieval practices, when genuine gold was ground with gallstone and used for gold lettering in manuscripts and for representing gilded armour in miniatures.²⁴ Lister suggests that Palmer may have seen illuminated manuscripts in the British Museum and that they may have also

inspired the textured brushwork and detailed drawing of his early work.²⁵ Palmer continued to apply touches of gold to his work in later years, notably in *Christian Descending into the Valley of Humiliation* of 1848 (Figure 63), *Shady Quiet* of 1852 (Figure 64) and, according to Lister, in some of the eight large Milton watercolours completed between 1868 and Palmer's death in 1881 for Leonard Rowe Valpy, John Ruskin's solicitor.²⁶ These will be discussed in more detail later. Frederick Lewis and Edward Burne-Jones similarly incorporated gold paint in their watercolours.

Palmer moved back to London in 1833 and over the years began to adopt new nineteenth-century pigments, buying some in ready-made cake form. His letter to John Linnell from Rome in early 1838, during his honeymoon with Hannah Linnell, requests 'three cakes of Newman's orange vermilion of which we are both rather short'.²⁷ This was a very new pigment, first offered by colourmen in 1835.²⁸ In some of Palmer's watercolours (such as *The Patriarch of the Orchard* of 1861, Private Collection, and *The Waters Murmuring*, Figure 65) a small area of orange vermilion seems to have been used for the dresses of figures to highlight them amongst the darker greens of their pastoral surroundings. In 1849, Palmer writes of taking sketching materials with him, including 'the three chromes,'²⁹ referring to the three shades of Chrome Yellow, which had been introduced in 1814, although he later rejected these as unreliable, as they were 'impermanent, turning a dark greenish colour.'³⁰ Little of his work was selling, however, and he recognised the need for a 'NEW STYLE. SIMPLE SUBJECT; BOLD EFFECT; BROAD RAPID EXECUTION' if he was to achieve success.³¹ The bright and durable pigments which were beginning to arrive in increasing numbers on the market provided one means of achieving this bolder effect.

4.2 'Sunbeams in a crucible': The Impact of New Pigments on Palmer's Later Watercolours³²

By 1854 Palmer had finally become a full member of the SPWC, although still struggling to find buyers for his work. Both of his Comus exhibits from the 1856 show were returned unsold, despite his use of rich and vivid colouring in one of them 'to gauge the public taste'.³³ That he was now using a whole range of bright new nineteenth-century pigments, in an attempt to change his style, can be identified in a notebook kept by Louisa Twining, who was his pupil during the 1850s. The list of watercolour pigments he recommended to her at this time totalled twenty-seven (Figure 62 and Appendix V).³⁴ Two particularly recent introductions, Cadmium

Yellow (introduced 1843 by W&N) and Orange Chrome (introduced 1852 by Rowney), appear, together with two ready-mixed greens, Terra Verde (a 17th-century pigment) and Emerald Green (introduced 1814), two nineteenth-century bright blues, French Ultramarine and Cobalt, and the new red Extract of Vermilion. In the handwritten notes made during these lessons, Louisa separates each of the recommended yellows, reds and blues into two classes – ‘very bright’ and ‘sober.’³⁵ The new Cadmium Yellow, Orange Chrome, ‘French Ultramarine’ and Cobalt are, unsurprisingly, listed with the ‘very bright’ colours, and balance the more traditional ‘sober’ Sienna and Ochre earth colours and the dark Indigo and Prussian Blue. This differentiation between ‘bright’ and ‘sober’ reflects Palmer’s preoccupation with dramatic contrasting lighting effects in nature. Palmer’s son described his father’s

tiny box labelled “BRIGHTS”. In this there dwelt, protected from all contamination, and each in a white paper jacket neatly fitted over the upper part of it, certain cakes of the colours with which my father worked on the brightest passages in his drawings. As he sometimes attempted “a focus” which was “a well-head of dazzling light,” and often the very sun himself, such care was well repaid.³⁶

Louisa Twining notes that Emerald Green is to be used for painting foliage and Palmer himself refers to painting ‘yellow ochre and emerald green for smooth grass.’³⁷ Evidence of Palmer’s regular employment of Emerald Green during the 1860s and 1870s can be found in works such as *A Chase in Venezia* (Figure 66), *Western Shores* (Figure 67) and *The Bellman* (Figure 68). The luminous and vibrant new colours Orange Chrome and Cadmium Yellow were perfect for creating the many intensely colourful sunset compositions of Palmer’s later period, although Orange Chrome was known to be prone to discolouring.³⁸ Palmer was said to be ‘concocting sunbeams in a crucible’, with the earth a ‘cloth of gold.’³⁹ *The Eastern Gate* (Figure 69), amongst others, surely owes its impact to widespread use of these colours. F. G. Stephens wrote of the ‘gorgeous spectacular vision, *The Eastern Gate*, where we have the heavens arrayed in splendours of sunrising, and clouds, like gigantic janitors of dawn.’⁴⁰ However, the high colouring of Palmer’s works was not always well received, and he commented that ‘my drawings are *avowedly* hung out of the way because they are said to kill everything else, I think of trying one or two cool ones this year’.⁴¹

Between 1873 and 1876, his letters to P. G. Hamerton and Richard Redgrave reveal his knowledge and adoption of other new pigments, including Verditer, Chrome Green, Aureolin, and Cerulean Blue, which were all new discoveries during the 1850s and 1860s (see Appendix II).⁴² To Redgrave, he confided in 1876: ‘The Colin blue struck me just as it has struck you; so keeping it for flowers and little touches on little figures,

the trouble was almost for nothing. But I was right, I think, to take pains about it, because of its resemblance in *powder* to the queen of hues, verditer.’⁴³ Perhaps Palmer was referring to the new artificial blue pigment’s indifferent washing properties, which made it unsuitable for painting large areas. It was also said to discolour in impure atmosphere.⁴⁴ These new greens, yellows and blues were bright strong colours, which would enable Palmer to achieve his intended boldness of effect. ‘What must I do to attain excellence?’ he had cried in 1859. He noted down his ideas to remedy the situation: ‘Intense depth of shadow and colour...The focus, a well-head of dazzling light...EFFECTS. Midsummer glowing Twilight, and rising moon,’ and ‘Thoughts on RISING MOON, with raving-mad splendour of orange twilight-glow on landscape.’⁴⁵ The Cadmium Yellows, Aureolin, Orange Chrome, Extract of Vermilion and other ‘brights’ would find full use in the highly coloured and richly textured effects he would create in his large watercolours of the 1860s, such as *The Lonely Tower* (Figure 70) and *A Towered City* or *The Haunted Stream* (Figure 71). Palmer laboured lovingly over these works for three years and exhibited them in 1868 at the Society of Painters in Water Colours. The critics were both dazzled and shocked, the *Spectator* critic outraged at ‘the rankness and violence of his colours,’ whilst the *Art Journal* commented that ‘Palmer once more sets nature in a blaze.’⁴⁶ *Tityrus Restored to his Patrimony*, painted around 1874 (Figure 72), makes dramatic use of brilliant new yellows, such as Aureolin, to create his ‘well-head of dazzling light’.

It is hardly surprising, then, that with the advent of watercolour pigments in collapsible tubes in 1847, Palmer began testing the qualities of this new form of paint. The thick oil-like consistency clearly appealed to him and he advocated the use of tubes of watercolour to Louisa Twining, advising her to apply

plenty of colour. I mean that the smallest touch should be put from a tempting bit of paint just worked up with the palette-knife, and laid crisp and comfortable; no scrubbing and fumbling from colour dried hard, and spoiling a poor brush in the effort...Plenty of *paint*, and interstices of palettes [to be] cleaned every day, and kept replenished from the tubes before you go out.⁴⁷

Tubes also provided an efficient and effective means of producing outdoor sketches rapidly, thus eliminating the lengthy hour-long setting of the palette with laboriously-prepared pigments which Palmer had previously deemed essential.⁴⁸ They were never meant to be a complete substitute for his hand-made colours and the cakes he bought from suppliers, but they would assist him in speeding up the process of preparing and finishing his painting, for he was painfully aware of the unacceptably long time-scale in which he worked.⁴⁹ The thicker tube colours allowed him to impart texture to his

painted surface, in closer approximation to oil painting. As we shall see below, Palmer preferred to create textures using paint, rather than relying on the texture of the paper surface itself.

4.3 A Late Adoption of Chinese White

In his later years, Palmer also recognised the value of the new commercially-prepared white pigment, made from zinc, Chinese White. He advocated its use to Louisa Twining in 1864: ‘Use the zinc-white (in tube) freely, whenever it is of use,’ suggesting a ‘very thin wash of white all over the paper’ to ‘make the paper “take” at once.’⁵⁰ In 1865, he also suggested to Richard Redgrave a ‘very thin wash of zinc white’ being applied initially to the sky before painting with ultramarine.⁵¹ A white priming, wrote Palmer, ‘is to a brilliant picture, what the outside daylight is to a stained glass window.’⁵² Palmer may have found his inspiration in Goethe’s *Theory of Colour*, which states that ‘every colour, in order to be seen, must have a light within or behind it. Hence the lighter and brighter the grounds are, the more brilliant the colours appear.’⁵³ In *A Century of Painters of the English School*, the Redgraves described Palmer’s method. ‘In preparing his cardboard for work he would give it a slight wash of Chinese white with perhaps a little cadmium to obtain a warm ivory tint.’⁵⁴ Recent technical analysis has shown that a zinc white priming was used for his 1881 work, *The Prospect* (figures 73 and 74).⁵⁵ *Western Shores* has the same glowing luminosity and I suggest that brilliant areas such as the sun in *The Bellman* at Chatsworth, which I have seen, have been painted onto a layer of white pigment underneath. Hardie describes two of Palmer’s Milton watercolours as being worked ‘with body-colour upon a ground of white.’⁵⁶ We will not be able to establish the identity of the white used, however, until further non-invasive tests can be carried out.

Hardie mistakenly suggests that Palmer employed Chinese White from as early as 1828.⁵⁷ This is impossible as it predates the arrival of Winsor and Newton’s product in 1834 and we have already observed that in 1830 Palmer was using his beloved home-made chalk white. Palmer’s son confirms that ‘Blake’s White’ was used during the Shoreham Years for priming the wooden panels of his tempera paintings,⁵⁸ and it is also thought to have been used in his very large 1864 watercolour, *A Dream in the Apennine* (Figure 75).⁵⁹ It would seem that Palmer only began to employ Chinese White from the 1870s onwards.

Palmer claimed in 1873 that his watercolours were ‘a kind of tempera (safely free from Chinese white ‘lights’, so called)’.⁶⁰ He does not appear to have employed bodycolour (that is, white mixed with other pigments) in the same way that contemporaries such as Foster and Burne-Jones did, but instead, during his later years, recommended achieving highlights by glazing another colour over a dry layer of white. ‘Mind (and this is very important) when you use heightening lights, on a tree already painted for instance, do the lights first, delicately and sharply with white; when dry, add the colour.’⁶¹ Thus the colour is applied on top of the dry white, using the same technique practised by William Henry Hunt, Frederick Lewis and Birket Foster. In this way great luminosity could be achieved. William Henry Hunt’s successful and exquisitely detailed later watercolours were well known to Palmer. ‘The only certain way of making money by water-colours is, I fancy, to do such figures, fruit, and flowers as William Hunt did, and to do them as well. This again wants a whole life.’⁶²

Perhaps more so than many of his generation, Palmer understood the problems of durability and permanence in pigments, and he expressed this in a letter of December 1873 to the artist and art critic, P.G. Hamerton. Here he describes how some colours may appear permanent for up to six months, but after another six months they will have completely faded.

If you now give yourself to the experimental study of pigments, doubting whether any are permanent, you will be persuaded by next mid-summer that all are trustworthy..., but by this day twelve month devote them all to the dust-hole, and under certain conditions both view will be correct; for painting is a matter of such chemical complexity.⁶³

He had clearly explored the subject in detail, along with the composition and difficulties of oil painting and oil pigments, different vehicles, old master methods and colour theory.

4. 4 Vehicles, gums, additives and crayons

Not only colours, but vehicles of all descriptions were studied by Palmer during his later years, beginning with egg, which Linnell had originally suggested to him during his travels in Italy in 1838.

When you are grinding colour, try some of the yolk of egg...I think it is better than glue. You may set a palette by this method at any time for water-colour, by mixing a few dry colours with egg – the yolk only, and as Cennini says, as much egg as colour. Spread the colour when mixed, on the palette thin, and it will wash up again with water easily, especially if a little sugar be added.⁶⁴

Egg was the traditional vehicle used for preparing for painting in tempera. Between 1838 and 1856, Palmer continued to experiment with this egg medium, which by then he found ‘a material exactly suited to me... I have now got in the egg a delightful material, and if I could gain knowledge as to more rapid completion of works I should be very glad.’⁶⁵ Whilst Palmer completed ‘a good many drawings’ using the egg vehicle, it was ultimately abandoned ‘on account of its softness and susceptibility to damp,’⁶⁶ although Lister states that albumen, or white of egg, was incorporated into the large Milton watercolours painted during the last years of Palmer’s life.⁶⁷ In earlier tempera works, such as *Coming from Evening Church*, technical analysis has shown that Palmer made use of animal glue, gum Arabic, cherry gum and honey.⁶⁸ A Tate investigation of the same work describes the use of a final layer of ‘thick amber glazing’, consisting of ‘a mixture of rosin and linseed oil...typical constituents of household varnish.’⁶⁹

Unfortunately, little is known about Palmer’s use of binders and additives during his later period, due to the lack of non-destructive techniques for analysis. Shelley suggests that Palmer could have worked with any one of the many gums available to artists at that time, including glair, insinglass, alum, borax, gum tragacanth, ox gall and watercolour megilp.⁷⁰ These resins and varnishes were commonly discussed in contemporary watercolour manuals.⁷¹ In a letter to P.G. Hamerton of 1873, Palmer certainly shows detailed knowledge of the effects on different pigments of vehicles such as ‘Mastick varnish’, ‘parchment size tempera’, ‘common glue’ and ‘macquelp’, and it would be reasonable to imagine this knowledge resulted from personal experience.⁷² In 1863 Palmer wrote to Linnell, requesting ‘a little of your superb home-made amber varnish if there be a slow drying and quick drying sort.’ He also mentions Linnell’s own copal as being ‘very useful’.⁷³ Early nineteenth-century manuals describe the use of copal or mastic for varnishing watercolours, applied over several layers of thick, warm isinglass to prevent the varnish coming into direct contact with the paper, and Varley had also experimented with copal varnish for his watercolours.⁷⁴ There is an interesting and rarely-noticed footnote written by Palmer’s son in the catalogue of the 1926 exhibition at the V&A, which states that the paper of the monochrome preparatory sketches for the Milton works *The Eastern Gate*, *Towered City*, *The Bellman* and *The Waters Murmuring* (Figure 76) (all Victoria and Albert Museum) ‘was prepared by a coat of common paste, and work was often done with the moistened blade of a pen-knife.’⁷⁵

For rapid sketching, Palmer frequently used soft coloured crayons. As has been shown, soft crayons had only recently become popular in England.⁷⁶ Palmer mentions them in a letter to P. G. Hamerton written in 1872: ‘Water-colours upon paper, hued like the lightest whity-brown paper which Mr. Newman got hot-pressed for me...and with use of white, are most useful for registering passing effects, and soft [coloured] crayons still more so (the *Fixateur Rouget* sold somewhere in Paris, quite fixes them)’.⁷⁷ This recognition by Palmer of Rouget’s Fixative, which had only been introduced to the English market in 1870, again demonstrates the degree to which he informed himself about the latest products.⁷⁸ Interestingly, he also suggests combining the crayon with watercolour to produce a finished result, seizing

transient effects by the best – the only perfect way, soft [coloured] crayons and charcoal...finish the depths with water-colours, using the colour rather dry if the paper were absorbent (you may load on the crayon), using crayon-paper of a cream-colour or a light buff tint. I should think such drawings would go down delightfully at the Dudley Gallery.⁷⁹

As with all his materials, Palmer was knowledgeable about the quality and content of these crayons, advising Hamerton, ‘I would trust no crayons (but the Swiss) which I did not make myself, as they mix lead (flake white) with the crayon white and light tints.’⁸⁰ He also recommended their use to Louisa Twining.⁸¹ We know Palmer carried crayons around with him within the capacious pockets of his coat on sketching expeditions (Figure 77).

The coat was an accumulation of pockets in which were stowed away the all-important snuff-box, knives, chalks, charcoal, coloured crayons, and sketch-books, besides a pair of large, round, neutral-tint spectacles made for near sight. These were carried specially for sunsets and the brightest effects on water; and, together with a small diminishing mirror, completed the equipment.⁸²

It was the ability of the crayons to produce rapid and atmospheric sketches which Palmer so greatly valued. The rich opacity of these crayons made them ideal for work on darker papers and on board.

4. 5 Palmer’s Brushes

In his later watercolour painting, Palmer was able to take advantage of new developments in brushes, too, employing the stronger flat metal ferruled products as well as delicate quills⁸³ to achieve the combination of rapid brushstrokes and tiny stippled dots which typify complex later works such as *The Waters Murmuring* (Figure 78). Using ‘the little crow-quill to the reed’, Palmer worked from a ‘delicate stipple or most minute draughtsmanship’ to ‘the bold sweep of a brush two inches broad, filled

from the thick masses of colour on the wooden palettes.’⁸⁴ His son describes his father’s range of ‘very large, flat, camel-hair brushes’⁸⁵ (Figure 35) which enabled him to execute a robust impasted stroke, similar to oil painting. ‘Large brushes for large work,’ Palmer advised Louisa Twining.⁸⁶ In the age of the Exhibition Watercolour, when watercolour artists were consciously vying with oil paintings for impact and power on the walls of the annual exhibitions, large brushes were a significant development. ‘Let me try to make the getting in exactly resemble OIL painting with that broad suggestive smear in the half tints,’ Palmer noted in 1859.⁸⁷ Different effects could also be gained by using the brush sometimes ‘wet, sometimes half dry – sometimes in a point, sometimes spread.’⁸⁸ By making full use of the range of sizes and types of brushes which were on offer, Palmer could create a range of textures and effects from sweeping washes to intricate dappling of kaleidoscopic colour in the foliage of the trees, grasses and foreground detail. It was exactly this blend of ‘the definite and the indefinite’ which Palmer felt was required in order to produce the highest level of finish.⁸⁹ He could work both in small formats, such as *The Sleeping Shepherd* (Figure 79), painted in 1857, and *Western Shores*, to large and elaborate pictures, such as the series of Milton paintings over two feet long, such as *The Waters Murmuring*, which were commissioned and destined for exhibition.

4. 6 Palmer’s watercolour supports: an ‘intermediate between paper and ivory’⁹⁰

The supports which Palmer used needed to be strong and solid, to withstand the vigorous manipulation of colour which he practised, sometimes with large brushes, ‘sometimes with a palette-knife, sometimes with the finger, in “oil-colour-like sweeps.”’⁹¹ ‘With his finger, they say, Titian put the last finish; it is a wonderful instrument in painting,’ he explained to Louisa Twining.⁹² He was not afraid to scratch out lights with sharp instruments and with the end of his brush. Many of his pictures, including *Christian Descending into the Valley of Humiliation* and *A Chase in Venezia* demonstrate his love of creating textures on the surface of the paper by scratching out highlights in the trees and cliff-faces, and by using the end of his brush to drag the colour around, rather than relying on the surface of the paper for texture (Figure 80). ‘Why do you persist in using that rough paper...for delicate architectural details? It is fit only to play artistic, or rather *unartistic* tricks upon...How much better to *make* the textures and qualities,’ he wrote to a friend in 1858.⁹³

Palmer had evidently invested a great deal of time and effort in understanding the different qualities of paper and boards which were available in his day. As with all his other materials, he displayed an intricate knowledge of the technical qualities and capabilities of his papers. The supports he valued for sketching varied widely from white wove paper to tinted greys, blues and buff paper, as they produced rapid and bold effects when used with opaque white and brightly coloured crayons. He observed that ‘dark pictures are best drawn on brown crayon-paper (the tint of whity-brown, but a little darker) only you cannot scrub the colour about so well.’⁹⁴ Until the early nineteenth century, the only coloured papers available were low quality brown wrapping papers, favoured by some artists such as Cotman and Girtin, but they would not have withstood the vigorous handling which Palmer practised. Palmer was able to make full use of the new stronger ranges of coloured wove artists’ papers being produced in greater volume from the 1820s in England, as a result of manufacturing improvements. *Tintagel Castle; approaching Rain* (Figure 81) has been painted onto buff wove paper and some of his Cornish sketches of 1858 are executed on grey paper (Figure 82). ‘For sunsets I would try a pencil or chalk outline on brownish-grey paper, tinted with soft crayons, and sometimes explained by writing on the parts themselves.’⁹⁵

Finished watercolours, on the other hand, he felt, should be executed on ‘hot-pressed *thickest* imperial [paper].’⁹⁶ Hot pressed paper, a nineteenth-century introduction, provided the smoothest painting surface available, and Imperial paper size was a standard 31 inches by 22 inches. Increasingly, however, from the mid-1850s, Palmer was using a much thicker base for his watercolour paintings. London Board, which had been developed in the 1830s for the production of playing cards, was made up of between two and eight sheets of hot-pressed drawing paper, laminated together and glazed between rollers to produce a very smooth surface.⁹⁷ Palmer obtained London Board, which generally consisted of layers of the finest Whatman paper, from the colourman Newman.⁹⁸ Such was their popularity amongst artists, that between 1840 and 1851, the price of some boards almost halved in price.⁹⁹ However, it is most likely Palmer chose the board for the brilliant effects he could achieve on it. ‘I was driven to use it simply because, on the best modern paper (the only sort to be had since Creswick’s was bought up), I found it impossible to get any one quality I liked.’¹⁰⁰ Palmer’s issue with contemporary papers lay with the increasing use of bleaching agents by manufacturers, which adversely reacted with colours, a problem Field had recognized.¹⁰¹ ‘All I say is, after you have washed them, make up the rags pure and

simple or impure and simple, into paper, just as they are, and let them alone: no bleaching-acid, please, no blue-bag, no toning...'¹⁰²

The shiny painting surface of the hot-pressed London board, however, created its own problems initially for Palmer, who was forced to 'take off the gloss by rapidly sponging with water,' and applying the colours 'less wet than on simple paper'. He suggests to Redgrave an initial priming of zinc white. The main advantages of the resulting surface, which was 'intermediate between paper and ivory', were that it reflected light through the pigments and that the colours remained stable over time and were 'not liable to change, as on the newer papers.'¹⁰³

Palmer experimented with different thicknesses. For *A Dream in the Apennine*, he was using board consisting of a four-ply laminate of Double Elephant size white paper (approximately 40 by 27 inches), which had been possibly made to order.¹⁰⁴ The following year he wrote to Richard Redgrave that he was using 'six sheet "London-Board" of best quality from Newman's...imperial or royal: the royal, they say, is made for or used by flower-painters.'¹⁰⁵

Palmer seemed to favour the Imperial size sheets of Board, 28 by 20 inches (different to Imperial paper size), for many of his important later works. However, it would appear that the board often suffered from warping. He scrawled directions on the backs of at least four watercolours between 1865 and 1875. The verso of *The Travellers* (Whitworth Art Gallery, University of Manchester) carries the inscription: 'CAUTION – S. Palmer / Never let the cardboard on / which this drawing is done / be thinned by removing some of the back sheets - / with a view to making it flatter / If it warp fasten the edges of it / to a piece of paper strained on / a drawing board but not pasted in front.'¹⁰⁶ At least six of the large watercolours he painted on London board between 1855 and 1881, depicting Virgil and Milton subjects, were further mounted onto wooden panels,¹⁰⁷ possibly to keep them flat (Figure 173).

4.7 Conclusion

It is clear, then, that Palmer's choice of materials resulted from many years of painstaking analysis and experimentation. Despite being poor, 'none but the very choicest materials were used, even to pure gold and ultramarine; for brilliancy and durability were considered about all things imperative.'¹⁰⁸ When we consider that good materials such as genuine ultramarine, for example, cost 21 shillings a cake in 1849

and that, on average, Palmer's work for many years sold for as little as £16, such prices are indeed significant.¹⁰⁹

The watercolours painted by Palmer after 1850 could not be more different to those created by John Frederick Lewis, although both artists often devoted months to individual paintings. Whereas Lewis's works had a smooth surface finish, portrayed exotic Middle Eastern scenes and were painted indoors from models and photographs, Palmer created imaginary worlds full of intense and leafy atmospheric effects and textured impasto, based on his direct experience of the British countryside and on his responses to poetry. Whilst the critics admired Lewis's microscopically detailed work, in the end it was sometimes felt to be lacking any emotional intensity, merely 'a pen-and-ink-drawing sort of Art'.¹¹⁰ Palmer's atmospheric watercolours, on the other hand, were described as 'imaginative and poetical', 'dreamy compositions of moonlight and twilight effect', expressing the 'deep romantic spirit imbibed by the poet painter'.¹¹¹ Such poetic visions, which in the 1850s were largely unappreciated by the public, began increasingly to find favour with them in the 1870s, as they tired of realism and the relentless pursuit of detail. F. G. Stephens, artist and art critic for the *Athenaeum* and other journals, championed Palmer's cause and wrote a touching essay to accompany the Fine Art Society's retrospective exhibition on Palmer, following his death in 1881.¹¹² One important figure, however, who failed to recognise the magic of Palmer's later work was John Ruskin. 'I look to him', wrote Ruskin in 1843, 'unless he lose himself in over reverence for certain conventionalisms of the older schools, as one of the probable renovators and correctors of whatever is failing or erroneous in the practice of English art'.¹¹³ The unfortunate Palmer clearly disappointed Ruskin, as he received only one more notice from the famous critic during his lifetime. In 1858 Ruskin wrote of Palmer's *Going to India* that it 'looks at first cruder and harsher than it is, but gains by a long look, and has deep feeling in it.'¹¹⁴ Had Palmer become too much of a rival to Turner in his eyes or was Ruskin truly unforgiving of Palmer's return to classical themes? It was left to Ruskin's solicitor, Valpy, to show his support for Palmer, by giving him the most important commission of his later years, the series of large Milton watercolours.

Palmer's painstaking research into using the best materials available naturally led him to explore the newest products as they emerged onto the colourmen's shelves. These he employed alongside many traditional products and his own bizarre creations, cultivating a perfect understanding of the handling properties of every one of them, to

deliver his deeply personal vision. Between 1830 and 1857, in his struggle for commercial success, he expanded his palette to include many dazzling new pigments, especially durable yellows and oranges. These pigments were especially suited to his growing desire for a new style, painting bold effects and sunsets, with their 'raving-mad splendour of orange twilight-glow'. The new Chinese white played a vital role in the creation of Palmer's later technique, often applied onto smooth new nineteenth-century London board as an initial priming, over which his colours could be carefully laid to achieve the luminosity of stained glass. The new tubes of pigment and flat wide brushes allowed him to apply textures and impasto to his paintings, in imitation of oils, while soft crayons became a vital means of rapidly sketching impressions onto the new stronger coloured papers. Palmer knew all the latest vehicles, gums and varnishes, such as megilp and Rouget's fixative and how they reacted with each pigment. He understood the complexities of paper manufacture and the problems associated with changing technologies, including the growing use of bleaching agents. Truly the 'epoch making pictures' of Samuel Palmer's later years testify to his 'lifelong investigation' of the 'technical means' of dramatic new nineteenth-century artists' materials.¹¹⁵

- ¹ Letter to Leonard Rowe Valpy, 1 February, 1875: Mark Abley, (ed), *The Parting Light: Selected Writings of Samuel Palmer*, Manchester and Ashington, 1985, p. 226.
- ² To Philip Gilbert Hamerton, December 1873: *Letters*, Vol. II, p. 884.
- ³ *L&L*, pp. 145 and 55.
- ⁴ Letter to P.G. Hamerton, December 1873: *Letters*, Vol. II, p. 888. George Field, *Chromatography; or, A treatise on colours and pigments, and of their powers in painting*, London, 1835; Charles Lock Eastlake, *Materials for a History of Oil-Painting*, London, 1847; J. W. von Goethe, *Goethe's Theory of Colours*, translated from the German by Charles Lock Eastlake, London, 1840; Cennino d'Andrea Cennini, *A Treatise on Painting, written by Cennino Cennini*, translated by Mrs Merrifield, London, 1844; Marco Boschini, *Le Minere della pittura*, Venice, 1664.
- ⁵ Analysis of pigments by Tate conservation staff in Joyce H. Townsend (ed), *William Blake, The Painter at Work*, London, 2003, pp. 144-149 and p. 188 (Appendix 6); Louisa Twining, unpublished manuscript: 'Notes taken during the Lessons in Watercolor Painting from Samuel Palmer to Louisa Twining', 1856, Ashmolean Museum, Oxford, 1954.131.2.
- ⁶ *Letters*; Raymond Lister, *Samuel Palmer: A Biography*, London, 1974; Raymond Lister, *Samuel Palmer: His Life and Art*, Cambridge, New York, Melbourne, 1987; Raymond Lister, *Samuel Palmer and 'The Ancients'*, Cambridge, 1984; Raymond Lister, *The Paintings of Samuel Palmer*, Cambridge, New York, London, 1985; *L&L*.
- ⁷ *Letters*, Vol. I, 25 March 1838, Palmer asks for '4 cakes of pink madder from Roberson and Miller', p. 119; 20 March 1839, Palmer writes he has received '4 cakes of pink madder' in Rome, p. 311.
- ⁸ Lister, pp. 6-8.
- ⁹ *L&L*, p. 75: 'The coat was an accumulation of pockets in which were stowed away the all-important snuff-box, knives, chalks, charcoal, coloured crayons, and sketch-books, besides a pair of large, round, neutral-tint spectacles made for near sight.'
- ¹⁰ Marjorie Shelley, "Samuel Palmer's Materials and Techniques: The Later Years", in W. Vaughan, Elizabeth E. Barker and Colin Harrison, *Samuel Palmer: Vision and Landscape*, exh. cat., London, 2005, pp. 38-39.
- ¹¹ Colin Harrison, *Samuel Palmer*, London, 2004; Timothy Wilcox, *Samuel Palmer*, London, 2005; Hardie, Vol. II, p. 166.
- ¹² Simon Shaw-Miller and Sam Smiles (eds.), *Samuel Palmer Revisited*, Farnham and Burlington, VT, 2010, pp. 4-5.
- ¹³ Abley, *Parting Light*, Inscription, probably dating from 1834-5, p. 113.
- ¹⁴ William Vaughan, "Early Years", in Vaughan, Barker and Harrison, *Vision and Landscape*, p. 66.
- ¹⁵ David Cox, *A Treatise on Landscape Painting and Effect in Water Colours*, London, 1813, lists the following pigments: gamboge, yellow ochre, light ochre, burnt sienna, Vandyke brown, brown pink, lake, light red, Indian red, indigo, ultramarine, ivory black. There is no reference to white.
- ¹⁶ Letter to Mrs Julia Robinson, 9 December 1872: *Letters*, Vol. II, p. 870.
- ¹⁷ *L&L*, p. 15
- ¹⁸ Lister, *Life and Art*, p. 40. For explanation of 'tempera', see below, Appendix I.
- ¹⁹ Abley, *Parting Light*, p. 113.
- ²⁰ Analysis of pigments by Tate conservation staff in Townsend, *William Blake*, pp. 144-149; p. 188 (Appendix 6); Tate Gallery, *Completing the Picture: Materials and Techniques of Twenty-Six Paintings in the Tate Gallery*, London, 1982, p. 40, describes *Coming from Evening Church* as being on a 'gesso ground' (ie. chalk whiting and animal glue size).
- ²¹ Bronwyn Ormsby with Brian Singer and John Dean, "The Painting of the Temperas", in Townsend, *William Blake*, p. 116.
- ²² Bronwyn Ormsby with Joyce H. Townsend, Brian Singer and John Dean, "Blake's Use of Tempera in Context", in Townsend, *William Blake*, p. 136.
- ²³ Letter to Henry Wentworth Acland, 29 October 1866: Abley, *Parting Light*, p. 213.
- ²⁴ Harley, pp. 92-93.
- ²⁵ Lister, *Life and Art*, p. 16.
- ²⁶ *Christian Descending* – see Harrison, *Palmer*, p. 66; *Shady Quiet* – see Royal Watercolour Society, *The Watercolour Expert*, London, 2005, p. 10; Lister, *Life and Art*, p. 218. I have closely examined *The Bellman* of 1881 at Chatsworth (with the aid of a torch) and have not been able to distinguish any evidence of gold, although gold often tarnishes with time and may have merged with the dark surrounding colours.
- ²⁷ Letter to John Linnell, 21 February 1838: *Letters*, Vol. I, p. 114.
- ²⁸ Joyce Townsend, "Painting Techniques and Materials of Turner and Other British Artists 1775-1875," in A. Wallert, E. Hermens, and M. Peek (eds.), *Historical Painting Techniques, Materials and Studio Practice*, Los Angeles, 1995, p. 183
- ²⁹ Letter to unknown addressee, July, 1849: *Letters*, Vol. I, p. 473.
- ³⁰ Letter to P. G. Hamerton, December 1873: *Letters*, Vol. II, p. 885, footnote 3.

- ³¹ *L&L*, p. 85.
- ³² “International Exhibition 1862: Part II Watercolour Drawings of the English School,” *Art Journal*, 1 October 1862, p. 199.
- ³³ *L&L*, p. 109.
- ³⁴ Two of the pigments on this list, Verditer and Brown Pink, are no longer commercially available, so I have mixed my own version of them, based on colour samples found in Townsend, *William Blake*, p. 47 and on the website of Papers and Paints Ltd., from whom traditional colours for house painting, such as Dutch Pink (another name for Brown Pink) can be obtained: <http://www.papers-paints.co.uk/trad2.jpg>. For Verditer I mixed Viridian Green with French Ultramarine, and for Brown Pink I mixed Gamboge and Terre Verte.
- ³⁵ Twining, ‘Lessons from Palmer to Twining’, pp. 1-2.
- ³⁶ *L&L*, p. 144.
- ³⁷ Twining, ‘Lessons from Palmer to Twining’, p. 3; *L&L*, p. 113 – note dated 1859.
- ³⁸ See below, Appendix II.
- ³⁹ *Art Journal*, 1 October 1862, p. 199.
- ⁴⁰ F. G. Stephens, “Notes on some Pictures, Drawings and Etchings by Samuel Palmer exhibited at the Fine Art Society 1881”, in S. M. Palmer, A. H. Palmer, and F. G. Stephens, *A Memoir of Samuel Palmer*, London, 2005 (first published 1881), p. 54.
- ⁴¹ To Thomas Palmer, May 1861: *Letters*, Vol. II, p. 597.
- ⁴² To P.G. Hamerton, December 1873: *Letters*, Vol. II, pp. 887-8; Letter to Richard Redgrave, 2 and 3 March 1876, *Letters*, Vol. II, pp. 927-8.
- ⁴³ ‘Colin Blue’ is another name for Cerulean Blue.
- ⁴⁴ J. Scott Taylor, *Descriptive Handbook of Modern Water Colours*, London, 1887, p. 56.
- ⁴⁵ Palmer’s notes from 1859, *L&L*, p. 113.
- ⁴⁶ *Spectator*, 20 June 1868, p.736; *Art Journal*, 1 June 1868, p. 111.
- ⁴⁷ To Louisa Twining, 22 November 1864: *Letters*, Vol. II, p. 717.
- ⁴⁸ *Letters*, Vol. I, August 1856, p.521: ‘Make the setting of your palette a morning’s work, and you will save time in the end...To secure the palette and the facility of getting the colour off with the brush, try if you can move it somewhat from the paper (I mean move it somewhat about upon the paper) with a brush dipped in water. If it dissolve and work about tolerably...it is right, and not likely to tear up the palette: if it does not, add a little honey, till it dries of the right consistency. Perhaps also, it would be well to lay, *very thinly*, a little honey upon the palette first and let it set, before laying on the pigments; and if you want to lay your palette by for any time, a little diluted honey laid over each colour might tend to keep them moist.’
- ⁴⁹ *L&L*, p. 379. In 1879 Palmer wrote to P. G. Hamerton: ‘Some of my large drawings, long since due...and determined never to get finished. Then there are new commissions’.
- ⁵⁰ To Louisa Twining, 22 November 1864: *Letters*, Vol. II, p. 717.
- ⁵¹ To Richard Redgrave, 14 July 1865: *Letters*, Vol. II, p. 736.
- ⁵² To P. G. Hamerton, December 1873: *Letters*, Vol. II, p. 890.
- ⁵³ J. W. von Goethe, *Theory of Colours*, New York, 2006 (Dover edition), p. 127, Section 583.
- ⁵⁴ Richard and Samuel Redgrave, *A Century of Painters of the English School*, London, 1890, 2nd edition, p. 411.
- ⁵⁵ Shelley, “Palmer’s Materials: Later Years”, pp. 38-40, shows a detail of the ‘zinc-white primed ground’ in *The Prospect*.
- ⁵⁶ Hardie, Vol. II, p. 167, refers to *Towered City*, 1880, and *The Waters Murmuring*, 1877.
- ⁵⁷ Hardie, Vol. II, p. 161. *Lane and Shed, Shoreham*, 1828, is said to be ‘finished with washes of colour mixed with Chinese white.’
- ⁵⁸ *L&L*, p. 51.
- ⁵⁹ Peter Bower, *Turner’s Later Papers: A Study of the Manufacture, Selection and Use of his Drawing Papers 1820-1851*, London, 1999, pp. 134-5.
- ⁶⁰ To P. G. Hamerton, December, 1873: *Letters*, Vol. II, p. 886.
- ⁶¹ To Louisa Twining, 22 November 1864: *Letters*, Vol. II, p. 717.
- ⁶² To P. G Hamerton, 9 November 1872: *Letters*, Vol. II, p. 865.
- ⁶³ To P.G. Hamerton, December 1873: *Letters*, Vol. II, pp. 884-5.
- ⁶⁴ Letter from John Linnell to Samuel Palmer, 23 December 1838: *L&L*, p. 66.
- ⁶⁵ To Hannah Palmer, July 1856: *Letters*, Vol. I, pp. 517-18.
- ⁶⁶ Footnote by A. H. Palmer: *L&L*, p. 111.
- ⁶⁷ Lister, *Life and Art*, p. 218.
- ⁶⁸ Townsend, *William Blake*, Appendix 6, p. 188.
- ⁶⁹ Tate, *Completing the Picture*, p. 42.
- ⁷⁰ Shelley, “Palmer’s Materials: Later Years”, p. 39.
- ⁷¹ See above, CH. 2, pp. 76-77.
- ⁷² To P. G. Hamerton, December 1873: *Letters*, Vol. II, pp. 884-5.

- ⁷³ *Letters*, Vol. II, 18 April 1863, pp. 678-9.
- ⁷⁴ Marjorie B. Cohn, *Wash and Gouache: A Study of the Development of Materials of Watercolor*, exh. cat., Cambridge, Mass., pp. 59-60; Hardie, Vol. II, p. 106.
- ⁷⁵ Victoria and Albert Museum, *Catalogue of an Exhibition of Drawings, Etchings & Woodcuts by Samuel Palmer and other Disciples of William Blake*, London, 1926, p. 54.
- ⁷⁶ See above, CH. 2, p. 75.
- ⁷⁷ Letter to P. G. Hamerton, 9 November 1872: *Letters*, Vol. II, p. 864.
- ⁷⁸ See above, CH. 1, p. 51.
- ⁷⁹ Letter to P. G. Hamerton, 9 November 1872: *Letters*, Vol. II, p. 867.
- ⁸⁰ *Ibid.*
- ⁸¹ To Louisa Twining, August 1856: *Letters*, Vol. I, p. 521: 'I would recommend making studies on tinted paper...getting it as soon as you can, while it lasts, with crayons and black and white chalk.'
- ⁸² *L&L*, p. 75.
- ⁸³ *Letters*, Vol. I, p. 114, Palmer requests that Linnell send him duck quills on 21 February 1838 from Rome.
- ⁸⁴ *L&L*, p. 76.
- ⁸⁵ *Ibid.*, p. 113.
- ⁸⁶ *Letters*, Vol II, p. 717.
- ⁸⁷ *L&L*, p. 113.
- ⁸⁸ To Louisa Twining, August 1856: *Letters*, Vol. I, p. 519.
- ⁸⁹ To Miss Wilkinson, 29 May 1862: *Letters*, Vol. II, p. 651.
- ⁹⁰ To Redgrave: *Letters*, Vol. II, p. 736.
- ⁹¹ *L&L*, pp. 113-114.
- ⁹² To Louisa Twining, 22 November 1864: *Letters*, Vol. II, p. 718.
- ⁹³ To Miss Wilkinson, May 1858: *Letters*, Vol. I, p. 540.
- ⁹⁴ To Louisa Twining, 22 November 1864: *Letters*, Vol. II, p. 718.
- ⁹⁵ To Miss Wilkinson, 17 September 1858: *Letters*, Vol. I, p. 545.
- ⁹⁶ *Letters*, Vol. II, p. 717.
- ⁹⁷ Bower, *Turner's Later Papers*, pp. 114-115.
- ⁹⁸ Letter to Redgrave: *Letters*, Vol. II, p. 735.
- ⁹⁹ Bower, *Turner's Later Papers*, p. 115. Winsor & Newton's three-sheet boards cost 5s per dozen in 1840 and 3s.6d. per dozen in 1851.
- ¹⁰⁰ To Richard Redgrave, 14 July 1865: *Letters*, Vol. II, p. 735.
- ¹⁰¹ See above, CH. 1, p. 45.
- ¹⁰² To Richmond Seeley, 6 November 1872: *Letters*, Vol. II, p. 859.
- ¹⁰³ To Redgrave: *Letters*, Vol. II, pp. 735-736.
- ¹⁰⁴ Bower, *Turner's Later Papers*, pp. 134-135.
- ¹⁰⁵ To Redgrave: *Letters*, Vol. II, p. 735.
- ¹⁰⁶ Lister, p. 203, refers to inscriptions on the verso of *The Good Farmer* (No 645) and *The Golden Hour or Church by a Mill* (No 646) of 1865; the message on *The Travellers* is quoted on p. 209.
- ¹⁰⁷ Lister, pp. 217-229, lists the following works as being on London board laid down on wood panel: *The Brothers in Comus Lingering under the Vine*, 1856 (M2); *The Brothers, Guided by the Attendant Spirit, Discover the Palace and Bowers of Comus*, 1856 (M4); *The Eastern Gate* 1881 (M10); *The Bellman* 1881 (M20); *The Lonely Tower* c1868 (M22); and *Tityrus Restored to his Patrimony* c1874 (V2).
- ¹⁰⁸ *L&L*, p. 51.
- ¹⁰⁹ Lister, *Life and Art*. This was the average price of Palmer's works sold between 1843 and 1853, p. 146.
- ¹¹⁰ *Athenaeum*, 29 April 1854, p. 530.
- ¹¹¹ *Spectator*, 12 December 1863, p. 2855; *The Times*, 30 April 1868, p. 7; *Athenaeum*, 6 October 1877, p. 440.
- ¹¹² Stephens, "Notes on some Pictures", pp. 53-94.
- ¹¹³ Ruskin, "Modern Painters I", *Works* III, pp. 604-5, note 2.
- ¹¹⁴ Ruskin, "Academy Notes", 1858, *Works*, XIV, pp. 203-4.
- ¹¹⁵ *Athenaeum*, 16 April 1881, p. 532.

Chapter 5 Myles Birket Foster 1825-1899

All the beauties which our readers may have doted over in the woodcuts of this most successful of book-illustrators, are recognised with fresh delight in these wonderful studies. The execution is, in fact, almost the work of the graver; the usual sweep of the full and flowing water-colour brush is here exchanged for the lines and dots of the pointed pencil. Yet the result is in nowise Pre-Raphaelite.¹

The review in *Blackwood's Edinburgh Magazine* of the first watercolours to be exhibited by Myles Birket Foster at the Society of Painters in Watercolours in the summer of 1860 reflects the surprise and consternation with which his work was greeted. He knew his painting technique was unconventional and had expressed his anxiety about its reception in a letter to his cousin Robert Spence earlier that year. 'I expect I shall come in for a torrent of abuse in the papers, as my drawings are very peculiar but I must take my chance, as I believe it is the right road'² (Figure 83). It was a brave move, to give up a successful career in illustration for watercolours, but to Foster it was 'far more delightful working in colour' and he appeared to have plenty of commissions awaiting him.

His first application to join the SPWC had been rejected the previous year, since the Society felt they had 'quite enough of these wood engravers'.³ Longstanding members of the Society, such as J. D. Harding, prejudiced against innovative new blood, may well have blocked Foster's entry at first.⁴ Critics too complained that 'drawing for wood-cuts tends to give a touch ill suited to water-colour painting.'⁵ Despite strong initial reactions from conservative members of the SPWC and the press, however, Birket Foster would become one of the most successful and prolific watercolour painters of his time. This chapter will look at the evolution of Foster's distinctive method of painting in watercolours and the role played by new nineteenth-century artists' materials in his success, based on unique and original material located in the Roberson archive,⁶ the Royal Watercolour Society and private Foster family collections, as well as a small number of published sources.

Little has been written on the work of Myles Birket Foster in the past twenty-five years. Sadly, to modern art historians, such as Hardie and Newall, Foster's work appears 'sugary' and 'overloaded with pretty conceits', portraying 'a vision of the countryside as it never was', although his consummate skill as an artist is never in doubt.⁷ Foster's desire to document the gentle aspects of a rural life which was coming increasingly under threat from industrialisation receives more sympathetic treatment in

Jan Reynolds' impressive 1984 biography, which includes contemporary photographs of the artist's magnificent purpose-built house and studio in the Surrey town of Witley and material from previously unpublished Foster family archives and memoirs, although there is little specific reference to Foster's use of artists' materials.⁸ Reynolds' account draws on two previous publications on the artist: Cundall's 1906 highly illustrated biography and Marcus Huish's five-part report with black and white engravings in the 1890 Christmas edition of the *Art Journal*.⁹ Frank Lewis's 1973 publication takes much of its information from Huish and from Hardie.¹⁰ Birket Foster's letters to his cousin Robert Spence, now located in the City Library, Newcastle-upon-Tyne, have not previously been photographed, although they are referred to in Reynolds, and have provided a glimpse of the artist's unassuming character and of his hopes for success as a watercolour painter as he started out.¹¹

One of the problems with Birket Foster's work is that he rarely dated his paintings and the many contemporary forgeries and copies of his work are an added complication. Between 1860, when he first exhibited at the Society of Painters in Water-Colours, and his death in 1899, he exhibited in the region of four hundred works within the walls of this establishment, and produced in total well over one thousand watercolours, which have yet to be catalogued.¹² Close analysis of the changes in his technique and use of materials over the years makes it possible to roughly categorise his watercolours into 'early' and 'later' periods and to recognise forgeries. More will be said about this later.¹³ Knowledge of the dates of introduction and withdrawal of different pigments by colourmen during the nineteenth century also allows us to locate within a more exact timeframe the lists of pigments identified by my research.

Many sources state that Foster worked with a limited palette of colours. Huish's descriptions of Foster's apparent preference for a 'restricted and simple' palette and an avoidance of new pigments, 'as he finds it difficult to adapt himself to them', have been echoed subsequently by Glasson, Cundall and Hardie, but these assertions are not borne out by my research.¹⁴ Appendix VII presents the evidence I have collected from three different sources, which are further discussed below.

Huish, Glasson, Cundall and Hardie's descriptions portray Foster as having a deeply conservative attitude towards his materials and his art, yet my findings show that he frequently experimented with different colour ranges and new products in their latest forms and that he developed a close understanding of the avant-garde styles of many of

his contemporaries. Frederick Walker, Charles Keene, H. S. Marks, Rossetti, Burne-Jones, J. C. Hook and J. D. Watson counted amongst his close friends and colleagues over many years and he would have watched them work and exchanged ideas with them.¹⁵ His was not the shy, reclusive genius of Lewis or Palmer. He commissioned Burne-Jones to carry out a range of exciting Pre-Raphaelite designs for his new house at Witley between 1863 and 1865, bought John Frederick Lewis's smaller version of the highly innovative *The Hhareem* (Figure 84) and owned an array of watercolours by radical artists such as Turner, Samuel Palmer, John Linnell, G. J. Pinwell and William Henry Hunt.¹⁶ He travelled widely, both in England and within Europe, studying works such as Tintoretto's *Marriage in Cana* and Titian's *The Descent of the Holy Spirit*.¹⁷ According to Huish, he was a 'bibliomaniac', owning Milton's 1601 copy of *Lycophronis Alexandra*, first folios of Shakespeare, Turner's *Liber Studorium* and Ruskin's *Modern Painters*.¹⁸ Only a few years after becoming a member of the SPWC, Foster was clearly a wealthy and successful man. Money, connections and curiosity would provide Foster with the means to accumulate a wide understanding of techniques and materials, both new and traditional.

5.1 Three Sources on Birket Foster's pigments

As unfortunately the Roberson archive does not list any pigments purchased by Foster, we must rely on other sources. His folding watercolour palette, kept at the Royal Watercolour Society in London, provides one indication of some of the colours he employed, although the date of the palette is unknown (Figure 85). Some colours are clearly visible, such as vermilion, a bright yellow (possibly Aureolin) and a bright blue (possibly Ultramarine). Dried blobs of white paint are dotted all over the palette, clearly being mixed with other pigments to create opaque bodycolours. The palette itself is one of the new nineteenth-century lightweight japanned tin sketching palettes for tube colours, with compartments for squeezing paints into and a thumbhole. Winsor and Newton advertised a similar palette in their 1863 catalogue, which came as part of a box set. Their 'thirty tube box' came complete with bottles of Chinese White, brown ink and ox gall and is illustrated in Figure 86. Interestingly, the Roberson archive carries an entry for Foster for 14 May 1878, which reads: 'Folding Jap^d Box fitted complete 46/6'.¹⁹ This entry could indeed be referring to the palette in the Royal Watercolour Society. In any case it is evidence that Foster was using tube colours by 1878, if not earlier. The muddy appearance of Foster's palette was apparently quite normal, as E.W. Cooke, R.A., (1811-1880), on being shown round the studio by

Foster's son one day, is reputed to have exclaimed: 'You don't mean to tell me that your father gets the lovely pure colours he does off a palette as dirty as that!'²⁰

Three other sources provide vital information on the actual pigments Foster used, although for each of them, dating is again problematic. Reynolds gives a list of Foster's pigments obtained from biographical notes from the Glasson family; *The Magazine of Art* published a list of pigments used by Foster in 1901; and the third list is an exciting discovery, which I have compiled recently from the contents of a mahogany paint box inherited from Birket Foster by his great-grandson, John Foster (Figure 87). It has not been discussed in any previous academic study.²¹ Appendix VII lists the pigments found in each of these sources.

My analysis will begin with the pigments found in John Foster's box, as it would appear that these predate those which feature in the lists given by both Reynolds and *The Magazine of Art*. Not only is the list of colours from the mahogany box of Newman's pigments very different to the other two, but it includes several old and unstable pigments, such as Orange Lead and Kings Yellow, both of which were poisonous and quickly replaced in the nineteenth century by more durable colours.²² There are only three new nineteenth-century products included in the box, all of them introductions from the first half of the century: Chrome Yellow, Lemon Yellow and Hookers Green. The pigments are all hard cakes produced by Newman (the crown stamp on the front of them is Newman's trade-mark), apart from two which are moist pans supplied by Rowney. The evidence suggests this group of colours date from an earlier period in Foster's life, as Hookers Green, the newest pigment in the box, was introduced relatively early, in 1846, and there are no tubes. The Newman's price list which was located in the bottom of the box (Figure 88) makes it possible to estimate more exactly the date of the box of colours as being between 1852 and 1858, as Verditer was first introduced in around 1852 and Green Bice and Verdigris (both fugitive pigments) were generally removed from colourmen's lists by 1858 (see Appendix III). The absence of Aureolin confirms that it must predate 1860. Figure 89 shows a similar box advertised in Reeves' 1862 catalogue, this large, heavy and expensive container being designed for use in the studio rather than for outdoor sketching.

It is interesting to note that four of the five yellows in the box were unstable pigments, with Kings Yellow (Orpiment), Gamboge and Indian Yellow being fugitive and

Chrome Yellow blackening or reacting adversely with other pigments, particularly Antwerp or Prussian Blue.²³ The yellow pigments would probably have been used by Foster, in combination with blue, for making a range of mixed greens for the details of foliage, fields and grasses in his intricate landscapes, but their fugacity would mean that with time the greens would take on a bluer appearance as the yellows faded. Furthermore, the new nineteenth-century commercially available mixed green in the box, Hooker's Green, which was a combination of Prussian Blue and Gamboge, was 'liable to turn blue because of the fading of gamboge', despite Field's assurances of its durability.²⁴ It is clear Foster had a problem with his green pigments in his early watercolours, as in some of them areas of green now appear blue (Figures 90 and 91), as a result of either a fugitive yellow or an unstable green. A specialist who deals in Foster's watercolours suggests that Foster did use Chrome Yellow in his early watercolours and that around 1862 the artist changed his palette and began to use more permanent pigments, influenced by John Ruskin and his writing on colours.²⁵

The pigments included in the Reynolds and *Magazine of Art* lists are very different from those in the Foster box. Surprisingly similar to each other, they must refer to palettes Foster used from the late 1880s, as Permanent Yellow, a pigment possibly unique to Winsor and Newton, appears to first date from that period.²⁶ Cyanine Blue, another new pigment, was first introduced in 1869. Around half of the colours in each of the two lists are new nineteenth-century introductions, with Rubens Madder and Purple Madder dating from 1848, the brilliant and durable Aureolin and Cadmium Orange from the early 1860s, and Green Oxide of Chromium from mid-century.²⁷ The palette in Reynolds's book includes a new mid-nineteenth-century arrival, Cobalt Green, 'chemically good and artistically bad' according to Field, as well as Terra Verte.²⁸ *The Magazine of Art*, on the other hand, importantly includes Chinese White as well as two shades of bright Cadmium Yellow. The variations between the lists serve to illustrate the point that Foster did continue to experiment with different pigments, some of them remarkably recent introductions, despite Huish's assertions to the contrary. Reynolds later wrote that Foster used 'tubes of colour...kept in a particularly unassuming paint box.'²⁹

The differences between the early and later pigment lists observed above are reflected in Foster's finished watercolours, which exhibit visibly different colour ranges according to the period in which they were painted. Often the colours in early watercolours are harsh and bright, with much use of bodycolour and blue-greens,

probably the result of fading yellows, as described above (Figure 92). From a technical point of view, up to about 1865, his works are intricately detailed throughout, with minute hatching and stippling in both foreground and background, from the faces of the figures to the grasses and trees behind, with colour thickly applied (Figure 93). The *Art Journal* wrote that his ‘stippled skies have as many lines or threads as a piece of lace or a cambric handkerchief. He weaves his details even into water, so that a river or a lake becomes less of a fluid than a textile fabric.’³⁰

Foster’s movement away from detail is expertly described in the following review of the 1882 retrospective exhibition of Foster’s work at Vokins’ gallery:

Several of his early drawings are in this collection, showing how he set himself to paint every leaf of the trees, every frond of the ferns, every thorn of the briars, and every blade of grass in the foregrounds...This method, however, was obviously found to be leading him away from the valuable qualities of breadth, rich tone of colour, and translucent effect of light which belong to the pure *aquarelle*. He seems to have himself become sensible of this, for we find a gradual departure from the aim at excessive detail, with a broader touch employed upon a larger scale and upon more important subjects.³¹

Indeed, during the 1870s, his watercolours become broader in style. The fact that this was the time he began painting in oils may not be purely coincidental, for the change of medium undoubtedly required a new approach to painting. The backgrounds of his watercolours are painted in less detail, using wet washes, while his figures, now more stylised and much smaller, are often clearly outlined in black or sepia, much as in book illustrations (Figure 94). The paint used is thinner and warmer in tone, with a preference for yellow-greens and brown tones, possibly as a result of increasing usage of new nineteenth-century opaque pigments such as Cadmium Yellow and Green Oxide of Chromium. Foliage and foreground details are suggested rather than hatched and stippled, especially in his larger works (Figure 95). Touches of other new pigments such as Cadmium Orange appear in later works such as *A Lace-Maker* (Figure 96), where it accentuates the vigorous nasturtiums growing in the background. Foster’s artistic flexibility is demonstrated by the fact that during the 1870s he produced fifty watercolours of Venice’s waterways and architecture for the wealthy Lincoln MP, Charles Seely, for a fee of £5,000.³² He also painted large-scale theatrical backdrops to annual Christmas productions at his Witley house. His largest watercolour paintings appeared around 1890. *Ben Nevis* (Figure 97) was nearly four feet long (119 cm) and *the Arrival of the Hop Pickers, Farnham* (location unknown) a similar size.³³

The evidence from the three sources described shows that altogether during his working life Birket Foster knew of or worked with at least thirty-eight different pigments, both traditional and contemporary, demonstrating a far wider understanding of colours than has been previously envisaged. Foster's experimentation with different colours over the years probably occurred in order to resolve problems with fading or darkening of pigments, or to achieve broader effects or even on the advice of other artists or suppliers. In their 1870 catalogue, Messrs. George Rowney & Co proudly launched their 'NEW SYSTEM OF GRINDING COLOURS BY MACHINERY' with a testimonial from eminent watercolourists, including the president of the Society of Painters in Water Colours and, heading the list, Birket Foster.

'Aug. 19th, 1864.

GENTLEMEN, Some time since you sent me a large Box of Colours. I have had a good opportunity of trying them, and I have much pleasure in saying that they are *as good as they can be*.

Believe me, yours very truly, BIRKET FOSTER.'³⁴

These improved colours, Rowney claimed, 'will prove to be *finer, brighter*, and to *float more evenly without granulation* than any other Colours hitherto produced.' Such aggressive marketing ploys by the colourmen ensured the cream of the artistic community would have the opportunity to test their latest products and, in return they were rewarded by being promoted in the colourmen's latest publications. Birket Foster may have found these finely ground pigments an attractive alternative, at least for a time.

5.2 Foster and Chinese White

As with other contemporaries such as Lewis, Palmer, North and Burne-Jones, Birket Foster created a distinctive style based on the use of the controversial new nineteenth-century pigment, Chinese White. His use of white deserves more detailed comment.

Foster's early training in the field of drawing in black-and-white for wood engraving, first at Ebenezer Landell's establishment in London from 1841 to 1846, and then for Henry Vizetelly and the Dalziel brothers, encouraged in him a love of tiny strokes of the pen or brush and an eye for intricate and contrasting tonal details of rustling foliage, rough straw thatch, weathered stone, grasses and rustic gates. Everything was seen in microscopic detail and translated into a miniature mosaic of colour and texture,

using the engraver's methods of hatching, cross-hatching and stippling. Foster's grandson, Lancelot Glasson, himself a painter, was sure of the connection:

Considering that he had been producing black and white drawings for the engraver for nearly twenty years, it is not surprising that his earlier water-colours are strongly influenced in technique by his previous work. To one who had been drawing, most minutely, in pen and ink for the engraver, the use of washes would not come naturally; and so we find the earlier water-colours laid in with a wash and then built up with a system of small strokes and hatching.³⁵

Earlier in the century, drawing for wood engraving involved covering the wood block first with a 'preliminary coat of "whiting" chalk or brick-dust: this would give it a "tooth" that would more readily take a pencil mark when the silvery "ghost" of the transfer lines were worked up.'³⁶ It is generally thought that Foster used a priming of the new nineteenth-century Chinese White rather than 'whiting', with details drawn in Indian ink and pencil, although we have no hard evidence from his letters or the Roberson archive to confirm this.³⁷ A surviving design by Foster on nine boxwood blocks, dating from 1852, shows a thin layer of white on the wood, over which trees have been outlined in grey paint, with pencil cross-hatching on the church and the gravestones, and highlights on the gravestones picked out in thicker white (Figure 98). When Foster began to paint in watercolour in the late 1850s he began to adopt a similar technique, working 'in colour over the smooth and brilliant surface given by Chinese White laid upon paper,' in much the same manner as William Henry Hunt, Lewis and Palmer, whose paintings were later to adorn his walls at Witley.³⁸ Foster's close friendship with Frederick Walker between 1868 and 1875 would also expose him to a watercolour technique involving considerable use of Chinese White, specifically aimed at improving an unsatisfactory paper surface.³⁹ Firm evidence of Foster's adoption of Chinese White exists in the pigment list published in *The Magazine of Art*.⁴⁰

Whilst it is difficult to prove that Foster painted onto a continuous priming of white, the remarkable luminosity of some of his early watercolours makes such practice seem a possibility. Often a rather cold enamelled effect is produced. In 1862 the critic from the *Athenaeum* found his work had a 'hard, cold finish', depicting 'nature, hard, bright, clear...not a little like porcelain.'⁴¹ *A Cottage near Witley, Surrey* (Figure 99) has just such an appearance. Whether or not Chinese White priming was used, it is clear from close observation of the work that the brilliantly detailed finish is the result of at least a generous use of thick bodycolour mixed with each of the pigments. A word of caution must unfortunately be expressed at this point, however. Birket Foster's work has been

extensively forged over the years, to the extent that even in his lifetime, he was forced to start charging people who brought him works to authenticate.⁴² Even he had difficulty at times distinguishing between his own work and copies. The watercolour above was withdrawn from the sale at which it was advertised, and whilst there may be a genuine reason for this, it may also mean that it was identified as a fake.⁴³ More will be discussed below about this subject.

It is clear from the four fascinating sketchbooks in the Victoria and Albert Museum, that often on cream paper Foster used white to highlight areas of his pencil and ink sketches (Figure 100) and as a corrective measure (Figure 101) and that this method would be carried on when working up his watercolours (Figure 102). The V&A sketchbooks were previously not dated, but one (P5-1922), which Foster gave to his patron, Sharpley Bainbridge, I have dated to around 1876, as it contains a sketch which was worked up into a watercolour and exhibited at the SPWC that summer as *A Donkey that Would Not Go* (Figures 103 and 104). In finished paintings, often an initial coating of white was employed on small areas such as the faces of his figures, which were to be afterwards intricately stippled and hatched with tiny strokes of pure colour. Foster also applied details of thick white pigment on top of washes of other colours, as can be seen in the detail of his large work *The Harrow*, where the white of the girl's basket has flaked off to reveal the green of her skirt underneath and the white headscarf of the little girl on the right has also begun to lift off (Figure 105), probably because the paint was applied 'with his brush as dry as it could be'. He appeared to be 'drawing to a peculiar degree, not washing with a brush.'⁴⁴

The Harrow is typical of Foster's early work, which is achieved by the use of a great deal of stippling and hatching in every part of the picture, particularly on the faces and hands of the children and on the trees and grasses. John Ruskin had admired William Henry Hunt's fine stippling, hatching and bodycolour techniques, advocating them in his watercolour manual, *The Elements of Drawing*. Application of tiny dry brushstrokes would ensure that the individual pigments retained their intensity, blending visually rather than on the paper, 'using atoms of colour in juxtaposition'⁴⁵ (Figure 106). Yet whilst Ruskin strongly advocated the use of stippling and cross-hatching in small still-life watercolours, he could tolerate them far less in landscape and in figure painting, and he criticised Foster's use of them, complaining of his 'mistaking, in many instances, mere spotty execution for finish' and regretting that 'he has never taken the high position that was open to him as an illustrator of rustic life.'⁴⁶

On another occasion he complained that ‘A photograph...would far excel the charm of this painting; for in it, good and clever as it is, there is nothing supernatural, and much that is subnatural.’⁴⁷ Other critics observed, however, how Foster’s ‘microscopic minuteness’ had ‘taken the public by storm.’⁴⁸

Foster certainly mixed white with many of his pigments to create strong opaque pastel colours with plenty of body. Reynolds comments that ‘his early skies were so thickly worked with body colour that the effect is almost as of impasto, showing the raised lines of the brush strokes.’⁴⁹ The *Athenaeum* in 1867 complained of the ‘rather chalky manner of the artist’, although the previous year they had found his *River Scene, Evening* ‘nearly free of chalkiness’.⁵⁰ Attitudes amongst the critics to the growing use of bodycolour at this time were often highly critical, and this will be discussed in Chapter Eight. In his later watercolours Foster appears to use less bodycolour and, together with a warmer colour palette, the effect created in these is much softer.

5.3 Foster’s Choice of Different Paper and Board Supports

Whilst it is often difficult to identify the paper supports used by Foster in many of his finished watercolours, because they are often framed or solidly attached onto cardboard mounts, his sketches reveal that he was experimenting with a wide range of papers of different colours and finish.

Like Palmer and Lewis, Foster enjoyed using new nineteenth-century tinted papers for producing rapid sketches on his travels. For *Arrival of the Dover Packet* (Figure 107) he employs rough blue paper, expressive touches of black and brown paint and bodycolour to give a vivid impression of a quayside scene. Turner similarly used blue paper, as in his 1830 sketch of *Petworth Church from the River* (Figure 19). As we have seen, Foster’s sketchbooks in the V&A contained cream and grey wove paper. Another unfinished sketch, *Figures waiting on the shore at Hastings* (Figure 102) is on buff paper. This was probably executed in 1865, as a preparatory sketch for his finished watercolour, *Rottingdean, near Brighton* (Figure 108), of that year. These rapidly executed sketches show that Foster was not only skilled in detailed exhibition pieces, but was capable of expressing a great sense of freedom and atmosphere using quick and fluid touches of the brush.

Foster also purchased other new nineteenth-century paper supports for his watercolours. In May 1878 he bought one dozen ‘6 sheet London Boards HP’ from

Roberson.⁵¹ These hot-pressed boards were widely used by Palmer for many of his later works, chosen because of their high quality finish. Lewis too had preferred hot-pressed products as they were particularly suited to detailed working. Cundall comments that Foster sketched on ‘thick solid cardboards...those which were called Chalon-boards, were very convenient to pack when travelling, or to carry in a sketching-bag, and there was no anxiety in straining paper.’⁵² Four of the finished watercolours in the Laing Gallery are described in the catalogue as being painted on ‘card’ or ‘board’. The small dimensions of these works, which range from 10.8 by 15.2 cm (*Library of St Mark’s Square, Venice, c.1868*) to 20.2 by 14.2 cm (*Elstow, Bedfordshire (John Bunyan’s Birthplace)* and *Quimper, Brittany*) suggest they were painted in sketchbooks on his travels, as the size is similar to that of the V&A sketchbooks. Alternatively they are sheets of London board cut into half or quarters, according to Palmer’s practice. A beautiful pencil sketch at the Fitzwilliam, *Old Palace of the Stanleys of Alderley*, has been executed on light green card. Foster’s intricately detailed brushstrokes were impossible without the smooth hot-pressed surface of the nineteenth-century board.

In July 1878 Foster bought twelve ‘8vo tablets’(octavo tablets) from Roberson.⁵³ These were probably similar to the ‘solid sketch books and blocks’ offered by Reeves and Sons in their 1879 catalogue, the size of Imperial octavo blocks being 10 inches by 7 inches. Made from a choice of normal, thick or extra thick Whatman papers, the Reeves’ versions came in Not, Hot-Pressed and Rough surfaces.⁵⁴ These sketch blocks were first featured in the product range of colourmen from about 1830 and were particularly suitable for outdoor sketching, as they held the sheets of paper together neatly and securely in all weather conditions. Hardie has described Foster as working outdoors ‘on blocks which he could slip into his pocket, or in sketch-books containing papers of different tints,’ whilst Huish writes of his ‘rough sketches from nature’ made ‘with his block held between his knees.’⁵⁵ Yet at times an easel was used outdoors, as can be seen in Charles Keene’s delightful sketch of Foster at work (Figure 109). Indeed the Roberson archive for 1878 records that Foster also purchased a ‘patent sketching stool leather top 16/-.’⁵⁶ Whilst preparatory sketches were done outdoors, it is evident that his highly finished watercolours must have been completed in his studio, as they often took about a week to complete,⁵⁷ which was relatively fast compared with the long-drawn-out processes of Palmer and Lewis. In the evenings he is said to have worked in his drawing-room ‘surrounded by his family, with a drawing on his knees...He knew his colours so well that he could work by lamplight.’⁵⁸

For his finished watercolours, Foster preferred Whatman paper, a high quality hard-sized drawing paper which was popular with artists during the nineteenth century for its strength and its ability to tolerate vigorous handling techniques such as rubbing and scraping.⁵⁹ It is not always possible to identify papers used, as the watermark appeared only in the centre of the sheets, which were often cut into several smaller pieces. A *Lacemaker* (Figure 96) has been painted on thick paper watermarked 'Whatman 1880' and was probably exhibited at the 1888 exhibition of the SPWC, although Sotheby's claim that another composition with the same title, recently sold at their auction, was the one exhibited.⁶⁰ An early watercolour, *Fishing*, is on thick textured paper, the rough ridges of the support showing through in the clouds, although unfortunately the reproduction of the work (Figure 110) does not allow this detail to be seen.

Foster purchased his paper and boards from a variety of sources in London: Winsor & Newton, Newman, Roberson, Lechertier Barbe & Co. and E. Wolff & Son.⁶¹

5.4 Brushes, Lay Figures and Gum Arabic

Unfortunately we have no evidence from the Roberson archive of the brushes used by Foster, although Cundall writes that 'he used a very fine brush with very little paint in it'.⁶² Foster's intricate brushwork would have required the firm point offered by very fine red sable quills, which, as we have seen, were used for illumination and miniature painting. As his works increased in size in later years, however, it is likely that he began to also employ larger brushes with flat metal ferrules. By the time he completed his very large work *Ben Nevis* in 1891, much of the background was more simply suggested with broad washes of thin colour, with fine detail only reserved for the foreground and small figures.

In 1867, like many of the artists of his generation, including Lewis, North and Burne-Jones, Foster obtained a lay figure from Roberson. It was a 30 inch child lay figure which cost £16.3.6.⁶³ Particularly in his early works, where the figures occupy a much larger proportion of the page than in later years, many hours would have been required to complete the folds of aprons and patterned fabric of girls' tunics and skirts, and no child would have been able to sit still for such prolonged periods.⁶⁴

Unlike Lewis, Palmer and Burne-Jones, however, Foster does not appear to have used a lot of gum Arabic in his watercolours, as there is little gloss on the surface of most of

the paintings viewed. *Fishing* is one of the few described as containing gum Arabic.⁶⁵ The low incidence of gum used may be because of the absence of intensely dark shadowy areas in his paintings or strong contrasts, which needed to be strengthened. Shadows in *The Little Shepherds*, for example, are gently dappled rather than dark, with the emphasis on brightly lit areas rather than deep shadow.

5.5 Chromolithographs and forgeries

Birket Foster's work was so popular during his lifetime that from about 1864 his watercolours began to be reproduced by the relatively new process of chromolithography.⁶⁶ A chromolithograph of *Gathering Wild Roses* was presented to members of the Art Union in London in 1864 and thereafter such reproductions became increasingly popular with the public. By 1883 George Rowney and Co. had produced a catalogue of 'Fac-similie water-colour drawings' which listed eighteen Birket Foster works.⁶⁷ G. P. M'Queen, Vincent Brooks, and Day and Sons also published chromolithographs of Foster's work.⁶⁸ A chromolithograph in the British Museum collection (Figure 111) shows the difference between an original Birket Foster work and the print. The latter is cruder, far less detailed, particularly in the foliage and the faces of the children, and uses much more muddy colouring. In 1876 *The Graphic* commented that it 'is a pity that chromolithography should have so discounted the effect of Birket Foster's work that it is hard to shake off the deadening remembrance of the mechanical process before the original so wonderfully imitated.'⁶⁹

By means of chromolithographic prints, Foster's work could now reach a far wider audience. Yet this very accessibility opened up his work to a flood of forgeries, often copies made from prints or even prints themselves worked up to look like originals by applying touches of paint.⁷⁰ In recent years fakes and forgeries continue to appear in auction catalogues, many being subsequently withdrawn after advice has been sought from specialists. *Children Playing on a Woodland Fence* (Figure 112) is a direct copy of the watercolour now in the V&A, *Young Gleaners Resting* (Figure 93).⁷¹ Details from both, however, (Figures 113 and 114) show the inferior quality of workmanship in the forgery, the lack of detailed brushwork, particularly in the foliage, sky, clouds and cornfields; incorrect proportions and positioning of the figures, especially the boy in the hat; and the very crude use of colour. A second work in the same auction, *The Cottage Garden*, was also withdrawn after consultation. Very few artists could compete with Foster in his consummate skill in creating tiny glowing strokes of hatching and stippling applied in dry layers on top of underlying washes of colour. His

figures are graceful and lovingly portrayed, not roughly fashioned compositional devices, his colours are clear, strong and recognisable.

5.6 Conclusion

The 1882 review in *The Times* describes how Foster ‘began as an innovator, attempting an imitative style that, inasmuch as it dispensed with the broad washes of water-colour, was out of the pale of orthodox practice,’ and how his use of bodycolour was ‘carried to an extent at that time quite new.’ Even in his later works, it continued, he still

maintains the principle of his style, and though enlarging and modifying it somewhat in the direction of obtaining greater breadth and general harmony, as in his latest works, he has never lost an atom of his individuality or swerved from his original view, however opposed that might be considered to be to what is called the legitimate in water-colour art.⁷²

It was his ‘dexterity and finish’ which was ‘the chief attraction to the average buyer’ and his work sold instantly.⁷³ Furthermore, in an increasingly industrial British landscape, Foster’s portrayal of a rural ‘paradise’ refreshingly evoked three appealing qualities, ‘which were not perhaps so rare at that time, but which are getting day by day less common – daintiness, gentleness, and repose.’⁷⁴

Foster carefully selected his materials from different colourmen. Winsor & Newton, Newman, Roberson, Lechertier Barbe & Co. and E. Wolff & Son all supplied him with paints and papers, whilst Rowney sent him new pigments to test and approve. We now know that, up to the final years of his life, the colours he used continued to change as he sought improved permanence and new effects. Altogether he worked with over thirty-eight different pigments, many of them very new nineteenth-century innovations, and in particular, bright yellows. Chinese White played an especially important role in the creation of his distinctive style, both applied on its own and mixed with other pigments as bodycolour. Without it he could not have created his luminous summer scenes and his intricately hatched tapestries of colour. Nineteenth-century tube paints enabled him to work more rapidly and on a larger scale, as demand for his pictures continued unabated over the years. Foster’s ‘peculiar’ painting style was able to exploit the strength and smoothness of Whatman papers and boards and he worked with fashionable new portable equipment, from japanned folding palettes to easels. Foster was constantly kept abreast of developments in the art world by his

continuing friendship with progressive artists, by his avid book collecting and by his contact with eminent colourmen.

On his death in 1899, the *Daily Chronicle* published a tribute to Birket Foster, describing his distinctive watercolours as 'tinted versions of his illustrations.' 'We do not mean to say that Birket Foster is to be placed with Samuel Palmer or J. W. North at their best. But there is a niche for him in the Temple of Fame, and he is one of those men who, in Illustration, have made a very great mark on the age.'⁷⁵

- ¹ “The Royal Academy and Other Exhibitions”, *Blackwood’s Magazine*, Vol. 88 (537), July 1860, p. 74.
- ² Unpublished letter to Robert Spence, Rosella Place, North Shields, dated 19th February 1860, City Library, Newcastle-upon-Tyne (SL 920 756). I am very grateful to Sarah Mulligan of the City Library, Newcastle, for scanning the original letters from their collection and forwarding them on to me.
- ³ Marcus B. Huish, “Birket Foster, His Life and Work”, *The Art Annual for 1890* (Christmas Number of the *Art Journal*), London, 1890, p. 14. This comment was referring specifically to Sir John Gilbert R.A., highly prolific designer of illustrations for books and for periodicals such as *Punch* and *The Illustrated London News*, who had been a member since 1852.
- ⁴ J. D. Harding, elected Associate in 1821, is reputed to have greeted Foster with the condescending words: “If you will do as I suggest, I have no doubt you will one day take a good place amongst the best of us.” (Jan Reynolds, *Birket Foster*, London, 1984, p. 66)
- ⁵ *Spectator*, 4 March 1865, p. 242.
- ⁶ Roberson Archive ledgers (1867) HK1 MS 106-1993, p. 386; (1878) HK1 MS 109-1993, p. 207.
- ⁷ Hardie, Vol. III, p. 110; C. Newall, *Victorian Watercolours*, London and New York 1987, p. 64
- ⁸ Reynolds, *Foster*, pp. 71-3.
- ⁹ H. M. Cundall, *The Life and Work of Birket Foster*, London, 1906; Huish, “Foster”, pp. 1-28.
- ¹⁰ Frank Lewis, *Myles Birket Foster 1825-1899*, Leigh-on-Sea, 1973.
- ¹¹ Accession reference SL 920 756.
- ¹² I have begun to assemble a list of his watercolours, although duplicate titles of different compositions, and the lack of date marks, make it difficult to be sure of the final total. More needs to be done on this.
- ¹³ Jan Reynolds has written an interesting section on forgeries, in *Foster*, pp. 155-9.
- ¹⁴ Huish, “Foster”, p. 18; Lancelot Glasson, “Myles Birket Foster”, *The ‘Old’ Water-colour Society’s Club*, Vol. XI, 1934, p. 39; Cundall, *Foster*, p. 140; Hardie, Vol. III, p. 112.
- ¹⁵ Cundall, *Foster*, pp. 146-153 and 158-162; Reynolds, *Foster*, pp. 90-103; Glasson, *Foster*, pp. 38-9.
- ¹⁶ Reynolds, *Foster*, pp. 90-101.
- ¹⁷ Cundall, *Foster*, p. 95.
- ¹⁸ Huish, “Foster”, p. 27; Reynolds, *Foster*, p. 102.
- ¹⁹ Roberson archive, 1878, HK1 MS 109-1993, p. 207.
- ²⁰ Information from the Glasson family in Reynolds, *Foster*, p. 73.
- ²¹ 1) Reynolds, *Foster*, p. 71. She acknowledges on p. 7 the assistance of Sarah G. A. Glasson, granddaughter of Birket Foster; 2) *The Magazine of Art*, Volume XXIII, February 1901, p. 186, “Birket Foster’s Palette” – the list of pigments was provided ‘courtesy of the late Mr. Birket Foster’s son’; 3) the mahogany Newman’s box of cake colours is from the collection of Mr John Foster, great-grandson of Myles Birket Foster and it was passed down to him from his Aunt Mabel (1888-1954). It had come to her when Foster’s possessions were distributed amongst family members after his death in 1899 (she would have been only 11). The fact that the pigments contained in it were all developed prior to 1846 suggests it is an old box of Foster’s which he no longer used. I am very grateful to John Foster for very generously granting me access to his collection of Birket Foster photograph albums, sketchbooks, engraved woodblocks and the Newman’s watercolour box.
- ²² I am most grateful to John Foster for providing me with these photographs of the paintbox. With regards to the two toxic colours included in the box, Anthony Oxley (of Laurence Oxley Ltd., Alresford, specialists in Birket Foster) has commented that the Foster family believed that the artist died from lead poisoning, as a result of regularly placing his brush between his lips in order to remove excess moisture and to finely point the tip of the brush. (Conversation with Anthony Oxley, 1 February 2007). Reynolds also writes of Foster’s habit of passing the brush between his lips, *Foster*, p. 71.
- ²³ George Field, *Chromatography, or a Treatise on Colours and Pigments and of their Powers in Painting*, London, 1835, pp. 77-83.
- ²⁴ Rutherford J. Gettens and George L. Stout, *Painting Materials: A Short Encyclopaedia*, New York, 1966, p. 119; Field, *Chromatography*, 1869, p. 281.
- ²⁵ Personal conversation with Anthony Oxley, 1 February 2007. Ruskin had by 1860 given his three Addresses on Decorative Colour (1854) and his lecture of the “Political Economy of Art” (see CH. 1 above, p. 33). He had also published his instruction manual, *The Elements of Drawing*, which contained much discussion about the application of colour in watercolour painting.
- ²⁶ Leslie Carlyle, *The Artist’s Assistant: Oil Painting Instruction Manuals and Handbooks in Britain 1800-1900 with reference to selected eighteenth-century sources*, London, 2001, p. 526. This refers to the first appearance of Permanent Yellow as an oil colour in 1886, although it is possible it became available a little earlier as a watercolour. It is not listed in the 1879 Winsor & Newton watercolour catalogue, however.
- ²⁷ See below, Appendix II.
- ²⁸ Field, *Chromatography*, 1869, p. 285. Field’s description refers to the fact that cobalt green was permanent, but ‘deficient in body and power’.
- ²⁹ Richard Green, *Myles Birket Foster 1825-1899*, exh. cat., London, 1987 (foreword by Jan Reynolds), p. 2. The statement is possibly based on information from the Glasson family.

- ³⁰ *Art Journal*, 1 June 1867, p. 147, referring to works such as *The Way down the Cliff* and *Bellagio, Lake Como*.
- ³¹ *The Times*, 27 February 1882, p. 4.
- ³² Reynolds, *Foster*, p. 136.
- ³³ Image Reynolds, *Foster*, p. 172.
- ³⁴ George Rowney & Co price list, attached to Sydney T. Whiteford, *A Guide to Figure Painting in Water Colours*, London, 1870, p.73.
- ³⁵ Glasson, *Foster*, p. 42.
- ³⁶ Iain Bain, *The Watercolours and Drawings of Thomas Bewick and his Workshop Apprentices*, Volume 1, Winchester and Detroit, 1989, p. 56. Thomas Bewick (1753-1828)
- ³⁷ Huish, "Foster", p. 17; Reynolds, *Foster*, pp. 20 and 71.
- ³⁸ Hardie, Vol. III, p. 112.
- ³⁹ See below, CH. 6, p. 147.
- ⁴⁰ See Appendix VII below.
- ⁴¹ *Athenaeum*: 26 April 1862, p. 567 and 22 November 1862, p. 666.
- ⁴² Reynolds, *Foster*, p. 153.
- ⁴³ It was on display prior to the sale at Sotheby's in London on 22 November 2007, but was 'unsold'.
- ⁴⁴ Cundall, *Foster*, p. 125.
- ⁴⁵ Ruskin, "The Elements of Drawing", *Works*, XV p 152.
- ⁴⁶ Ruskin, "The Art of England", Lecture IV "Fairy Land", *Works*, XXXIII, p. 341, section 112.
- ⁴⁷ Ruskin, "Ariadne Florentina", V "Design in the German Schools", *Works*, XXII, p. 393, footnote 1 by the editors: 'Ruskin in his own copy notes that his reference was to a "chromo-lithograph after Birket Foster"'.
⁴⁸ *The Times*, 1 May 1861, p. 6.
- ⁴⁹ Reynolds, *Foster*, p. 71.
- ⁵⁰ *Athenaeum*: 11 May 1867, p. 630; 19 May 1866, p. 677.
- ⁵¹ Roberson Archive HKI MS 109-1993, p. 207.
- ⁵² Cundall, *Foster*, pp. 125-126.
- ⁵³ Roberson Archive HKI MS 109-1993, p. 207.
- ⁵⁴ Reeves and Sons price catalogue, London, 1879, pp. 66-69.
- ⁵⁵ Hardie, Vol. III, p. 112; Huish, "Foster", p. 18.
- ⁵⁶ Roberson archive, HKI MS 109-1993, p. 207.
- ⁵⁷ Conversation with Anthony Oxley, 1 February 2007.
- ⁵⁸ Cundall, *Foster*, pp. 140-1.
- ⁵⁹ Conversation with Anthony Oxley.
- ⁶⁰ Sotheby's sale 22 November 2007 – see catalogue p. 88. The paper support of the first version mentioned was confirmed by Anthony Oxley.
- ⁶¹ Newman (at 24 Soho Square, London), Lechertier Barbe & Co. (60 Regent Street, London) and E. Wolff & Son (55 Great Queen St, London) supplied Foster's sketchbooks at the V&A; and Winsor & Newton supplied two sketchbooks in John Foster's collection; the Roberson archive lists details of paper purchases and accessories.
- ⁶² Cundall, *Foster*, p. 125.
- ⁶³ Roberson Archive HKI MS 106-1993, p. 386.
- ⁶⁴ For information on lay figures, see above, CH. 1, p. 30.
- ⁶⁵ Sotheby's sale catalogue, 22 November 2007, p. 86.
- ⁶⁶ For an excellent introduction to the process, see Reynolds, *Foster*, p. 109.
- ⁶⁷ Reynolds, *Foster*, p. 109.
- ⁶⁸ Cundall, *Foster*, p. 138.
- ⁶⁹ *The Graphic*, 29 April 1876, p. 422.
- ⁷⁰ Reynolds, *Foster*, p. 154-5.
- ⁷¹ Conversation with Anthony Oxley, 1 February 2007. He confirmed my doubts about the authenticity of this painting which I saw at Sotheby's in November 2006 and which was subsequently withdrawn from the sale. Sotheby's had asked his opinion about the work and he had confirmed it to be a fake.
- ⁷² *The Times*, 27 February 1882, p. 4.
- ⁷³ *The Times*, 28 April 1862, p. 5.
- ⁷⁴ Huish, "Foster", p. 20.
- ⁷⁵ *Daily Chronicle* obituary, undated, quoted in Reynolds, *Foster*, p. 183. Foster died 27 March 1899.

Chapter 6 John William North 1842 – 1924: “Painter and Poet”¹

Like Foster, John William North began his working life as an illustrator, creating designs for wood-engraving. Yet the watercolours which in later years emerged from his brush broke free from the minute observation of detail, portraying instead atmospheric landscapes expressing ‘the intangible beauties of light and air’ and ‘reducing landscape to little more than the expression of values or relative effects of masses and tones.’² The increasingly abstract quality of his watercolours of the 1870s onwards distinguishes his work from all of the artists studied in this thesis. Although North’s watercolours created less outrage amongst the critics than Burne-Jones’s unconventional watercolours, they were often misunderstood and condemned for their ‘formlessness’, ‘want of solidity’ and their scorn ‘of concentration or arrangement – after the fashion of the new school of “Impressionists”’.³ Even the Society of Painters in Water Colours was slow to accept him as a member, complaining of a ‘want of finish’ in his work.⁴

Whilst North’s designs for wood engraving are well documented by Gleeson White, Forrest Reid, George Dalziel, and Paul Goldman, his watercolours have received little academic attention in the twentieth century.⁵ Apart from a short publication of the Old Water-Colour Society’s Club in 1927-8 by Herbert Alexander, no full-length biography on North exists, an omission which North’s descendant, Steve Milton, plans to correct.⁶ Alexander’s article contains some interesting observations on North’s painting methods. Hardie has briefly outlined North’s techniques, concluding that the artist’s interest in atmosphere ‘led him to paint multitudinous details melting together, with spots and particles of pure colour’ in a style which could be ‘compared with *pointillisme*.’⁷ Short biographical magazine articles by Billingham and Lawrence on North’s time at Halsway Manor and West Somerset have appeared in 1977 and 1983.⁸ In more recent years, in *Victorian Landscape Watercolors*, Christopher Newall has traced North’s progression from his early Pre-Raphaelite tendencies to a ‘more abstract evocation of the landscape’, using ‘broad masses of muted colour’ combined with ‘dense patterns of minute hatching’ and scratching out. North and Walker’s later works, with their reduced dependence on bodycolour, are seen to be ‘highly influential in the evolution of a type of pastoral landscape aimed at the authentic representation of rustic life.’⁹ The most substantial and interesting accounts of North’s progressive watercolour technique, however, are to be found in two nineteenth-century publications, Hubert Herkomer’s 1893 article for *The Magazine of Art* and J. G.

Marks' *The Life and Letters of Frederick Walker A.R.A.* and references to these will be included in the discussion which follows.

To date there have been no catalogues produced of North's watercolours, and as few of his works are to be found in national collections within the UK or have appeared in exhibitions, and as his pictures rarely come up for auction, it is difficult to assemble detailed lists of the dimensions and locations of them all. Appendix VIII is a first attempt to put together existing information accumulated from a number of sources, including descendant Steve Milton's archive, auction results, museum catalogues, contemporary journal reviews and the list of North's exhibited work in Herbert Alexander's 1928 publication. It includes around one hundred and twenty watercolours painted by the artist between 1854 and 1880. The total number of watercolours executed during his entire lifetime would appear to number around three hundred. According to Herkomer, North's modest output was due partly to the fact he waited to capture 'paint effects that belong to transient moments of the day' and partly because of his insistence on completing one work before starting another. It was a 'torture to him to produce a work', yet his painstaking technique ensured a 'calibre that holds the highest aim steadfastly ahead, which neither want of time, of money, nor any other want or necessity, can obliterate or decoy.'¹⁰ Many of the illustrations included in this chapter have never been published before, and have been obtained either by commissioning new photography or by taking photographs of the works on site at museums.¹¹

In this chapter, North's employment of new nineteenth-century artists' materials will be explored, using information from the Roberson Archive, which details pigments, brushes, papers and sketching materials ordered by North from his Woolston Moor address in Somerset during the years 1870-4.¹² An analysis of these materials in the following pages will reveal North's reliance on many new products of the nineteenth century and in particular an obsession with paper quality which would take over his life in later years. As so little has been published about North's early work and the development of his watercolour technique, I have devoted more attention to this aspect of his work than for other artists in the thesis, about whom much more is already known.

6.1 Beginnings as an illustrator

North's formal training as an artist is said to have been limited to lessons around 1855 at Marlborough House School of Art, from an artist called Hackman.¹³ Hardie also suggests North took lessons from Collingwood Smith (a 'drawing master with strong religious beliefs').¹⁴ Herbert Alexander's unpublished notes show that North had been producing drawings of local scenes regularly from 1854 onwards, of places such as Kimpton, Harpenden, Wandsworth, and Richmond Park, and that by the age of fourteen he was producing his first oils, and by fifteen, a number of watercolours.¹⁵

In 1858 North started as an apprentice at Josiah Whymper's wood engraving business in London, where he began by creating detailed narrative images for wood engraving on a small scale in black and white. At Whymper's he worked with other talented young artists, including Frederick Walker and George John Pinwell.¹⁶ Between 1862 and 1866 North designed book illustrations for the Dalziel brothers, who recollected North explaining that 'all the art teaching he ever got at Whymper's was that when a subject was given to him, a print of one of [Birket] Foster's was placed before him, with instructions to make his drawing in that manner.'¹⁷ *The Home Pond* (Figure 115), designed for the Dalziel's book *A Round of Days* in 1866, depicts fifteenth-century Halsway Manor in Somerset, where North stayed and worked for long periods between 1860 and 1868. The abstract quality of the image contrasts sharply with Foster's more conventional compositions. North's nineteen designs for *Wayside Posies* of 1867 are considered to be amongst his best work in black and white, all of them delicately 'drawn with a brush'.¹⁸ Gilbert Dalziel, a nephew of George and Edward Dalziel, confirms that 'never in his life did he use a pen. It was mainly all brush work; but if need be, he would at times use a hard pencil for very fine lines and minute detail.'¹⁹ Designs such as *Reaping* (Figure 116) provide an early indication of North's unique ability to suggest atmosphere and poetry in landscape. The strength and simplicity of this illustration recalls Millet's *The Sower* of 1850.²⁰ Goldman sees North as 'the most distinguished landscape illustrator of the entire period', with his 'sensitive and understated' drawings.²¹

During the 1860s, North and Walker worked closely together and developed distinctive watercolour techniques, based on intense colouring, a heavy use of bodycolour, detailed observation, and outdoor working from nature in all weathers. Alexander writes of North's early practice of painting 'from his seat in a covered cart;

then of his many little painting huts at different view-points in the valley for work in winter.’²²

In an Orchard, Devon (Figure 117), one of North’s earliest known watercolours, could almost be a colour version of one of his woodcut designs, with every inch of the page indicating interesting shapes, textures and hatched details. Newall confirms that ‘many illustrators who turned to watercolors [sic] continued to look for subjects in which they could spread a uniform pattern over the entire expanse of the sheet.’²³ *In an Orchard, Devon* is painted using very thick layers of pure colour, with bodycolour on the child’s apron and highlights on the wooden log. Areas of hatching, a technique directly associated with woodblock illustration methods, are visible on the dress of the seated woman, on the sack behind her and in the foreground soil, with a small amount of scratching in the detail of the grass in the background. The blue and the green colours add a distinctly Pre-Raphaelite tone. The figures and subject here bear a strong resemblance to *King Pippin* (Figure 118), the illustration created by Pinwell for *Wayside Posies* in 1867, a book which also featured illustrations by North and Walker. It has been suggested that Walker or Pinwell painted or drew figures which appear in some of North’s early works.²⁴ Records for the V&A drawing of *Halsway Court, North Somerset* (Figure 119) state that ‘the two standing figures ... are by G. J. Pinwell,’ while Gleeson White comments that North ‘was a landscape artist who introduced figures only by the way, and in his paintings some of these figures were put in by Walker’.²⁵ The evidence for these comments is unfortunately not given. In 1925 Gilbert Dalziel wrote about the close friendship between North and Walker: ‘Each learned something from the other. North was never very good at drawing the figure, and on many occasions Walker actually put the figures into North’s drawings.’²⁶ Walker himself never admits of such practice, however, although his letters to North do offer advice about figures: ‘The notion of the figures is excellent, especially the woman throwing up her arm’ and ‘Your Blue-coat boy, I thought most charming, and only marred by one little thing – the little girl with him was not as *pretty* as she might have been.’²⁷

Walker’s letters also provide a rare insight into their daily routine at Halsway in 1868, braving the elements in order to paint from nature: ‘It’s a pouring wet day, but with our waterproofs on we’re going out directly to look at some material’ (Figure 120). They often walked miles to find the right location and drew from local models. ‘Indeed it is easy enough to get models, for North is known to them all.’ Walker describes North’s

careful watercolour method in December 1868: 'He is most sincere over it, each inch wrought with gem-like care.'²⁸

North's watercolours, however, did not immediately find wide commercial success, although he did find a loyal supporter in the Glasgow MP, William Graham. In 1867 his application to join the Society of Painters in Water Colours was rejected, Walker reported, on the grounds that some members felt there was 'a want of finish in parts of your work – which opinion I am not at all sure I share.'²⁹ Frederick Burton and John Gilbert, two long-standing members of the Society, had, however, given him their backing, so he may have met with opposition from a few of the more conservative members of the Society's selection panel. Birket Foster had similarly met with rejection on his first attempt. A second application by North in 1869 also met with failure, although Walker was quick to point out that the Royal Academy (who had accepted four of his watercolours for their exhibition that year) had appreciated his work:

I called at Little Holland House, and while sitting with Watts, who was full of the Academy, he said... 'Do you know a Mr. North?... Then I beg you'll tell him, that we, the Council, President, and hangers, were *unanimously* charmed with his work, and that they each are not only hung, but well hung'.³⁰

North's work was also successful at the new Dudley Gallery, where, between 1865 and his eventual acceptance into the Society of Painters in Water Colours in 1871, he exhibited eleven works.³¹ *The Haystack* (then known as *At Old Court, Somerset*) (Figure 121) was shown there in 1865 and *Halsway Court* (then known as *The Old Bowling Green*) (Figure 122) in 1867. The Dudley had, since its inception, become known for presenting 'tentative and experimental' works by up-and-coming artists, with an 'originality of ...ideas' and 'freedom from hackneyed conventions'.³² The *Athenaeum* greeted *The Haystack* at the 1865 Dudley exhibition with the comment that 'Mr. J. W. North, though lacking something in completeness, is charming; a gleam of still evening falling upon a pool, a half-cut haystack and some trees; behind is a wooded height and a few cottages: a well coloured picture.'³³ Yet the *Spectator* was critical.

Some artists have a morbid fear of conventionalism, which makes them turn their backs on beauty of line. Some such fear has prevented Mr. J. W. North's *An Old Court, Somerset* [sic] (263), which is for the most part an accurate study of sunlight, from being thoroughly pleasing.³⁴

It may have been the absence of a traditional picturesque format which offended that critic. In 1867, the *Art Journal* wrote of the 'high qualities' and excellent colour of *Halsway Court*, although it complained that 'opaque is here used in unmitigated manner.'³⁵ The close correlation for North between his early watercolours and woodcut design can be seen by the fact that he produced his black and white illustrations of *The Haystack* and *Halsway Court* (discussed above) the year after he painted the watercolour versions.

North's use of paint in *Halsway Court* creates an almost tangible appearance of texture in the plastered stonework of the old house, the thatched roof of the shed and the background tree foliage. The threat of imminent and damaging 'improvements' to the property by its owner, including the removal of the traditional plaster layer from the stonework (Figure 123), may have encouraged North to faithfully record the textural appearance of the original structure.³⁶ Figure 124 shows in detail the thick dry opaque brushstrokes used to create the effect of the rough plaster surface. North's use of strong pure colour in this work is impressive, especially where the violet of the shadow on the roof is placed in direct opposition to the bright yellow of the lichen and the detail of the tiles. Such textured brushwork could only have been achieved using the new nineteenth-century forms of paint, moist pans or tubes of watercolour.

A Young Lover (Figure 125), a small watercolour painted in 1867, also depicts the grounds at Halsway Court. The colours in this work are much more muted than those used in *The Haystack* or *Halsway Court* and it is clear from the patches of pale pink, blue and yellow which have been painted in the top margin of the paper that each colour has been liberally mixed with opaque white pigment, probably Chinese White. It could possibly be an unfinished watercolour, as there is much less detail in it than any of the watercolours described above, with foliage indicated by dry brushstrokes of dark brown or olive green, which have been roughly dragged over light green background washes. The figures are very indistinctly indicated.

Compare the level of detail, too, with *The Pergola* (Figure 126), painted in the nearby village of Bicknoller around this time.³⁷ This watercolour is beginning to show a more experimental and atmospheric approach to background foliage, which would increasingly become a feature of North's later work, and a change of palette towards warmer yellow-greens and browns. The innovative brushwork, however, was not well received by some critics, who objected to 'the *blottesque* no-meaning of his ground

and background. There is all the difference in the world between calculated slightness of finish and formlessness.’³⁸

A Bit of Southern England of 1868 (Figure 127) features a similar range of bright greens and yellows to *The Pergola*, with paint applied in thick, dry, smooth layers, largely mixed with opaque white, giving a chalky appearance. The foliage of trees in the background appears to have been almost stippled on, while the foreground grasses are indicated by the briefest flick of the brush.

A small unframed watercolour in the Ashmolean Museum, Oxford, which is undated, would seem to belong to this period of North’s style, both in colouring, composition and use of thick, dry pigment and bodycolour. *May on the Hill* (Figure 128) originally belonged to Edward Dalziel.³⁹ *The Brothers Dalziel* relates that they ‘became possessed of several of his very charming water colours,’⁴⁰ and as he worked for them between 1862 and 1867, it is highly possible that the Ashmolean work dates from this period. Gilbert Dalziel praised North’s colour sense as ‘simply superb’, seeing in nature ‘hues and effects which to an ordinary pair of eyes would be unobservable.’⁴¹ This little work was exhibited at the Dudley Gallery in 1871, where the *Art Journal* found ‘the colour is hot, the horizon high – the sky, in fact, has been almost forgotten.’⁴² The hillside is painted using wet washes of colour on a yellow ground and the girl’s yellow dress is revealed by scratching back through a top layer of dark brown paint. Touches of pure bodycolour indicate the blossom on the tree and on the branch held by the lady on the horse.

North’s watercolours had moved on rapidly, in the space of five years, from the carefully delineated and intricately worked compositions of his early output.

6.2 North’s later technique

During the 1870s North’s style continued to evolve, the colours and compositions undoubtedly influenced by his exposure to the heat and exotic surroundings of Algiers, which he visited regularly between 1873, when he took Walker with him, and 1880. He built a house there which he named “The House of Roses” and this features in at least one of his watercolours from this period.⁴³ In such pictures as *A Gipsy Encampment* (1873) (Figure 129), and *January in Algiers* (1874) (Figure 130), the colours have become more muted and atmospheric, the composition increasingly dreamlike. ‘Pictorial art’, wrote North, is a ‘translation of a poem in the language of

nature'.⁴⁴ It is, therefore, an expression of mood and emotion, of man's response to the beauty of nature, and not a purely photographic representation. North felt passionately about the countryside, campaigning for land reform and against the game laws during his lifetime.⁴⁵ Alison Smith writes that from the 1860s 'a chasm opened up between the Ruskinian idea of historic landscape and "landscape of feeling", with the former defined as the prosaic depiction of fact and the latter in terms of imagination and poetry.'⁴⁶

Hubert Herkomer, R.A., Slade Professor at Oxford from 1885, spent some time closely observing and recording North's unconventional working methods in Somerset during the late 1880s, and he published detailed descriptions of North's technique in a two-part article in *The Magazine of Art* of July 1893.⁴⁷ As a result of his stay with North, Herkomer was not only inspired to transform his own watercolour techniques, but was determined to increase public appreciation and awareness of the work of this undervalued artist, who, he felt, had been 'always out of fashion,...as much ahead of his times twenty years ago as he is today.'⁴⁸ Herkomer believed that North's originality in watercolour was due to his lack of professional training, his methods being 'highly ingenious' and 'unacademic', differing entirely 'from the methods of all the painters I know.'⁴⁹ North's eventual election to the Royal Academy in 1893 is believed to have been due to Herkomer's support.⁵⁰

We cannot be sure that the description which Herkomer gives of North's technique in his 1893 article is exactly the same as the watercolour method he was using twenty years earlier – if anything, it is probably a more extreme development of earlier methods - but it gives an idea of the general process involved. Instead of an initial sketch or colour wash on the paper, North would roughly draw a few charcoal lines or quickly drag on, with a 'stiff-haired brush' a few touches 'using warm colour *very* thickly, as thickly as it comes out of the water-colour tubes, but only dragged or rubbed on in a semi-dry condition.' These were blotted and rubbed in, giving the drawing 'almost an appearance of having been done with chalks of different colours.'⁵¹ Greens were then formed by first placing on the paper a 'watery blob' of genuine ultramarine, 'which positively stands up on the paper' and dropping into it another watery blob of aureolin (yellow) and allowing the colours to blend at will, producing brilliant 'accidental tones.'⁵² Herkomer expressed surprise at the 'very liquid condition of the colours' and the 'entire absence of body-colour.' In these methods, North has come a long way from the highly detailed and controlled, linear representations of the

1860s. According to Herbert Alexander, North's unusual watercolour methods were the result of 'experiments in the action of every kind of material' and we will explore his use of specific pigments and papers in the next section of this chapter.⁵³

Imprisonment (Figure 131) and *The Return from the Harvest* (Figure 132) clearly illustrate the methods described by Herkomer, with the gently merging greens of the background flowing into each other in a way quite unimaginable in his tightly controlled and inexperienced early paintings such as *The Young Lover* and *In an Orchard Devon*. In contrast to the misty backgrounds of the later works, detailed wildflowers and grasses light up the foreground and the elegant figures pose like classical statues. 'His way of insisting upon the beauty of certain chance wild flowers, while the grass and brambles are vaguely intimated, is entirely his own,' wrote *The Magazine of Art* reviewer in 1879.⁵⁴ However, North's increasingly eccentric technique often left the public bemused. Herkomer noted with frustration that the art-viewing public shunned North's 'poetic' works because they found them 'incomprehensible.' 'I have watched the supposed lovers of water-colour art passing Mr. North's work in the Royal Society of Painters in Water-Colours, and settling down to a conventional drawing with loudly expressed approbation.'⁵⁵ North, for his own part, never compromised his style to appeal to the wider public taste.

The art critic from the *Pall Mall Gazette* of 12 December, 1876 (possibly Joseph Comyns Carr, co-director of the Grosvenor Gallery from 1877) understood the dilemma of North's brave, and in his view, successful attempts to combine both detail and atmospheric effects at the same time:⁵⁶

With the genuine instinct of a landscape painter he is compelled to revert to the view of nature which Turner perfected; but he does not push the process of abstraction so far as to neglect the beauty that lies close at hand. He does not forget the flowers at his feet in the desire to realize the mysteries of light and air; and yet the harmony of his work is not disturbed by the obtrusive elaboration of any part.⁵⁷

Increasingly, North's watercolours appeared to express a deeper meaning, a 'worship which is the essence of humility before the great Creator'. North believed that 'Art is a consequence of the finite capacity of man and the proof of the existence of a higher power.'⁵⁸

6.3 North's Use of New Pigments

The Roberson archive shows pigments bought by North between 1871 and 1873. Whilst only a few are named, during this time several orders for unspecified 'moist colours' in tubes or pans also appear. Specific watercolours purchased include:

<u>Cadmium (yellow)</u>	Aug 1870 (moist) and Sept 1873 (pans)
Genuine Ultramarine	1871-73 (cakes or half-cakes)
<u>Purple Madder</u>	July 1871 (half-cake) and April 1872 (half-pan)
<u>Yellow Madder</u>	Nov 1872 (tube moist)
<u>Orange Cadmium</u>	Feb 1873 (half-cake)
Ultramarine Ash	Mar 1873 (tube moist)
Smalt	May 1873 (half-cake)
Carmine	Feb 1872 (half-cake)

Of these, new nineteenth-century introductions include Yellow Madder, dating from the beginning of the century, Purple Madder from around 1835, Cadmium Yellow from 1843 and Orange Cadmium from 1862. The brilliant Cadmium Orange and Yellow may have been used to achieve the glowing warm colouring in *January in Algiers*. Each of these new nineteenth-century pigments provided improved brilliancy and permanence compared with their forerunners. There is no place for fugitive gamboge or unstable Chrome Yellow. Interestingly, North is buying pigments in a variety of forms, from dry cakes to moist pans and tubes (introduced in 1847). There were clearly advantages for him in each type. For example, the old fashioned dry cake appears to have been preferred for genuine ultramarine, which was derived from the precious blue stone lapis lazuli. In order to mix well with water and to give an even covering of the paper, genuine ultramarine had to be used in as fine a form as possible, so the dry cakes, rubbed carefully into a saucer of water, were found to produce a better wash from this pigment than the moist versions. It was probably also the most economical and purest form in which to buy the pigment and was popular with most artists. Tubes were convenient for large-scale works, and his works were increasing in size at this time. *A Gipsy Encampment* is more than three times the size of *A Bit of Southern England*.

It is of note that no mixed greens are listed, confirming Herkomer's comments that North obtained his greens by combining blue with yellow directly on the paper.

Herkomer also adds that the traditional earth pigments, Raw Sienna and Raw Umber, were employed by North in his later watercolours.⁵⁹

Many of North's watercolours of the 1870s particularly feature yellow, brown and warm green pigments. The *Art Journal* commented in 1870 that 'Mr. North is still prejudicing his future by violent colours, which seem to be mixed in a mustard pot.'⁶⁰ Dalziel wrote that North was highly amused by the description by an 'all-wise critic' of his earlier works as 'hard, solid and brown'.⁶¹ He also added that Walker, 'whose sense of colour was deficient in early days, came under North's influence in this direction.' It is probably not a coincidence, then, that Walker's favourite method around this time, too, involved much use of yellow pigments: 'The whole effect was laid in with the strongest yellow pigments – aureoline, cadmium, lemon-yellow, and burnt sienna. So rich was the effect, or "fat" as he called it, that a touch of black and white on it looked quite blue by the contrast.'⁶² In *Raking Hay* (Figure 133) North uses soft textured yellows and greens to great effect.

The Roberson archive also lists a number of other tube pigments purchased by North between 1871 and 1873. As he also painted in oils, it is possible that these other tube pigments may be either watercolours or oils:

<u>Madder Carmine</u>	(Sept 1870)
Brown Ochre	(Sept 1870)
Flake White	(May 1870)
<u>Chinese White</u>	(Feb 1872)
Yellow Ochre	(Aug 1872)
<u>Aureoline</u>	(June 1873)

The two ochres and Flake White (made from lead) are traditional pigments, while Madder Carmine, Chinese White and 'Aureoline' are new nineteenth-century products, with the latter dating from as recently as 1861 (see Appendix II below). Madder Carmine was an improved, richer and more permanent form of carmine developed in the nineteenth century, popular with both Lewis and Burne-Jones. Herkomer noted that North used 'Aureoline' for dragging on dry colour as well as for mixing with Ultramarine.⁶³ Figure 134 shows a sample of the very luminous green produced by mixing Aureolin with Ultramarine (as described by Herkomer), which matches well the background colour used in *May on the Hill* and works such as *The House of Roses*,

Tripoli (Figure 135), a painting of his house in Algiers. North's use of Chinese White will be discussed in detail below.

In addition to the tubes, pans and cakes of colour, North also bought ultramarine, Strontian [sic] Yellow and Brown Madder in dry powdered form, probably for use in oil painting, where his technique consisted of washing in the sky with 'a very liquid medium of his own called "papoma"' and then giving 'atmosphere to his forms with powder colours.'⁶⁴ Strontian or Strontium Yellow was another new richly coloured nineteenth-century pigment, dating from around 1835.⁶⁵

6.4 Chinese White

As with Birket Foster, North and Walker's initial reliance on bodycolour can be traced back to their training in drawing for woodblock illustration. The white priming traditionally applied to the woodblock would not only make the design adhere well, but it would serve to smooth out any imperfections in the surface of the wood, so it is understandable that the same method might be applied when using inferior paper of imperfect surface. Alexander noted that a priming of white produced 'a more reliable surface to work on than the very inferior paper of those days.'⁶⁶ It is clear that North used bodycolour or Chinese white in much of his work until the early 1880s, although Alexander explains that prior to Walker's death in 1875, North had slowly been 'perfecting a water-colour technique which eliminated the use of body colour, at the same time giving pure colour greater depth and range of tone.'⁶⁷ Herkomer also confirms that 'Mr North used bodycolour years ago' but that the 'cooling effect of the white' required 'infinite labour and trouble' to counteract. By 1893, we are assured of 'the entire absence of body-colour' from North's watercolours, and an improved 'brilliancy' achieved without the deadening effect of white.⁶⁸

From the late 1860s, North and Walker had been increasingly frustrated with poor paper quality. According to North, the 'uncertain character of the paper led Walker into excessive use of Chinese white in his earlier watercolours. This use of white he gradually diminished, until in some of his later work in water colours there is scarcely a trace, and that trace only existing because of some defect in the paper.'⁶⁹ A caricature drawn by Walker around 1865 (Figure 136) shows him grappling with a giant tube of Chinese white above the legend: 'What *would* the Society say if it could only see me?'⁷⁰ The use of bodycolour was widely disapproved of at this time, as we shall see in Chapter Eight. 'The material used seems more allied to *tempera* than to... legitimate

water-colour...yet the effect is the reverse of disagreeable', wrote the *Art Journal* in 1870.⁷¹

6.5 North and the Drive for a 'practically imperishable' paper

North's growing obsession with paper quality is said to have been triggered by Walker's frustration with a watercolour he was painting in the summer of 1868. In a letter to his sister Fanny of 21 August, 1868, Walker wrote: 'I've made one or two little mistakes since I've been here. A little water colour I began yesterday, I was obliged to destroy, because the paper was so impossibly bad.'⁷²

Walker and North began discussing a plan for the development of a 'practically imperishable' paper for watercolour painting, which would survive the rigorous handling to which these artists increasingly subjected their work.⁷³ Nearly thirty years later, in 1895, North's dream became a reality, and he was Chairman of "The O.W. Paper and Arts Company," manufacturing a watercolour paper which, made from 100 percent linen rag, was 'extremely hard gelatine-sized' and 'withstood any amount of reworking.'⁷⁴ According to Alexander, 'the almost indestructible surface was ideal for his elaborate technique, by which his work was very much wrought with a sharp knife and submitted to all kinds of processes, such as re-sizing and burnishing.'⁷⁵ It was not, however, so suitable for the laying of traditional flat washes, but that mattered little to North. Of more importance was the fact that a strong surface would no longer require the use of an initial layer of bodycolour to smooth out imperfections in the paper and a purer use of colour would be possible. Sadly his great desire to manufacture a watercolour paper of quality and substance placed a terrible strain on his personal finances and a drain on his energy and time, ending with his own financial ruin.

In his earlier watercolours, however, North had to manage with paper which was available from colourmen. Little has been written about the papers he used at this time, but records at the Roberson Archive provide a fascinating insight into the materials he purchased between 1870 and 1873. All of these materials were ordered by North whilst at Woolston Moor in Somerset, where he did much of his painting out of doors, either from the shelter of a covered cart or from one of his many painting huts he constructed around the area.⁷⁶

North's technique of loading the paper with water for successively mixing colours on the page and of scraping out details with the knife required a very strong paper, and the

entry for 26 April 1873 of the Roberson ledgers shows that he was ordering strong, complex and expensive ready prepared surfaces, which combined a layer of continuous or Cartoon paper stretched over a panelled wooden board, with a top layer of Hot Pressed (smooth) Antiquarian or other type of extra thick HP paper.⁷⁷ Burne-Jones ordered similarly complex paper combinations from Roberson from the late 1860s, often with a layer of linen sandwiched between the board and paper (Figure 169).⁷⁸ Antiquarian was an extremely thick, strong watercolour paper developed by Whatman in 1773, and, at 53 x 31 inches per sheet, it was the largest handmade paper ever manufactured in Europe.⁷⁹ The high quality of Antiquarian paper was paramount for North. Winsor and Newton's new thicker Griffin Antiquarian boasted the following description in 1863: 'The *purest linen rags* have alone been used; *no chemical bleach* whatever has been employed; ...the grain is *level and uniform*; owing to the quality both of material and manufacture the Paper is *firm, strong, and tough*, and will bear heavy washing, &c.'⁸⁰ Yet North must have believed he could improve on even this quality of paper.

The large Antiquarian sheets must have been required for a painting of impressive size. From the limited information we have on dimensions of North's work, it would appear that a four foot work was unusually large for him at this stage. His *View of Taunton* (location unknown, Sothebys sale 9 April 1974), painted in 1880, was a similar size, but many of his earlier watercolours measured three feet or less in length. The smooth hot-pressed surface which provided the actual painting surface, noted for its strength and suitability for detail, was uniformly popular with all of the artists studied in this thesis.

Later in 1873 North purchased two smaller panelled boards, 37 by 26 inches (66 x 94 cm.), covered with Cartoon Hot-Pressed Double Elephant and surfaced with Double Elephant Hot-Pressed paper.⁸¹ Several of his technically complex watercolours from 1873 match these dimensions and it is possible that *January in Algiers* and *The House of Roses, Tripoli* (Figure 135) were produced on these strong panelled board and paper supports. The same year he also purchased twelve panelled boards covered with cartoon paper and '1847' Medium Drawing Paper, 17 $\frac{3}{4}$ by 11 $\frac{1}{4}$ inches. *A View of East Quantock's Head Farm* (Figure 137) is a similar size and may have been painted on one of these prepared paper and board combinations.

The fact that even these formidable combinations still did not satisfy North's exacting standard for his watercolours, and that he was still determined to make a better surface himself, makes one realise how demanding his methods must have been on his paper surface. Close examination of a later unmounted and unframed watercolour of North's at the Harris Art Gallery and Museum in Bradford recently (*Old Year's Leaves meet New Year's Flowers*, 1909), which one must assume to be painted on his own OW Paper at this date, revealed an amazing thickness of the paper. It had the appearance of a solid piece of white board, around a quarter of an inch thick, rather than paper. No watermark was visible on the back, but the surface of the back of the watercolour was extremely rough. It did indeed appear to be extremely tough.

6.6 Brushes and other materials

The Roberson records show that North bought a variety of brushes. In 1870 he paid 1/6 for a Swan quill sable, a conventional watercolour brush with a fine point. Winsor and Newton's 1863 catalogue list swan quills in five sizes, from Extra Small to Extra Large, the largest costing 7/6. Judging from the price-list, North's brush would have been an Extra Small one, although, as Figure 138 shows, this was by no means one of the smallest brushes in the range. In 1872 and 1873 he requested flat brown sables (Figure 26), in the new metal ferrules. He spent 25/- on these in 1873, which would have been enough to buy around two dozen brushes. As we have seen, these brushes were stronger than traditional quills and more suitable for energetic manipulation, as were the Extra Fine Hog Tools he bought in 1871 and 1873. Traditionally used for oil painting, Winsor and Newton's 1863 catalogue also lists them in their watercolour section.

For outdoor sketching, North purchased a japanned tin folding palette in 1870 and hired a lay figure in December 1871. Walker's sketch (Figure 120) shows North holding a large sketching umbrella.

6.7 Conclusion

'Mr. John William North', wrote the *Times* obituary in 1924, was 'a landscape painter of singularly poetic charm...influencing more than influenced by his fellow-artists' and 'with a technique all his own.' It spoke of the 'subtlety and delicacy of his Devonshire scenes, with their ruddy soil, their tangled hedges and undergrowth, and their truly living trees and leafage, all rendered with wonderful luminosity.'⁸² Hubert Herkomer, too, recognised in North a truly unique method of working.

Using the very best materials available and working tirelessly to perfect his compositions, North devoted himself to portraying the essence of the English countryside and to ‘the expression of unaffected emotion.’⁸³ His uncompromising desire for quality is seen in the pigments he chose, which are all strong and durable, many of them new nineteenth-century products, and in the paper combinations he explored, in an attempt to find his ideal painting surface. Very strong, smooth, hot-pressed papers which would withstand vigorous working methods were chosen, and where they were unsuccessful, he applied a priming of Chinese White to improve the surface, adjusting his palette to compensate for the cooling effects of this pigment. Sable brushes in durable new metal ferrules provided ideal tools for the expressive and swirling manipulation of paint.

It is to be hoped that ‘one of the most truly original painters of our times’, who remains largely unknown today, might be ‘discovered and re-discovered from time to time’ and accorded the recognition he deserves.⁸⁴

- ¹ Hubert Herkomer, "J.W. North, A.R.A., R.W.S., Painter and Poet", *The Magazine of Art*, July, 1893, p. 297.
- ² *Pall Mall Gazette*, 4 January 1878, p. 10; *The Graphic*, 9 December 1876, p. 578.
- ³ *The Times*: Tuesday 4 February 1868, p. 4; 27 April 1875, p. 4; 6 December 1877, p. 10.
- ⁴ J.G. Marks, *The Life and Letters of Frederick Walker A.R.A.*, London, 1896, p. 121.
- ⁵ Joseph William Gleeson White, *English Illustration, "The Sixties": 1855-70*, London, 1897; Forrest Reid, *Illustrators of the Sixties*, London, 1928, pp. 163-5; George Dalziel, *The Brothers Dalziel: A Record 1840-1890*, London, 1978 (reprint. First published 1901), pp. 230-2; Paul Goldman, *Victorian Illustration*, Aldershot and Burlington VT, 2004, pp. 130-2.
- ⁶ H. Alexander, "John William North, A.R.A., R.W.S." in *The Old Water-Colour Society's Club 1927-1928*, V, London. I am very grateful to Steve Milton, North's great-grandson, for his generosity in making available to me his extensive collection of personal records on North and for giving me so willingly of his time. His website: www.southwilts.com/site/The-Idyllists/JWN-Working-Notes.htm provides valuable documentary evidence and photographs.
- ⁷ Hardie, Vol. III, p. 138.
- ⁸ R. M. Billingham, "A Somerset Draw for Painters – Victorian Artists at Halsway Manor", *Country Life*, 18 August, 1977, pp. 428-30; Berta Lawrence, "A Painter in West Somerset", *Exmoor Review*, 1983, pp. 55-8.
- ⁹ Scott Wilcox and Christopher Newall, *Victorian Landscape Watercolors*, exh. cat., New York, 1992, pp. 55-56.
- ¹⁰ Herkomer, "North, Painter and Poet", p. 299
- ¹¹ I commissioned photography of *May on the Hill* (Figure 128) and took my own photographs of *In an Orchard Devon* (Figure 117) and the black and white drawings in the Victoria & Albert Museum (Figure 119). Staff at the Harris Museum and Art Gallery kindly took photographs for me of *January in Algiers* (Figure 130). Images of these works were otherwise not available.
- ¹² Roberson Archive (1870-72) HK1 MS. 108-1993, pp. 541, 575, 424, 152; (1873) HK1 MS. 247-1993, p. 166; (1874) HK1 MS. 248-1993, p. 201.
- ¹³ Herbert Alexander, unpublished handwritten notes in preparation for his North biography for the OWCS's club, 1927-1928, p.5, in the possession of Steve Milton. The location of North's early watercolours is unknown.
- ¹⁴ Hardie, Vol. III, p. 137; description of Collingwood Smith by Simon Fenwick, *The Enchanted River: Two Hundred Years of the Royal Watercolour Society*, Bristol, 2004, p. 80.
- ¹⁵ Alexander's handwritten notes, 1928.
- ¹⁶ Marks, *Life and Letters Walker*, p. 7.
- ¹⁷ Dalziel, *Brothers Dalziel*, p. 230
- ¹⁸ Reid, *Illustrators of the Sixties*, pp. 164-5.
- ¹⁹ Gilbert Dalziel, "The late J.W. North, A.R.A., and Other Great Book Illustrators", *The Publishers' Circular and Booksellers' Record*, 10/1/1925, p. 27.
- ²⁰ Alexander, "John William North", p. 51, wrote that North considered Millet 'unduly praised'. Christiana Payne, *Toil and Plenty: Images of the Agricultural Landscape in England 1780-1890*, New Haven and London, 1993, pp. 174 and 61, comments that Pinwell, a close friend of North's 'probably knew of Jean-François Millet's famous *Gleaners* of 1857' and notes the importance of exhibitions in London from 1854 onwards of French paintings of rural life.
- ²¹ Goldman, *Victorian Illustration*, p. 131.
- ²² Alexander, "John William North," p. 37.
- ²³ Newall and Wilcox, *Victorian Landscape Watercolors*, p. 55.
- ²⁴ Hardie, Vol. III, p. 138, writes of *The Gipsy Encampment* at the V&A: 'I suspect that the central stooping figure was by Walker'.
- ²⁵ V&A catalogue entry for E.4176-1909; Gleeson White, "The Sixties", p. 163.
- ²⁶ Gilbert Dalziel, "The late J.W. North", p. 27.
- ²⁷ Letter to North, 4 April 1871: Marks, *Life and Letters Walker*, pp. 226-7.
- ²⁸ *Ibid*, pp. 162, 147 and 165.
- ²⁹ Letter to North, January 1868: Marks, *Life and Letters Walker*, p. 121.
- ³⁰ Letter dated 25 April 1869: Marks, *Life and Letters Walker*, pp.175- 176.
- ³¹ Roget, Vol. II, 1891, p. 115.
- ³² *Art Journal*, 1 March 1869, p. 81 and *The Graphic*, 12 February 1870, p. 247.
- ³³ *Athenaeum*, 11 March 1865, p. 354.
- ³⁴ *Spectator*, 4 March 1865, p. 243.
- ³⁵ *Art Journal*, March 1867, p. 88.
- ³⁶ Newall, in Allen Staley and Christopher Newall, *Pre-Raphaelite Vision: Truth to Nature*, exh. cat., London, 2004, p. 201, provides an interesting commentary on the 'desecrations inflicted upon Halsway' and the 'Anti-scrape' campaign championed by William Morris from 1877.

- ³⁷ The stone cross to the left in the background can still be found in the churchyard at Bicknoller today and it features in an 1882 watercolour, *An Old Cross in a Western Churchyard*.
- ³⁸ *The Times*, 4 February 1868, p. 4, referring to *Mary's Orphanage*.
- ³⁹ Record card, Ashmolean print room.
- ⁴⁰ Dalziel, *Brothers Dalziel*, p. 232
- ⁴¹ Dalziel, "The late J.W. North", p. 27.
- ⁴² *Art Journal*, 1 March 1871, p. 85.
- ⁴³ See Appendix VIII below, *The House of Roses, Tripoli*, of c.1874 (private collection); also Figure 135.
- ⁴⁴ Marks, *Life and Letters Walker*, p 168.
- ⁴⁵ North's obituary, *The Times*, 23 December 1924, p. 12: 'He prided himself most on his mental grasp of legislative and administrative matters, such as land reform, the game laws, and the incidence of taxation'.
- ⁴⁶ Alison Smith, "'The Enfranchised Eye'", in Staley and Newall, *Pre-Raphaelite Vision*, p. 20.
- ⁴⁷ Herkomer, "North, Painter and Poet", pp. 297 -301 and 342 – 348.
- ⁴⁸ *Ibid*, p. 297
- ⁴⁹ *Ibid*, p. 343.
- ⁵⁰ Alexander, "John William North," p. 42.
- ⁵¹ Herkomer, "North, Painter and Poet", p 345
- ⁵² *Ibid*, pp. 345-347.
- ⁵³ Alexander, "John William North," p. 41
- ⁵⁴ *The Magazine of Art*, 1879, p. 31.
- ⁵⁵ Herkomer, "North, Painter and Poet", p. 298.
- ⁵⁶ For Comyns Carr, see below, Appendix X. North would become well acquainted with Carr as he exhibited at the Grosvenor from 1880. Carr introduced North to the writer Richard Jefferies in 1883.
- ⁵⁷ *Pall Mall Gazette*, 12 December 1876, p. 100.
- ⁵⁸ Alexander, "John William North", p. 52.
- ⁵⁹ Herkomer, "North, Painter and Poet", pp. 346-7.
- ⁶⁰ Review of RA watercolour room, *Art Journal*, 1 June 1870, p. 169.
- ⁶¹ Dalziel, "The late J.W. North", p. 27
- ⁶² Marks, *Life and Letters Walker*, p. 183.
- ⁶³ Herkomer, "North, Painter and Poet", p. 346.
- ⁶⁴ Alexander, "John William North", p. 48.
- ⁶⁵ See Appendix II below.
- ⁶⁶ Alexander, "John William North", p. 42
- ⁶⁷ *Ibid*.
- ⁶⁸ Herkomer, "North, Painter and Poet", p. 347.
- ⁶⁹ Marks, *Life and Letters Walker*, p. 169.
- ⁷⁰ Reproduced in Marks, *Life and Letters Walker*, p. 56.
- ⁷¹ *Art Journal*, 1 January 1870, p. 25.
- ⁷² Marks, *Life and Letters Walker* p. 149.
- ⁷³ *Ibid*, p. 150.
- ⁷⁴ Marjorie B. Cohn, *Wash and Gouache: A Study of the Development of the Materials of Watercolor*, exh. cat., Cambridge, Mass., 1977, p. 20.
- ⁷⁵ Alexander, "John William North", p. 46
- ⁷⁶ Marks, *Life and Letters Walker*, p. 162, writes of a wooden house being constructed in 1868 in the grounds of North's house in Somerset to facilitate outdoor painting and Alexander, "John William North", p. 36, describes North's 'painting-hut, now derelict in the undergrowth'.
- ⁷⁷ Roberson Archive MK1 MS. 247-1993, p. 166.
- ⁷⁸ See below, CH. 7, p. 175.
- ⁷⁹ Theresa Fairbanks Harris and Scott Wilcox, *Papermaking and the Art of Watercolor in Eighteenth-Century Britain: Paul Sandby and the Whatman Paper Mill*, New Haven and London, 2006, p. 85.
- ⁸⁰ Winsor & Newton *Catalogue – for Trade only, Brushes for Water and Oil Colour Painting* London, 1863, p. 47.
- ⁸¹ Double Elephant size was 40 by 26 $\frac{3}{4}$ inches (Winsor & Newton 1863 catalogue p. 46)
- ⁸² *The Times*, 23 December 1924, p. 12.
- ⁸³ North's views on art, in Alexander, "John William North", p. 52.
- ⁸⁴ Herkomer's Slade lecture, quoted in *The Times*, 23 December 1924, p. 12; and Herkomer, "North, Painter and Poet", p. 300.

Chapter 7 Sir Edward Coley Burne-Jones 1833-1898

I torment myself every day – I never learn a bit how to paint. No former work ever helps me – every new picture is a new puzzle and I lose myself and am bewildered.¹

Like North, Edward Burne-Jones found the creative process agonizing. His words from 1862 are those of a highly self-critical artist who could never bring himself to consider a picture finished and lay awake at night tormented by his dreams. ‘I want a perfect thing and can’t forgive imperfection at all, and my faults and sins, which are many, scream at me, and drown the praise.’²

Imperfection was, however, inevitable in his early years as an artist, during which he received no traditional art training prior to his arrival in London in 1856. An early apprenticeship to Rossetti taught him far more. Here he learnt the importance of an innovative approach to art, applying experimental methods and materials to ancient literary subjects. Rossetti, too, taught him to have confidence in his work, ‘to have no fear or shame of my own ideas, to design perpetually, to seek no popularity, to be altogether myself.’³ Thus, he would learn to ignore the critics, whilst pursuing his creative dreams. Association with William Morris, John Ruskin and revolutionary artists such as William Holman Hunt, Millais, Hughes and Watts, would bring him a wealth of practical knowledge regarding pigments, papers and processes, both old and new, which would enable him to progress rapidly as an artist. As we shall see later in this chapter, he was quick to embrace the new pigments and artists’ materials which were on offer and which would make his work so continually exciting, and sometimes shocking, to his contemporaries.

Burne-Jones’s ensuing fame and fortune has been much chronicled over the years, not least by his wife Georgiana in her two-volume *Memorials of Edward Burne-Jones* published in 1904. Contemporaries Malcolm Bell and Fortunée de Lisle, too, provided detailed chronological accounts of the artist’s output, which are important for their descriptions of now untraced works and forgotten compositions, and of dimensions and supports used.⁴ In 1890 the artist Edward Clifford wrote valuable notes on Burne-Jones’s early watercolours, which crucially allow us to compare the condition and colours of the watercolours as they were when they were fresh and bright, with their appearance today.⁵ Numerous twentieth-century exhibition and museum catalogues and other scholarly publications illustrate and discuss different aspects of Burne-

Jones's varied career, from the Arts Council's black and white 1975 volume, to Martin Harrison and Bill Waters' 1973 book, the comprehensive 1998 edition by Stephen Wildman and John Christian and the highly respected biography by Penelope Fitzgerald.⁶ It is difficult, however, in all of these works, to devote adequate space to a technical analysis of Burne-Jones's watercolour output, when there is also his vast collection of oil paintings; stained glass and tile designs; pen and ink illustrations; and pencil, chalk and charcoal drawings and a particularly colourful biography to include at the same time. As a result, his techniques and materials have remained essentially unresearched. In 2004, the eminent conservation scientist Joyce Townsend confirmed that 'there appear to be no technical studies of ...Burne-Jones' and that 'very few exhibition catalogues published in the twentieth century include a sizeable technical entry based on analysis of materials.'⁷ Even Martin Hardie, in his celebrated 1968 volume on British Victorian watercolour painting, dismisses Burne-Jones in two short pages, concluding that his earliest work in the medium was the best, when he was 'scrubbing and shifting his colour, stippling and scumbling blue over blue, red over red. When he gained an easy proficiency in handling his medium on a much larger scale, his work lost a forceful vigour which was not counterbalanced by any gain in purely decorative quality.'⁸

Excellent technical publications, including those by Joyce Townsend, and a technical article by Libby Sheldon, have been compiled on the subject of Pre-Raphaelite painting methods and materials and provide invaluable background information, but they almost universally focus on works in oil and do not include any paintings by Burne-Jones.⁹ Marjorie Cohn's *Wash and Gouache* catalogue briefly touches on Burne-Jones's use of tube watercolours to create a textured surface similar to oils in *The Second Day of Creation*, although she fails to comment on any other aspects of his technique, especially on the fact that Burne-Jones had painted the *Creation* pictures directly onto canvas (as will be discussed later), rather than paper, which reinforced the impression of an oil painting.¹⁰

After all this time, it is left to Burne-Jones's studio assistants, Thomas Rooke and Charles Fairfax Murray, to furnish us with the most interesting facts about their master's techniques and use of new materials. Some of the best-known notes by Rooke are published in the short book edited by Mary Lago, *Burne-Jones Talking*, whilst others are only fleetingly referred to in Birmingham Museum and Art Gallery's *Catalogue of Paintings* of 1930.¹¹ Murray's revealing comments about Burne-Jones's

practice of handling watercolour ‘almost exactly as he did oil’ by glazing over underpainting and by working surface colours into lightly moistened areas of ground colour (which will be more fully discussed under the sub-heading ‘Pigments 1866-1870’), have first appeared in the final pages of the Tate Gallery’s 1984 catalogue, *The Pre-Raphaelites*.¹² According to Murray, Burne-Jones used hog-hair brushes, ‘often spoiling the brush by breaking and spreading the hairs.’

Between the years 1857 and 1880, Burne-Jones purchased an impressive quantity and variety of artists’ materials from Roberson, all of which were painstakingly recorded in the Roberson account ledgers. These fourteen closely-written ledger pages give the fullest account of any of the artists studied in this thesis and to date these entries have never been published or analysed. In Appendix IX of this thesis I have transcribed and tabulated information from each of these ledger pages in chronological order, and this will be discussed in detail over the following pages of this chapter.¹³

7.1 Blurring the boundaries: ‘His drawings are literally in tempera, and in substance and surface might almost be mistaken for oil’¹⁴

Before we look in detail at the evidence provided in the Roberson Archive, it is necessary to explain that the medium in which Burne-Jones worked was not always obvious to the observer and there are many examples of his watercolours being mistaken for oils. His first studio assistant, Thomas Rooke, wrote: ‘Whether he painted in oil or water colour he liked the same result, one like fresco or egg tempera, so he has puzzled people about his medium’s identity.’ In order to achieve the consistency of paint he liked, he used a ‘stiff pigment of the texture of soft cheese which he could liquefy with diluents when it was wanted to run easily,’ and ‘made freer use of the not long invented moist paints, ordering tubes and cakes by the dozen and putting them on with hog-hair bristles made for oils’, creating a ‘tempera of gum and water.’¹⁵ That Burne-Jones did make increasing use of watercolour pigments in the new forms of tubes and moist cakes will be seen from the analysis of the Roberson Archive which follows. These could indeed be thinned by the addition of ox gall, which he also used regularly. During the 1870s, as we shall see, he also painted many watercolours directly onto canvas, an unconventional technique which gave his pictures the texture of oils, with the weave of the canvas showing through the brushwork. Such extreme methods were not practised by any of the other artists included in this study.

As early as 1861, he was forced to put notices on the back of two of his watercolours to clarify their medium. *Cupid's Forge* (1861 private collection) and *The Goldfish Pool* (Figure 139) carried warning messages from the artist: 'painted in watercolours' and 'E.B.Jones, this is water-colour, so don't varnish it.'¹⁶

Such words of warning were ignored at great cost, when his watercolour *Love Among the Ruins* (Private Collection), painted between 1870 and 1873, was sent to the Goupil Gallery in Paris to be reproduced in photogravure in 1893, carrying a 'printed warning on the back that it was painted in water-colour and would be injured by the slightest moisture.' A wash of 'white of egg or some such substance' was applied to it and the surface of the work destroyed.¹⁷ Burne-Jones later restored and repainted much of it.¹⁸ Even John Ruskin, who prided himself on his expertise, was taken in by one of Burne-Jones's pictures. In 1875, when he came to inspect *The Mirror of Venus* (oil - Caloutste Gulbenkian Museum, Lisbon), he was at first not sure if it was oils or watercolour. Georgiana explains:

It was an oil picture, but that was a point in Edward's work not to be decided at a glance – his method in both mediums being very similar – and Ruskin was silent until he had examined it carefully...He came to a conclusion, and raising his eyes said, so quietly and authoritatively, "Pure water-colour, my lord," that I felt no inclination to contradict him.¹⁹

Graham Robertson repeats a similar story in his book *Time Was: The Reminiscences of W. Graham Robertson*.²⁰ Today there is often uncertainty about the exact composition of Burne-Jones's watercolours. In the introduction to the 1975 Arts Council catalogue on Burne-Jones, for example, the following comment was included by way of explanation of his medium:

Burne-Jones's working methods were notoriously unorthodox. For the sake of brevity, the term 'gouache' has been used throughout to denote watercolour used with bodycolour, whatever the consistency, whether or not chalk or gold paint are added, and whether the support is paper, vellum or canvas.²¹

It is important, therefore, for a close analysis of the actual materials used by the artist to be made and the best source is the Roberson Archive. Because of the size of the Burne-Jones archive, I have divided my analysis of the twenty-three year period into four sections, each of which describes the watercolours Burne-Jones created during that time and the pigments and other materials purchased from Roberson to paint them.

7.2 1857-60

7.2.1 Watercolours completed 1857-60

In 1857 and 1858, Burne-Jones was predominantly working in pen and ink, often on vellum. He also began designing cartoons for stained glass for the firm of James Powell and Sons, using watercolour and Indian ink. Three of his early designs were translated into vibrant stained glass windows at St. Andrew's College in Bradfield. Few of Burne-Jones's early attempts at painting in watercolour survive, as he later destroyed much of his output prior to 1856.²² *The Annunciation* (Figure 140) and *The Blessed Damozel* (Figure 141), both begun in 1857, are the earliest surviving examples of his rather clumsy beginnings in this medium. In *The Annunciation*, sections around the heads of both figures have been completely cut away, patched and repainted, but Burne-Jones was not alone in having such difficulties at this time. In his watercolour *The Passover in the Holy Family* (1855-6 Tate Gallery), Rossetti had 'worked on & on & scratched out the principal head three times - & then cut it out boldly - and put in a patch'.²³ The early Pre-Raphaelite custom of painting in the backgrounds first and adding the figures later, practiced by both Millais and Hunt, reversed the traditional method taught by the Royal Academy, but was recommended by the fourteenth-century artist Cennini in *Il Libro dell'Arte*, first translated in 1844 by Mrs Merrifield.²⁴ This order undoubtedly made it more difficult to alter the planned position of the figures, with their pale flesh tones, once the darker background colours were completed and is especially true in the medium of watercolour, which cannot easily be removed once dry. Two early unfinished watercolours by Burne-Jones, *Woman in an Interior* (c1861, Figure 142) and *Fair Rosamund and Queen Eleanor*, 1862-3 (Figure 143) clearly show the background begun first. Interestingly, in the former, there is a version of William Morris's early "Pomegranate" wallpaper design behind the woman's head, which may date the picture to between 1862 and 1865, when this design came into production.²⁵

Not only was Burne-Jones exploring the medium of watercolour in 1857, however, but he was also starting to experiment on occasion with oils. From August 1857 to February 1858, he worked on the murals for the Oxford Union, with Morris, Rossetti, Hughes, Pollen, Prinsep and Spencer Stanhope. It is not clear where they obtained the materials for this project. A prolonged period of illness followed, during which he was cared for at Little Holland House by Val Prinsep's family, spending much time in the company of Frederick Watts, who encouraged him to improve his drawing skills.²⁶ In the summer of 1859 he travelled to Italy for the first time with Prinsep and Charles

Faulkner, consequently few materials were ordered from Roberson after May in that year. In 1860 he worked predominantly on a series of murals for William Morris's new home, Red House, in Bexleyheath, and on a number of small watercolours, *Belle et Blonde et Colorée* (Figure 144), *Sidonia von Bork* (Figure 145), *Clara von Bork* (Figure 146), and *The Blessed Damozel* (Figure 141). In all of these, Rossetti's influence is strongly evident, both in the colouring, technique (scratching out, layering of paint), and composition of the works. *Clara von Bork*, especially, bears a striking resemblance to Rossetti's *Lucrezia Borgia* of 1860-1 (Tate Gallery).

7.2.2 Pigments purchased 1857-60

Most of Burne-Jones's earliest recorded purchases of pigments from Roberson are simply listed in the ledgers of the archive as 'colors' (sic). In the absence of a description of form or container, it is thought that these colours 'were supplied as a powder either in glass tubes or paper folders,' for grinding in gum Arabic or oil in the artist's studio, rather than being ready-prepared in cake or tube form.²⁷ A few named pigments are listed for 1857 and 1858. In 1859 only two unnamed pigments were ordered and in 1860 no purchases were made. The powdered colours bought in 1857 and 1858 are as follows. New nineteenth-century pigments, which form the majority of his order, are underlined (see Appendix II below for their dates of introduction):

Permanent White

Orange Mars

A(ntwerp?) Blue

Dark Carmine

Chrome

Madder Carmine

Strontium Yellow

Red Lead

In addition, Burne-Jones bought dry cake watercolours of unspecified colour to the value of 6/4 in August. Two named pigments were also bought as cakes:

Extract of Vermilion/Field's Vermilion (1/2 cake)

Lamp Black

One pigment was purchased in the newer form of moist pans:

Yellow Madder (moist)

Of these pigments, six were products of the first half of the nineteenth century, and two date from the end of the previous century, whilst Lamp Black and Red Lead were used in the seventeenth century or earlier. Many were expensive and it is interesting to note that he was beginning to try out different forms of paint, from powder to cakes and the newer moist pans of watercolour.

The six new nineteenth-century pigments were Orange Mars, Extract of Vermilion, Strontium and Chrome Yellow, Madder Carmine and Yellow Madder. Orange Mars was first introduced in 1840 and was one of the most expensive pigments at 5/- for a tube or cake. Field's Extract of Vermilion (a particularly vivid and improved variety of Vermilion introduced by Field, also 5/-) and Strontium Yellow first appeared in 1835, and Chrome Yellow (a cheaper pigment at 1/-) dates from 1814. Both the bright lemon Strontium and Chrome Yellows were, however, unstable pigments, the former turning green with great rapidity, the latter being poisonous and turning black over time and being injurious to indigo and Prussian blue.²⁸ It is possible that these yellow pigments were mixed with blue to make the greens used in watercolours of the following years, as they were common combinations in Pre-Raphaelite oil painting.²⁹ In *The Backgammon Players*, 1861-2 (Figure 147), the green of the foreground grass has darkened so much that details of flowers which are indicated in his 1861 sketch (Figure 148) are no longer visible, although tiny specks of blue petals can just be made out. Madder Carmine, an improved, richer and less fugitive form of carmine developed in the nineteenth century, was also an expensive pigment costing 5 shillings and appears in Roberson's price list of c1840, long before it became available from Rowney in 1852 or Winsor & Newton in 1858. Also called Field's Carmine, it was considered by Field to be the only durable carmine for painting either in water or oil.³⁰ Yellow Madder was available from the beginning of the nineteenth century and was a colour which was very popular with the Pre-Raphaelites, despite its being widely held by many nineteenth-century sources to be highly unstable and liable to fading.³¹ No longer available, an idea of its colour may be obtained from the small trial patches of madder yellow paint which Ford Madox Brown painted on the right-hand spandrel under the frame of his oil painting *Work* in 1857 (Figure 149).³²

Permanent White, a late eighteenth-century discovery, was made from barytes and recommended by Field particularly for use in watercolour.³³ It replaced lead white, which was both poisonous and prone to discolouring and Burne-Jones continued to buy this white pigment throughout the 1870s. Antwerp Blue similarly dates from the

last years of the eighteenth century, and is a pale variety of Prussian Blue, but even less permanent. Field noted that Prussian Blue ‘is purpled or darkened by damp or impure air.’³⁴ Dark Carmine also dates from the eighteenth century, but was known to fade rapidly on exposure to light. Other colours such as Lamp Black (made from soot) and Red Lead had been available for several centuries. Lamp Black was commonly sold in the form of stick ink for watercolour painting at this time, although Burne-Jones chose to buy it in cake form.³⁵ Red lead, an orangey red, was not only unstable, however, turning black on exposure to air, but was also highly toxic.³⁶

At least half of these pigments, then, were unstable and liable to fading or discolouring, and this may explain why so many of the artist’s watercolours of the early 1860s now appear dull and murky, despite their use of so many initially bright colours. More will be said on this subject in the section on pigments used 1861-1865.

It is interesting to note the absence of Chinese White from Burne-Jones’s list at this stage, as it begins to feature very heavily later on. Possibly in these early years he relied mostly on Permanent White for mixing with his colours. Also absent are any ready-made greens. It is also notable that, apart from the reds, he was not using the same colours as Rossetti employed in his early watercolours, ie Vermilion, Purple Carmine, Red Lead, Cobalt, Chrome, Emerald Green, Malachite Green, Lemon Yellow, Indigo, Cobalt Green, Hooker’s Green and Madder (scarlet).³⁷ This shows an early independence and a willingness to experiment for himself.

7.2.3 Supports and Other Materials 1857-60

In 1857, Burne-Jones’s purchases from Roberson were aimed at setting himself up with the materials necessary for his new profession. As Appendix IX below shows, he was busy stocking up on essentials, such as sable brushes, sketch books, a drawing board, a deal sketching easel, a sketching umbrella and a japanned palette box, in addition to a knife and linseed oil. Most of his materials, apart from these last two, relate to his use of pen and ink or watercolour medium at this time. With little money to his name and no bank account, at this time Burne-Jones was dependent on the generosity of William Morris and Ruskin, together with payments received in advance from new patrons introduced by Rossetti, such as the Leeds stockbroker Thomas Plint and from the glass manufacturer James Powell and Son, for whom he began designing stained glass windows.³⁸ Roberson also trustingly extended unlimited credit to him

from the start, possibly on the recommendation of Rossetti, Millais, Madox Brown and Holman Hunt, who were already important clients of the firm.

The deal sketching easel he bought in April 1857 cost 5/- and was made of a form of low-cost softwood such as Scots pine. Winsor & Newton's 1858 catalogue devotes considerable space to promoting this easily portable and 'newly-invented easel', which possessed 'those qualities most required by the Sketcher and Tourist' (Figure 150).³⁹ The advantages of such an easel can be appreciated when seen alongside the sort of unstable homemade stick-and-string construction to which poor Millais resorted in 1853 (Figure 151). We can glimpse the outline of Burne-Jones's sketching easel buried underneath piles of garments rather like a clothes-horse, on the left of the cartoon he drew of the first studio he shared with Morris in Red Lion Square from November 1856 until 1859 (Figure 152). On the right of the sketch, a wooden lay figure basks before the fire. This may have belonged to William Morris, but Burne-Jones also borrowed one from Rossetti in 1860 and later hired one from Roberson during June and July in 1864 at a cost of 30/-.⁴⁰

In 1857 he also bought a sketching tent. This, together with the sketching easel and umbrella, would have been acquired with a view to outdoor sketching and painting. Such products were introduced by colourmen during the mid-nineteenth century to satisfy the growing demand amongst amateur and professional artists. Winsor & Newton's 'New Sketching Tent' is proudly illustrated in their 1858 catalogue, where it is described as a 'simple and serviceable contrivance for the use of the Sketcher from Nature'⁴¹ (Figure 153). Burne-Jones was optimistically equipping himself with the latest gadgets. The irony is that he soon discovered an intense dislike for outdoor work, as Georgiana 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, after painting *Green Summer* in the studio of Red House as he had done this year, there seemed little reason for him to torment himself by a struggle with the outer world, and as a rule he painted his backgrounds from notes of nature made here, there, and everywhere, and then dealt with by memory and imagination.⁴²

Japanned tin palette boxes were another product which evolved to satisfy the need for compact, lightweight and durable painting materials for travelling and outdoor work. Both Frederick Lewis and Birket Foster also bought them from Roberson (Figure 50).

The boxes contained separate compartments for either cake or tube colours, together with a folding palette.

‘Paper’, a white panel and three sketch books were also purchased, one of which was a solid sketch book. According to George Rowney’s catalogue of 1867, solid sketch books consisted of ‘a number of sheets of paper, compressed so as to form a solid block, each sheet of which is to be separated by inserting a knife underneath the uppermost sheet, and passing it round the edge’⁴³ (Figure 154). Designed especially for watercolour painting, they were made of ‘Whatman’s thick papers’, although Winsor & Newton boasted that they could make them up ‘of any paper, and to any required size, on the shortest notice.’⁴⁴ Birket Foster also ordered these for outdoor sketching. It is clear that such materials were relatively new in the middle of the nineteenth century developed to meet the needs of the growing amateur artist market. The solid sketch book provided an alternative to the traditional leather and board bound pocket sketchbooks popularly used by artists including Turner and would have been particularly useful when travelling, because of their compact nature and because they eliminated the need for an easel to rest on. Completed sketches could be stored in the convenient pocket located under the front cover of the book. Analysis at the Tate Gallery has shown that in 1860 Burne-Jones painted *Clara von Bork* (Figure 146) onto a thick white paper, which was laminated to a cream NOT cartridge paper and stretched over a four-member, unkeyed stretcher, a complex support which he would use in other watercolours as we shall see.

Between 1858 and 1859, Burne-Jones continued to equip himself with a range of metal scrapers, watercolour sables, a palette, another deal folding easel and sketching stools, as well as Indian ink, portecrayons (to hold charcoal - Figure 155), a copy of Field’s handbook, ‘medium’, mill boards, copal and a few yards of prepared cloth. The metal scrapers (Figure 156), ‘small, double-edged, triangular points set in handles’, were used for removing fine areas of bright white highlights in a finished painting and came in a variety of shapes and sizes, some designed for watercolour and others for illuminating and oil painting.⁴⁵ Burne-Jones may well have also used them for scraping into the paper surface to achieve a textural effect, as Rossetti had done. Areas of paper which have been heavily scratched in a cross-hatched pattern are visible in the background of Rossetti’s *Paolo and Francesca da Rimini* of 1862 (Cecil Higgins Art Gallery) and of Burne-Jones’s unfinished *Fair Rosamond and Queen Eleanor* of 1862-3 (Figure 143). Charles Fairfax Murray, who was studio assistant to both Rossetti and

Burne-Jones, confirms that both men scraped the surfaces of their early watercolours and pen and ink drawings ‘until the whole surface of the paper was more or less destroyed for the purpose of painting into.’⁴⁶ Murray exaggerates, but is here referring to the deliberate creation of a textured surface resembling woven cloth or embroidery.

‘Field’s Handbook’ probably refers to the important work by the respected colourman George Field, *Chromatography, or A Treatise on Colours and Pigments and their Powers in Painting*, first published in 1835. As we have seen, Samuel Palmer consulted *Chromatography* to gain an understanding of his pigments. The pure and brilliant primaries developed by Field were considered by Mrs Merrifield in her 1844 translation of Cennini’s handbook, *Il Libro dell’Arte*, as most closely resembling those used by early Italian painters.⁴⁷ We have already noted that Burne-Jones was buying Field’s Extract of Vermilion in 1857. Considering he had Field’s publication for reference at this early stage, it is somewhat surprising to see that he carried on using many of the pigments listed as fugitive by Field in his work at this time.

The ‘medium’ that Burne-Jones was buying in 1859 could have been any one of a number of watercolour mediums [this is correct⁴⁸] available in bottles at the time (and still available today), including ‘Water Colour Megilp’, ‘Colourless Liquid Ox Gall’ and ‘Prepared Gum Water’, which were all listed in contemporary catalogues. These helped to regulate the flow, texture or general appearance of watercolour. As we have seen in Chapter Two, watercolour megilp was a new medium created by Winsor & Newton for use in watercolour painting, which was designed to reproduce the texture and body of oil painting. It acted as a thickening agent and imparted ‘additional depth, brilliancy, and transparency in Water Colour Painting’, preventing the colours running into each other, or ‘washing up’, when applied in successive layers.⁴⁹ These properties would have been important for Burne-Jones, who applied his pigments in dry layers on top of each other, rather than mixing them on the palette, and who desired thick and textured brushwork. Gum Arabic added gloss and transparency to the colours and was widely used in watercolours during the early nineteenth century by Blake, Turner and David Cox. Contemporary artists such as Lewis, Palmer, Birket Foster and North all employed gum Arabic in their watercolours, too. Ox gall was a thinner or ‘wetting agent, used to improve flow when mixed with water colours’.⁵⁰ It was also said to improve the brilliancy of certain colours.⁵¹ Ox gall was particularly useful on greasy surfaces such as vellum, a support which Burne-Jones used during the 1870s for works such as *The King’s Wedding* (Private Collection).⁵² Burne-Jones applied both ox gall

and gum Arabic to early watercolours such as *Sidonia von Bork* and *Clara von Bork* of 1860 (Figures 145 and 146).⁵³ We have already noted Thomas Rooke's comments on Burne-Jones's practice of thinning his paints with 'diluents' as necessary. *The Annunciation* and *Belle et Blonde et Colorée* (Figures 140 and 144) also show a heavy use of gum.

7.3 1861-1865

7.3.1 Watercolours completed 1861-1865

From 1861 to 1865, Burne-Jones continued to work predominantly in pen and ink and watercolour. Painfully aware of his lack of skill at drawing, he was encouraged by his friend, G. F. Watts, to practise and improve this aspect of his art, tirelessly sketching details and figures in search of perfection. His watercolour output increased rapidly as he gained in confidence and he began to acquire wealthy patrons such as William Graham and James Leathart. In 1861 alone, Burne-Jones had around thirteen watercolour works under way or completed, whilst designs for stained glass, for the Dalziel brothers' *Illustrated Bible* and for Morris's book *The Earthly Paradise*, also occupied much of his time. In 1862, at Ruskin's insistence, he had visited Italy and made numerous sketches and studies of frescoes and works by old masters such as Veronese and Tintoretto.⁵⁴ His skill at painting in watercolour was finally recognised in 1864, when he was elected an associate of the Old Watercolour Society. That year, he entered four watercolours at the Society's summer exhibition, including *The Merciful Knight* (Figure 157), although, he later recalled, some of the members were 'furious with me for sending it' and 'let drop remarks about it of a hostile nature'. It was hung 'out of sight behind the door' in 'what they call the naughty boy's corner.'⁵⁵ 1865 was his most productive year for book illustrations, stained glass and works in watercolour. Most of his watercolours were of relatively small dimensions, although *The Merciful Knight* was 39 ½ by 27 ¼ inches (100.3 x 69.2 cm.) in size. Oil painting in earnest did not begin until he received a commission from Birket Foster for seven panels on the theme of St. George in 1865. His purchase of oil paints was limited to just one or two a year at this time.

With the influence of Rossetti waning, Ruskin began to encourage him away from dark medieval compositions towards more classical forms and brighter colour schemes. In 1864 Ruskin wrote these words of advice to Burne-Jones:

It seems to me rather an occasion for you to practise, every now and then, painting with fewer colours than you usually allow yourself. I should say, for instance, put the black out of the box, and the browns, and the indigo blue – or perhaps it might be shorter to shake everything out of the box and then put back in it the vermilion and the violet carmine, and the cobalt and smalt, and chinese white, and perhaps a little emerald green or so, and try what you can do with those, on gold ground, so as not to leave any nasty black and brown things to make me look at when I come to ask you what you've been about.⁵⁶

Ruskin's reference to 'gold ground' does not literally mean gold leaf, but almost certainly relates to the use of a deep yellow coloured base paper or paper prepared with an initial wash of yellow paint. Whilst Burne-Jones did carry out preparatory drawings and sketches on coloured grounds at this time, they were more frequently brown, buff, cream or green in colour, rather than gold.⁵⁷

Several of his watercolours of this period were indeed based on restricted colour themes: *Viridis of Milan* (1861 untraced), executed for Ruskin, was described as a 'Harmony in Blue' by the Dalziel brothers, whilst the watercolour they commissioned in 1862, *The Annunciation* (Figure 158), was to be a 'Harmony in Red.'⁵⁸ *Green Summer* (1864 Private Collection) is a harmony in green; and *The Wine of Circe* (1863-9, Private Collection) a harmony in yellow.⁵⁹

Ruskin's advice to lighten his palette seems to have been gradually heeded and the muddy colours of cruder, earlier watercolours of this period, such as *Clerk Saunders* (Figure 159), *The Backgammon Players* (Figure 147), *Merlin and Nimuë* (Figure 160) and *Fair Rosamund and Queen Eleanor*, 1862 (Figure 161), slowly give way to more delicately detailed works using Chinese White and brighter blues (including cobalt), greens and reds. *The Lament* (Figure 162) and *Cupid finding Psyche* of 1865 (Figure 163) are painted using this brighter palette. Bell comments on the 'somewhat cold and chalky' appearance of *The Lament*, suggesting that Burne-Jones incorporated chalk into his watercolour, as he did in the 1867 watercolour, *Cupid Delivering Psyche* (Figure 164).⁶⁰ It is, however, more likely that Bell was referring to Burne-Jones's heavy use of bodycolour, as contemporary reviews often described works in bodycolour as 'chalky'.⁶¹

However, there may also be more ominous reasons for the difference in appearance between some of these early works. As we have seen, many of the pigments Burne-Jones was using initially were fugitive. Chrome Yellow, Red Lead and Antwerp Blue

blackened, whilst Madder Yellow and Dark Carmine faded. When we read contemporary descriptions of some of the above-mentioned works, it is clear that they were originally much brighter in colour, with many more intricate details visible.

In 1893, the *Athenaeum* reviewed the retrospective of Burne-Jones's work at the New Gallery, praising the 'brilliant' colours used and wondering 'how qualities hitherto ascribed to oil and denied to the sister-medium have been attained, and, in some cases, surpassed.'⁶² Writing of the early watercolours in 1890, Edward Clifford commented on Burne-Jones's use of 'simple, bright colours' similar to stained glass, which had not faded.

I cannot see that thirty years have made the slightest change in Burne Jones's early pictures, and I think it must be admitted that their strength and depth is fully equal to the finest oil work, while certainly the exquisite subtleties of quality and tone far surpass it.⁶³

Fair Rosamund and Queen Eleanor (1862, Figure 161) is described as 'overpowering in its force of colour', with the Queen clutching both the ball of thread and 'her gleaming dagger'.⁶⁴ Today there is not even a trace of a dagger visible. *Merlin and Nimuë* is noted by the *Athenaeum* as 'remarkable for its luminosity' and by Clifford as possessing 'ineffable and overwhelmingly lovely colour,' with Nimuë's 'cumbrous cloak of golden yellow, lined with scarlet', deep blue hills, ripples and reflections visible in the lake, and an adder crawling through the grass.⁶⁵ Much of this has now been lost and it is difficult to judge at what date the deterioration occurred. John Christian has noted that, probably after 1895, Burne-Jones completely repainted the figure of Rosamond in *Fair Rosamond and Queen Eleanor* of 1861 (Figure 165), and in the 1880s he reworked the female figure on the left in *the Madness of Sir Tristram* (1862, Private Collection).⁶⁶

7.3.2 Pigments purchased 1861-1865

Many of the colours Burne-Jones ordered from Roberson during this period are simply listed as unidentified 'colors' (ie powdered), but in 1861 he purchased his first watercolour in tube form (Extract of Vermilion), although it was only in 1865 that he began to order tube colours regularly. Between 1861 and 1865 he also increasingly bought 'moist colours, by which is probably meant 'moist pans,' taking a box of 24 quarter pans of moist colours in 1862. By 1865 moist colours formed at least half of his annual order, and 'water colors' were also requested on an annual basis. Moist and tube colours could be applied in a drier, thicker way than conventional cake

watercolours and because of this they could mimic the appearance of oils, giving both the texture and body he desired to his work.

Pigments ordered between 1861 and 1865 include:

Gold Shells (1861, 1862; Gold 1863)

Ox Gall Color (1861)

Extract of Vermilion (Tube 1861)

Yellow Oker (Moist 1861)

Chinese White (1862, 1863, 1864, 1865 – six orders)

Burnt Carmine (1862)

Vandyke Brown (Moist 1862)

Cobalt (1865)

Yellow Madder (Moist and Cake 1865)

Mineral Grey (Moist 1865)

These colours are an extraordinary mixture of ancient traditional products and the latest nineteenth-century innovations. Gold shells, ox gall and yellow ochre all date back to the seventeenth century and earlier, but all of the remaining colours are new nineteenth- or late eighteenth-century products.

Gold Shells (3/- each) are shells which contained powdered gold combined with a binder such as gum Arabic, and were commonly used for gilding.⁶⁷ In medieval times they were also used for book illumination, and fine detail was obtained by applying the gold with a pen.⁶⁸ Between 1859 and 1860, we have seen that there was a revival of interest in missal painting, with a number of manuals being published, which recommended the use of gold, silver, aluminium and platina pigments.⁶⁹ Burne-Jones probably drew inspiration not only from the illuminated manuscripts he had studied with William Morris and Rossetti in London, but from the early religious works he had studied during his trip to Italy. He would have seen his father gilding frames in his workshop at home in Birmingham. Rossetti, too, may have encouraged Burne-Jones in adopting gold, as he used shell gold in his early oils, *The Girlhood of Mary Virgin* (1848-9, Tate Gallery) and *Ecce Ancilla Domini!* (1849-50, Tate Gallery).⁷⁰ Gold paint is used by Burne-Jones in *Fair Rosamond and Queen Eleanor* (1861), *Fair Rosamond* (1863, Private Collection) and in his tiny *Days of Creation* designs (Birmingham Museum and Art Gallery) for the Dalziel *Illustrated Bible*. In many of these, the gold is used much as it was in medieval manuscripts or early paintings, to highlight lettering

or for halos or angels' wings. Both Frederick Lewis and Samuel Palmer incorporated gold into their watercolours to create added brilliance, with Lewis employing gold to add luxuriance to fabrics and wallpapers and Palmer to highlight patches of sunlight in his watercolour landscapes.

Yellow Oker is an earth colour which dates back to ancient times. Ox Gall Colour, described by George Field as 'a deep-toned gorgeous yellow, affording richer tints than most other yellows',⁷¹ was first used during the seventeenth century for 'limning' or miniature painting and provided a dark yellow, but, in its original form, it was very fugitive and so was rarely used by the nineteenth century.⁷² The golden dress of May Margaret in *Clerk Saunders* and the cloak of Nimuë in *Merlin and Nimuë*, which were once almost certainly brighter yellow, may have been painted using ox gall pigment or the newer but equally impermanent Yellow Madder, which we have already noted Burne-Jones buying in 1857. Extract of Vermilion, another nineteenth-century pigment, has already been noted in use by Burne-Jones in 1857 and appears to have been used for the knight's scabbard and sash in *The Merciful Knight* 1863 and for the cloth on Mary's bed in *The Annunciation*, 1862 (Private Collection).⁷³

Winsor & Newton only introduced their new Chinese White as a watercolour in 1834 and did not offer it as an oil colour until 1860,⁷⁴ so it must be assumed that in these early years as an artist, Burne-Jones was using this very new pigment as a watercolour, although the records do not state if it is in liquid (bottled), cake, moist pan, or tube form. At first he was hesitant with it, taking only one order of 1/- a time, but gradually he increased the quantities he used and, by 1865, he was ordering it six times a year. Its early use has been verified in a technical analysis of *Clerk Saunders*, which confirms that in places a layer of zinc white has been 'laid on the surface of the top paper layer ...to provide a "clean" white, relatively non-absorbent coating which was to accept the paint film.'⁷⁵

Cobalt (blue) was first available in England in 1807. This brilliant blue was generally considered a durable pigment, although J. Scott Taylor noted that it turned green in impure air (see Appendix II). Perhaps Burne-Jones was heeding Ruskin's advice of 1864 when he purchased cobalt from Roberson in 1865, although it was already popular with fellow artists including Hunt, Millais, Brown, Hughes and Rossetti.⁷⁶ Large areas of cobalt appear to have been used by him for the flowing robes of Cupid in both the 1865 and 1866 versions of *Cupid Finding Psyche* (Figures 163 and 166).

It is possible that Burne-Jones used some of the Red Lead purchased in 1858 for the robes of the male figure in *The Backgammon Players* of 1861-2, which are now so black that the red is barely visible. As we have already noted, Red Lead turned black in many of Rossetti's early watercolours.

7.3.3 Supports and other materials 1861-5

In 1861 charcoal, scrapers, pens and Indian ink are listed in the ledgers, together with brushes and sketching blocks, several 'extra primed white canvases', a handful of oil colours and two pots of the thinner, ox gall. As Thomas Rooke explained, Burne-Jones liked to use very thick paint and thin it down when needed.

The paints listed for 1862 and 1863 almost entirely refer to 'moist colors' and 'watercolours', with some cake colours and a few powdered colours. No prepared oils were being bought at this time. Burne-Jones seemed to be trying a number of different vehicles such as megilp (18 Feb and 3 April 1862) and 'water colour medium' (24 February 1863). He also bought copal and benzole (6 January 1863), normally used for oil painting, although it is possible he was experimenting with their use in watercolour. Watercolour Sable brushes, indelible crayons and modelling wax and tools also formed part of his purchases and he ordered sketch books, cartoon paper, transfer paper and half-imperial blocks (20 x 14 inches) of thin paper. The cartoon and transfer paper would have been used for many of his stained glass designs. He also bought two primed canvases for oil painting.

1864 and 1865 saw the purchase of both hog and sable brushes, Fabers pencils, chalks and a pot of ox gall. We have already noted Burne-Jones's habit of using hog-hair brushes for applying watercolour and his use of ox gall in *Sidonia von Bork* and *Clara von Bork* of 1860. The richness of effect in *The Merciful Knight* of 1863 has been achieved by the incorporation of a considerable amount of ox gall and bodycolour into the painting.⁷⁷

During this period, Burne-Jones purchased paper sheets of an increasing variety of size, surface quality and thickness, from 4^{to} Imperial blocks (14 x 10 inches) of thin and extra thick paper, to 4^{to} Double Elephant blocks (18 x 12 inches or 45.7 x 30.5 cm.) of Not Hot Pressed paper, which had a finely grained surface. It is interesting that he chose a slightly textured surface, in contrast to the highly smoothed supports

preferred by Lewis, Palmer, Foster and North. *Woman in an Interior* (Figure 142) has been found to be painted on a laminate of two pieces of cream NOT wove drawing paper, while *Clerk Saunders* has a much more complex support, with two sheets of paper stuck together, mounted on canvas and stretched over a four member pine stretcher.⁷⁸ In 1864 Burne-Jones bought Double Elephant paper mounted on panel board, 35 x 26 ½ inches (89 x 66 cm.), the dimensions of his impressive watercolour *St Theophilus and the Angel* (1863-7, untraced).⁷⁹

Extra Thick Antiquarian Drawing Paper (52 x 31 inches or 132.1 x 78.7 cm.) was bought in 1865. Antiquarian, the largest sheet of artists' paper produced by hand in Europe, was first created by Whatman around 1773. None of Burne-Jones's watercolours from around this time are as large as this, so it is possible that Burne-Jones cut the paper up for smaller works, or kept it for use in later years. In 1865 he also bought 2 sheets of Imperial (31 x 22 inches or 78.7 x 55.9 cm.) extra thick seamless paper, a new type of paper, first available from Winsor & Newton in 1861, made using a revolutionary flat drying process which eliminated the rope marks of earlier papers. The dimensions match that of his watercolour of 1865, *Le Chant d'Amour* (Museum of Fine Arts, Boston). Two blocks of smooth Hot Pressed paper were ordered, which was normally used for sketching in pencil.

Further evidence that Burne-Jones was actively preparing for work in oils comes from his purchase of 2 White Roman Canvases, 6ft x 3ft 6, in October 1864, which match the dimensions of the first two of a set of seven oil paintings he was commissioned to paint for Myles Birket Foster on the legend of St George and the Dragon. *The Petition to the King* and *Princess Sabra Drawing the Lot* (both Hanover College, Indiana) were begun in 1865 and took Burne-Jones two years to complete.⁸⁰

Additional evidence of the complex paper supports Burne-Jones was using at this time can be found in the conservation records at the Tate Gallery. *Fair Rosamund* (Figure 161) has been painted onto a wove handmade paper attached to another sheet of wove handmade paper, with a lining of fine linen canvas.

7.4 1866-1870

7.4.1 Watercolours completed 1866-1870

Despite being established within the ranks of the Old Watercolour Society in 1864, Burne-Jones's unconventional watercolour style was not always well received, either

within the Old Watercolour Society or by the critics, although a number of loyal patrons began to support his work.⁸¹ Roget notes that ‘when the works of Burne Jones ... appeared in the gallery, they seemed a foreign element there, and struck a discordant note.’⁸² From 1866 onwards, the year in which he took on his first studio assistant, the 17-year old Charles Fairfax Murray, Burne-Jones was increasingly eager to experiment with oil painting. It is possible his wealthy patrons were keen to encourage him to work on a grander scale and in a grander medium. Rossetti, too, was at this time turning increasingly to oil painting. Also financial pressures were building for the artist, who, by 1866, was married with two young children, and his move in 1867 to The Grange, North End Lane, Fulham, stretched his resources to the limits. Oil painting would bring a much more substantial income than his watercolours, which, we have noted, were already often mistaken for oils. Nonetheless, his watercolour output during this period remained impressive, with at least 30 highly finished works under way, culminating with the six large and technically complex *Days of Creation*. In 1869, another assistant, Thomas Matthews Rooke replaced Fairfax Murray, as Burne-Jones pursued his dream of creating a workshop, where, Rooke recorded, he would ‘get much done by means of a “school” of artists and assistants he should train.’⁸³ Over the period 1866-1870, a time of great emotional turmoil for Burne-Jones, who was then entangled in a passionate relationship with the Greek beauty Maria Zambaco, the Roberson archive plots the flow of Burne-Jones’s creative output. Entries for 1866 and 1869 are extensive, with probably his largest orders so far for paper and canvas supports, pigments and drawing materials, while 1868, a year of illness, shows a much smaller volume purchased. In 1870, he resigned from the Old Watercolour Society, after they failed to support him following complaints from the public about the nudity in *Phyllis and Demophoön* (Figure 167). He wrote “I accept your desertion of me this year merely as the result of a complete want of sympathy between us in matters of art.”⁸⁴

7.4.2 Pigments purchased 1866-1870

A number of recently introduced nineteenth-century pigments feature in the ledgers around this time. In 1866 Burne-Jones ordered Oxide of Chromium and Moist Violet from Roberson. Oxide of Chromium was one of a number of new ready-mixed greens which began to appear in colourmen’s catalogues towards the middle of the nineteenth century but, unlike some of the earlier greens, it was neither toxic nor unstable. Violet was an even newer pigment, first offered by Winsor & Newton in 1858 and Rowney in 1852 (Appendix III). Not a colour used in large areas by Burne-Jones, tiny strokes of it

appear in the violets scattered beneath Cupid's feet in his 1866 version of *Cupid Finding Psyche* (Figure 166) whilst one sleeve and the neckline and hem of a violet fabric robe can be glimpsed on the figure of the Virgin Mary in *The Prioress's Tale*, begun in 1865 (Figure 168). It may have also featured in his later *Days of Creation* panels (1870-76, Figure 169), which are studies in delicate gradations of blue and purple.

Chinese White features amongst Burne-Jones's purchases every year from 1866 to 1879. Between 1866 and 1870, it is one of the few named pigments listed in the archive. In 1869 and 1870 a dozen tubes at a time were ordered, clearly intended for large areas of paper or canvas, or for mixing with other pigments for bodycolour. There was some debate amongst his contemporaries as to whether he covered his paper with Chinese White before painting in watercolour. 'Mrs Stillman told me she had seen him working in that way, and I should like to know all I can about the matter,' wrote Spencer Stanhope to Burne-Jones's studio assistant, Thomas Rooke, in 1883. 'Also I hear he uses white of egg.'⁸⁵ Burne-Jones's retort was to tell him 'that I neither paint on wet white, nor get drunk every night, nor do any other of the things that are reported of me.'⁸⁶ However, Charles Fairfax Murray, his first studio assistant, from 1866 until 1869, has noted down that Burne-Jones did in fact apply watercolour in this way, and that

the colour on the surface could be mixed with the ground by slightly moistening it. This trick, so dangerous to the uninitiated, I have known him constantly practice with unvarying success [and] perfectly magical results. Sometimes the colour was moistened very slightly and sometimes it was worked up almost as far as the paper, often spoiling the brush by breaking and spreading the hairs.⁸⁷

We have also seen that Burne-Jones painted onto *dry* white as early as 1861 (*Clerk Saunders*). Furthermore, Tate Gallery analysis has shown that *St. Dorothea* of c1866 (Private Collection) was painted on a layer of Chinese White (Figure 14). The Roberson records reveal that, even if he did not prime his own paper with white, the company supplied him, in December 1870 and June 1871, with two canvases and four panelled boards which they had already 'prepared with Water Colour Chinese White', probably for use in his *Days of Creation* watercolours.⁸⁸ More will be said about these panels later in this section. Many of Burne-Jones's watercolours from this period (*Maria Zambaco* 1870, Figure 170; and *Spring and Autumn* 1869, Figure 171) may have been painted onto a white priming as they exhibit the same luminosity that characterises the six *Days of Creation* panels.

Ceruleum (from the latin *caeruleum*, meaning sky or heavens),⁸⁹ purchased by Burne-Jones in 1867, was the latest of the new blue pigments, only introduced by Reeves in 1862 and Winsor & Newton in 1879. Relatively cheap to buy, ceruleum was an opaque blue pigment with a greenish tone, which was derived from cobalt and was considered to be stable and permanent. It was only available from colourmen in cake form. In 1865 Burne-Jones had made seventy designs of the story of Cupid and Psyche,⁹⁰ inspired by the poems which William Morris was writing for his next book, *The Earthly Paradise*. Over the following years, several of these designs were worked up into finished watercolours. In one of these, *Cupid delivering Psyche* 1867 (Figure 164), the main figures are posed against a background of a vivid greeny blue, with fumes rising from a casket of the same colour on the ground beside the swooning Psyche. This colour appears to be the new Ceruleum pigment which Burne-Jones had so recently bought. In this work he also incorporates chalk and oil pastel within the watercolour, to give added textural effect. In 1866 he was once again purchasing the very recently introduced Madder Carmine, this time as a moist colour.

Gold Shells and Gold are listed in 1870 and in several of the following years, used to embellish not only *The Days of Creation*, but also *Lucretia* (1867, Birmingham Museum and Art Gallery),⁹¹ *Phyllis and Demophöon* (1870), *The King's Wedding*, painted on vellum (Private Collection), and, it would appear, his *Portrait of Maria Zambaco*, where Maria's hands rest on a highly-gilded illuminated manuscript showing, in miniature, his own *Chant d'Amour* painting.

As in previous years, then, it is clear that Burne-Jones was experimenting with a combination of ancient and new in his use of materials. Alongside gold shells, in 1869 and 1870 he bought Flake White, a form of lead white which dated from the sixteenth century and, like all lead pigments, was both highly toxic and prone to turning black.⁹² It is surprising he chose this pigment, as he was acutely aware of the way red lead had blackened in Rossetti's early watercolours and claims to have advised him against using it. 'I used to say to him, 'Why do you paint with colours that you know are not permanent?' but he wouldn't listen to me or entertain the point for a moment. Red lead for flesh colour was the delight of his eye, he couldn't resist it for the least instant.'⁹³ Burne-Jones also continued to occasionally purchase the new but fugitive Yellow Madder.

Cakes of Aluminium are listed for the first time in the ledgers in 1870 and again in later years. The most likely use for these was in *The Days of Creation* for William Graham, which were begun in 1870 and which are described in the 2003 catalogue, *A Private Passion*, as being painted in ‘watercolour, gouache, shell gold, and platinum paint’. Two further watercolours completed in 1870, *Day* and *Night* (Fogg Art Museum, Harvard University), are described in the same catalogue as works in ‘watercolour, gouache and metallic paint.’⁹⁴ It would seem likely that the metallic pigment referred to in all these works is Aluminium, rather than platinum, although as we have seen, both of these metals were listed amongst the materials suggested in nineteenth-century manuals for missal painting.⁹⁵ Aluminium was, in fact, another recent introduction in 1870, the metal aluminium having been first isolated in 1825, and until commercial production began after 1886, it was initially only available in small quantities and at prices on a level with those of noble metals.⁹⁶ The availability of this premium product coincided with the growing interest in medievalism and the revival of the arts of heraldry, illuminating and missal painting. George Rowney’s 1867 catalogue shows elaborate boxes of ‘Colours and Materials for Illuminating and Missal Painting’ (Figure 172), the more expensive of which contained ‘gold, silver and aluminium shells’.⁹⁷ Burne-Jones had the groundbreaking idea of applying aluminium in the same way that gold shells were used in missal painting, to produce a shiny metallic effect, especially effective in painting armour.

His pigments during the period 1866-1870 were predominantly in the form of ‘moist colors’ or tube colours, with dry cakes only being ordered for gold and aluminium, and a few pigments as powder or oil colours.

7.4.3 Supports and other materials 1866 – 1870

In 1866, Burne-Jones began to buy large quantities of ready prepared painting supports for his watercolours from Roberson, often in complex combinations of extra thick paper mounted onto linen and then stretched onto panelled boards. One order for ‘panelled boards 23 7/8 x 20 7/8 [inches] & ex thk Impl [Imperial] mounted on Calico over do [ditto] 10/6,’ corresponds to the dimensions of his 1867 *Cupid Delivering Psyche*, whilst another panelled board ‘26 1/2 x 19 covd w ex thk Impl over linen 8/6’ matches the dimensions of the 1866 *Cupid Finding Psyche*. Such board supports had been used for centuries in oil painting, but were less commonly used for delicate watercolours (Figure 173), although Bayard notes that, for large exhibition watercolours, ‘paper was laid down on canvas or a wood panel to give it strength.’⁹⁸ In

1869 Burne-Jones purchased no fewer than 27 of these board/linen/paper (or vellum) supports. As his watercolours grew in size over the next ten years, panelled boards and wooden stretchers would be important in both supporting the weight and tension of his watercolours and protecting them against damage in transit and at exhibitions (this protective quality was also noted by Holman Hunt in 1875).⁹⁹ Between 1866 and 1870, different combinations of support materials were tried out, with vellum, seamless Not paper, Antiquarian and, in 1870, brown paper, being strained over linen or canvas onto panelled board for his watercolours (see Appendix IX below). As we have already noted, many of these papers were recent nineteenth-century introductions. More research is needed into these complex nineteenth-century paper and board/canvas supports used in watercolour painting.

By 1869, the paper-covered panel boards were being replaced by strainers (Figure 174) covered with a combination of linen with paper on top. Strainers, too, had been conventionally used as supports for oil paintings. They were probably lighter than the solid panelled boards, and this may explain why, as the dimensions of his work grew (his panels of the four seasons of 1869-70 are 4 ft high, and his six *Days of Creation* are 40 inches or 102 cm. high), he began to use this alternative form.¹⁰⁰ It is possible that one of the two strainers covered with linen, cartoon and Antiquarian paper, 4 ft by 1ft 6 (122 x 45.7 cm), which he ordered in September 1869, was destined to be used for *Night*, painted in 1870. Commissioned in 1868 by Frederick Leyland for his house at Queen's Gate in London, this work has been described as painted 'on white paper mounted on very fine canvas formerly attached to stretcher.'¹⁰¹ The corresponding description for its pair, *Day*, describes the same combination of materials, but 'formerly attached to wooden panel.'

In 1869, Burne-Jones placed his first order for brown paper mounted on canvas and strainer. This would be followed by regular orders for similar brown paper supports up until 1878. Such a dark support material requires the use of strong opaque colours and would encourage his use of Chinese White mixed with other moist or tube pigments, or of chalk drawings. The 36 ½ x 18 ½ inch (91.5 x 45.8 cm) panel ordered in 1869 may have been used for the infamous *Phyllis and Demophöon* (Figure 167), which he exhibited to such outrage the following year. No analysis has been made to date of the paper support of this watercolour, but close observation suggests that the colour of the paper may be brown.

By 1870, Burne-Jones was taking the process one step further, by requesting Roberson to supply him with supports (usually canvas) already primed with Chinese White. In December he took two 'Extra fine canvases prepd w WC [watercolour] Chinese White strained over reversed prepd oil canvas on Paneled Stretcher, 40 x 14' inches, and in June 1871 he ordered another four similarly prepared panels, this time 40 x 14 1/8 inches (101.6 x 35.9 cm) in size. These six panels match the description and dimensions of his six *Days of Creation*, which he was starting to design at that time. Here he had radically done away with the paper element of the support altogether and was beginning to experiment with painting in watercolour directly onto a ready primed canvas support, a revolutionary concept which would further blur the boundaries between his work in watercolour and oils, and make it even more difficult for the public to determine the medium in which he was painting. Although this technique appears highly unconventional for watercolour, it was not totally new. In 1852 the *Art Journal* had published a letter outlining a method of painting in watercolour on canvas, using a priming of starch, as we shall see in the next chapter.¹⁰² During 1870 Burne-Jones also purchased different types of unprepared canvases from Roberson, including 'coarse Roman Canvases' and 'white absorbent canvas' and 'semiabsorbent canvas', which may have been for use in oil painting, but equally may have been for covering with watercolour. Nearly all his watercolours created during 1871 were completed directly onto canvas. Such use of watercolour would simply not have been possible prior to the arrival of tube and moist pigments, which had the body, intensity of colour and covering power to survive being applied onto a canvas surface. It is hardly surprising, then, that most of the colours he bought between 1866 and 1870 were moist colours or tubes. Tough flat-ferruled hog-hair brushes would also have been necessary for applying these colours.

Burne-Jones's technical experimentation also led him to buy many newly-introduced drawing and painting materials during this period, including Faber's pencils, Creta Laevis pencils (Figure 175), indelible crayons, conté crayons, chalks, and charcoal. Faber's pencils were first made in Germany in 1761, but from 1851 the company's new London branch was able to supply the British market, competing directly with traditional pencils from Cumberland.¹⁰³ Creta Laevis was an expensive type of colouring pencil, which was known to the Pre-Raphaelites.¹⁰⁴ Burne-Jones combined pastels with watercolour and bodycolour in his *Lucretia* (1867) and chalks and oil pastels in *Cupid Delivering Psyche* (1867).

In 1869 Burne-Jones purchased 'Rouget's Fixing Machine' together with several bottles of 'Fixing Liquid,' products which had only very recently come on the market, as explained in the *Art Journal* of 1 April 1870 (Figure 176). Not only would this fixative stop chalk, charcoal and pencil drawings from smudging, but 'water-colour drawings...may be protected from discoloration – even from damp – by the use of this very elegant process.' Burne-Jones was, it would seem, one of the earliest British artists known to have applied this new product to his drawings, and possibly also to his watercolours. As we will see, he continued to buy large quantities of this liquid fixative over the next few years, probably to fix his chalk drawings and cartoons.

Several bottles of 'caoutchouc mucilage' also appear in the ledgers at this time, together with 'glass medium', nut oil and varnish, linseed oil and copal. All were probably destined for use in oil painting, as they are all traditional oil vehicles and varnishes.¹⁰⁵ Three papier mâché palettes were bought for working outdoors, as they were lighter and cheaper than the corresponding porcelain variety. Hunt and Millais had also favoured these new lightweight palettes, although it is likely they were soon superseded by the more durable japanned palettes, as they do not appear in any of the Reeves, Rowney or Winsor and Newton catalogues of the period.¹⁰⁶ A range of brushes was acquired, from straightforward watercolour and oil sables and an extra fine hog, to one of the 1 ½ inch flat sables introduced mid-century thanks to new metal ferrules, and 'sky brushes,' (Figure 177) designed for covering large areas with wash. Such brushes became necessary as the size of his watercolours increased. In 1870 he added a burnisher (for gilding), a 'lens', a pair of 'pocket Albata Compass' and a 'proportional compass' for exact mathematical drawing. In 1866 and 1868, Burne-Jones bought pipe-clay from Roberson, and in 1870 he took 56 lbs of modelling clay, together with modelling tools. Burne-Jones's purchases of pipe-clay carried on up to 1877, an unusual purchase and my own investigations suggest two possible uses for it rooted in early methods: as a base for making soft coloured crayons or as ground for oil-painting.¹⁰⁷

7.5 1871-1880

7.5.1 Watercolours completed 1871-1880

Burne-Jones did not abandon watercolour painting on his departure from the Old Watercolour Society late in 1870. On the contrary, he was about to begin what he would call the 'seven blissfullest years of work that I ever had,' with a succession of important watercolour and oil commissions from wealthy patrons, but without the time

pressure of the annual exhibitions.¹⁰⁸ He had already begun designing the six watercolours, *The Days of Creation*, for William Graham in 1870, although they were not actually painted until 1875-6. At the same time, he put together an ambitious project for a polyptych based on the story of Troy, which, whilst never completed, resulted in a series of four beautiful watercolours, painted directly onto canvas, known collectively as *The Triumph of Love* (Figure 178), and several oil paintings over six foot in size, *The Wheel of Fortune*, 1875-83 (Musée d'Orsay), and *Venus Discordia* and *Venus Concordia* (both unfinished, begun 1872, National Museum and Gallery, Cardiff). Commissions for George Howard's new house in Palace Green, Kensington, followed in 1872, and the following year he exhibited two large watercolours, *In the Garden of the Hesperides* and *Love Among the Ruins* (both Private Collections) at the Dudley Gallery.¹⁰⁹ In 1875 he agreed to paint a cycle of paintings based on the Perseus legend for Arthur Balfour's house at 4 Carlton Gardens. His visits to Italy during 1871 and 1873 reinforced his love of the work of Michelangelo, Giotto and Botticelli and in 1877 the opening of the new Grosvenor Gallery brought him fame at last.

7.5.2 Pigments purchased 1871-1880

During the final decade of watercolour painting under investigation, Burne-Jones added only three new nineteenth-century pigments to his existing palette: Cadmium yellow in 1873, French Ultramarine in 1876 and Scarlet Madder in 1879, all ordered in powder form. Cadmium was the most recent discovery, being introduced only in 1843 and Field could only comment in 1850 that this new pigment 'appears to endure light, and remain unchanged in impure air, but the metal from which it is prepared being hitherto scarce, it has been little employed as a pigment, and its habits are, therefore, not ascertained.'¹¹⁰ Initially costing 5/- a tube or cake, the price of cadmium had fallen to 3/- by 1863 in Winsor & Newton's catalogues. Scarlet Madder was a very recent nineteenth-century development, based on Alizarin,¹¹¹ whilst French Ultramarine was a new synthetic, affordable alternative to the expensive mineral pigment Ultramarine. Yellow Madder was still a favourite pigment of Burne-Jones between 1876 and 1878.

Gold Shells were again purchased in 1872, 1873 and 1879. Pure gold powder is listed in 1876, priced 10/-. *Phyllis and Demophoön*, *The Days of Creation*, *Venus Epithalamia*, 1871 (Figure 179), *The Sleeping Beauty*, 1871 (Manchester City Art Gallery) and *The Annunciation*, 1879 (British Museum), all contain gold paint. Cakes of Aluminium appear once again in the ledgers in 1871, 1873 and 1879. The most likely use for these was in the *Days of Creation*.

In 1872, 1877 and 1878 a dozen tubes at a time of Chinese White were ordered, for priming large areas of paper or canvas, or for mixing with other pigments. All of his watercolours of this period used substantial amounts of bodycolour, which was particularly necessary if pigments were to show up on the textured canvas and dark brown paper supports he favoured at this time.

7.5.3 Supports and other materials 1871-80

Between 1871 and 1880, Burne-Jones continued to experiment with different supports for his watercolours, particularly where they were designed as preparatory works for larger versions in oils.

The main support preferred by Burne-Jones for his watercolours during 1871 was plain canvas. Together with the six *Days of Creation*, Burne-Jones used canvas for *Venus Epithalamia*, *The Triumph of Love*, and a four foot enlarged version of *Fortune*, which he named *The Wheel of Fortune* (1871-85, London Borough of Hammersmith Public Library). With the texture of the canvas showing through the impasto (Figure 180) and, in the case of *Venus Epithalamia*, a final layer of varnish applied, it is hardly surprising people could not decide whether the pictures were in oil or watercolour. When in 1888 artist Edward Clifford first saw *Love among the Ruins*, 1870-73, (Private Collection), the work which was later ruined by the Goupil gallery, he ‘was for a long time unable to make up my mind whether it was an oil painting or not.’¹¹² As we shall see in the next chapter, critics, too, were confused, stating that his watercolours ‘on canvas and with thick body-colour, are practically scarcely to be distinguished from those of oil.’¹¹³ Burne-Jones refused to be deterred, however. ‘Imagine a set of fellows getting their living by selling their opinions about other men’s work – 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.’¹¹⁴

Over the following years the Roberson archive details his growing use of complex canvas supports on ready-prepared stretchers, sometimes primed by the colourman with Chinese White ‘for water colour’ (1875 and 1878). During 1871 and 1872 other strainers were prepared for him with stout drawing paper, HP (hot pressed) paper, grey cartoon paper, or brown paper, all stretched over linen. As we have seen, many of these papers were nineteenth-century discoveries, popular with many watercolour artists including Lewis and Palmer. Bearing in mind that the size of the largest sheet of

paper available at that time was Antiquarian, which measured 52 ¼ x 30 ½ inches, it is strange that Burne-Jones reverted to paper as his chosen support for his later works, which were of increasingly large dimensions. It meant that when he ordered a 7 ½ foot strainer in 1876, Roberson had to join and mount three sheets of Antiquarian paper in order to cover it. It may have been that the different papers provided the special effects he sought for these pictures, or that working on canvas with watercolour was too laborious a process.

Between 1875 and 1878 Burne-Jones ordered no fewer than eleven strainers covered in linen with brown paper stretched over them, one as large as 8 ft high by 3ft wide (243.8 x 91.4 cm.). Philip Burne-Jones explains his father's method of working at this time:

It was my father's almost invariable custom, after he had roughly sketched out the plan of the picture, and at the same time that he was making studies from the model for various details – hands, feet, drapery etc. – 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, a medium which he found convenient for rapidly giving a general idea of the effect which he wished to produce.¹¹⁵

From 1875 to 1885, Burne-Jones worked on the Perseus designs for Lord Arthur Balfour's music room, creating ten impressive cartoon panels in watercolour and bodycolour and later translating them into oils, many of which were never completed. Visual examination of *The Call of Perseus*, *Perseus and the Graiae*, *Perseus and the Sea Nymphs* (all Southampton Art Gallery) and *The Death of Medusa II* (Figure 181) suggests the use of a dark brown paper support, squared up with chalk and then painted from dark to light using very thick layers of dry pigment. The white highlights are added last. In *Perseus and the Graiae* (Figure 182) six sheets of paper have been glued together. Three linen and brown paper covered strainers were ordered from Roberson in 1877 which match exactly the dimensions of the first three Perseus paintings listed above and a close-up photograph of *The Death of Medusa II* (Figure 183) plainly shows an area of bare brown paper at the bottom, ruled up in chalk in preparation for painting. This use of brown paper for finished full-scale paintings has not been recorded before in any technical analysis of the artist's work. This way of working from dark to light was exactly in imitation of oil painting and the complete opposite of all traditional watercolour techniques respected by the watercolour societies.

Throughout this period Burne-Jones continued to paint using moist and tube watercolours, in 1871 taking a 'japanned box and folding palette for 20 tubes WC', while in 1873 they refilled his watercolour box at a cost of 14/6 and provided tubes and pans of Chinese White. In 1874 he bought a 'Thumbhole box Moist Cols', a japanned box designed to be held by means of a hole for the thumb. Watercolour sables were bought up until 1880, and in 1879 tiny traditional crow quills were ordered, together with Japanese brushes, which have not been located in contemporary catalogues, but may have been pointed calligraphic brushes with large carrying capacity for broad stroke work. Large quantities of Rouget's Fixing Liquid continued to be used in 1873-4 and 1879, and in the latter year he took 2 dozen more Creta Laevis pencils and a large quantity of wax crayons, which would be used in 1880 to colour the three large stained glass cartoons of *The Last Judgment*, first designed in 1874.

Conclusion

The Roberson Archive charts Burne-Jones's remarkable progression, from young untrained artist innocently buying powdered pigments and a range of sketching materials and equipment, to the height of his success and fame, when he was painting radical works in complex media and on unconventional watercolour supports. Over the years he tried out numerous new nineteenth-century pigments, from Orange Mars and Ceruleum to Aluminium and Gold cakes designed for missal painting, as well as taking increasingly large amounts of Chinese White, both for priming and for mixing with colours. The 'muddy' colours of his early work were replaced with brilliant and durable pigments, cobalt blue, madder carmine and oxide of chromium although he maintained an allegiance to the rich but impermanent yellow madder. He was not satisfied with traditional paper supports, but experimented with seamless paper, Antiquarian sheets and thick hot-pressed papers, then moved on to complex combinations of paper with panelled boards or stretchers, paper on canvas, and in the later years, dark brown paper and canvas supports on stretchers. During the 1870s he painted in watercolour directly onto large areas of canvas, often primed with Chinese White, with thick textured impasto, shocking the critics and confusing the public, who could no longer tell if his works were in watercolour or oil. Burne-Jones tried out the latest types of pencils and crayons, and the new fixative sprays which would preserve them. Tube watercolours provided the viscosity, strength and texture he required to paint on such demanding surfaces, the impasted colour applied using new wide brushes.

Freed from the need to please the establishment by his departure from the Old Watercolour Society and by the financial security eventually brought by substantial commissions from liberal-minded wealthy industrialists, Burne-Jones could use the latest developments in artists' materials to push the boundaries of watercolour painting to their limits.

- ¹ Georgiana Burne-Jones, *Memorials of Edward Burne-Jones*, Vol. 1, 1833-1867, London, 1904, p 253.
- ² *Ibid*, p 214.
- ³ *Ibid*, p. 149.
- ⁴ Malcolm Bell, *Edward Burne-Jones: a record and review*, London, New York, 1899 (first published 1892); Fortunée de Lisle, *Burne-Jones*, London, 1904.
- ⁵ Edward Clifford, *Broadlands as it Was*, London, 1890.
- ⁶ Arts Council of Great Britain, *Burne-Jones: the paintings, graphic and decorative work of Sir Edward Burne-Jones, 1833-98*, London, 1975; Martin Harrison and Bill Waters, *Burne-Jones*, London, 1973; Stephen Wildman and John Christian, *Edward Burne-Jones: Victorian Artist-Dreamer*, New York and Paris, 1998; Penelope Fitzgerald, *Edward Burne-Jones*, Stroud, 2003 (first published 1975).
- ⁷ Joyce H. Townsend, "The Materials Used by British Oil Painters in the Nineteenth Century", in *Tate Papers* (Tate's Online Research Journal), Issue 2, Autumn 2004, pp. 8-9.
- ⁸ Hardie, Vol. III, pp. 122-123.
- ⁹ Joyce Townsend, Jacqueline Ridge and Stephen Hackney, *Pre-Raphaelite Painting Techniques*, London, 2004; Libby Sheldon, "Methods and Materials of the Pre-Raphaelite Circle in the 1850s" in Roy Ashok and Perry Smith (eds.), *Painting Techniques: History, Materials and Studio Practice*, London, 1998, pp. 229-234.
- ¹⁰ Marjorie B. Cohn, *Wash and Gouache: A Study of the Development of the Materials of Watercolor*, exh. cat., Cambridge, Mass., 1977.
- ¹¹ Mary Lago (ed.) *Burne-Jones Talking: His Conversations 1895-1898 Preserved by his Studio Assistant Thomas Rooke*, London, 1982; Birmingham Museum and Art Gallery, *Catalogue of the Permanent Collection of Paintings in oil, tempera, water-colour, etc*, Birmingham, 1930, p. 28 – note on item 21'98 *Helen Captive in Burning Troy*. See also discussion in section 'b. Other Materials 1871-80' of this essay, below.
- ¹² Tate Gallery, *The Pre-Raphaelites*, exhibition catalogue, ed. by Leslie Parris, London, 1984, p. 305. MS notes by Fairfax Murray in Birmingham City Art Gallery.
- ¹³ For Roberson Archive entries see bibliography (also newly available online at [www-hki.fitzmuseum.cam.ac.uk/archives/roberston/concept.html](http://www.hki.fitzmuseum.cam.ac.uk/archives/roberston/concept.html))
- ¹⁴ *Art Journal*, 1 June 1870, p. 173.
- ¹⁵ T.M. Rooke, 'Note on Burne-Jones's Medium' in William S. Taylor, *Burne-Jones: Catalogue of an exhibition held at the Mappin Art Gallery, Weston Park, Sheffield, from 23rd October to 28th November 1971*, Sheffield, 1971, p. 8.
- ¹⁶ Arts Council, *Burne-Jones*, p. 28 (*The Goldfish Pool*).
- ¹⁷ Burne-Jones, *Memorials*, Vol. II, p. 237.
- ¹⁸ Christopher Wood, *Burne-Jones*, London, 1998, p. 64.
- ¹⁹ Burne-Jones, *Memorials*, Vol. II, p. 61.
- ²⁰ W. Graham Roberston, *Time Was: the Reminiscences of W. Graham Robertson, with a foreword by Sir Johnston Forbes-Robertson*, London, 1931, p. 79. 'He could not withhold from me a tale of how some patron of the Arts was being taken round his studio by Ruskin and the Great Teacher wound up a glowing eulogium with the statement – "And every one of these works is in pure water colour." The Master Critic was of course infallible and yet...every picture in the room was in oil, and he had never produced a pure water colour in his life.'
- ²¹ Arts Council, *Burne-Jones*, p. 15.
- ²² Wildman and Christian, *Victorian Artist-Dreamer*, p. 51.
- ²³ Unpublished letter from John Ruskin to Ellen Heaton, 8 November 1855, Virginia Surtees, *The Paintings and Drawings of Dante Gabriel Rossetti: A Catalogue Raisonné*, 2 volumes, London, 1971, p. 41.
- ²⁴ Sheldon, "Methods and Materials of Pre-Raphaelite Circle", p. 229.
- ²⁵ <http://www.vam.ac.uk/content/articles/d/design-fruit-wreath-wallpapers-william-morris/>
- ²⁶ Burne-Jones, *Memorials*, Vol. I, pp. 157-180.
- ²⁷ Townsend, Ridge and Hackney, *Pre-Raphaelite Techniques*, p. 42.
- ²⁸ Harley, p. 102.
- ²⁹ Sheldon, "Methods and Materials of Pre-Raphaelite Circle", p. 232.
- ³⁰ George Field, *Rudiments of the Painters' Art or a Grammar of Colouring*, London, 1850, p.117.
- ³¹ Townsend, Ridge and Hackney, *Pre-Raphaelite Techniques*, p. 45.
- ³² Townsend, Ridge and Hackney, *Pre-Raphaelite Techniques*, p. 166.
- ³³ Harley, p. 175.
- ³⁴ Field, *Rudiments*, 1850, p. 136.
- ³⁵ Harley, p. 161.
- ³⁶ Harley, pp. 123-125.
- ³⁷ Fiona Mann, *The Watercolours of Dante Gabriel Rossetti*, unpublished MA dissertation, Oxford Brookes University, 2004, p. 26.

- ³⁸ Wildman and Christian, *Victorian Artist-Dreamer*, pp.51-52.
- ³⁹ Winsor & Newton catalogue of watercolour materials, attached to Thomas Rowbotham and Thomas L. Rowbotham Jr., *The Art of Landscape Painting in Water Colours*, London, 1858 (15th edition), p. 30.
- ⁴⁰ Burne-Jones, *Memorials*, Vol. I, p. 220.
- ⁴¹ Winsor & Newton catalogue, attached to Rowbotham and Rowbotham, *Art of Landscape Painting*, 1858, p. 31
- ⁴² Burne-Jones, *Memorials*, Vol. I, p. 280.
- ⁴³ George Rowney & Co., price catalogue attached to R. P. Noble, *A Guide to Water Colour Painting*, London, 1867, p.17.
- ⁴⁴ Winsor & Newton, *Catalogue of Materials for Water-Colour Painting, and Sketching, Pencil, and Chalk Drawing*, London, 1849, p.28.
- ⁴⁵ Cohn, *Wash and Gouache*, p. 47.
- ⁴⁶ Harrison and Waters, *Burne-Jones*, p. 28.
- ⁴⁷ Townsend, Ridge and Hackney, *Pre-Raphaelite Techniques*, p. 11.
- ⁴⁸ Townsend, "Materials Used by British Oil Painters", footnote 103 p. 15. "The author has used the convention that 'paint media' is the term for broad and chemically distinct classes of materials, such as oil, watercolour, while variations within a class are described as 'mediums'. Thus, paints based on wax or copal, say, combined with oil, have oil-modified mediums."
- ⁴⁹ "Water Colour Megilp: Invented and Prepared by Winsor and Newton", Winsor & Newton, *Catalogue*, 1849, p. 16. See also below, Appendix I.
- ⁵⁰ Winsor & Newton, *The International Catalogue*, London, 2002, p. 46.
- ⁵¹ See below, Appendix I.
- ⁵² *King's Wedding* illustrated in Wildman and Christian, *Victorian Artist-Dreamer*, p. 134.
- ⁵³ Wildman and Christian, *Victorian Artist-Dreamer*, p. 54.
- ⁵⁴ *Ibid*, pp. 80, 82-3.
- ⁵⁵ Lago, *Burne-Jones Talking*, p. 107.
- ⁵⁶ Letter John Ruskin to Burne-Jones dated 5 March 1864: Ruskin, *Works*, XXXVI, p 468.
- ⁵⁷ Sketches and studies in the printroom of the Tate Gallery and Birmingham Museums and Art Gallery are often on brown, buff, or cream paper, particularly during this period (see Birmingham Museums and Art Gallery, *Hidden Burne Jones: Works on paper by Edward Burne-Jones from Birmingham Museums and Art Gallery, with essays by John Christian, Elisa Korb and Tessa Sidey*, London, 2007, catalogue, pp. 63-94)
- ⁵⁸ George Dalziel, *The Brothers Dalziel: A Record 1840-1890*, London, 1978 (reprint. First published 1901), p. 164.
- ⁵⁹ *Green Summer* is illustrated in Wood, *Burne-Jones*, p. 37.
- ⁶⁰ Bell, *Burne-Jones: a record and review*, p. 34
- ⁶¹ See below, CH. 8, critics on Foster, p.210.
- ⁶² *Athenaeum*, 14 January 1893, p. 58.
- ⁶³ Clifford, *Broadlands*, p. 58.
- ⁶⁴ *Ibid*, p. 49.
- ⁶⁵ *Athenaeum*, 14 January 1893, p. 58; Clifford, *Broadlands*, p. 53.
- ⁶⁶ Arts Council, *Burne-Jones*, catalogue entries compiled by John Christian, pp. 27 and 38.
- ⁶⁷ L. Cornelissen & Son, *Gilding and Restoration Pricelist*, London, 2009, p 3 (www.cornelissen.com and www.jcsparks.com/painted/pigment).
- ⁶⁸ 21/09/2006 p 27.
- ⁶⁹ Christopher De Hamel, *Medieval Craftsmen: Scribes and Illuminators*, London, 2002, p. 58.
- ⁷⁰ See above, CH. 2, p. 66.
- ⁷¹ Townsend, Ridge and Hackney, *Pre-Raphaelite Techniques*, Appendix.
- ⁷² George Field, *Field's Chromatography or Treatise on Colours and Pigments as Used by Artists*, revised by T. W. Salter (new edition), London, 1869, p. 95.
- ⁷³ J. Scott Taylor, *Descriptive Handbook of Modern Water Colours*, London, 1887, p. 52.
- ⁷⁴ *The Annunciation*, 1862, illustrated in Wood, *Burne-Jones*, p. 29.
- ⁷⁵ Townsend, Ridge and Hackney, *Pre-Raphaelite Techniques*, p. 46.
- ⁷⁶ Letter from Ashok Roy, National Gallery, to Sheila Fairbrass, Tate Gallery, 14 December 1977 (located in the Conservation Department, Tate Gallery).
- ⁷⁷ Townsend, Ridge and Hackney, *Pre-Raphaelite Techniques*, Appendix.
- ⁷⁸ Wildman and Christian, *Victorian Artist-Dreamer*, p. 54.
- ⁷⁹ Tate Gallery conservation records.
- ⁸⁰ Illustrated in Wildman and Christian, *Victorian Artist-Dreamer*, p. 84.
- ⁸¹ Both illustrated in Wildman and Christian, *Victorian Artist-Dreamer*, pp. 102-3.
- ⁸² Notably William Graham and Frederick Leyland – see Burne-Jones, *Memorials*, Vol. I, p. 295 and Wildman and Christian, *Victorian Artist-Dreamer*, pp. 107-110.
- ⁸³ Roget, Vol. II, p. 116.

- ⁸³ BMAG, *Catalogue of Permanent Collection*, 1930, p. 31.
- ⁸⁴ Burne-Jones, *Memorials*, Vol. II, London, 1904, p. 12.
- ⁸⁵ Lago, *Burne-Jones Talking*, quote from Burne-Jones and accompanying footnote, p. 32.
- ⁸⁶ *Ibid.*
- ⁸⁷ MS notes in Birmingham City Art Gallery, quoted in catalogue entry by John Christian for Burne-Jones's *The Wine of Circe*, in Tate Gallery, *The Pre-Raphaelites*, 1984, p. 305.
- ⁸⁸ Roberson Archive, unpublished manuscripts, MS 247-1993 p.158 (entry for 9 December 1870: '2 extra fine canvases prepd with W.C. Chinese White strained over reversed prepd oil canvas on Panel'd Stretr 40x 14') and MS 247-1993 p.379 (entry for 30 June 1871: '4 panel'd Boards prepd canvas reversed and extra fine cloth prepd Chi White & bound at edges 40 x 14 1/8').
- ⁸⁹ Ralph Meyer, *The Artist's Handbook of Materials & Techniques*, London, 1991, p. 73.
- ⁹⁰ Burne-Jones, *Memorials*, Vol. I, p. 297.
- ⁹¹ Illustrated in Birmingham Museums and Art Gallery, *Hidden Burne-Jones*, p. 54.
- ⁹² Harley, pp. 169-171.
- ⁹³ Lago, *Burne-Jones Talking*, p. 47.
- ⁹⁴ Stephan Wolohojian and Anna Tahinci, (eds.), *A Private Passion: 19th-Century Paintings and Drawings from the Grenville L Winthrop Collection*, Harvard University, exh. cat., New York, 2003, pp. 377 and 361.
- ⁹⁵ See above, CH. 2, p. 66 re J.W. Bradley, *A Manual of Illumination on Paper and Vellum*, London, 1860.
- ⁹⁶ Rutherford J. Gettens and George L. Stout, *Painting Materials: A Short Encyclopaedia*, New York, 1966, pp. 92 and 221.
- ⁹⁷ Rowney, catalogue attached to Noble, *Guide to Water Colour Painting*, 1867, p.13.
- ⁹⁸ Jane Bayard, *Works of Splendor and Imagination: The Exhibition Watercolor 1770-1870*, exh. cat., New Haven, 1981, p. 17. She gives examples of Sandby's *Shrewsbury Bridge* of 1772 being laid down on canvas and J.D. Harding's *Grand Canal* of 1835 being laid down on wood panel.
- ⁹⁹ P.G. Hamerton, "Technical Notes – W. Holman Hunt, an interview with the artist" in *The Portfolio: An Artistic Periodical* VI (1) p.45, quoted in Melissa R. Katz, "William Holman Hunt and the 'Pre-Raphaelite Technique'", in A. Wallert, E. Hermens and M. Peek (eds.), *Historical Painting Techniques, Materials and Studio Practice*, Los Angeles, 1995, p. 161. Hunt commented that panelled stretcher supports were chosen as 'protection against accidental injuries...which precedes and follows exhibitions.'
- ¹⁰⁰ Townsend, Ridge and Hackney, *Pre-Raphaelite Techniques*, p. 56, comments that primed wood panels for oil paintings were heavy and the 'P.R.B. tended to be use them for smaller works.'
- ¹⁰¹ Wolohojian and Tahinci, (eds.), *Private Passion*, p. 361.
- ¹⁰² *Art Journal*, 1 September 1852, pp. 271-2. See below, CH. 8, p. 207.
- ¹⁰³ www.faber-castell.co.uk/43136/The-Company/History/fcv2_timeline.aspx
- ¹⁰⁴ In April 1853 Thomas Woolner wrote to Dante Gabriel Rossetti discussing the differences between 'Swiss chalks' and 'Creta Levis' for sketching. Thomas Woolner, *Thomas Woolner, R.A., Sculptor and Poet, his Life in Letters*, London, 1917, letter 50.
- ¹⁰⁵ Sally Woodcock, "Posing, Reposing, Decomposing: Life-size Lay Figures, Living Models and Artist's Colourmen in Nineteenth-Century London", in E.Hermens (ed.), *Looking Through Paintings*, Baarn and London, 1998, p. 463, footnote 41, comments that 'caoutchouc was also used as a ground for canvas in the nineteenth century', possibly dating from the early 1830s.
- ¹⁰⁶ Townsend, Ridge and Hackney, *Pre-Raphaelite Techniques*, p. 39.
- ¹⁰⁷ Marjorie Shelley, "An Aesthetic Overview of the Pastel Palette: 1500-1900", in Harriet K. Stratis and Britt Salvesen (eds.), *The Broad Spectrum: studies in the materials, techniques, and conservation of color on paper*, London, 2002, p. 3; and William J. Muckley, *A Handbook for Painters and Art Students on the Use of Colours Etc: Their Permanent or Fugitive Qualities, and the Vehicles Proper to Employ*, London, 1880, p. 2.
- ¹⁰⁸ Burne-Jones, *Memorials*, Vol. II, p. 13.
- ¹⁰⁹ Bell, *Burne-Jones: a record and review*, pp. 42-54.
- ¹¹⁰ Field, *Rudiments*, 1850, p. 86.
- ¹¹¹ See below, Appendix II.
- ¹¹² Clifford, *Broadlands*, p. 60.
- ¹¹³ *Pall Mall Gazette*, 13 February 1872, p. 10.
- ¹¹⁴ Lago, *Burne-Jones Talking*, p. 124.
- ¹¹⁵ Philip Burne-Jones, quoted in Harrison and Waters, *Burne-Jones*, p. 146.

PART THREE

CRITICAL RECEPTION

Chapter 8 ‘All sorts of unnecessary and unpalatable impertinencies’:¹
Critical responses to watercolour painting, methods and materials
1850-1880

CRITICISM. The exact analysis of Art, *not* the praise or censure of the pretender to knowledge, which is frequently, but erroneously, termed criticism; and which is also too generally considered merely as the art of finding faults.²

The new patrons of art, the rising middle classes, purchased the works of artists such as Lewis, Palmer, Foster, North and Burne-Jones to decorate their urban mansions and dwellings, preferring the work of modern British artists to that of the old masters or foreign schools. Uneducated in the subject of art, they turned for guidance to the numerous journals and newspapers which published reviews of the latest exhibitions and informative articles on popular artists and their work. In an age of growing consumerism, paintings were viewed as commodities to be bought and sold and art critics formed an important link between purchaser and artist, often becoming highly influential in the making or breaking of an artist’s reputation. A long-standing tradition of anonymity, however, meant that the names of many of the critics remained secret, at least in the earlier years of the period. Often presenting opposing views, conservative against liberal, the critics ‘saw themselves fighting for the allegiance of the new audience for art.’³

The field of research into Victorian art criticism is a relatively new one. George Landow’s general interpretation, “There Began to Be a Great Talking about the Fine Arts”, published in 1976, has been followed by groundbreaking articles in the *Victorian Periodicals Review*, analysing the work of particular art journals, critics and editors, in addition to introducing checklists which identify the names of anonymous art critics.⁴ Elsewhere accounts have been given of the rise of other publications (*Athenaeum*, *Art Journal* and *Pall Mall Gazette*), of anonymity in literary reviews, of William Rossetti’s art notices, and of the reception of the ‘Burne-Jones Circle’ at the Grosvenor, but none of these even mention watercolour painting.⁵ Two works do focus on watercolour painting, *Victorian Landscape Watercolors* and *Victorian Watercolours*, the former outlining briefly the prevailing trends in the medium as perceived by critics, while the latter touches on the impact of new materials on the techniques of watercolourists, referring to the *Art Journal* and *Magazine of Art*.⁶

Whilst this research provides valuable new insights into fragmented aspects of the energetic and colourful world of Victorian art criticism, no-one has yet carried out a

comprehensive survey of art critical writing on watercolour painting techniques in the mid-Victorian period. This chapter aims to highlight a number of areas which have been particularly neglected: the reception of new trends in watercolour technique such as minutely detailed manipulation and the increasing use of bright pigments and bodycolour; signed factual articles on serious technical subjects relating to the production and preservation of pigments and papers; exhibition reviews on the watercolours of Lewis, Palmer, Foster, North and Burne-Jones; and book reviews on the latest watercolour manuals. Journalistic material from nine publications has been analysed and a tabulated list of the critics who wrote for them has been compiled for the first time (Appendix X below) from a range of sources, not least Christopher Kent's invaluable checklist.⁷

The nine publications chosen, three of which were specialist art publications, include two daily, three weekly and three monthly titles, identified as providing a representative cross-section of formats and view-points of the period. They are: *The Times* and *Pall Mall Gazette* (daily); the *Spectator*, *Athenaeum* and *The Graphic* (weekly); and *Blackwood's Magazine*, *Art Journal* and *The Magazine of Art* (monthly). Ruskin's *Academy Notes* were published annually as pamphlets. *The Times* and *Pall Mall Gazette* are both classed as newspapers, according to the accepted broad definition that a newspaper is 'a journal appearing at frequent intervals (usually daily or weekly) that is primarily devoted to reporting news',⁸ whilst all the others are classed as periodicals. Half of the above publications were accessed via online digital archives, whilst original copies of the *Athenaeum*, *Art Journal*, *Magazine of Art*, *Spectator* and *Academy Notes* were consulted in the Bodleian library.⁹ A combination of search methods was used. For the *Athenaeum*, *Magazine of Art*, *Art Journal*, *The Graphic* and *Pall Mall Gazette*, each issue of these from the period 1850-1880 was searched individually for relevant articles and reviews. For practical reasons, it was impossible to be as comprehensive with the remaining publications. As a result, reviews in *The Times* were restricted to the annual Watercolour Society, Dudley and Grosvenor exhibitions, while analysis of *Blackwood's* and the *Spectator* was halted at 1865, as it was felt the later period was already being covered by the new periodicals and papers *Pall Mall Gazette*, *The Graphic* and *The Magazine of Art*. A list of the publications analysed, by date, is included in the bibliography.

Reviews examined included not only those of the two watercolour societies, but also of the new Dudley and Grosvenor Galleries, of London dealers such as Tooth and

Agnews, and other venues in London, Manchester, Liverpool, Leeds and Paris, where watercolours played a major role. Royal Academy reviews were also initially included, but due to the cursory amount of attention devoted to watercolours in these, they were removed from the search. Whilst not in periodicals, Ruskin's *Academy Notes*, published separately as pamphlets between 1855 and 1859, were also studied for their references to the watercolour exhibitions, as it is impossible to ignore the scale of Ruskin's influence on artists, critics and public during the mid-nineteenth century (both positive and negative).

The growth in periodicals and newspapers during the early to mid-nineteenth century was dramatic. By 1854, there were estimated to be 200 London periodicals, 300 provincial newspapers and 230 quarterly and monthly magazines.¹⁰ In the field of the art periodical alone, Helene Roberts has identified five titles in 1830, rising to thirteen in 1840, twenty-three in 1850 and thirty-three by 1880.¹¹ Many of these focussed on the decorative and industrial arts and on architecture, proof of wide public demand for informative reading on crafts, design and creative processes. Interest in the technical aspects of the arts was clear and required informed reporting. With the growth of the railways and the reduction in the price of newspapers and journals, demand rapidly increased. Of the titles included in my research, the *Pall Mall Gazette*, *The Graphic* and *The Magazine of Art* were all created after 1865 and all the others, with the exception of *The Times* (which started in 1785) were new nineteenth-century creations. During the period under review, there was enormous scope for art critical writing, because of the growing number of exhibitions of contemporary and old master paintings, which were opening their doors to an enthusiastic middle-class public. Critics increasingly considered their role as educators central to their existence.¹²

8.1 The Critics

The Graphic of 29 April 1871 carries a cover illustration, *The Artist and his Critics* (Figure 184), where the artist awaits the verdict of three gesticulating elderly critics. Possibly drawing on the long tradition of satirical images of art collectors by Honoré Daumier such as *The Critics: Visitors to an Artist's Studio* (Figure 185), which was exhibited at the Paris Salon of 1869, the image is accompanied by an article entitled, somewhat wryly, *The Artist's Friends*, in which the failings of visiting art critics are discussed. 'Ignorance of the thing criticised – art being a much more technical thing than is generally supposed...and a wish to show off...tend to the utterance, by those

who sit down to criticise a work of art, of all sorts of unnecessary and unpalatable impertinencies.’¹³

The view of the mid-nineteenth-century art critic as a non-specialist ‘Philistine’, or a lowly journalist, without university education and eager to point-score, is one which has been promoted in a number of twentieth-century academic studies that have been carried out into Victorian art critics.¹⁴ It was a view also shared by Ruskin, who was motivated to write the first volume of *Modern Painters* ‘in indignation at the shallow and false criticisms’ of Turner’s works made by the periodicals of the day, although it was essentially because he disagreed with their views that he described them so.¹⁵ Attacking the opposition was all part of the job for the Victorian critical writer, with “conservative” critics doing battle for the Royal Academy and “liberal” critics championing the cause of rebellious elements such as the Pre-Raphaelite Brotherhood.’¹⁶

This chapter will show that these critics were, in fact, a diverse and often highly educated group of individuals, many of whom had artistic or scientific training and contributed simultaneously to a number of different periodicals and newspapers, whilst often hiding under the veil of anonymity. Their informed contributions, not just on exhibitions but also a wide variety of technical issues, would lead to the growing respectability of journalism as a profession.

8.2 Anonymity: ‘an inflexible rule for journalists’¹⁷

So who were the critics employed to inform and entertain the public on matters of art? In all of the publications studied, reviews and articles were generally anonymous, with a few exceptions. Anonymity had been a feature of literary critical writing since the eighteenth century, although a gradual shift to signed literary articles occurred during the second half of the nineteenth century, not, however, without vigorous debate.¹⁸ *Macmillan’s Magazine* was the first to make widespread practice of signature, even for controversial articles.

Certain journals and papers maintained a strict policy of total anonymity, however. As Frederick Greenwood, editor of the *Pall Mall Gazette* until 1880 explains, ‘anonymity was an inflexible rule for journalists then, and the public was slow to descry our galaxy of shining ones through the universal veil.’¹⁹ It was a rule which the public at times resented, however, for by such secret means ‘an individual may be ruined by men who

risk nothing personally'.²⁰ Yet as Greenwood responds in a defensive piece in the *Pall Mall Gazette* entitled "Mr. Broadhead and the Anonymous Press" of 1867

the editor of a paper works no more "in secret" than a professor in a university does; he is always known; what he does is done in public...As to his "instruments," who "for money" carry out his secret instructions, that particularly is a reckless aspersion – a bit of downright "moral assassination".²¹

Blackwood's, too, resolutely maintained a policy of anonymity, attracting eminent contributors who preferred not to jeopardize their social positions by signing their work. *The Times* similarly prized anonymity, although with time the identity of long-serving critics such as Tom Taylor inevitably became known. It has been argued that anonymity gave an individual periodical a sense of its own identity, with 'critical judgments expressed through the magisterial "we,"'²² creating a strong sense of authority.²³ In recent years, as has been noted, the identity of many of the anonymous critics has been revealed by Houghton and Kent.²⁴

'Fanciful pseudonyms', such as 'Philharmonicus' or 'A Country Critic' were widely used as witty signatures for articles and correspondence in the *Pall Mall Gazette* and *Blackwood's Magazine* amongst others.²⁵ Even Ruskin first published his *Modern Painters* under the anonymous identity of 'An Oxford Graduate'. Other items simply carried initials. Art reviews in the *Spectator* of 1863 to 1865 were signed with the mysterious initial, 'V'.

The *Art Journal* maintained anonymity for its exhibition and book reviews, but increasingly published the names of the authors of specialist technical articles. It would seem that where an article was of factual origin, an author's name was permissible, but where matters of opinion were expressed, in exhibition reviews, for example, the identity of the writer remained secret. Between 1852 and 1855 the name of respected writer Mrs Merrifield appeared against an article on red lake pigments, in addition to two series of papers on 'the Harmony of Colours, and its Application to Ladies' Dresses' and on 'Dress - as a Fine Art.' Other articles on scientific aspects regarding the development of paper and pigments regularly carried the name of Robert Hunt, a chemist and photography pioneer, who became Professor of Mechanical Science in 1851. Other eminent contributors who signed their articles included a Professor of Chemistry, Dr. Scoffern in 1854, and a fellow of the Royal Society, Frederick Crace-Calvert (see Appendix X below).

In the other journals and papers examined, Tom Taylor first put his name to a review of the Grosvenor Gallery in *The Graphic* on 5 May 1877²⁶ (whilst his reviews in *The Times* remained steadfastly anonymous); and in 1880 *The Magazine of Art* published the names of three authors of long articles on specialist subjects: Henry Holiday (on wood engraving), Charles W. Dempsey (on “‘Tone Harmonies” and the Modern Scheme of Colour’) and artist Albert H. Warren (on an illustrated series ‘On the Art of Illuminating as Originally Practised’).²⁷

John Ruskin prefaced his “Academy Notes” for 1856 with a four page discussion about ‘the probable difference, in aim, between anonymous and acknowledged criticism,’ defending his openness and ‘impartiality’ in contrast to the cowardice and dishonesty of anonymous critics.²⁸ By the mid 1860s a number of respected art critics, keen to improve the professional standing of their trade, were beginning to voice their doubts at the practice of anonymity and published books putting their names to articles previously published in journals. P.G. Hamerton, who in 1866 became art critic for the *Saturday Review*, published an article called “Art Criticism” (signed with his initials), in which he expressed the view that ‘it would be interesting to have an authentic list of anonymous art-critics, to know what are their usual avocations, and what proportion of their lives has been devoted to the study of art.’²⁹ He was keen to ‘elevate the tone of printed criticism by excluding ignorant writers from the periodicals’ and suggested that a ‘great change must, before long, come over the tone of current art-criticism.’ In his preface to *Fine Art, Chiefly Contemporary: Notices Re-Printed, with Revisions* in 1867, William Michael Rossetti, too, included his own comments on the current ‘system of anonymous criticism’.³⁰ Such a system is profitable only to two sorts of writers, he suggested:

those whose names are, and are destined to remain, too insignificant to reflect any credit upon their writings, and those who have some personal or private motive...for wishing to diffuse opinions among the public without publicly admitting that they themselves entertain those opinions.³¹

It was his belief that the public were owed the truth and that ‘as a general rule... a person who does not choose to stand up openly and stoutly for his opinions...is not the sort of person from the ...reception of whose opinions the public benefits.’ As he concludes, ‘when one is vaccinated, one likes to have reasonable assurance that the virus came out of a cow, not possibly out of a dog in a mangy or hydrophobic condition.’³²

8.3 Background, Training and Prejudices

The list of critics attached in Appendix X below also gives brief biographical details for each individual. It is clear that many of the art critics were writing simultaneously for several periodicals and papers. Tom Taylor was the major art critic for *The Times* and during the 1870s he also contributed to *The Graphic* and *Punch*, as well as occasionally to the *Art Journal*. Joseph Beavington Atkinson wrote for *Blackwood's* and, on occasion, the *Art Journal*, while Harry Quilter, William Michael Rossetti, F.G. Stephens, Comyns Carr and Armstrong were all contributing to a number of other journals and newspapers. It has been argued that low wages led critics to write for more than one title at the same time.³³ William Rossetti reputedly earned £50 a year as the critic for the *Spectator* in the 1850s.³⁴ Highly esteemed contributors to the *Pall Mall Gazette*, such as Thackeray, were paid rates of twelve guineas a page for articles, which were considered 'lavish to recklessness', so it is wrong to think that critics were all lowly paid hacks.³⁵ The founders of the *Pall Mall Gazette* prided themselves on employing men 'of high character and of independent position as well as of special knowledge' and it is clear that they were indeed influential, mostly university-educated, specialists, although few were trained artists.³⁶ The first edition of the paper in 1865 stated the intention to publish

original articles upon many things which engage the thoughts or employ the energies or amuse the leisure of mankind. Public affairs, literature, the arts, and all the influences which strengthen or dissipate society will be discussed by men whose independence and authority are unquestionable, and who are accustomed to regard the public expression of opinion as a serious thing.³⁷

Similarly *The Times* and *The Graphic* both relied on the views of the Cambridge educated, but artistically untrained, Tom Taylor. The *Athenaeum*, *The Magazine of Art* and the *Spectator*, on the other hand, employed artists as critics, whilst *Blackwood's* preferred an eclectic selection of less formally-trained writers, only one of whom was a practising artist. Many of the critics also held down highly responsible positions as civil servants, directors of galleries, and university professors whilst pursuing their journalistic careers. Unfortunately, little is known about the long-standing contributor of art reviews to the *Art Journal*, James Dafforne, except that in an article on the artist J. D. Harding (author of several drawing and watercolour manuals and teacher of Ruskin) in September 1856 he confesses his gratitude to Harding's publications 'for whatever amount of knowledge he has acquired in the principles and practice of Art', thus implying a lack of professional art training.³⁸ It also explains the highly conservative attitude he displays in his reviews towards styles of painting.

It is noticeable that in one or two titles, such as *The Times* and the *Art Journal*, the same critic remained in his post for several decades. On the one hand this provided a consistency of approach, but it was also a contributing factor towards stagnation and repetition of material within reviews. It is hardly surprising that a standard vocabulary of phrases became the norm when describing paintings by the same artists seen year after year in the same exhibitions. Examples of this will be seen later in this chapter.

Only two of the critics are women: Mrs Merrifield, famous for her translation in 1844 of Cennini's *Il Libro dell'Arte*, and Margaret Oliphant, who was home-educated, and a novelist and biographer. The scale of Mrs Oliphant's contribution to *Blackwood's Magazine* as well as to *Longman's*, *Fraser's* and *Macmillan's Magazines* on literary, historical, artistic and women's issues, however, is evident from the long three-page list of articles under her name over a period of forty years in the *Wellesley Index*. Described as 'insecure in matters of technique', she preferred to focus on the story being told by a picture, and the moral and human element of art.³⁹ Whilst possibly appealing to the untrained public who flocked to see the exhibitions of the day, such reviews based on a lack of artistic knowledge could also serve to irritate the artists whose work they criticised. Tom Taylor's pedantic pronouncements were said to have caused resentment amongst many artists. 'It seemed to them unjust that a five second glance from Tom Taylor should condemn a year of an artist's labour.'⁴⁰ Furthermore, Taylor's lack of sympathy with innovation meant that he was out of tune with new schools and methods of painting, and he was, as we shall see, highly critical of the use of bodycolour and of the groundbreaking watercolours of Edward Burne-Jones.

Opposing views were put forward, often very forcibly, in the different publications about many issues ranging from artists' use of colour, microscopic detail, brilliancy and bodycolour to degrees of 'finish', as we shall see in the following pages. In the *Pall Mall Gazette*, the editor Frederick Greenwood openly admitted he did not necessarily agree with the views expressed by his critics, but claims he 'always tried to help, with at least a little patience, even crazy and offensive contributors.'⁴¹ In *Some Eminent Victorians*, Comyns Carr wrote that Greenwood and he 'had sharp encounters with regard to that particular area of art criticism over which I thought I was entitled to exercise independent control.'⁴²

When it came to discussing the legitimacy of avant-garde techniques, in particular those of the Pre-Raphaelites, two opposing camps can quite quickly be ascertained

amongst the critics. Those with connections to the Pre-Raphaelites, such as William Michael Rossetti (*Spectator*) and Frederick George Stephens (*Athenaeum*), together with Sidney Colvin of the *Pall Mall Gazette* and Joseph Comyns Carr (author of books and articles on the Pre-Raphaelites and Burne-Jones), would ensure long and well-balanced reviews of paintings carried out in the Pre-Raphaelite style. Colvin, in his position as Slade Professor of Fine Art at Cambridge University, had expressed his admiration of Burne-Jones in a signed letter defending the artist against an anonymous attack (written, in fact, by the paper's editor, Frederick Greenwood) in the *Pall Mall Gazette* in May 1879.⁴³

In contrast, Dafforne's reviews in the *Art Journal* consistently attacked the Pre-Raphaelites, accusing them of 'mawkishness,' 'gaudy colouring' and 'nauseating, puerile monstrosities.'⁴⁴ Frank Stone (*Athenaeum*), too, produced unfavourable reviews of the Pre-Raphaelites and Harry Quilter (*Spectator*) was another conservative art critic opposed to the avant-garde. It cannot, however, be said that, throughout the thirty year period under review, there was any consistency of attitude within individual journals. In the *Athenaeum*, for example, Frank Stone and Walter Thornbury's anti-Pre-Raphaelite reviews from the late 1840s until the late 1850s contrast with F.G. Stephens' more positive response to the school from 1861.

John Ruskin's vigorous defence of the Pre-Raphaelites, however, often brought hostile reactions from fellow critics. Landow suggests that the reason for such vehemence was that Ruskin and the Pre-Raphaelites (and Burne-Jones, by association) were perceived as posing a threat to the 'vested interests in the art world' and also 'Order itself.'⁴⁵ The *Art Journal* had, from its inception, declared itself 'Conservative by education, habit and principle, we shrink from the idea of aiding the adversaries of any established Institution.'⁴⁶ In 1866, in *A century of painters of the English school*, Richard and Samuel Redgrave concluded that 'on the whole, we feel that the future prospects of art will be improved rather than injured by the outbreak of what has been idly called "the new heresy."⁴⁷ The reviews which follow confirm the impact made by both Ruskin and this new style of painting on developing watercolour methods during this period.

8.4 Critical language and Professionalism

Before we look at critical reactions to specific matters of watercolour materials and technique, a short comment on the language used by critics needs to be made. Harold Herd points out that the 'literary violence that marked the early history of the reviews

was perhaps less shocking to contemporaries than to us. It was an age of gross abuse in newspapers as well as the periodicals.⁴⁸ This was a continuation of the irreverent and coarse satire which peppered the reviews of eighteenth-century critics.⁴⁹ *Blackwood's Magazine*, for example, (nicknamed by the editor of the *Manchester Guardian* the 'Mother of Mischief') in 1817 had launched a series of malicious attacks on Keats and Leigh Hunt entitled 'The Cockney School of Poetry', and on rival journal the *Edinburgh Review*, with Christopher North of *Blackwood's* calling fellow critic Lord Macaulay of the *Edinburgh Review*, 'an ugly, cross-made, splay-footed shapeless little dumpling of a fellow.'⁵⁰ In more moderate periodicals less colourful language was used, but it was often considered dull and pompous. As the century advanced, however, journalistic language grew more civilized, although some of the reviews discussed below continue to exhibit violent tendencies.

Prettejohn has noted the arrival in the 1860s of a class of 'professional art critics' with specialist knowledge, such as Palgrave (*Saturday Review*), Taylor (*The Times*), Stephens (*Athenaeum*) and William Rossetti (*Fraser's, Spectator*), in contrast to the older 'generalist' critics.⁵¹ Upmarket new journals such as *Fine Arts Quarterly Review* (1863-1867) and the *Portfolio*, established in 1870, appeared, and contained signed articles. William Rossetti himself, in 1867, was already separating art critics into two classes, 'the professional and unprofessional', the former being 'practical', (ie 'practitioners in art'), the latter 'non-practical'. It was his opinion that 'the only criticism of much use in the long term is that by professional men', with their 'knowledge of technicalities.'⁵²

With its arrival in 1865, the *Pall Mall Gazette* deliberately set about changing the tone of written critical language to a more 'familiar, unpedantic, flexible, good English of common life'.⁵³ By 1878, *The Magazine of Art* was claiming that 'the criticism of art, indeed, has grown into a special province of literature, with technical terms, almost a language of its own'⁵⁴ (Figure 186).

From the middle of the 1860s, with the arrival of the various winter exhibitions and the Dudley Gallery, reviews begin to contain a note of boredom with the sameness and predictability of watercolours in so many locations, together with a sense of increasing panic at the 'glut of exhibitions' to be reviewed. 'How can the critic be expected to carry eyes and brains for such demands?' complained Tom Taylor in *The Times* in April 1870 as eight exhibitions opened their doors.⁵⁵ One way of enabling the

overworked critics to separate the exhibitions was for them to create a special vocabulary, which attributed clear distinguishing features for each gallery or society. Thus the Dudley became synonymous with the ‘eccentricities’ of ‘rising talent’ and ‘reputations in the making’, whilst the Grosvenor was described as the home of ‘serious art’, ‘apart from the littleness of committees, the traditions of Academies, the spite of cliques.’⁵⁶ Similarly the older Society of Painters in Water-Colours was generally considered to have the ‘ablest’ artists amongst its members, whilst the younger Institute of Painters in Water-Colours was said to be made up of many of the traditional drawing masters and ‘artists of inferior talent’.⁵⁷ Nineteenth-century reviewers continued to adopt the convenient terminology first devised in the early eighteenth century by Roger de Piles in his *Balance des Peintres*, the section of his book, *Cours de Peinture par Principes*, in which he graded paintings according to four categories: Composition, Design, Expression and Colouring.⁵⁸ Many critics lamented the decline in artistic standards required by a new, middle-class buying public who wanted only ‘to decorate a drawing-room, instead of aspiring, as formerly, to add devotion to a church’⁵⁹ (Figure 187).

8.5 ‘The agencies which endow great colourists with a power that is absolutely without limit’:⁶⁰ Critical writing on new pigments.

The extent to which journals reported on the impact of new pigments on the art world varied a great deal. No reference could be found in any *Graphic* articles on the subject. Occasional informative articles appeared in *The Times*, such as “Colours from Coal”, which relayed the content of a lecture by Professor Armstrong at the London Institution in January 1878 on the development of a new aniline dye from coal tar, which had produced ‘violets, reds, yellow, green, blue, and many newly-discovered shades’.⁶¹ The *Pall Mall Gazette* and *Magazine of Art* were not interested in providing detailed scientific explanations on the spread of new artists’ pigments for their readers, but wrote instead of the visual impact such vibrant new colours made upon the viewer at important exhibitions of watercolour. In 1865, the first Dudley watercolour exhibition elicited shocked expressions from the *Pall Mall Gazette*, whose critic imagined the reactions of a foreign visitor entering the room. ‘The first impression ... was a general sense of arsenical or *peagreen*. His second look would resolve itself into *lavender*. His third into *pink*, his fourth be divided between *flaming red* and *canary yellow*.’⁶² In a similar vein, in 1878 *The Magazine of Art*’s review of the Society of Painters in Water Colours exhibition bemoaned the ‘English faults of colour’, the ‘habit of violence’ and the use of violet ‘which, being a vicious colour in

itself, sets the whole scheme wrong.’⁶³ All of the colours described – violet, bright greens, yellows and reds – were new nineteenth-century pigments. Many of the reviews of contemporary exhibitions referred to the ‘garish love of colour’ of ‘this pyrotechnic school,’ with its ‘vapid greens and insipid purples’.⁶⁴

The *Athenaeum*, which in its first edition in 1828 announced that it would ‘endeavour to lay a foundation of solid and useful knowledge,’ and aimed to make ‘literature, art and science popular without stooping to “popularize” them,’ managed a little more substance in its treatment of such technical matters, although it placed more emphasis on reviews rather than articles.⁶⁵ Thus comments about new pigments such as emerald green were often tied up within the body of a review about the New Society of Painters in Water-Colours rather than being formed into a separate scientific essay. In the April 1860 review for this society, for example, the critic writes that ‘the members had heard of emerald green, and there were whispers about a magician named George Field, who ...prepared chromes of unearthly brightness; but the use of these things were forbidden.’⁶⁶ It concludes that ‘the old order changeth, yielding place to new.’⁶⁷ Eight years earlier complaints about the use of emerald green, ‘a tint till of late avoided’, had been expressed in the annual review of the same society.⁶⁸ In at least one instance, however, the *Athenaeum* played a crucial art historical role by documenting and relaying the content of two out of three “Addresses on Decorative Colour as applicable to Architectural and other Purposes” given by John Ruskin in November and December 1854, which may otherwise have been lost.⁶⁹ For the *Athenaeum* was only one of three journals known to have reported on this series of unscripted lectures, given by Ruskin to workmen and students at the Architectural Museum in Westminster, so ‘that they might aid him in the attempt to revive the art to which he had been directing their attention,’ that is, on the art of illuminating.⁷⁰ The issue of 23 December 1854 carried a two-page summary of the third lecture on “Colour”, in which Ruskin stressed the importance of using instinct to choose colours rather than rules (‘the great colourist only mixed and blended by feeling and instinct’); of the need for gradation, purity and delicacy of colour, and for surprise; of the importance of avoiding deep green and ‘pale ashy buff’, which signify the earth, in ‘all spiritual or religious subjects’; and of the origins of the purple pigment favoured by the Greeks, which he considered to be ‘a deep, solemn crimson’ rather than crimson.⁷¹ The critic took issue over the avoidance of green, concluding that ‘these theories seem to us more poetical than logical.’ It must be supposed that the journalist responsible for all of these articles was Walter Thornbury.

In one periodical in particular, the *Art Journal*, a great amount of effort went into producing serious educational articles on the development of new artists' materials, which were written by a number of eminent scientists and historians. Between 1851 and 1858, the *Art Journal* published a number of long articles on the history and development of important colours used in the arts. Many of these were compiled, not by James Dafforne, but by the respected chemist and photography pioneer, Robert Hunt, whose name was clearly printed at the bottom of the page. The signing of these feature articles is significant, as those which appeared in the earliest editions of the magazine in 1839 'were rarely signed.'⁷² In 1851 Hunt investigated the health advantages of the manufacture of the new "white zinc" [Chinese White] and Barytes white in place of the traditional poisonous lead white pigment, while a later article provided an in-depth description of the origins of three different traditional red pigments made from the Kermes insect (used to make vermilion red); the Mexican cochineal insect (which produced carmine and red lake); and the lac insect (from which shell-lac was derived).⁷³ A third essay on "Vegetable Colours used in the Arts" detailed the history and use of madder, a colour derived from the madder plant since medieval times, and from which purple, orange, red, yellow and brown variations could be obtained. This essay also addressed the problem of adulteration of madder, which was frequently mixed with brick-dust, sand, clay and sawdust fillers, an issue of which contemporary artists were increasingly aware.⁷⁴ Early articles from 1852 and 1854 examined the methods and pigments used in thirteenth-century mural painting, and by artists in antiquity, with the latter essay appearing under the title, "Chemistry as applied to the Fine Arts: On the Pigmentary and Tinctorial Matters of the Ancients", by Chemistry Professor, Dr. Scoffern.⁷⁵ Later articles focussed increasingly on the new synthetic pigments resulting from modern industrial processes: in 1865 "Coal-Tar Colours Derived from Carboic Acid" by fellow of the Royal Society, Frederick Crace-Calvert, and in 1875 "Materials for Art-Processes," which explains 'how, from matters once considered not only useless, but pernicious, Art now derives some of her best materials.'⁷⁶ The International Exhibition in 1862 included a display of artists' colours demonstrating 'the high degree of perfection to which skill and enterprise and experience have now brought the *materiel*, that modern Science has provided and placed at the disposal of modern Art.'⁷⁷ All four major colourmen, Winsor & Newton, Reeves, Rowney and Newman were represented, with their 'brilliant and varied colours'. At the Winsor & Newton display

amongst the new colours, introduced by the exhibitors since 1851, are *aureolin* and *cyanoline*, both brilliant transparent yellows...both ...unquestionably permanent; and with these may be associated *viridian* – a perfectly new transparent and permanent green, of the most vivid brilliancy...pure sulphides of cadmium..and all the important pigments that are obtained from the oxides of iron, both pure and in combination with alumina, when they are known as *Mars* colours.⁷⁸

Altogether the article listed twelve new pigments by name. It might seem incredible to us today that these lengthy and scientific and historic pieces of journalism should appear in a periodical such as the *Art Journal*, but they clearly met a strong demand for scientific and historical information which existed amongst its readers at that time. Indeed, the *Art Journal* regularly included illustrated articles on a wide range of subjects, from architecture and art history to industrial art, the graphic arts, costume history, and even medieval manners. Circulation of the *Art Journal* had increased from 18,000 a month in 1850 to the substantial figure of 25,000 in 1851, and the journal's editor, Samuel Carter Hall, clearly knew which subjects would interest his readers and stimulate sales.⁷⁹

In fact, the *Art Journal* carried its interest in artistic creative processes even further. Between 1850 and 1852, at six monthly intervals it devoted several pages at a time to a "Dictionary of Terms in Art," (Figure 188) which was designed to be 'as intelligible as possible to all classes of readers', from the general reader to the connoisseur.⁸⁰ In stark contrast to the 'pedantry and dilettantism' of previous art dictionaries, it gave brief and straightforward explanations of such terms as body colour, glazing, gum Arabic, impasto, pigments, stippling, tempera and tint. Colour families, from 'green' and 'yellow' to 'white', were included also, and within each of these, individual pigments were named. At pains to include both historical and modern varieties in their descriptions, the entry for 'white pigments', for example, read:

The white pigment hitherto most extensively used in painting is WHITE LEAD, or the carbonate of lead, known under various names, such as CERUSE, Flake White, Krema White, &c. This material being liable to change when exposed to the action of sulphuretted hydrogen gas, a substitute has long been a desideratum; this appears to be found in the ZINC WHITE, or oxide of zinc.⁸¹

Thus all the latest pigments, from cobalt green and violet mars to chrome and cadmium yellow, are listed, together with notes about their permanence and durability. The author of this impressive catalogue of entries was certainly very well informed, and, although it was unsigned, it was probably compiled by F.W. Fairholt, who edited and illustrated the book of the same name which was published in 1854 (Figure 189).

Concern over the permanence of pigments and conservation of pictures became of national importance during this period, sparked off by a series of debates between 1853 and 1861 concerning the correct housing of Turner's legacy to the nation and conditions within the National Gallery and South Kensington Museum buildings. In 1853 plans were being drawn up for suitable new buildings to house paintings at the National Gallery and the *Art Journal* highlighted the importance, for the works of art, of protection from damp, dryness and dust.⁸² In the same year they discussed smoke damage to watercolour drawings and cartoons observed at the National Gallery and were grateful to Lord Palmerston's bill for 'the purgation of the smoke nuisance' because 'it will be understood that our coal-smoke atmosphere will be more destructive of cartoons, water-colour, or body-colour drawings, than that of any other city where wood is the ordinary fuel.'⁸³ In 1857 the report of the National Gallery Site Commission questioned the right of artists such as Turner to use fugitive pigments. When asked for his views by Professor Faraday, William Mulready is noted, in the *Art Journal*, as replying, 'I am not sure that a painter has a right, except in experiments, to use pigments which he knows are short-lived. I do not think he has a right to use such pigments in a picture that he knows the purchaser expects to last.'⁸⁴ In 1861 *The Athenaeum* continued the debate on Turner by quoting from the House of Lords' report which highlighted worries over the fading of watercolours and damage from gas lighting. It focussed on the probable transfer of the paintings from the South Kensington Museum to the National Gallery, and the need for regular examination of delicate works for evidence of damage. Redgrave was noted to have been in favour of displaying Turner's watercolours, although he was 'not prepared to say that they will not gradually fade, any more than that oil-pictures will not deteriorate in time; but he believed that, under due conditions, they may be preserved and thought...it is better that one hundred thousand should see these drawings annually, than that ten thousand should see them in ten centuries.'⁸⁵

Two years later the *Athenaeum* published, in its "Fine-Art Gossip" column, Holman Hunt's suggestion to the Royal Academy Commission that it might 'be made useful by conducting experiments on a large scale and recording their results with regard to the durability of pigments and other materials used by artists', and that the Academy should appoint a professor of chemistry 'who should devote his time to the study and giving lucid explanations of all the properties of colours.'⁸⁶ It is worth noting that Hunt's advice was heeded and in *The Times* of 30 April 1880, under the heading "Artists' Materials", a letter was published from A.H. Church, M.A., F.O.S.,

expressing dismay at having missed Hunt's recent lecture on artists' pigments, and continuing, 'I hold that the systematic examination and trial, not only of artists' colours, but of oils, varnishes, gums, and painting grounds, form an important part of my duties as Professor of Chemistry in the Royal Academy.'⁸⁷ Arthur Church was also a contributor to the *Portfolio*.⁸⁸

Clearly the durability of pigments was a major issue with many individuals and institutions at this time, prompting questions in the press of the 'painters' obligation to use permanent pigments' so that pictures would last for future generations and not deteriorate, as Turner's watercolours were deemed to have done, with 'a change in the pigment itself.'⁸⁹ The social responsibility of artists to use durable pigments and for colourmen to produce consistently high quality materials became more pressing as the century progressed. By 1880 the *Athenaeum* was announcing the arrival of a society 'which was recently formed to promote the manufacture of pure pigments'. Patrons had a right to expect their purchases to last, it announced.

There can be no doubt that some reform is indispensable, no less in the interest of the artists than of the buyers of pictures, the very pigments of which fail before their eyes, so that costly investments are utterly destroyed. It would be well if investors insisted on the use of durable materials and abstention from fugitive ones. When we hear of an eminent painter declaring he does not care how soon his pictures fade, it is time "patrons" looked into the matter. A good plan would be to demand a guarantee of durability for a certain number of years.⁹⁰

In conclusion, it can be seen that reporting on new pigments as stable and permanent replacements for traditional fugitive colours was a serious matter, because of the long-term implications for collectors of art in general and for the nation in particular. The *Art Journal* and the *Athenaeum* played a crucial role in bringing such matters to the attention of the British public.

8.6 'Every variety of substance and surface, from the smoothness of an ivory tablet to the roughness of a brick and plaster wall'⁹¹: Critical writing on new papers.

Once again, few of the periodicals and papers under review, apart from the *Art Journal*, devoted space to the consideration of new developments in papers for artists, although, as we have seen, much had changed in papermaking processes during the nineteenth century and the impact this had on artists' painting techniques was considerable. Interestingly *Blackwood's* lengthy coverage of the 1857 Manchester Art Treasures exhibition, which is mainly devoted to the different stages of Turner's

watercolour career exhibited there, includes an extract from Théophile Gautier's analysis of the English school of watercolour painting as seen at the Exposition of the Fine Arts in Paris:

They possess colours of an irreproachable preparation, which form a scale the most extended – papers smooth as glass, granulated as a wall, according to the effect which they desire to obtain, and which admit of work the most varied, from a free wash to the utmost elaboration.⁹²

The implication here is that such highly developed watercolour papers and pigments did not exist at that time in France, and that the distinctive character of British watercolour painting was due to the availability of such materials.

The *Athenaeum* noted changes in the papers being used by artists at the winter exhibition of the Society of Painters in Water-Colours in December 1863. It commented that 'certain old-fashioned tricks of execution are dying out, - reed-pens, rough paper, knives, and what not, having fairly succumbed to the straightforward practice of the artist with the brush.'⁹³ If rough paper was becoming less popular, then the implication is that smoother, hot-pressed and Not (or cold-pressed) papers were preferred, which is understandable in view of the drive in art towards more detail and microscopic finish rather than broad washes of colour. We have already seen the way artists such as Samuel Palmer, Lewis and Birket Foster used smoother surfaces for their highly detailed watercolours.

While *The Magazine of Art's* review of the winter sketches exhibited by the Water-Colour Society in 1880 did not specifically refer to new papers, it did indicate an overall improvement in the standard of materials now available to artists. It writes of 'the tendency of art as it increases in its capacities...and as the vehicle he [the artist] has chosen becomes more and more improved and perfected in all the branches of its mechanism,' to produce a more literal and more detailed representation of nature.⁹⁴

The treatment of the subject of new developments in papers for artists in the *Art Journal*, however, was much more in-depth. Not only did it draw attention to differences between papers used by the old school of watercolour painters and the new types of paper now available, but from 1854 onwards it produced regular updates on changes in papermaking practice.

Rough papers were, once again, considered to be less popular with artists now than in the past. Commenting on the variety of papers observed in the winter exhibition of the

Old Water-Colour Society in November 1852, the reviewer noted that ‘examples of rough material were not so numerous as we have seen them, but there are many failures in the over-elaboration of the smoother surfaces.’ Watercolour painting had moved on, he observed, since the transparent washes of Girtin and Varley. ‘The period of unfledged antiquarian and simple surfaces was past, and artists began to be extremely fastidious about papers, and their experiments introduced every degree, from smooth and solid antiquarian to the basest quality of the grocer’s wrapper.’⁹⁵ In Turner’s obituary of the same year, the eminent engraver John Burnet confirmed that in the early years of Turner’s career, many artists made use ‘of a paper manufactured with a rough surface, which gives a texture to the drawing conveying the rude appearance of nature.’⁹⁶ It was recognised that the ‘ultimate perfection’ of the modern watercolour had only been achieved as a result of improved pigments and papers. ‘It is not enough to say that our colours and papers are of transcendant excellence, but every other aid that science can devise has been introduced for the furtherance of the quality of these pictures’.⁹⁷ Indeed such links between technological progress and the advancement of watercolour practice were being promoted by the Society of Painters in Water-Colours as early as 1821, but it has been suggested that it was ‘the Society of Arts which provided the catalyst for the development of artistic materials, rather than manufacturers; certainly it was the demand from amateurs for suitable papers for drawing and not the limited professional market that encouraged technical developments in this area.’⁹⁸

In fact there were growing pressures on the paper industry, not only in England but worldwide, as the century progressed, for with the rapid expansion in printing and publishing, the advance of machine-made paper and the growing popularity of watercolour, demand for raw materials was outstripping supply. Traditionally made from pure linen rags, there were no longer enough rags to go around and paper manufacturers were forced to experiment with other products to find acceptable and cheaper alternatives. With so much speculation in the air, Robert Hunt considered it ‘advisable’ to devote three full pages of the *Art Journal* in 1854 to an explanation of the history and manufacturing processes of papermaking, with a particular emphasis on efforts to find suitable new raw materials, from ‘sugar-cane, mosses, seaweed,...leather scrapings ..., straw, hop bines...peat’ to sawdust and the bark of the chestnut tree.⁹⁹ This was followed up by articles in 1855, 1870 and 1871 discussing progress made in this field, and the analysis of specimen papers produced from imported products including peat, couch-grass, hop-bine, manilla hemp and bamboo.¹⁰⁰

Increasing quantities of imported wood-pulp were reported as being used in the manufacture of paper in England by 1870, when the industry was hit by the double misfortune of a ‘considerable rise’ in the price of rags and a fall in the price of paper.¹⁰¹ For the manufacture of a tinted drawing paper, it was estimated that 35% of pinewood pulp was now being used.¹⁰² The result of such changes, sadly for the artist, was inconsistency in the quality of many of the papers being sold, and it becomes clear why John William North was so determined to find a way of making a better quality artists’ paper from the late 1860s. Another artist, Edwin Dolby, drew the *Art Journal*’s attention to problems he was experiencing in 1872 with watercolour papers, due to manufacturers’ ‘false economy’ or their employment of ‘some deleterious chemicals.’ He complains of having to discard ‘sheet after sheet’ before finding one good enough to use.¹⁰³

8.7 Critical Writing on new fixatives, mediums, brushes and portable equipment

As we have seen in Chapter One, improvements were also being made in many other areas associated with watercolour painting, such as fixatives, mediums, brushes and a wide range of portable equipment for the increasingly popular outdoor sketching market.

It was a time of great innovation and many individuals and companies were exploring ways of solving day-to-day problems affecting watercolours, such as fading, smudging and damp. Once again it was the *Art Journal* which led the way in promoting these developments, many of which were emerging from Europe and further afield. A new method for fixing pencil drawings, Collodium, was reported to have been discovered in Germany in 1852.¹⁰⁴ The development by a Swiss artist of a ‘method of fixing water-colour drawings, so that they neither fade, nor lose their brilliancy of colouring by exposure to the light’ was first announced in 1857, while another product, Rouget’s fixative, was recommended in 1870.¹⁰⁵ The latter preparation, used in large quantities as we have seen by Burne-Jones between 1869 and 1879, was supplied in a small glass flask with a ‘miniature blow-pipe’ through which the liquid was blown out in spray form. ‘Not only drawings in chalk or pencil, but water-colour drawings, photographs, and engravings, may be protected from discoloration – even from damp – by the use of this very elegant process,’ the article claimed.¹⁰⁶ The efficacy of this method for use with chalk and soft pastel drawing may be judged by the fact that a similar spray diffuser is still available from Winsor & Newton today.

As has also been shown in Chapter One, a number of gums and resins were being used in watercolour painting during the nineteenth century for a range of purposes. In 1858 Robert Hunt published a two-page article on “Vegetable Gums and Resins, with their uses in the Arts,” in which he detailed the origins and uses of gums and resins such as gum Arabic (‘for cementing into cakes the various pigments used by the artist in watercolours’), gum tragacanth (‘absorbs water and swells up’), Gamboge (‘used as a pigment, and in miniature painting; it is employed to colour varnishes and lacquers’), mastic resin (for mastic varnish), and copal (also for varnishes).¹⁰⁷ The use of such gums and resins, Hunt concludes, ‘has been greatly facilitated by the discovery of new solvents, such as the new alcohols and ethers, naphtha, benzole, chloroform, and others.’ Thus natural materials were once again seen to benefit from being used alongside other newly-invented synthetic products.

Experimentation and exploration were clearly being encouraged in the arts, and in 1852 the *Art Journal* published a long letter from “an Amateur” addressed to Mrs Merrifield on the subject of Starch as a vehicle for painting.¹⁰⁸ It outlines the method of painting in watercolours on a surface of canvas previously primed with starch and then rubbed with pumice stone to remove the ‘nappy surface.’ The writer of the letter advocates the use of ‘soft colours, either home ground and mixed with a little gum-water and honey, or we may use the tube moist colours of the shops’. The advantages of such a technique were said to include the ability to make corrections more easily, a portrayal of nature of greater truth and power, and a more rapid execution than using normal watercolour painting methods. This letter is of particular interest because it demonstrates that Burne-Jones’s 1871 watercolours on canvas were actually employing a recognised technique, although we have no means of knowing if he used a preparation of starch such as this.

References to new brush types were scarce, the only one identified being included in the *Athenaeum* article of December 1863, which has already been quoted and notes the demise of old-fashioned methods of execution and the reed-pen.

For a more general view of the range of portable products developed for the outdoor sketcher, *The Graphic*’s 1871 “The Palette in the Field” is a useful, if tongue-in-cheek introduction. It describes the temptation for the amateur of a visit to ‘Rathbone Place, there to expend untold sums in the acquirement of portable materials in the shape of camp-stools, easels, umbrellas, colour-boxes, and sketching blocks, which in that street

of fine art emporiums are to be found set forth in such abundant and alluring variety.’¹⁰⁹ The difficulties of keeping control of flapping paper, easel, sketching-case and umbrella in strong winds are depicted, together with the implication that so many items of equipment are somewhat unnecessary and have only been created for the profit of the colourmen. *Punch* amused readers regularly with cartoons portraying amateur artists sketching outdoors, equipped with the whole range of paraphernalia (Figure 190).

8.8 ‘It has, indeed, been rather revolution than evolution, and the whole change may be ascribed to the use of opaque white’:¹¹⁰ Critical writing on the use of bodycolour.

‘Body-colour drawing’ was described by Ruskin in his *Elements of Drawing* of 1857 as the ‘mixing of white with the pigments, so as to render them opaque’ and it divided opinion amongst the manual writers of the second half of the century, as we have already seen.¹¹¹ Whilst most manual writers were conservative, preferring traditional watercolour methods using transparent washes, Whiteford and Ruskin were both advocates of modern opaque methods and were in no doubt as to the impact of the new pigment Chinese White on the growing popularity of this method of painting. It is important to note here the distinction drawn by Whiteford between contemporary usage of the term ‘bodycolour’ and its earlier meaning, which referred to the mixture of powdered pigment with size (‘distemper’).¹¹² By 1880, Muckley was expressing the opinion that ‘water-colour painting has gained enormously by the discovery of Zinc or Chinese White.’¹¹³

In the press, the ‘legitimacy’ of such a technique was frequently and fiercely discussed. During the 1850s, many of the journals expressed strong disapproval of the use of bodycolour in works exhibited by the watercolour societies. By 1858 the *Art Journal* was complaining of the ‘profligate expenditure of white...in so many of these works, which, with their painty surfaces, ceaselessly and unprofitably importune the eye!’, whilst Frank Stone disapproved in the *Athenaeum* of 1850 of ‘these *loaded* and *impasted* body-coloured treatments against which we have contended on more than one former occasion... this *distempered* painting.’¹¹⁴ By 1854 he was voicing concern at the way watercolour and oil techniques were becoming interchangeable:

There are many young oil-painters who stain their canvas with mere transparent washes of oil, and there are many young painters in water who use body-colour in a bolder impasto than their rivals...for water now threatens to become oil

and oil water, and the paint that one throws off as an incumbrance the other instantly claps on his paper as a prize.¹¹⁵

In 1863 the *Art Journal* devoted almost an entire column to a more balanced discussion of the advantages and disadvantages of transparent and opaque methods, conceding that ‘pure practitioners’ of transparent watercolour were ‘each year becoming fewer in number.’¹¹⁶

The increasing desire for detail, the value of force and firmness in the lights, the advantage of contrast between parts which should stand out in solidity and passages that ...retire into liquid shadow, all put a premium upon an opaque medium...To these predilections must be added forced and fervid colour, dramatic effects and thrilling situations.¹¹⁷

Tom Taylor, in *The Times*’ 1856 review of the Society of Painters in Water Colours, wished painters would ‘confine themselves within the legitimate circle of their art, and not attempt by means of opaque colour to rival the effects of oil,’ especially singling out John Frederick Lewis’s *A Frank Encampment in the Desert of Mount Sinai* (Figure 40) as an example of the overelaboration resulting from such methods, which were, he considered, best suited to oil painting.¹¹⁸ The *Athenaeum* agreed, admiring Lewis’s minute finish in *Hhareem Life* the following year, but crying ‘*Why not oil?*’, since the detail was only achieved ‘through the aid of body colour.’¹¹⁹ The use of white in the face of the woman, thought the critic, removed all sense of life from her flesh, prompting him to remark ‘Is it a mask of lead or plaster?’ (Figure 42). Interestingly, the conservative J. B. Atkinson, writing for *Blackwood’s* in 1857, could only praise Lewis’s *Frank Encampment* for its ‘utmost originality, and the highest merit’ attained ‘by genius without the necessity of any new revolution,’ a style he separated from the ‘repulsive mannerism’ of the Pre-Raphaelite school.¹²⁰

Widely associated by critics with Pre-Raphaelite techniques, Burne-Jones came in for criticism for his use of opaque pigments. The critic of the *Pall Mall Gazette* (possibly Sidney Colvin) was charmed by the artists’ *Triumph of Love* series exhibited at the Dudley Gallery in 1872 but considered that ‘technically to be called water-colour, the method and effect of the painting, on canvas and with thick body-colour, are practically scarcely to be distinguished from those of oil’¹²¹ (Figure 178). The *Art Journal* complained in 1870 that Burne-Jones’ pigments were ‘opaque with a vengeance; indeed his drawings are literally in tempera, and in substance and surface might almost be mistaken for oil’¹²² (Figure 167). Dafforne concludes his notice on the five watercolour works by Burne-Jones with the warning ‘in order to judge how degenerate this style may become in the hands of disciples, it is needful to take a walk

to the Dudley Gallery,' noted, as we have already seen, for its 'eccentricities'. Whilst widely commended for his great mastery of colour, Burne-Jones's figures created a sense of unease amongst his viewers. It was the 'contorted attitudes', 'ugliness' and 'deformity', the 'unwholesome colour, which is that of a corpse buried and dug up again,' and the 'worship of decay, a delight in melancholy,'¹²³ which most offended critics like Tom Taylor, who were unsettled by pagan and melancholy undercurrents in Burne-Jones's work. Taylor, a true advocate of the Royal Academy style of figure painting, criticised the Pre-Raphaelites' 'blend of sensual colouring with religious evocation as false and disgusting.'¹²⁴ In Burne-Jones's case, the unconventional use of bodycolour might have been perceived as simply one more manifestation of the 'dingy, art-destroying' damage which the Pre-Raphaelite school was said to be inflicting on the establishment of mid-century Victorian England.¹²⁵

By the time Birket Foster was elected associate of the Society of Painters in Water Colours in 1860, the illustrator was well-known and his frequent use of bodycolour was less a subject of debate amongst critics than his technique of stippling and hatching, which will be discussed below. His views of pleasant rural scenes did not pose the same threat to the art-loving public as the revolutionary images of Burne-Jones. Occasionally the *Athenaeum* would comment on the 'rather chalky manner of the artist' or the 'less chalky' picture exhibited, but in 1860 it was resignedly noting that the Society's landscape watercolours in general were showing 'a bolder and wiser employment of body-colour'.¹²⁶

John William North, who first exhibited at the Dudley Gallery in 1865 and at the SPWC in 1871, was generally appreciated for the atmospheric and imaginative qualities of his watercolours, aspects which were becoming increasingly valued by critics who were tired of the relentless pursuit of detail and photographic realism in art. However, commenting on his arrival at the 1871 exhibition (Figure 128), the *Pall Mall Gazette* still complained of his 'use of bright scraps and points of opaque colour', while the *Art Journal* had noted of his work at the 1867 Dudley show that 'opaque is used here in unmitigated manner. Indeed, we know of no gallery where body colour is to be found in so great a quantity as the Dudley' (Figure 122).¹²⁷ *The Times*, too, whilst being generally complimentary to his work, noted that *Beechen Hollow*, shown at the Society's Winter 1871 exhibition, was 'lumpish and ungraceful, and the execution, like that of all unfinished work into which body colour enters largely, extremely unlovely.'¹²⁸

On the whole, however, by the 1870s there was a reluctant acceptance amongst journalists of the use of bodycolour. *The Graphic* decided that bodycolour turned watercolour into “‘*gouache*’ or distemper’ but was only to be used ‘under the most guarded conditions.’¹²⁹ The use of the term ‘*gouache*’ here is notable, as it has not been found in any of the other reviews studied. By 1865, James Dafforne, who earlier had been so strong in his opposition of the medium, had become reconciled to its use. The earlier fear that ‘the pure water-colour medium and method would be speedily lost and corrupted by the inordinate admixture of opaque materials,’ was now replaced with the understanding that, only in the ‘due mingling of opaque, semi-opaque, and transparent colour, can drawings of utmost attainable vigour and truth be alone produced.’¹³⁰ Again, the threat of change to the status-quo of existing art practice can be seen as a significant reason for the antagonism towards the new material of zinc white and its application in watercolour painting.

Reviewing the watercolours by contemporary artists on the walls of the 1879 Grosvenor Gallery, *The Magazine of Art*’s critic commented on the development of the modern school from transparent wash to ‘beautiful, minute, imitative art’, a process of ‘rather revolution than evolution, and the whole change may be ascribed to the use of opaque white – “body-colour,”’ although he concluded by maintaining that the old method was the more ‘legitimate’ one.¹³¹

8.9 ‘More stitches than cloth’: Critical writing on manipulation.¹³²

In fact, the impact of all the newly developed artists’ materials on watercolour practice was widely recognised during the second half of the nineteenth century. New materials could be applied using new techniques to create new effects. The *Art Journal* commented in 1864:

As the colours at command multiplied, as the papers manufactured became of every variety of substance and surface, from the smoothness of an ivory tablet to the roughness of a brick and plaster wall, and as the modes of manipulation magnified the power of the skilful master ambitious to push his art to the utmost pitch of elaboration, so did watercolour painting at length extend its dimensions and enhance its glory.¹³³

Samuel Redgrave, too, observed that ‘these great improvements in the pigments, paper, and generally in the materials of his art, no doubt led the artist to try many experiments, and new methods of execution were adopted,’ methods such as ‘taking out’ colour, using bread or the knife; ‘washing’ and ‘streaming’ (‘pouring water continuously over the face of the work’) and ‘dragging’ (achieving texture by passing a

brush, 'sparely supplied with colour' over an area).¹³⁴ He omitted other newer techniques, however, such as stippling, bodycolour and microscopic brushwork, which were particularly associated with the Victorian drive towards capturing the minutiae of nature, as advocated by Ruskin.

Many of these technical devices were perceived by critics to be aimed at imitating the more respected medium of oil painting. They certainly allowed textures (rough, smooth, thick, dotted, scratched), intense colours and solidity to transform watercolour from its earlier thin, flat wash representations into a serious rival to oil. Watercolours were now said to exhibit 'forced and fervid colour, dramatic effects, and thrilling situations.'¹³⁵ Works in the 1857 SPWC's exhibition, compared with those from fifty years ago, were described as 'rivalling pictures painted in oil, not only in all the best qualities of that material, but even in texture'.¹³⁶ The *Pall Mall Gazette*'s review of the Society of Painters in Water-Colours for 1869 was typical of such reactions to these changes. 'For brilliant solidity and richness, as well as for completeness of surface realization, this medium as employed, for instance at the hands of Mr. E. B. Jones, leaves scarcely anything to be desired which oil-colour could achieve,' ran the review.¹³⁷

In *A Century of Painters of Painters of the English School*, published in 1866, Richard and Samuel Redgrave attribute this drive towards more powerful effects to the introduction of two new regulations by the Society of Painters in Water-Colours. The first, introduced early in the nineteenth century, regarded the use of heavy gold frames:

with the desire to emulate the force and power of works in oil, the members of the society made it an absolute rule that all works exhibited should be framed close, instead of being mounted with a margin of white or toned paper between the picture and its gold frame. This has gradually induced an effort after increased force of colour by the use of solutions of gum, of silica, and other varnishes.¹³⁸

Gradually these elaborate frames were replaced with narrower ones and a plain gold slip, but many artists, especially those using traditional watercolour methods, felt their work was overpowered by such frames.

The second rule involved the increasing size of the paintings themselves, as Redgrave explains. 'Certain large frames were procured, and the members in rotation were required to prepare works to fill them, a premium being awarded to the painters, with the advantages of central and distinguished places for their works.'¹³⁹ Such recognition

could not be ignored by artists and in order to fill the larger surface areas required, they searched for ‘new media, new vehicles, new papers, and new modes of achieving force, contrast, and impasto.’¹⁴⁰

This ‘revolution of technical method’, however, was felt by F.G. Stephens in the *Athenaeum* by 1874 to have ‘left the art in a somewhat disturbed state, so that young painters of the present time seem scarcely decided as to the way in which outward nature is to be interpreted.’¹⁴¹ The new materials provided artists with opportunities to experiment and to develop a style separate from conventional practice, but this was not always considered a good thing. The ‘rocks ahead of modern practice’ were seen to be ‘mannerism, repetition of one idea, sensational treatment, and flashy execution.’¹⁴²

Such examples of ‘mannerism’ and ‘flashy execution’ were satirised by the *Athenaeum* in their 1854 review of the Society of Painters in Water-Colours, ranging from ‘Mr. Lewis, who paints as if with needles, and Mr. Cox, who slobbers on his breezy views with modified sponges’, to ‘Mr. Gilbert, sketchy and etchy, treating paper with all the facile elegance with which he hatches wood; and Mr. Stephanhoff, vague and coarse’.¹⁴³ Tom Taylor in *The Times* also noted the differences between techniques at the Old Water-Colour Society in 1863, contrasting the earlier ‘school of splash, splotch, and touch’ of, for example, J. D. Harding, with the new ‘close and laborious study of nature’, as exhibited by Birket Foster and George Fripp.¹⁴⁴

In many ways, these crude categorisations of the different artistic styles of specific artists provided a sort of short-hand for critics, to which they could refer year after year, as they laboured to produce reviews of increasing numbers of exhibitions. It also created a colourful, but non-technical vocabulary which could be easily understood by the ‘silly public of the intensely inquiring mind order’, described by *The Graphic* in 1872.¹⁴⁵

One of the most successful and prolific artists of his day, Birket Foster’s use of stipple and fine detail divided the critics. Ruskin particularly accused him of ‘mistaking, in many instances, mere spotty execution for finish’.¹⁴⁶ The *Art Journal* in 1865 found his work in the Society’s exhibition ‘a little spotty’ (*On the Beach of Hastings*, Figure 102) and in McLean’s Gallery ‘worked out more as if with a *burin* than a pencil.’¹⁴⁷ The ‘stippled skies’ of works such as *The Way Down the Cliff* (Figure 191) were said to have ‘as many lines or threads as a piece of lace or a cambric handkerchief.’¹⁴⁸ The

Athenaeum cryptically noted ‘his peculiar order of skill’ and his exaggerated ‘vices of style’.¹⁴⁹ However, the *Art Journal* commented favourably that his ‘strokes of the facile pencil, infinite in multitude, are playful as a wind-dancing leaf’, while the *Graphic* approved of his work’s ‘delicacy of handling, tenderness of tone, and finish of execution.’¹⁵⁰ Such use of fine detail was seen to originate in Foster’s early training in wood engraving, although this was not always deemed an advantage. His execution ‘is, in fact, almost the work of the graver; the usual sweep of the full and flowing water-colour brush is here exchanged for the lines and dots of the pointed pencil,’ commented *Blackwood’s*.¹⁵¹ On the other hand, such tireless industry could not but raise a painter’s worth in the estimation of the Victorian public, who prized hard work and value for money above all else. Indeed, Foster was one of the most successful artists of his age, as acknowledged in many of the reviews, with his pictures literally flying off the exhibition walls each year.

John Frederick Lewis, too, before he retired from the Society of Painters in Water-Colours in 1858, was the subject of many comments concerning his use of excessively detailed brushwork. The appearance of *The Hhareem* in the Society’s 1850 exhibition created a stir, and was pronounced by the *Art Journal* ‘the most extraordinary production that has ever been executed in water-colour...every surface is described with a fastidiousness of imitation never before seen.’¹⁵² However the *Athenaeum* was particularly loud in its condemnation of what it considered to be overelaboration. We have already noted their 1854 description of Lewis painting ‘as if with needles’. In 1856, when Lewis was President of the Society, their main complaint about *A Frank Encampment* (Figure 40), which they considered ‘quite Chinese in its elaboration’, centred around the fact that Lewis had painted both figures and background with equal detail. ‘Finish in painting is something like sewing in a coat, it must be all there; still no good tailor turns his seams the wrong side outward. There are too many seams here, - in fact, more stitches than cloth.’¹⁵³ *The Times* proclaimed this watercolour ‘Mr. Lewis’s greatest work’ but, in a lengthy analysis, it felt that any faults arise from ‘over elaboration’ and the use of ‘detail that almost rivals photography,’ mainly achieved by the use of ‘opaque colour’.¹⁵⁴ The most famous analysis of this watercolour appears in John Ruskin’s *Academy Notes* for 1856. Unlike the periodical critics, he was so overwhelmed with the colour and detail of the painting that he ranked it with Veronese’s work and suggested that ‘men will come to England from far away to see it’. He drew attention to the ‘labour’ in the sky, achieved by means of ‘touches no larger than the filaments of a feather’. ‘If the reader will take a magnifying glass to it...

he will find that, literally, any four square inches of it contain as much as an ordinary water-colour drawing.’¹⁵⁵ Lewis, he proclaimed the same year, was one of the leaders of Pre-Raphaelitism, together with Rossetti, Millais and Hunt.¹⁵⁶

The following year, the finish of Lewis’s *Hhareem Life* (Figure 42) was described by the *Athenaeum* as being ‘as minute as if “the spider had been painter,”’ and more suitable for the medium of oil.¹⁵⁷ Ruskin suddenly found the amount of detail excessive: ‘it seems to me questionable ... whether so much invention, toil, intensity of observation and of mechanical skill, should be trusted to one poor little piece of white linen film, fifteen inches square.’¹⁵⁸ He became concerned about the possibility of damage or fading to such intricate work too. It seemed the artist could not win. The *Art Journal* considered the work ‘laborious’ and ‘mechanically accurate’ although perfect in finish.¹⁵⁹ After Lewis left the Society to concentrate on oil-painting, however, admiration for him crept in to reviews— ‘none of those wondrous pictures of life in the Harem...by Mr. Lewis, the sight of which was wont to make admiring eyes ache, as well as admire, by reason of their astounding minuteness.’¹⁶⁰

Other artists such as Samuel Palmer kept his own stamp of individuality, despite the fashions of the day. *The Graphic* in 1877 described Palmer as always having been ‘faithful to his own creative power, and has never given in to the “realism” of the time in any, even the slightest degree.’¹⁶¹ His watercolour work was exhibited steadily throughout the thirty year period, mainly in the Society of Painters in Water-Colours, but also at McLean’s gallery, the 1862 International Exhibition, the Grosvenor winter exhibition of 1878 and in Paris in 1855. Ruskin had once selected Palmer as ‘one of the probable renovators and correctors of whatever is failing or erroneous in the practice of English art’, although he wrote little more on the artist in future years once Palmer began to return to classical principles.¹⁶² Whilst rarely drawing great attention from the critics, Palmer’s paintings of pastoral scenes were often described in the press as being ‘imaginative and poetical’ and classical in composition.¹⁶³ His patron Leonard Valpy wrote a signed article in the *Athenaeum* in October 1877 suggesting that, in the *Il Penseroso* and *L’Allegro* watercolours due to be shown at the Kensington Museum, Palmer had ‘spared no effort to speak to the full from his inmost soul.’¹⁶⁴ Little comment is made in reviews on Palmer’s technique, apart from references to his like of intense colours. We have already discussed in Chapter Four Palmer’s growing experimentation at this time with recently developed bright pigments such as Cadmium Yellow, Chrome Orange and Cobalt blue. The *Athenaeum* was not impressed,

however, with such ‘eccentricities of colour run mad’ and with the ‘use of these gaudy and undivided hues’, although, as Scott Wilcox points out, the tone of critical response to his radical use of colour became more favourable in the 1860s.¹⁶⁵ The *Art Journal* review of the 1862 International Exhibition observed that Palmer had ‘for years been concocting sunbeams in a crucible’ and ‘at length he has discovered the secret of the philosopher’s stone’.¹⁶⁶

By the time John William North’s works appeared on the walls of the SPWC in 1871, he had already exhibited his distinctive watercolours at the Royal Academy (1869), and the Dudley exhibition in 1865, 1867, 1868 and 1871. No academic studies have been made to date of the critical reception of his work. Like Palmer, North was often accused of using ‘hot’ or ‘flaming’ colours in such works as *May on the Hill* (Figure 128) at the Dudley and in *The Timber Wagon* (location unknown), one of his first exhibits at the SPWC in 1871. At the latter he was considered one of the newcomers (who included A. B. Houghton and R. W. Macbeth), ‘fresh in the flush of youth, warm in colour as wayward in conception.’¹⁶⁷ *The Times* described *Mary’s Orphanage* (location unknown) as ‘the most exquisite piece of tone and texture in the room’, although there is criticism of ‘the *blottesque* no-meaning of his ground and background.’¹⁶⁸ This rather clumsy description conveys in popular, non-technical vocabulary North’s refreshingly suggestive and unstructured method of painting rough areas of grass and bramble, which has been explained in Chapter Six. To Tom Taylor, the beauty of this technique lay in its ‘appeal to the imagination’ and its ‘element of mystery’, although it could, on occasion, be ‘too scornful of concentration or arrangement – after the fashion of the new school of “Impressionists.”’¹⁶⁹ He challenges the viewer to find the ‘pictorial beginning, middle, or end’ of North’s *Land of Argyll* (Private Collection).¹⁷⁰ *The Graphic* believed they could detect in his work the influence of Corot, ‘in reducing landscape to little more than the expression of values or relative effects of masses and tones.’¹⁷¹ *The Magazine of Art*, reviewing the watercolours at the Grosvenor Gallery in 1879, considered North’s ‘manner of generalising landscape and foliage...entirely his own’.¹⁷²

During the 1870s, Wilcox notes a growing crisis in the world of British watercolour art, due to the strain on artists of a surplus of exhibitions, an ‘overproduction’ of works, competition from Europe, and an exodus of artists from the medium of watercolour. ‘Marvels of technique and finish began to seem excessive, and strict adherence to natural fact came to seem a limiting doctrine,’ especially as photographs

could now capture nature so effectively.¹⁷³ In 1874 the *Art Journal* expressed recognition of a growing need within watercolour art for ‘more enterprise and new invention’ and frustration with the ‘painful tendency in English Art at the present time to avoid any trial of new ground.’¹⁷⁴ Watercolour art was seen to be in an ‘unsettled state ...the old style partly abandoned and as yet no sufficient agreement as to the future. Thus we find a number of painters who treat water-colour very much as if it were oil, and in this way produce pictures which present no radical distinction from oil-paintings.’¹⁷⁵

The times were rapidly changing and the desire for accurate representation was fast declining in favour of more atmospheric and aesthetic works of art. The success of the new Grosvenor Gallery from 1877, where Whistler’s radical and evocative *Nocturnes* hung alongside those of Burne-Jones, and the London exhibitions of the mesmerising works of the Impressionists, brought with them a re-evaluation of the qualities required in watercolour painting.

In 1880 *The Magazine of Art* expressed the opinion that simple transparent washes of colour are a ‘better...expression of water-colour art than the stippled, caressed, many-tinted and mellow little paintings with which an aquarellist can now vie in strength, solidity, and fullness of colour with the oil-painter.’¹⁷⁶ Watercolour techniques were coming full circle and returning to the simplicity and delicacy which originally marked them out from their rival medium.

8.10 Reviews of watercolour and drawing manuals

Many of the watercolour and drawing manuals studied in Chapter Two were individually reviewed in either the *Athenaeum* or *Art Journal* or both. As these have not been the subject of academic study to date and as they provide a valuable commentary on contemporary attitudes towards the particular styles advocated in the manuals, I felt they should be included within this chapter on critical writing on watercolour painting. It will be seen that many of these manual-writers were often considered by critics to advocate traditional ‘drawing-master’ methods. The techniques recommended by Ruskin, by contrast, were considered far more unconventional.

The majority of the reviews date from the decade following the year 1850, when not only Winsor & Newton and Rowney were selling their popular and affordable One Shilling Handbooks on Art, but a surprising number of other publishers were bringing

out titles too (Appendix XI below). As we have seen, these manuals on watercolour provided the means for amateurs and students to learn the methods practised by leading (if somewhat conservative) artists of the day using recognised and durable ready-prepared materials. Such guidance on the choice and correct usage of reliable materials was important in view of the distance which now existed between the artist and the preparation of his materials. The *Athenaeum* critic, who in an 1857 review loudly proclaimed ‘avoid all shilling vade-mecums, which are impudent, pretentious, bounded, conventional, timid, and false’, accusingly began his account with the words: ‘This is a colour-seller’s manual, with fifty pages about Art and a hundred about Messrs. Rowney’s colours.’¹⁷⁷

The earliest of the *Art Journal* reviews being examined here was less combative in tone. It begins its review of T. and T. L. Rowbotham’s *The Art of Landscape Painting in Water Colours* in 1850 with a reference to the ‘very numerous’ instruction books on watercolour painting available for the novice, but finds the Rowbothams’ guide ‘brief and pithy, laying open all the manipulative cunning, and mechanical execution of modern Water-colour Art’, giving useful explanations of ‘papers and the properties of colours’.¹⁷⁸ The authors were a Professor of Drawing and a ‘rising’ member of the New Society. By 1865, however, Rowbotham’s watercolours in the Institute’s summer exhibition were thought to be in a ‘not eminently truthful style’ which was ‘a little going out of date.’¹⁷⁹ In August 1850, the same journal reviewed another Winsor & Newton shilling handbook, Aaron Penley’s *A System of Water-Colour Painting* with its ‘comprehensive’ list of landscape tints, lack of ‘theoretical jargon, which is very often unintelligible to the long practised artist’, and ‘series of plain directions, which render this work the most valuable that has yet appeared on the subject.’¹⁸⁰ James Dafforne is clearly supportive of the traditional methods of these manual writers, who, we have already noted, were proponents of wash rather than modern techniques using bodycolour or detailed brushstrokes. On the other hand, Tom Taylor, in his 1858 exhibition review in *The Times*, is more critical of such methods. ‘Mr. Rowbotham’s art is the art of the drawing master, “*pur et simple*” in all of most mechanical, conventional, meretricious, and enervating, that the word can be taken to convey.’¹⁸¹ This reaction is somewhat surprising, bearing in mind Taylor’s preference for classical training methods.

Two very different reviews were published by the *Art Journal* in 1857: John Ruskin’s *Elements of Drawing* and the second edition of artist George Barnard’s *The Theory*

and Practice of Landscape Painting in Water-Colours. Ruskin's book is allocated half a page of commentary, the reviewer attempting a balanced analysis of Ruskin's manual, politely pointing out the enthusiasm, 'studious, original, and deep-thinking mind' of the author, whilst clearly stating there are 'many opinions expressed from which we dissent.' That the methods he teaches are unconventional, the reader is left in no doubt. 'Everyone acquainted with the views and principles promulgated by the author, will naturally expect that the system of instruction advocated by him must differ from that of every other teacher; and it is so in his manual.'¹⁸² Such a comment is unsurprising, when we take into account Ruskin's preference for bodycolour, stipple and hatching, all elements generally excluded from other contemporary manuals on landscape watercolour and hotly debated in the press.¹⁸³ 'We object to his practice rather than to his principles' concludes the reviewer. It is interesting to note that it is exactly this 'practice' adopted by the more innovative artists of the day, from Lewis to Birket Foster and Burne-Jones, who, as we have seen, all succeed in gaining maximum impact in this way from newly emerging pigments and papers.

The review of the second edition of Barnard (first published in 1855), draws attention to the 'insertion of more specific information' in the new edition and 'enlarged instructions on the mode of working', with the result that 'in every way its value is enhanced to the Art-student.'¹⁸⁴ The 'enlarged instructions' are not described, despite the fact that the "Mode of Working" section of the second edition had expanded from three to fifteen pages in length, with new commentary included on stippling, hatching, blotting-in, stopping out, dragging and the use of new vehicles and mediums. Four pages alone were devoted to the advantages and disadvantages of the use of bodycolour, compared with the brief advice given in the 1855 edition that the artist should avoid 'as much as possible, the employment of opaque body colour.'¹⁸⁵ Changes in watercolour practice were evidently progressing apace at this time. The *Athenaeum* published a short review of the first edition of Barnard, which almost totally avoids any technical discussion of the contents of the book, inserting instead a very long quote from its introductory 'philosophy of colour' and stating only that 'this is a useful instruction book.'¹⁸⁶

Painting Popularly Explained by Thomas Gullick and John Timbs featured also in both the *Art Journal* and *Athenaeum* in 1859. It received limited attention in the *Art Journal*, where it was nonetheless described as 'a book of practical teaching', having 'a very large mass of historic and practical information compressed into this little

volume.’¹⁸⁷ A much longer commentary was included in the *Athenaeum*, which conceded that ‘there are, in this growing stage of Art, thousands of persons who want to know how far materials and technicalities have had historical influence on painting,’ and who would find the book ‘encyclopaedic and learned...yet fitted for general readers.’ Its description of the progress of different media over the last fifty years, from fresco, tempera, watercolour and oil-painting, to pottery, porcelain and enamel, was acknowledged to be particularly useful for teaching about preservation and conservation of artworks.¹⁸⁸ There appears to be a much stronger understanding of and interest in technical issues in this *Athenaeum* review than in the Barnard one and it is possible it was written by a different critic.

The *Athenaeum*’s critic was, however, much less sympathetic towards another author advocating a dated style. Thomas Hatton (*Water colours without a Master*, 1855 and *Hints for Sketching Trees from Nature in Water-Colour*, 1857) was greeted with open disdain. The 1855 review of his *Water colours without a Master* began: ‘We have not much respect for “Every Man his own Lawyer,” or “French in Six Lessons.” The one generally brings you into the Queen’s Bench, and the other compels you to abuse a nation who do not know their own language.’¹⁸⁹ Similarly, his 1857 manual was found to be ‘full of convention’, and his market ‘the boarding-school stereotype.’ Hatton ‘vexes us about washes, tintings, piercing lights, blottings-out, scratching, and other tormentings of innocent paper. Burn such books, say we to the student.’¹⁹⁰ Previously such levels of vehemence had only been accorded to the early work of the Pre-Raphaelites but by 1857 the *Athenaeum*’s review of the Pre-Raphaelite Exhibition at Russell Place was admitting that the ‘errors, eccentricities, and wilful aberrations... are fast modifying and softening’ and had ‘subsided into common sense, good taste.’¹⁹¹ Old-fashioned ‘drawing-master styles’ were beginning to appear stale in comparison it would seem.

Another of the *Athenaeum*’s early reviews vented its irritation once again at the handbook market. Mrs William Duffield’s *The Art of Flower Painting* and Henry Murray’s *The Art of Painting and Drawing in Coloured Crayons* were tersely greeted as belonging ‘to the shop rather than to the academy of Art. Painting can be no better taught by book than dancing. The same materials become different in different hands.’¹⁹² However in 1860 a growing technical knowledge appears within the manual reviews, which become longer and more detailed. It is possible that F. G. Stephens was already contributing material at this time, although he is not officially identified as a

regular contributor until 1861. Two books on the increasingly popular art of illumination, one by DelaMotte and another by J. W. Bradley received long reviews which illustrate an intricate understanding of the materials and processes required.¹⁹³ The first book is considered ‘well written’ and ‘useful’, but the second is criticised for its ‘fragmentary and unsatisfactory’ account of the history of the art and for its assertion that modern pigments ‘are everything we could wish.’ ‘As to modern pigments being perfectly satisfactory, that is news to many a student,’ objects the critic, although he is pleased to note the inclusion of aluminium and platina as well as gold in the section on the use of metals in illumination. As we have seen in Chapter Seven, Burne-Jones bought aluminium for use in his watercolours in the early 1870s.

By 1870, when Whiteford’s *Guide to Figure Painting in Water Colours* came out, F.G. Stephens was art critic for the *Athenaeum* and his reviews provide a more balanced appreciation of the technical content of the book than those of his predecessor. Stephens finds Whiteford’s manual ‘capital’, especially his recommendation of the ‘individual qualities and services’ of certain pigments and his explanation of the different methods required for painting using transparent pigments and bodycolours. He concludes: ‘We do not know of a better book on the subject than this.’¹⁹⁴

During the period in question, reviews also appeared in both the *Art Journal* and the *Athenaeum* of more important academic art publications, which demonstrate the degree to which historical and technical progress in art were being seriously debated in the public arena and show Ruskin’s continuing dominance in the field. In 1851 the *Athenaeum* reported on Ruskin’s *Pre-Raphaelitism* and in 1854 on the translation from French of Chevreul’s *The Principles of Harmony and Contrast of Colours and their Applications to the Arts*, while the *Art Journal* reviewed volume three of Ruskin’s *Modern Painters* in 1856 and Richard and Samuel Redgrave’s *A Century of Painters of the English School* in 1866.¹⁹⁵ The review of Chevreul’s work is evidence of the growing awareness of and respect for European ideas and artistic practice which was taking hold in Britain at this time. Neither of the journals shows great reverence for Ruskin, however. The *Athenaeum* complains of his ‘bigotry’, the ‘pomp of his infallibility’, his ‘Turner-olatry’ and ‘the canonization of St. Millais’.¹⁹⁶ In the *Art Journal*, volume three of *Modern Painters* is picked apart in minute detail over three pages, finding fault with everything from the ‘maudlin absurdity’ of Ruskin’s defence of Turner to his ‘degradingly and scurrilously written’ humiliation of living painters, especially of Constable. He is described as alternating between ‘two extremities –

violent and unreasonable censure – extravagant and groundless eulogy’.¹⁹⁷ Whether they loved him or hated him, however, the critics also knew they could not afford to ignore Ruskin. ‘The worst of it is, that having taken him by the hand from the first, we feel bound to read and report upon all he writes’ sighs the *Art Journal* critic, who suggests that in this third volume Ruskin ‘is now attempting the famous stage trick known in pantomime circles as “swallowing himself.”’¹⁹⁸ Ruskin had already become the enemy of both *Blackwood’s* and *The Times* when he wrote his first volume of *Modern Painters* defending Turner against their attacks of 1842. Prettejohn attributes some of the hostility of critics to Ruskin to the fact that, in his *Academy Notes*, he ‘was advancing a new qualification, the scholarly study of art over a prolonged period, as fundamental to the critic’s task’.¹⁹⁹ The less professional, anonymous ranks of ‘artist-critics’ and ‘literary art critics’ may have perceived this as a threat to their position. In his article on “Art Criticism”, published in the *Cornhill Magazine* in 1863, P. G. Hamerton had identified eleven duties of an art-critic. The second was ‘to instruct the public in the theoretical knowledge of art’ and the ninth: ‘to make himself as thoroughly informed as his time and opportunities will allow about everything concerning the Fine Arts.’²⁰⁰

8.11 Conclusion

This investigation into such a wide range of journals and papers between 1850 and 1880 provides many new insights into not only the authors of art critical writing and the subjects and artists they describe, but also into their relationship with editors and with the newly expanding middle-class reading public of the age. The growing popularity of amateur art in Britain, and the spreading appetite for affordable, high quality painting materials and for works by British artists to adorn suburban homes, meant that there was a rising market for informative journalism. Newspaper and periodical titles rapidly expanded, aided by a new network of railways to transport them and lower prices brought about a reduction in the tax levied on paper and advertising. The public eagerly consumed the reviews by critics of the latest exhibitions in London and the provinces.

Previous research on nineteenth-century art critical writing has focussed purely on an analysis of exhibition reviews, often from a limited number of journals or restricted to a particular artist or style of painting. It is now clear that, thanks to the vision of inspirational new editors such as Samuel Carter Hall of the *Art Journal*, Frederick Greenwood of the *Pall Mall Gazette* and Norman MacColl of the *Athenaeum*, highly

educated and knowledgeable writers were being enlisted to report on a far wider range of subjects than simply exhibition reviews. Far from being lowly-paid generalists, these men were respected experts in their field and often university-educated. Their topics ranged from evaluations of popular art manuals to a serialised “Dictionary of Terms in Art”, articles on the art of illumination and lengthy technical descriptions of new chemical and manufacturing processes for improved pigment, resin, gum and paper production. The *Art Journal* too led the way in exposing old master forgeries, in discussing conservation of watercolours and in promoting contemporary British art. Evidence has also been found during this research of the vital role played by periodicals such as the *Athenaeum* in summarising and commenting on important public addresses by prominent individuals in the art world. In particular their summary of Ruskin’s unscripted 1854 lecture on colour at the Architectural Museum provides one of the few published records of this event. Whilst Ruskin was not a critic for any of the journals, his influence was always visible, although not always appreciated by critics.

As we have seen, the factual articles by eminent scientists and artists were all signed. However, the standard convention of the day demanded total anonymity for the critic of exhibition reviews. Anonymity meant that journalists could write for a number of different periodicals simultaneously. It also gave them the freedom to express their opinions on current artistic practice without the fear of retribution. It could, at times, however, be shamelessly exploited, as when the editor Frederick Greenwood supported a mocking letter on Burne-Jones he had written under the guise of a member of the public (signed ‘Q.T.’) with an editorial comment agreeing with the content of the letter! Not surprisingly, there were increasing calls for the abolition of anonymity, not least by William Rossetti, P. G. Hamerton and Ruskin, who sought to raise the status and professionalism of art criticism. During the 1870s critics such as Tom Taylor in *The Graphic* began to sign their work and new publications such as the *Pall Mall Gazette*, *Graphic* and *Magazine of Art* introduced university-educated men such as Sidney Colvin, Joseph Comyns Carr, R. A. M. Stevenson and Tom Taylor, to write for their pages, while the *Spectator* enlisted the talents of Harry Quilter. The earlier colourful violence of critical language became more refined during these later years, with the application of more technical terminology.

For the first time, we can compare attitudes within the press to changes in watercolour practice during this period. Many attitudes were surprisingly conventional and steeped

in the traditions of the past. The use of bodycolour (particularly advocated by Ruskin) was almost universally condemned by critics at the beginning, because they did not see this as a legitimate material for watercolour, which they felt should retain the traditional transparent method. They could not understand why watercolour artists were trying so hard to emulate oil painting when they could celebrate the unique quality of their materials which set them apart from oils (and yet they praised the national progress of watercolour over the years from humble tinted drawing to the rival of oil painting).

Artists such as Burne-Jones and John Frederick Lewis were frequently criticised for their use of bodycolour, although the criticisms gradually became less intense as grudging acceptance of the technique set in. Apart from Ruskin, who promoted the study of detail, critics also deplored the excessive use of intricate brushwork and stippling in watercolours by many artists, including Lewis and Birket Foster, as it was considered to be part of a growing fashion for ‘mannerism’ and ‘flashy execution’. Some critics recognised the impact of new types of smooth paper on such methods. As the 1870s progressed, the poetic and suggestive qualities of the work of John William North and Samuel Palmer became more appealing to critics, who were increasingly bored with realism and its cult of microscopic detail. Artists’ use of bright colours was another cause for complaint amongst the critics, who bemoaned the ‘eccentricities of colour run mad’ which appeared on the walls of the watercolour galleries.²⁰¹ Yet these new brilliant hues of orange, yellow, green and violet were the fruits of modern chemistry which had been so widely heralded. Their powerful colouring would distinguish the works of the second half of the nineteenth century from their more delicate and fugitive predecessors and turn watercolour into a medium to rival oils. Startling new techniques actually inspired much spirited debate amongst critics, who were increasingly bored with the predictability of more conventional methods.

Many interesting and groundbreaking insights have been gained from this in-depth analysis of such a diverse range of art critical writing from across the mid-nineteenth century. They help us to understand not only the personal background and changing status of art critics, but also the journalistic conventions and language of the time; the growth of watercolour exhibitions; the impact of new artists’ materials on national taste; the burgeoning public interest in watercolour painting and the thirst for knowledge about new pigments, papers and artistic processes; the importance for the

nation of the durability of art materials; and the importance accorded to progress and scientific and industrial innovation within the Victorian artistic community at large.

¹ *The Graphic*, 29 April 1871, p. 383.

² F. W. Fairholt, *A Dictionary of Terms in Art*, London, 1854, p. 136.

³ George P. Landow, "There Began to Be a Great Talking about the Fine Arts", in Josef L. Altholz (ed.), *The Mind and Art of Victorian England*, Minneapolis, 1976, p. 128.

⁴ *Ibid.*, pp. 124-145. Examples of articles include: Barbara Onslow, "'Humble Comments for the Ignorant': Margaret Oliphant's Criticism of Art and Society", *Victorian Periodicals Review*, Vol. 31, No. 1, (Spring, 1998), pp. 54-74; Debra N. Mancoff, "Samuel Carter Hall: Publisher as Promoter of the High Arts", *Victorian Periodicals Review*, Vol. 24, No. 1 (Spring, 1991), pp. 11-21; R. W. Peattie, "William Michael Rossetti's Art Notices: In the Periodicals, 1850-1878: An Annotated Checklist", *Victorian Periodicals Newsletter*, Vol. 8, No. 2, (June 1975), pp. 79-92.

⁵ Leslie Alexis Marchand, *The Athenaeum: a mirror of Victorian culture*, Chapel Hill, 1941; S.C. Hall, *Retrospect of a Long Life: from 1815 to 1883*, London, 1883, pp. 338-373; J. W. Robertson Scott, *The Story of the Pall Mall Gazette, of Its First Editor Frederick Greenwood and of its Founder George Murray Smith*, London, New York, Toronto, 1950; Oscar Maurer, Jr., "Anonymity vs. Signature in Victorian Reviewing", *University of Texas Studies in English* 27 (1948), pp. 1-27; Julie L'Enfant, *William Rossetti's Art Criticism: The Search for Truth in Victorian Art*, Lanham, Maryland and Oxford, 1999; Colleen Denney, *At the Temple of Art: The Grosvenor Gallery, 1877-1890*, Madison, N.J., and London, 2000, pp. 85-106.

⁶ Scott Wilcox and Christopher Newall, *Victorian Landscape Watercolors*, (exh. cat.), New Haven, 1992; Christopher Newall, *Victorian Watercolours*, London and New York, 1987, pp. 13-20 particularly discusses use of Chinese White.

⁷ Christopher Kent, "Periodical Critics of Drama, Music, & Art, 1830-1914: A Preliminary List," *Victorian Periodicals Review*, Vol. 13, No 1/ 2 (Spring-Summer, 1980), pp. 31-55.

⁸ H. Herd, *The March of Journalism: The Story of the British Press from 1622 to the Present Day*, London, 1952, p. 5.

⁹ Digital Archives used:

19th Century British Library Newspapers: *Graphic*, *Pall Mall Gazette*

Times Digital Archive: *The Times*

Bodleian library – Oxlip/e-journal: *Blackwood's Magazine*

¹⁰ "Paper Manufacture", *Art Journal*, 1 May 1854, p. 146.

¹¹ Helene E. Roberts, "British Art Periodicals of the Eighteenth and Nineteenth Centuries", *Victorian Periodicals Newsletter*, No. 9 [vol. 3, No.3] (July 1970), pp. 125-146.

¹² P. G. Hamerton, for example, in "Art Criticism", published in the *Cornhill Magazine* 8, 1863, p. 340, listed in second place the duty of the art critic as: 'To instruct the public in the theoretical knowledge of art.' (later included in *Thoughts About Art*, (new revised edition), London, 1873, pp. 151-165.)

¹³ *The Graphic*, 29 April 1871, p. 383.

¹⁴ Kent, "Periodical Critics Drama, Music, & Art", p. 31, writes that the 'lower critics' of Victorian periodicals were mostly 'professional journalists, not usually university-educated', although he does suggest that many were 'professional practitioners of the art they criticized'; Kate Flint, *The English Critical Reaction to Contemporary Painting, 1878-1910*, unpublished thesis, Oxford, 1983, pp. 8 and 53, describes criticism in the daily press in the period 1760-1878 as by 'relatively unspecialised writers', and divides critics into two categories: 'Philistines', with their 'cruder treatment of technique' and a desire for value for money; and the 'progressive critics', who acted as interpreters of art. Ruskin's placement in the former category shows the dangers of such attempts to categorise, for his *Elements of Drawing* clearly demonstrates a thorough knowledge of watercolour techniques and materials.

¹⁵ Ruskin, "Modern Painters, Volume I", *Works*, III, p. 3 (first published 1843).

¹⁶ L'Enfant, *William Rossetti's Art Criticism*, p. 8.

¹⁷ Robertson Scott, *PMG*, p. 164.

¹⁸ Maurer, "Anonymity vs. Signature", p. 1.

¹⁹ Robertson Scott, *PMG*, p. 164.

²⁰ "Mr. Broadhead and the Anonymous Press", *Pall Mall Gazette*, 29 July 1867, p. 4, quoting words in pamphlet written by Richard Congreve.

²¹ *Pall Mall Gazette*, 29 July 1867, pp. 3-4.

²² Onslow, "'Humble Comments'", p. 56.

²³ Walter E. Houghton, *The Wellesley Index to Victorian Periodicals*, Vol. I, Toronto and London, 1966, p. 9.

²⁴ Houghton, *Wellesley Index* Vol. I; Kent, "Periodical Critics Drama, Music, & Art", pp. 31-55.

²⁵ Houghton, *Wellesley Index*, p. 8; "Correspondence: The Burne-Jones School of Painting", *Pall Mall Gazette*: Monday 28 May 1877, p. 2; "Modern Taste", 11 December 1874, p. 2.

²⁶ *The Graphic*, 5 May 1877, p. 410.

²⁷ *The Magazine of Art*, 1880, pp. 123-127; 257-9; 412-417.

²⁸ Ruskin, "Academy Notes", 1856, *Works*, XIV, pp. 43-46.

- ²⁹ Hamerton, "Art Criticism", in *Thoughts About Art*, pp. 151-2.
- ³⁰ William Michael Rossetti, *Fine Art, Chiefly Contemporary: Notices Re-printed, with revisions*, London and Cambridge, 1867, p. xiv.
- ³¹ *Ibid.*, p. xv.
- ³² *Ibid.*, pp. xv-xvi.
- ³³ Kent, "Periodical Critics Drama, Music, & Art" p. 32.
- ³⁴ *Ibid.* This amount was only marginally less than Rossetti's 'civil service salary of £60'.
- ³⁵ Robertson Scott, *PMG*, p. 70.
- ³⁶ *Ibid.*, p. 140.
- ³⁷ *Ibid.*, p. 135.
- ³⁸ "British Artists: Their Style and Character. No. XVIII – James Duffield Harding", *Art Journal*, 1 September 1856, p. 269.
- ³⁹ Onslow, "Humble Comments", p. 58.
- ⁴⁰ Kent, "Periodical Critics Drama, Music, & Art", p. 33.
- ⁴¹ Robertson Scott, *PMG*, p. 182.
- ⁴² Quoted in Robertson Scott, *PMG*, p. 182.
- ⁴³ *Pall Mall Gazette* 1979 – On Friday 16 May (p.12) an anonymous review of the Grosvenor Gallery (actually written by the editor Frederick Greenwood – see Robertson Scott, *PMG*, pp. 355-357) condemned Burne-Jones's *Annunciation* and the *Pygmalion* series of oil paintings, criticising the 'everlasting effect of weariness and woe', 'the sickly Gothic countenance' and 'those hideous nails imbedded in the flesh'. This was followed by a provocative letter signed 'Q.T' (also identified as Greenwood), published 20 May (p. 4), making fun of the 'pedal extremities' portrayed in these paintings, in answer to which a letter was published on 29 May (p. 4), signed by Sidney Colvin, A. Legros and W. B. Richmond, all Slade Professors of Art, defending Burne-Jones's 'imaginative and technical power.'
- ⁴⁴ *Art Journal*: 1 July 1851, p. 185 and 1 April 1860, p.111.
- ⁴⁵ Landow, "There Began to Be a Great Talking", p. 129.
- ⁴⁶ *Art Journal* I, 1839, p. 102, quoted in Helene E. Roberts, "Art Reviewing in the Early Nineteenth-Century Art Periodicals", *Victorian Periodicals Newsletter*, No. 19. (Vol. 6, No.1) March 1973, p. 10.
- ⁴⁷ Richard Redgrave and Samuel Redgrave, *A century of painters of the English school*, London, 1866, p. 626.
- ⁴⁸ Herd, *March of Journalism*, p. 196.
- ⁴⁹ Redgrave, *Century of painters*, pp. 536-539.
- ⁵⁰ Herd, *March of Journalism*, p. 195.
- ⁵¹ Elizabeth Prettejohn, "Aesthetic Value and the Professionalization of Victorian Art Criticism 1837-78", in *Journal of Victorian Culture*, Spring, 1997, p. 76.
- ⁵² Rossetti, "Mr Palgrave and Unprofessional Criticisms on Art," *Fine Art*, p. 326.
- ⁵³ Robertson Scott, *PMG*, p. 129.
- ⁵⁴ *The Magazine of Art*, 1878, p. 4.
- ⁵⁵ "The Old Water-Colour Society", *The Times*, 27 April 1870, p. 4.
- ⁵⁶ *Art Journal*, 1 March 1869, p. 81; *The Times*, 4 February 1868, p. 4; *Pall Mall Gazette*, 16 August 1876, p. 10; *Athenaeum*, 5 May 1877, p. 583.
- ⁵⁷ *Athenaeum*, 25 February 1865, p. 279; 27 April 1850, p. 453.
- ⁵⁸ Roberts, "Art Reviewing", p. 12. De Piles' book, first published in 1708, was translated into English in 1743. According to Roberts the 'Balance of Painters' was also published in the *Artist's Repository* in 1785-88.
- ⁵⁹ *Blackwood's Magazine*, August 1857, p. 166.
- ⁶⁰ *Art Journal*, July 1862, p. 162.
- ⁶¹ "Colours from Coal – Professor Armstrong", *The Times*, 22 January 1878, p. 11.
- ⁶² *Pall Mall Gazette*, 28 February 1865, p. 7.
- ⁶³ *The Magazine of Art*, 1878, p. 82.
- ⁶⁴ *Pall Mall Gazette*, 28 February 1865, p.7; *Blackwood's Magazine*, August, 1861, p. 203; "Society of Painters in Water Colours", *Athenaeum*, 29 April 1854, p. 529.
- ⁶⁵ Marchand, *Athenaeum: mirror of culture*, pp. 1 and 67.
- ⁶⁶ George Field, 1777-1854, colourman – see above, CH. 2, p. 63.
- ⁶⁷ *Athenaeum*, 28 April 1860, p. 585.
- ⁶⁸ *Athenaeum*, 15 May 1852, p. 552.
- ⁶⁹ According to E.T. Cook and Alexander Wedderburn, editors of Ruskin, *Works* XII, footnote 1, p. 474, these lectures, given by Ruskin on Saturday 11 and 25 November and 9 December 1854, 'were not written out by him, nor were they printed in any of his works. They were, however, reported at the time in the press; and especially in the *Morning Chronicle* (13, 27 November and 11 December), and the *Builder* (25 November and 2 and 16 December). A fuller report, collated from these and other sources, was given in Part II, pp. 125-153, of *Ruskiniana* [*Lectures and Addresses reported in the Press but not*

reprinted in *Collected Works* - privately printed by Wedderburn in 1892]... The present report is based on this last version.' Footnote 2 continues that the lecture 'had been advertised in the *Athenaeum* of 21 October 1854, and elsewhere. It appears that a printed synopsis was also issued – at any rate of the second and third lectures...but the editors have not been able to find a copy of it.' The synopsis of lecture 3 has now been located by the present research, in the 23 December edition of the *Athenaeum*, pp. 1562-3.

⁷⁰ Ruskin, "Addresses on Decorative Colour (1854): I The Distinction between Illumination and Painting", *Works*, XII, p. 483.

⁷¹ *Athenaeum*, 23 December 1854, p. 1562.

⁷² Mancoff, "Samuel Carter Hall", p. 13.

⁷³ "On the Application of Science to the Fine and Useful Arts", *Art Journal*, 1 January 1851, pp. 7-8, and "Colours obtained from the Animal Kingdom: Kermes-Carmine-Lac", *Art Journal*, 1 February 1858, pp. 45-46.

⁷⁴ *Art Journal*, 1 March 1858, pp. 70-71.

⁷⁵ "Colours employed in Mural Painting in the Thirteenth Century", *Art Journal*, 1 January 1852, pp. 22-23; and *Art Journal*, 1 April 1854, pp. 94-95.

⁷⁶ *Art Journal*, 1 October 1865, pp. 301-2; *Art Journal*, 1 December 1875, p. 373.

⁷⁷ "Artists' Colours", *Art Journal*, 1 July 1862, p. 162.

⁷⁸ Ibid.

⁷⁹ *Art Journal*, 1 December 1851, p. 301.

⁸⁰ *Art Journal*, 1 January 1850, p. 17.

⁸¹ *Art Journal*, 1 December 1852, p. 373.

⁸² *Art Journal*, 1 May 1853, p. 123.

⁸³ "Smoke and Pictures", *Art Journal*, 1 December 1853, p. 312.

⁸⁴ *Art Journal*, 1 December 1857, p. 384.

⁸⁵ "Our Art Collections", *Athenaeum*, 31 August 1861, p. 289.

⁸⁶ *Athenaeum*, 3 October 1863, p. 440.

⁸⁷ *The Times*, 30 April 1880, p. 6.

⁸⁸ Julie F. Codell, "Moderate Praise: The Contribution to Art Criticism of *The Portfolio*", *Victorian Periodicals Review*, Vol. 20, No. 3 (Fall, 1987), p. 84.

⁸⁹ *Art Journal*, 1 December 1857, p. 384.

⁹⁰ *Athenaeum*, 31 July 1880, p. 154.

⁹¹ *Art Journal*, 1 June 1864, p. 169.

⁹² Extract from Théophile Gautier, "Le Moniteur Universel", 21 June 1855, quoted in *Blackwood's Magazine*, August 1857 (Vol. 82), p. 172.

⁹³ *Athenaeum*, 5 December 1863, p. 763.

⁹⁴ *The Magazine of Art*, 1880, p. 158.

⁹⁵ *Art Journal*, 1 November 1852, p. 331.

⁹⁶ *Art Journal*, 1 February 1852, p. 47.

⁹⁷ *Art Journal*, 1 November 1857, p. 345.

⁹⁸ Greg Smith, *The Emergence of the Professional Watercolourist. Contentions and Alliances in the Artistic Domain, 1760-1824*, Aldershot, 2002, p. 200 – footnote 103. Refers to Hearn, *The Production of Paintings*, 1998, and Peter Bower, "The evolution and development of 'drawing paper' and the effect of this development on watercolour artists, 1750-1850", in *The Oxford Papers, Proceedings of the British Association of Paper Historians Fourth Annual Conference*, 1996.

⁹⁹ "Paper Manufacture", *Art Journal*, 1 May 1854, pp. 145-148.

¹⁰⁰ "New Substitutes for Rags, &c. in the Manufacture of Paper", *Art Journal*, 1 May 1855, p. 167;

"Wood-Pulp for Paper-Making", *Art Journal*, 1 April 1870, p. 109; and "Bamboo Paper", *Art Journal*, 1 October 1871, p. 248.

¹⁰¹ *Art Journal*, 1 April 1870, p. 109.

¹⁰² Ibid.

¹⁰³ *Art Journal*, 1 December 1872, p. 267.

¹⁰⁴ *Art Journal*, 1 October 1852, p. 323.

¹⁰⁵ "Minor Topics of the Month", *Art Journal*, 1 July 1857, p. 199.

¹⁰⁶ *Art Journal*, 1 April 1870, p. 114.

¹⁰⁷ *Art Journal*, 1 December 1858, pp. 365-6.

¹⁰⁸ *Art Journal*, 1 September 1852, pp. 271-2.

¹⁰⁹ *The Graphic*, 26 August 1871, p. 206.

¹¹⁰ "The Water-colour Drawings at the Grosvenor Gallery", *The Magazine of Art*, 1879, p. 30.

¹¹¹ Ruskin, "The Elements of Drawing", *Works*, XV, p. 137.

¹¹² See below, Appendix I, "bodycolour".

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- ¹¹⁴ "The Winter Exhibition, at 120, Pall Mall", *Art Journal*, 1 December 1858, p. 354; "Exhibition of Modern British Art", *Athenaeum*, 23 November 1850, p. 1222.
- ¹¹⁵ "Society of Painters in Water Colours", *Athenaeum*, 29 April 1854, p. 529.
- ¹¹⁶ *Art Journal*, 1 June 1863, p. 117.
- ¹¹⁷ *Ibid.*
- ¹¹⁸ *The Times*, 28 April 1856, p. 12.
- ¹¹⁹ "The Water-Colour Exhibitions", *Athenaeum*, 2 May 1857, p. 571.
- ¹²⁰ "Manchester Exhibition of Art-Treasures", *Blackwood's Magazine*, August 1857, p. 172.
- ¹²¹ "The Dudley Gallery", *Pall Mall Gazette*, 13 February 1872, p. 10.
- ¹²² *Art Journal*, 1 June 1870, p. 173.
- ¹²³ *The Times*, 25 April 1864, referring to *Miracle of the Merciful Knight, Fair Rosamond, Annunciation*; 29 April 1867, p. 6, referring to *Cupid and Psyche*; 27 April 1870, p. 4, referring to *Beatrice*; Correspondence: "Modern Taste," signed by J. Comyn Carr, *Pall Mall Gazette*, 11 December 1874, p. 2.
- ¹²⁴ Shearer West, "Tom Taylor, William Powell Frith, and the British School of Art", *Victorian Studies*, Vo., 33, No. 2 (Winter 1990), p. 322.
- ¹²⁵ Correspondence: "The Burne-Jones School of Painting", signed "Philharmonicus", *Pall Mall Gazette*, 28 May 1877, p. 2.
- ¹²⁶ *Athenaeum*: 11 May 1867, p. 630, referring to *The Breakwater*; 14 May 1870, p. 649, referring to *Burnham Beeches*; 5 May 1860, p. 622.
- ¹²⁷ *Pall Mall Gazette*, 10 May 1871, p. 11; "Dudley Gallery", *Art Journal*, 1 March 1867, p. 88.
- ¹²⁸ *The Times*, 2 January 1872, p. 5.
- ¹²⁹ *The Graphic*, 14 December 1878, p. 608.
- ¹³⁰ *Art Journal*, 1 June 1865, p. 173.
- ¹³¹ "Grosvenor Gallery", *The Magazine of Art*, 1879, p. 30.
- ¹³² *Athenaeum*, 3 May 1856, p. 558.
- ¹³³ "Society of Painters in Water Colours", *Art Journal*, 1 June 1864, p. 169.
- ¹³⁴ Samuel Redgrave, *A Descriptive Catalogue of the Historical Collection of Water-Colour Paintings in the South Kensington Museum*, London, 1877, pp. 19-20.
- ¹³⁵ *Art Journal*, 1 June 1863, p. 117.
- ¹³⁶ "The Society of Painters in Water Colours", *Art Journal*, 1 June 1857, p. 177.
- ¹³⁷ "The Water-Colour Exhibitions", *Pall Mall Gazette*, 8 July 1869, p. 11, referring to the works *St. George, Spring, Autumn*, and *The Wine of Circe*, which the critic called 'the foremost picture of the year'.
- ¹³⁸ Redgrave, *Century of Painters*, p. 477.
- ¹³⁹ *Ibid.*, p. 479.
- ¹⁴⁰ *Ibid.*, p. 480.
- ¹⁴¹ "The Dudley Gallery", *Athenaeum*, March 1874, p. 68.
- ¹⁴² "Winter Exhibition of Sketches and Studies", *Athenaeum*, 2 December 1865, p. 771.
- ¹⁴³ "Society of Painters in Water Colours", *Athenaeum*, 29 April 1854, p. 529.
- ¹⁴⁴ "The Old Water-Colour Society", *The Times*, 30 April 1863, p. 12.
- ¹⁴⁵ "Visiting the Studios", *The Graphic*, 6 April 1872, p. 318.
- ¹⁴⁶ Ruskin, "The Art of England", Lecture iv, *Works*, XXXIII, p. 341.
- ¹⁴⁷ *Art Journal*, 1 December 1865, p. 370 – refers to *Beehives near Witley* and *The Young Shepherdess* watercolours.
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- ¹⁴⁹ "The Society of Painters in Water Colours", *Athenaeum*, 3 December 1864, p. 752; *Athenaeum*, 29 April 1865, p. 593.
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- ¹⁵⁴ *The Times*, Monday 28 April 1856, p. 12.
- ¹⁵⁵ Ruskin, "Academy Notes, 1856", *Works*, XIV, pp. 73-76.
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- ¹⁵⁷ *Athenaeum*, 2 May 1857, p. 571.
- ¹⁵⁸ Ruskin, "Academy Notes, 1857", *Works*, XIV, p. 130.
- ¹⁵⁹ *Art Journal*, 1 June 1857, p. 178.

- ¹⁶⁰ *Athenaeum*, 7 May 1859, p. 616.
- ¹⁶¹ *The Graphic*, 10 November 1877, p. 559.
- ¹⁶² Ruskin, "Modern Painters, Volume I", *Works*, III, pp. 604-5, note 2.
- ¹⁶³ *Spectator*, 12 December 1863, p. 2855; *Athenaeum*, 13 December 1879, p. 768, calls *Going to Fold* a 'poetical picture' and 1 May 1880, p. 574 *Sabrina* is described as having 'poetic suggestions'; *The Times* 30 November 1863, p.5, notes Palmer's 'sweetly imagined poetic landscapes'.
- ¹⁶⁴ "Mr. L. Valpy's 'Palmer Drawings'", *Athenaeum*, 6 October 1877, p. 440.
- ¹⁶⁵ *Athenaeum* 11 May 1850, pp. 510-11; Scott Wilcox, "Poetic Feeling and Chromatic Madness: Palmer and Victorian Watercolour Painting", in W. Vaughan, Elizabeth E. Barker, Colin Harrison, *Samuel Palmer: Vision and Landscape*, exh. cat., London, 2005, p. 44.
- ¹⁶⁶ *Art Journal*, 1 October 1862, p. 199.
- ¹⁶⁷ "Dudley Gallery", *Art Journal*, 1 March 1871, p. 85; "SPWC", *Art Journal* 1 June 1871, p. 155.
- ¹⁶⁸ "Dudley Exhibition", *The Times*, 4 February 1868, p. 4.
- ¹⁶⁹ "Winter Exhibition, SPWC", *The Times*, 2 January 1872, p. 5, refers to *Uhlan; Nightingale; and The Tay, near Stobhall*; "Winter Exhibition SPWC", *The Times*, 18 December 1873, p. 3; "Winter Exhibition SPWC", *The Times*, 6 December 1877, p. 10, refers to *Land of Argyll*.
- ¹⁷⁰ *The Times*, 6 December 1877, p. 10, refers to *Land of Argyll*.
- ¹⁷¹ *The Graphic*, 9 December 1876, p. 578 – twelve watercolours, Winter Exhibition SPWC.
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- ¹⁷³ Scott Wilcox, "Landscape in the Watercolor Societies", in Wilcox and Newall, *Victorian Landscape Watercolors*, p. 46.
- ¹⁷⁴ *Art Journal*, 1 January 1874, p. 16 and 1 June 1874, p. 167.
- ¹⁷⁵ *Art Journal*, 1 August 1874, p. 228.
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- ¹⁷⁸ *Art Journal*, 1 January 1850, p. 132.
- ¹⁷⁹ *Art Journal*, 1 June 1865, p. 176.
- ¹⁸⁰ *Art Journal*, 1 August 1850, p. 298.
- ¹⁸¹ "Exhibition of the New Water-Colour Society", *The Times*, Monday 19 April 1858, p. 9.
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- ¹⁸³ See above, CH. 2.
- ¹⁸⁴ *Art Journal*, 1 August 1857, p. 264.
- ¹⁸⁵ George Barnard, *The Theory and Practice of Landscape Painting in Water-Colours*, London, 1855, p. 107.
- ¹⁸⁶ *Athenaeum*, 16 September 1854, p. 1118.
- ¹⁸⁷ *Art Journal*, 1 February 1859, p. 64.
- ¹⁸⁸ *Athenaeum*, 5 March 1859, p. 325.
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- ¹⁹¹ *Athenaeum*, 11 July 1857, p. 886.
- ¹⁹² *Athenaeum*, 12 April 1856, p. 463.
- ¹⁹³ F. DelaMotte, *A Primer of the Art of Illumination, for the Use of Beginners*, London, 1860; J. W. Bradley, *A Manual of Illumination on Paper and Vellum, and an appendix by T. Goodwin, R.A.*, London, 1860 – reviewed in *Athenaeum* 13 October 1860, p. 486 and 1 December 1860, p. 755.
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- ¹⁹⁵ *Athenaeum*, 23 August 1851, pp. 908-909 (*Pre-Raphaelitism*) and 2 September 1854, pp. 1068-1069 (*Chevreul*); *Art Journal*, 1 April 1856, pp. 113-115 (*Modern Painters*) and 1 July 1866, p. 227 (*A Century*).
- ¹⁹⁶ *Athenaeum*, 23 August 1851, pp. 908-909.
- ¹⁹⁷ *Art Journal*, 1 April 1856, p. 113.
- ¹⁹⁸ *Ibid.*
- ¹⁹⁹ Prettejohn, "Professionalization of Victorian Art Criticism", p. 75.
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- ²⁰¹ *Athenaeum*, 11 May 1850, p. 510.

Conclusion

This thesis has clearly shown that, contrary to popular belief, British watercolour painting experienced a period of great innovation between the years 1850 and 1880, directly resulting from the introduction of exciting and improved new artists' materials. Today, however, the work of avant-garde artists of the post-Turner era continues to be ignored or condemned in many historical accounts of the development of watercolour painting, which promote the concept of 'the notable decline in quality of much Victorian watercolour' after 1850.¹ Even watercolour histories which extend past 1850 devote a disproportionately small amount of their total catalogue to works created after 1850, and overlook Burne-Jones completely.² Whilst the watercolour techniques of "Golden Age" artists such as Cox, Blake and Turner have been widely discussed and praised, recent exhibition catalogues have failed to explore the groundbreaking methods of equally influential, but later, nineteenth-century artists, such as Lewis and Burne-Jones.³ Other progressive contemporaries, such as Foster and North, have suffered almost total neglect and remain uncatalogued and little exhibited.

It may be that the widespread use of bodycolour by artists after 1850, so widely criticized in the nineteenth-century press, has continued to be seen today as a retrograde step, which turned watercolour into a poor imitation of oil, rather than exalting the pureness of traditional wash techniques as practised by Towne, Cotman and Cox. Yet oil painters, who widely incorporated watercolour techniques into their work at this time, have not been similarly castigated. It is only by understanding the crucial role played by new materials and new pigments, such as Chinese White and brilliant opaque colours, in allowing the development of revolutionary new methods of working, and in freeing watercolourists from the restricting conventions of traditional practice, that the full value of experimental artists such as Lewis, Palmer, Foster, Burne-Jones and North, can be properly judged today. In particular, their radical use of a dry or wet white priming in watercolour is deserving of wider recognition, although it has long been established as a standard technique used in Pre-Raphaelite oil paintings.

The nineteenth-century historian and artist, J. L. Roget, considered that, 'to form a just estimate of a work of art, some acquaintance with the artist's intention, and the conditions under which his labour has been performed, is generally indispensable.'⁴ Yet today Carol Jacobi still laments that 'technical analysis tends to be the province of

texts on painting conservation, conservation records, or painting manuals,' rather than of art historical texts.⁵ Those technical studies which have been published on mid-nineteenth-century art focus almost exclusively on oil painting techniques rather than watercolour, and especially favour works by such groups as the Pre-Raphaelites or the Impressionists.⁶ My thesis argues that the dramatically original and progressive watercolour methods of the artists who painted between 1850 and 1880 are equally deserving of serious recognition today.

There are many reasons why the analysis of watercolour techniques and materials should play a more significant role in the study of art history. Apart from providing purely technical evidence of pigments and papers employed by artists during different stages of their career, which can assist in dating and authenticating works and in detecting any deterioration in the appearance of a painting over time, there are also wider implications. As the art historian Jirat-Wasiutyński and fine arts conservator Travers Newton Jr. have noted in their recent study of Paul Gauguin's oil painting techniques between 1873 and 1891, 'artistic techniques have a social history, they are signs endowed with cultural meaning by society.'⁷

In a marketplace dominated by the bourgeoisie and its institutions, nineteenth-century painters worked both with and against the socially dominant meaning of forms and techniques...Form and technique had acquired an increasingly prominent role in the making and evaluating of art since the 1850s. Addressed by the formal and technical qualities of the image as much as by the representation, the viewer was asked to dwell on them rather than look through them.⁸

The microscopic brushstrokes of many of the mid-nineteenth-century watercolours were designed to deliberately draw the viewer into a close inspection of the works, with their hatched colours, visible textures and high levels of finish. Their distinctive techniques, often labelled as 'Pre-Raphaelite' in the contemporary press, distinguished them clearly from all other styles of painting. As my work has shown, critics increasingly noted the 'utmost pitch of elaboration' and the 'dramatic effects' of mid-nineteenth-century watercolours, which they distinguished from the 'splosh, splash and touch' of earlier techniques.⁹

On a cultural level, the dramatic revolution in technique and appearance of watercolours at this time contributed to the emergence of new exhibiting spaces. The Dudley Gallery and the Grosvenor Gallery, for example, were created to offer alternative venues to avant-garde artists, whose work was considered unfavourable by

conservative strongholds, such as the Royal Academy, and even the Society of Painters in Water Colours, from which Burne-Jones had been driven in 1870. The decoration and hanging in the Grosvenor Gallery was itself revolutionary, with a gallery dedicated solely to watercolours, although little has been written specifically about the displays staged in this watercolour gallery.¹⁰ Colleen Denney has commented that Sir Coutts Lindsay's 'dual purpose in opening the gallery was to bring about artistic reform in the young and long-neglected artists he chose to present, and also exhibition reform, in how their works were shown and organized on the walls.'¹¹ The dense floor-to-ceiling hang practised by the Academy and other institutions was replaced, at the Grosvenor, by a more spacious and tasteful arrangement of paintings, with works by individual artists hung together, a practice that was unique to the Grosvenor. In this way, observed Mary Watts, 'the works of each artist, grouped together and divided by blank spaces, allowed the spectator's eye and mind to be absorbed entirely by what that painter had to give them,' without the distraction of conflicting works by other artists nearby.¹²

A further reason why the study of the technical aspects of painting is important is also a cultural one. The materials and techniques of watercolour were themselves becoming familiar to the art-viewing public during this period, with the advent of affordable manuals and the growing popularity and respectability of amateur painting as a pastime. This was an important factor, since it was the moneyed middle-classes who were replacing the aristocratic patrons of the past, and favouring bold new works by contemporary artists over Old Master paintings. In this context, we can understand why articles began to appear in the *Art Journal* on the history of pigments and on developments in papermaking and gums and resins used in the arts, alongside detailed instalments of a "Dictionary of Terms in Art." New materials and techniques were viewed then, and should still be seen today, as being located within a long historical painting tradition, going back to antiquity. My research highlights, for example, the mid-Victorians' interest in reviving the art of illuminated manuscripts and missal painting, and with recreating the effects of early frescoes. The comparisons made between historical and contemporary processes were of considerable interest to Victorian society, instilling a sense of great pride in the progress of their age. The artists themselves searched for ways to recreate past methods and effects using the latest (and, as a result, unfamiliar) materials, and as art historians, we need to be able to understand the technical challenges they encountered on this journey. Until now, the extent to which artists such as Palmer and Burne-Jones combined new and traditional

nineteenth-century art materials, in an effort to replicate the work of the ancients, has not been properly understood. There was an acute awareness in Victorian society of the complex and at times uneasy interdependency which existed between the arts and industry and science, in a time of rapid change. This explains the huge press interest shown in reporting issues such as the effects of pollution and smoke on works of art, the artist's responsibility for using permanent pigments, and government reports on the preservation and conservation of watercolours in national collections.

In Chapter One of my thesis I began with an overview of the major developments in artists' materials in Britain between 1850 and 1880. Advancements made in artists' materials in Britain during this period have been little researched. Cohn's *Wash and Gouache* has studied the progress of British, French and American watercolour materials and techniques up to the twentieth century, whilst Harley, Bower and Krill have focussed specifically on the development of new pigments or papers in Britain up to 1851.¹³ My thesis highlights major developments in watercolour materials during the ensuing thirty years. It shows how the discovery of a host of new chemical elements during the first half of the nineteenth century brought about a huge rise in the number of pigments which became available to artists, among them brilliant new green, yellow, orange, purple and violet colours. Perhaps most significantly for watercolour painting was the arrival of the new Chinese White, which was opaque, stable and permanent and would not blacken on exposure to the atmosphere. This new zinc white opened up completely new possibilities for watercolour techniques, yet its importance has been underestimated in modern watercolour histories. Colourmen formulated exciting new tube and moist watercolours, which not only made them physically resemble oil paints, but also eliminated the need to grind and prepare them in the artist's studio. The resulting distancing of artists from their materials meant they no longer understood the composition or working properties of their paints.

I have also shown how improvements in papermaking technology brought the arrival of strong wove Whatman papers, which could withstand vigorous manipulation, and which were prepared in a range of textures or 'finish', each of which was suited to different watercolour techniques. New nineteenth-century brushes in flat metal ferrules rather than flimsy quills and in widths of up to four inches encouraged a watercolour method which emphasised textured finish and thick applications of paint and bodycolour, in direct imitation of oil painting. Whilst the history of brushes up to the nineteenth century has been covered by Harley, my research has highlighted the lack

of academic material available specifically on important nineteenth-century developments in watercolour brushes, which dramatically impacted the way in which paint could be applied.¹⁴ New mediums such as watercolour megilp further encouraged a technique which closely resembled that of oils, yet little has been published on these materials, which produced such dramatic effects in the work of artists such as Palmer and Burne-Jones.

Colourmen began to promote their new products by producing a range of painting manuals and Chapter Two of my thesis explores the growth of watercolour manuals during this period. Unlike earlier treatises, these affordable manuals were largely unillustrated, but described in detail the materials and methods necessary to achieve success. Often a colourman's catalogue was attached at the back. Their subjects reflect the wide variety of interests enjoyed by the mid-Victorian audience: landscape painting, figure painting, flower painting, drawing in crayons, miniature painting, and illuminated and missal painting. My thesis shows for the first time how the successive revised editions of these hugely popular books bear witness to developments occurring in watercolour painting between 1850 and 1880, from the rapid adoption of the latest pigments, to the increasing and controversial use of bodycolour and of detailed techniques such as stippling and hatching. My research into this area fills the gap left in current literature, which has either focussed on British nineteenth-century oil painting manuals or on watercolour manuals produced up to 1860.¹⁵

Between 1850 and 1880, Lewis, Palmer, Foster, North and Burne-Jones all developed a wide range of pioneering techniques using the latest materials to produce images that stunned and sometimes shocked the public, and these are explored for the first time in Chapters Three to Seven of my thesis.

Lewis's unique style of watercolour painting applied tiny stippled strokes of paint and bodycolour on very smooth hot-pressed paper surfaces, using the latest tubes and moist pans of watercolour. My research, based on twenty-three years of unpublished records from the Roberson archive, demonstrates for the first time that, although he left the SPWC in 1858, he continued to buy watercolour materials until his final years. Furthermore, I have suggested, Lewis was one of the first landscape painters to apply a priming of Chinese White over the surface of his Oriental watercolours, as he explored ways of representing the intensity of light in heat-hazed Cairene scenes, extending the technique, which William Henry Hunt practised in small areas of his still-lives, to large

areas of his impressive later watercolours. The methods and materials he used to produce these ground-breaking watercolours have until now remained tantalisingly unresearched, of secondary importance always to the twentieth-century fascination with Lewis and Orientalism.¹⁶ The work begun in this thesis would be usefully expanded by further technical investigations, using non-destructive raman spectroscopy, to identify Lewis's use of individual watercolour pigments.

Palmer had a very deep technical knowledge of the pigments and papers with which he worked, based on an understanding of works by Cennini, Goethe, Eastlake and George Field as well as on his own practical experimentation. Twentieth-century interest in Palmer has largely centred around his early works from the Shoreham years, leaving his exciting later works (which account for over three-quarters of his output) largely overlooked.¹⁷ This is an issue which this thesis aims to redress. My research has shown for the first time that, in contrast to his early works, which used as few as nine pigments, all of them traditional, his later works joyously explored a much wider palette, using many of the bright new nineteenth-century pigments to help him in his quest to achieve a new boldness of effect, and ultimately, success as an artist. By the 1870s he was advocating the use of the new zinc white, which he applied as a thin priming to achieve the brilliance of a stained glass window onto a base of smooth nineteenth-century hot-pressed paper and London Board. A combination of traditional small brushes and nineteenth-century wide flat camel hair brushes enabled Palmer to combine large-scale working with fine detail in his later years. Palmer's employment of numerous, as yet unidentified, binders, additives and vehicles during his later years, merits further investigation.

Training in the art of wood engraving provided Foster with an entirely different approach, working initially in intricate detail, in black and white on a block of wood primed with white. He subsequently adopted the same system in his watercolour painting, applying a priming of Chinese White onto which he stippled and hatched tiny strokes of pure colour, creating a luminosity and freshness impossible by any other means. Painted on strong Whatman papers and the recently-introduced London Boards, Foster's idyllic landscape paintings of Britain were a great commercial success, although critics disliked the amount of bodycolour and detail employed. His output was prolific, highly commercially successful, often forged and for the most part undated, with the result that no catalogue raisonné has to date been published, a situation which needs to be rectified by further research. Historians such as Newall and

Hardie have focussed mainly on the subject-matter rather than the technique of Foster's works, and few exhibitions of his work have been held.¹⁸ Apart from short references in Huish, Hardie and Reynolds, little has recently been written about Foster's use of materials.¹⁹ It has been suggested that Foster worked with a limited palette of colours, but my thesis contains new evidence from the Foster family archive to show that his knowledge and use of colours was far wider than this.²⁰ New lightweight japanned tin palettes charged with tube colours and the latest sketching blocks allowed Foster to work outdoors.

North also started out as an illustrator, encouraged to copy Foster, yet his technique rapidly moved away from conventional use of detail to a more experimental approach, suggesting an emotional response to nature rather than a mere representation of facts. Whilst his early designs for wood engraving have been well documented, his innovative watercolours remain uncatalogued and little researched, a fact which is all the more surprising given his influence on the work of two important contemporaries, Walker and Herkomer.²¹ In view of the fact, too, that there is no full-length biography of North from either the nineteenth or twentieth centuries, and that few of his watercolours have been published or exhibited, my research provides an important starting-point for future studies. Whilst I have begun to catalogue his watercolours up to 1880, more needs to be done to complete the list of the work he created during the remaining forty-four years of his life. My research has revealed that early frustration with the poor quality of paper surface led North to widespread use of bodycolour and a growing desire to produce his own high quality watercolour paper, although his paper manufacturing business, established in 1895, was to prove financially disastrous. The origins and decline of his ambitious paper manufacturing project deserve to be fully researched and documented, and it is also to be hoped that a full biography on North will emerge, which will shed light not only his highly original technique, but also on his working relationships with both Walker and Herkomer.

Of all the artists included in this thesis, the most extensive record of materials used belongs to Burne-Jones, whose ledgers with Roberson run to thirteen tightly packed pages over a twenty-three year period, from 1857 to 1880. Only recently available to view on the web pages of the Hamilton Kerr Institute, these entries have never previously been analysed and reveal an astonishing amount about Burne-Jones's changing patterns of usage throughout most of his working life.²² They show how rapidly he embraced new products, from the latest sketching equipment in his early

years to dazzling new nineteenth-century pigments, Watercolour Medium, gold and aluminium pigments designed for missal painting and unconventional canvas and brown paper supports, to produce stunning and revolutionary works. Increasingly, he painted in thick bodycolour directly onto canvas rather than paper, with an initial priming of Chinese White to create added brilliance, delighting in the confusion he created amongst the public as to whether his works were in oil or watercolour. Burne-Jones embraced nineteenth-century products with an enthusiasm and extravagance that demonstrate his immense creativity and prodigious talent.

It is remarkable that the working methods and materials of such a major artist as Burne-Jones have not received more academic attention to date, but little has been published during the twentieth century on this subject, a situation lamented by Joyce Townsend in 2004.²³ Until now most of our knowledge of the artist's techniques has relied primarily on early sources written by his own contemporaries.²⁴ Major works by Wildman and Christian and Harrison and Waters provide only the briefest references to techniques and materials and major histories of British watercolour often exclude Burne-Jones because his decorative works do not fit into the respected tradition of landscape painting.²⁵ By direct contrast, as I have already mentioned, the oil-painting techniques and materials used by his fellow Pre-Raphaelites have been closely analysed and documented. It is clear that Burne-Jones's use of watercolour and unconventional supports deserves similar recognition and investigation.

In the final chapter of my research, I explored the attitudes in the press to the innovative techniques practised by watercolour artists between 1850 and 1880. I considered this to be a key area of my thesis, since it has not yet featured in any academic studies. To date specialist publications such as the *Victorian Periodicals Review* have focussed primarily on the work of specific journals, critics and editors, and on identifying anonymous art critics, but have completely neglected the reception of watercolours.²⁶ In her article on the changing role of art critics between 1837 and 1878, Prettejohn has recognised the need for more research and has called for 'a more nuanced and historical attention to Victorian art criticism.'²⁷ My analysis, in Chapter Eight of the thesis, of eight newspapers and journals published between 1850 and 1880, as well as Ruskin's "Academy Notes", has revealed not only fascinating exhibition reviews, but also many serious factual articles which have never previously been researched. The *Art Journal*, under the editorship of Samuel Carter Hall, stands out for its reporting on serious technical and historical issues regarding the scientific

development of modern pigments, papers, fixatives, gums and resins. These lengthy articles highlight the impact of the new materials on contemporary watercolour practice, which was now felt to compete with oils for texture, solidity and richness of colour. In contrast to the exhibition reviews, which were generally unsigned, these articles openly carried the names of the eminent scientists who wrote them. Concern for the conservation of watercolours in an age of gas lighting and coal smoke was also treated, as were the adulteration of pigments and the protection of Turner's watercolour legacy to the nation. The *Athenaeum* too was keen to promote public interest in the progress of sciences and the arts, publishing an address by Ruskin on decorative colour and Holman Hunt's call for the appointment of a Professor of Chemistry at the Royal Academy to carry out research into the permanence of pigments.

In contrast to the signed articles, much of the content of mid-nineteenth-century journals consisted of unsigned notices and reviews. My thesis focuses specifically on the subject of watercolour exhibition reviews, an area not treated in any previous academic studies. My research has shown that exhibition reviews were largely anonymous during the 1850s and 60s, although the growing professionalization of the role of critic led to more signed articles and a more refined quality of writing from the late 1860s. Whilst previous historical research has suggested that most art critics were uneducated hacks who had little professional training or artistic knowledge, my thesis provides new evidence to suggest that in fact many of them were university educated or were professionally trained artists, who had first-hand experience of materials and techniques.²⁸ The remainder were writers on art or biographers, with one woman contributor. Surprisingly little is known about the *Art Journal's* main art critic, James Dafforne, who deserves further investigation. During the 1850s, my research has shown that, amongst conservative critics, there was widespread outrage at the growing and extravagant use of bodycolour amongst up-and-coming watercolour artists, with artists such as Lewis and Burne-Jones particularly singled out for criticism, as their opaque and textured watercolours were considered dangerously similar to works in oil. By the 1870s, however, the use of bodycolour had become widespread and was almost acceptable. Other issues raised on frequent occasions in reviews were the gaudiness or violence of the colours used in watercolours by artists such as Palmer and North, and the excessive detail employed by others such as Lewis and Foster. Such 'mannerism' was regularly perceived to be the result of the arrival of new pigments and papers, which allowed a level of vigorous and microscopic manipulation previously

unimaginable. As the 1870s progressed, there was a general mellowing attitude towards innovative watercolour practice and a growing interest in atmospheric and aesthetically pleasing effects.

In conclusion, this study of new artists' materials and their application in watercolour painting between 1850 and 1880 clearly illustrates the immense value to be gained from combining art historical and technical knowledge. Too often modern historians have studied watercolour paintings in isolation from the creative process. Today, we would not countenance describing David Hockney's latest blockbuster works, created with the help of the iPad, without reference to the techniques he has employed and an understanding of the technology involved. Martin Gayford emphasises this crucial fact,

that artists... have always been intrigued by technology, and are highly attuned to the possibilities that technical innovation may offer. But that is not necessarily the way that conventional history, which tends to be based on documents, has approached art. Historians trust in texts, but *the paintings themselves are texts* [my italics], Hockney insists, and you can learn a lot from them.²⁹

Surely we should also apply this approach to mid-nineteenth-century British watercolour paintings, created using the latest technical innovations of their time?

The years from 1850 to 1880, then, deserve to be recognised as a period of extraordinarily rich and progressive activity in British watercolour painting, made possible by the arrival of revolutionary new pigments, papers, brushes and mediums. It was most definitely not a period of decline and decay, as we are often led to believe. The undeniable mastery of progressive artists such as Lewis, Palmer, Foster, North and Burne-Jones deserve to be fully acknowledged within the history of British watercolour painting. The art of nineteenth-century watercolour painting and the critical writing associated with it are both exciting areas which have much to offer art historians and present many ideas for further research, as I have indicated. I hope that the contribution to knowledge made by this thesis will provide a starting point for future projects, and that we may bring greater academic recognition to British watercolour painting during the second half of the nineteenth century.

- ¹ Andrew Wilton, *British Watercolours 1750 to 1850*, Oxford, 1977; David Blayney Brown, "Original Eyes: Progressive Vision in British Watercolour 1750-1850", *Original Eyes*, exhibition catalogue, London, 1991; quote from Lindsay Stainton, *British Landscape Watercolours 1600-1860*, London, 1985, p. 16.
- ² Andrew Wilton and Anne Lyles, *The Great Age of British Watercolours 1750-1880*, Munich, London, Washington, 1993 (only 48 out of the total 326 works date from after 1850); Matthew Hargraves, *Great British Watercolours: from the Paul Mellon Collection at the Yale Center for British Art*, New Haven and London, 2007 (only 8 watercolours date from after 1850).
- ³ Scott Wilcox (ed.), *Sun, Wind, and Rain: The Art of David Cox*, New Haven, 2008; Joyce Townsend (ed.), *William Blake, The Painter at Work*, London, 2003; Joyce H. Townsend, *Turner's Painting Techniques*, London, 1993; Nicholas Tromans (ed.), *The Lure of the East: British Orientalist Painting*, London, 2008; Stephen Wildman and John Christian, *Edward Burne-Jones: Victorian Artist-Dreamer*, New York and Paris, 1998.
- ⁴ Roget, Vol. 1, p. v.
- ⁵ Carol Jacobi, *William Holman Hunt: Painter, Painting, Paint*, Manchester and New York, 2006, p. 118.
- ⁶ Joyce Townsend, Jacqueline Ridge and Stephen Hackney, *Pre-Raphaelite Painting Techniques*, London, 2004; Elizabeth Prettejohn, *The Art of the Pre-Raphaelites*, London, 2000; Libby Sheldon, "Methods and Materials of the Pre-Raphaelite Circle in the 1850s", in Roy Ashok and Perry Smith (eds.), *Painting Techniques: History, Materials and Studio Practice*, London, 1998, pp. 229-234; Jacobi, *Holman Hunt: Painter, Painting, Paint*; David Bomford, Jo Kirby, John Leighton and Ashok Roy, *Art in the Making: Impressionism*, New Haven and London, 1990.
- ⁷ Vojtěch Jirat-Wasiutyński and H. Travers Newton Jr., *Technique and Meaning in the Paintings of Paul Gauguin*, Cambridge, 2000, p. 5.
- ⁸ *Ibid.*, pp. 5-6.
- ⁹ *Art Journal*, June 1, 1864, p. 169; and June 1, 1863, p. 117; *The Times*, April 30, 1863, p. 12.
- ¹⁰ Colleen Denney, *At the Temple of Art: The Grosvenor Gallery, 1877-1890*, Madison, N.J., and London, 2000, p. 43.
- ¹¹ *Ibid.*
- ¹² M. S. Watts, *George Frederic Watts: Annals of an Artist's Life*, Vol. 1, London, 1912, pp 323-4.
- ¹³ For example, R.D. Harley, *Artists' Pigments 1600-1835: a study in English documentary sources*, 2nd revised ed., London, 2001; Peter Bower, "The Evolution and Development of Drawing Papers and the effect of this development on Watercolour Artists, 1750-1850", *The Oxford Papers* (Studies in British Paper History, vol. 1), 1996, pp. 61-74; Peter Bower, *Turner's Later Papers: A Study of the Manufacture, Selection and Use of his Drawing Papers 1820-1851*, London, 1999; John Krill, *English Artists' Paper: Renaissance to Regency*, New Castle, Delaware, 2001; Hardie.
- ¹⁴ Harley, R., 'Artists' Brushes: Historical Evidence from the Sixteenth to the Nineteenth Centuries', *International Institute for Conservation Lisbon Congress 1972: Conservation of Paintings and the Graphic Arts*, London 1976.
- ¹⁵ Leslie Carlyle, *The Artist's Assistant: Oil Painting Instruction Manuals and Handbooks in Britain 1800-1900 with Reference to Selected Eighteenth-century Sources*, London, 2001; Peter Bicknell and Jane Munro, *Gilpin to Ruskin: Drawing Masters and Their Manuals, 1800-1860*, exh. cat., Cambridge, 1988; John Krill, "The Drawing Master's Assistant: Early Manuals for Landscape Drawing in Watercolour," in Sheila Fairbrass (ed.), *Conference Papers Manchester 1992*, (Institute of Paper Conservation), 1992, pp. 7-11; Hardie, Vol. I, pp. 10-40 and Volume III, pp. 284-288, bibliography of "Drawing-Books, Technique and Instruction" from the seventeenth to the mid-nineteenth century.
- ¹⁶ Tromans (ed), *Lure of the East*; Caroline Williams, "John Frederick Lewis: 'Reflections of Reality'", in *Muqarnas: An Annual on the Visual Culture of the Islamic World*, XVIII, New Haven, 2001, pp. 227-243; Briony Llewellyn: "Observations and Interpretation: Travelling Artists in Egypt", in Jan Marsh (ed), *Black Victorians: Black People in British Art 1800-1900*, Aldershot, Burlington, VT, 2005, pp. 35-45; and "A Masquerade Unmasked: An Aspect of John Frederick Lewis's Encounter with Egypt", in J. Thompson (ed), *Cairo Papers in Social Science*, Vol. XXIII, 2000, pp. 133-151.
- ¹⁷ Colin Harrison, *Samuel Palmer*, London, 2004; Timothy Wilcox, *Samuel Palmer*, London, 2005; Hardie, Vol II, p. 166.
- ¹⁸ Hardie, Vol. III, p. 110; C. Newall, *Victorian Watercolours*, London and New York 1987, p. 64.
- ¹⁹ Marcus B. Huish, "Birket Foster, His Life and Work", *The Art Annual for 1890* (Christmas Number of the *Art Journal*), London, 1890, pp. 1-28; Hardie, Vol. III, p. 112; Jan Reynolds, *Birket Foster*, London, 1984, pp. 71-3.
- ²⁰ Huish, "Foster", p. 18; Lancelot Glasson, "Myles Birket Foster", *The 'Old' Water-colour Society's Club*, Vol. XI, 1934, p. 39; H. M. Cundall, *The Life and Work of Birket Foster*, p. 140; Hardie, Vol. III, p. 112.

²¹ Joseph William Gleeson White, *English Illustration, "The Sixties": 1855-70*, London, 1897; Forrest Reid, *Illustrators of the Sixties*, London, 1928, pp. 163-5; George Dalziel, *The Brothers Dalziel: A Record 1840-1890*, London, 1978 (reprint. First published 1901), pp. 230-2; Paul Goldman, *Victorian Illustration*, Aldershot and Burlington VT, 2004, pp. 130-2.

²² <http://www-hki.fitzmuseum.cam.ac.uk/archives/roberson/concept.html>, 18 March 2012.

²³ Joyce H. Townsend, "The Materials Used by British Oil Painters in the Nineteenth Century", in *Tate Papers* (Tate's Online Research Journal), Issue 2, Autumn 2004, pp. 8-9.

²⁴ Mary Lago (ed.) *Burne-Jones Talking: His Conversations 1895-1898 Preserved by his Studio Assistant Thomas Rooke*, London, 1982; Malcolm Bell, *Edward Burne-Jones: a record and review*, London, New York, 1899 (first published 1892); Fortunée de Lisle, *Burne-Jones*, London, 1904; Georgiana Burne-Jones, *Memorials of Edward Burne-Jones*, Vol. 1, 1833-1867, London, 1904.

²⁵ Anne Lyles and Robin Hamlyn, *British Watercolours from the Oppé Collection*, London, 1997; Scott Wilcox and Christopher Newall, *Victorian Landscape Watercolors* (exh. cat.), New York, 1992; Wilton and Lyles, *Great Age of British Watercolours 1750-1880*; Jane Bayard, *Works of Splendor and Imagination: The Exhibition Watercolor 1770-1870* (exh. cat.), New Haven, 1981; Newall, *Victorian Watercolours*, includes three Burne-Jones watercolours, but they are all landscapes or figures in landscapes.

²⁶ See this thesis, above, CH. 8, p. 188.

²⁷ Elizabeth Prettejohn, "Aesthetic Value and the Professionalization of Victorian Art Criticism 1837-78", *Journal of Victorian Culture*, Spring 1997, Vol. 2.1, p. 71.

²⁸ Christopher Kent, "Periodical Critics of Drama, Music, & Art, 1830-1914: A Preliminary List," *Victorian Periodicals Review*, Vol. 13, No ½ (Spring-Summer, 1980), p. 31; Kate Flint, *The English Critical Reaction to Contemporary Painting, 1878-1910*, unpublished thesis, Oxford, 1983, pp. 8 and 53.

²⁹ Martin Gayford, "David Hockney: The Technology of Art", in Tim Barringer and Edith Devaney, *David Hockney: A Bigger Picture*, London, 2012, p. 64.

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Appendix 1 Nineteenth-Century Definitions of Terms

(Unless otherwise stated, definitions taken from *A Dictionary of Terms in Art*, F.W. Fairholt, London, 1854)

BLOTTING-IN	This is the broad and rapid rendering of landscape truth...Deals with things in mass, marking the broad distinctions of deep shade, half-tone, and lights in all its gradations, and leaving out most of the details of objects...having all the general tints melted or blotted into each other. (George Barnard, <i>The Theory and Practice of Landscape Painting in Water-Colours</i> , London, 1871, pp. 120-121)
BODY COLOUR	<p>1. In water-colour painting, works are said to be executed in <i>body colours</i>, when, in contradistinction to the early mode of proceeding in tints and washes, the pigments are laid on thickly, and mixed with white, as in oil painting, from which this style of painting only differs in certain relations, by the employment of water as a vehicle for the pigments instead of oil. (Fairholt p. 79)</p> <p>2. Body-colour, as <u>formerly used</u>, was what would now be more correctly termed <u>Tempera or Distemper</u>. The colours, generally in powder, were mixed with white to give them substance, and isinglass or other size was added to fix them on the paper or canvas. It was necessary to lay them on rapidly and with precision, as the lighter tints at least could not be re-touched or corrected. The general surface of the drawing, when dry, was dead, even and opaque...Distemper (painting) was suited rather to bold and suggestive, than to refined and complete work...</p> <p>By the <u>method now in favour</u>, and which affords very superior results, the Body-White is spread over the paper and forms a slightly absorbent and very luminous ground. When dry, colours, transparent or opaque, occasionally mixed with a little white, are touched over or blotted into it. (Sydney T. Whiteford, <i>A Guide to Figure Painting in Water Colours with illustrations of brushwork</i>, London, c1870, pp. 37-38)</p>
BRISTOL BOARD	Formed by pasting sheets of drawing-paper together, and submitting them to the action of a powerful press. It is made of various thicknesses, and used either for pencil or water colour drawing, or as a mount for such drawings. (Fairholt p. 32)

BRUSH/PENCIL	The smaller kinds of brushes are still sometimes termed “pencils;” but the use of the word “pencil” instead of “brush,” as distinctive of and peculiar to water-colour painting has become obsolete; and with reason, for to cover rapidly with floating colour the large surfaces of modern works in water-colour, requires brushes almost as large as any needed for painting pictures in oil. (John Thomas Gullick and John Timbs, <i>Painting Popularly Explained</i> , London, 1859, p. 295.)
CARTRIDGE PAPER	Paper of a strong texture, originally manufactured for soldiers’ cartridges... It is extensively used in the arts, its rough surface sometimes giving it an advantage for drawing upon. It consists of three kinds, known as common cartridge-paper, engineer’s cartridge, and double engineer’s cartridge. (Fairholt p. 101)
CAOUTCHOUC	The native name of India-rubber. (Fairholt p. 97) India Rubber – its use in removing pencil lines and dirt on paper and vellum is unrivalled, but was only adopted in the last century in Europe; now it is extensively employed in Art and manufacture. (Fairholt p. 248)
CROSS-HATCHING	A term in engraving applied to lines, whether straight or diagonal, which cross each other at regular or obtuse angles, to increase depth of shadow. (Fairholt p. 138)
CRETA LAEVIS	A crayon of permanent colour, the invention of Messrs. Wolff and Son. It is clearer than chalk, and has more softness and delicacy. (Fairholt p. 135)
DRAWING CHALK/ CRAYON PASTEL	Originally restricted in its colour to white, black, and red drawing chalk, with which high lights were placed on tinted paper, and deep shadows delineated, the red being generally used for marking outlines. Latterly, drawing chalks of every colour are used, and are known by the name of <i>crayons</i> , and impart a peculiar delicate tone to portraiture. (Fairholt p. 107) By the French...crayons are called “pastels”, a word derived...from the Italian word <i>pastello</i> – a little roll of paste – because they are made of pastes of different colours. According to others, the word is the name of a plant...of the juice of which is made a small dry paste of blue colour, called also <i>pastel</i> , which is much used by dyers. (Murray, <i>The Art of Painting and Drawing in Coloured Crayons</i> , London, 1856, p. 10)

<p>DISTEMPER/Detrempe (<i>Fr.</i>) TEMPERA (<i>Ital.</i>)</p>	<p>1. A kind of painting in which the pigments are mixed in an aqueous vehicle, such as <i>size</i>, and chiefly used for scene-painting, and interior decoration. In former times, when this description of painting was more extensively employed than at present, the vehicles for the pigments were the sap of the fig-tree, milk, and white of egg. Many works of the old masters were executed in distemper, and afterwards oiled, by which process they became almost identical with oil-paintings, or pictures executed with an oleaginous vehicle. By many persons unacquainted with the processes of painting, distemper is regarded as identical with fresco-painting. The difference is this – DISTEMPER is painted on a <i>dry</i> surface, FRESCO on <i>wet</i> mortar or plaster. (Fairholt p. 153)</p> <p>2. The <u>author of <i>The Elements of Drawing</i></u> recommends to beginners, Distemper, <i>i.e.</i>, colours <i>mixed</i> with white, as being more tractable and giving more perfect results...than transparent colours. (Whiteford, <i>Figure Painting in Water Colours</i>, c.1870, p. 40)</p>
<p>DRAGGING</p> <p><i>Illustrations Whiteford p 32</i></p>	<p>The brush, moderately charged with colour, is held at a very acute angle with the paper; some of the hairs are caught by the prominences of the rough paper, and depositing colour on them, produce a grain or granulation differing from and superior to the regular tooth of either ticking, canvas, or paper. (George Barnard, <i>The Theory and Practice of Landscape Painting in Water-Colours</i>, London, 1871, p. 123)</p>
<p>ELEPHANT-PAPER</p>	<p>A term employed to designate the largest kind of drawing paper manufactured some years ago, the sheet measuring 28 inches by 23. There is, however, a larger kind now made, termed DOUBLE ELEPHANT-PAPER, which measures 40 inches by 26 $\frac{3}{4}$. (Fairholt p. 164)</p>

(OX) GALL	<p>1. The gall of the ox is used in water-colour painting, mixed with the pigments, to make them flow freely upon paper which has a greasiness of surface...Colourless ox gall should be prepared by boiling the crude gall with animal charcoal, and filtering the liquid.</p> <p>Clarified ox-gall combines readily with colouring matters or pigments, and gives them solidity, either by being mixed with or passed over them upon paper. It increases the brilliancy and durability of ultramarine, carmine, green, and in general all delicate colours, whilst it contributes to make them spread more evenly upon the paper, ivory, &c. When mixed with gum-arabic, it thickens the colours, without communicating to them a disagreeable glistening appearance; it prevents the gum from cracking, and fixes the colours well, that others may be applied over them without degradation. (Fairholt p. 201)</p> <p>2. <i>Animal gall</i> is necessary only to attach the colours to the ground when it rejects them, or they work greasy, as is often the case on ivory and very smooth vellum or polished substances, or over certain pigments. (George Field, <i>Field's Chromatography: A Treatise on Colours and Pigments and of their Powers in Painting</i>. London, 1846, p 349)</p>
GLAZING	<p>1. Glazing is that part of the practice of oil-painting which consists in the application of an extremely thin layer of colour over another, for the purpose of modifying the tone...The pigments employed are generally transparent...The colour employed in GLAZING should be of a darker tint than the solid pigment over which it is laid. (Fairholt p. 215)</p> <p>2. Glazing in water-color painting, means the process of altering, or bringing out to its full pitch, the tone of a color, by passing over it, when dry, a thin wash, either of another and transparent color, or of any kind of gum or varnish. (George F. Rosenberg, <i>The Guide to Flower Painting in Water Colours</i>, London, 1852, footnote, p. 33)</p>
GOUACHE <i>First usage of the word in England?</i>	<p>'That large employment of body colour which threatens to turn what used to be transparent water-colour work into opaque <i>gouache</i> or distemper.' (<i>Graphic</i>, 14 December 1878, p. 608. Review of the Winter Exhibition of the Institute of Painters in Water Colours.)</p>

GUM AMMONIAC	Is a gum-resin, soluble in spirit and in water, in the latter of which it forms a milky fluid that dries transparent: it has many properties which render it useful in water-painting. It is avoided by insects, is very tenacious, and affords a middle vehicle between oil and water, with some of the advantages of both. It contributes, also, in the manner of a varnish, to protect the more fugitive colours over which it may be glazed, or with which it may be mixed, and on this account it is eligible in water-painting. (George Field, <i>Rudiments of the Painters' Art or a Grammar of Colouring</i> , London, 1850, pp. 128-9)
GUM ARABIC	Dissolved in water constitutes the well-known vehicle in water-colour painting – Gum-Water. It should be made of the cleanest and whitest pieces picked from the mass, and when dissolved, strained through muslin, and a small portion of white sugar-candy added to prevent its cracking or scaling when used. (Fairholt p. 222)
HATCHING	Is a term borrowed from the art of the engraver to denote the application of colour by a series of short parallel strokes; sometimes they are rather wide apart, which is intimated by the expression “open,” or “loose,” hatching, sometimes close as to produce an uniform tint. (Whiteford, <i>Figure Painting in Water Colours</i> , c.1867, pp. 28-29)
HP PAPER (hot-pressed)	‘Hotpressed’ – or perfectly smooth surface. (Winsor and Newton, <i>Catalogue – for Trade only, Brushes for Water and Oil Colour Painting</i> London, 1863, p. 46)
LAY FIGURE	A wooden figure with free joints, contrived for the study of draperies. (Fairholt p. 266)
MANNERED	Exhibiting the peculiar style of an artist, more particularly in its objectionable form. The term expresses an affectation, an over-refined delicacy, grace, or elegance in the character, forms, and arrangement of the objects of a composition. (Fairholt p. 283)
‘NOT’ PAPER (not hot-pressed)	1. ‘Not’ – or ordinary surface; having a slight grain (Winsor and Newton, <i>Catalogue</i> , 1863, p. 46)
ROUGH PAPER	‘Rough’ – or very coarse surface; of large and open grain. (Winsor and Newton, <i>Catalogue</i> , 1863, p. 46)
SCUMBLING	A mode of obtaining a softened effect in painting, by blending tints with neutral colour of a semi-transparent character, forming a sort of glazing when lightly rubbed with a nearly dry brush over that portion of a picture which is too bright in colour, or which requires harmonising; but, unlike regular glazing, it does not entirely, but only partially cover the ground-tint, the brush never being used charged with colour, and thus by its partial dryness depositing minute granular portions of colour over the surface. (Fairholt p. 392)

SEAMLESS PAPER	These Papers are similar to...[Whatman's] stout Drawing Papers, but are perfectly flat, and without any seam mark across the centre of the sheet. (Winsor and Newton, <i>Catalogue</i> , 1863, p. 46)
SIZE	Glue made from leather, parchment, &c., boiled in water, and strained. It is used by painters.* The purest and best is produced from parchment. (Fairholt p 402) [*Footnote: It is dissolved in water, as a vehicle, in tempera-painting. Mixed with China clay, it is used for priming grounds.]
STIPPLE	<p>1. A mode of engraving in imitation of chalk drawings, in which the effect is produced by dots instead of lines; each dot, when magnified, is however a group of smaller ones. (Fairholt p. 415)</p> <p>2. (In miniature painting on ivory) The surface of ivory is so hard that the tints are not absorbed as on paper; consequently, the difficulty of washing one tint over another is greater, and the interstices or inequalities of the tints, not being so even as on paper, require filling up to make them so. This is the sole object of that dotting, technically termed "stippling", which so many mistake for the end instead of the means. (C. W. Day, <i>The Art of Miniature Painting</i>, London, 1852, p. 52)</p> <p>3. 'Stippling' is the term used to describe a method of working, by applying the color [sic] in minute detached touches, instead of washes; ...mode of manipulation ...much employed by many eminent artists. (Rosenberg, <i>Flower Painting</i>, p. 22)</p>
TEMPERA/DETREMPE (Fr.)	Tempera painting, or DISTEMPER, as it is now called, is that in which the pigments are mixed with chalk or clay, and diluted with weak glue or size. It is chiefly employed for scene-painting...The pigments are laid on very thinly upon a glazed, white ground; they are durable, possessing all the properties of oil colours. (Fairholt p. 427)
TRAGACANTH	<p>1. Is a strong colourless gum, soluble in hot water, and of excellent use when colours are required to lie flat, or not bear out with gloss, and also when a gelatinous texture of the vehicle is of use to prevent the flowing of the colours. (George Field, <i>Rudiments of the Painters' Art or a Grammar of Colouring</i>, London, 1850, p. 129.)</p> <p>2. Fixes the underneath colour so that other tints may be washed over with freedom. (John Chase, <i>A Practical Treatise on Landscape Painting and Sketching from Nature in Water Colours</i>, London, c1873, p. 35.)</p>

VELLUM	A fine kind of parchment, made from the skins of calves or kids. It was extensively used for books in the middle ages, and has been since frequently used for drawing and painting upon in body-colour...The gold used for them was generally laid upon a thick white ground, similar to that used now by picture-frame makers, and which gave the effect of embossing to the work. (Fairholt p. 451)
WATER-COLOUR DRAWING	In the early catalogues of the Royal Academy Exhibitions they are designated “water-tinted drawings,” or “water-washed drawings.”...The term “drawing” is, however, so little adapted to express the elaborate processes of the present system of water-colour painting, that we think it quite time it should be discarded; we have therefore ...ventured to substitute the word “painting.” (Thomas John Gullick and John Timbs, <i>Painting Popularly Explained</i> , London, 1859, p. 303 and footnote)
WATER-COLOUR MEGILP	Gum Tragacanth: Both glutinous and dull. Water-Colour Megilp is made from this. By its introduction the colours may be applied pulpily, after the manner of Oil Painting, as it prevents their flowing (Aaron Penley, <i>The English School of Painting in Water Colours</i> , London, 1861, p. 29)
WATER-COLOUR PAINTING	A branch of Art which has achieved its great position within the last fifty years/...Water-colour painting can now rival oil in the depth and brilliancy of its tints...The modern water-colour painters have, however, called in the aid of body-colour very extensively, which was not usual with the earlier artists, who considered such modes of obtaining an effect as illegitimate. Once overcoming such scruples, the moderns do not object to <i>the mode</i> , so long as <i>the end</i> is gained; hence we see high lights and deep shadows put in with distemper or body-colour, brilliant effects produced by scratching up the surface of the paper, &c. (Fairholt pp. 464-5)

Appendix II Dates of introduction of new nineteenth-century pigments

Pigment	Pigment first manufactured	Composition and Behaviour
ANTWERP BLUE	1790s	A paler, less permanent, variety of Prussian Blue, containing a large quantity of alumina. (Taylor p. 58)
COBALT BLUE Oxides of metals aluminium + cobalt	1802 By Thenard	Prepared by calcining mixture of alumina and phosphate of cobalt. Does not possess depth and transparency of genuine Ultramarine but washes far better; unaltered under most severe exposure to light, but apt to become greener in hue in impure atmosphere. (Taylor p. 56)
PAYNE'S GREY	Early 19 th C	Compound pigment. More lilac in hue but otherwise resembles Neutral Tint in properties (not very permanent) (Taylor p. 64)
CHROME SCARLET/ RED CHROME	France 1812 1840 W&N (RDH p. 130)	Lead Chromate. Did not become permanent addition to artists' palette. (RDH p. 130)
PURE SCARLET (useful for flower painting – Duffield, Rosenberg)	c1812 France first appears 1814 (Harley, p. 46)	Iodide of mercury – prepared by precipitating solution of mercuric chloride with one of iodide of potassium. Has body & opacity of Vermilion, but superior in brilliancy. Of all pigments the most fugitive – rapidly blackened by impure atmosphere & exposure to light and air; fades away altogether. Cannot be mixed w other metallic pigments without utter destruction. A thick glaze of gamboge or gum-arabic adds to its stability. (Taylor pp. 38-9)
EMERALD GREEN Compound of acetic acid with arsenic and copper	1814	Aceto-arsenite of copper prepared by precipitation. Most durable of all the greens with a copper base; vivid colour; durable under exposure to light, but tendency to darken in an impure atmosphere; works rather badly and must not be mixed with any of the Yellows of Cadmium. (Taylor p. 53)
CHROME YELLOW (deep)	1814-15 Chromium discovered 1797	Chromate of lead, prep by precipitation. Brilliant yellow with great covering property, harsh quality of colour; exposure to sunlight dulls it considerably; in impure atmosphere is blackened. Injurious action on some blues – Prussian Blue, Antwerp Blue, Indigo – notorious. Its tendency to oxidize other substances is so well marked that any mixture of CY with an organic pigment should be shunned. (Taylor pp. 46-7) Poisonous. (RDH p. 102)

Pigment	Pigment first manufactured	Composition and Behaviour
ORANGE CHROME	1814-15 Rowney 1852 W&N 1858	Chromate of lead. Great power & brilliancy; but harshness of colour, want of permanence & tendency to oxidize delicate organic pigments. By reason of its lead base is discoloured by impure atmosphere. May be superceded by Cadmium Orange (Taylor p.44)
PALE LEMON CHROME	1814-15	
GREEN OXIDE OF CHROMIUM/ CHROME GREEN	1815 Field Mid 19 th C from other sources	Anhydrous sesquioxide. One of the most <u>permanent</u> pigments we possess; deep-toned & opaque; washes indifferently, very dense & powerful, must be employed with caution to avoid heaviness of effect. (Taylor p. 52)
CADMIUM YELLOW (deep) Compound of sulphur with metal cadmium	Known 1817 – available 1843 W&N (RDH p. 47)	Sulphide of cadmium. Richest, most powerful yellow we possess; not very transparent; unaffected by impure air; in ordinary daylight stands without change; among our <u>most durable</u> colours. (Taylor p. 46)
FRENCH BLUE/ SYNTHETIC ULTRAMARINE Compound of sulphur with metal sodium.	1826-7	Artificial imitation of genuine Ultramarine. Less transparent; <u>perfectly permanent</u> pigment, generally useful substitute for the genuine variety, as its washing properties are superior. (Taylor p.55)
VIRIDIAN	1830s France	Hydrated sesquioxide of chromium. Transparent, <u>extremely permanent</u> ; bluish green, great depth of colour. In its pale washes it is unsurpassed for clearness. No mixture of blue & yellow pigments will afford a green so beautiful and <u>stable</u> . (Taylor pp. 52-3)
CHINESE WHITE	1834	Oxide of zinc. Introduced by W&N – has been universally adopted by water-colour painters as <i>the</i> white for their profession. Perfectly permanent; may safely be mixed with all other colours; varies much in body; much possesses pasty & clogging properties; slight lack of opacity, which gives it a bluish character when applied in thin layers. (Taylor pp. 33-34)
ORANGE VERMILION	1835 New colour 1842 (RDH p. 47)	Sulphide of mercury. Paler than vermilion; more transparent; washes better (Taylor p.37)
COBALT GREEN	1835	Pigment prepared from cobalt, with addition of oxide of iron or zinc, which is of a pure but not very powerful green colour, and <u>durable</u> in both water and oil. (Field p. 234)
FIELD'S EXTRACT OF VERMILION orange	1835	Brighter & purer in colour [than orange vermilion]; more transparent; undergoes no separation. (Taylor p. 38)

Pigment	Pigment first manufactured	Composition and Behaviour
STRONTIUM YELLOW	1835?	Chromate of Strontium. More rich in colour than Lemon Yellow (barium chromate); extremely beautiful pigment naturally unfitted for a water colour, as it is slightly soluble in water; becomes green with great rapidity (Taylor p. 47)
MARS ORANGE	1840	Subdued orange pigment, artificially prepared sesquioxide of iron; considerable transparency, purity of colour, extremely <u>permanent</u> . Tendency to injure more evanescent colours such as Crimson Lake, Indigo (Taylor p. 44)
BARIUM CHROMATE (Lemon Yellow)	1840s France	Semi-opaque lemon, clearness of colour, works & washes pleasantly; not changed by exposure to light if properly prepared. (Another "LY" sold to artists is chromate of strontium, unfitted for water colour.) <u>Field's</u> process for making his celebrated LY purchased, at his decease, by W&N (Taylor pp. 47-8)
INTENSE BLUE	19 th C	Refined indigo. <u>More durable</u> , more deep & powerful than Indigo. In other respects similar to Indigo but disadvantage of penetrating the paper on which it is employed. (Taylor p. 58)
HOOKER'S GREEN	After 1846?	Mixed pigment – Prussian Blue + Gamboge. Very transparent and serviceable; has precisely the <u>permanence</u> which might be expected of its constituents. (Taylor p. 53)
RUBENS' MADDER	19 th C W&N 1848	Prepn of madder root. Brighter & more russet in hue than Brown Madder. Like all the madder colours is practically <u>permanent</u> under exposure to diffused daylight. (Taylor pp. 60-1)
NEUTRAL ORANGE	Mid 19 th C	Introduced by Aaron Penley (artist). Mixture Cadmium Yellow + Venetian Red. Recommended as first wash to break brilliancy of white paper; made up in cakes. <u>Permanent</u> . (Taylor p. 45)
VERDITER	1852	Blue verditer converted into green by boiling. Brightness of colour, has considerable permanence, except from the action of damp and impure air, which ultimately blackens it. (Field, pp. 235-6) In 19 th century it was not recommended for fine painting, but pigment was available. (RDH p. 53)
VIOLET CARMINE	1852 Rowney 1858 W&N (c 1855 in oil Carlyle p. 502)	From root of <i>Anchusa tinctoria</i> . Brilliant bluish purple possessing much richness of colour. On exposure to light loses its colour & blackens. (Taylor p.60)

Pigment	Pigment first manufactured	Composition and Behaviour
MADDER CARMINE	1852 Rowney 1858 W&N	Madder root + alumina. Strongest of a series of lakes. <u>Permanent</u> . Fades slightly after lengthened exposure to direct sunlight. (Taylor p. 42)
INDIAN PURPLE	1858 (first listed W&N)	Prep by precipitating colouring matter of a decoction of cochineal on base of oxide of copper. Very deep-toned, but rather cold & subdued purple, apt to blacken under ordinary conditions of exposure. (Taylor pp. 59-60)
MAGENTA	1860	Derived from aniline (coal tar). First called fuchsine, widely fashionable as a dye. (Garfield p. 78)
DAHLIA	1860	Developed by Perkin, an intermediate between mauve & magenta. (Garfield p. 79)
AUREOLIN (Cobalt Yellow)	1861 W&N (First synthesised 1831 - RDH p.48)	Introd by T. Salter 1860. Double nitrite of cobalt and potassium Great <u>permanence</u> , transparent; mixes safely with most colours, but injurious action upon Indigo, should be used cautiously with delicate organic pigments. Possible for it to exert oxidizing or reducing action. Resists long exposure to sunlight. (Taylor p. 45)
CADMIUM ORANGE Compound of sulphur with metal cadmium.	1862	Variety of sulphide of cadmium introduced 1862. Very brilliant & lustrous, used to replace old "Chrome Orange", being more <u>permanent</u> & more mellow in colour; fair amount of transparency; perfectly durable under normal conditions; by lengthened & severe exposure to sunlight becomes slightly browner in hue. Impure air & damp have no action on it. (Taylor p. 43)
CERULEAN BLUE	1862	Oxides of tin + cobalt. Apt to produce a chalky effect, washes in a very indifferent manner. Very good reputation for permanence under exposure to light, but has tendency to discolour in impure atmosphere. (Taylor pp. 56-7).
MAUVE <i>Required for flower painting</i>	1866 W&N (Discovd by Perkin 1856)	Lake prepared from aniline. Should only be used for temporary purposes. By exposure to ordinary daylight by far the most fleeting of all our modern water colours, should be utterly shunned by the landscape painter. (Taylor p. 60)
ALIZARIN CRIMSON	First synthesised 1868 (RDH p. 48) An interval before available Intro by Rowney 1891 (RDH p. 48)	New organic pigment developed by German chemists, who were first to synthesize a natural dyestuff. Chemically it is similar to the ancient lake made from rose madder, but far less expensive. (<i>Paint</i> p. 22)

Pigment	Pigment first manufactured	Composition and Behaviour
CYANINE BLUE (Leitch's Blue)	1869	Compound of Cobalt Blue and Prussian Blue. Possesses properties which would be expected of a mixture of these two pigments. Has been found <u>very durable</u> under fairly severe exposure to light. (Taylor p. 58)
PERMANENT YELLOW	Late 19 th C W&N pigment first listed 1886 (Carlyle p. 526)	Chromate of barium and Zinc White (Carlyle p. 526)

Abbreviations:Carlyle

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Appendix III
Colours listed in watercolour catalogues 1849-1897

Colour	with wax						
	W&N 1st listed	Removed from list	Reeves 1st listed	Removed from list	Rowney 1st listed	Roberson 1st listed	Removed from list
RED							
Burnt Roman Ochre	1849	1879	■		■	■	
Dragon's Blood	1849		1852		■	1840	
Indian Red	1849		1852		1852	1840	
Light Red	1849		1852		1852	1840	
Red Lead	1849	1879	1852	1862	1852	1840	
<i>Red Ochre</i>	1849	1879	■		■	■	
Red Chalk	1849	1879	1852	1879	■	■	
Venetian Red	1849		1852		1852	1840	
Vermilion	1849		1852		1852	1840	
Crimson Lake	1849		1852		1852	1840	
Scarlet Lake	1849		1852		1852	1840	
Scarlet Vermilion	1849		1862		1852	1840	
Pink Madder	1849		1852		■	1840	
Rose Madder	1849		1852		1852	1840	
Pure Scarlet	1849		1852	1862	1852	1840	
Burnt Carmine	1849		1852		1852	1840	
Carmine	1849		1852		1852	1840	
Scarlet Chrome	1863		■		■	■	
Chinese Vermilion	■		1852	1879	■	■	
Lake	■		1852	1879	■	■	
Chinese Crimson	■		1852	1879	■	■	
Intense Madder	■		1852		■	■	
Permanent Red	■		1862		■	■	
Saturnine Red	■		1862		■	■	
[Red Lead]							
Extract of Vermilion	■		1862		■	■	
Madder Carmine	1858		1862		■	1840	
Royal Scarlet	■		1862		■	■	
Magenta	■		1879		■	■	
Madder Lake	■		■		1852	■	
Dahlia Carmine	■		■		1852	■	
Extract of Madder	■		■		1852	■	
Carmine							
Deep Rose	■		■		1852	■	
Crimson Madder	■		■		■	1840	1870
Madder Red	■		■		■	1840	1870
Terra Rose	■		■		■	1840	1870
Colcathar	■		■		■	1870	
(see Bachhoffner p88)							
ORANGE							
Mars Orange	1849		1852		1852	1840	
Orange Vermilion	1849		1862		■	1840	
Orange Chrome	1858		■		Nos 3&4	1840	
Neutral Orange	1858		■		■	■	
Cadmium Orange	1863		■		■	1840	1870
Field's Orange Vermilion	1863		1862		■	F's extract	1870
Orange	■		1852		■	■	

Colour	W&N	Removed	Reeves	Removed	Rowney	Roberson	Removed
	1st listed	from list	1st listed	from list	1st listed	1st listed	from list
Orange Scarlet Madder	■		1852		■	■	
Pure Orange	■		1862		■	■	
Orange Lake	■		■		■	1870	
Spanish Ornotto [orange red]*			1852	1879			
YELLOW							
Burnt Sienna*	1849		1852		1852	1840	
Chrome Yellow 1,2,3	1849		1 & 2 only	1852	1 & 2 only	1840	
Gamboge	1849		1852		1852	1840	
Italian Pink	1849		1852		1852	1840	
King's Yellow	1849		1852		1852	1840	
Naples Yellow	1849		1852		1852	1840	
Orpiment	1849	1863	■		1852	■	
Raw Sienna	1849		1852		1852	1840	
Roman Ochre	1849		1852		1852	1840	
Yellow Ochre	1849		1852		1852	1840	
Yellow Lake	1849		1852		1852	1840	
Indian Yellow	1849		1852		1852	1840	
Mars Yellow	1849		1852		1852	1840	
Lemon Yellow	1849		1852		1852	1840	
Gallstone	1849		1852		1852	1840	1870
Cadmium Yellow	1849		1852		1852	pale/deep	1840
Deep Chrome	1858		■		■	1840	
Aureolin	1863		1879		■	1840	
Pale Cadmium Yellow	1863		■		■	■	
Coburg Yellow	■		1852	1879	■	■	
Yellow Madder	■		1862		■	pale/dp 1840	deep 1870
Cadmium Middle/Deep	■		1862		■	1840	
Italian Oker	■		■		1852	■	
Mutrie Yellow [pale cadmium]	■		■		■	1840	
Lima Yellow	■		■		■	1870	
GREEN							
Emerald Green	1849		1852		1852	1840	
French Green	1849	1858	■		■	■	
Green Bice	1849	1858	1852		■	■	
Hooker's Green No 1	1849		1852		1852	1840	
Hooker's Green No 2	1849		1852		1852	1840	
Olive Green	1849		1852		1852	1840	
Prussian Green	1849		1852		1852	1840	
Sap Green	1849		1852		1852	1840	
Terre Verte	1849		■		■	1840	
Verdigris	1849	1858	■		1852	■	
Grn Oxide of Chromium	1849		1862		■	1840	1870
Verditer	1858		1852		■	1840	1870
Viridian	1879		1879		■	■	
Bronze Green	■		1852	1879	■	■	
<i>Green Vermilion</i>	■		1862	1879	■	■	
Emerald Ox of Chromium	■		■		■	1840	
Malachite Green	■		■		■	1840	
Cobalt Grn,pale + deep	■		■		■	1840	1870
Indian Olive	■		■		■	1840	1870

Colour	W&N	Removed	Reeves	Removed	Rowney	Roberson	Removed
	1st listed	from list	1st listed	from list	1st listed	1st listed	from list
BLUE							
Antwerp Blue	1849		1852		1852	1840	
<i>British Ink</i>	1849		■		■	■	
Indigo	1849		1852		1852	1840	
New Blue	1849		■		■	■	
Prussian Blue	1849		1852		1852	1840	
Cobalt Blue	1849		1852		1852	1840	
French Blue	1849		French Ultra1852		1852	1840	1870
Intense Blue	1849		1852		1852	■	
Smalt	1849		1852		1852	1840	
Ultramarine Ash	1849		1862		1852	1840	
Genuine Ultramarine	1849		1852		1852	1840	
Cerulean Blue	1879		■		■	1840	
Leitch's Blue (Cyanine)	1879		1879		■	1840	1870
Light Prussian Blue	■		1852	1879	■	■	
Azure Blue	■		1852		1852	■	
Blue Verditer	■		1852	1879	1852	■	
Light Blue	■		1852	1879	■	■	
Egyptian Blue	■		1852	1879	■	■	
Permanent Blue	■		1852	1879	1852	■	
Coelin Blue	■		1862		■	■	
Cobalt Ash, 1 & 2	■		1862		■	■	
PURPLE							
Purple Lake	1849		1852		1852	1840	
Purple Madder	1849		1852		■	1840	
Violet Carmine	1858		1862		1852	1840	
Indian Purple	1858		■		■	■	
Purple	■		1852	1879	1852	1840	1870
Mauve	■		1879		■	■	
Purple Smalt	■		■		1852	■	
BROWN							
<i>Bistre</i>	1849		1852		1852	1840	
Brown Pink	1849		1852		1852	1840	
Burnt Umber	1849		1852		1852	1840	
Brown Ochre	1849		1852		1852	1840	
Cologne Earth	1849		1852		1852	1840	
Raw Umber	1849		1852		1852	1840	
Vandyke Brown	1849		1852		1852	1840	
Venetian Brown	1849	1858	■		■	■	
Sepia	1849		1852		1852	1840	
Warm Sepia	1849		1852		1852	1840	
Roman Sepia	1849		■		■	1840	
Brown Madder	1849		1852		1852	1840	
Mars Brown	1849	1863	■		■	■	
Chalon's Brown	1849		■		■	■	
Bronze	1858		■		■	■	
Rubens' Madder	1858		■		■	■	
Leitch's Brown	1863		■		■	■	
Payne's Brown	■		1852	1879	■	■	

Colour	W&N	Removed	Reeves	Removed	Rowney	Roberson	Removed
	1st listed	from list	1st listed	from list	1st listed	1st listed	from list
BLACK							
Blue Black	1849		1852		1852	1840	
Ivory Black	1849		1852		1852	1840	
Lamp Black	1849		1852		1852	1840	
Black Lead	1849		1879		1852	■	
Binfield's Persian Black	■		■		■	1840	1870
WHITE							
Constant White	1849		1852		■	1840	
Chinese White	1849		1862		1852	1840	
Flake White[Lead White]	1858		1852		1852	1840	
Permanent White**	■		1852	1879	1852	■	
GREY							
Neutral Tint	1849		1852		1852	■	
Payne's Grey	1849		1852		1852	1840	
Charcoal Grey	■		■		■	1840	1870

* 'ornotto' not found in any other catalogues, but Field describes 'anotta, Arnotta, Annotto' etc as 'vegetable substances brought from the West Indies, of an orange red colour...very fugitive and changeable and not fit for painting'. [George Field, *Rudiments of the Painters' Art or a Grammar of Colouring*, London, 1850, p. 153. Could be 'annotto', a South Americal vegetable dye - see Bachhoffner, 1837, p.137 yellow, buff or fawn

italics = unsure of categorisation

* **Burnt Sienna** listed as **red** in Reeves and Rowney guide; but yellow W&N

** Permanent White is another name for Constant White (Harley p 175)

Dates of catalogues analysed:

W&N 1849; 1858; 1879, 1863 and 1896

Reeves 1852; 1862; 1879 (1862 & 1879); 1852 attached to *Reeves and Son Amateurs' and Artists' Companion with an Almanack*, London, 1853.)

Rowney 1852 (attached to George Rosenberg, *Guide to Flower Painting in Water Colours*, London, 1852)

Roberson c1840; c1870 (approx dates by Roberson Archive, Hamilton Kerr Institute)

J Barnard 1860 (attached to Edwin Jew, *Manual of Illuminated and Missal Painting*, London, 1860)

Appendix IV**Roberson Archive – Materials bought by John Frederick Lewis 1852-1875**

Addresses given: 6 Upper Hornton Villas, Kensington
The Holme, Walton on Thames

1852: MS 141-1993 p.18 Kensington

Jan 20	Sable brushes 5/- Crayons 1/8
Mar 8	Sables 3/-
May 5	Crayons 2/4 Oil materials + Ultra 20/- Colors 36/8
Aug 3	Sables 6/- Colors 5/4 Glass Slab Muller 10/-
Aug 13	Sables 7/4 Scarlet 1/-

1853: MS 245-1993 pp 297-8

Jan ^y 3	Sable brushes 8/- Chinese F White 1/3
22	Sables 15/-
Nov 9 th	Sables 18/-
Nov 11	Sables 4/6 Dg Paper 1/5
Dec 7	2 White Panels 22/-

1854: MS 245-1993 pp 297-8

Jan ^y 20	Sables 2/6
Mar 7 th	Tube Moist Madr Carmine 3/6
April 13	Tube Cols. 2/4 Sabs. 7/- Lay Figure 5/-
May 9 th	Male Lay Figure £21 Scarlet 1/6 Sables 4/-
Oct 20	Tube cols ex gr. 7/4 Mastic Var 2/-

1855: MS 245-1993 pp 297-8

May 2	Tube No 3 Ultra 25/-
July 11	Tube Cols ex gr. 15/8

1857: MS 245-1993 pp 297-8

Jan ^y 9	Ex gr. Colors 4/6
Feb 27	Gen. Ultr & Water Cols 26/-
Mar 16 th	Sables
April 7	Cake Ex fine Gen. Ultr. 42/-
	[also knife, colors, panel, copal other dates]

1858: MS 245-1993 pp 297-8

April 6	Blade Eraser 2/6 Sables 3/-
May 13	Tracing Paper 4/6
Jly 7 th	Moist Carmine 4/-

1860-61: MS 246-1993 pp 33-34

Bought "Ex gr. Cols" often (not specified what).

1862: MS 246-1993 pp 33-34

July 29	17 Duck Sables 8/6 48 Crow do 16/-
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1864: MS 246-1993 pp 33-34

Jan 6	19 Duck Red Sables 9/6
Feb 17	Tube W Colors 10/2 1 Cake Ex. Ver [extract of vermilion] 1/-
Oct 25	Jap Plated Box for 12/- 2 Cakes 12/-
Nov 1	Water Cols in Tubes 4/4
Dec 30	Tubes Cols ex gr. 8/-

1865?: MS 246-1993 p 360

Feb 10	Ex. Ground Colors & Postage 2/4
Aug 7	½ Moists 15/4 3 Tubes C White [Chinese] 3/- Gum 8d
14	Japand. Plated Box for 16 Cups 14/-
Nov 11	3 doz small sable pencils 12/-

1866: MS 247-1993 pp 30-32

p.30

Jan 9	Ex grd colors 3/-
Feb 21	½ pans Moists 10d
Dec 3	Ex. Thk D.E. Draw ^g H P 6/-
	Ex thk Impl do 1/-
	Sht Impl do 9d

1866-70 (incl) ordered ex. grd. colors regularly. Mainly oil materials.

1869: MS 247-1993 pp 30-32

p. 31

Jly 22	2 doz selected Crow & 11 do Duck Sables 15/6
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1870: MS 247-1993 pp 30-32

p. 31

May 25	1 Gross Crow Red Sables 60/-
Oct 25 – Nov 21	Tube Water Colors & postage 6/6
Dec 10	Tubes Moist W. Colors 13/- Moist Intense Blue 2/-
24	6 doz Red Sable Pencils 30/-
30 th	Moist W. Colors per post 7/6

1871: MS 247-1993 pp 30-32

p.31

Jan ^y 18	Tube Water Colors 7/6
April 6	Tube Water Colors 1/8 Chi White 1/-
22 nd	Tube Wat. Colors 6/-
June 24 th	Oil & Water Colors per post 8/-
28	Extra Strong Red Sable pencils 54/-
	Extra fine flat hog hair 8/-
July 22	Tube moist Purp ^{le} Lake 1/-
Aug 8	Round Schneuman brushes 14/8
Oct 16	Tube Water Colors per post 3/-
26	Tube Water Colors 1/6
Nov 22	Tube Water Colors & postage 2/4

1872: MS 247-1993 pp 30-32

p. 32

Feb ^y 3	Gum water 6d Tube Water Colors 1/8
May 17	Tube Water Colors 7/-
Aug 5 th	Extra ground tubes Moist Colors 15/6
6 th	Hf cake Gen Ultra to order 10/6
13 th	4 doz Red Sable pencils 20/-

1874: MS 248-1993 p 34

Jan 7	Tubes Moist Colors 14/-
Feb 2	Tubes Mo. Colors 8/-
Mar 30	Mo. W. Colors 4/-
April 17	Moist Cols. per post 3/-
22 nd	Mo. Colors per post 4/6
June 25	Tubes Mo Colors extra ground per post 32/-
July 20	1 dz. Goosequill Red Sables 12/-
Sept 12 th	Moist Colors 12/- Hf Cake Gen. Ultr 5/-
	Chi White 6d Prep ^d Gum Water 1/-
Nov 17	21 st Water Colors 12/-

1875: MS 248-1993 p 34

Mch 13	W. Colors 2/8
Nov 24	Moist Colors 6/8

Appendix V (see colour wheels, Figure 62)**Palmer's expanding use of pigments between 1830 and 1856**

(new nineteenth-century pigments are in bold)

Pigments Used by Palmer 1830 <i>Coming from Evening Church</i> Joyce H. Townsend (ed), <i>William Blake, The Painter at Work</i> , London, 2003, p. 188, App 6	Pigments Recommended by Palmer to Louisa Twining 1856 'Notes taken during the Lessons in Watercolour Painting from Samuel Palmer to Louisa Twining' 1856
Prussian Blue	Prussian Blue
	Cobalt
Ultramarine	French Ultramarine
	Indigo
	Burnt Sienna/ Raw Sienna
Yellow Ochre	Yellow Ochre
	Raw Umber
Gamboge	Gamboge
Shell gold	Cadmium Yellow
	Brown Pink
	Extract of Vermilion
Red Lakes	Pink Madder
Carbon Black	Lamp Black
	Ivory Black
Lead White	
Chalk White (Blake's White)	Zinc White ¹
	Light Red
	Indian Red
[Many of these traditional pigments were the same as Blake used]	Venetian Red
	Vandyke Brown
	Indian Yellow
	Orange Chrome
	Brown Madder
	Bistre
	Cologne Earth
	Sepia
Note: all greens made by mixing	Foliage greens made by mixing Gamboge, Burnt Sienna and Indigo
	Emerald Green
	Terra Verde

New Pigments described in letters 1873 and 1876 to P.G. Hamerton and Richard Redgrave²:

Verditer
Chrome Green
Cerulean Blue
'Aureoline'

¹ Recommended by Palmer to Twining in a letter, dated November 22, 1864, *Letters*, Vol. 2, p. 717.

² *Letters*, Vol. 2, Letter to P.G. Hamerton, December 1873, pp. 887-8; Letter to Richard Redgrave, 2 and 3 March 1876, pp 927-8.

Appendix VI

Samuel Palmer's Recipe for Blake's White, 1866

“Get the best whitening – powder it.

Mix thoroughly with water to the consistency of cream.

Strain through double muslin. Spread it out upon backs of plates, white tiles are better, kept warm over basins of water until it is pretty stiff.

Have ready the best carpenter's or cabinet makers' glues made in a very clean glue pot, and mix it warm with the colour:- the art lies in adding just the right portion of glue.

The TEST is, that when dry upon the thumb nail or on an earthenware palette it should have so much *and no more* glue as will defend it from being scratched off with the finger nail.

This, and the cleanliness of the materials are the only difficulties.

Now I proceed to show how you may get a Better article with less trouble.

Get your Whiting ground very finely upon a perfectly clean stone; - grinding some to waste first, to get any remains of other colour out of the grain of the stone: - keep this, of a stiff consistency, in a bottle stopped from dust, leaving room for water between the pigment and the cork. As long as you remember to keep the white under water it will always be fit for use when you are ready with the glue.

Mr. Eatwell artists' colourman, of Dorset St. Portman Sq. W. will grind the whitening as above and send it you in a bottle – on giving some notice before-hand. Upon him you can depend. I always deal at Newman's for drawing materials but this is out of their line.”¹

¹ Mark Abley, (ed), *The Parting Light: Selected Writings of Samuel Palmer*, Manchester and Ashington, 1985, Letter from Samuel Palmer to Henry Wentworth Acland, October 29, 1866, pp. 213-214.

Appendix VII**Myles Birket Foster's Palette – three sources**

Dry cake Newman's pigments in hardwood box in the private collection of John Foster, great-grandson of Birket Foster c1852-8	Listed in Jan Reynolds (source Glasson family) pp. 71-3 (c1869-1886)	Listed in <i>Magazine of Art</i> , Volume XXIII, February, 1901, p. 186 (c1869-1886)	
Vermilion	Scarlet Vermilion	Scarlet Vermilion	RED
[a dark red] (Rowney)	Rose Madder	Rose Madder	
Venetian Red			
Light Red (Reeves)			
Orange Lead	Cadmium Orange		
Yellow Ochre	Yellow Ochre	Yellow Ochre	YELLOW
Roman Ochre	Golden Ochre	Golden Ochre	
	Red Sienna	Raw Sienna	
Gamboge		Gamboge (Newman)	
	Permanent Yellow	Permanent Yellow	
Indian Yellow	Aureolin	Aureolin	
Chrome Yellow (<i>moist</i>) (Rowney)		Cadmium Yellow Pale	
Kings Yellow		Cadmium Yellow Deep	
Lemon Yellow (<i>moist</i>) (Rowney)			
Hookers Green	Green Oxide of Chromium	Green Oxide of Chromium	GREEN
? Green (illegible)			
[a dark green – illegible] (Reeves)	Cobalt Green		
Prussian Green	Terra verte		
	Cobalt Blue	Cobalt	BLUE
	Cyanine Blue	Cyanine	
	Ultramarine		
	Purple Madder	Purple Madder	
	Vandyke Brown		BROWN
Burnt Siena [sic]	Burnt Sienna	Burnt Sienna	
Sepia	Sepia	Sepia	
Burnt Umber		Turner Brown	
	Rubens Madder	Rubens Madder	WHITE
White	[Jan Reynolds also states Chinese White was used although it was not on the original list from the Glasson family]	Chinese White	

Note: New nineteenth-century pigments are in bold.

Appendix VIII J. W. North Watercolours 1854-1880

Title	Date	Description	Dimensions	Location
Off Golden Cap, Dorset	1854	Watercolour	25.4 x 33 cm	Private Collection
In an Orchard Devon	1864	watercolour Dated. Acc. WD.43A P34-1925	11.8 x 21 cm	V&A London
The Haystack: Halsway Manor Farm Somerset, <i>called 'At Old Court Somerset' in review</i>	1864	Watercolour and bodycolour. Signed & dated "JN/64"	25.7 x 19 cm	Private Collection
Halsway Court (The Old Bowling Green)	Exh Dudley 1865	review <i>Athenaeum</i> March 11 1865 p. 354		illustrated <i>VLW p.</i>
	1865	watercolour & bodycolour, signed & dated; orig. owned R de Beaumont	33 x 45 cm	British Museum
	Exh Dudley 1867	review <i>Art Journal</i> 1867 March 1, p. 88 AN184418001		
In the Farmyard at Halsway Manor, Somerset	1866	Watercolour and bodycolour. Signed and dated '66.	20.6 x 23.5 cm	unknown
				Christies sale 10 Feb 1981 lot 14
The Wedding Tour	1866	watercolour. Original drawing for an illustration for <i>A Round of Days</i> published 1866. E.350-1912	10.8 x 11.4 cm	V&A London
A Young Lover	1867	Watercolour and gouache with graphite and scratching out. Signed and dated.	16.8 x 17.8 cm	Yale Center for British Art, Paul Mellon Fund
Snow	c1867	watercolour owned by Dalziels <i>Brothers Dalziel</i> p 232	unknown	unknown
An Old Wooden Bridge	c1867	watercolour owned by Dalziels- design for Jean Ingelow's <i>Poems</i>	unknown	unknown
A Storm at Sea	c1867	watercolour owned by Dalziels <i>Brothers Dalziel</i> p 232	unknown	unknown
A Bit of Southern England	1868	watercolour and bodycolour Acc. N03519	24.8 x 17.5 cm	Tate Gallery
Mary's Orphanage	c 1868	Watercolour - review <i>Times</i> Feb 4, 1868, p. 4.	unknown	unknown
	Exh Dudley 1868			
A Woman Seated Beneath a Pergola in a Garden in Summer/The Pergola	c 1868-72	w/c - illustrated VLW, p. 137 (colour) Christies 22 Feb 1977	29.2 x 44.4 cm	Private Collection
The Wood-Gatherers	1869	Watercolour heightend w white Signed w initial & dated '69.	39.4 x 55.9 cm	unknown
	Exh RA 1869	prov Wm Graham MP Exh no 549		Christies sale 1 Oct 1973 lot 59
The Quantocks	Exh RA 1869	Exh no 540	unknown	unknown
The Orphans	Exh RA 1869	Exh no 536	unknown	unknown
A sunny day in the field	Exh RA 1869		unknown	unknown
The Garden at Halsway Manor, Somerset	before 1870	watercolour heightened w white. House prior to alterations in 1870 inscribed reverse 'built by Cardinal Beaufort' -prov Wm Graham	19.7 x 22.5 cm	Private Collection? Christies sale 1 Oct 1973 lot 56
The Hayloft	c1870	w/c + bodycolour on paper; orig owner Lord Muir Mackenzie CGB (married to Wm Graham daughter 1874)	28.5 x 23 cm	unknown sold by Peter Nahum http://www.leicestergalleries.com
The Sheepfold	pre-1870?	watercolour and bodycolour. 1966.89.3	33.3 x 27.6 cm	Ashmolean Museum, Oxford
Now rosy May comes in with flowers	1870 exh R.A.	watercolour Exh No 550	unknown	

Title	(J. W. North)	Date	Description	Dimensions	Location
May on the Hill		c1871	watercolour and bodycolour ; orig owned by E Dalziel	27.5 x 26.6 cm	Ashmolean Museum, Oxford
		Exh Dudley 1871	<i>Art Journal</i> review March 1 1871 p. 85		
A Lowland Meadow		1871 exh SPWC	watercolour - Exh no 89	unknown	unknown
The Timber Waggon		1871 exh SPWC	watercolour - Exh no 158	unknown	unknown
The Village		1871 exh SPWC	watercolour - Exh no 164	unknown	unknown
A Waterfall on the Tay		1871 exh SPWC	watercolour - Exh no 216 bought by Wm Graham £80	unknown	unknown - illus Witt
The Dead Bird		1871 exh SPWC	watercolour - Exh no 255	unknown	unknown
Black Alder Bushes		1871Wint SPWC	watercolour - Exh no 34	unknown	unknown
Poplar Trees		1871Wint SPWC	watercolour - Exh no 79	unknown	unknown
Beechen Hollow		1871Wint SPWC	watercolour - Exh no 104	unknown	unknown
Head of a Girl		1871Wint SPWC	watercolour - Exh no 154	unknown	unknown
An Uhlan		1871Wint SPWC	watercolour - Exh no 328	unknown	unknown
Severn Sea		1871Wint SPWC	watercolour - Exh no 341	unknown	unknown
The Nightingale		1871Wint SPWC	watercolour - Exh no 361	unknown	unknown
The Tay, near Stobhall		1871Wint SPWC	watercolour & bodycolour w scratching-out. Signed JWN	36.2 x 53.4 cm	Private Collection
			Exh no 374		Illustrated Newall VLW No78
Raking Hay		1872	watercolour and bodycolour Signed & dated 'J W North/1872'	27 x 20 cm	Private collection
					Bonhams sale 15 June 2010 lot 88
Wild Clematis in Early Spring		1872 exh SPWC	watercolour - Exh no 249	unknown	unknown
A Little Harbour on the South Coast		1872 exh SPWC	watercolour - Exh no 264	unknown	unknown
The Boundary of the Park, Coast of Somerset		1872Wint SPWC	watercolour - Exh 109	unknown	unknown
Charles's Wain		1872Wint SPWC	watercolour - Exh 132	unknown	unknown
Evening on the Moor		1872Wint SPWC	watercolour - Exh 299	unknown	unknown
Wet Weather - Isle of Skye		1872Wint SPWC	watercolour - Exh 366	unknown	unknown
Rushes		1873 exh SPWC	watercolour - Exh 140	unknown	unknown
Early Workers		1873 exh SPWC	watercolour - Exh 164	unknown	unknown
The Strange Dog		1873Wint SPWC	watercolour - Exh 3	unknown	unknown
Acorn Gatherers		1873Wint SPWC	watercolour - Exh 198	unknown	unknown
Mountain Ash		1873Wint SPWC	watercolour - Exh 230 Also exhib Agnews 1876 (AJ March)	unknown	unknown
Trout Stream and Flowers		1873Wint SPWC	watercolour - Exh 237	unknown	unknown
A Little Hebe		1873Wint SPWC	watercolour - Exh 358	unknown	unknown
Sweet and Soft Grass		1873Wint SPWC	Watercolour - Exh 360; also exhib Agnews Feb 1875	unknown	unknown
The Old House by the Sea		1873 Liverpool	Watercolour - Exh 476	unknown	unknown
A Gipsy Encampment		1873 March	watercolour - S/D 'J.W. North 1873 March' Acc. WS.106(L)	64.1 x 92.7 cm	Victoria & Albert Museum London
View of East Quantock's Head Farm		1873	Watercolour and bodycolour. Inscribed 'J W North 1873'	28.2 x 44.9 cm	British Museum AN313132001

Title	(J. W. North)	Date	Description	Dimensions	Location
The House of Roses, Tripoli		c. 1874	watercolour with bodycol over pencil, signed with initials l.l	65.4 x 93.5 cm	Private collection
					Sothebys sale 13 July 2010 lot79
Sketch at Sunset		1874Wint SPWC	watercolour Exh 296	unknown	unknown
After Harvest		1874Wint SPWC	watercolour Exh 318	unknown	unknown
Summer		1874Wint SPWC	watercolour Exh 346	unknown	unknown
July		1874 Liverpool	Watercolour	unknown	unknown
January in Algiers		1875 exh SPWC	watercolour Exh 32 Signed "J W North, Algiers, 1874".	66 x 94 cm	Preston Art Gallery (Haslam Beqst)
				26 x 37 in	
The Vicarage Croft		1875 exh SPWC	watercolour - Exh 143	unknown	unknown
Craigenterive and Auchineilan, Loch Awe		1875 exh SPWC	watercolour - Exh 193	unknown	unknown
Kabyle Women working on the Housetops at Blidah, Algiers		1875Wint SPWC	watercolour - Exh 249	unknown	unknown
"Hebe and Ganymede" - a sketch		1875Wint SPWC	watercolour - Exh 274	unknown	unknown
Oleanders		1876 exh SPWC	watercolour - Exh 104	unknown	unknown
Maison de Compagne, Algiers		1876 exh SPWC	watercolour, pencil, scratching out, signed and dated, 1875	28 x 45 cm	unknown
			'Algiers', Exh 247		Christies sale 7 April 2000 lot 53
Grey Evening		1876Wint SPWC	watercolour - Exh 12	unknown	unknown
Gleaners, Somerset		1876Wint SPWC	watercolour - Exh 14	unknown	unknown
Moonlight		1876Wint SPWC	watercolour - Exh 21. Also exhib RA 1923	unknown	unknown
A Hedge in Algiers		1876Wint SPWC	watercolour - Exh 22	unknown	unknown
An English Park, Herts.		1876Wint SPWC	watercolour - Exh 73	unknown	unknown
A Barley Field		1876Wint SPWC	watercolour - Exh 248	unknown	unknown
On the Tay		1876Wint SPWC	watercolour - Exh 281	unknown	unknown
Sketch of a Somerset Hill Sheep		1876Wint SPWC	watercolour - Exh 286	unknown	unknown
A Wheatfield by the Quantock Hills		1876Wint SPWC	watercolour - Exh 297	unknown	unknown
Silver Sabina		1876Wint SPWC	watercolour - Exh 334	unknown	unknown
The Big Ark by the Common		1876Wint SPWC	watercolour - Exh 386	unknown	unknown
Pomegranate Blossom		1876Wint SPWC	watercolour - Exh 400Bought by John Graham £50	unknown	unknown
Roses, Asphodel, and Cypress - Algeria		1877 exh SPWC	watercolour - Exh 67	unknown	unknown
Imprisonment		1876-7	watercolour with gum arabic, bodycolour and scratching out	65.5 x 94 cm	unknown
			signed 'JWN/1876-7' . Inscription on artist's card on back -	26 x 37 in	Christies sale 3 June 2004 lot 13
			'Mr John William North 119 Church Street Fitzroy Sq London		
			Dar el Ouard Mustapha Superieur Algiers'		
Land of Argyll		1877Wint SPWC	watercolour - Exh 282 Review Times Dec 6, 1877, p. 10		unknown
An English Home in Algiers		1878 exh SPWC	watercolour - Exh 66		unknown

Title	(J. W. North)	Date	Description	Dimensions	Location
The Cottar's Saturday Night- a remembrance of the Highlands		1878 exh SPWC	watercolour - Exh 274		unknown
Port of Algiers		1879 exh SPWC	watercolour - Exh 30		unknown
Arab Girl		1879Wint SPWC	watercolour - Exh 48		unknown
The Harbour- Algiers		1879Wint SPWC	watercolour - Exh 169		unknown
Pomegranates, etc.		1879Wint SPWC	watercolour - Exh 196		unknown
A View of Taunton		1880	Watercol and bodycolour. Signed and dated 1880.	66 x 125 cm	unknown.
					Sothebys sale 9 April 1974
"The Latest Captive"		1880 exh SPWC	watercolour - Exh 71		unknown
Under an African Vine, Algiers		1880 exh SPWC	watercolour - Exh 91		unknown
Source of a Western Stream		1880 exh SPWC	watercolour - Exh 201		unknown
The Old Tithe Farm, Great Marlow		1880Wint SPWC	watercolour - Exh 78		unknown
Pond by the Desert		1880Wint SPWC	watercolour - Exh 81		unknown
From the Cottage Garden		1880Wint SPWC	watercolour - Exh 107		unknown
A Bit of Southern England		1880Wint SPWC	watercolour - Exh 164		unknown
The Return from the Harvest Field formerly known as <i>Countryside near Derwent</i>		1880	pencil, watercolour and bodycolour, scratching out, signed and dated Acc No D.1995.13	30.1 x 44.7 cm	Whitworth Art Gallery, Manchester
An Algerian Afternoon		1880- Liverpool	watercolour - no 748		unknown
An Old Cross in a Western Churchyard		1882	pencil and watercolour with gum arabic and scratching out	26 x 27.3 cm	unknown
			S/D "JWN/1882" . Old label on backboard is signed -	10 1/4 x 10 3/4 in	Christies sale 13 June 2002 lot 120
			'J W North/"An old cross in a Western Churchyard".		

Appendix IX Year-by-year analysis of Burne-Jones's purchases from Roberson 1857-1880

Year	Pigments	Paper and Canvas supports	Other materials	Watercolours in progress
1857	<p>'colors' (powdered): Pemanent White Orange Mars Extract of Vermilion/Field's Vermilion A(ntwerp?) Blue Dark Carmine Chrome Madder Carmine Strontium Yellow 3 unspecified</p> <p>Lamp Black (<i>cake</i>) Cake Colors Yellow Madder (<i>moist</i>) 'Bladder Colors' (oils) - 1</p>	<p>½ Imperial Solid Sketch Book 2 x 32 in Sketch Books Panel White 28 x 18 [ins] Paper</p>	<p>Japanned Palette Box Sables Drawing Board 24 x 19 [in] Sketching Umbrella Deal Sketching Easel Knife Dipper Brush Washer Linseed Oil Solid Pencil Sharpeners</p> <p>Total carried over £11/5/7</p>	<p>Began <i>The Annunciation</i> and <i>The Blessed Damozel</i> for Plint Working in pen and ink (<i>The Waxen Image</i> from 1856) and on stained glass designs for Powells (<i>The Good Shepherd</i>). In 1854-6 was illustrating Archibald Maclaren's <i>The Fairy Family</i>, which he subsequently abandoned .No surviving watercolours from this period exist and BJ refused to acknowledge any of his work done before 1856. Aug-Feb 1858 - Painting Oxford Murals (<i>Morte d'Arthur</i>) with DGR, Morris, AHughes, Pollen, Prinsep, Spencer Stanhope. BJ's subject – 'Merlin imprisoned beneath a stone by the Damsel of the Lake.' HW p35</p>
1858	<p>'colors' (powdered): Red Lead 3 unspecified</p> <p>'Oil colors' – 1 unspecified</p>	<p>Tracing Paper Drawing Board covered with Double Elephant Drawing Paper Panel Reducing and adding 2 inches to Panel, primg Panel 29x15 2 14x12 Ex prep Cloths 2 Ex prep 22x20</p> <p>Total carried over £19/18/6</p>	<p>Field's Handbook W.C. Sables Portecrayon Palette Sketching Stool Indian Ink Deal Folding Easel Sables Scrapers Erasers Copal and Dark Drying Copal</p>	<p>Till end Feb – working on Oxford murals. Ill during Mar and June. Mrs Prinsep carried him off to Little Holland House. Sept move to Russell Place rooms. Plint kept sending cheques <i>Mem I</i> p190. Working on pen and ink illusts on vellum – eg <i>The Knight's Farewell</i> (com by Morris –Ashmolean); <i>Going to Battle; King's Daughters; Sir Galahad</i>. Influence of DGR. Exhibited at the Hogarth Club</p>
1859	<p>'Colors' (powdered) only – pigments unspecified</p>	<p>4 Ct cloth on Str 3 ft 6 x 2ft 6</p> <p>Total carried over £7/9/10 (pd £16)</p>	<p>Sketching Stool Medium Mill Boards Rose Bottle Indian Ink</p>	<p>Little energy still. Attended Lee's life school and on to Working Men's college (helped Brown w class – on prospectus Jan 59 to March 1861). First visit to Italy (Aug-late Oct) with Prinsep and Charles Faulkner – bad traveller <i>The Legend of Saint Frideswide</i> stained glass design(oil) ; <i>The Wise and Foolish Virgins</i> pen</p>

Year	Pigments	Paper and Canvas supports	Other materials	Watercolours in progress
1860	None listed	None listed	None listed	Married 9 June. Sent £25 by Plint. Time at Red House on murals, designs for <i>Sir Degrevaunt</i> . - finished Oct. <i>Belle et Blonde et Coloreé</i> ; <i>Sidonia & Clara von Bork</i> ; <i>The Blessed Damozel</i> .
1861	<p>'colors' (powdered) – pigments unspecified – 9 sep orders) Ox Gall Color Gold Shells x 3</p> <p>Extract of Vermilion (<i>tube</i>) Yellow Oker (<i>moist</i>) 'Moist half colors' and 'moist colors' (pigments unspecified) <i>Oil Colors</i> – 1 unspecified</p>	<p>2 Sketchng Blocks 4^{lo} Impl, 1 thin, 1 Ex Thick Folio Solid Sketch Book ½ Imperial Block 2 x Extra primed white canvases 42 ¾ x 29 Extra primed white canvas 61 ¾ x 42 ¾ Paper</p> <p>Total carried over £16/17/7</p>	<p>Gall Medium Palette Knife Scrapers Brushes Sable Copal Eraser Pens Indian Ink</p>	<p>Early sixties interested in texture and colour Sept birth of Phil. Dec ill. Bought copy Omar Khayyam. [Mem I p234] Still working on <i>The Annunciation</i>. <i>King René's Honeymoon</i>; <i>Fair Rosamond and Queen Eleanor</i>; <i>Merlin and Nimue</i>; <i>Clerk Saunders</i>; <i>Laus Veneris</i> [oil version 1869]; <i>Cupid's Forge</i>; <i>Viridis of Milan</i>. Started <i>The Backgammon Players</i>; <i>The Goldfish Pool</i>; <i>Theseus and Ariadne</i> Stained glass designs <i>The Tree of Jesse</i> BMAG</p>
1862	<p>'colors' (powdered): Unspecified - 4 Chinese White Burnt Carmine Gold Shells 'Moist Colors' – 4 unspecified Moist Tan (?) Brown Box Moist Colors to order</p> <p>'Water Cols' - 3 unspecified 'Cakes' – 1 order 19s8d. unspecified pigments <i>Oil Colors</i> -</p>	<p>Drawing Paper Block Demy Paper 10 x 10 Canvas ½ Block Imperial 50 leaves thin paper Linen and Drawing paper on frame 31x 10 ¾ Cartoon Paper Sketch books - 2 Portfolio Drawing Paper Transfer Paper Solid ½ Imperial Sk Book</p>	<p>Megilp - 2 orders Pencils Scraper Indelible crayons Charcoal Crayons - 2 Sables Liquid Glue Mth Glue Eraser Drawing Pins</p> <p>Total carried over £23/17/10</p>	<p>May -10 wks – 2nd visit to Italy with Ruskin Finished <i>The Backgammon Players</i>; <i>The Goldfish Pool</i>; <i>Theseus and Ariadne</i>.</p> <p>Painted <i>Fair Rosamond and Queen Eleanor</i> (2 versions); <i>An Idyll</i>; <i>The Annunciation (The Flower of God)</i>; <i>The Madness of Sir Tristram</i>; <i>Morgan le Fay</i>; <i>King Mark and La Belle Iseult</i>; <i>Hope</i>; <i>Fatima</i> (+small replica)</p> <p>Stained glass designs in pen and ink – Tristram and Iseult</p>
1863	<p>'colors' (powdered): Unspecified – 10 Gold Chinese White</p> <p>'Moist Colors' – 6 unspecified 'Water Cols' – 8 unspecified <i>Oil Colors</i> – 1 unspecified</p>	<p>Fine SP Canvas 20 ½ x 17 ½ Drawing Paper Solid Sketch Book Expd Canvas 6 ft x 4 ft 6 Sketch Book Block 3^{vo} Imperial I sheet Extra Thick Double Elephant ½ Imperial Block 48 leaves thin</p>	<p>Modelling Wax – 2 orders Modelling Tools Copal Benzole Water Color Sable <u>Water Color Medium</u> Eraser Stump</p>	<p><i>Fair Rosamond</i>; <i>The Nativity</i>; <i>Valentine's Morning</i>; <i>Cinderella</i>; <i>The Merciful Knight</i>; <i>Portrait of Georgiana Burne-Jones</i>. Working on <i>The Wine of Circe</i> and <i>St Theophilus and the Angel</i> <i>Days of Creation</i> illustrations for Dalziel's Bible BMAG –w/c, gold, & bodycolour</p>

Year	Pigments	Paper and Canvas supports	Other materials	Watercolours in progress
1864	<p><u>'colors' (powdered):</u> Unspecified – 3 Chinese White – 2 orders</p> <p><u>'Moist Colors'</u> – 1 unspecified 'Water Cols' -</p>	<p>Canvas on paneled stretcher to order fitted to frame Dbbe Paper on Panel Board 35 x 26 ½ Paper Frame covered with SP Cloth ½ Imperial Block 60 leaves Paper Blocks 2 Roman Canvases 6 ft x 3 ft 6</p>	<p>Hog Tools Chd Palette Sables – 3 orders Brushes Hire of Lay Figure 30/- Sketching Stool Total carried over £28/13/8</p>	<p>Little work completed – BJ no work for 4 months bec of Georgie's confinement and scarlet fever. Elected Associate of OWCS (Feb) Exhib w works at OWCS-<i>Merciful Knight, Cinderella, Green Summer</i> Working on <i>The Wine of Circe</i> 1864-67 Many stained glass designs in pencil, partic <i>Chaucer's Legend of Good Women</i> 1864</p>
1865	<p><u>'colors' (powdered):</u> Chinese White – 6 orders Cobalt 1/- 4 unspecified</p> <p><u>'Moist Colors'</u> – 6 unspecified Yellow Madder Mineral Grey 'Water Cols' - 3 unspecified <u>Cakes</u> – Yellow Madder <u>Tubes</u> - Tube Colors unspec – 3 orders <i>Oil Colors</i> - 1 unspecified</p>	<p>Drawing Paper 2 Sheets Extra Thick Imperial Seamless 4^{to} Double Elephant Block 60 leaves not HP ½ Imperial Block extra thick 8 6sheet Imperial Mts Extra Thick Antiquarian Drawing Paper Sketch Book 4^{to} Imperial Block thin Imperial Extra Thick HP Block 4^{to} Extra Thick HP Block</p>	<p>Extra Large Standard Easel Pot Ox Gall Extra Fine Hog Sables Hog Tools Pencils 6 Ink Erasers 2 doz Fabers pencils Soft White chalk Rest Stick Total carried over £41/14/4</p>	<p>Most productive year for stained glass designs and book illustrations. From this year the no of studies BJ prod'd for a painting increased – details of hands, drapers, facial expressions – eg for <i>Theophilus</i> and <i>Wine of Circe</i>. Small sketch then larger drawing, then detailed studies of each part (trying every poss variation), transfd to a vast canvas by assistants – first Rooke. HW p 95 Friendship DGR/Ruskin on decline. <i>Blind Love? Le Chant d'Amour; A Knight in Armour with a Lady; Cupid Finding Psyche; Chaucer's Dream of Good Women; Zephyrus and Psyche; Astrologia;</i> began <i>The Lament; The Prioress' Tale</i> (1865-98)</p>
1866	<p><u>'colors' (powdered):</u> Oxide of Chromium Chinese White – 5 orders 4 unspecified <u>'Moist Colors'</u> – Moist Violet - Madder Carmine - 4 unspec'd (1 for 22/6) 'Water Cols' - 2 unspecified</p> <p><u>Tubes w/c</u>– 3 orders (unspec) <u>Powder Colors</u> – 18/6 <i>Oil Colors</i> – 2 orders</p>	<p>Sorted ½ bd Sketch Book paper Drawing Paper - 3 orders ½ Imperial Block extra thick not Imperial Block Brown Paper Addg 2 inches to picture, restraining, stopping & priming Canvas on Stretcher 7ft 6 x 4ft Absorbent Canvas on Stretcher 33 x 16 ½ Absorbent Canvases to order 37 3/8 x 41 ¾ , 36 3/8 x 41 ¾ , 51 3/8 x 41 ¾ , 55 ¾ x 41 ¾ Sketch Book and block Paneled Board 26 5/8 x 12 5/8 3 Stretchers 37 ½ x 16 ¼ & mounting 3 drawings on Cartoon and Union</p>	<p>Faber's Pencils Pipe Clay 3 Brass Edged Rules Brushes China Palette 1 lb Parchment Size Ink Erasers Charcoal Chalk C.L Pencils <u>Contés</u></p>	<p>1865- Sketching Cupid and Psyche designs for Morris's "Earthly Paradise" (never pubd) – 86 sketches in BMAG – volume of 86 ills in pencil on vellum - figs based on 15th Century "Hypnerotomachia" of which he had copy. (HW p 82). Completes <i>The Lament</i>. Painting <i>The Garland; Cupid Finding Psyche</i> Working on and <i>St Theophilus and the Angel</i> Joined by Charles Fairfax Murray (age 17)</p>

Year	Pigments	Paper and Canvas supports	Other materials	Watercolours in progress
1866 (cont)		2 4 ^{to} Blocks Cartridge Paper Pan'd boards 23 7/8 x 20 7/8 & ex thk Impl mounted on Calico over do Pan'd board 24 1/4 x 19 & ex thick Impl mtd on linen over do Panel'd board 26 1/2 x 19 covd w ex thk Impl over linen Panel'd board 35 x 26 1/2 & ex thk Double Elephant on Union mounted on do.	Total carried over £48/8/6	[Georgie says BJ painted last 4 pictures of St George series for BF.] 7 panels commissioned by Birket Foster.
1867	<u>'colors' (powdered):</u> Ceruleum Chinese White – 5 orders Permanent White 12 unspecified <u>'Moist Colors'</u> – 6 unspecd (2 bigger orders eg 8/7 & 13/-) 'Water Cols' 1 unspecified <u>Tubes w/c</u> – Chinese White 3/- <i>Oil Colors</i> – 3 unspecified	Panel'd board 26 x 20 covd w linen & ex thk seamless mounted on do. 8vo sketch book Pan'd brd 41 x 28 & cartoon on linen mountd on do. Man's time at Kensington shifting & strained Drawing 4 ^{to} Impl Block Colored Paper Transfer Paper Stretcher 3ft 2 x 2ft 2; do 4ft 2 x 2ft 11 Man's time straining pictures at Kensington Canvas 25 1/2 x 21 3/9 Enlarging, stopping & priming canvas restrd on new stretcher 27 3/4 x 20 Absorbent canvas on own frame 25 1/2 x 21	Deal Closing Easel Pipe Clay Bottle Mucilage Pencils Papier Maché Palette Medium – 2 orders Chalk Bottle Caoutchouc Mucilage Ebony T-Square Sables Total carried over £60/5/5	Moves to the Grange <i>Charity; Lucretia; Cupid delivering Psyche x 2;</i>
1868	<u>'colors' (powdered):</u> 5 unspecified Chinese white – 2 orders Permanent Flake White <u>'Moist Colors'</u> – 5 unspecified (orders 36/4; 9/4; 10/-) 'Water Cols' - 0 <u>Tubes w/c</u> – 1 unspecd (13/-) <i>Oil Colors</i> – tube oil y madder	3 yds cartoon paper Solid 1/2 bd sketch book Double canvas surface white absorbent on str 4ft x 2ft Imperial block sized brown paper 1/2 imperial do do.	1 doz drawing pencils Ink erasers Pipe clay Indelible crayons White chalk Sky (?) brushes 1 1/2 in flat sable Ex fine Hog Sables 2 Rest Sticks Charcoal; charcoal steamer	'This year did little work through illness' – BJ's words in entry for 1868 – <i>Memorials II</i> , p 3 1868-71 involved w Maria Zambacco <i>Saint George and the Dragon</i>

Year	Pigments	Paper and Canvas supports	Other materials	Watercolours in progress
1869	<p><u>'colors' (powdered):</u> 1 unspecified</p> <p><u>'Moist Colors'</u> – Yellow Madder Japanned box moist colors 5/6 'Moist colors in his box' 8 unspecified</p> <p><u>Tubes w/c</u> – large tube quick drying white Chinese White 6 tubes (Nov 18) and 12 tubes (Dec 23) 4 Unspecified (8/- and 9/- a time, so sev colours each time)</p> <p><u>Oil Colors</u> 5 unspecified</p>	<p>Mounting drawing on linen & stretcher 25 ¼ x 20½</p> <p>Paneled board 41 x 28 cov w stout cartoon & surfaced Antiquarian Drg paper</p> <p>Absorbent white canvas and stretch 6ft x 3ft 6</p> <p>White absorbent canvas 6ft x 3ft</p> <p>12 Panelled boards cov w linen & 2 surfaces thin Impl Drawing pasted together</p> <p>Stretch 13 ½ x 9 ½ & mounting own vellum on do</p> <p>Pand bd 14 ¾ x 10 5/8 & mounting own vellum on linen strained over do [Dorigen?]</p> <p>Mounting drawing on linen strained on pand board 40 ¾ x 25</p> <p>11 Pand boards cov w linen & own vellum strained over do.</p> <p>Linen and paper on own stretcher</p> <p>Brown paper on canvas & strainer 36 ½ x 18 ½ [Phyllis??]</p> <p>4 strainers cov w linen & seamless Impl Not 22 ¾ x 17 ¾</p> <p>Block 14 x 10 <u>white canvas for water color</u></p> <p>Pand bd 15 ¼ x 11 cov linen & 2 papers</p> <p>2 strainrs cov w linen cartoon & Antqn 4ftx 1ft6</p> <p>Lining pic on prep canvas 31 ¼ x 27 ¼</p> <p>Lining pic on prep cloth 5ft 1 ½ x 3ft 9</p> <p>Bare white absorb canvas lined on prep canvas 24 x 21 ¼</p>	<p>2 doz Fabers F.F. pencils x 2</p> <p>Mounted glass slab</p> <p>Muller</p> <p>Rouget's Fixing Machine</p> <p>Fixing Liquid & spirit</p> <p>Glass Medium</p> <p>Caoutchouc Mucilage</p> <p>Compressed Charcoal</p> <p>Red Contés</p> <p>Vell(um?) Slab</p> <p>Medium</p> <p>Nut oil and varnish</p> <p>Bottle fixing liquid</p> <p>Water bottle</p> <p>Oil Sables</p> <p>Water color sables</p> <p>2 Papier maché palettes</p> <p>Copal linseed oil & fixing liqd</p> <p>Linseed oil and tin</p> <p>Charcoal and portecrayon</p> <p>Palette knife</p> <p>Total carried over £73/9/10</p>	<p>Completed <i>The Wine of Circe</i> in time for OWCS exhib. <i>Hermia; Spring; Autumn</i></p> <p>Fairfax Murray leaves studio, but continues to assist.</p>

Year	Pigments	Paper and Canvas supports	Other materials	Watercolours in progress
1870	<p><u>'colors' (powdered):</u> 2 unspecified</p> <p><u>'Moist Colors'</u> 7 unspecified 'Water Colors' 1 unspecified 4/-</p> <p><u>Tubes w/c</u> Quick drying Flake White Chinese White (12 tubes May 28 and Nov 5) 2 unspecified (10/- and 7/-)</p> <p><u>Cakes</u> – Aluminium 1/6 Gold 5/- <i>Oil Colors</i> 5 unspecified (5/-,6/-, 16/-)</p>	<p>Double canvas, white absorbent surface 72 x 42 White absorbent canvas on 2 stretchers Semiabsorbent canvas & stretcher 9ft9 x 9ft 4 canvases sized heavy Roman on strchrs 56 + 28 Brown paper mounted on linen on 4 stretchers 24 + 16 3 Coarse Roman Canvases, sized only on strch 5ft 1 x 1ft 8 Ex fine canvas prep'd Chinese White strained on pand board over prepd oil canvas reversed 3ft 11 ½ x 1 ft 8 ¾ 2 Extra fine canvases prepd w WC Chinese White strained over reversed prepd oil canvas on Paneled Stretcher 40 x 14 [Days of Creation?]</p>	<p>Glass medium Gall Burnisher Gold Saucer Portecrayon Chalks Lens Pair Pocket Albata Compass Modelling Tools Modelling Clay Box fixative liquid 56lbs Modelling Clay Dwarf Rack Easel Proportional Compass</p> <p>Owing total £82/7/8</p>	<p>Increasingly Italianate – infl Michaelangelo, Botticelli, Raphael, Leonardo, Mantegna. Began <i>The Days of Creation</i> (1870-76), <i>Love Among the Ruins</i>; <i>The Garden of the Hesperides</i>. Painted <i>Night</i>; <i>Maria Zambacco</i>; <i>Phyllis and Demophoön</i>; <i>Love disguised as Reason</i>; <i>Day</i>; <i>Night (2)</i>; <i>The King's Wedding</i>; <i>The Evening Star</i>; <i>Beatrice</i>. Conceived idea of Troy Triptych</p> <p>Resigned from OWCS. T M Rooke new assistant.</p>
1871	<p><u>'colors' (powdered):</u> Aluminium 1/6 (cake?) Gold 5/- (cake?) Ultra Grey 4/6 Chinese White 10/- x 2</p> <p><u>'Moist Colors'</u> – 0 'Water Cols' – 1 unspecified</p> <p><u>Tubes w/c</u> 2 unspecified. 10/4</p> <p><i>Oil Colors</i> – 4 unspecified</p>	<p>Paneled board 14 ¾ x 5 3/8 cov w prep vellum Canvas prepd Chinese White strained on own Board 2 Strainers 2ft4 x 3ft4 covd linen & brown paper; canvas & stretcher 8ft 8 ½ x 7ft3 ½ 4 Paneld boards with prepd canvas reversed & extra fine cloth prepd Chinese Wh & bound at edges 40 x 14 1/8 [Days of Creation?] Semi-absorb canv on strchr 4ft 5 ¼ x 2ft; do 4ft 3 x 2ft; do 3ft 9 x 2ft; do 2 ft 9 x 2ft; do 5ft 3 1/8 x 2ft 7 5/8. 3 strainrs 25 x 20 ½ cov linen & stout drwg pap 4 strainrs 35 x24 cov linen & HP paper; 1 do 68x24</p>	<p>Pipe Clay Liquid Glue Nut oil Cases Leads Creta Lavis pencils "Fabers" Water colour sables Japanned box and folding Palette for 20 tubes w/c Fixing liquid 2 Porte Plombogenes 27 tube plain tin box oil cols w extra fine hog tools, sables &c Charcoal and colors French polished walnut palette Winding easel</p>	<p>Recd small panel by Giorgione from Norton before leaving for America. Norton used to send him catalogues of reproductions and engravings or photos – Da Vinci, Michelangelo. (Memorials) Travel to Italy Working on <i>The Days of Creation</i>; <i>The Garden of the Hesperides</i>; <i>Love Among the Ruins</i>. Painted <i>Dorigen of Bretagne</i>; <i>Venus Epithalamia</i>; <i>The Sleeping Beauty</i>; <i>A Dream of Parnassus</i>; <i>Helen Captive in Burning Troy</i>.</p>

Year	Pigments	Paper and Canvas supports	Other materials	Watercolours in progress
1872	<p><u>'colors' (powdered):</u> 2 unspecified Permanent Flake White</p> <p><u>'Moist Colors'</u> 1 unspecified 'Water Cols' - 1 unspecified</p> <p><u>Tubes Moist w/c</u> 2 unspecified 5/4 & 8/- 6 tubes moist Raw Umber 12 tubes Chinese White</p> <p><u>Cakes</u> Gold 5/- <i>Oil Colors</i> 8 unspecified</p>	<p>Prepd panel jesso ground 11 ½ x 9 4to block 2 blocks 14 x 10 ex fine cloth prepd Ch white Prepd panel 43 ¼ x 14 ¾ Strainer 5ft6 x 3ft 10 cov linen & grey cartoon SP Canvas on stretcher 6ft 11 x 4ft; do 4ft 11x 1ft 11; do; do 4 ft 11 x 2 ft 4. 6 SP Canvas 6ft x 3ft Strainer 5ft 6 x 3ft with linen & cartoon paper mounted over 6 ins all round turned over at back.</p>	<p>6 large pots gall Pint fixing liquid Extra fine hog Mans time alterg frame & restrg picture Sables Winding easel Bonomi's Prepn Charcoal Linseed & nut oil</p> <p>Owing total £102/12/10</p>	<p>One of most productive yrs. Working on <i>The Days of Creation; The Garden of the Hesperides; Love Among the Ruins. Painted Temperantia; Fides; Spes; Girls with Lanterns; Pyramus and Thisbe</i> triptych on vellum. Started <i>The Evening Star</i>. 12 Designs in w/c for Palace Green mural for George Howard – BMAG.OILS Completed 1881 – dimensions see spreadsheet.</p>
1873	<p><u>'colors' (powdered):</u> Permanent Flake White Cadmium 7 unspecified (10/9, 10/6, 7/)</p> <p><u>'Moist Colors'</u> 1 unspecified 4/6 'Water Cols' Refilling water color box</p> <p><u>Tubes w/c</u> Tubes & pans Chin White 6/- Tubes moist cols (unspec 4/) 2 large tubes permanent white</p> <p><u>Cakes</u> Gold and Aluminium <i>Oil Colors</i> 10 unspecified 16/-, 19/6, 11/-</p>	<p>Panel 15 ½ x 6 SP Canvas on Stretr 9ft x 3ft 9 ½ 3 x 8vo impl Blockd Sketch Books 2 x 8vo Impl Solid Hf bd Sk books 56 leaves X HP covered Holland 3 8vo Impl Solid Sketch Bks 56 lves cov Holl Lined canvas 6ft x 4ft Lined canvas on stret 6ft 1 ½ x 4ft 11 ¾ Lined canvas 6ft 1 ¼ x 3ft 11 ½ on stret prepd 2 prepd deal panels 5ft x 2ft Fine SP canvas lined 3ft 11/2 x 3ft 2 ½</p>	<p>Bottle fixing liquid x 2; half pint fixing liquid Cuttle fish 6 scrapers Nut oil Fabers pencils and leads Mens time altering and restraining picture at NorthEnd</p> <p>Owing total £68/3/4</p>	<p>Exhib at Dudley Feb. Travel to Italy (Spring) –ill, brought back little work – at home 60 unfinished works Working on <i>The Days of Creation;</i> <i>Painted The Cumaen Sibyl.</i> Completed <i>The Evening Star; Love Among the Ruins; The Garden of the Hesperides</i> – latter two exhibited at Dudley which opened Feb (Memorials II p. 31)</p>

Year	Pigments	Paper and Canvas supports	Other materials	Watercolours in progress
1874	<p><u>'colors' (powdered):</u> Genuine Ultramarine 4 & 7 (cake?) Permanent Flake White x 4 Chinese White x 2 1 unspecified</p> <p><u>'Moist Colors'</u> Thumbhole box Moist Cols 13/6 1 unspecified '<i>Water Cols</i>'</p> <p><u>Tubes w/c</u> - (none)</p> <p><u>Cakes</u> - (none) <i>Oil Colors</i> 17 unspecified orders</p>	<p>1 yd 36" Tracing Cloth ; Tracing Paper Canv on stretch 5ft x 1ft 10 Lined SP canvas 3ft 11 x 2ft 4 ex fine SP cloth lined on pand stretch 3ft 3 x 2ft 6; SP canvas on Stret 18ft x 4ft 2 x 4to Impl Blkd Skbks open upright – 60 leaves stout seamless linen joints cov Holland 1 x 4to Imp do ex thk HP 22/- 1 x 4to Roysl dcd India Paper 7/6 Solid ½ bd sk Book Block 29 x 14 4to Impl Solid ½ bd SkBk linenjointd 60 leaves x HP open upright, Holland bound</p>	<p>Rouget's Fixative Set 6/- Nov Bottle Fixative; 3 pt bots Fix Lq Pint Fixing Liquid x 2; ½ pt fixing liquid Copal Ink Eraser x 3 Van hire to 2 journeys fetching panel, repair do & returning to North End Liquid Glue Siccatis d'Harlem 6 cases leads for fabers pencils 6 pkts compressed charcoal Medium x 2 Pomice stone Sable brushes Case with pencil & sables Metal blade T square HB Perm Chlk Pencil 4 boxes fabers BB leads; 2 BBB</p> <p>Owing total £101/11/-</p>	<p>Winter 1874-5 began designs for Morris book of Virgil – but given up middle 1875. On verge of a nervous breakdown (Zambacco) Designed <i>the Last Judgment</i> 3 stained glass cartoons (pencil – coloured in wax crayon 1880)</p> <p>Working on <i>The Days of Creation</i> <i>Altar of Hymen</i></p> <p><u>Wax crayon:</u> <i>The Last Judgement</i> – 3 panels (120 1/8 x 33 5/8 & 120 1/8 x 37 1/8 [2 panels]) Huge triptych pencil design for <i>The Last Judgement</i> stained glass for Easthampstead – coloured in wax crayon 1880 – BMAG</p>
1875	<p><u>'colors' (powdered):</u> Pot Raw Umber ground in water Permanent White 10/- Chinese White 8/- 2 unspecified</p> <p><u>'Moist Colors'</u> 2 unspecified 7/8 & 3/6 '<i>Water Cols</i>'</p> <p><u>Tubes w/c</u> Genuine Ultramarine tube each no 1 (42/) 4 (16/) 7 (6/)</p> <p><u>Cakes</u> 2 cakes Gen Ultra 32/- <i>Oil Colors</i> – 9 unspecified</p>	<p>Lining picture on pand stretchr 4ft 4 1/8 x 3ft2 Ex fine canvas HP lined on Stret 6ft 7 x 3ft 9 Ex fine canvas prepd w Chi White Water Col on Pand Stret 3ft 9 x 1ft 9 3/8 8vo solid bound lined jointd skbk in Holland 3 strainers 3ft 6 x 2ft cov linen w brown paper mounted on it & Antiqn Paper strained over Ex fine canvas prepd Chinese White for Water Col on panld bd 57 ½ x 12 ½ bound at edges Impl upright solid sk bks linen jointd Holland one each HP and N SP canvas lined on pand stret 7ft 6 x 5ft 155/- 3 yds stout 4ft 6 paper</p>	<p>Round slant tile and Basin Van hire & man's time to Mend Faber's Pencils Case BB leads x 2 Box finest charcoal Pipe clay Papier maché palette Roller 6 boxes faber's leads</p> <p>Owing total £33/2/11</p>	<p>Working on <i>The Days of Creation</i> – most of year spent on this. Also small w/c replica of <i>Fortune</i></p>

Year	Pigments	Paper and Canvas supports	Other materials	Watercolours in progress
1876	<p><u>'colors' (powdered):</u> Madder Carmine 3/4 Permanent white 10/- x 2 Chinese White 8/- Deep Yellow Madder 1/6 French Ultramarine 2/- Packet pure gold powder 10/- Colours ground in water Chinese White ground in water 3 unspecified</p> <p><u>'Moist Colors'</u> Flake White 3 unspecified Box moist colors 5/-</p> <p><u>'Water Cols'</u> 1 unspecified</p> <p><u>Tubes w/c</u> – none <u>Cakes</u> Genuine Ultramarine Oil Colors - 14 unspecified</p>	<p>Lining Canvas on pand stretcher 7ft 6 x 5ft & [one?] coating of white Mounting his cartoon on linen & strainer 7ft10 ½ X 4ft Strainer 6ft 3 x 5ft covd linen, cartoon & joined DE Do 3ft 10 x 4ft dd; do 3ft 4 ½ x 2ft 0 ½ dd Antiqn Double SP canvas on best stret 27 x 17 ½ 6 Strainers 24 x 18 covd linen Whatmans Paper mounted on do Lined SP canvas 10f x 4f White 135/- Do on pand stret 5ft x 4ft 6 white £6/7/0 2 Blocks ex thk HP 14 x 10 Strainer 7ft 6 x 4ft 0 ¾ covd linen & cart paper w 3 shts Antiqn joined and mounted on do Strainer 8ft x 3ft 1 ½ covd linen & brown paper 3 panels 10 ½ x 7 ½ White SP canvas lined on stret 6ft 7 x 3ft 9 ¼ 68/- Do 8ft 2 ¼ x 3ft 5 80/- Your paper made into blk skbk open upright Fine SP canvas lined on panel stret 5ft 10 ½ x 2ft 1 Lined canvas on pan stret 4ft 11 ½ x 2ft 4 ½ 48/- Strainer 39 1/8 x 30 ¼ covd linen & bro paper Strainer 3ft 9 ½ sq covd linen & cartoon 13/- Strainer 7ft x 3ft covd linen & brown paper 16/-</p>	<p>Pipe clay Sable brushes Sable pencil and case Ink Box willow charcoal Round sables 37/- FP Dwarf Rack Easel Rest Stick Patent Pencil 1/- Case Leads Van hire men's time portorage of picture fr Mr Stanhope's studio to North End</p> <p>Owing total £94/17/9</p>	<p>Exhibits at Grosvenor Gallery Working on <i>The Days of Creation</i> (1870-76) – the first five months of the year wholly given up to these. Small <i>Procession from the Romaunt of the Rose</i> (w/c on linen)</p>

Year	Pigments	Paper and Canvas supports	Other materials	Watercolours in progress
1877	<p><u>'colors' (powdered):</u> Yellow Madder 4/- & 5/6 Ultra Ashes Grey Genuine Ultramarine No1 42/- Gen Ultramarine No 7 & 4 Permanent White x 2 Chinese White No unspecified</p> <p><u>'Moist Colors'</u> 3 unspecified 6/- 12/-</p> <p><i>'Water Cols'</i> 3 Unspecified 9/4, 14/6, 12/6</p> <p><u>Tubes w/c</u> Tube cobalt 6 tubes Chinese White 4/- 3 large tubes Permanent White <i>Oil Colors</i> 18 unspecified</p>	<p>Impl drawing block book Holland x 4 1 doz 4to Impl sketching Tablets 6/- 1 doz 8vo do. 2 strainers 4ft 2 x 5ft covd w linen & brown paper; 1 do 5ft 7 x 5ft cov do; 1 do 5ft x 4ft covd do. £3/18/6 Lined canvas on pand stret to order 6ft 6 ¼ x 3ft 3 ¼ Strainr 4ft x 2ft 6 covd linen & Bn Cartoon Lined canvas on pand stret 5ft x 4ft 2 £10/5/- Strainer cov linen & Antqn Drawg paper 7ft x 3ft 6 30/- 2 x 8vo solid bd books linen jointed 28/- Lined canvas ex fine cloth SP 10ft x 1ft 5 ½ £7 6 Ex fine cloth SPd best stretrs 36 x 28 42/- Lining picture on own frame red^d £4/17/6</p>	<p>Preparing oak cabinet to order Oil sables Quick drying copal Watercolor sables India rubber Japanned tin box 6 div + colors Pipe clay 1/- & 5/6 3 boxes Fabers 6B leads 9/- 2 deal stands Easels 6ft 32/- 1 do 7ft 4 wide 24/- Large bamboo rest stick Ex fine hog tools R^f oil sables</p> <p>Owing total £155/7/6</p>	<p>8 pictures exhib at Grosvenor – <i>Days of Creation, Temperantia, Fides, Spes (w/cs)</i></p> <p>Painted <i>The Call of Perseus, Perseus and the Sea Nymphs, The Death of Medusa I, The Tibertine Sibyl</i></p> <p>Started <i>Perseus and the Graiae</i> (1877-80),</p>

Year	Pigments	Paper and Canvas supports	Other materials	Watercolours in progress
1878	<p><u>'colors' (powdered):</u> Chinese White 5/- Permanent White Vandyke Brown Genuine Ultramarine (2) 22/6 Ivory Black Deep Yellow Madder 3/6 Burnt Umber 3 unspecified</p> <p><u>'Moist Colors'</u> Chinese White 8/- 1 Unspecified 8/6 'Water Cols' - none</p> <p><u>Tubes w/c</u> 6 tubes Chinese White 5/- 1 doz Chinese white 8/- <u>Oil Colors</u> Brown madder 9 unspecified</p>	<p>Prepg own mahogany panel 45 ½ x 22 ½ Pand stretr 7ft x 1 ft ¼ covd linen prepd Chi White for Water color £1/14/- Deal panel bd cov w linen, cartoon, 2 shts & half Antiqn 5ft x 4ft 6 £2/10/- Impl 8vo Solid Sk Bk Holland bound 2 Roman canvas & best strets 4ft x 4ft 50/- Reverse SP Canvason best stret 24 ½ x 18 ¾ , straining picture over do 2 lined canv SP 10ft x 5ft ½ fin^d white £16/12 1 do on pand stret 3ft 3 x 2 ft 6 2 solid Ind Rub Bd Sk Bks Holland cover 1 do x N(ot) 6/- and HP 6/- Imp 32 mo. Ind Rubs Lining picture 9ft x 3ft 10 120/- Royal 4to Blk x HP Stretr 4ft x 3ft 10 covd linen & strain^e brown Paper Drawing over 16/6</p>	<p>Japanned dippers Lactam ? Extra fine hog</p> <p>Paid off £120 by cash</p> <p>Owing total £142/17/8</p>	<p>Painted <i>An Angel Playing a Flageolet, The Avenging Angel of Saint Catherine,</i></p> <p>Working on <i>Perseus and the Graiae, An Angel with Cymbals</i> (1878-81), <i>A Musical Angel</i> (1878-80) and <i>Atlas Turned to Stone</i></p>

Year	Pigments	Paper and Canvas supports	Other materials	Watercolours in progress
1879	<p><u>'colors' (powdered):</u> Indelible Brown Permanent White Scarlet Madder Caledon Brown Chinese White Genuine Ultramarine 8/- Ultramarine Ash 2 packets pure Gold 1 packet Allum 3/- 3 unspecified <u>'Moist Colors'</u> 5 unspecified</p> <p>'Water Cols' - none <u>Tubes w/c</u> None <u>Cakes</u> 2 cakes Gold 10/-</p> <p><i>Oil Colors</i> 11 unspecified</p>	<p>Cutting bottom piece off lined picture 5ft 10 x 2ft 6. Altering stretcher & straining. Repair easel 3 yds 31 in Tracing Cloth Impl blks x HP 14/- Lined canvas on panel stretcher 6ft 3 ¼ x 3ft 6 ¼ 2 lined canvas on panel stretcher 67 x 45 £9/5/- 4 to Royal blk in case x HP Mounting linen tracing on cartridge paper edges bound & eyelet holes 24 yds Brown paper 2 portraits taken off stretchers & restrained^g over rev cloth on best stretcher 23 ½ x 17 ½ 10/- 3 sized canvases on best stretcher 4ft 8 x 2 ft 4 2 portraits taken off stretcher & restrained over rev cloth on best stretchers 18 ¾ x 15, 18 x 14 3 portraits taken off stretcher & restrained over rev cloth on best stretcher 23 ½ x 18, 23 ½ x 19 ½, and 20 ½ x 14 ½ Lined canvas on best stretcher 11 ft 2 x 6ft 9 Taking 2 sketches off stretchers & restraining over rev cloth on best stretcher 14 ½ x 12 ½, 16 ¼ x 13 ¼ 2 best stretchers 23 x 17 + mans time straining pictures at your studio rev cloth</p>	<p>Fabers Liquid Indn Ink Crow Quills 2/- Ex fine hog long handle Drawing pins Box leads Patent pencil Rouget complete 6/6 Large bottle each Rouget's Fixing liquid & cleaning liq 2 doz Artists Craeta Levis 8/- Japanese Brushes Wax crayons 8/- & 28/- [for Last Judgement panels] Parris Marble medium ½ litre bottle fixing liquid 7/-</p> <p>Owing total £200/17/9</p>	<p>Early months of the year devoted to completing works for the Grosvenor. Very ill Painted <i>The Annunciation</i></p> <p>Working on <i>Perseus and the Graiae</i></p>
1880	<p><u>'colors' (powdered):</u> Permanent White x 3 Gold Crimson & green Bronzer 8/-</p> <p><u>'Moist Colors'</u> 1 unspecified 17/4</p> <p><u>Tubes w/c</u> <i>Oil Colors</i> - 1 unspecified</p>	<p>10 ½ x 6 Holland bound solid sk bk 40 leaves upright linen jointed ea x N 14/- & HP 14/- 5 ¼ x 3 ¾ do x HP 7/- 1 each Holland bound sk bk 10 ½ x 6 14/- and Holland bound sk bk 5 ¼ x 3 ¾ 7/-, linen jointed re x HP; 1 do 10 ½ x 6 x N(ot) 4 to Imp Blk 7/- Solid Sk Bk 10 ½ x 6 holland bound linen jntd 40 leaves x 4 14/- . Taking leaves out of old sk bk + making into sketch bk holland bound</p>	<p>Copal Sables 6/6</p> <p>Owing total £208/16/3</p>	<p>'My rooms are so full of work..and I have begun so much that if I live to be as old as the oldest inhabitant of Fulham I shall never complete it.' [Memorials, p 107] Painted <i>Love, A Study of Fishes, The Magic Circle, The Guardian Angel; Dies Domini</i>. Completed <i>Perseus and the Graiae, A Musical Angel</i>, working on <i>Perseus Series</i>. Pressure to complete Golden Stairs for exhib. Prep for Winter Exh Grosvenor; Wax crayon – 3 cartoons <i>The Last Judgment</i> stained glass</p>

Notes:

1. 'Tubes' in document not specified as water or oil paint – have assumed watercolour, because oils listed as 'oils'
2. 'Colors' in document not specified in form – Joyce Townsend (*Pre-Raphaelite Techniques*, p. 42) assumes these are powdered.
3. 'Moist colors' in document are sometimes described as 'tubes moist color' so may refer to either moist pans or tubes in places.
4. 'cakes' are dry cakes of watercolour
5. 'water colors' in document – assume these are cakes, but may also refer to other forms

Where I have written 'tube w/c - 5 unspecified', that means on five different dates orders were placed for tube watercolours of a range of quantities, not just one colour or one tube per order. Amounts varied from a few pence to several shillings for each order, so it is impossible to tell how many colours or which colours were being paid for.

Appendix X
Art Critics of Periodicals and Papers 1850-1880

<u>Title/ Dates of publication</u>	<u>Critic Name</u>	<u>Years as art critic</u>	<u>Career/ Education</u>
<i>The Times</i> DN 1785 – now <u>Editor</u> J.T. Delane 1841-77 liberal	Tom Taylor (1817-1880)	1857-1880 ¹	Playwright, critic; Uni of Glasgow; Trinity College Cambridge maths; Prof of English at Uni of London 1845-6, called to bar 1846, contrib. to <i>Punch</i> ; 1850 Asst Sec of board of Health; art critic/editor for <i>Graphic</i> 1870s; member Medieval Society 1857.
	Harry Quilter (1851-1907)	1880-01 ¹	See <i>Spectator</i> notes below. Contributed <i>Macmillan's Mag.</i> 1880
<i>Blackwoods Magazine</i> MM 1817-1980 Conservative <u>Editor/publishers:</u> ⁶ John Blackwood 1845 foll by Blackwood sons and nephews	John Eagles (1783-1855)	1850-55	Artist, art critic & poet; ed. Oxford Uni; entered church; studied art Italy; knowledge of media and pigments; author <i>The Sketcher</i> , 1856.
	Joseph Beavington Atkinson (1822-1886)	1856-69	Critic and writer on Russian and contemp German art. Books on Overbeck, European art, contrib. to <i>English Painters of the Present Day</i> and <i>Saturday Review</i> 1865. Anti-PR
	Margaret Oliphant (1828-1897)	1868-76	Novelist and biographer; educated at home; art criticism moral tone, deplored commercialism of art. ¹⁰
<i>Spectator</i> DM 1828 – now <u>Editors:</u> Robert Stephen Rintoul 1828, as founder, until death in 1858 Mr. Scott 1858–61 Meredith Townsend 1861, as sole editor for a short time, then as co-editor with R.H. Hutton until 1886	William Michael Rossetti (1829-1919)	1850-Dec 1858 ²	Art critic and literary editor, Civil Servant till 1894, member PRB; contributed to <i>The Critic</i> (1850-56), <i>Fraser's Magazine</i> 1861-5, <i>Art Journal</i> (1850-96) ² and <i>Spectator</i> . Promoted PRs
	H S Marks (1829-1898)	1861-2 ¹	Art critic -“Dry Point”; artist; RA schools 1851 & Ecole des Beaux-Arts, Paris; member St John's Wood Clique artists; porcelain painting Minton.
	John Lewis Roget (1828-1908)	Early 1870s ¹	Artist; wrote <i>A History of the Old Water-Colour Society</i> 1891; re-pub & enlarged <i>Thesaurus of English Words and Phrases</i> 1879
	Harry Quilter (1851-1907)	1876-86 ¹	Art critic; Cambridge Univ 1870-4; studied art Italy & Slade School Art; called to bar 1878; contrib. numerous papers & periodicals incl <i>Cornhill</i> , <i>Fortnightly Review</i> , <i>Fraser's Mag</i> ; conservative art critic opposed to avant-garde movements.

<u>Title/ Dates of publication</u>	<u>Critic Name</u>	<u>Years as art critic</u>	<u>Career/ Education</u>
<p><i>Athenaeum</i> WM 1828 – 1921 <u>Editors:</u> ⁵ C.W. Dilke 1830-46 T K Hervey 1846-53 H. Dixon 1853-69 C W Dilke 3rd 1869-71 N Macoll 1872-1900</p>	<p>Frank Stone (1800-1859) Walter Thornbury (1828-1876) Leonard Valpy F. G. Stephens (1828-1907)</p>	<p>Late 1840s- mid <u>1850s</u>¹ c1854-1860 ¹ <hr/>1877 Oct 6 <hr/>1861-1901 ¹</p>	<p>Artist, no formal training; critic; early opponent of Pre-Raphaelites – unfavourable reviews of them in <i>Athenaeum</i>; RA; friend Dickens. Artist, journalist & author; also contrib. to <i>Art Journal</i>; studied art Leigh’s Academy. <hr/>Wrote signed article on Samuel Palmer drawings in his collection, pp. 440-1. Art critic, member Pre-Raphaelite Brotherhood, art editor <i>Athenaeum</i>; educated RA schools; contrib. to <i>Art Journal</i>, <i>Portfolio</i> and the <i>Critic</i>; Keeper Prints & Drwgs British Mus; 1877 wrote for Grosvenor Gallery catalogues. Author 90-part series in <i>Athenaeum</i> 1873-84 on private collections of England.³</p>
<p><i>Art Journal</i> MM 1839-1912 Conservative <u>Editor:</u> Samuel Carter Hall 1839-1880 Also admits to writing some reviews.</p>	<p>James Dafforne ((1803-1880) Mrs Merrifield (1804-1889) John Burnet (1784-1868) Robert Hunt (1807-1887) Dr Scoffern J B Atkinson (1822-1886) F Crace-Calvert (1819-1873)</p>	<p>1845-1880 ¹ <hr/>1852-55 ^{FM} <hr/>1852 Feb 1 ^{FM} <hr/>1851-58 scientific articles <hr/>1854 April ^{FM} <hr/>1862 Sept; 1880 ^{FM} <hr/>1865 Oct 1 ^{FM}</p>	<p>Writer on art, author of books on Victorian painters and translator of “Arts in the Middle Ages”; education unknown. Assistant-editor to <i>Hall of Art Journal</i>. Writer on art, algologist; 1844 pub translation of medieval guide to painting methods, <i>Il Libro dell’Arte</i>; author of <u>signed AJ</u> article “On the Red Pigments called ‘Lakes’”, Jan., 1853 and “On the Harmony of Colours, and its Application to Ladies’ Dresses”, Parts I-IV, Jan-April, 1852. Painter and eminent engraver; trained at Trustees Academy, Edinburgh; exhib RA; wrote art manuals – (signed) <u>AJ</u> article on Turner’s techniques, pp. 47-8. Chemist and photographer; learned dispensing age 14; research into photography, founder member Photographic Soc of GB; 1848 pub. <i>The Poetry of Science</i> – attempt to popularize science; 1851 appointed Prof of Mechanical Science; from 1860 edited Ures Dictionary of Arts, Manufactures and Mines; author <u>signed AJ</u> articles on zinc white (Jan 1851), paper manufacture (May 1854), red pigments (Feb 1858), madder (March 1858), vegetable gums and resins (Dec 1858) .Contrib.to <i>Athenaeum</i>. Professor of Chemistry Aldersgate School of Medecine; author <u>signed AJ</u> article “Pigmentory and Tinctorial Matter of the Ancients”, 1854. Author of <u>signed AJ</u> article on the International Exhibition, 1862, p. 200.⁷ Industrial chemist; studied chemistry France, 1841-6 worked Gobelin dyeworks; hon. Prof. Manchester R. Inst; Fellow Royal Soc. 1859; recognised for studies on carbolic acid; author <u>signed</u> article “Coal Tar Colours derived from Carbolic Acid” pp.301-2</p>

<u>Title/ Dates of publication</u>	<u>Critic Name</u>	<u>Years as art critic</u>	<u>Career/ Education</u>
<i>Pall Mall Gazette</i> 1865-1923 DN <u>Editor:</u> ⁴ Frederick Greenwood 1865-80 John Morley 1880-1883 (?) W.T. Stead 1883-1889	W. M. Rossetti (1829-1919)	1865#	See <i>Spectator</i> notes above. He also wrote for <i>Fraser's, The Critic</i> Literary & art critic; Trinity College Cambridge; Slade Prof Fine Art Cambridge 1873-95; director Fitzwilliam Museum; Keeper prints/drawings British Museum 1884. Also contributed to <i>Magazine of Art</i> 1881-? English drama & art critic; Uni of London (law); English editor <i>L'Art</i> 1875; contributed to <i>Art Journal, Sat Review, Examiner</i> . Books/articles on Pre-Raphaelites, Burne-Jones; 1877 co-dir Grosvenor Gallery. Journalist, first editor <i>Pall Mall</i> (1865-80); began as printer's apprentice; author of strongly critical review Burne-Jones at Grosvenor May 1879 & letter to editor signed 'Q.T.' attacking B-J's drawing skills <i>PMG</i> 20 May 1879 p.4 ⁴ Museum director (Nat Gall Ireland 1892) art historian; educated Oxford Uni; art critic also for <i>St James's Gazette, Manchester Guardian, The Examiner</i> . Prolific art critic and scholar. Educated University College School and <u>University</u> <u>College, London</u> . Also art critic for the <i>Graphic</i> during same period. Painter and art critic; Sidney Sussex Cambridge Uni; studied painting at Edinburgh School of Art; 1873 Antwerp École des Beaux-Arts & Paris; exhib. RA; art & music critic <i>Saturday Review</i> 1885-9; contrib. to <i>Magazine of Art</i> ; 1889 Professor of Fine Arts Univ College Liverpool.
	Sidney Colvin (1845-1927)	C 1868-70 ¹	
	Joseph Comyns Carr (1849-1916)	1873 - ?	
	Frederick Greenwood (1830-1909)	1879 + others? FM	
	Sir Walter Armstrong (1849-1918)	1880-82 ¹	
	Marion Harry Spielmann (1858-1948)	1883-90 ¹	
R A M Stevenson (1847-1900)	1893-9 ¹		

<u>Title/ Dates of publication</u>	<u>Critic Name</u>	<u>Years as art critic</u>	<u>Career/ Education</u>
<i>The Graphic</i> WN 1870-1932 <u>Editors:</u> Sutherland Edwards 1869-70 Arthur Locker 1870-91	Tom Taylor (1817-1880)	1870s?	See the <i>Times</i> notes above. First <u>signed</u> review in <i>The Graphic</i> 5 May 1877 .
	Marion Harry Spielmann (1858-1948)	1883-90	Prolific art critic and scholar. Educated University College School and University College, London. Also art critic for <i>Pall Mall Gazette</i> during same period.
<i>The Magazine of Art</i> MM 1878-1904 <u>Editors:</u> ⁸ Sir Arthur J R Trendell 1878-1881 William Ernest Henley 1881-86 Marion Harry Spielmann 1887-1904	R A M Stevenson	1880s ¹	See <i>Pall Mall Gazette</i> notes above. Introduced ideas of Impressionism; critical RA
	Henry Holiday (1839-1927)	1880 ^{FM}	Artist, stained glass designer Powell's 1861-91; friend Burne-Jones; founder member The Fifteen, the Art Worker's Guild and the Arts and Crafts Exhibition Society; <u>author (signed) articles on wood engraving 1880 <i>Magazine of Art</i></u>
	Charles W Dempsey	1880 ^{FM}	Author (<u>signed</u>) "'Tone Harmonies' and the Modern Scheme of Colour" article 1880 <i>Magazine of Art</i>
	Albert H Warren	1880 ^{FM}	Artist; author of four drawing and painting manuals, including <i>A Guide to Beginners in the Art of Illumination</i> . Author "On the Art of Illuminating as <u>Originally Practised</u> " series, (<u>signed</u>) 1880 <i>Magazine of Art</i>
	Sidney Colvin (1845-1927)	1881-?	See <i>Pall Mall Gazette</i> notes above. Enlisted at <i>Magazine of Art</i> by Henley- wrote on Hogarth portraits ⁹

Key: Names in **bold** are trained artists

DN – Daily Newspaper

WN – Weekly Newspaper

DM – Daily Magazine

WM – Weekly Magazine

MM – Monthly Magazine

Sources:

¹ Kent, “Periodical Critics of Drama, Music, & Art”, pp. 31-55.

² Julie L’Enfant, *William Rossetti’s Art Criticism: The Search for Truth in Victorian Art*, Lanham, New York, Oxford, 1999, p. 344.

³ Dianne Sachko Macleod, “Mid-Victorian patronage of the arts: F.G. Stephens’s ‘The Private Collections of England’”, *Burlington Magazine*, 1986, pp. 597-607.

⁴ Robertson Scott, *The Story of the Pall Mall Gazette*, London, New York, Toronto, 1950, pp.355-6.

⁵ Marchand, *The Athenaeum: a mirror of Victorian culture*.

⁶ Houghton, *Wellesley Index*, Vol. I, pp. 7- 8.

⁷ Wilcox and Newall, *Victorian Landscape Watercolours*, p. 110.

⁸ Julie F. Codell, “Marion Harry Spielmann and the Role of the Press in the Professionalization of Artists”, *Victorian Periodicals Review*, Vol. 22, No. 1 (Spring, 1989), pp. 7-15.

⁹ Greiman, Liela Rumbaugh, “William Ernest Henley & ‘The Magazine of Art’”, *Victorian Periodicals Review*, Vo. 16, No. 2 (Summer, 1983), pp. 53-64.

¹⁰ Onslow, “Humble Comments for the Ignorant”, pp. 55-74.

R.W. Peattie, “William Michael Rossetti’s Art Notices: In the Periodicals, 1850-1878: An Annotated Checklist”, *Victorian Periodicals Newsletter*, Vol. 8, No. 2 (June 1975), pp. 79-92.

Biographical details: Oxford Dictionary of National Biography online at www.oxforddnb.com/articles
en.wikipedia.org

Appendix XI
Some Watercolour and Drawing Manuals Reviewed
by the *Art Journal*, the *Athenaeum* and *The Graphic*

Art Journal

Date reviewed	Author of Manual	Title of Manual	Pub
Jan 1, 1850 p. 132	T. & T.L. Rowbotham	<i>The Art of Landscape Painting in Water Colours</i>	W & N
Aug 1, 1850 p. 298	Aaron Penley	<i>A System of Water-Colour Painting</i>	W & N
Mar 1, 1851 p. 100	Mrs Merrifield	<i>The Art of Portrait Painting in Water-Colours</i>	W & N
June 1, 1857 p. 164	Vicat Cole	<i>Lessons on Trees in Water Colour, Parts I & II</i>	W Dufour
Aug 1, 1857 p.255	John Ruskin	<i>The Elements of Drawing</i>	Smith, Elder & Co
Aug 1, 1857 p. 264	George Barnard	<i>The Theory and Practice of Landscape Painting in Water-Colours - 2nd edition –Pts I & II</i>	Hamilton, Adams & Co.
Feb. 1, 1859, p. 64	T.J. Gullick & J. Timbs	<i>Painting Popularly Explained: with Historical Sketches of the Progress of the Art</i>	Kent & Co.
July 1, 1866 p. 227	Richard and Samuel Redgrave	<i>A Century of Painters of the English School</i>	Smith, Elder & Co
April 1, 1870 p. 128	S.T. Whiteford	<i>A Guide to Figure-Painting in Water-Colours</i>	George Rowney & Co.

Athenaeum

Date reviewed	Author of Manual	Title of Manual	Pub
Sept 2, 1854 pp. 1068-9	M.E. Chevreul	<i>The Principles of Harmony and Contrast of Colours and their Applications to the Arts</i> translation fr French	Longman
Sept 16, 1854 p. 1118	George Barnard	<i>The Theory and Practice of Landscape Painting in Water Colours</i>	Orr & Co
Nov 4, 1854 pp. 1338-9	J.D. Harding	<i>Lessons on Art - 2nd edition</i>	Day & Son
Sept 1, 1855 p. 1006	T. Hatton	<i>Water Colours without a Master – Parts III to VI</i>	Reeves & Son
Apr 12, 1856 p. 463	Mrs William Duffield	<i>The Art of Flower Painting</i>	W & N
Apr 12, 1856 pp. 463-4	Henry Murray	<i>The Art of Painting and Drawing in Coloured Crayons</i>	W & N
Sept 19, 1857 p. 1179	Thomas Hatton	<i>Hints for Sketching Trees from Nature in Water-Colour</i>	George Rowney & Co.
Mar 5, 1859 p. 325	T.J. Gullick & J.F. Timbs	<i>Painting Popularly Explained</i>	Kent & Co
Oct 13, 1860 p.486	F. DelaMotte	<i>A Primer of the Art of Illumination, for the Use of Beginners</i>	E & F.N. Spon
Dec 1, 1860 pp. 755-6	J.W. Bradley	<i>A Manual of Illumination</i>	W & N
Nov 30, 1861 p.	Audsley	<i>Guide to the Art of Illumination and Missal Painting</i>	George Rowney & Co.
Jly 16, 1870 p. 87	S.T. Whiteford	<i>A Guide to Figure-Painting in Water Colours, with Illustrations of Brush Work</i>	George Rowney & Co.

The Graphic

Date reviewed	Author of Manual	Title of Manual	Pub
Nov 6, 1875 pp. 450-1	Aaron Penley	<i>Sketches from Nature in Water Colours</i>	Cassell, Petter & Galpin