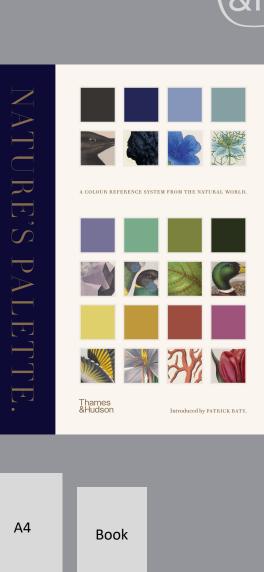
Thames &Hudson

Nature's Palette A colour reference system from the natural world Patrick Baty

The first-ever visual expansion Syme's expanded edition of *Werner's Nomenclature of Colours*, featuring 1000 illustration references from the natural world

1000 illustrations 26.4 x 20.6cm 290pp, including 3 x 6pp gatefolds ISBN 9780500252468 BIC General & world history Quarterbound (no jacket) £35 March 2021

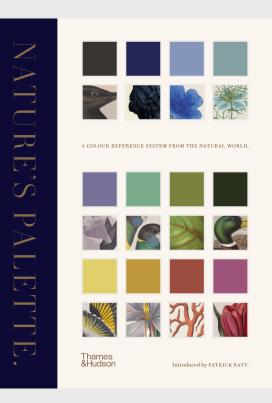






Key Sales Points

- Marks the 200th anniversary of the publication of Patrick Syme's expanded edition of Werner's pioneering work, invaluable to artists and naturalists, including Charles Darwin, who took it on his voyage on the H.M.S. Beagle.
- For the first time ever *Werner's Nomenclature of Colours* is fully illustrated with examples of every animal, vegetable and mineral referenced in a gorgeous array of 18th- and 19th-century prints, illustrations and paintings.
- Essays from specialists in their field, interleaved between the chromatic spectrum, discuss the influence of Werner's seminal work on the development of zoology, botany, minerology and anatomy during the 19th century.





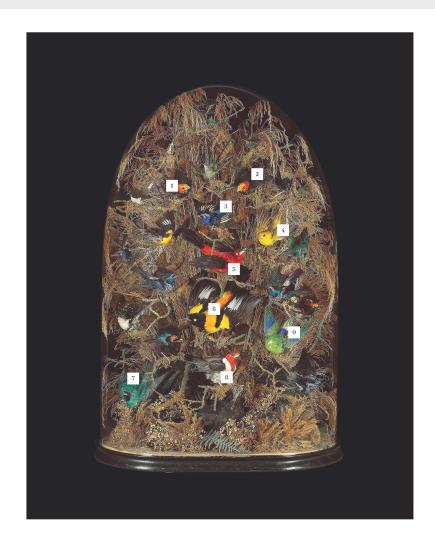
NATURE'S PALETTE.

A COLOUR REFERENCE SYSTEM FROM THE NATURAL WORLD.





1	78. Orpiment Orange.	2	85. Vermillion Red.	3	53. Emerald Green.
4	1. Snow White.	5	28. Azure Blue.	6	77. Buff Orange.
7	64. Wax Yellow.	8	81. Deep Reddish Orange.	9	32. Verditter Blue.



1	76. Dutch Orange.	2	98. Chocolate Red.	3	29. Ultramarine Blue.
4	67. King's Yellow.	5	84. Scarlet Red.	6	78. Orpiment Orange.
7	30. Verdigris Green.	8	8. Greyish White.	9	33. Greenish Blue.

A COLOUR REFERENCE SYSTEM FROM THE NATURAL WORLD.

In 1774, in order to help identify and describe minerals, German geologist Abraham Gottlob Werner devised a classification system based on the external properties of mineral: he considered colour to be one of the key characteristics for mineral identification and devised a nomenclature of z, colours for that purpose, assembling a collection of minerals as physical examples of each. In 1843 Scottish artist Patrick Syme extended the number of colours to to sdand then in 1874 to tro, and supplemented Werner's references to mineral examples with references to animal and vegetable species. He also added a nainted swatch for each of the colour standards named.

On these pages are displayed the 13 colour plates from Syme's second edition of Werner's Nonenclature of Colours (Sat), which presents each of Syme's no colour standards alongside a painted swatch, and, in most cases, reference to an animal, vegetable and mineral example that exhibits that colour. The colour standards are organized into ten groups whites, greys, blacks, blues, purples, greens, yellows, oranges, reds and browns. A selection of Werner's mineral collection is displayed on pages 16–17, each mineral accompanied by a colour swatch and name taken from Syme's second edition of *Werner's Nomenclature of Colours*.

In *Nature's Palette* Syme's work has been fully realized and enhanced. An individual page is devoted to each colour standard and contemporary illustrations of every animal, vegetable and mineral referenced by Syme presented. In cases where he did not suggest an example, this volume provides one (indicated by an '), completing Syme's colour reference system from the natural world. Syme's colour swatch, original references and colour description appear at the top of each entry, with a [W] to indicate if the colour was one of Werner's original 54 hues. Supplementing these pages are displays of ght-century naturalists' collections in which each specimen has been paired with one of Syme's standard colours to demonstrate how the system might be used by naturalistists and artists.



REDS AND BROWNS. *(pages 234 to 281)*.

GREENS. (pages 144 to 171).

YELLOWS AND ORANGES. (pages 190 to 223)

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(22)

A COLOUR REFERENCE SYSTEM FROM THE NATURAL WORLD.

12.

for their colours, which were extensively used in their identification and description. This, in turn, obliged the artists to determine colours as accurately and systematically as the taxonomists who classified the animal. It is hardly surprising, therefore, that taxonomists of birds or insects in particular might also become colour taxonomists - and vice versa.

Moses Harris (1730-c. 1788) was a pioneer in that respect. Both an entomologist and artist specializing in engravings, he attempted to identify and classify colours as much as he focused on describing and classifying insects. In his An Exposition of English Insects (published in London in 1776), he proposed a 'Scheme of colours', treating colours almost like his living subjects. Acknowledging that the terms he used for colours and 'teints' were 'little known but to painters', he therefore provided a colour wheel. Its practical use was to clarify the terms he used to an audience unfamiliar with painting, and, just as Syme would later emphasize, to 'enable the reader to judge of the variety of teints that adorn the several parts of the insect'.16 Here, already, ways of seeing had become ways of knowing, of being able to identify.

In another book, *The English Lepidoptera* (1775), Harris added an illustration showing a system for colour-coding the anatomical parts of a butterfly on a schematic drawing, particularly the many complicated wing 'membranes' and 'tendons', which he regarded as essential for the identification of different species. Colour-coding anatomical parts for identification and, especially, teaching, was a method used to great effect in the later part of the gyth century and first half of the 20th century in zoological publications, wall-charts and models, and is still widely used in scientific illustrations and digital 3D models today.

COLOUR SYSTEMATICS

As the natural sciences became increasingly 'professionalized' through the course of the 19th century, and with technical innovations and the flood of new species being discovered, tax-onomy – of both animals and colours – became

increasingly sophisticated. In the first half of the century schemes like Syme's had facilitated a multitude of new discoveries and their classification, but by the end of the century and in the early 20th century, an updated approach was needed.

These developments took shape in the work of the American ornithologist Robert Ridgway (1850-1929), whose career spanned this period. He published two major works on using colour systematics for the classification of birds. In his 1886 A Nomenclature of Colors for Naturalists and Compendium of Useful Knowledge for Ornithologists he proposed a new colour system (comprising 186 samples of named colours) and a colour dictionary (with colour terms in English, Latin, German, French, Spanish, Italian, Norwegian/Danish), which were integrated into a simple overall system for bird identification. Just like Syme, he saw the necessity of defining standards for colour terminology, and just like Syme's nomenclature, his system was prompted by a 'want' felt by ornithologists working in the field. As Ridgway realized:

Undoubtedly one of the chief *desiderata* of naturalists, both professional and amateur, is a means of identifying the various shades of colors named in descriptions, and of being able to determine exactly what name to apply to a particular tint which is desired to designate in an original description.⁷

He deplored the lack of modern publications of this kind, and mentioned Syme's 182 redition as being the most recent he had been able to consult. While acknowledging its usefulness, he also summarized some of its major shortcomings: 'the colors have become so modified by time, that in very few cases do they correspond with the tints they were intended to represent'.⁸It had occurred to Ridgway, however, to use the commercially produced 'artists' colors' of his time (among them aniline dyes and pigments), with their much improved 'fixity'. He also tackled the 'arbitrariness' of tints and shades named after a familiar object, like the ones used by Syme(such

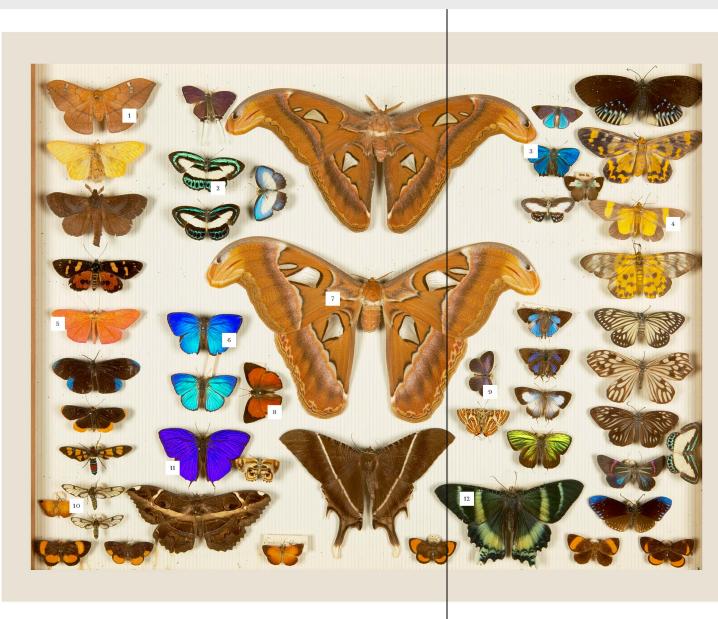


Eastern rosella parrot, George Shaw, Zoology of New Holland, Vol. 1, 1794.

- (ii). Plate 1, James Sowerby, A New Elucidation of Colours, Original, Prismatic, and Material, 1809.
- (iii). Varieties of moth, Moses Harris, An Exposition of English Insects, 1776.

(i).

(iv). Scheme of colours, Moses Harris, An Exposition of English Insects, 1776



LEPIDOPTEROLOGY.

Lepidopterology, the study of moths and butterflies, grew in stature through an increased interest in science and nature following the Renaissance in Europe, and was developed further by explorers, scientists and naturalists in the 19th century. This board is from the collection of the 'father of Diogeography' Alfred Russel Wallace (fx23-1913). His butterfly collection aided him in the development of his theories of speciation and natural selection.

133.

2. COLOURS IN ZOOLOGY: SUBJECTIVE OR SYSTEMATIC?





	BLUES.						BLUES.					
No.	Names.	Colours.	ANIMAL.				VEGETABLE.		MINERAL.			
24	Scotch Blue.		Throat of Blue Titmouse.				Stamina of Single Purple Anemone.		Blue Copper Ore.			
25	Prussian Blue.		Beauty Spot on Wing of Mallard Drake.				Stamina of Bluish Purple Anemone.		Blue Copper Ore.			
26	Indigo Blue.								Blue Copper Ore.	4		
27	China Blue.		Rhynchites Nitens.	3 C			Back Parts of Gentian Flower.		Blue Copper Ore from Chessy.	- Det		
28	Azure Blue.		Breast of Emerald- crested Manakin.				Grape Hyacinth. Gentian.		Blue Copper Ore.			
29	Ultra marine Blue.		Upper Side of the Wings of small blue Heath Butterfly.				Borrage.		Azure Stone or Lapis Lazuli.			
30	Flax- flower Blue.		Light Parts of the Margin of the Wings of Devil's Butterfly.				Flax flower.		Blue Copper Ore.			
31	Berlin Blue.		Wing Feathers of Jay.				Hepatica.		Blue Sapphire.			
32	Verditter Blue.								Lenticular Ore.			
33	Greenish Blue.						Great Fennel Flower.		Turquois. Flour Spar.			
34	Greyish Blue.		Back of blue Titmouse				Small Fennel Flower.		Iron Earth.			

93. II. BLUES AND PURPLES.

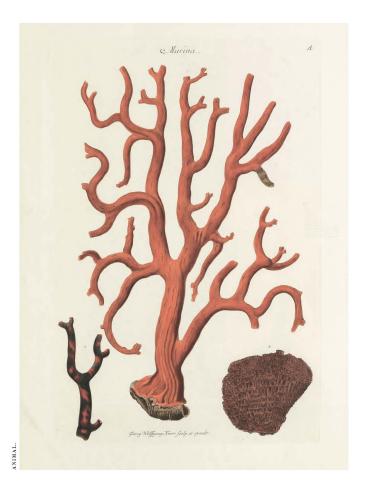
92. II. BLUES AND PURPLES.

Syme's 1821 edition included three of Hérners's original blues (numbers 26, 38, and 31), one blue from the Lenz system (number 33), one blue from the Kir wan system (number 32, fire blues from his own 181, system (number 32, 57, 39, 30 and 32) and introduced one new blue (24).



85. VERMILLION RED.

- (i). (ii). (iii). *Red Coral.* [Corallium] *Love Apple.* [*Tomata*; Solanum lycopersicum] *Cinnaber.* [*Cinnabar*; Mercury Sulphide]





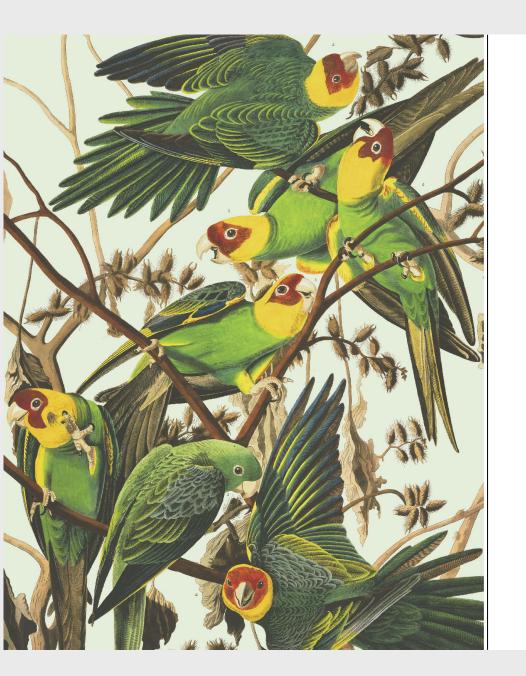


Vermillion Red, is scarlet red, with a minute portion of brownish red.

ANIMAL. Georg Wolfgang Knorr, Deliciae naturae selec-tae, 1766. Vermillion Red is visible on coral.

VEGETABLE. E. Blackwell, *Herbari*-E. Blackwell, Herbart-um Blackwellianum, Vol. 2, 1747-73. Vermil-lion Red is visible on the skin of the tomato.

MINERAL. Leonard Spencer, The World's Minerals, 1916. Vermillion Red is visible on the cinnaber (both specimens).



iii. GREENS.



66. GAMBOGE YELLOW.

- (i). Wings of Goldfinch. [Carduelis carduelis] Canary Bird. [Serinus canaria domestica]
 (ii). Yellow Jasmine. [Jasminum]
- (iii). High coloured Sulphur [Chemical element]

Gamboge Yellow, is the characteristic colour.



67. KING'S YELLOW.

 King's Yellow, is gamboge yellow, with a small portion of saffron yellow.







ANIMAL.



NERAL.



203.

ANIMAL. John Gould, Birds of Australia, Vol. 7, 1840-48. King's Yellow is visible on the head feathers of the golden pheasant.

VEGETABLE. John Lindley, Edwards's Botanical Register, 1820-47. King's Yellow is visible on the petals of the yellow tulip.

MINERAL. James Sowerby, British Mineralogy, Vol. 2, 1802–17. King's Yellow is visible on the carbonate of lime.*

ANIMAL. John Gould, Birds of Great Britain, Vol. 3,1862–73. Gamboge Yellow is visible on the wing feathers of the goldfinch.

VEGETABLE. Robert Bentley and Henry Trimen, Medicinal Plants, 1880 Gamboge Yellow is visible on the petals of the jasmine.

MINERAL. Reinhard Brauns, The Mineral Kingdom, Vol. 1, 1912. Gamboge Yellow is visible on the sulphur (all specimens).

MIN

		Pris	nter.	Pair	nter.	Decorator.			
							1		
No.	WERNER'S COLOUR	CMYK	PANTONE	WINSOR & NEWTON	CARAN D'ACHE	LITTLE GREENE	FARROW & BALL		
1		6-6-20-0	XXX U	Iridescent White	White	Loft White	Snow White		
2		6-7-18-0	7506 U	Flake White Hue	White	Flint	Pointing		
3		8-6-18-0	XXX U	Titanium White	White	Whitening	James White		
4		6-6-22-0	XXX U	Buff Titanium	Primerose	Slaked Lime	White Tie		
5		5-5-21-0	4685 U	Naples Yellow Light	Primerose	Stock	Orange Coloured White		
6		6-4-20-0	7499 U	Iridescent White	Naples Ochre	White Lead	New White		
7		10-8-22-0	5807 U	Zinc White	Olive Brown 20%	Rolling Fog Pale	Skimmed Milk White		
8		12-9-21-0	7527 U	Naples Yellow Light	Raw Umber 10%	French Grey Pale	School House White		
9		23-18-26-0	7529 U	Silver	French Grey 10%	Royal China Blue Pale	Ash Grey		
10		27-22-29-0	400 U	Pewter	French Grey 30%	Mono	Hardwick White		
11		29-22-29-O	4177 U	Davy's Gray	French Grey 10%	French Grey	Mizzle		
12		29-24-29-0	401 U	Charcoal Grey	Silver Grey	Rubine Ashes	Furbeck Stone		
13		29-24-43-0	2323 U	Davy's Gray	Olive Brown 20%	Portland Stone	French Grey		
14		42-33-35-1	429 U	Pewter	French Grey 30%	Mid Lead Colour	Manor House Grey		
15		50-39-47-6	4222 U	Davy's Gray	Raw Umber 50%	French Grey Dark	Treron		
16		65-58-50-28	432 U	Payne's Gray	Paynes Grey	Juniper Ash	Plummett		
17		62-56-53-28	426 U	Charcoal Grey	Raw Umber	Dolphin	Tanner's Brown		
18		67-62-55-40	BLACK 6 U	Blue Black	Paynes Grey	Lamp Black	Railings		
19		67-60-59-44	419 U	Mars Black	Cassel Earth	Lamp Black	QfFblack		
20		65-62-62-51	BLACK 2 U	Perylene Black	Cassel Earth	Basalt	Pasan Black		
21		63-65-60-53	BLACK 5 U	Payne's Gray	Burnt Sienna	Purple Brown	Mahogany		
22		70-67-61-64	BLACK 6 U	Mars Black	Black	Basalt	Pitch Black		
23		69-65-62-62	BLACK 7 U	Lamp Black	Black	Chocolate Colour	Qff-black		
24		84-83-46-50	282 U	Indigo	Violet Brown	Thai Sapphire	Scotch Blue		
25		97-95-38-36	280 U	Prussian Blue	Violet	Ultra Blue	N/A		
26		72-60-25-5	7682 U	Indanthrene Blue	Manganese Violet	Mambo	Pitch Blue		
27		85-81-32-19	2746 U	Mauve Blue Shade	Violet Brown	Purpleheart	N/A		
28		73-63-25-6	7683 U	Ultramarine Violet	Phthalocyanine Blue	Mazarine	Pitch Blue		
29		76-66-4-0	285 U	Cerulean Blue	Prussian Blue	Smalt	Ultramarine Blue		
30		53-37-12-0	2128 U	Winsor Blue	Genuine Cobalt Blue	Tivoli	Cook's Blue		
31		50-35-13-0	7541 U	French Ultramarine	Light Cobalt Blus	Blue Verditer	Name		
32		49-15-29-0	7464 U	Cobalt Turquoise Light	Light Malachite Green	Turquoise Blue	Arsenic		
33		51-28-33-1	5493 U	Cobalt Green	Grey Blue	Celestial Blue	Green Blue		
34		50-32-35-1	443 U	Viridian	Steel Grey	Grey Stone	Oval Room Blue		
35		19-13-16-0	420 U	Cobalt Green	French Grey 20%	Bone China Blue Mid	Pale Powder		
36		48-37-18-0	2115 U	French Ultramarine	Ultramarine Violet	Gauze Dark	Pitch Blue		
37		76-77-37-25	7679 U	Mauve Blue Shade	Light Aubergine	Purpleheart	N/A		
38		78-77-46-45	276 U	Winsor Violet	Violet Brown	Purple Brown	Paean Black		
39		62-58-22-2	272 U	Winsor Violet	Manganese Violet	Welcome Dark	Imperial Purple		
40		76-77-30-14	2370 U	Ultramarine Violet	Violet	Purpleheart	Imperial Purple		
41		67-74-42-28	262 U	Permanent Mauve	Light Aubergine	Córdoba	Brinjal		
42		77-78-38-26	2371 U	Winsor Violet	Violet Brown	Thai Sapphire	Pelt		
43		28-25-20-0	664 U	Mauve Blue Shade	Paynes Grey 30%	Milk Thistle	Calluna		
44		55-48-36-7	5285 U	Winsor Violet	Violet Grey	Juniper Ash	Brassica		
45		65-60-39-16	2111 U	Ultramarine Violet	Sepia 50%	Adventurer	Imperial Purple		
46		29-18-31-0	5595 U	Terre Verte	Light Malachite Green	Pearl Colour Dark	Green Ground		
47		32-22-40-0	5655 U	Prussian Green	Olive Yellow	Portland Stone	Cooking Apple Green		
48		44-30-52-3	5653 U	Olive Green	Olive Brown	Livid	Lichen		
49		63-53-51-23	5477 U	Chrome Green Deep	Raw Umber	Grey Teal	Studio Green		
50		60-20-58-1	3528 U	Permanent Green	Moss Green	Green Verditer	Verdigris Green		
51		33-19-31-0	5595 U	Prussian Green	Steel Grey	Salix	Teresa's Green		
52		32-18-45-0	5665 U	Winsor Green	Green Ochre	Sage Green	Vert de Terre		
		40-11-60-0	2255 U	Cadmium Green Pale	Spring Green	Spearmint	Emerald Green		
53 54		50-31-75-7	2276 U	Sap Green	Grass Green	Citrine	Bancha		

		Printer.		Pair	uer.	Decorator.		
	WERNER'S	CRNER'S CHART DI VICON		WINSOR &	CARAN	LITTLE	FARROW	
No.	COLOUR	CMYK	PANTONE	NEWTON	D'ACHE	GREENE	& BALL	
56		53-35-96-14	576 U	Sap Green	Olive Brown	Garden	Sap Green	
57		45-29-84-5	577 U	Oxide of Chromium	Olive Yellow	Boxington	Yeabridge Green	
58		26-16-50-0	5807 U	Olive Green	Olive Brown 10%	Kitchen Green	Green Ground	
59		57-41-63-17	7735 U	Olive Green	Olive Brown	Invisible Green	Green Smoke	
60		38-36-81-7	5835 U	Green Gold	Green Ochre	Light Bronze Green	N/A	
61		25-12-69-0	7492 U	Cadmium Green Pale	OliveYellow	Pale Lime	Breakfast Room Gree	
62		24-16-79-0	7759 U	Sap Green	Lemon Yellow	Pale Lime	N/A	
63		10-8-45-0	7500 U	Naples Yellow Light	Naples Ochre	Apple	Farrow's Cream	
64		36-33-82-5	456 U	Olive Green	Green Ochre	Light Bronze Green	Calke Green	
65		19-18-72-0	617 U	Cadmium Lemon	Lemon Yellow	Yellow-pink	Churlish Green	
66		13-12-73-0	458 U	Bismuth Yellow	Bismuth Yellow	Carys	N/A	
67		12-9-70-0	460 U	Transparent Yellow	Bismuth Yellow	Lemon Tree	Dayroom Yellow	
68		25-38-94-2	124 U	Green Gold	Raw Sienna	Mister David	Sudbury Yellow	
69		33-56-90-18	2317 U	Gold Ochre	Brown Ochre	Callaghan	India Yellow	
70		31-38-82-5	75 O2 U	Transparent Gold Ochre	Green Ochre	Bath Stone	N/A	
71		9-13-46-0	75 00 U	Raw Umber Light	Olive Brown 20%	Ivory	House White	
72		19-18-53-0	4545 U	Yellow Ochre Pale	Olive Brown 10%	Normandy Grey	Ball Green	
73		9-13-52-0	7499 U	Raw Sienna	Naples Ochre	White Lead Dark	Dorset Gream	
74		11-16-55-0	7402 U	Yellow Ochre	Olive Brown 20%	Woodbine	Yellow Ground	
75		7-11-36-0	7506 U	Naples Yellow Light	Naples Ochre	Gustard	Pale Hound	
76		14-28-80-0	7408 U	Yellow Ochre Light	Golden Bismuth	Mister David	Dutch Orange	
77		13-24-62-0	156 U	Naples Yellow Deep	Yellow Ochre	Mortlake Yellow	Citron	
78		25-54-85-7	2020 U	Gold Ochre	Raw Sienna	Yellow-pink	India Yellow	
79		35-70-78-29	7587 U	Burnt Sienna	Burnt Sienna 50%	Tuscan Red	Preference Red	
80		25-55-71-7	7591 U	Brown Ochre	Burnt Ochre	Heat	Red Earth	
81		27-66-80-14	7592 U	Transparent Maroon	Burnt Ochre	Heat	Picture Gallery Red	
82		27-65-77-13	7585 U	Terra Rosa	Burnt Ochre	Tuscan Red	Picture Gallery Red	
83		32-69-82-25	7600 U	Brown Madder	Burnt Ochre	Bronze Red	Eating Room Red	
84		26-83-76-18	7621 U	Scarlet Lake	Scarlet	Theatre Red	Incarnadine	
85		27-76-74-17	7619 U	Indian Red	Russet	Baked Cherry	Blazer	
86		22-59-62-4	7415 U	Rose Dore	Burnt Ochre 50%	Angie	Red Earth	
87		36-90-80-54	202 U	Mars Violet Deep	Perylene Brown	Bronze Red	Radicchio	
88		13-22-39-0	7520 U	Flesh Tint	Brown Ochre 20%	Creamerie	Setting Plaster	
89		8-12-22-0	7604 U	Flesh Tint	Primerose	Julie's Dream	Tallow	
90		7-18-20-0	691 U	Rose Madder Genuine	Burnt ochre 20%	Pink Slip	Pink Ground	
91		26-79-42-4	206 U	Permanent Carmine	Crimson Alizarine	Carmine	Rangwali	
92		37-80-31-4	233 U 7634 U	Permanent Magenta Purple Lake	Purplish Red Sepia m%	Mischief Dorchester Pink	Lake Red Crimson Red	
93				,				
94		56-83-47-40 46-66-57-29	2355 U 696 U	Permanent Mauve Purple Lake	Crimson Aubergine Burnt sienna	Adventurer Blush	Brinjal Brinjal	
95 96		46-66-57-29 64-66-59-52	696 U 7666 U	Furple Lake Winsor Violet	Burnt siennä Cassel Earth	Blush Purple Brown	Paean Black	
		64-66-59-52 46-49-48-10	7666 U 7653 U	Winsor Violet Permanent Mauve	Sepia 10%	Purple Brown Dolphin	Sulking Room Pink	
97 98		46-49-48-10 58-67-62-53	7653 U 7610 U	Raw Umher	Cassel Earth	Toad	Pelt	
98		58-67-62-53 44-70-71-45	7610 U 7594 U	Brown Madder	Burnt Sienna	I oaa Spanish Brown	Mahogany	
100 99		40-67-71-31	7694 U	Vandyke Brown	Burnt Ochrs	Callaghan	Picture Gallery Red	
101		40-67-71-31	7600 U	Mars Violet Deep	Burnt Sienna	Spanish Brown	Deep Reddish Brown	
101		53-62-67-43	2322 U	Burnt Umber	Brown Ochre	Felt	Tanner's Brown	
102		43-60-68-29	2322 U 7586 U	Brown Madder	Brown Ochre	Chimney Brick	N/A	
.UJ		43-60-66-29	2317 U	Raw Umber	Green Ochre	Stone-dark-warm	London Stone	
104		29-36-65-2	4675 U	Raw Umber Light	Green Ochre	Stock Dark	Dead Salmon	
104		29-36-65-2 55-60-67-42	4675 U 7533 U	Davy's Grey	Raw Umber	Chimney Brick	Salon Drab	
105			1833 0			Grey Moss		
105 106		43-47-63-11	2324 U	Raw Umber (Green)				
105 106 107		43-42-63-11	2324 U 7529 U	Raw Umber (Green) Raw Umber (Green)	Raw Umber Olive Brown 50%		Pigeon Broccoli Brown	
105 106		43-42-63-11 41-43-58-9 47-48-56-15	2324 U 7529 U 7531 U	Raw Umber (Green) Raw Umber (Green) Dawy's Grey	Raw Omoer Olive Brown 50% Sepia	Silt Felt	BroccoliBrown Charleston Gray	

283. REFERENCE.