

Presentation by

**Carinna
Parraman**

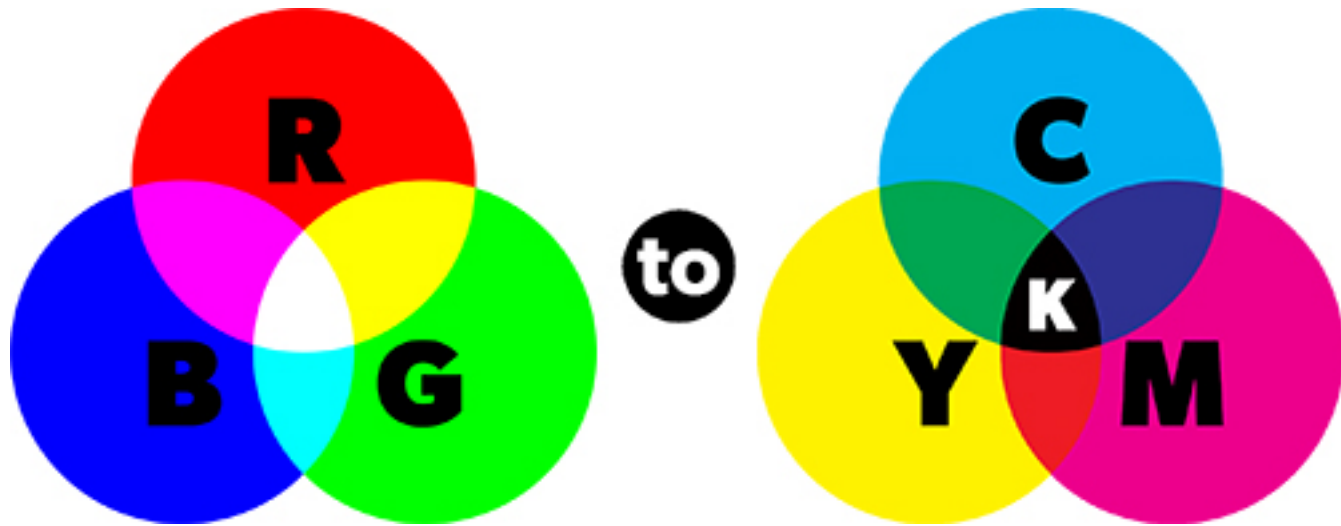
**Professor of
Design, Colour
and Print**

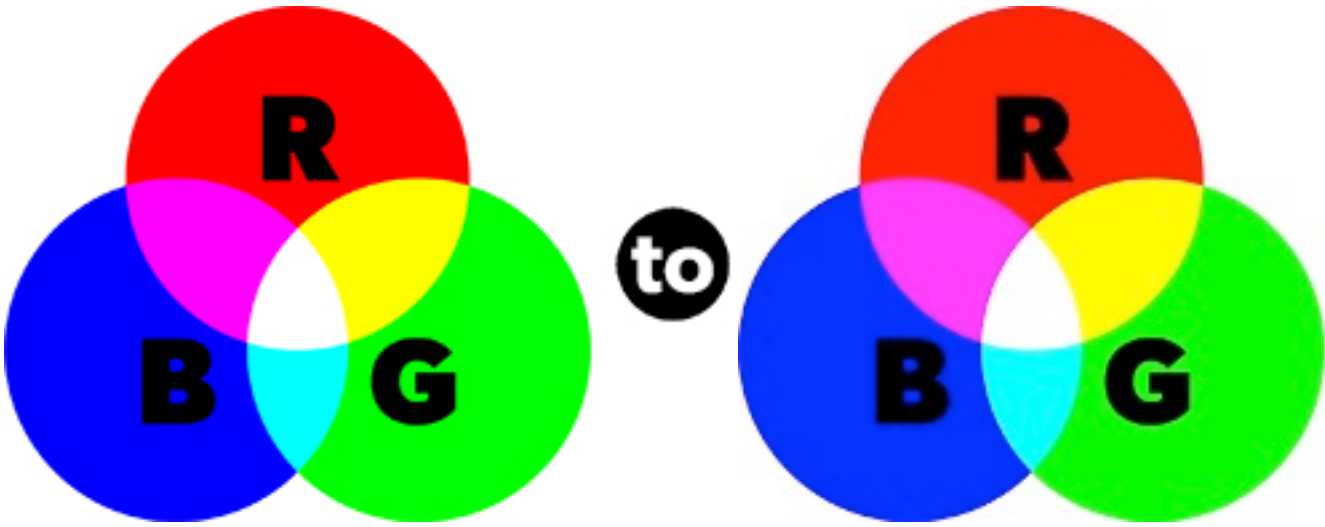
RGB to CMYK ... and back again

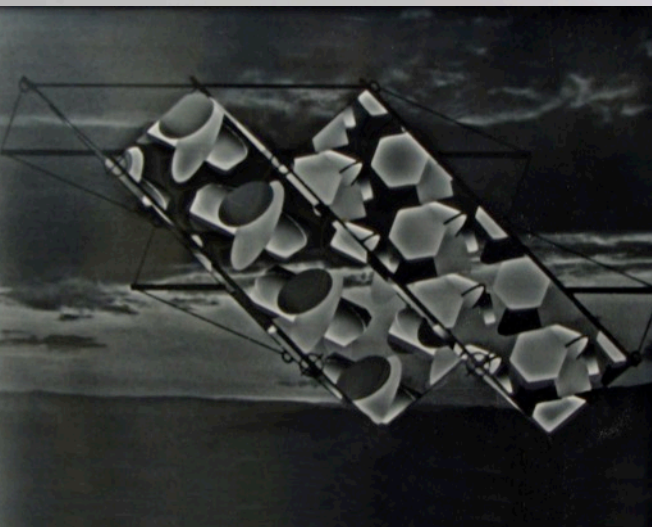
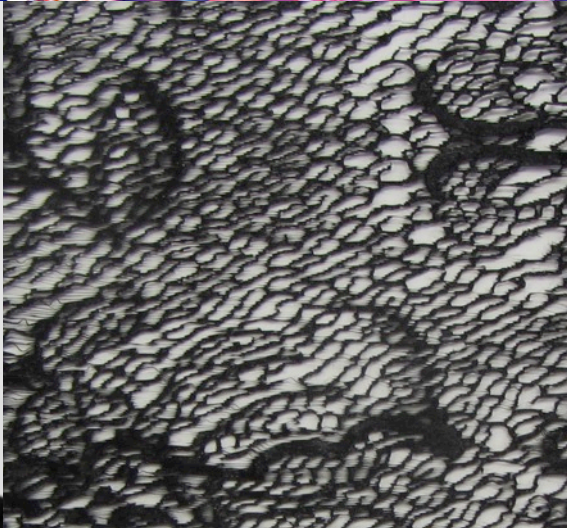
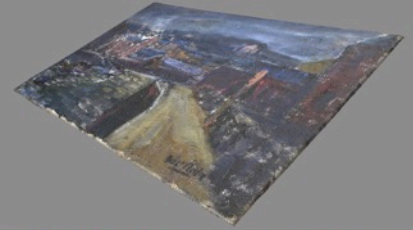
23rd June 2017

**UWE
Bristol** | University
of the
West of
England

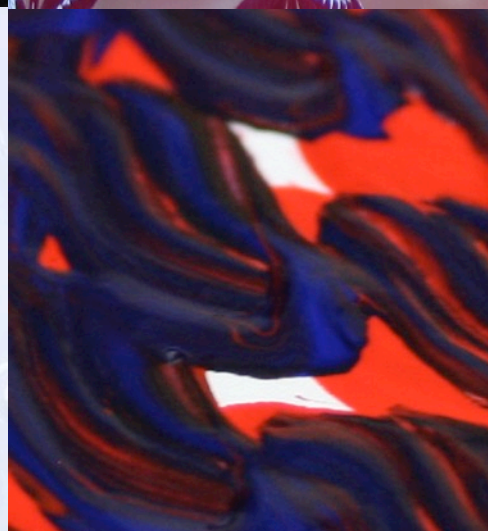
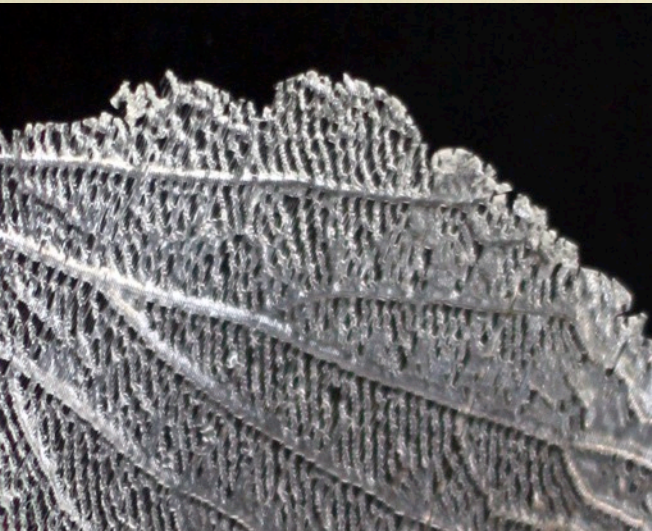








Relief and 2.5D Printing



Analogue:
Painting and drawing



Painting by Patrick Heron

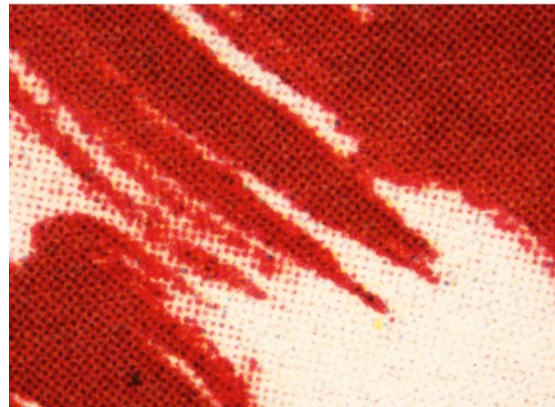


Charcoal drawing by Van Gogh

Digital/bitmap/halftone:
Painting software
Halftone prints



Original MacPaint



Halftone image of a brushstroke

Digital/vector/analogue:
Drawing painting machines



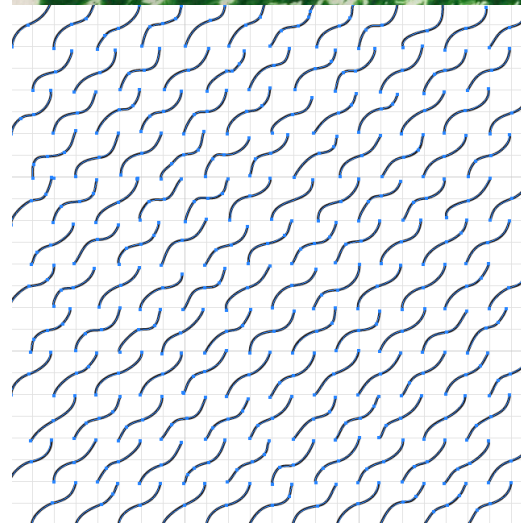
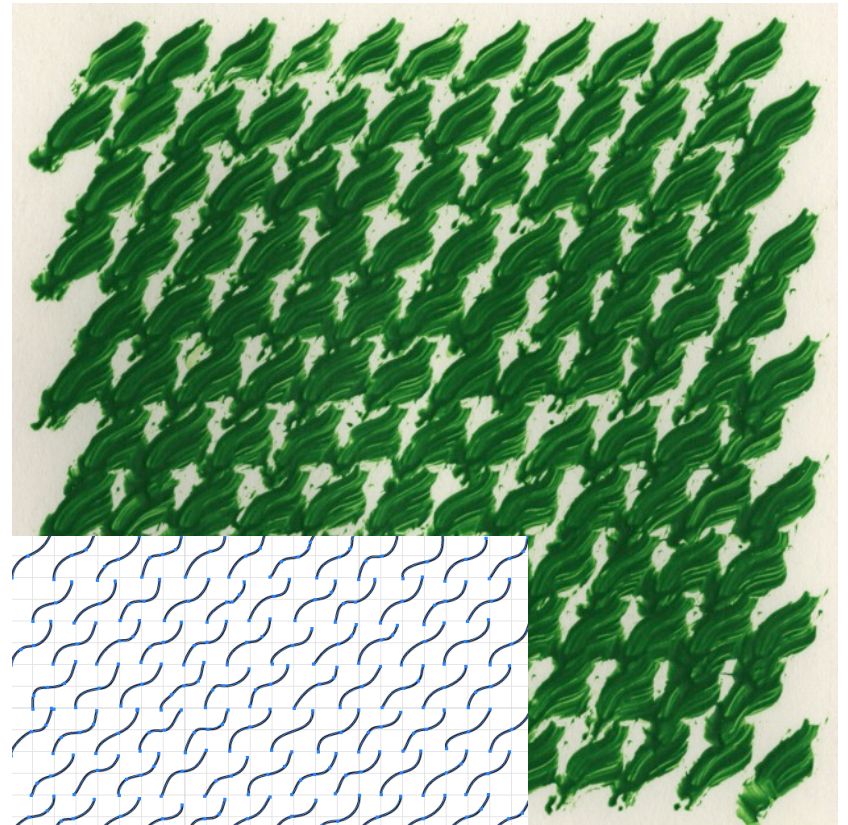
Vector lines generated in
Illustrator



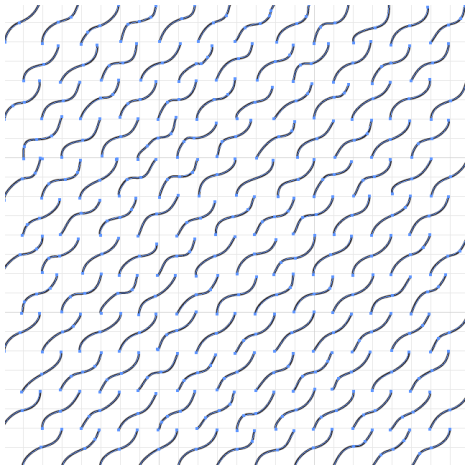
Vector driven painting
machine



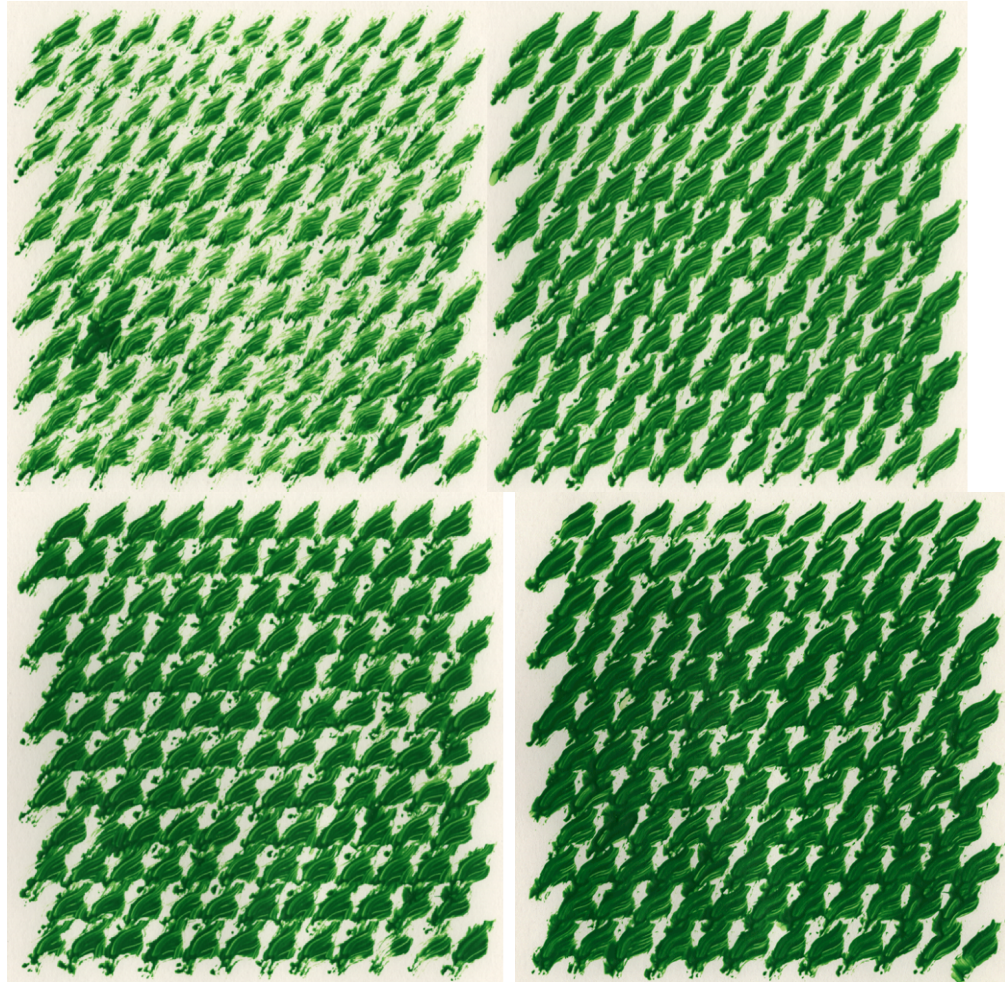
Vincent van Gogh's brush strokes demonstrate a repetitive movement.



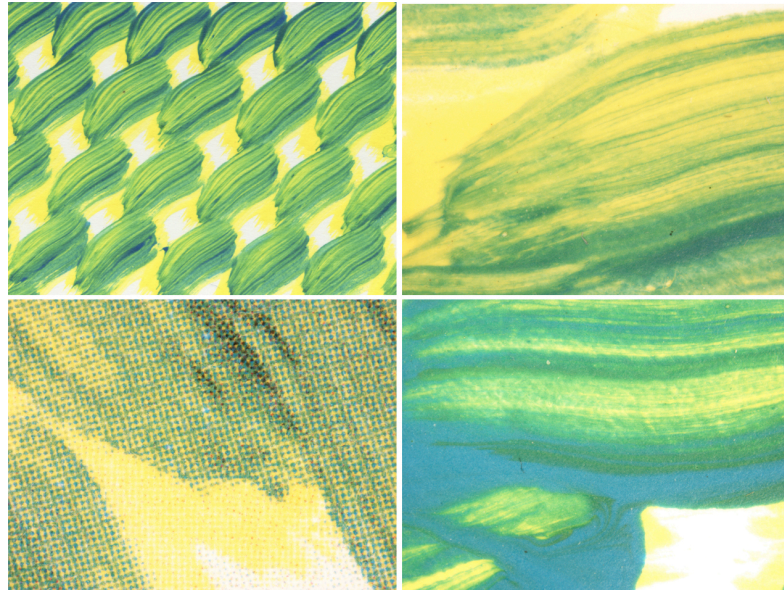
A vector based mark generated In Illustrator (left) that is used to create the repetitive strokes using paint and brushes using the painting machine



*Showing hand drawn
vector lines in Adobe
Illustrator.*



*Demonstrating an incremental increase of the
paint flow*



Phthalo Blue and yellow (TL) uniform brush strokes, (TR) translucent layers (BR) brush overloaded with paint, (BL) halftone (TR, BR and BL at 40x magnification)

David Hockney's instant iPad art

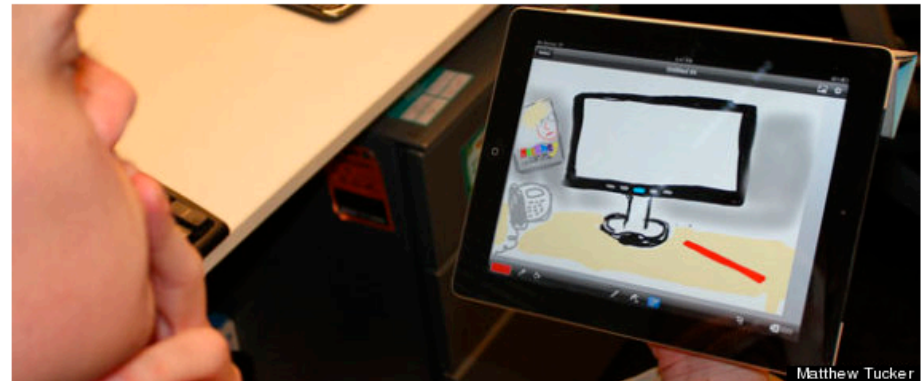
By Colin Grant

Producer, Digital Planet



Artist David Hockney speaks to BBC Click about creating digital artwork for an exhibition in Paris

Can An iPad Make You Paint Like David Hockney? We Investigate...

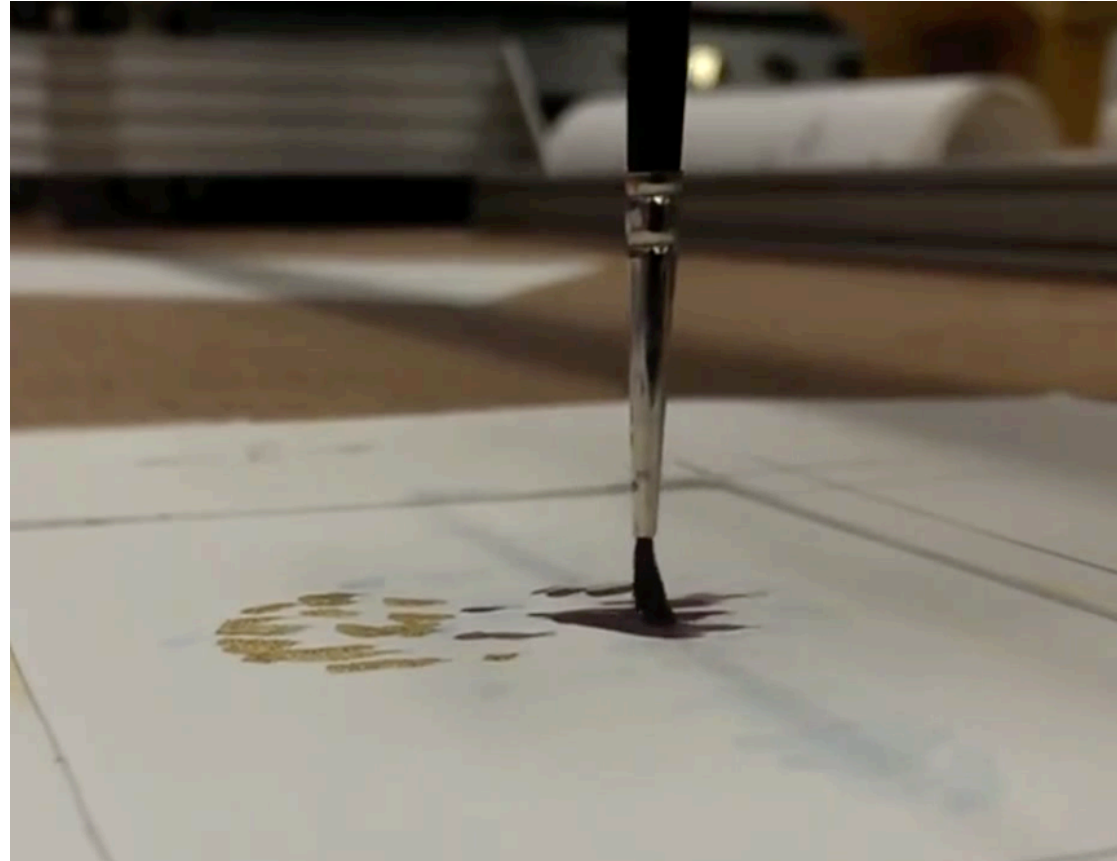


Matthew Tucker

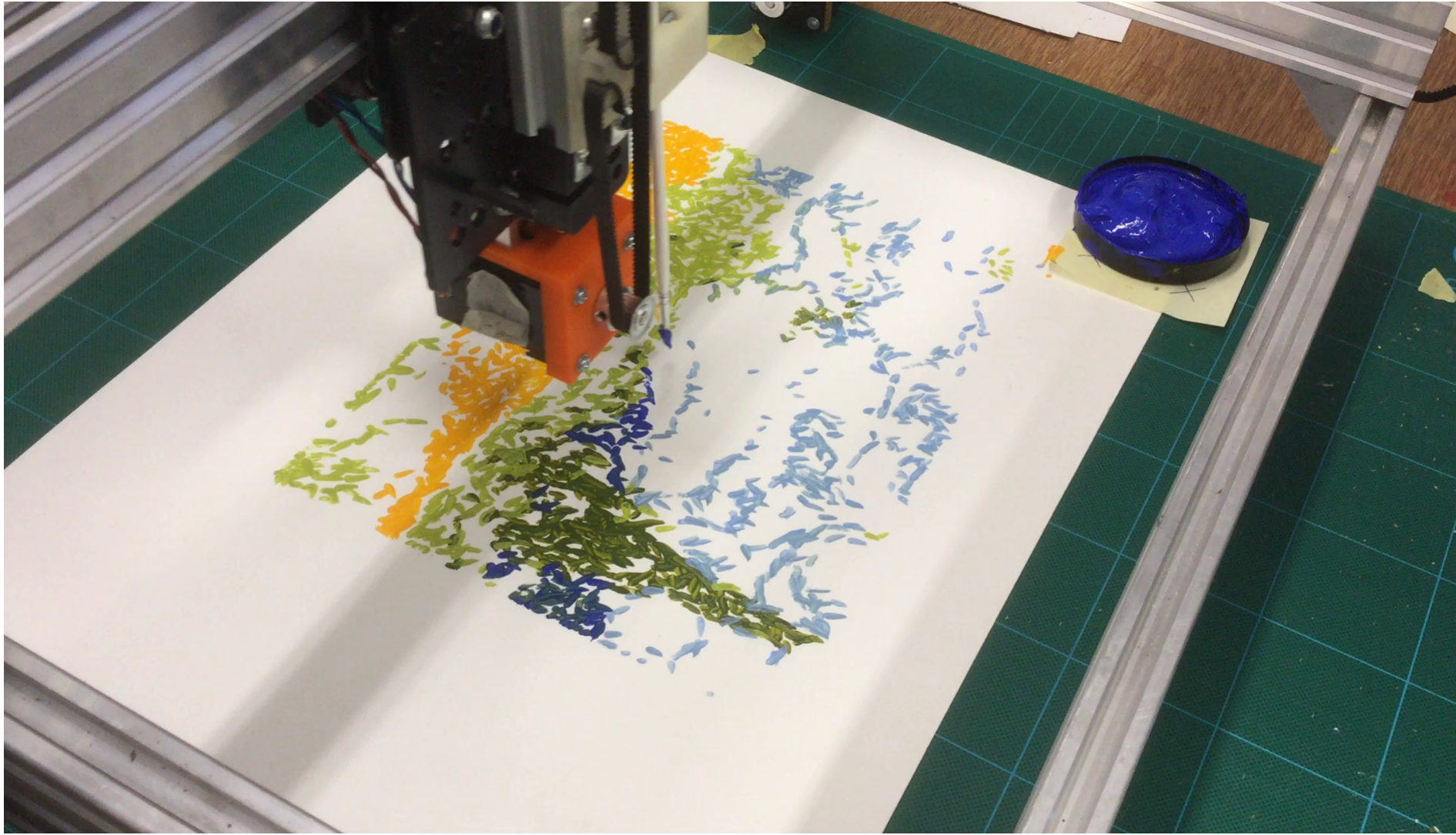
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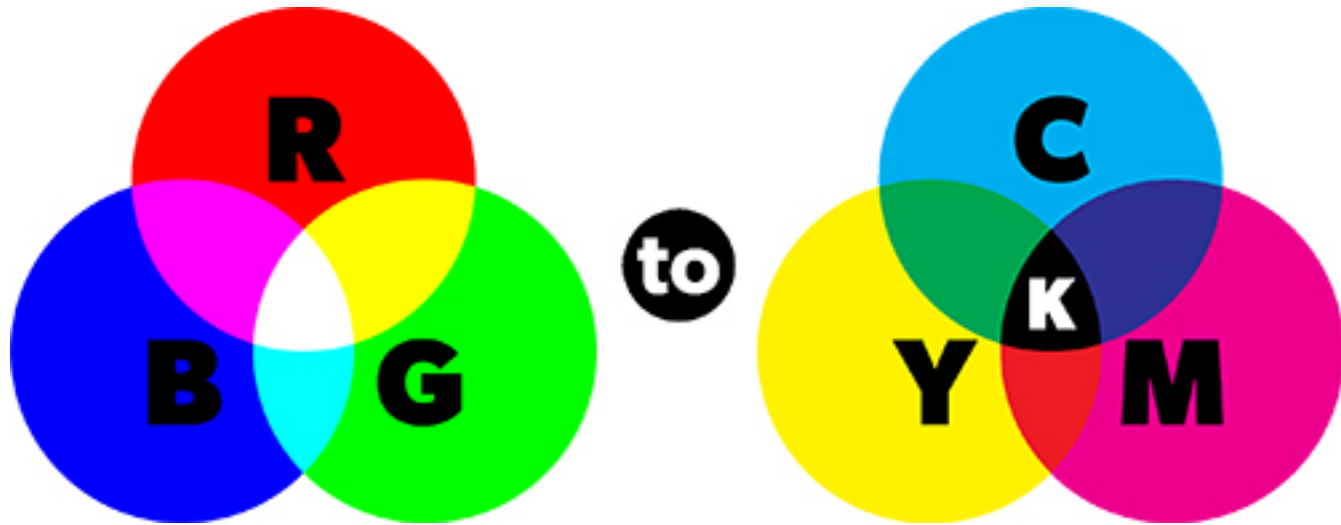


React > [Amazing](#) [Inspiring](#) [Funny](#) [Scary](#) [Hot](#) [Crazy](#) [Important](#) [Weird](#)



Parraman and O'Dowd
2017





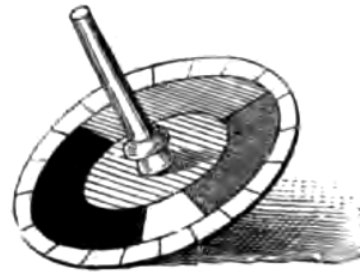
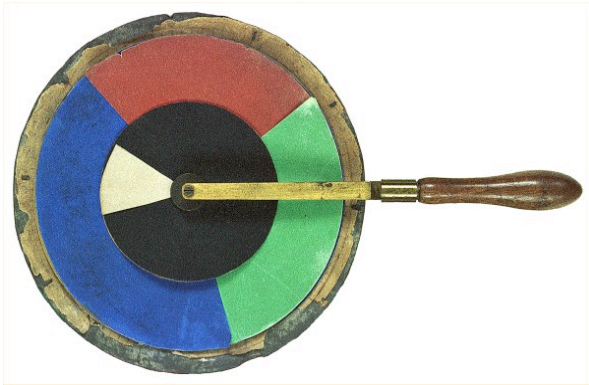
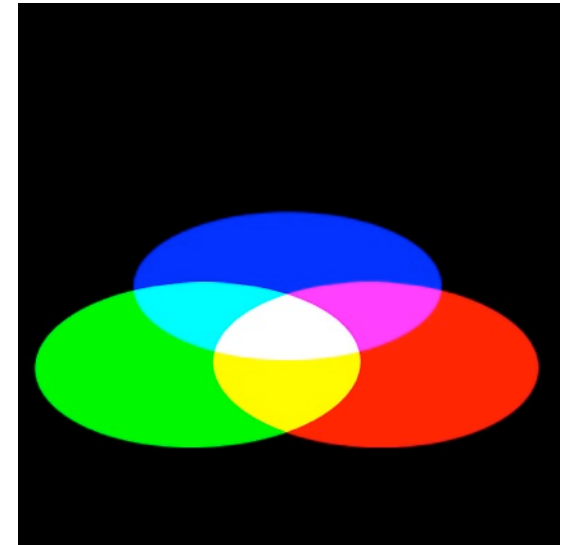
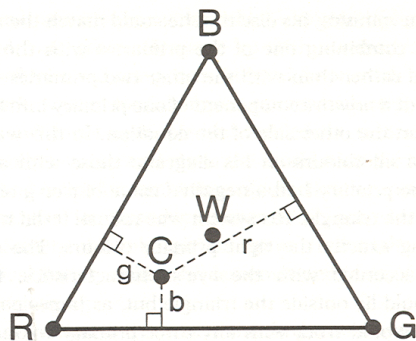


Fig. 83. The Color-top.

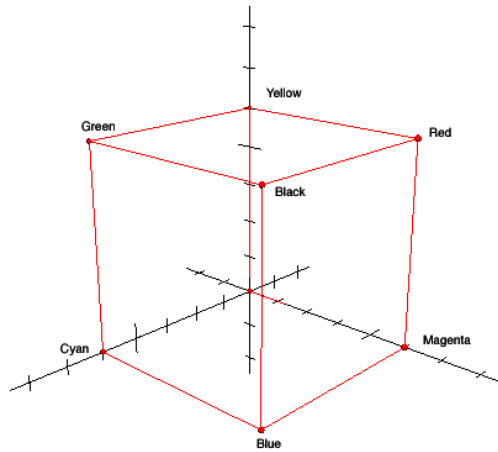


Maxwell's colour-mixing spinner, c.1854 and demonstrating the ratio of colour sections.
<http://maa.cam.ac.uk/assemblingbodies/exhibition/measurement/capacities/87/>

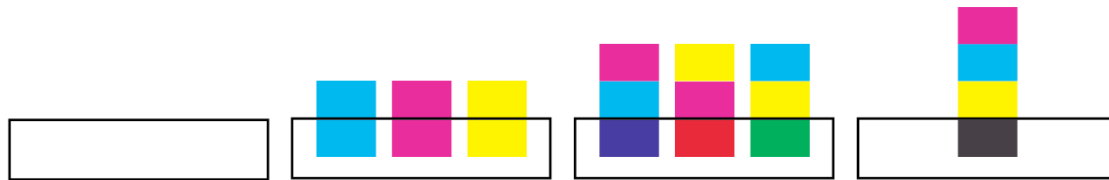
$$\overline{R}_o + \overline{G}_o + \overline{B}_o$$



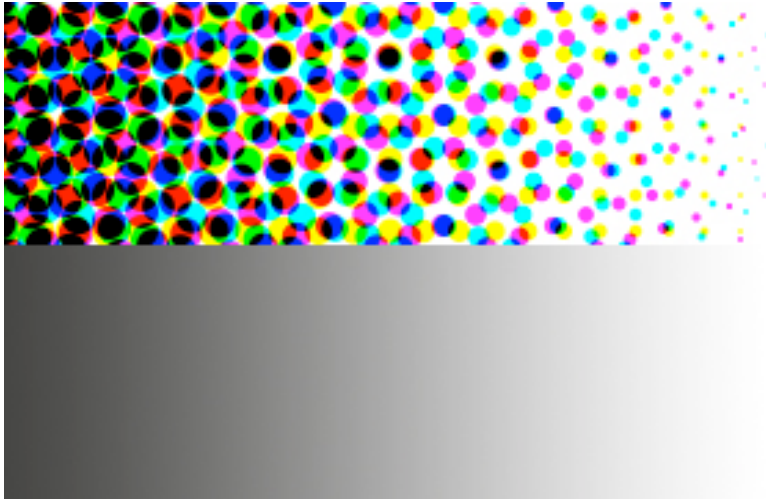
Maxwell's colour triangle with red, blue and green at each point, and the W indicating the white point, in the centre. The figure C represents a coordinate point of the relative lengths of R, G and B (9 parts of red + 4 parts of green + 3 parts of blue). (Illustration from Mahon, p.53)



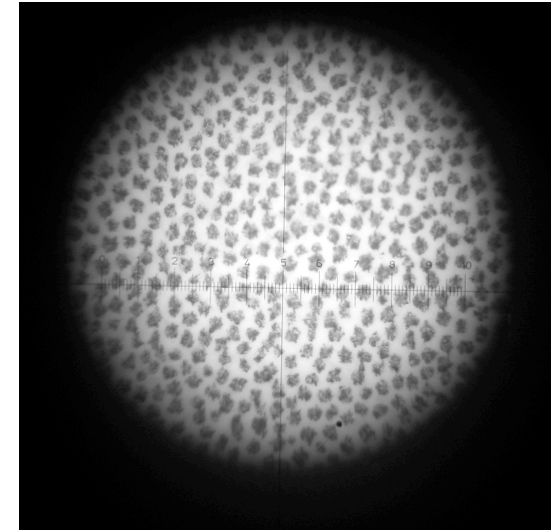
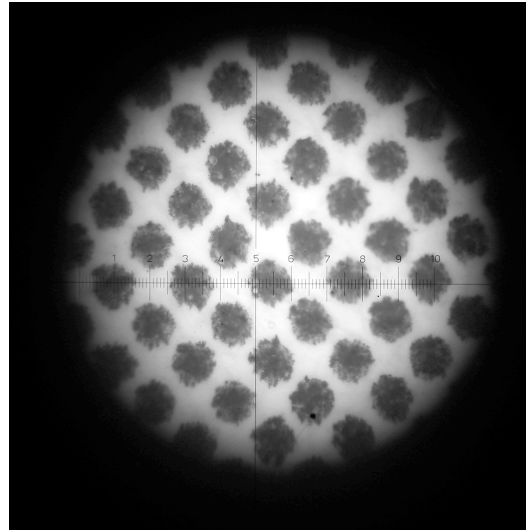
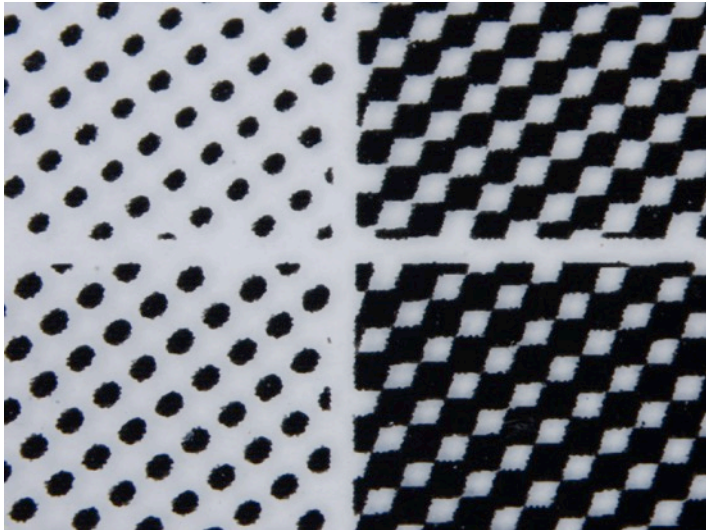
The further vertexes of the cube are cyan (C_o), magenta (M_o), yellow (y_o), white (W_o) and black (K_o). The white point is the zero (0,0,0).

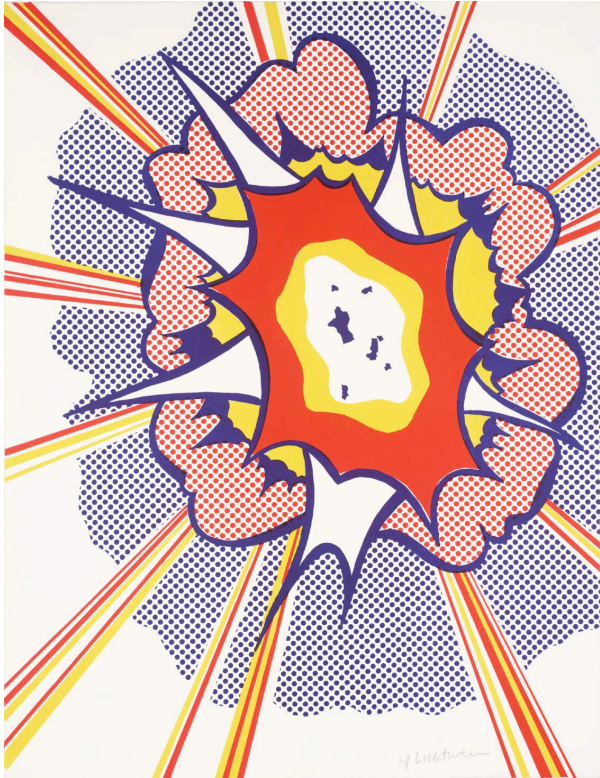


eight primary colours. The primary colours are (from left to right) white (of the paper); cyan, magenta and yellow; blue, red and green; black.

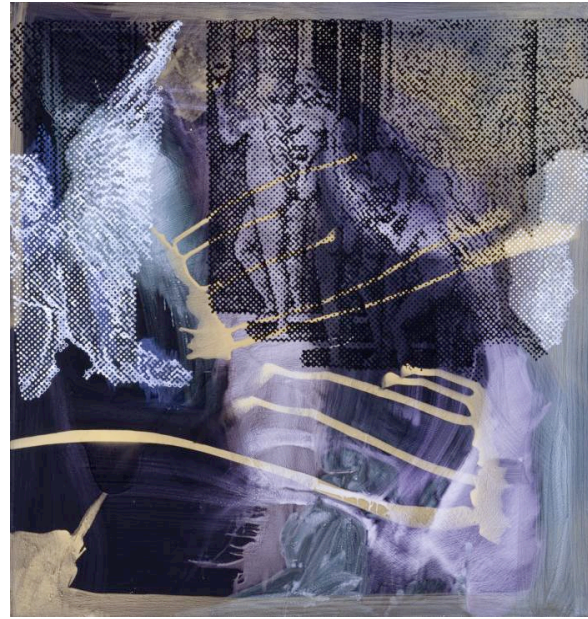


A graded grey is shown and through a simulation of printing of three process colours: cyan, yellow and magenta, onto a white paper shows the overlapping of halftone cells (above) where equal proportions of cyan, magenta and yellow will optically mix to appear as a grey. Note how the spatial distribution increases and the size of the dots decreases as the colours blend to pale grey.

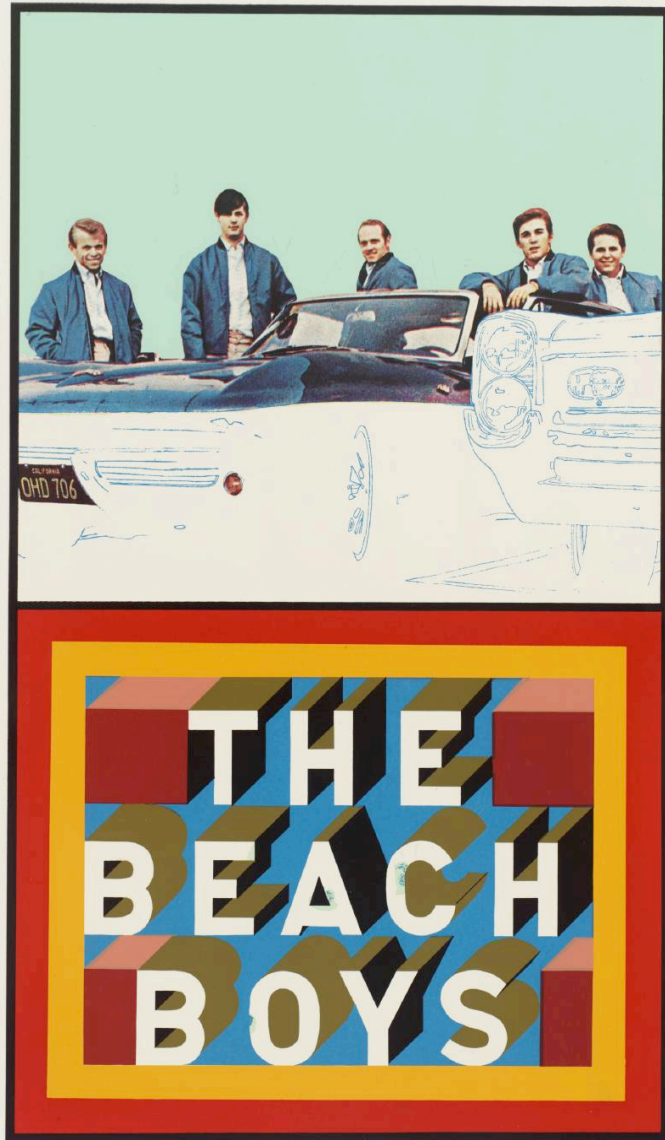




[Roy Lichtenstein](#) (1923-1997) *Explosion*, 1965-6, Lithograph on paper, 56.2 x 43.5 cm, Tate Gallery, Presented by the Museum of Modern Art, New York 1976, Tate Reference number P01796



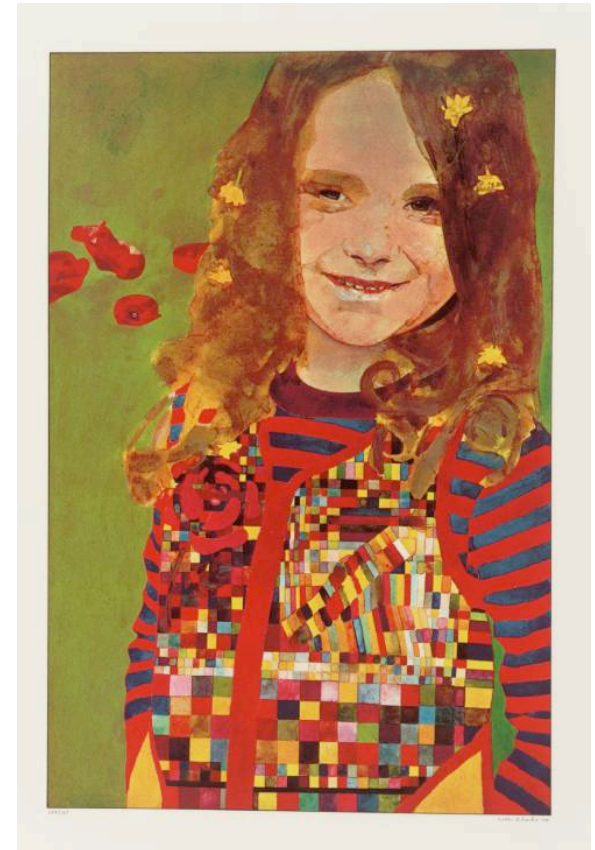
[Sigmar Polke](#) (1941-2010) *Untitled (Square 2)* *Ohne titel (Quadrat 2)* 2003, Gold paint, oil paint and acrylic paint on canvas (200.3 x 190.4 x 2.0 cm), Tate Gallery.



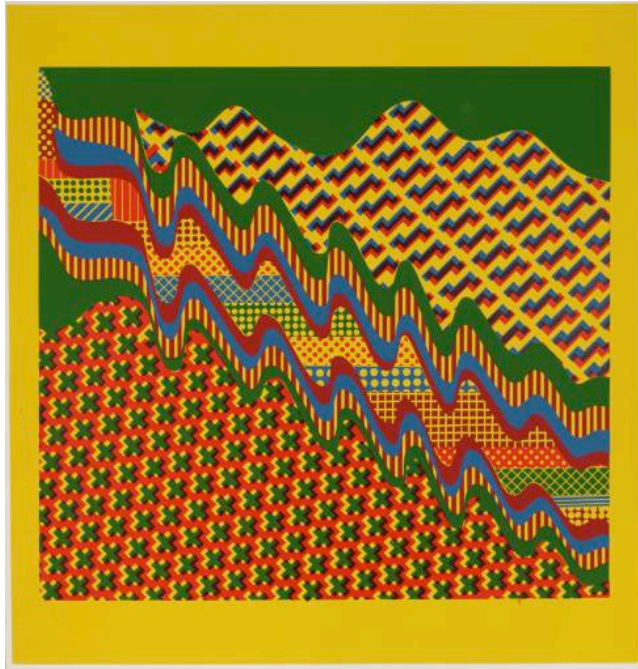
*Peter Blake "Beach Boys" (1964)
Screenprint on paper (53 x 30.8cm)
From the Institute of Contemporary
Arts portfolio. Tate Gallery. Presented
by Rose and Chris Prater through the
Institute of Contemporary Prints
1975. Tate reference P04038*



[Harold Cohen](#) (born 1928), 'Richard VI From [Richard Hamilton](#)' (1967) Screenprint on paper, 65.3 x 73.5 cm, Tate Gallery. Presented by Rose and Chris Prater through the Institute of Contemporary Prints 1975

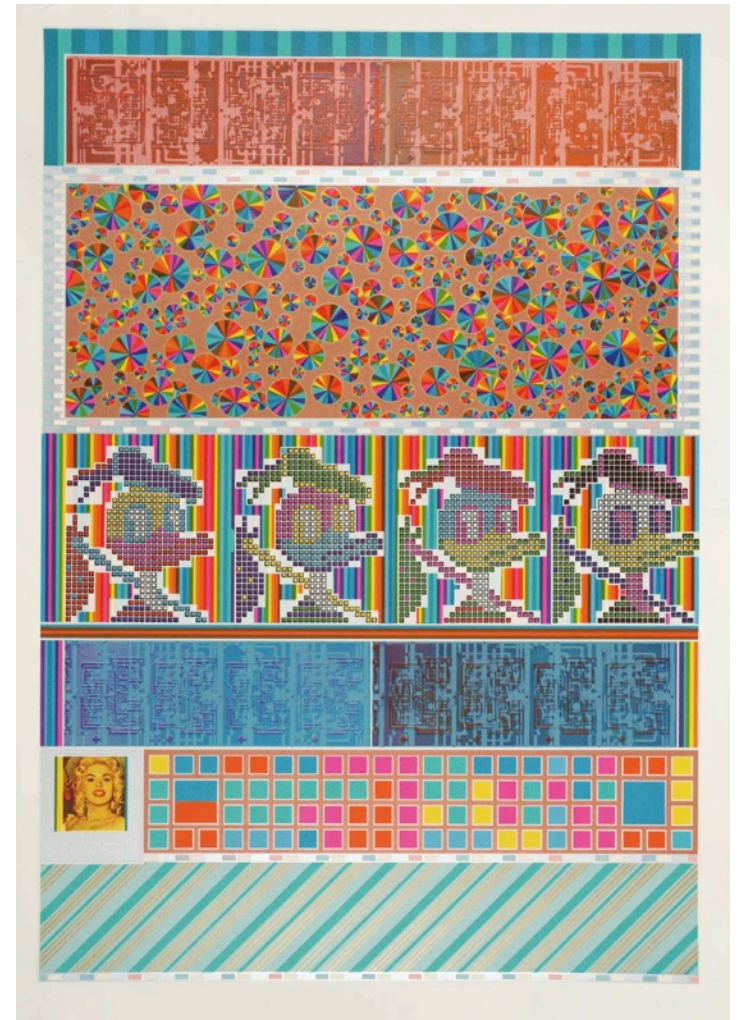


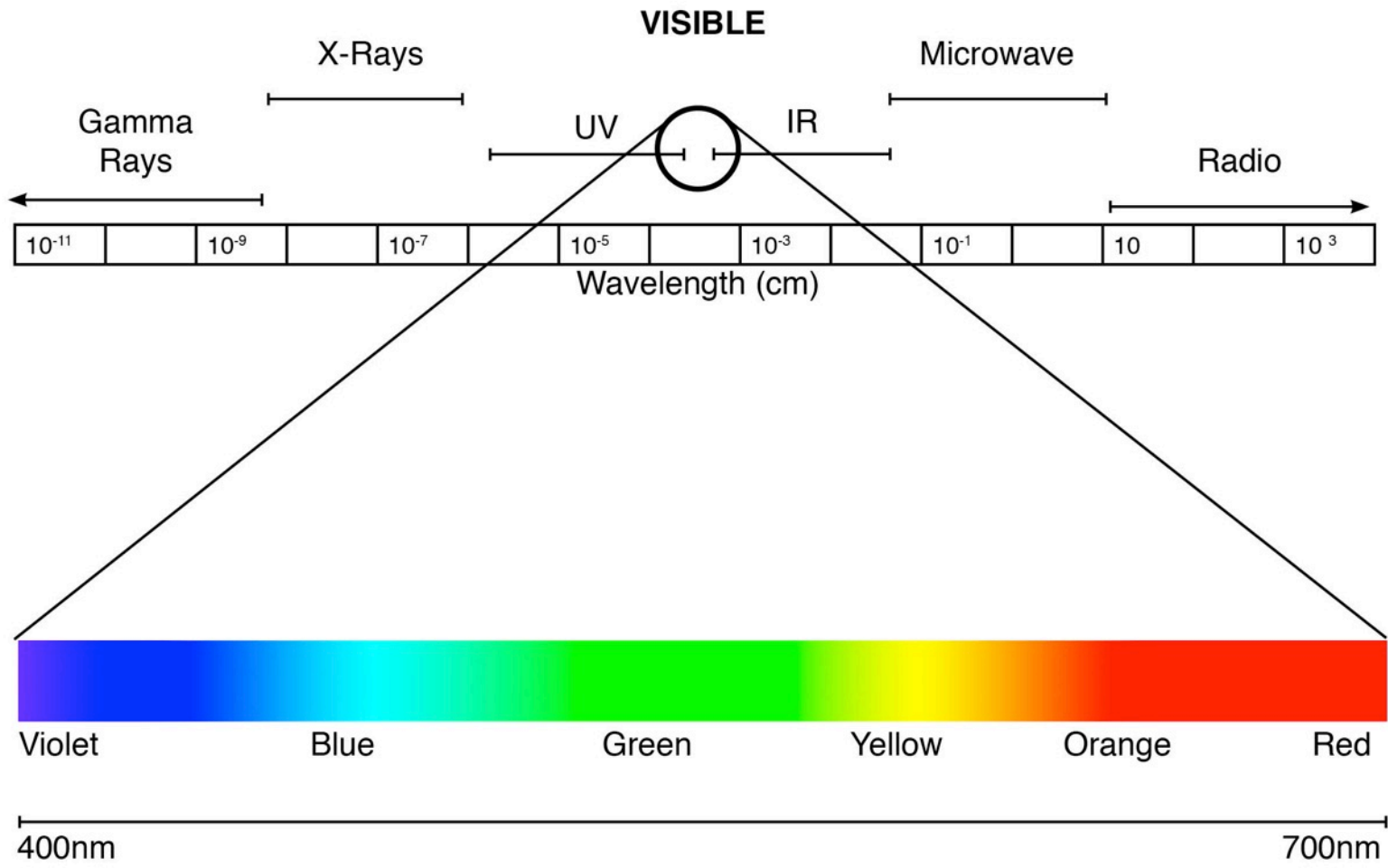
[Peter Blake](#) (born 1932), 'Girl in a Poppy Field' (1974) Screenprint on paper, 41.3 x 27.3 cm Tate Gallery. Presented by Waddington Galleries through the Institute of Contemporary Prints 1975



Eduardo Paolozzi, Untitled proof trial for As Is When, Screenprint on paper, 54.9 x 52.4 cm, Tate Gallery

Sir Eduardo Paolozzi (1924-2005) 833. Whipped Cream, A Taste of Honey, Peanuts, Lemon Tree, Others From Universal Electronic Vacuum (1967), Screenprint on paper, 88.8 x 61cm







Olafur Eliasson “Beauty”, (1993) Fresnel lamp, water, nozzles, hose, wood, and pump. Museum of Contemporary Art, Los Angeles, purchased with funds provided by Paul Frankel. A spotlight shines obliquely through a curtain of fine mist, creating an indoor rainbow. Your experience of the visual effects is generated by the intersection of water and light and varies in relation to your viewing position within the room.



Savage, You Will Have What You Want Sometime Soon (2011), LED lights,
Spike Island, Bristol

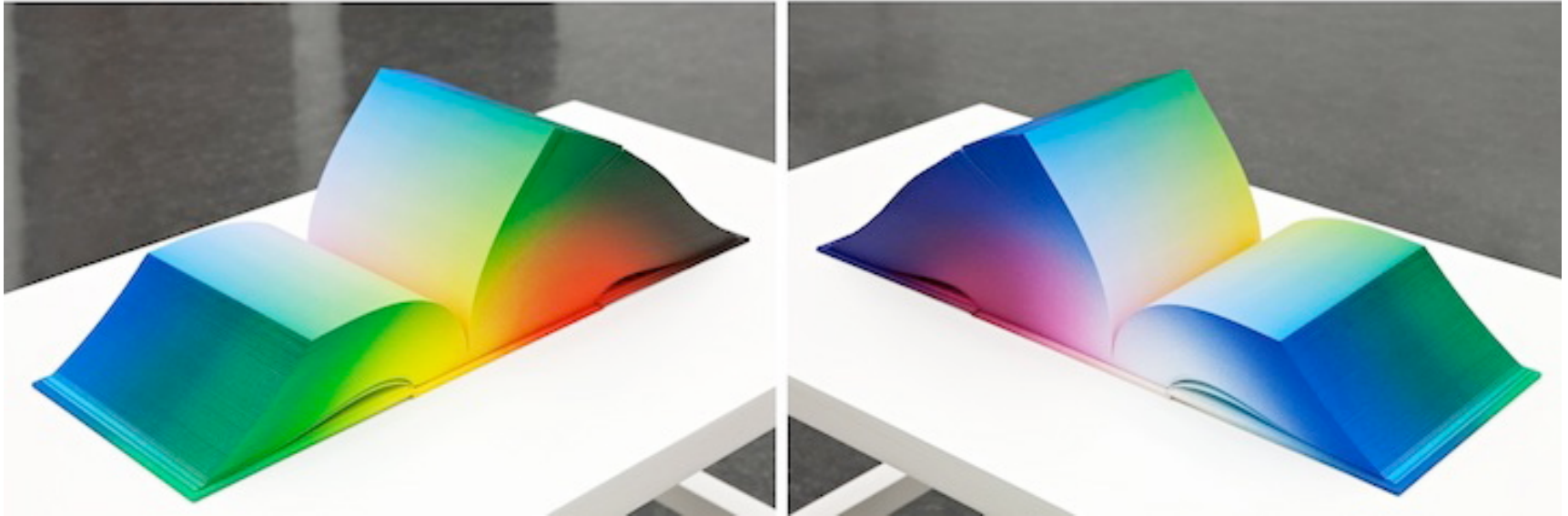


Designer: Carnovsky, Work Title: RGB,
Medium: Wallpaper installation, Year:
2010, Place: J&V Showroom, Milano,
Photographer: Luca Volpe
<http://www.carnovsky.com/RGB.htm>

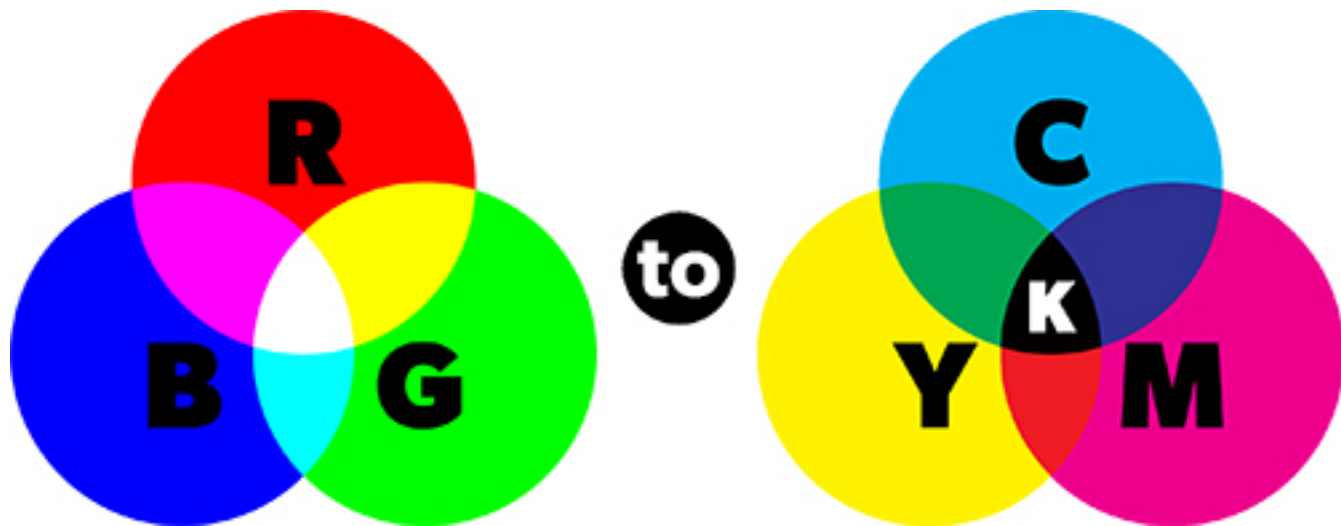


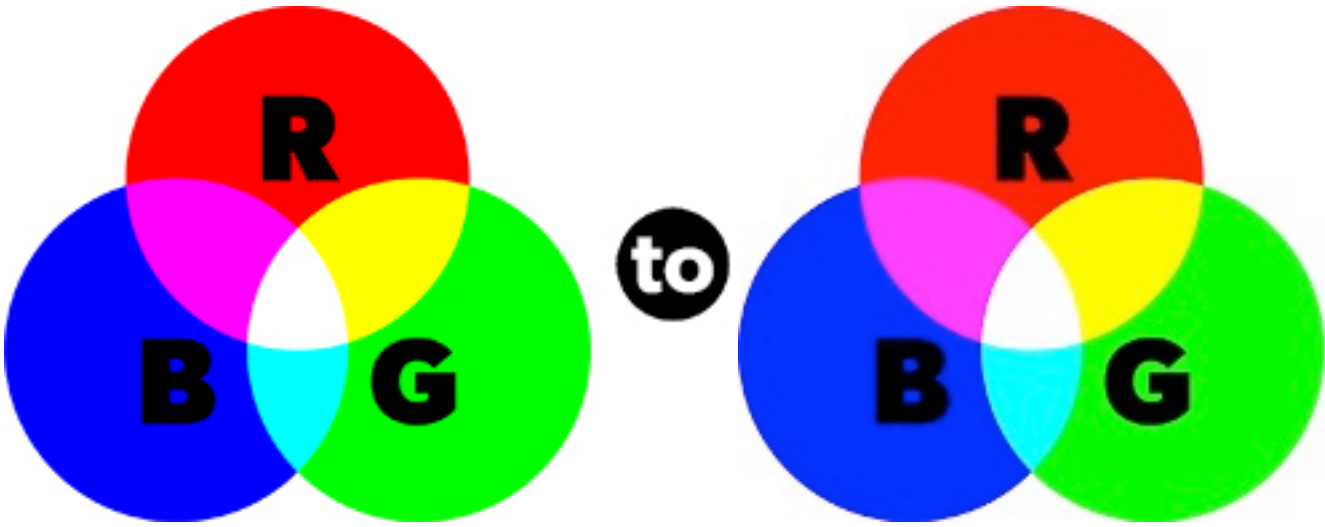


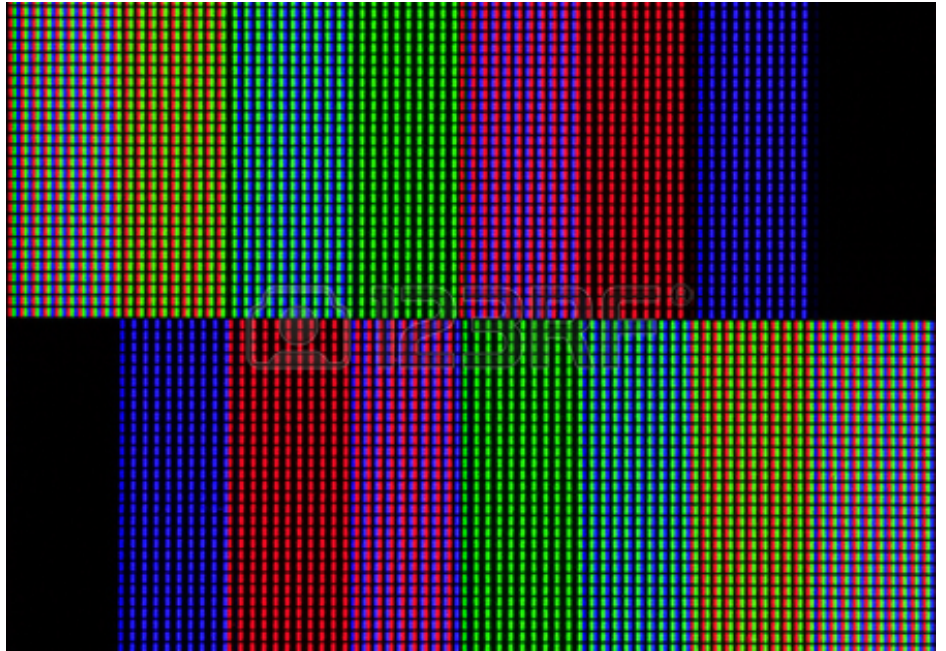
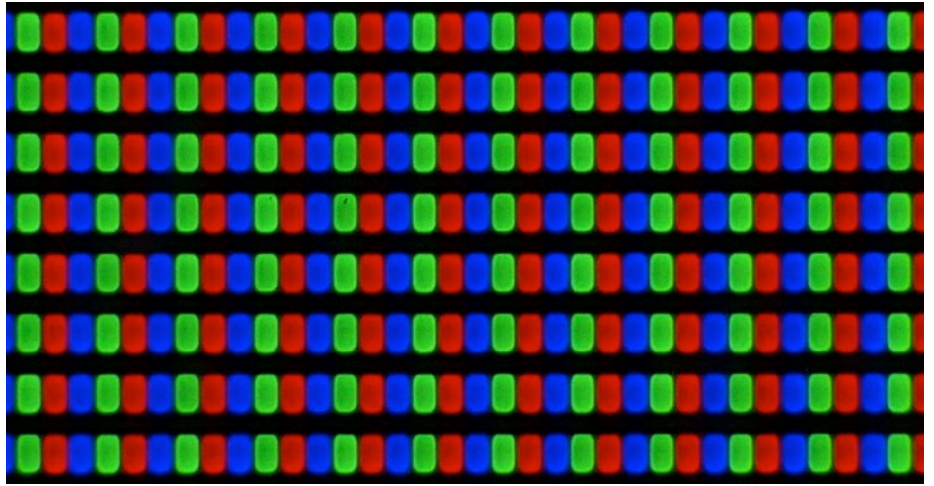




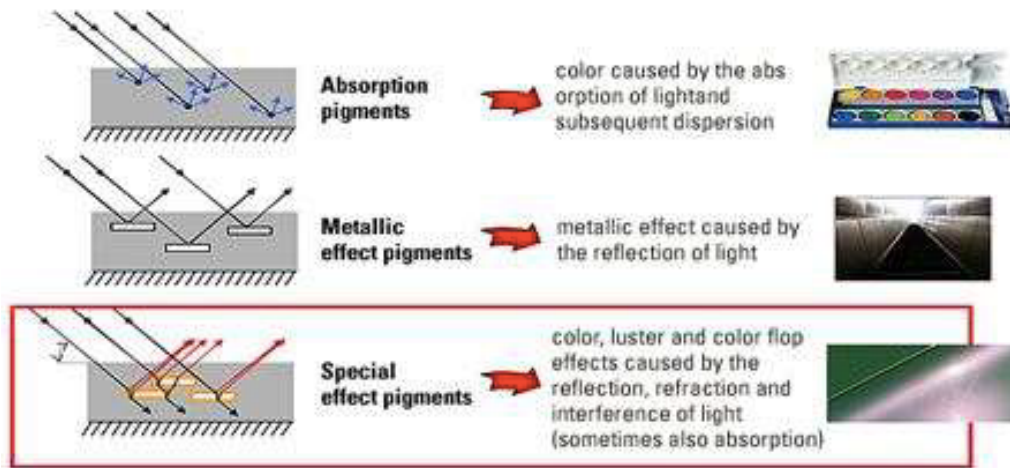
*[Tauba Auerbach](http://www.designboom.com/weblog/cat/10/view/23357/tauba-auerbach-rgb-colorspace-atlas.html), 'RGB Colorspace Atlas', (20 x 20 x 20 cm) digital offset print on paper with airbrushed cloth cover, printed at Wide Awake Garage
<http://www.designboom.com/weblog/cat/10/view/23357/tauba-auerbach-rgb-colorspace-atlas.html>*





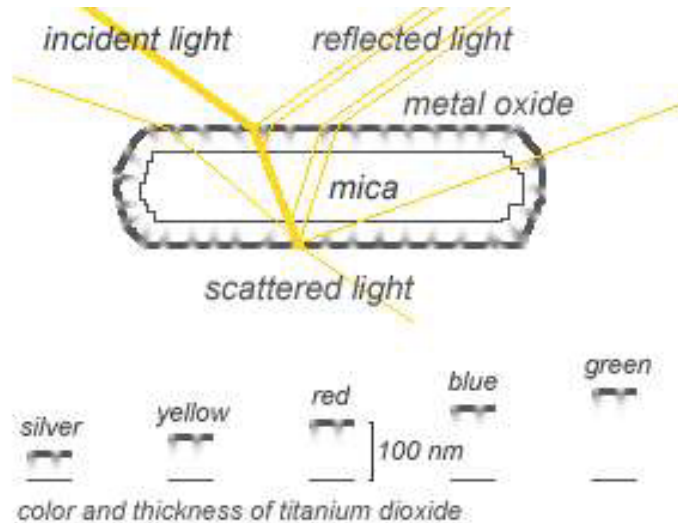


How they work?



Applications

- Coatings
- Plastics
- Inks
- Cosmetics
- Personal Care



http://www.merck-performancematerials.com/en/coatings/basics_pigment_technology/basics_pigment_technology.html



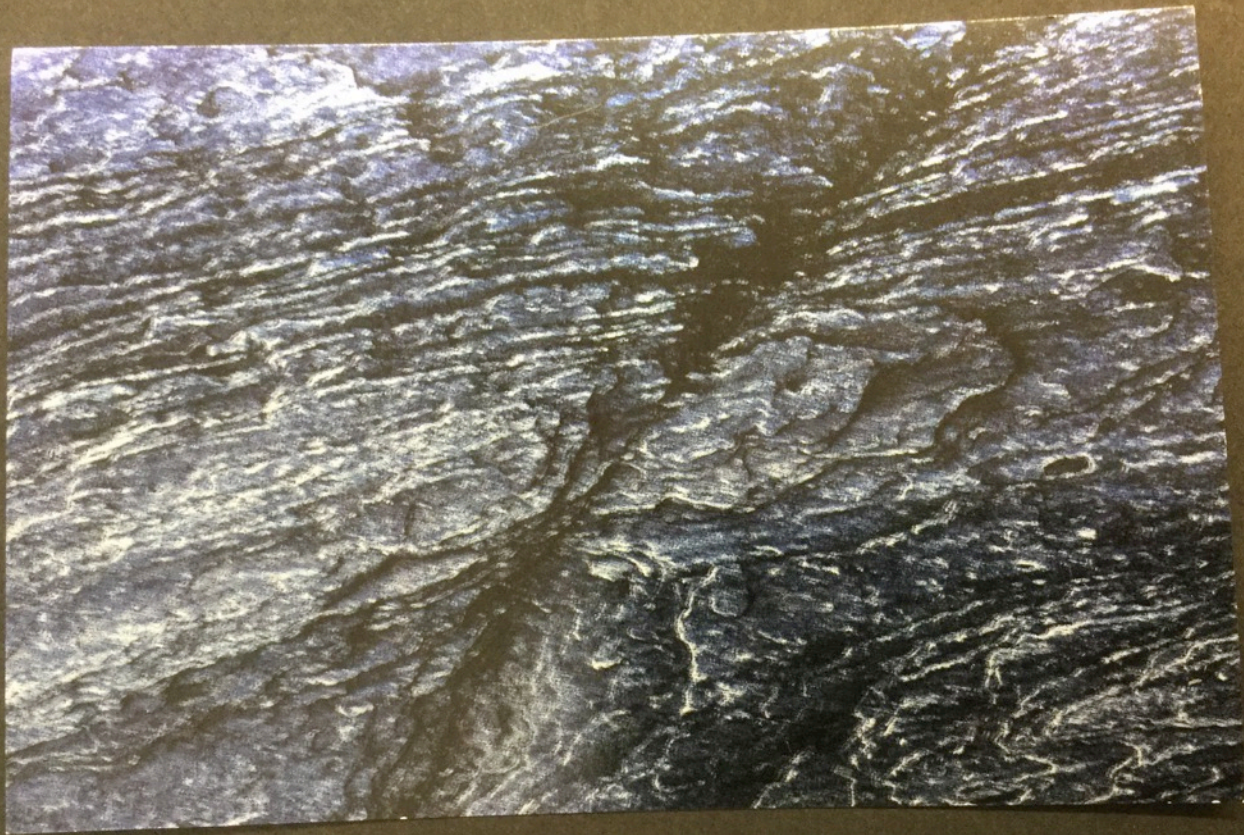
Red



Green

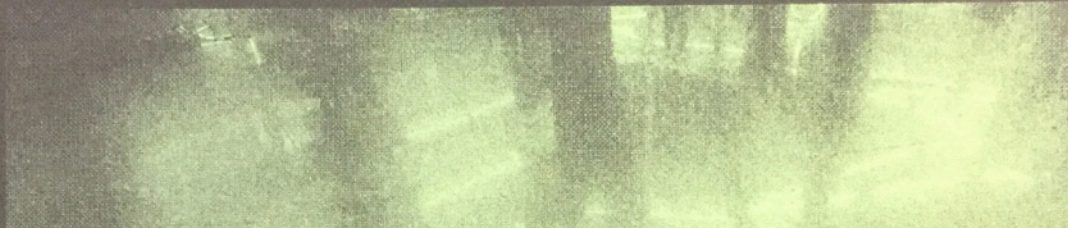


Blue



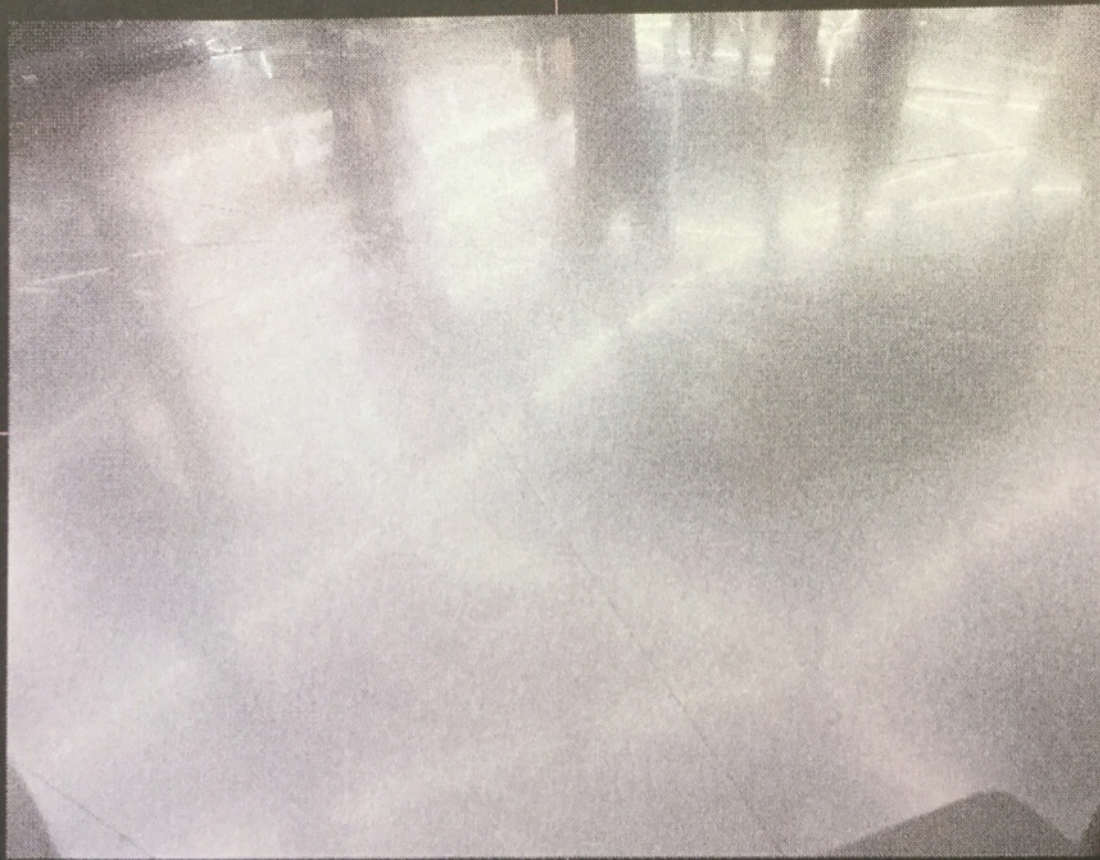


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P8170970.jpg_channelred.psd @ 50% (Bitmap) *

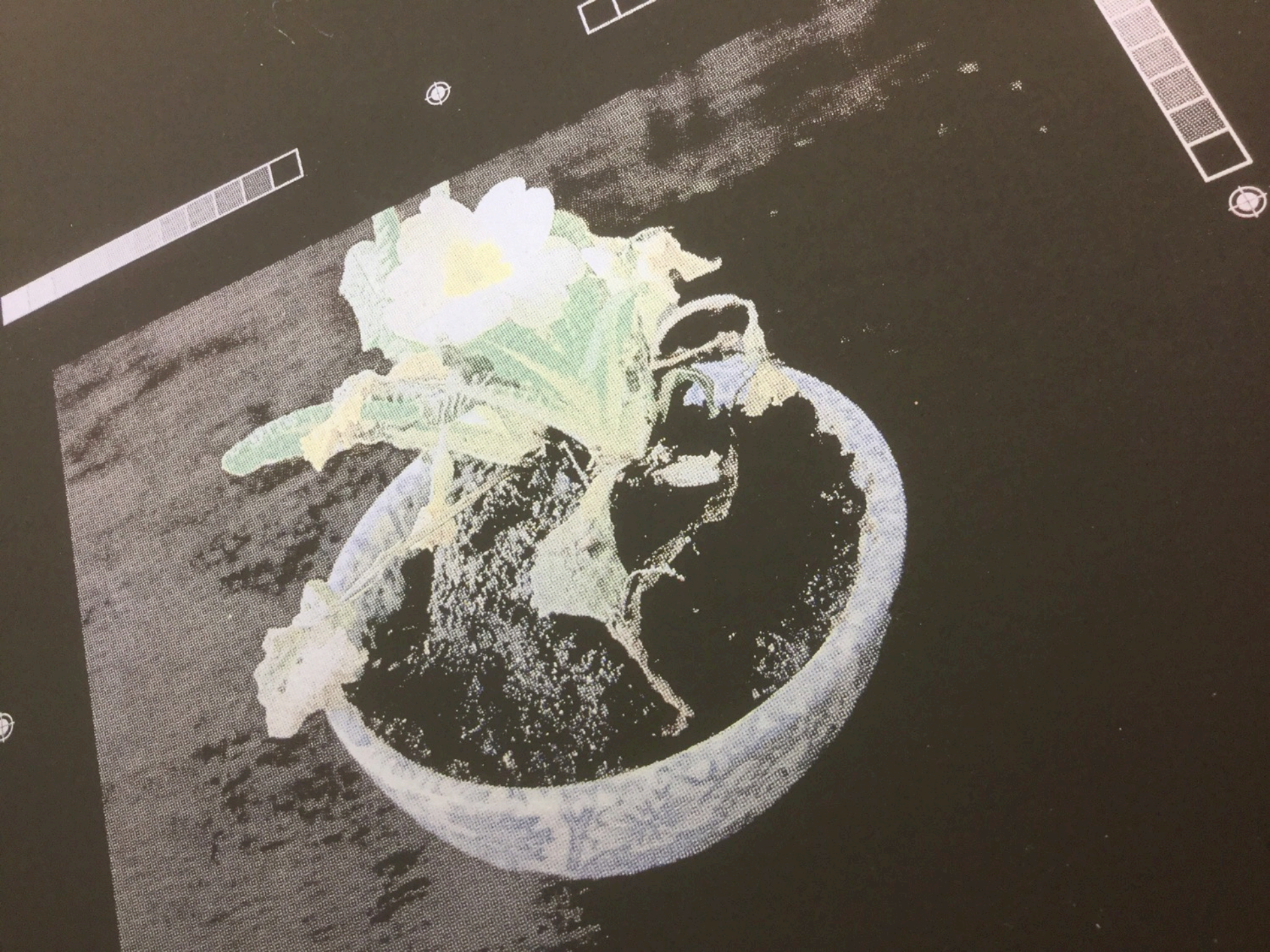
P8170970.jpg_channelgreen.psd @ 50% (Bitmap) *



P8170970.jpg_channelred.psd @ 50% (Bitmap) *

P8170970.jpg_channelgreen.psd @ 50% (Bitmap)**







PRE-PRESS RGB

Carsten Brabaender

Autumn 2017 RGB Print Masterclass

MERCK

Thank you for listening

Carinna Parraman

Centre for Fine Print Research, University of the West of England

Carinna.Parraman@uwe.ac.uk