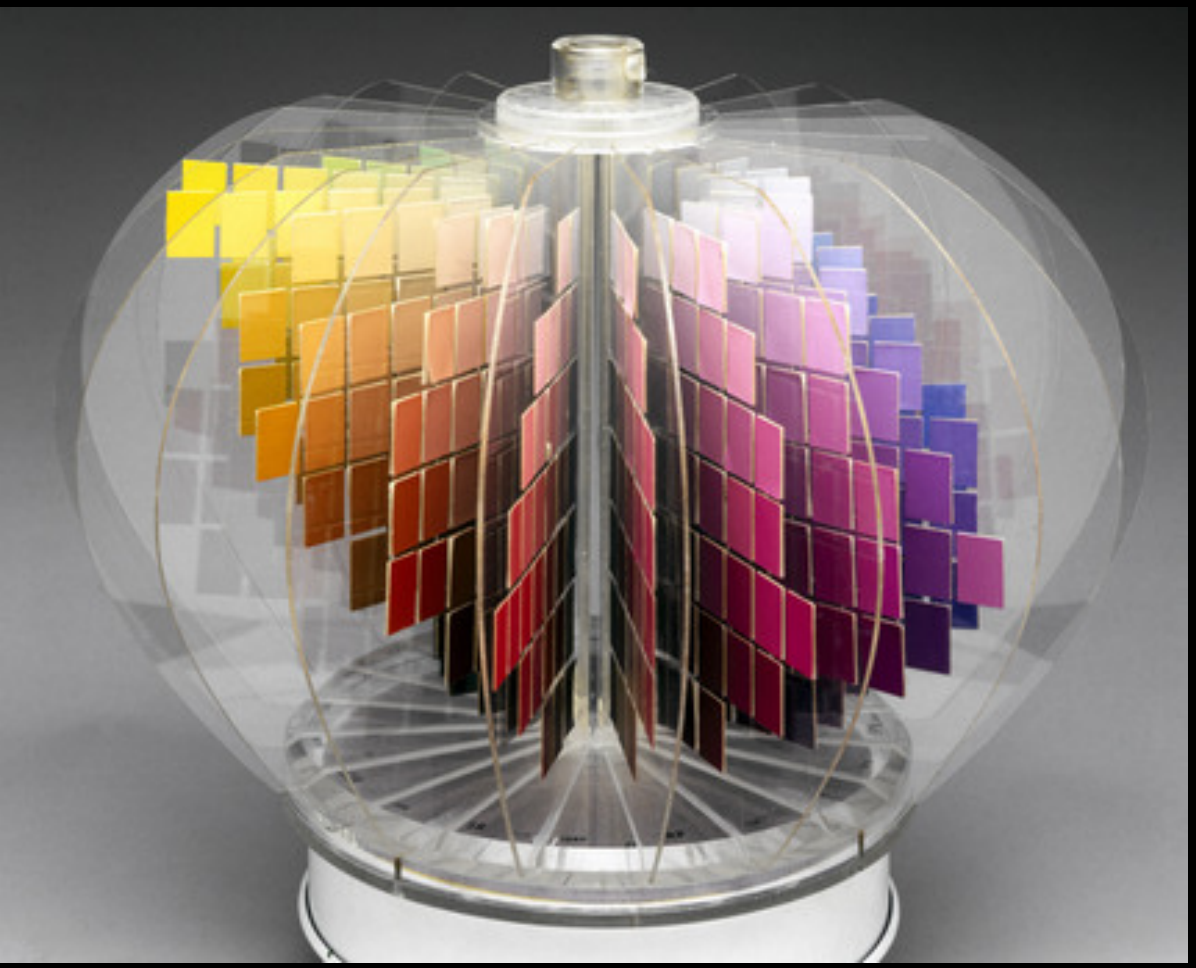
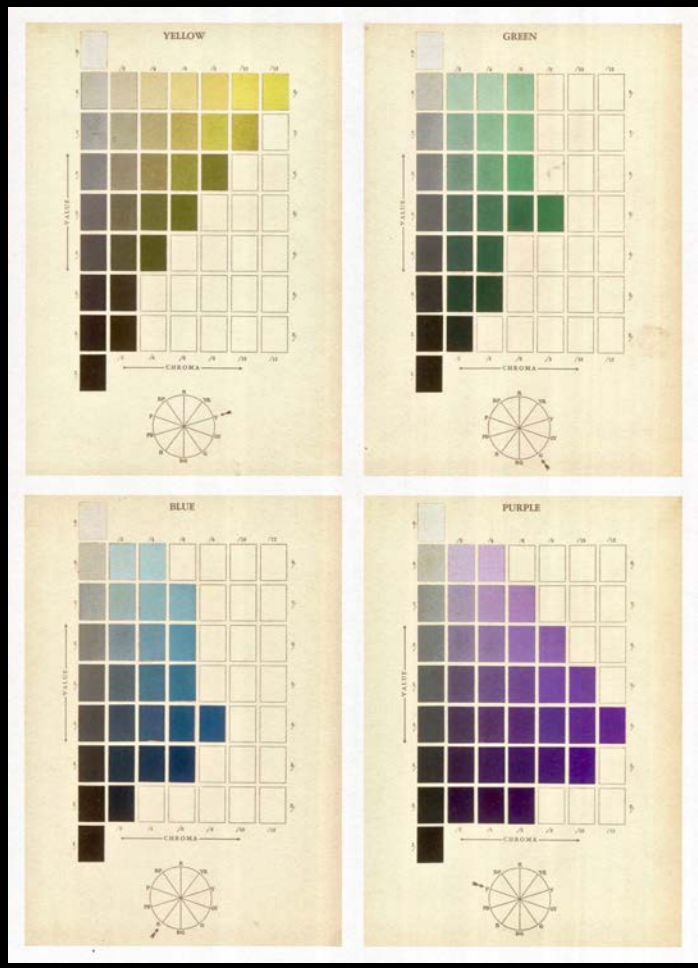
Relating Munsell to other systems in an elastic colour solid

Paul Green-Armytage

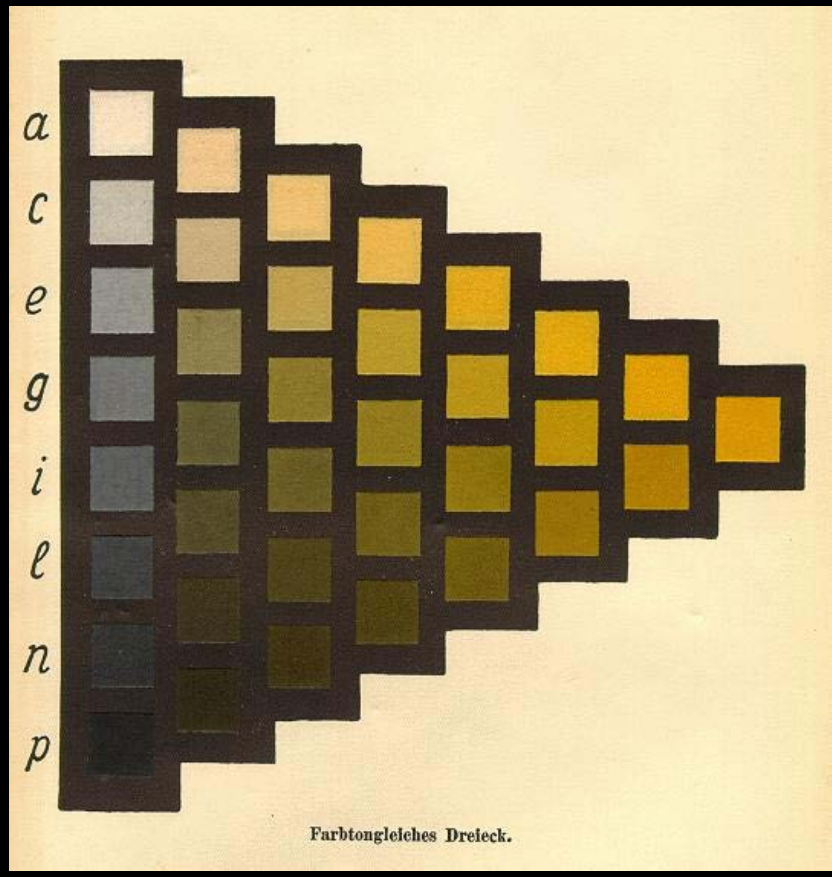
Munsell Centennial Symposium

2018

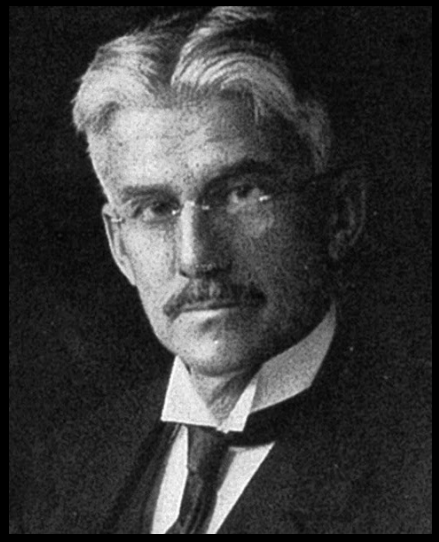




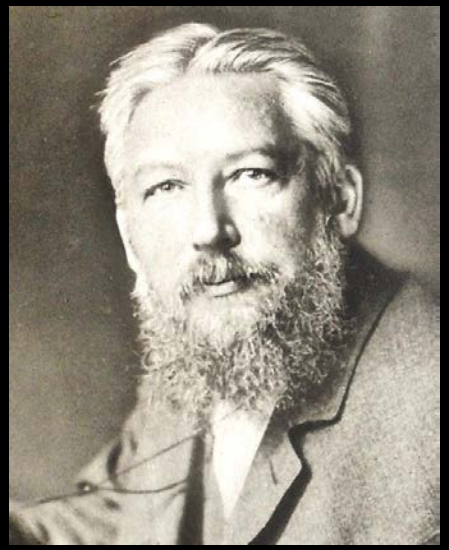
MUNSELL SYSTEM



OSTWALD SYSTEM



Albert
Munsell



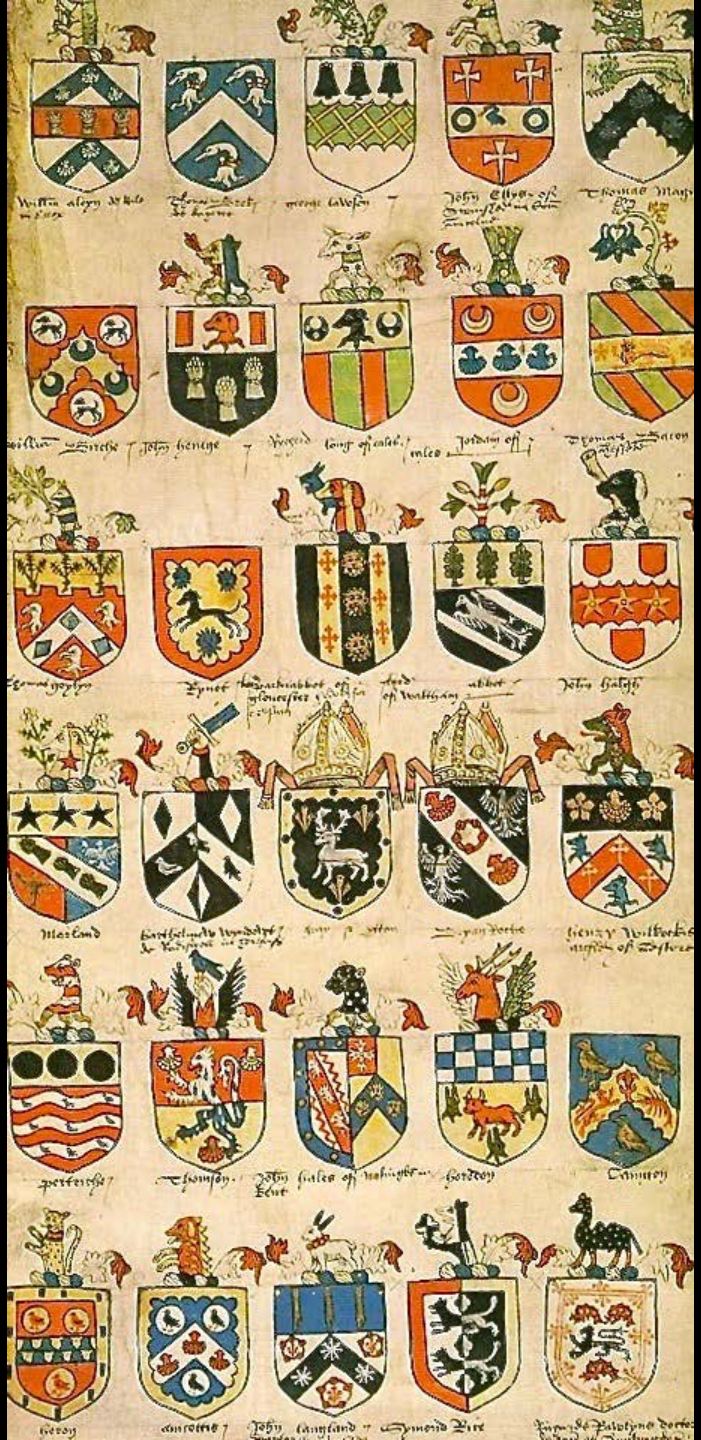
Wilhelm
Ostwald

La Tourette-Cabardés Town's coat of arms

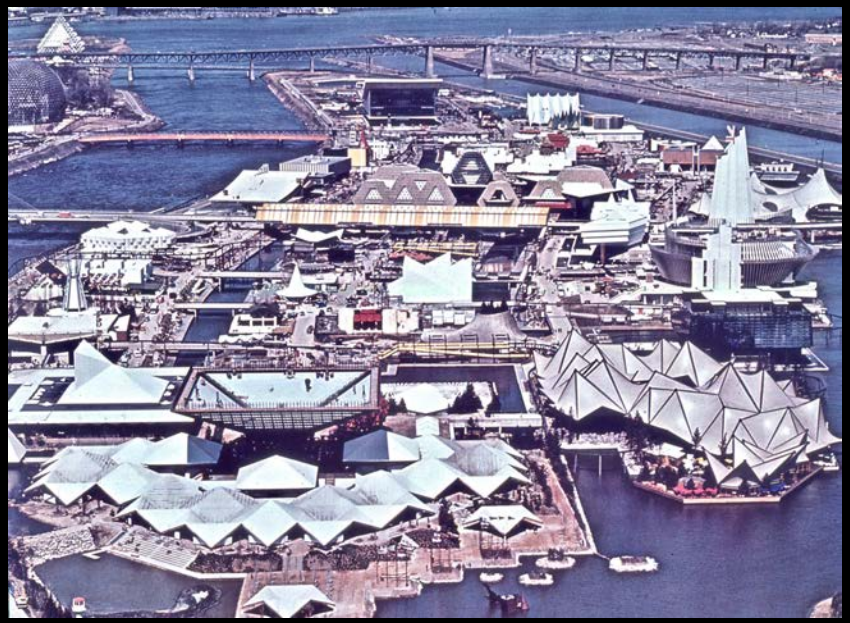
BMW logo

Bristol Rovers football team

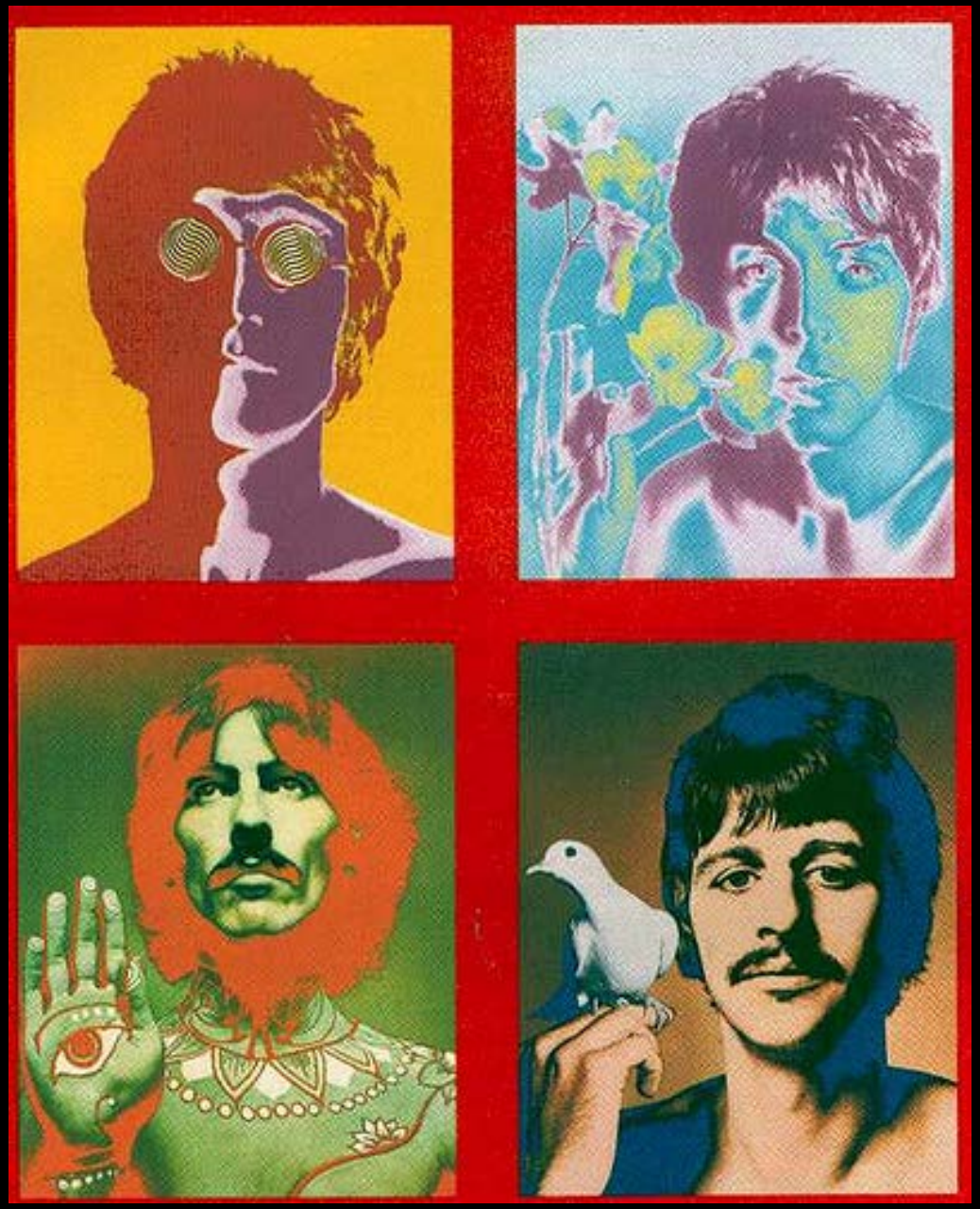
Bath Races

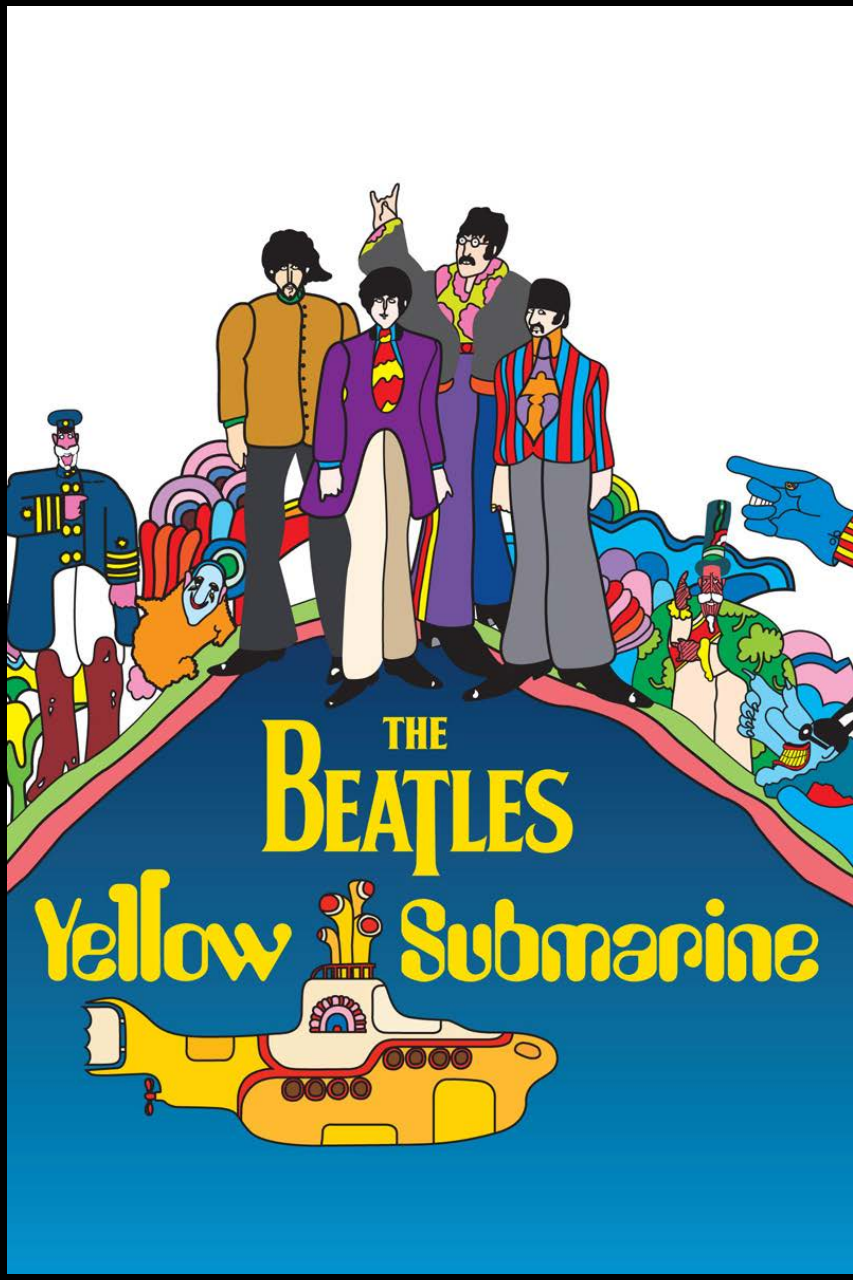


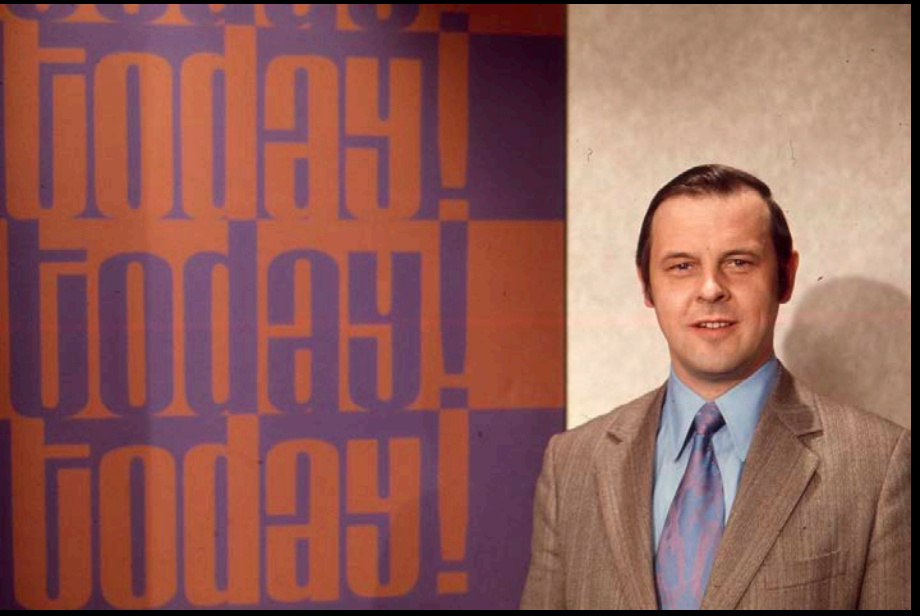
Stills from *Ivanhoe*



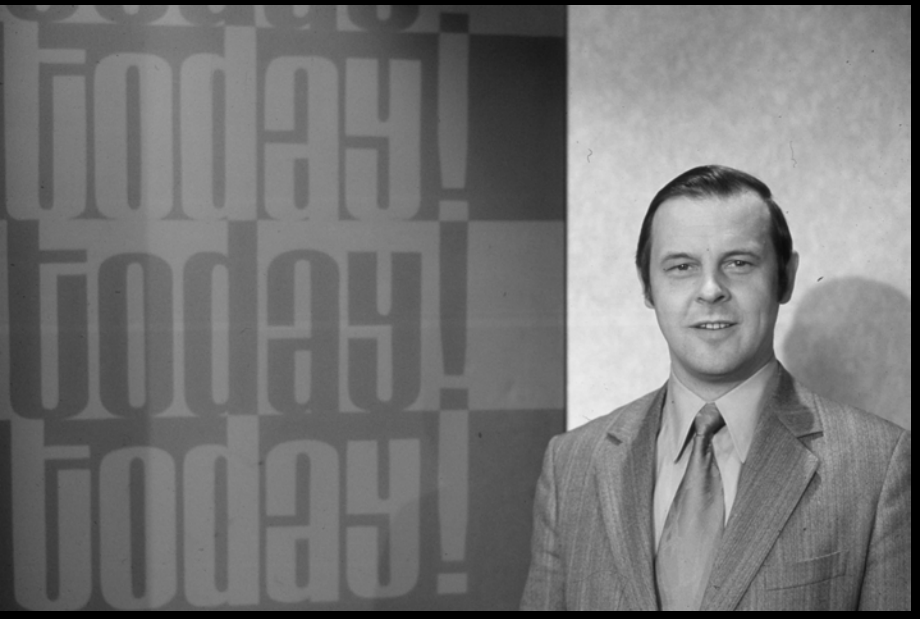
Expo 67 Montreal



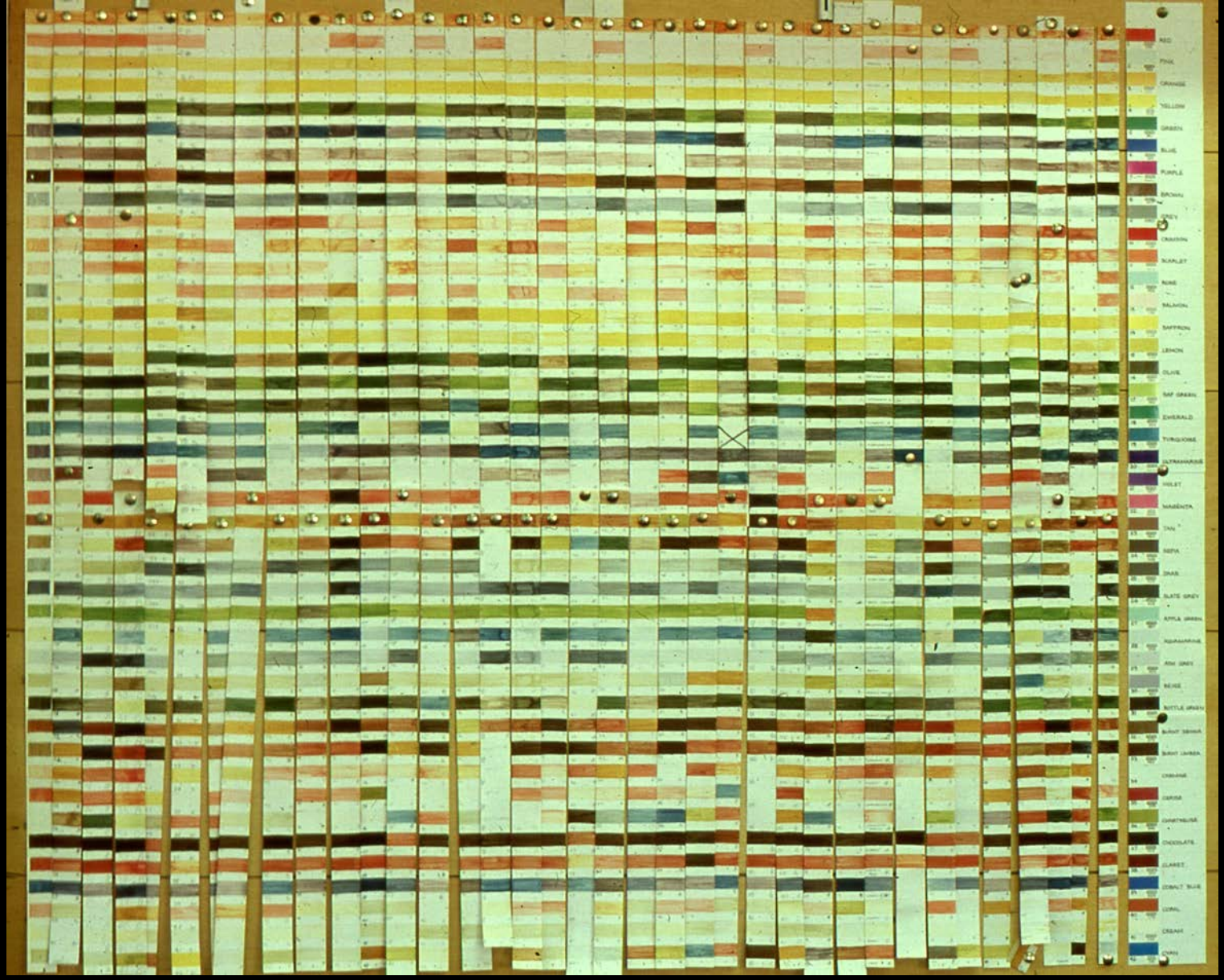

THE
BEATLES
Yellow Submarine



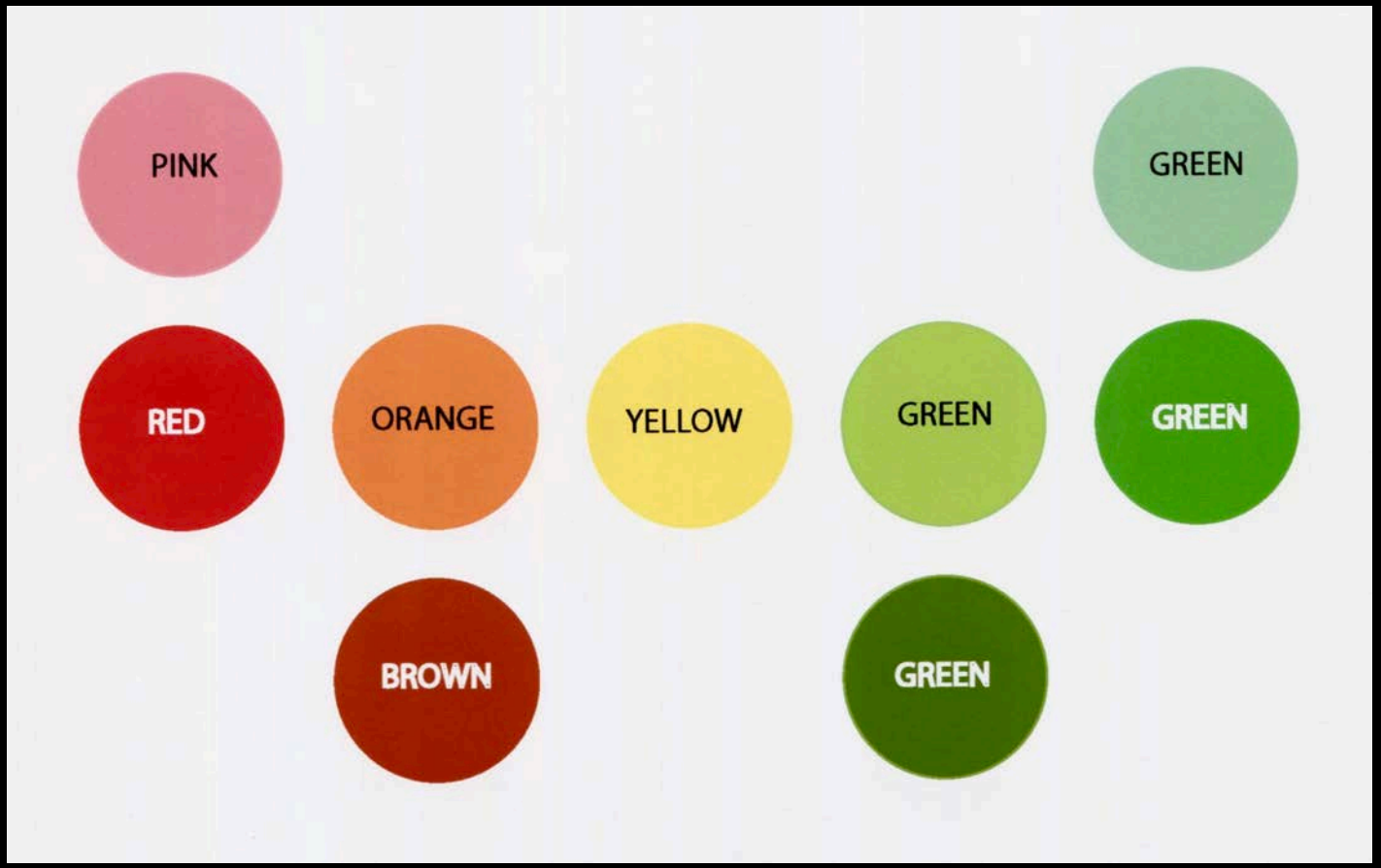
CBC Edmonton *TODAY!*

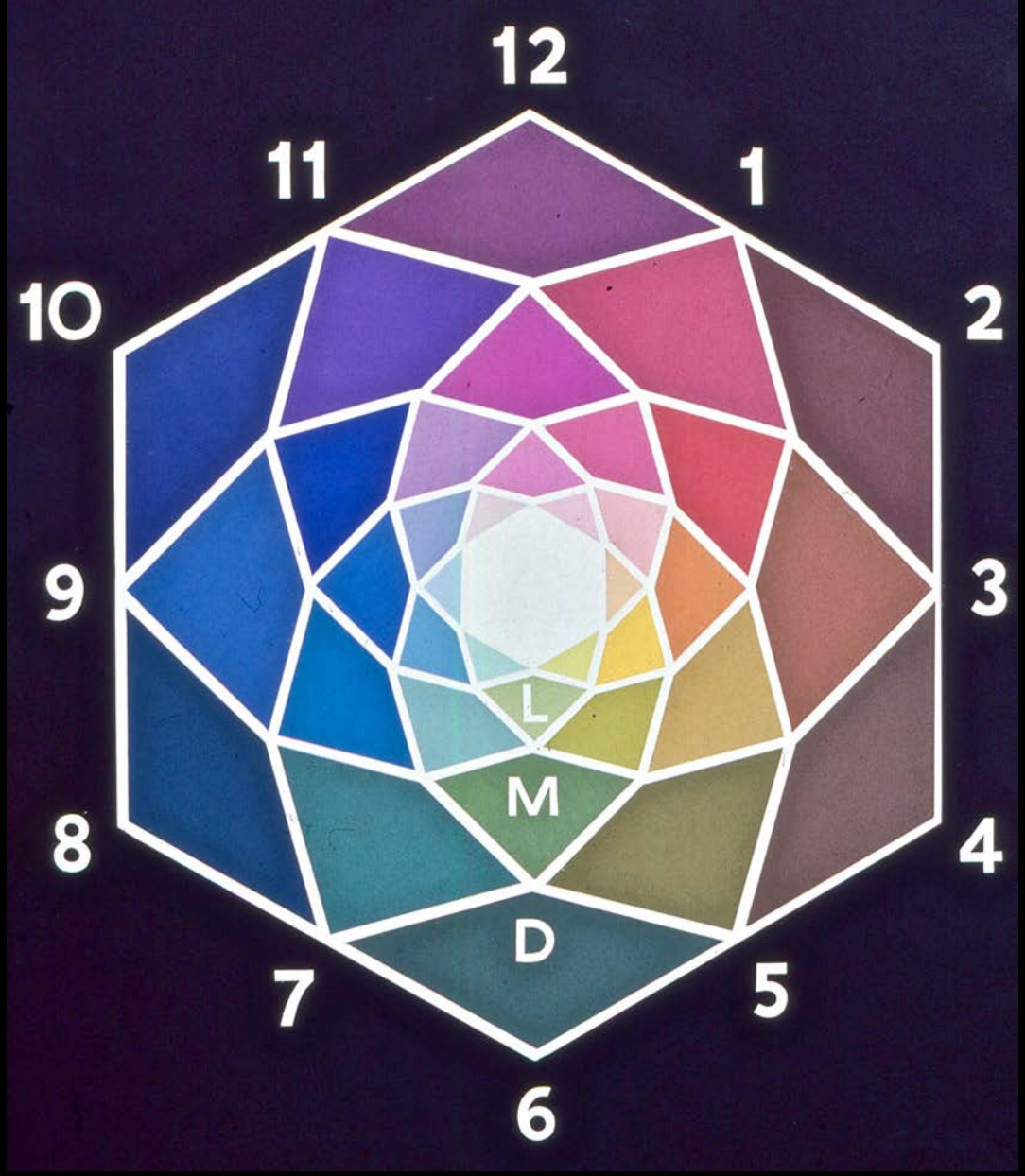


Colour array as used for their study of colour naming
by Brent Berlin and Paul Kay.
This array is similar to that used in the CBC design studio in Edmonton

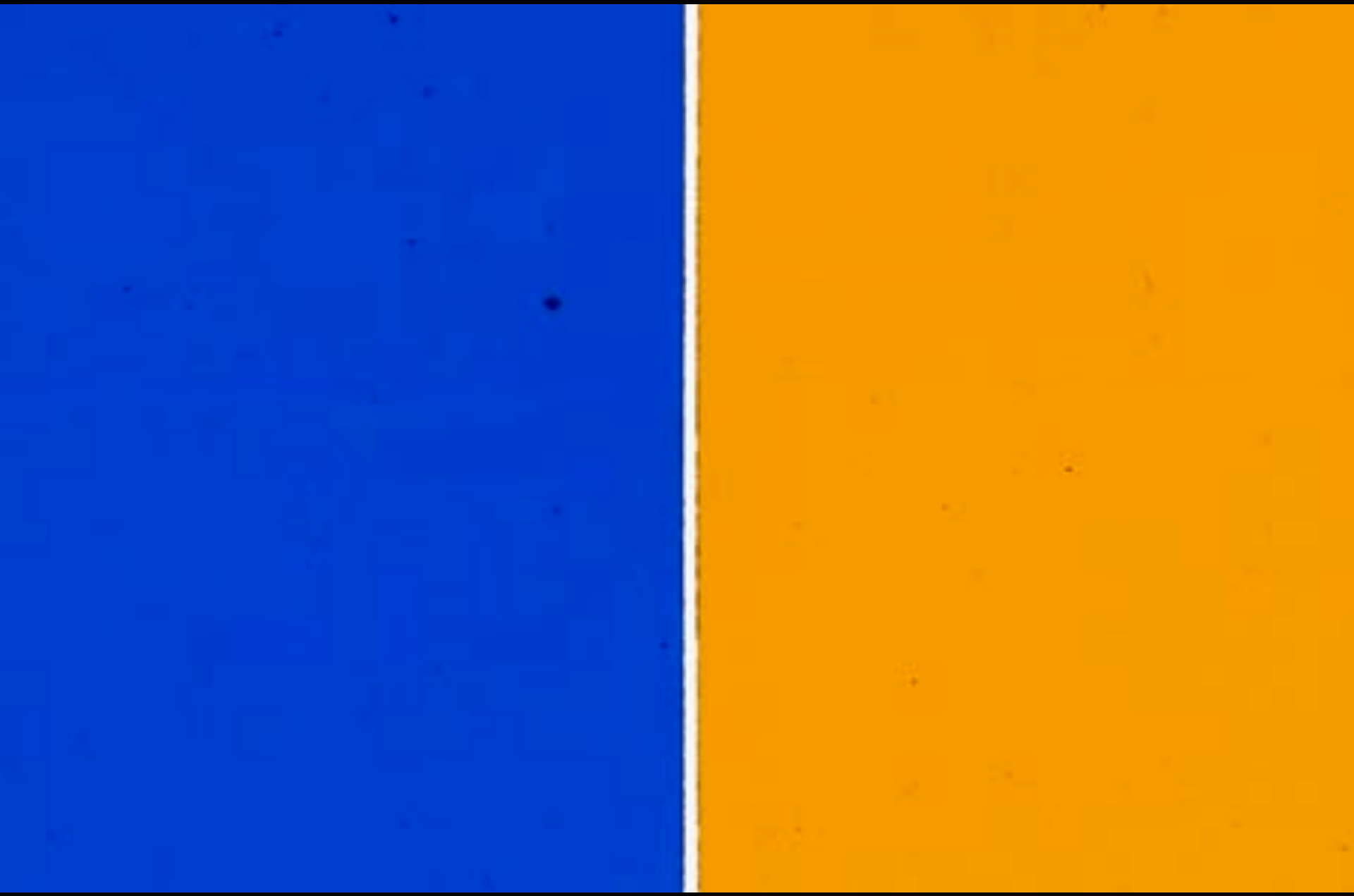


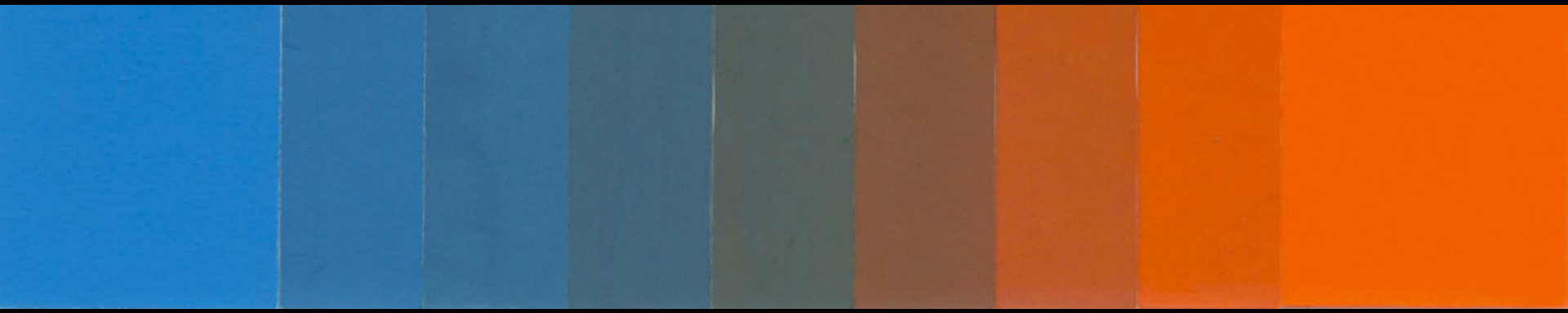
Study of relationships between colour names and colour appearance.
Students chose felt markers that best fit their concepts for each name.


PINK
GREEN
RED
ORANGE
YELLOW
GREEN
GREEN
BROWN
GREEN

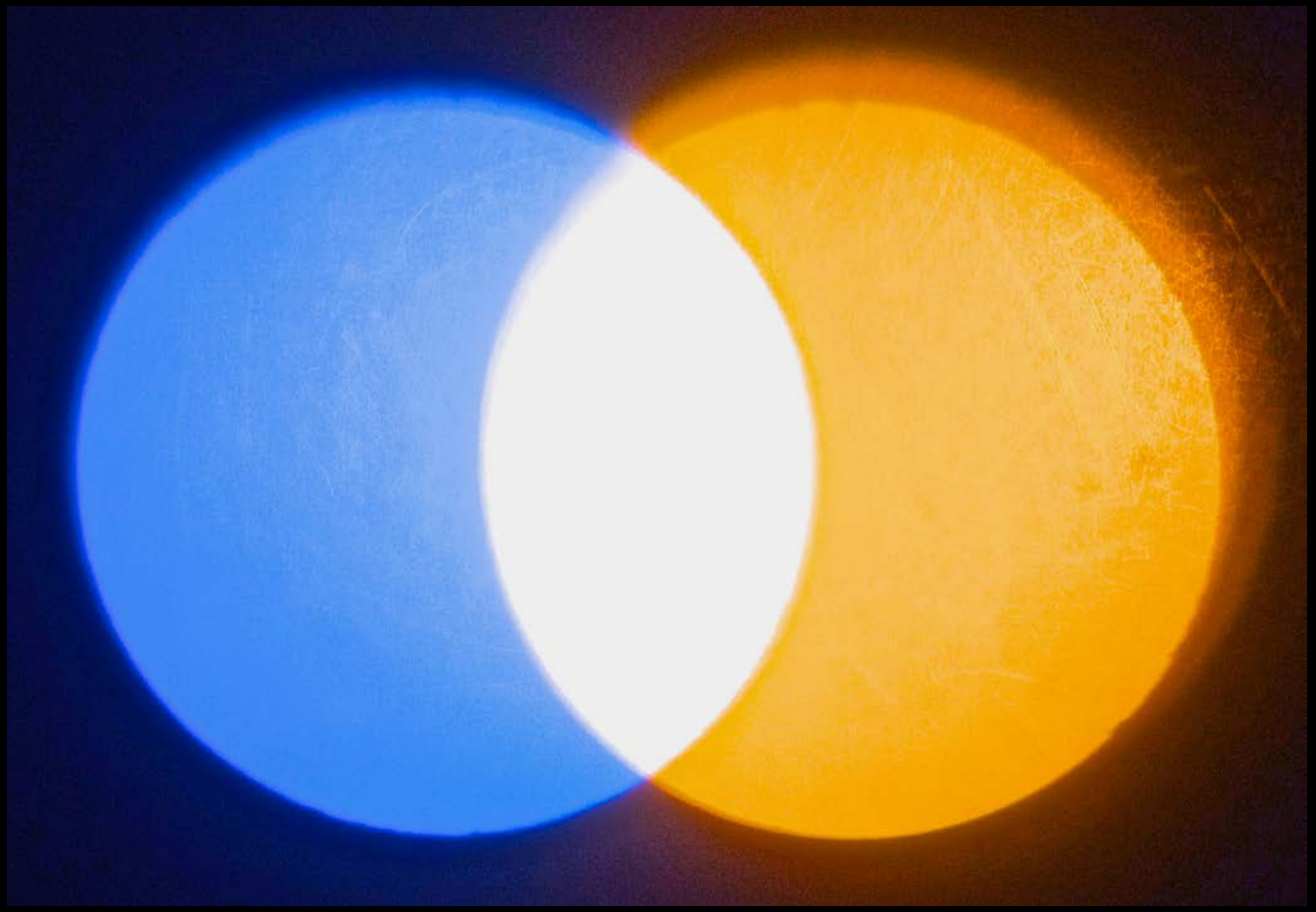


Colour Map 1978



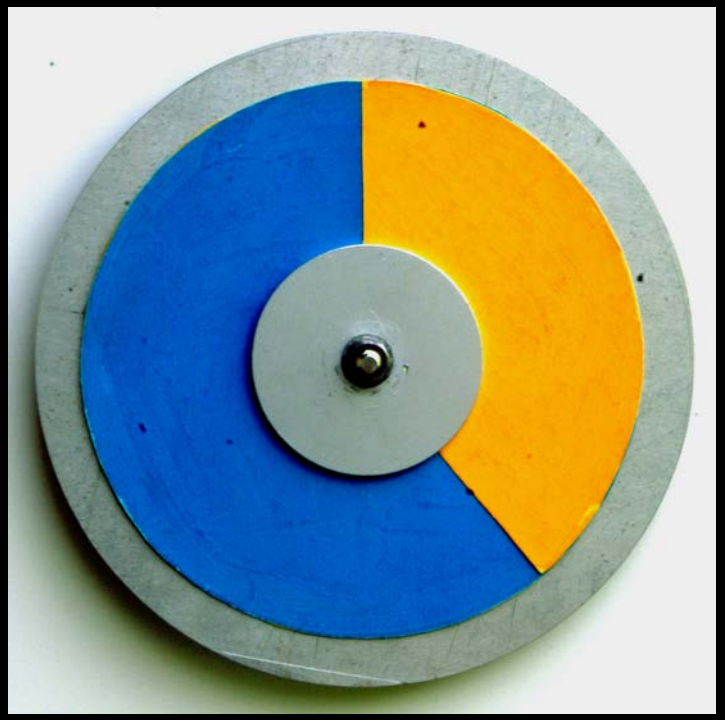


Subtractive mixture to neutral grey

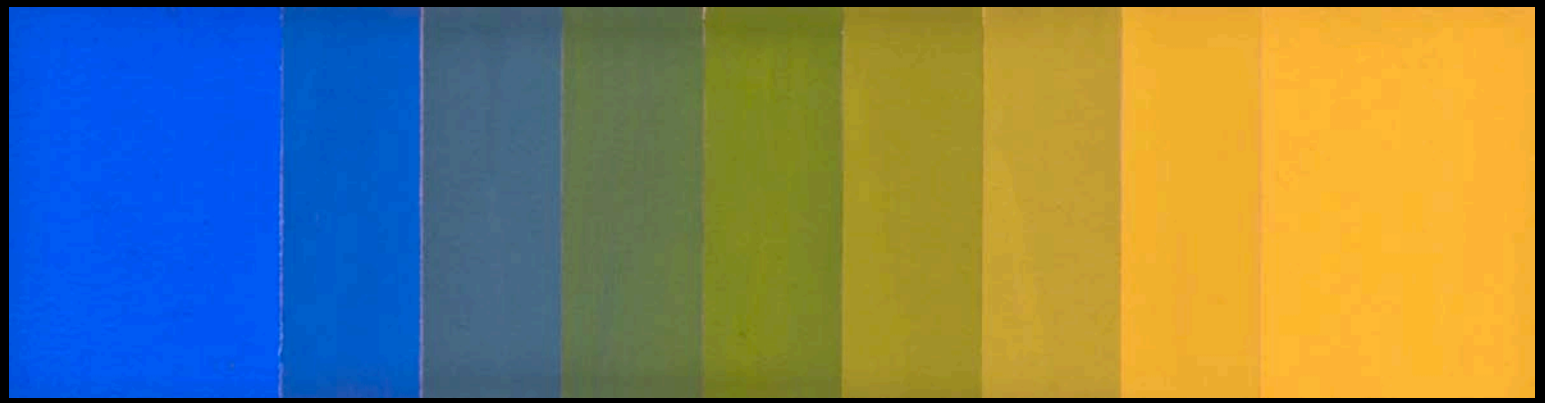


Additive mixture to white

Painted discs used to find complementary pairs by partitive mixture –
Pairs of discs were interleaved and spun at high speed
to find combinations where the segments blended to a neutral grey.



Partitive mixture to grey



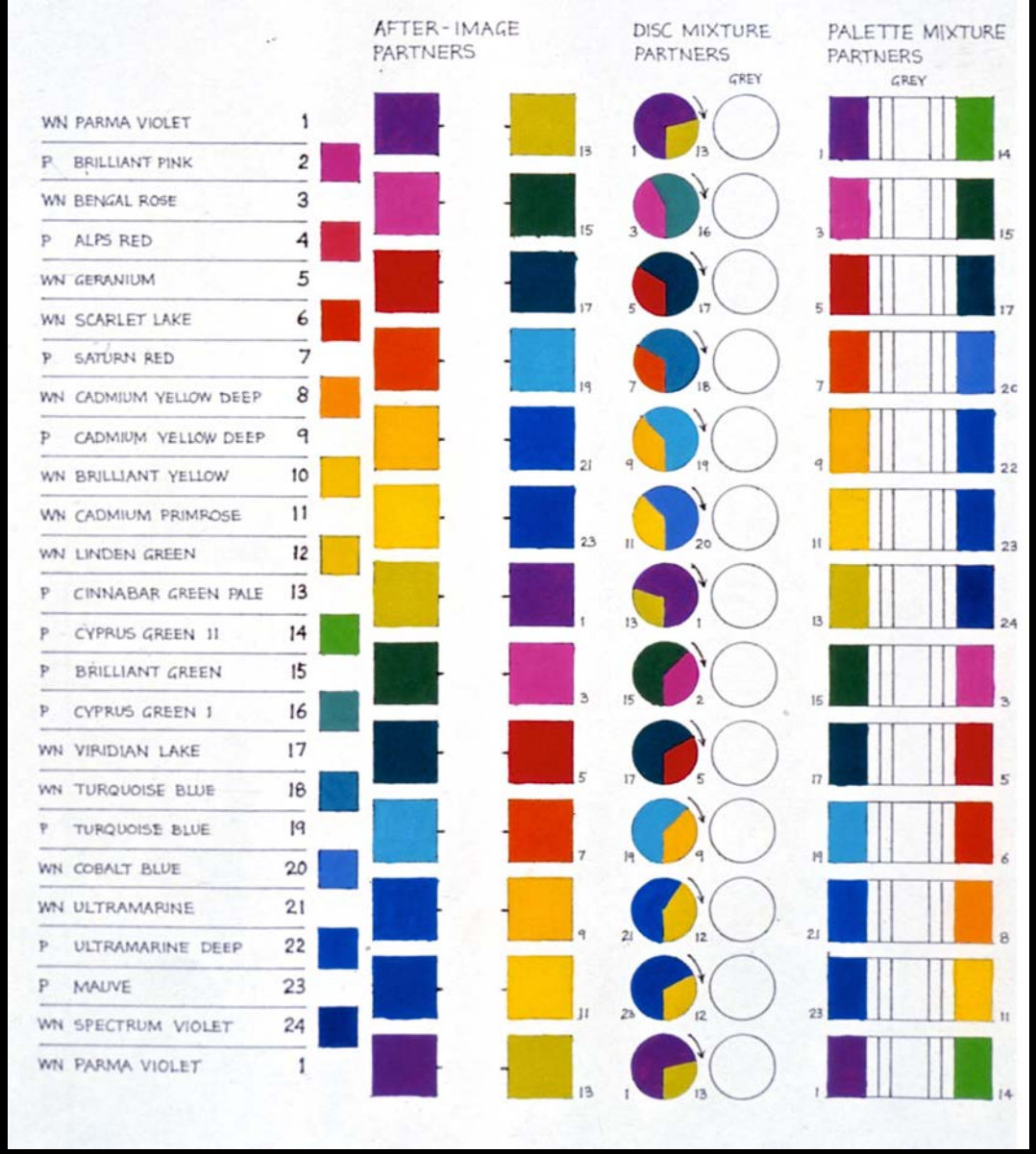
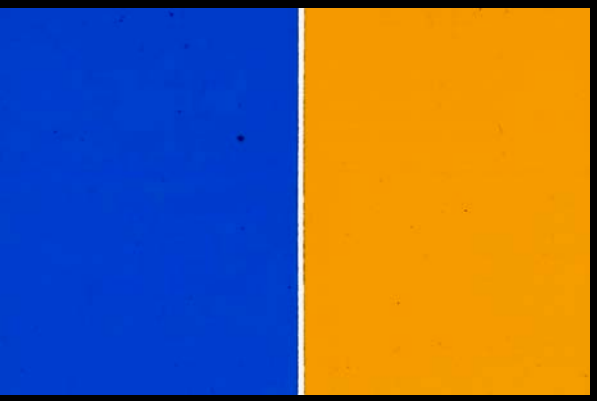
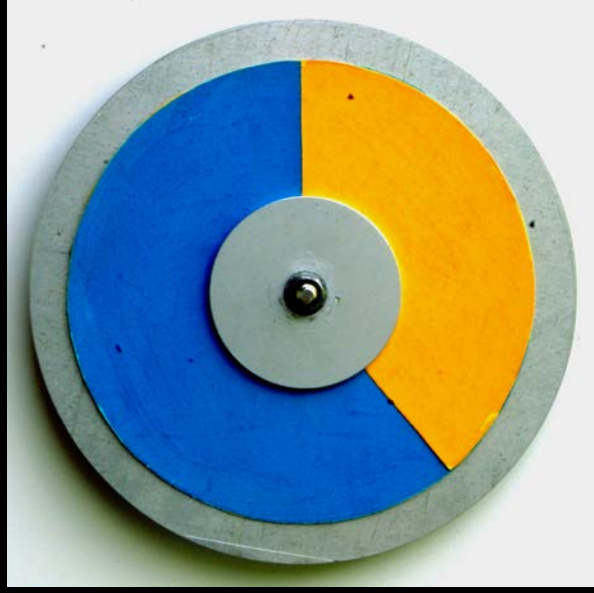
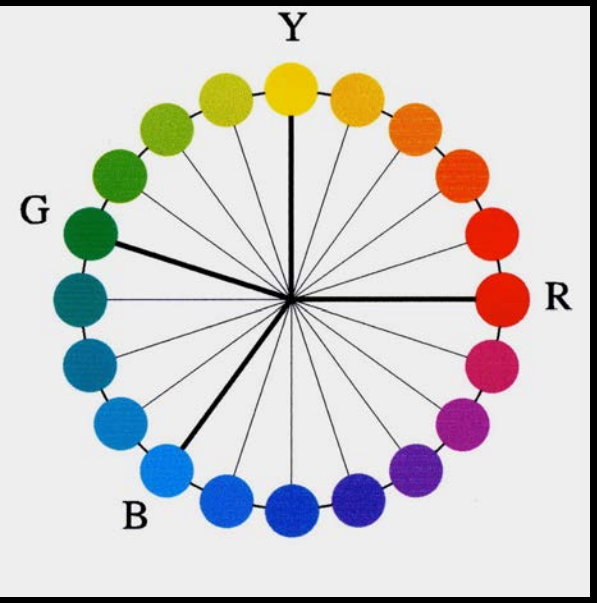
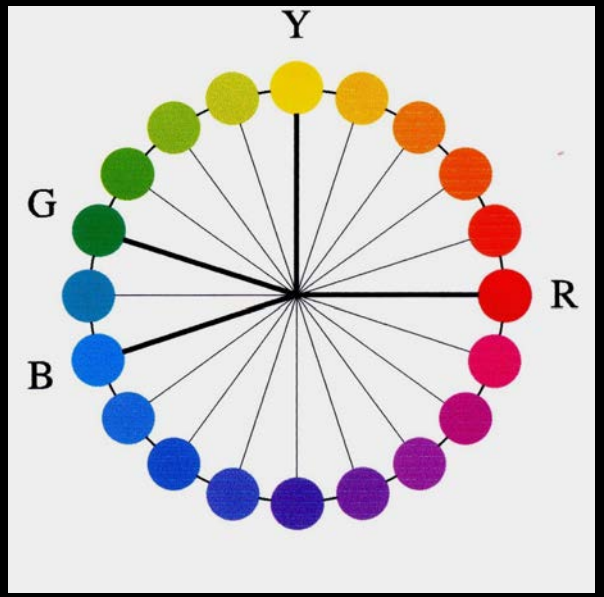


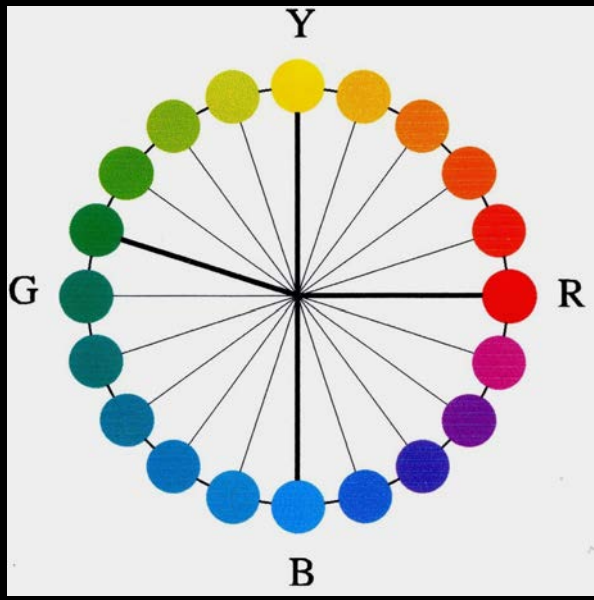
Chart to illustrate different
complementary colour pairs (partners)
as defined in different ways.







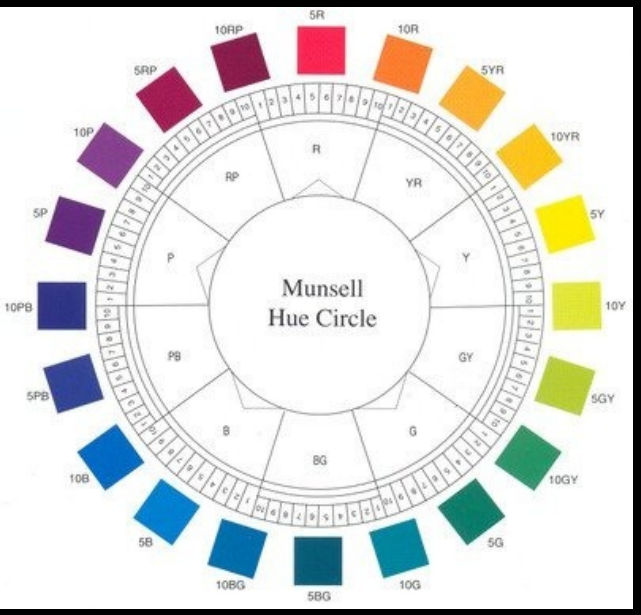




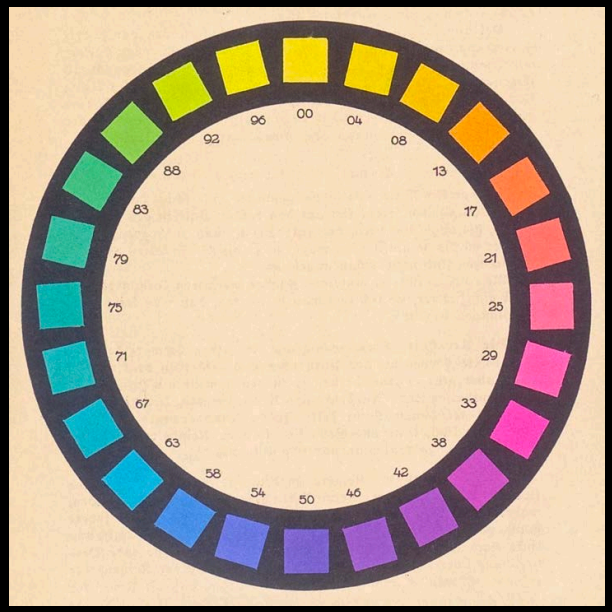
After-image partners

Subtractive partners

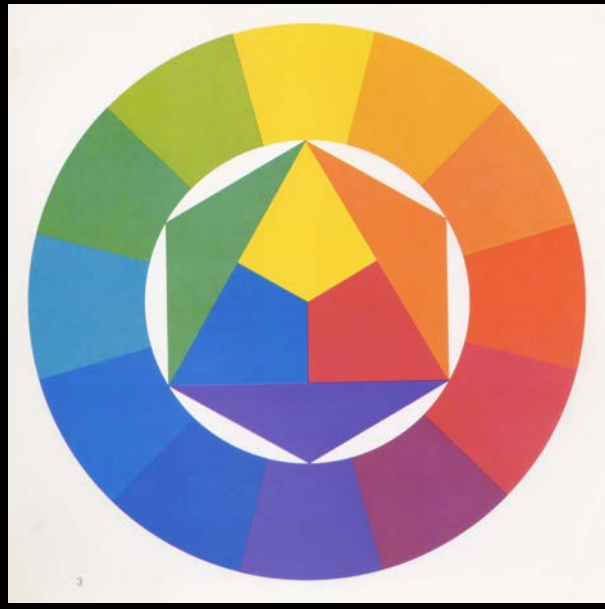
Partitive partners



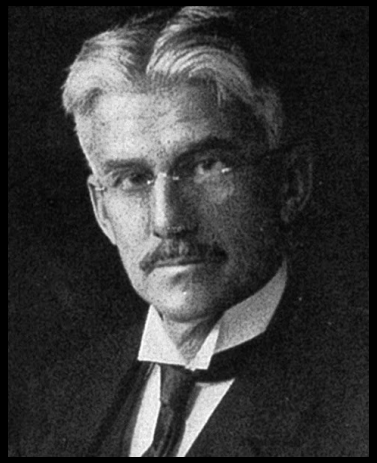
Albert Munsell

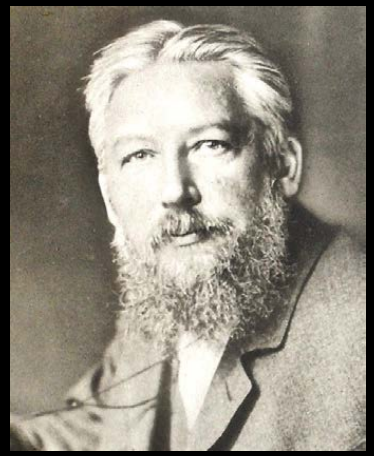


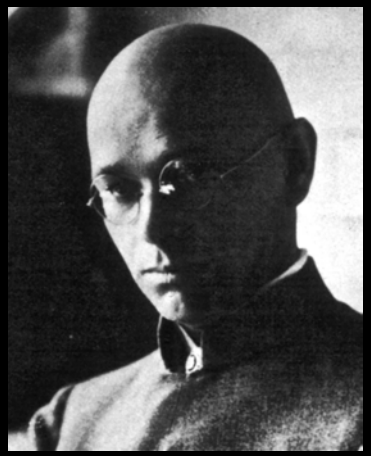
Wilhelm Ostwald

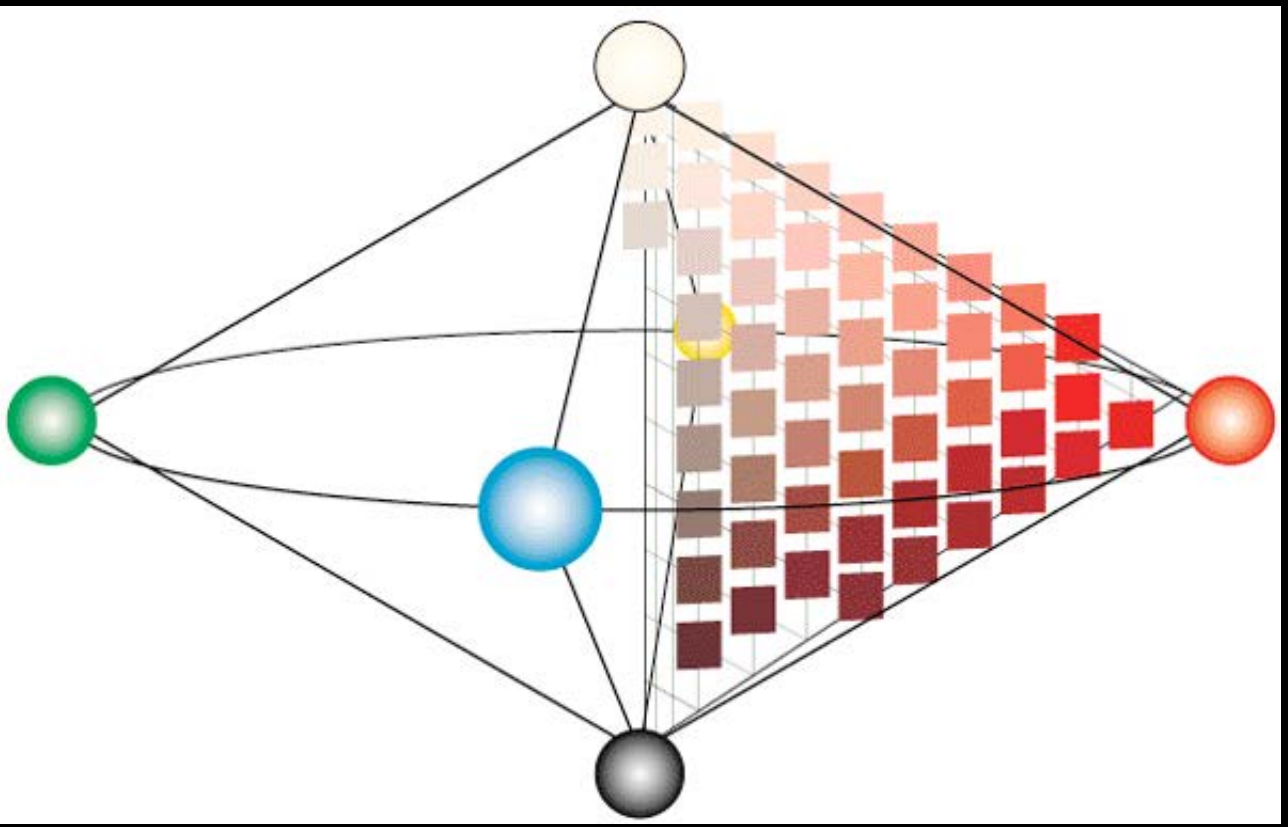


Johannes Itten







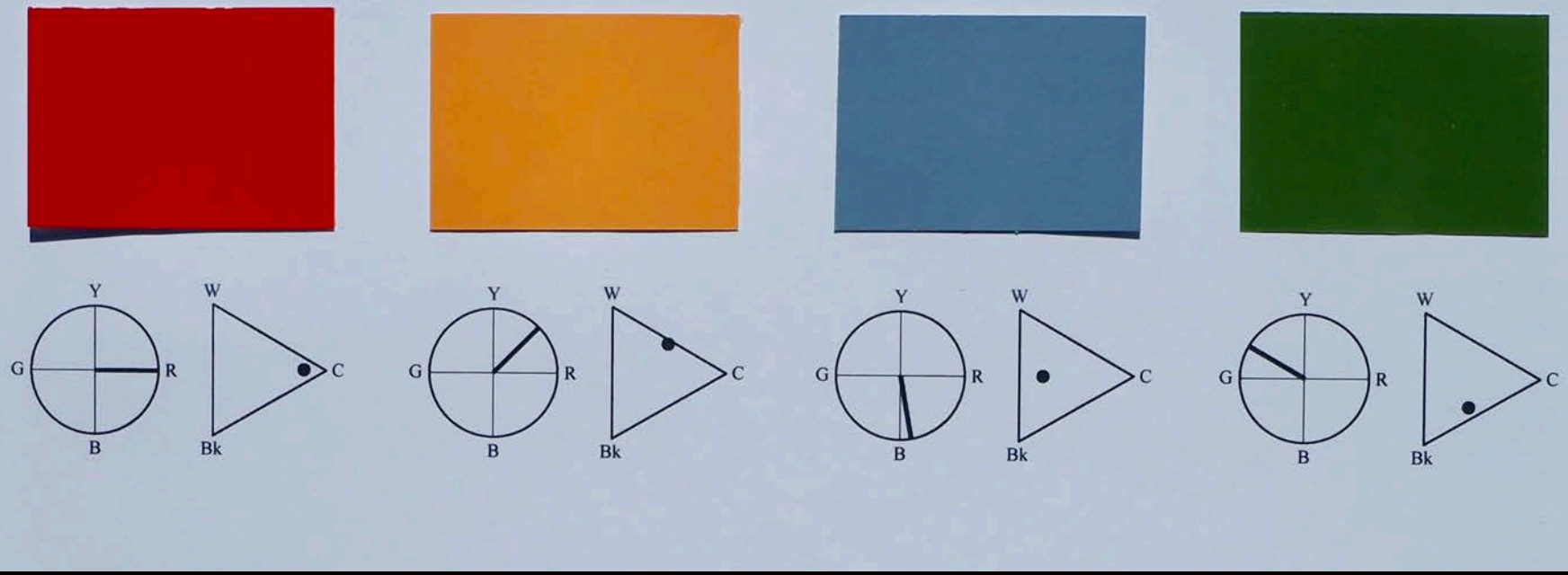


NATURAL COLOUR SYSTEM (NCS)

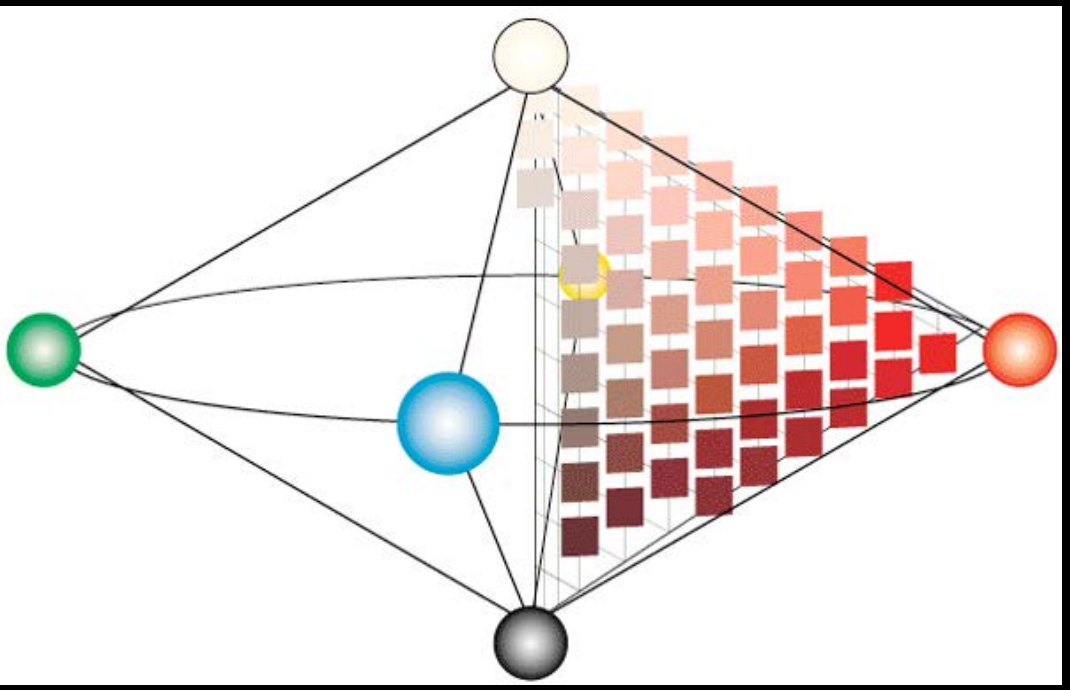
Anders Hård

Bergen Kunsthåndverkskolen

Grete Smedal

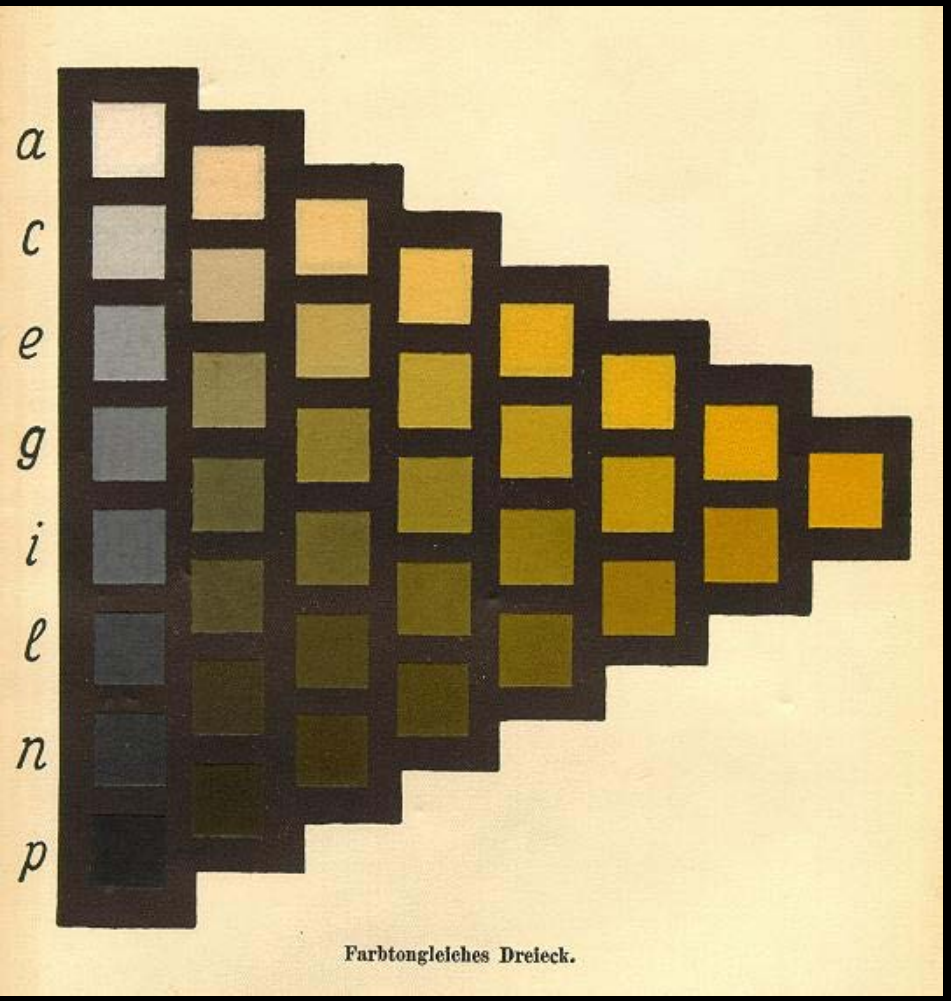


Colour circles and colour triangles marked to indicate
the hues and nuances of colours in the NCS



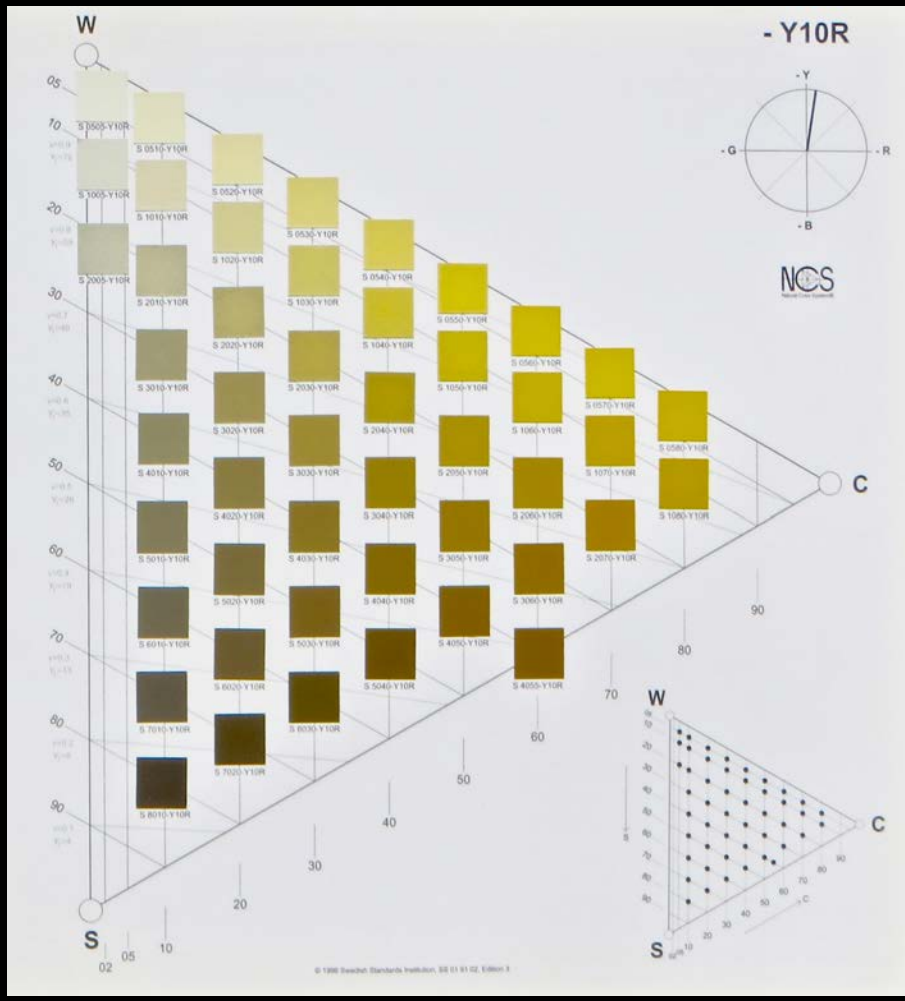
NATURAL COLOUR SYSTEM (NCS)

OSTWALD SYSTEM

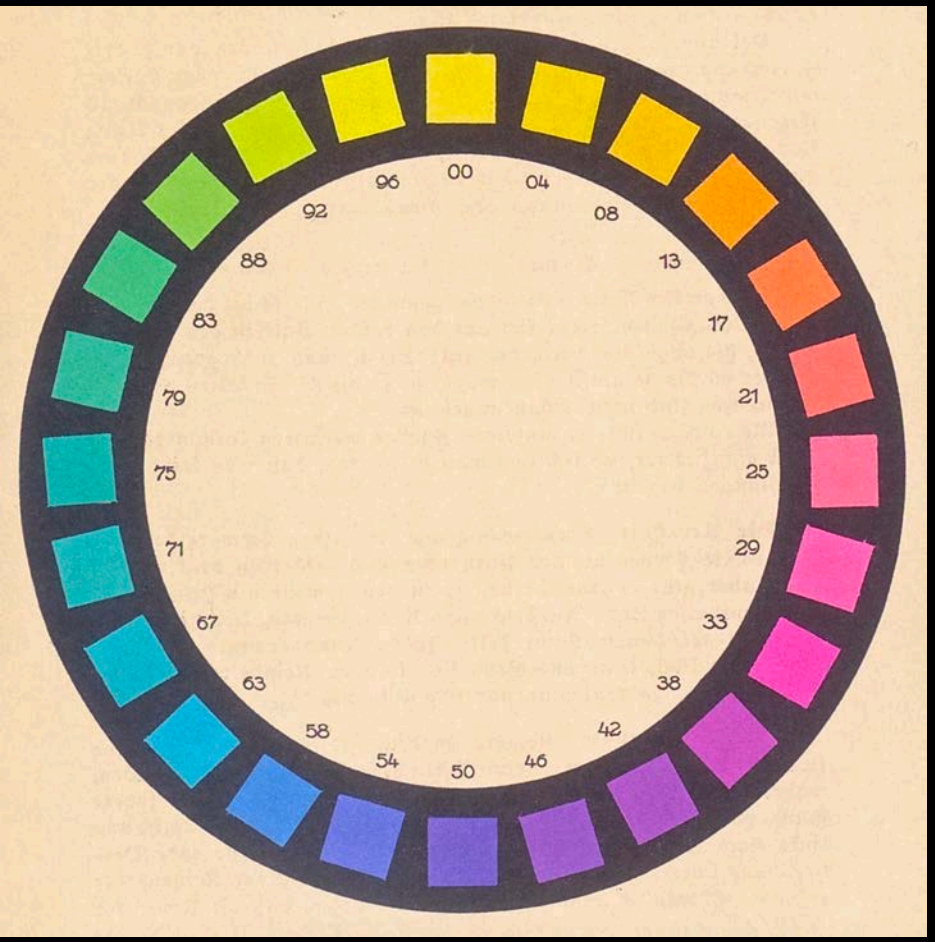


Farbtongleiches Dreieck.

OSTWALD SYSTEM



NATURAL COLOUR SYSTEM (NCS)



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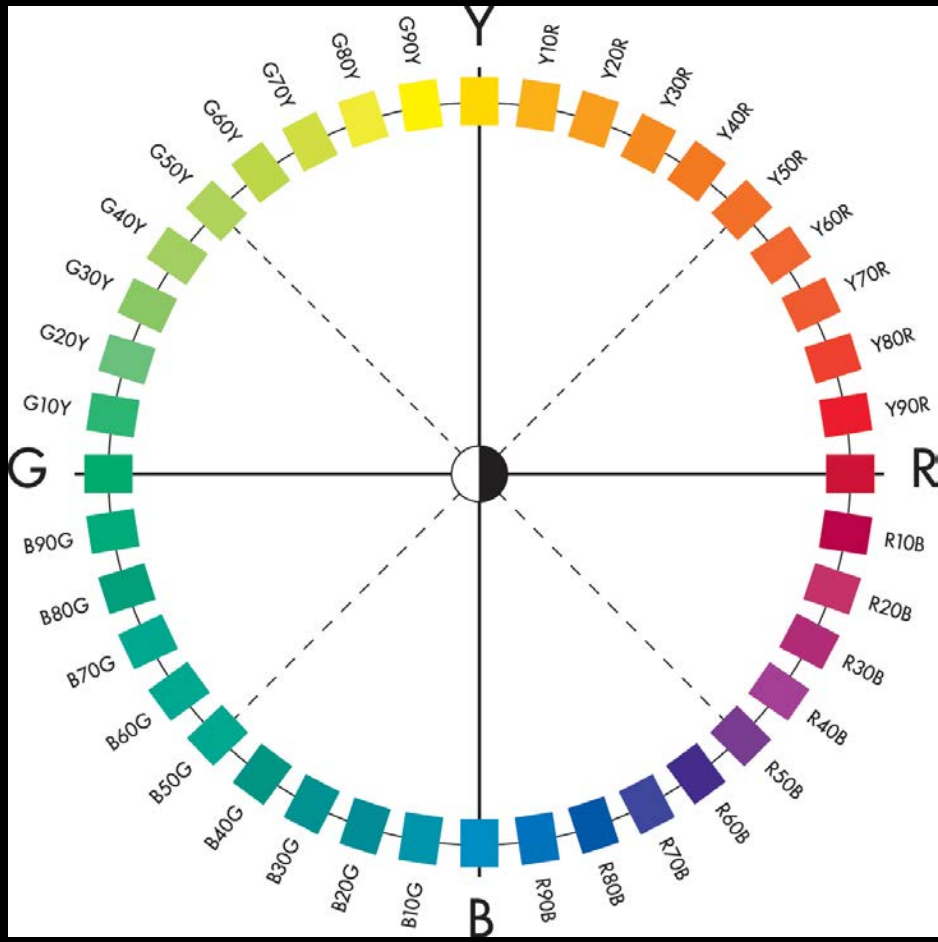
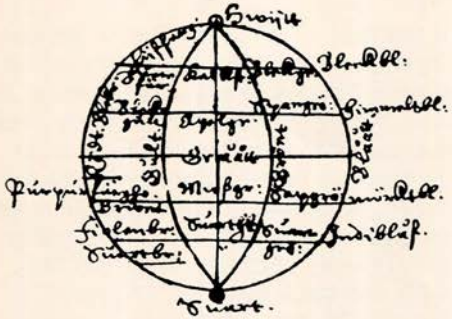


NATURAL COLOUR SYSTEM (NCS)

Final invitation
for



THE FORSIUS SYMPOSIUM ON COLOUR ORDER SYSTEMS

and Environmental Colour Design

to be held at
Nordiska Folkhögskolan
in Kungälv near Gothenburg
Sweden
August 25 to 29

AIC
Association Internationale de la Couleur
International Colour Association
Internationale Vereinigung für die Farbe

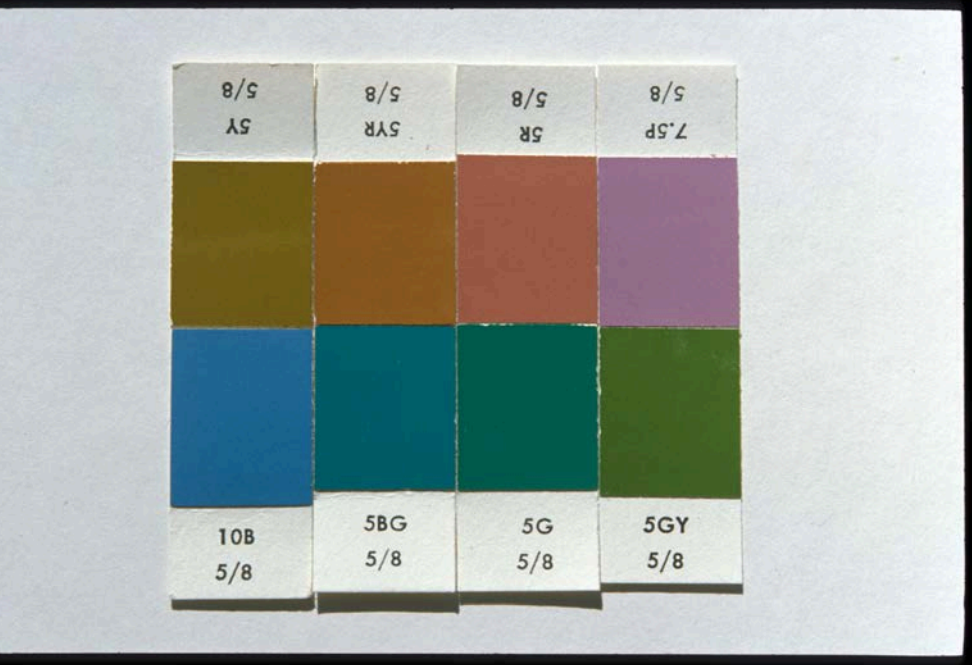
MIDTERM MEETING 1983

including meetings with the AIC Study Groups on
— Colour Order Systems
— Environmental Colour Design

Latest date for registration:
July 1

Werner Spillmann

While Munsell's parameters "value" and "chroma" are very useful for visual analysis of single colours by interpolation, the NCS parameters "blackness" and "chromaticness" … seem … more suitable for solving problems of colour juxtaposition in environmental design. It is not the place here to prove this statement. The following hint may be enough: the same NCS nuance gives to colours of different hues an optimum of inner relationship keeping on the other hand the natural contrast in value analogous to the spectrum.



Chips from the *Munsell Book of Color.*
Same value/chroma: 5/8

Chips from the NCS Colour Album
Same nuance: 3050

5Y 5/8

5YR 5/8

5R 5/8

7.5P 5/8

10B 5/8

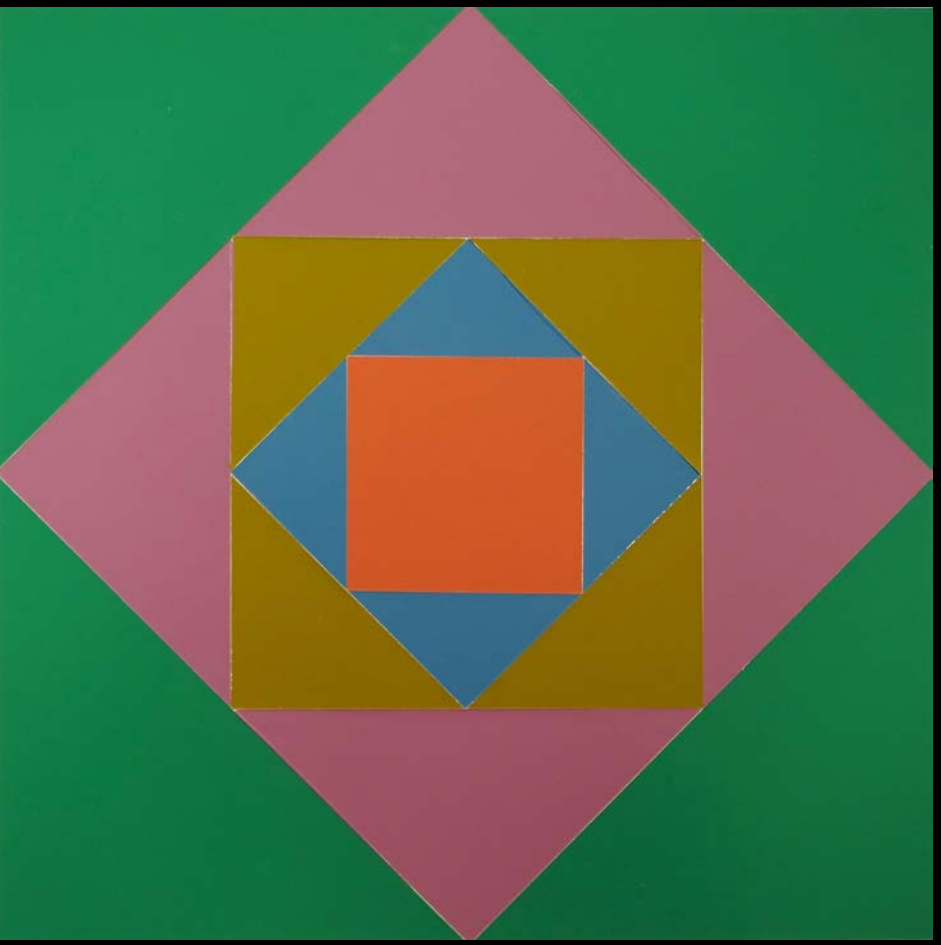
5BG 5/8

5G 5/8

5GY 5/8

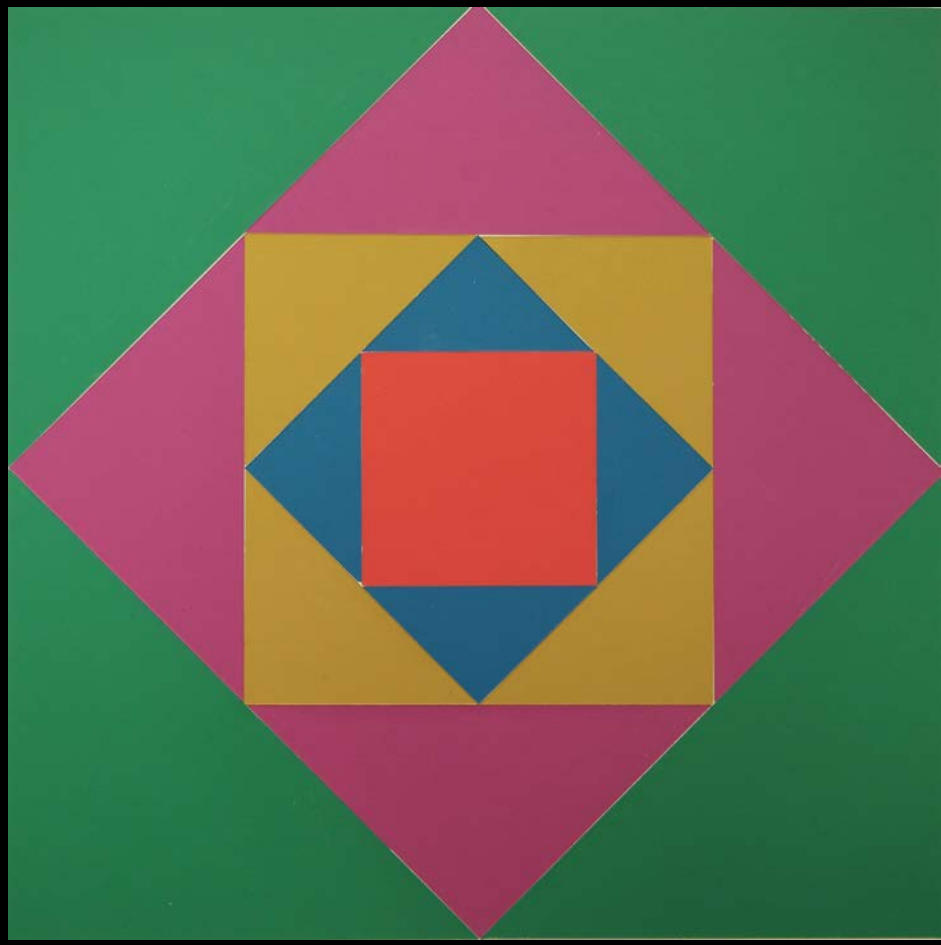
Painting by Kirsty Sadler

A



MUNSELL
Same value and chroma: 5/8

B



NCS
Same nuance: 3050

LJUSHETSMÄTARE/LIGHTNESS METER

Mätning av visuell ljushet L:

Lägg mätaren ovanpå färgprovet som skall ljushetsbestämmas.
Flytta hålen fram och åter över färgprovet.
Gränslinjen (konturen) mellan färgprovet och mätarens gråprover synes variera i tydlighet.
Där denna gränslinje är minst tydlig, är gråprovet och det bakomliggande färgprovet lika ljusa.
Avläs ljushetstalet L.

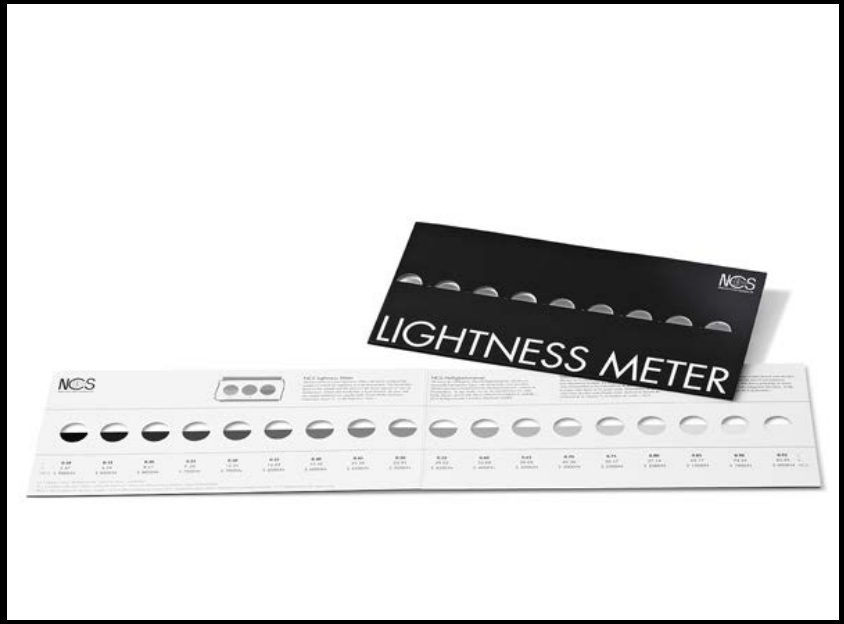
Measurement of visual lightness L:

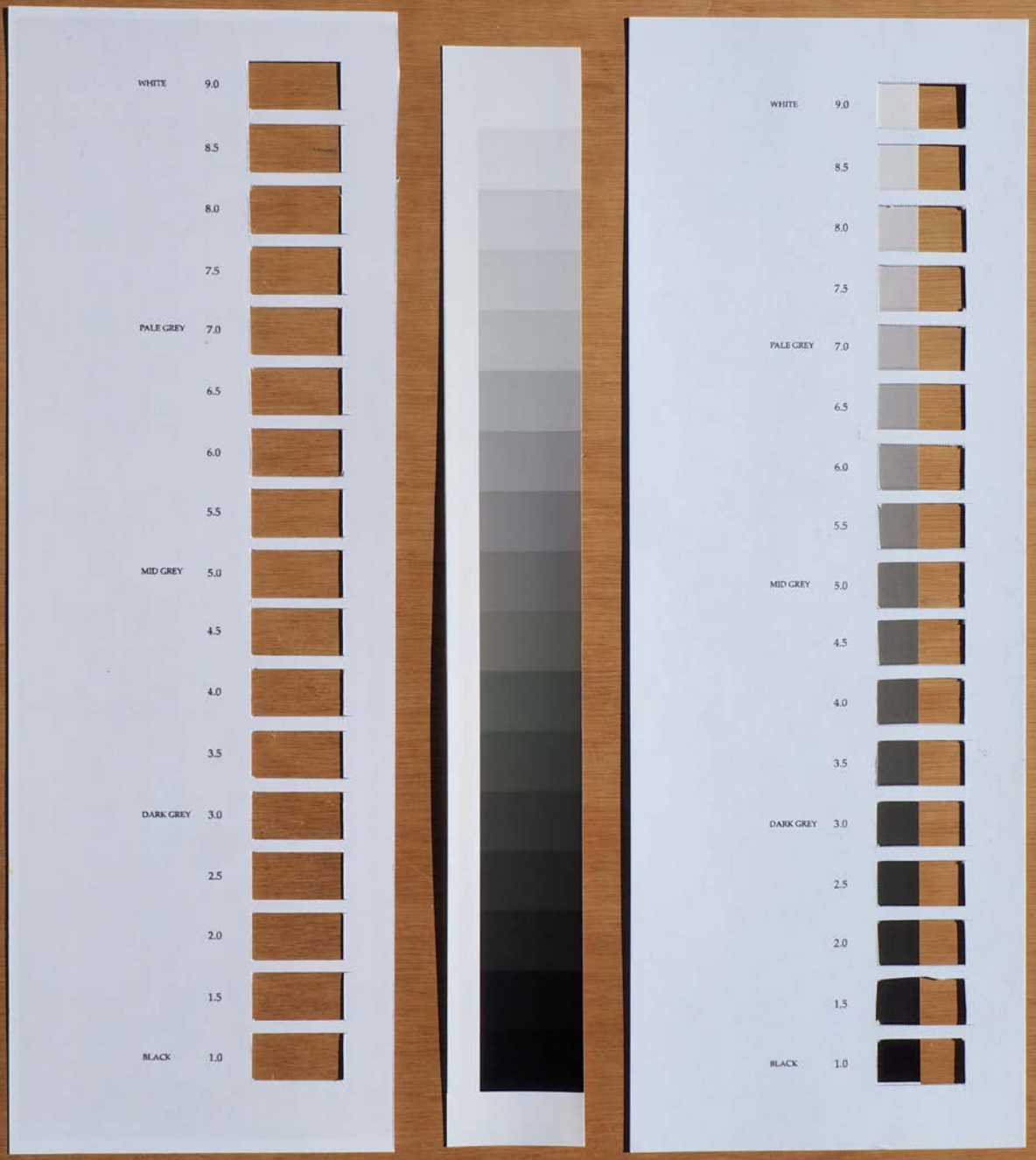
Place the meter on top of the colour sample of which the lightness is to be determined.
Move the holes to and fro over the colour sample.
The borderline (the contour) between the colour sample and the greys of the meter appears to vary in distinctness.
Where this borderline is minimally distinct, the grey and the colour sample in back of it are equally light.
Read off the lightness value L.

NCS Natural Color System®

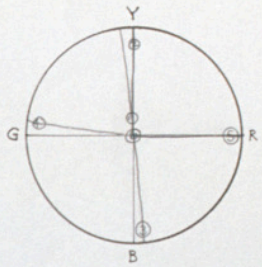
L	0.10	0.15	0.20	0.25	0.30	0.35	0.40	0.45	0.50	0.55	0.60	0.65	0.70	0.75	0.80	0.85	0.90	0.95	L
Y_j	3.84	5.96	8.24	10.7	13.3	16.2	19.3	22.7	26.4	30.5	35.0	40.0	45.6	51.9	59.0	67.0	76.4	87.2	Y_j
NCS	9000	8500	8000	7500	7000	6500	6000	5500	5000	4500	4000	3500	3000	2500	2000	1500	1000	0500	NCS

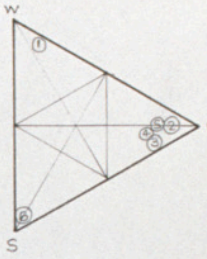
L Ljushetstal/Lightness value *Y_j Ljusreflektansfaktor/Luminous reflectance factor* *NCS SIS färgbeteckning för gråproverna/SIS colour notation of the greys*

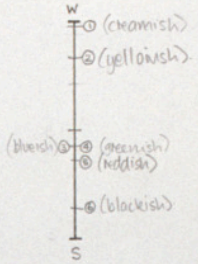


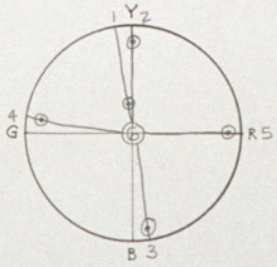

WHITE 9.0
8.5
8.0
7.5
PALE GREY 7.0
6.5
6.0
5.5
MID GREY 5.0
4.5
4.0
3.5
DARK GREY 3.0
2.5
2.0
1.5
BLACK 1.0
WHITE 9.0
8.5
8.0
7.5
PALE GREY 7.0
6.5
6.0
5.5
MID GREY 5.0
4.5
4.0
3.5
DARK GREY 3.0
2.5
2.0
1.5
BLACK 1.0

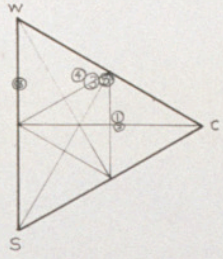
① creamish G9DY
② yellowish Y
③ blueish B
④ greenish G1DY
⑤ reddish R
⑥ blackish S

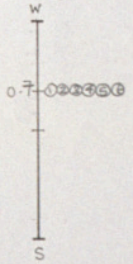






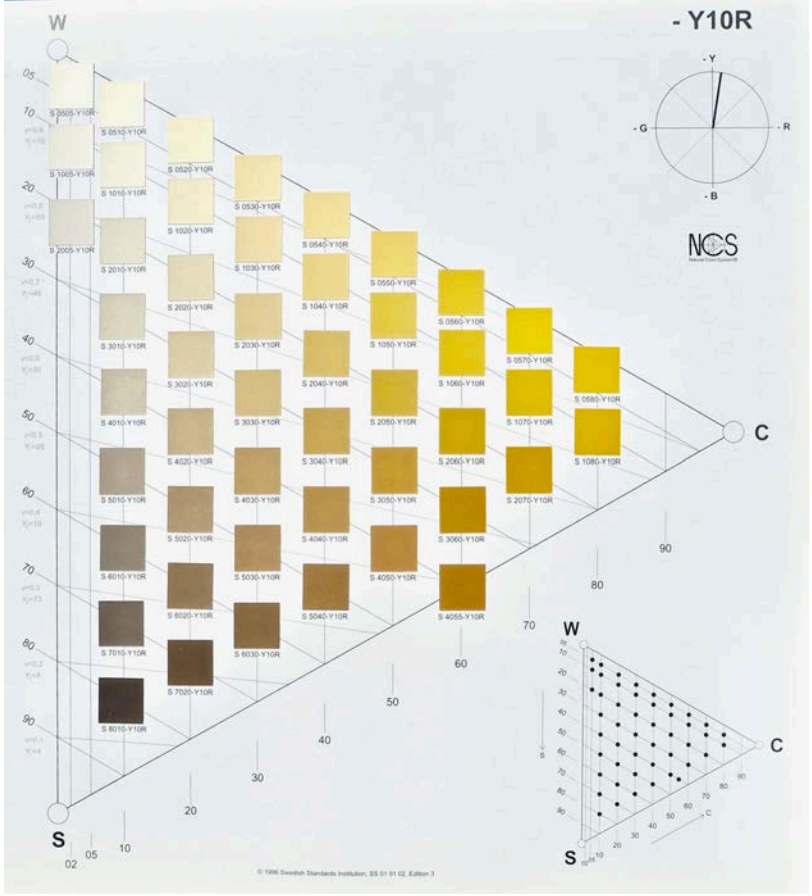






Exercise in colour transformation by Emma Fletcher


A A A A A A A A A
B B B B B B B B B
C C C C C C C C C
D D D D D D D D D
E E E E E E E E E
F F F F F F F F F
G G G G G G G G G
H H H H H H H H H
I I I I I I I I
J J J J J J J J J
K K K K K K K K K
L L L L L L L L L
M M M M M M M M M
N N N N N N N N N
O O O O O O O O O
P P P P P P P P P
Q Q Q Q Q Q Q Q Q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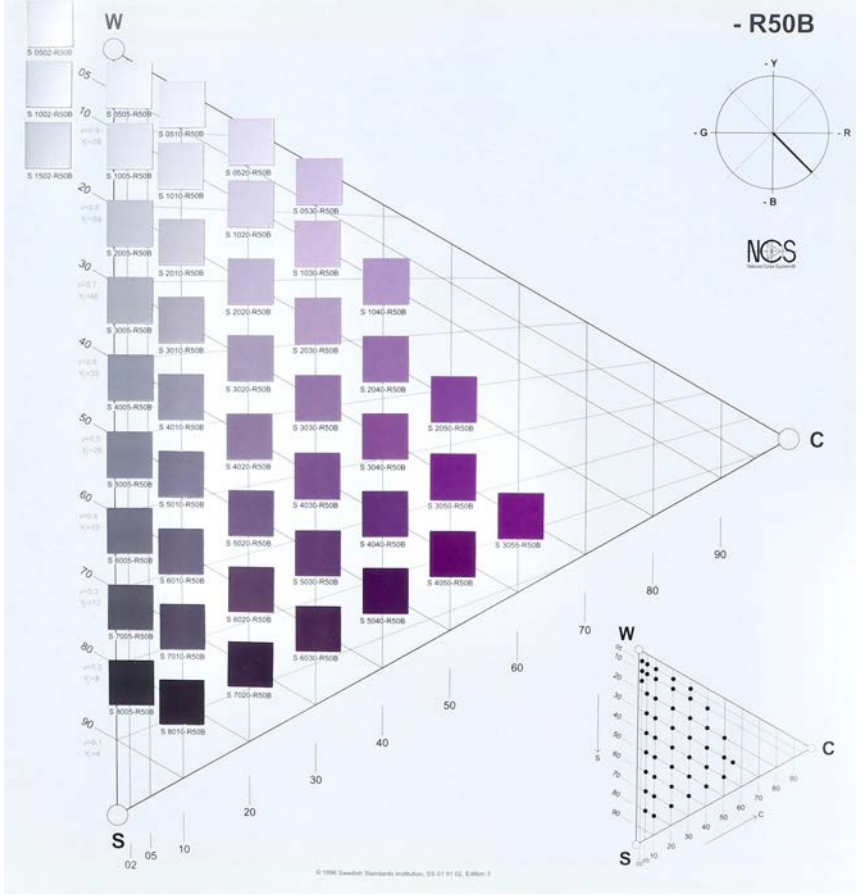
- Y
- G
- R
- B
NCS
C
S
W
C
S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- Y
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- R
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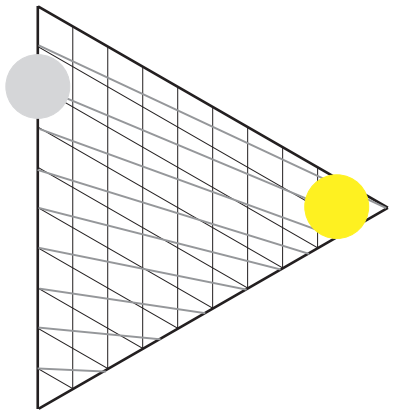
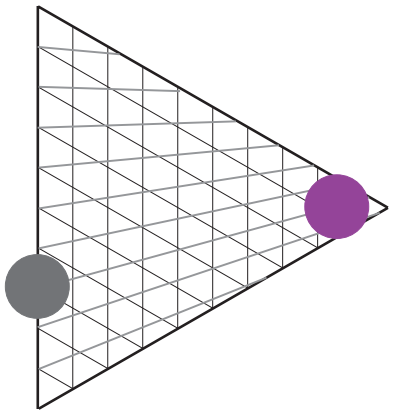
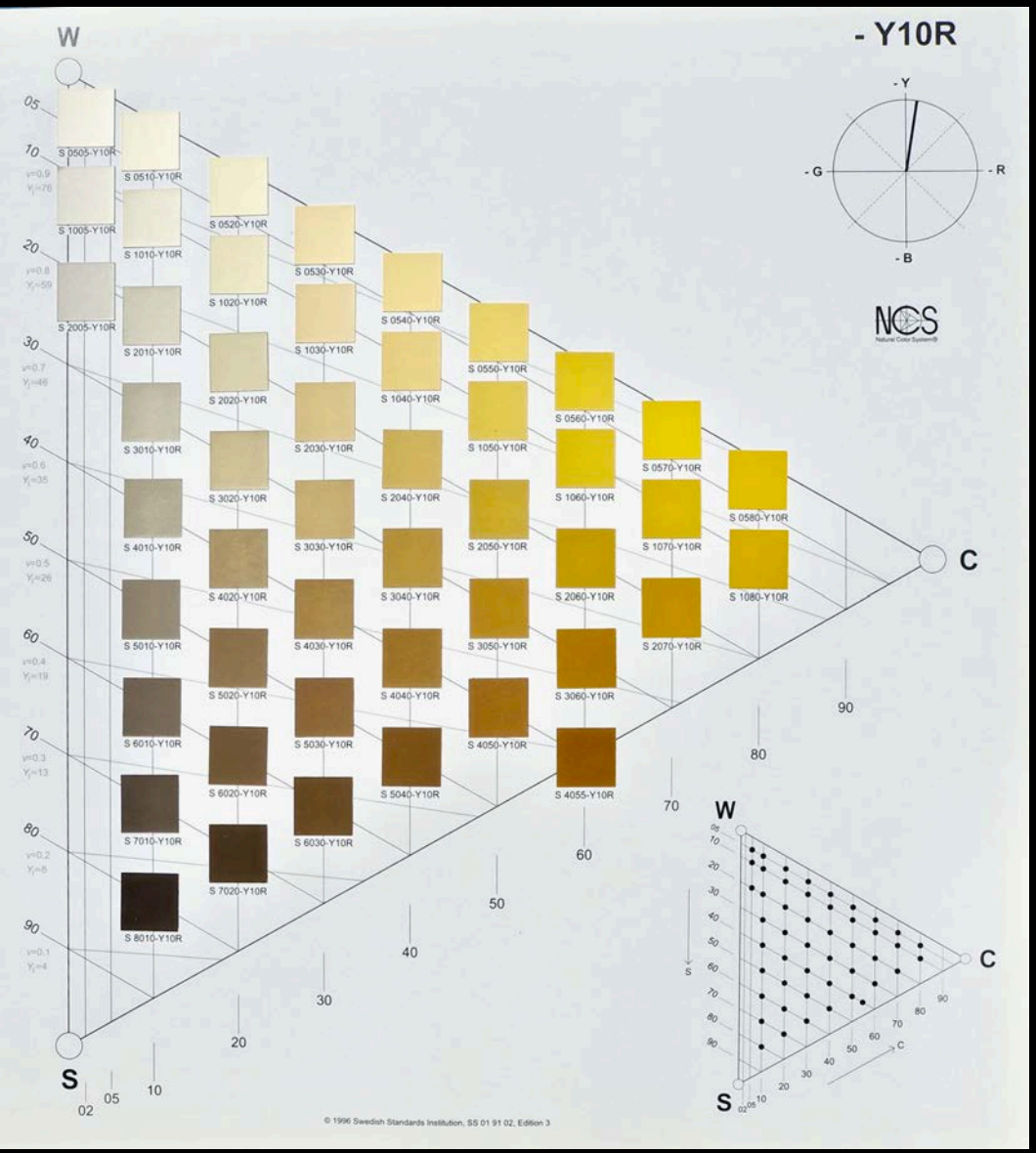
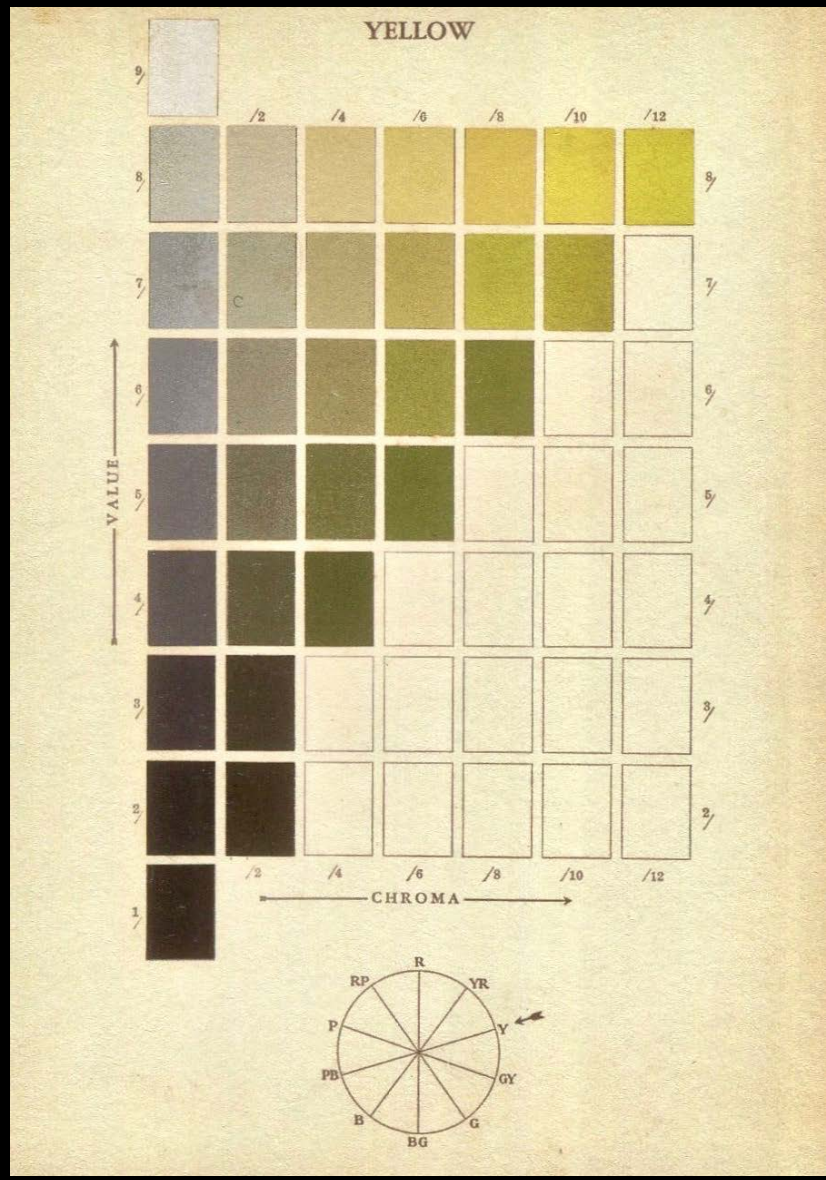
NCS
C
S
W
C
S



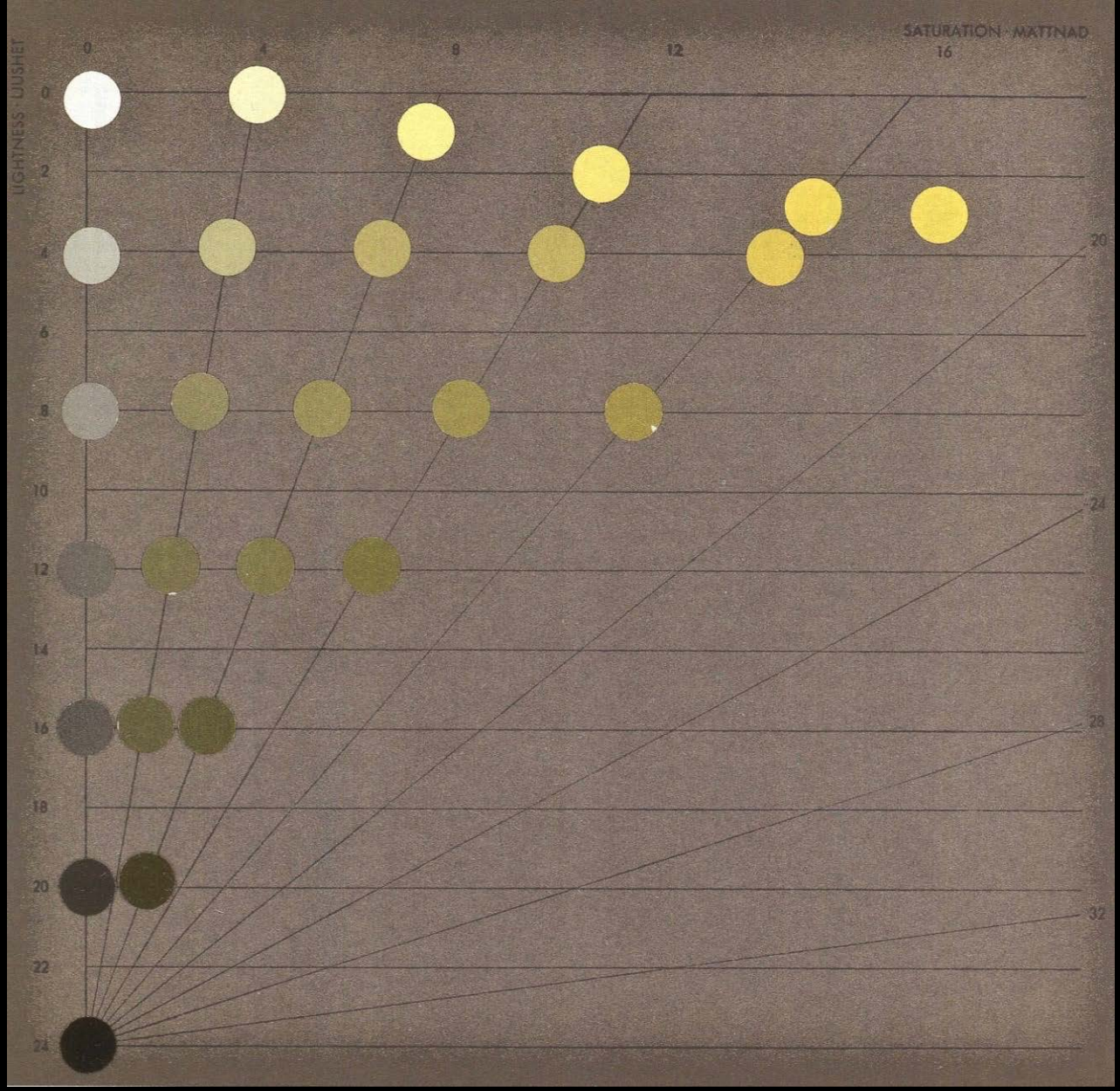




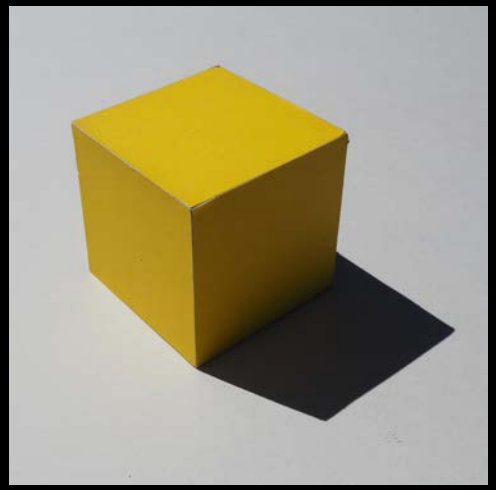
NATURAL COLOUR SYSTEM (NCS)



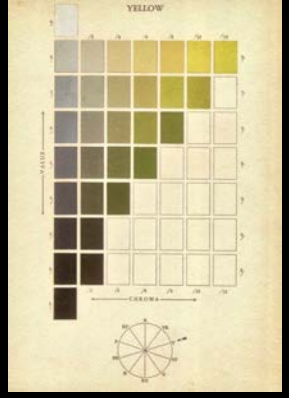
MUNSELL SYSTEM

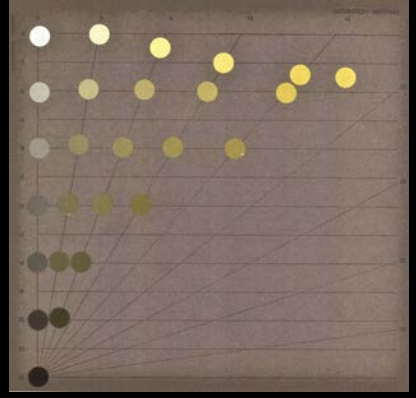


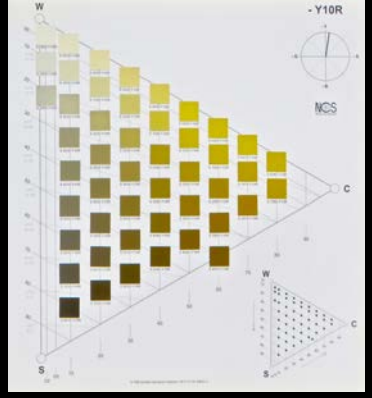
Sven Hesselgren

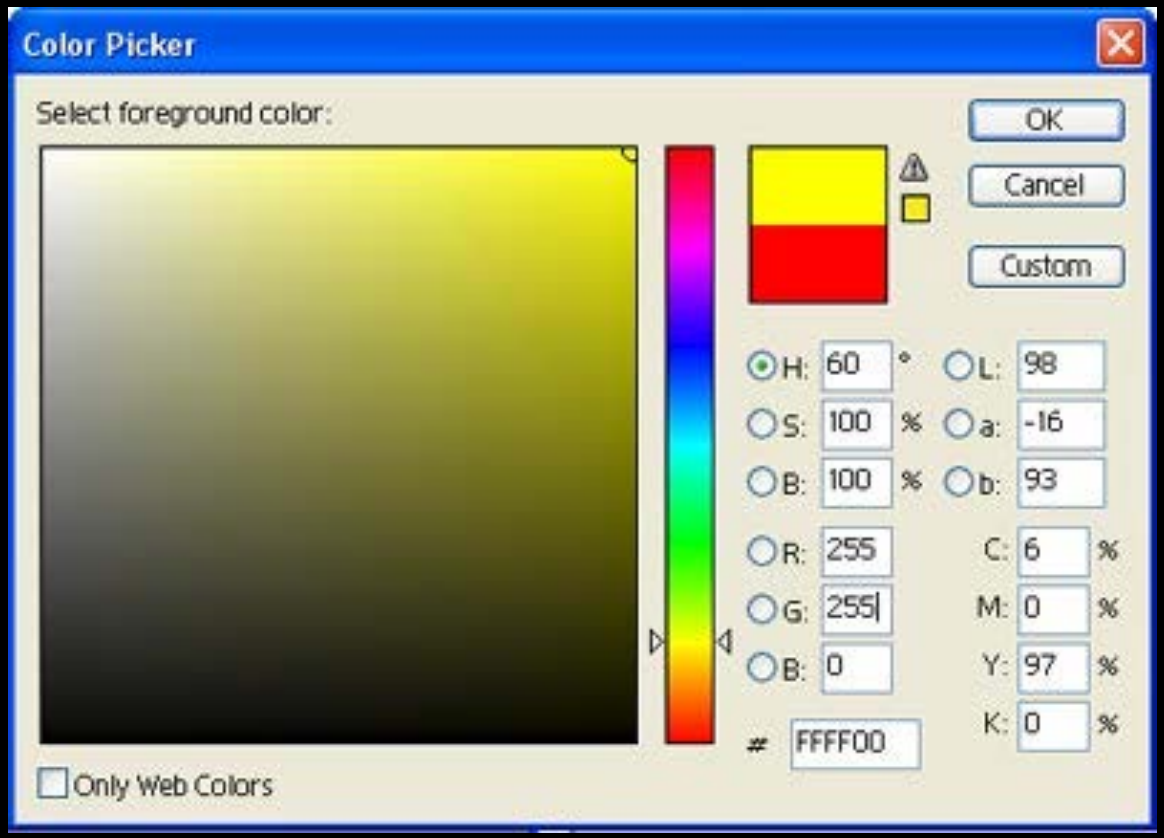


HESSELGREN COLOUR SYSTEM

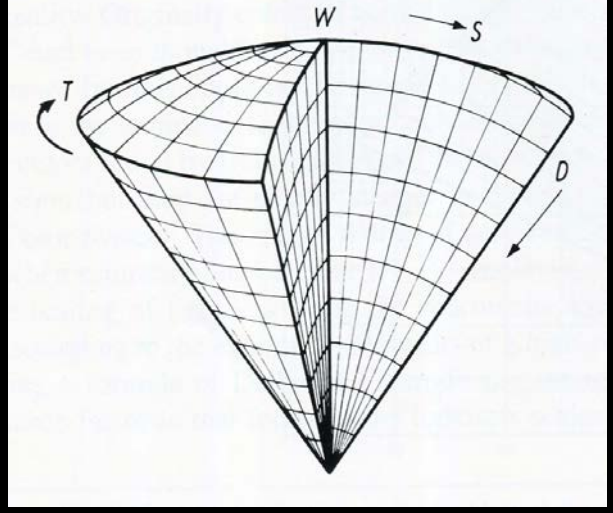


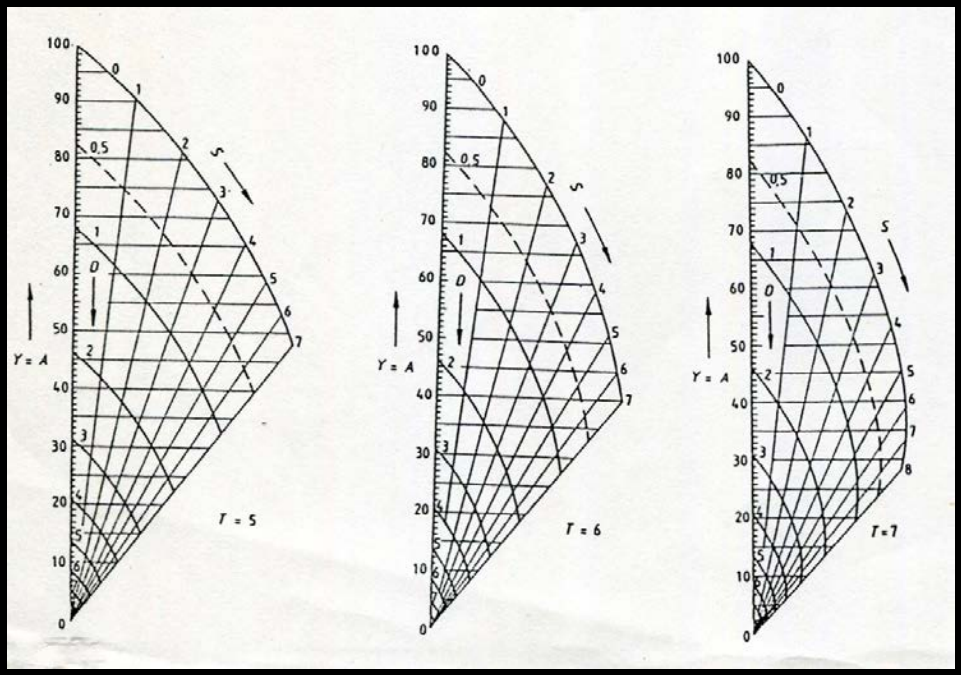






HSB COLOUR PICKER



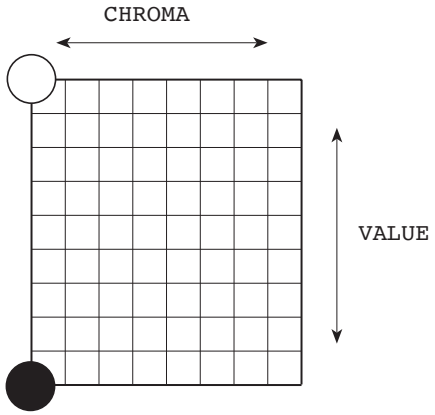


DIN COLOUR SYSTEM

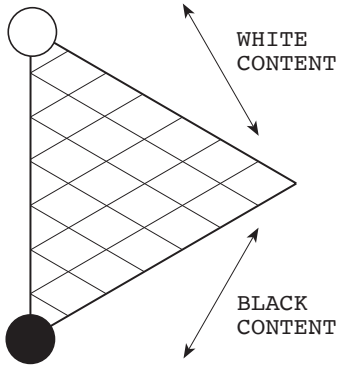
Manfred Richter

DIN COLOUR SYSTEM

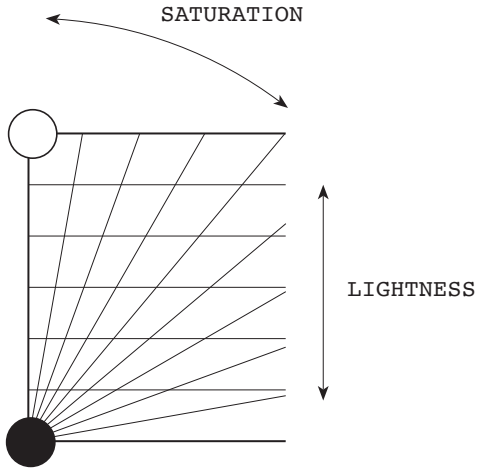
HSB COLOUR PICKER



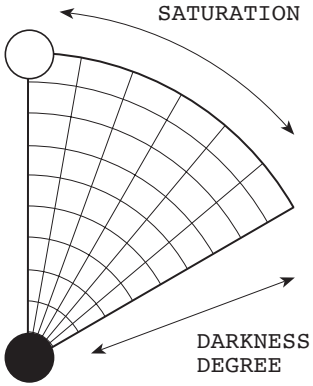
Munsell



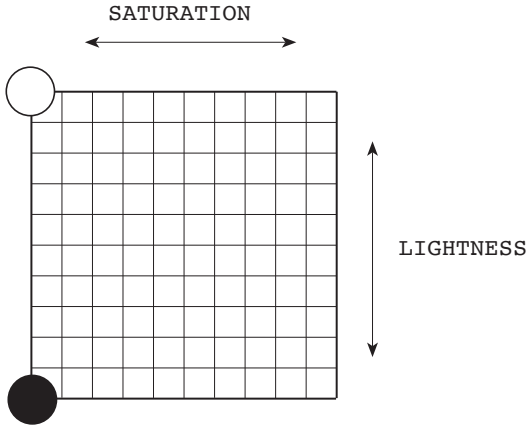
Ostwald



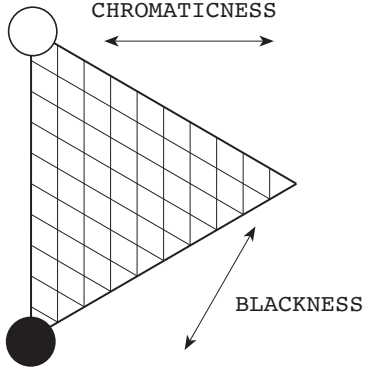
Hesselgren



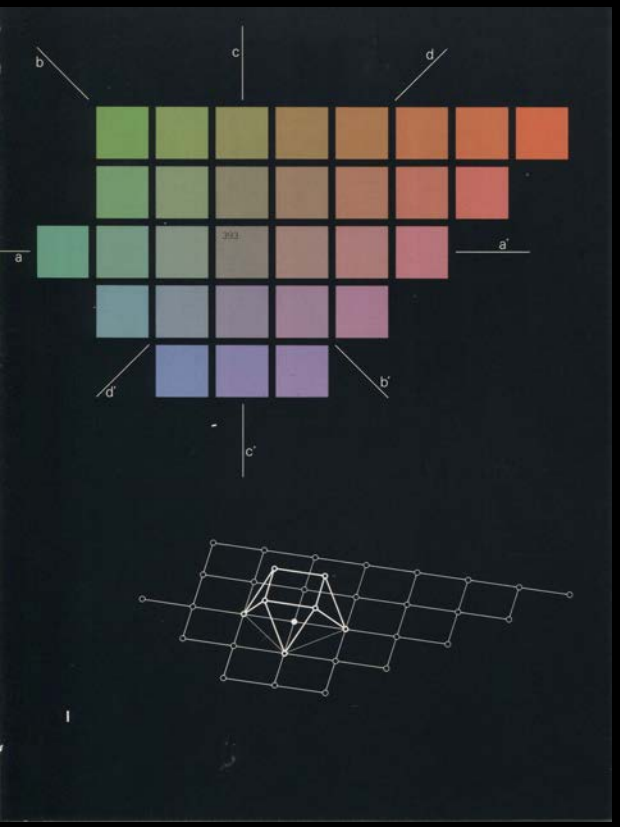
DIN

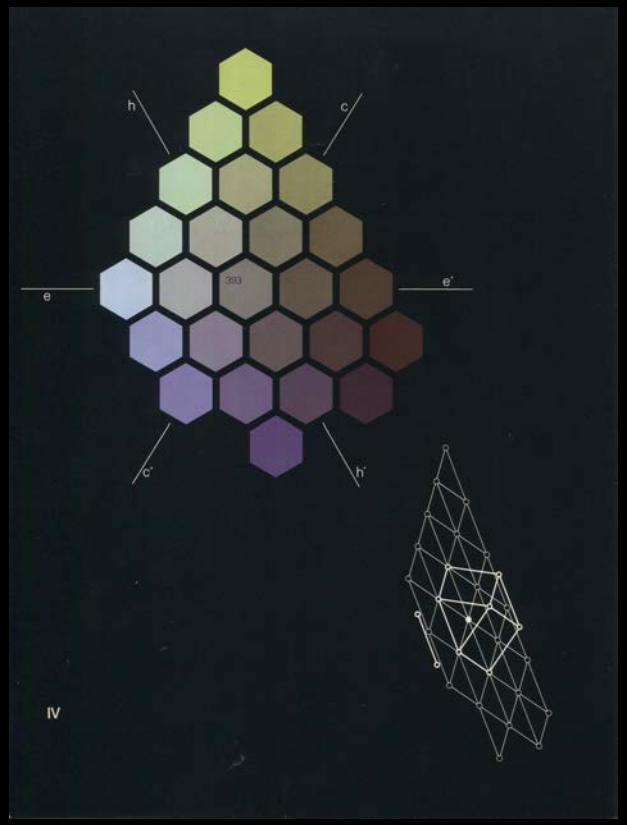


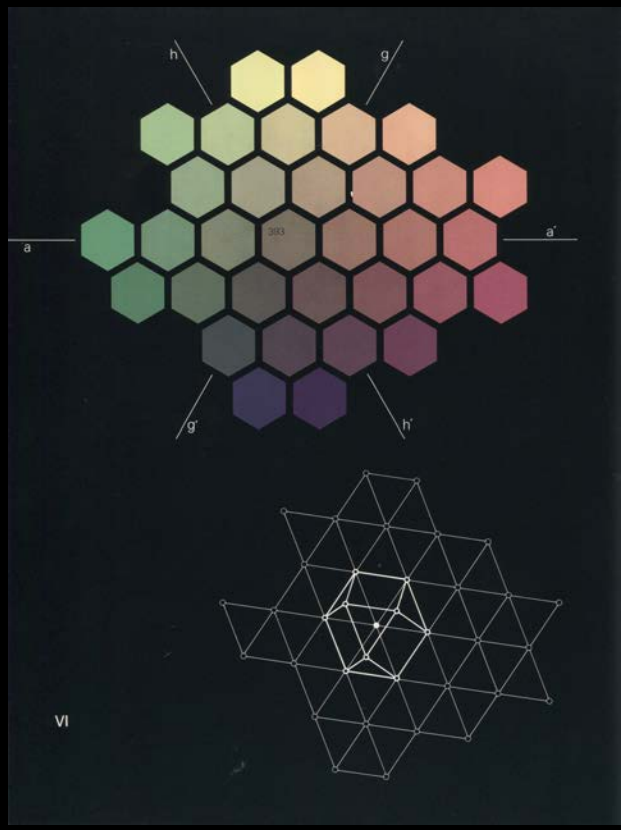
Coloroid



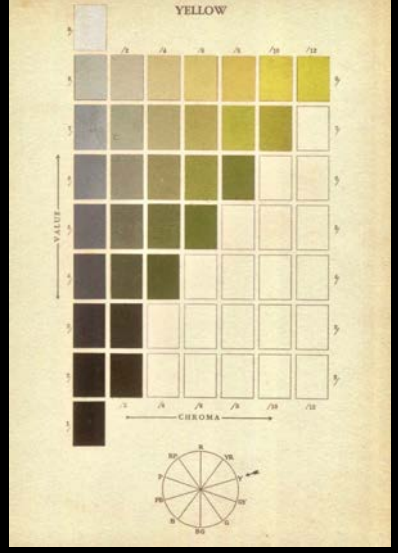
NCS



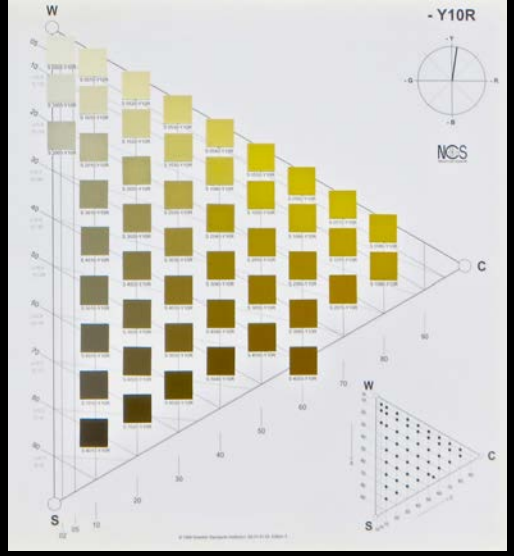




OPTICAL SOCIETY OF AMERICA
UNIFORM COLOR SCALES



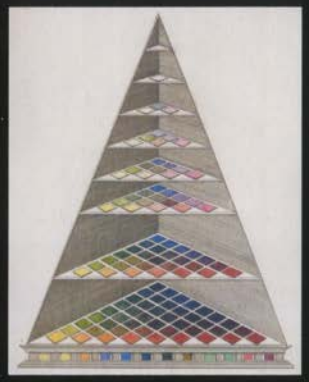
MUNSELL



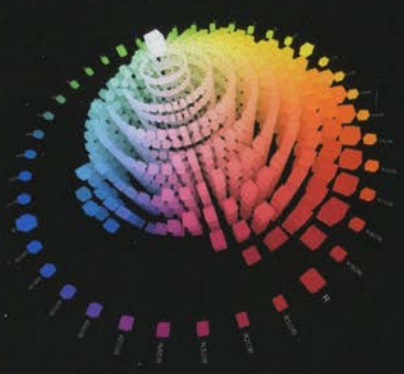
NCS

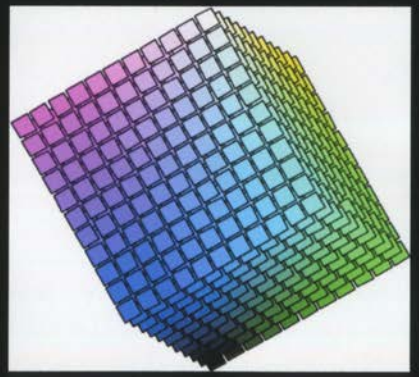
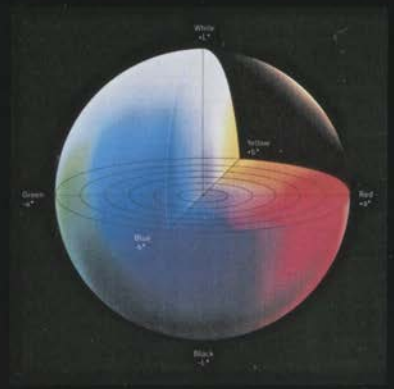
Fred Billmeyer

It cannot be otherwise than that these two systems, and all others, are sampling the same underlying world of color, even if very differently. They will without doubt continue to coexist because of the different needs their different guiding principles serve.







Joy Turner Luke

… color solids …

are practical tools.

… It is really

beside the point to

argue about

whether any one

of them is correct

THANK
YOU