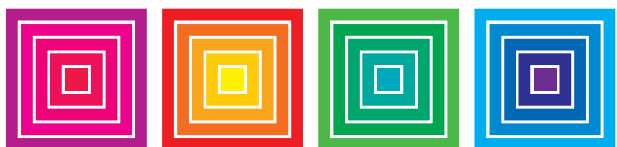




# COLOR TALKS



**Blending the Art and  
Science of Color**

# Taste the Colors with Your Eyes

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Use of color can transform a page



- Color transmits feelings and can either enhance or confuse a message
- Color can create a sense of joy, a feeling of authority, or a sense of security

# Color is the Artist's Tool

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## **In 1666, it also became a Science**

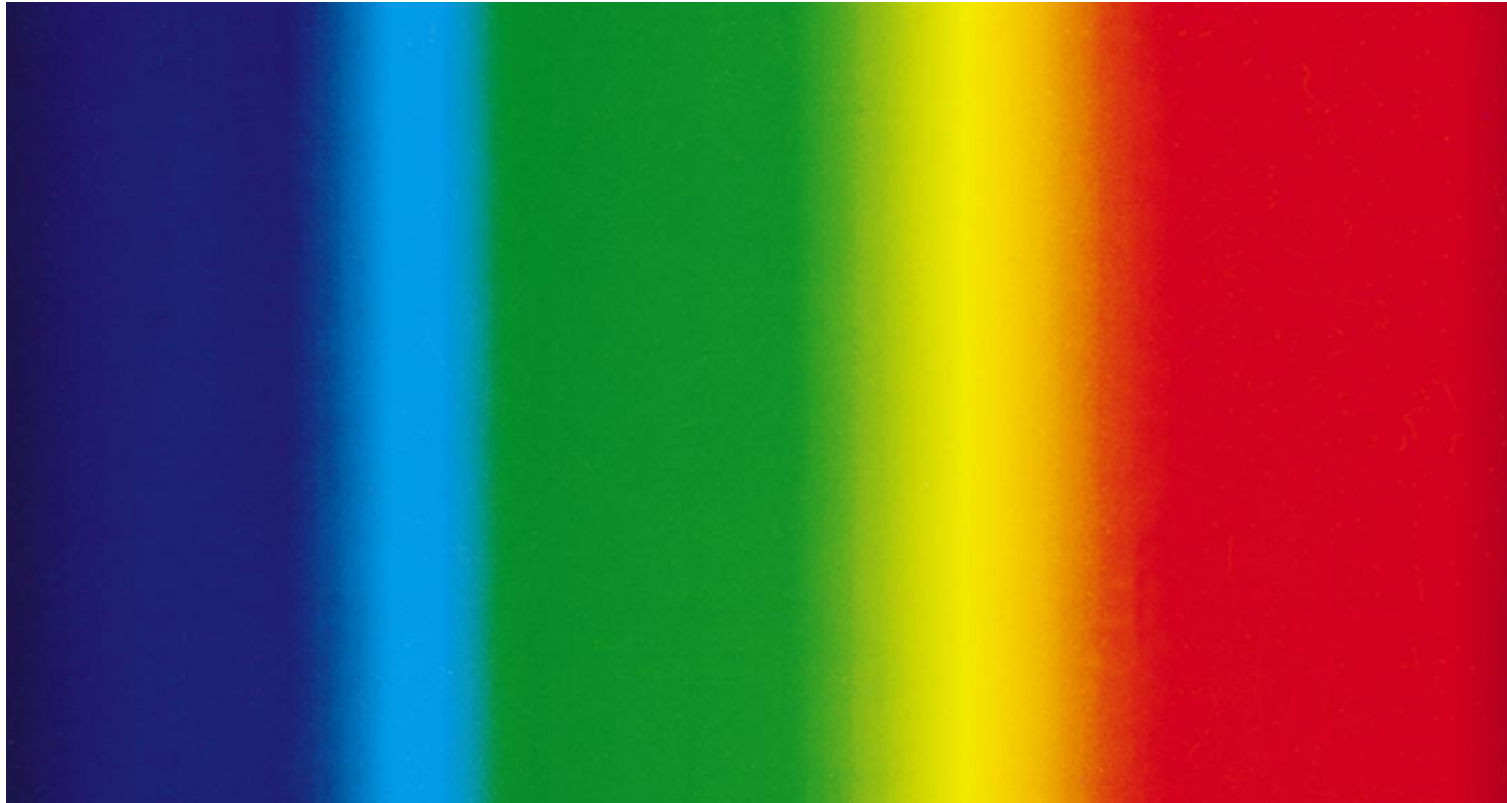
---

- The art community so strongly opposed Newton's scientific laws that it dismissed him entirely
- **Now technology has put art and science together**



# Rainbow of Light

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# The Artist's Color Space

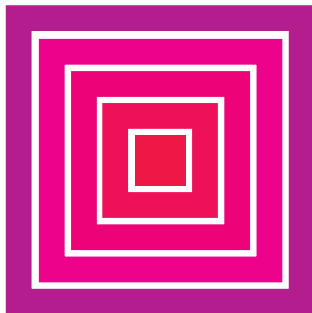


# Bourges Divides Color into Four Parts

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## REDS

*MAUVE, MAGENTA, CRIMSON,  
SCARLET, POSTER RED*

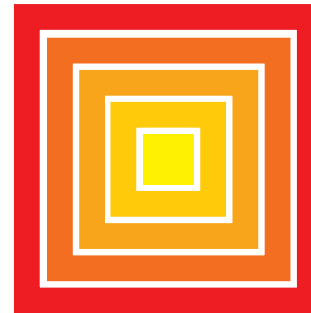


### Red is blood

- Represents highly charged personal feelings acts such as aggression, danger, bravery and love
- The most frequently used colors in creative arts
- The first colors to catch the eye by alerting us to pay attention

## YELLOWS

*CORAL, ORANGE, AMBER,  
GOLD, YELLOW*



### Yellow is energy

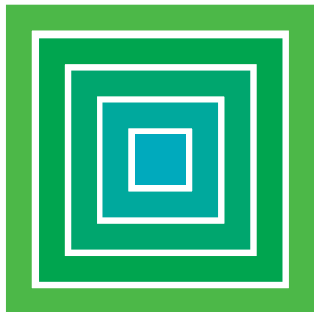
- Represents uncertainty and restlessness
- Warm like fire
- Warns us to be cautious
- The color of ideas and dreams
- Stimulates those with creativity and ideas

# Each Group is Related to the Psyche

---

## GREENS

*LIME, LEAF GREEN, SEA GREEN,  
EMERALD, TEAL*

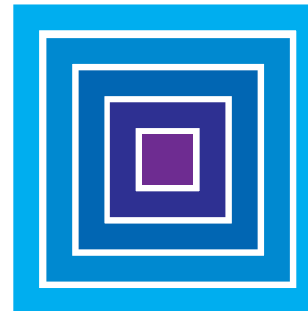


### Green is life

- Represents the eternal cycle of living, dying and being born again
- Steady and dependable like Mother Nature
- The color of trees, vegetables, and foliage: all natural and living things

## BLUES

*CYAN, SKY BLUE, ULTRAMARINE,  
VIOLET, PURPLE*



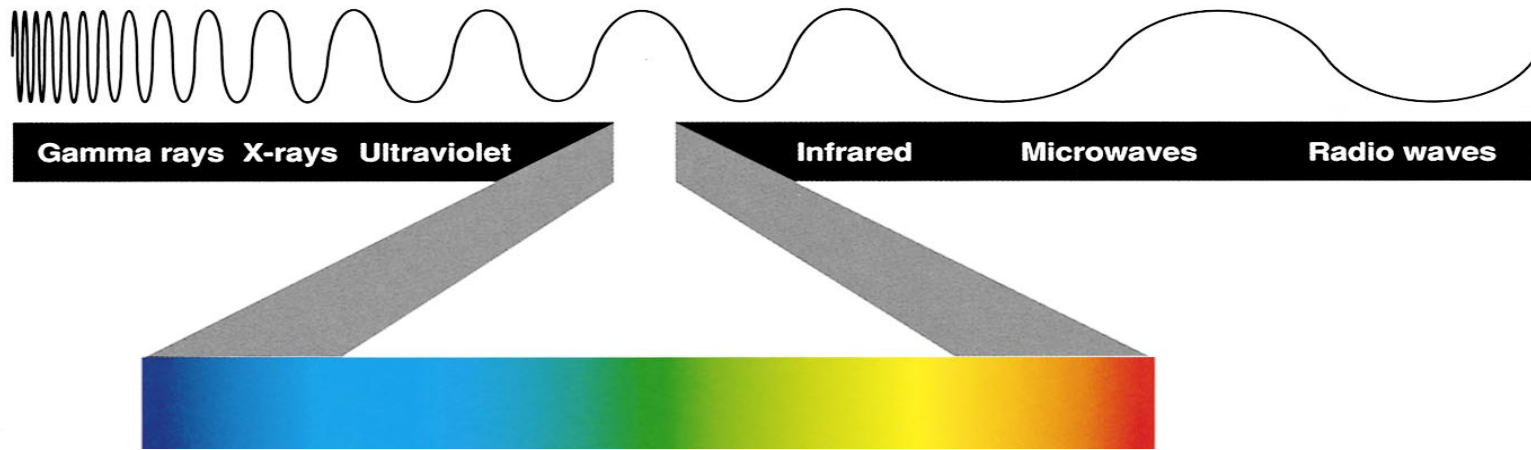
### Blue is peace

- Represents calm and tranquility, like the blue sky
- Distant and remote
- Respected as a sign of law, order and logic
- Made up of the colors most people like



# The Visible Color Spectrum

---

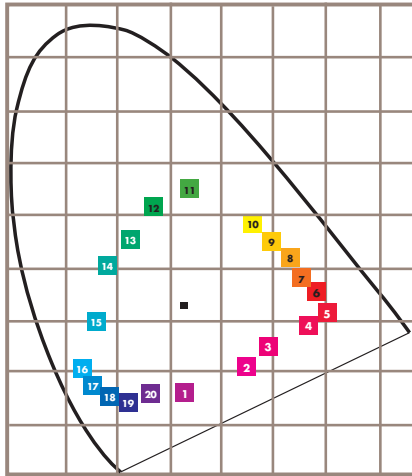


- Light reflected from an object can be measured and numerically described
- All visible colors can be defined and matched by colorimetry

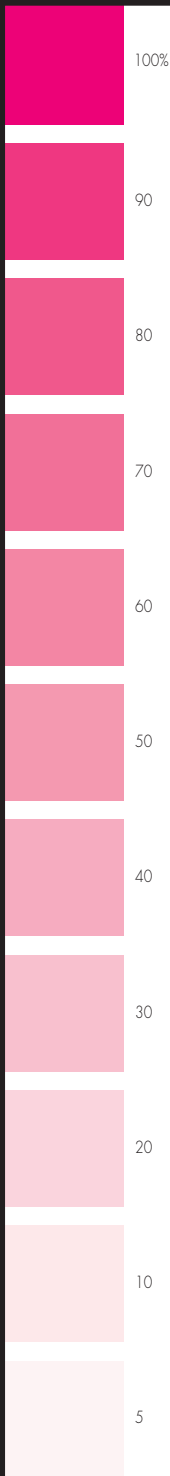
# Color Goes Digital

---

The computer has taken over the world of color imaging






- Graphic systems now rely on sophisticated instrumentation to measure light reflected from a controlled source
- Colors are labeled digitally with specific, unchanging numbers
- Color standards are now in place for art and science to meet through the Bourges Color System



# 3 CRIMSON

## Red Gets Power from Yellow

			BC03
	Cyan		0%
	Magenta		100%
	Yellow		20%

### Position

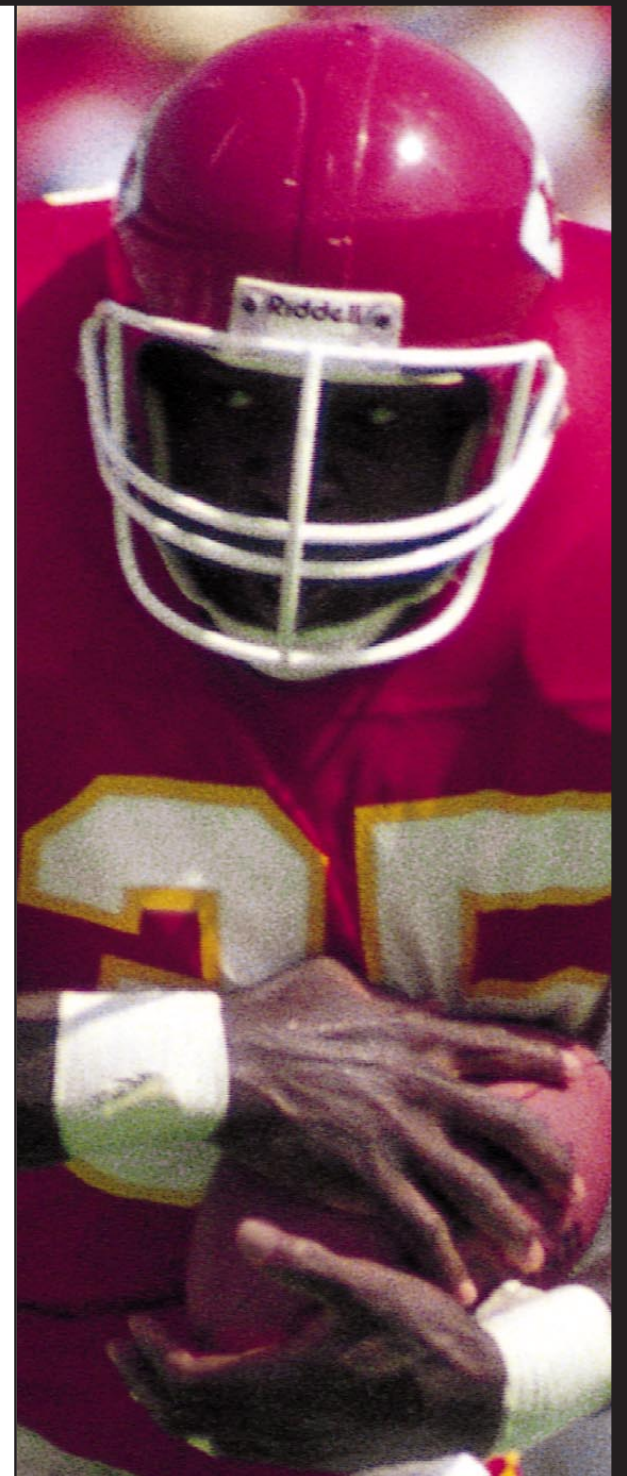
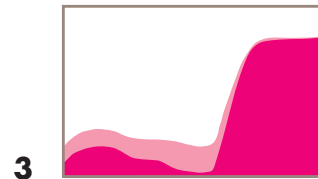
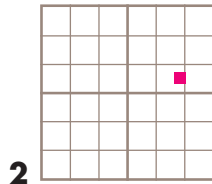
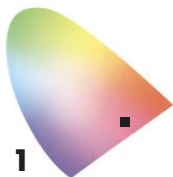
- *Crimson* is a middle red, and the first of the reds to be mixed with *yellow*

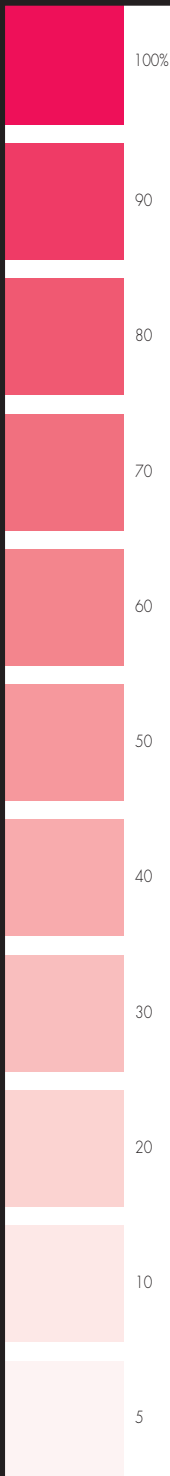
### Psychology

- *Powerful*
- *Aggressive*
- *Dynamic*
- *Dramatic*

### Using Crimson

- Lush, plush, grand, and opulent
- Directs the viewer to the message
- In the lighter tints, *crimson* is a pink and loses its power, conveying a softer, gentler mood





# 4 SCARLET

			BC04
Cyan			0%
Magenta			100%
Yellow			50%

## Ripe, Sweet...and Sometimes Naughty

### Position

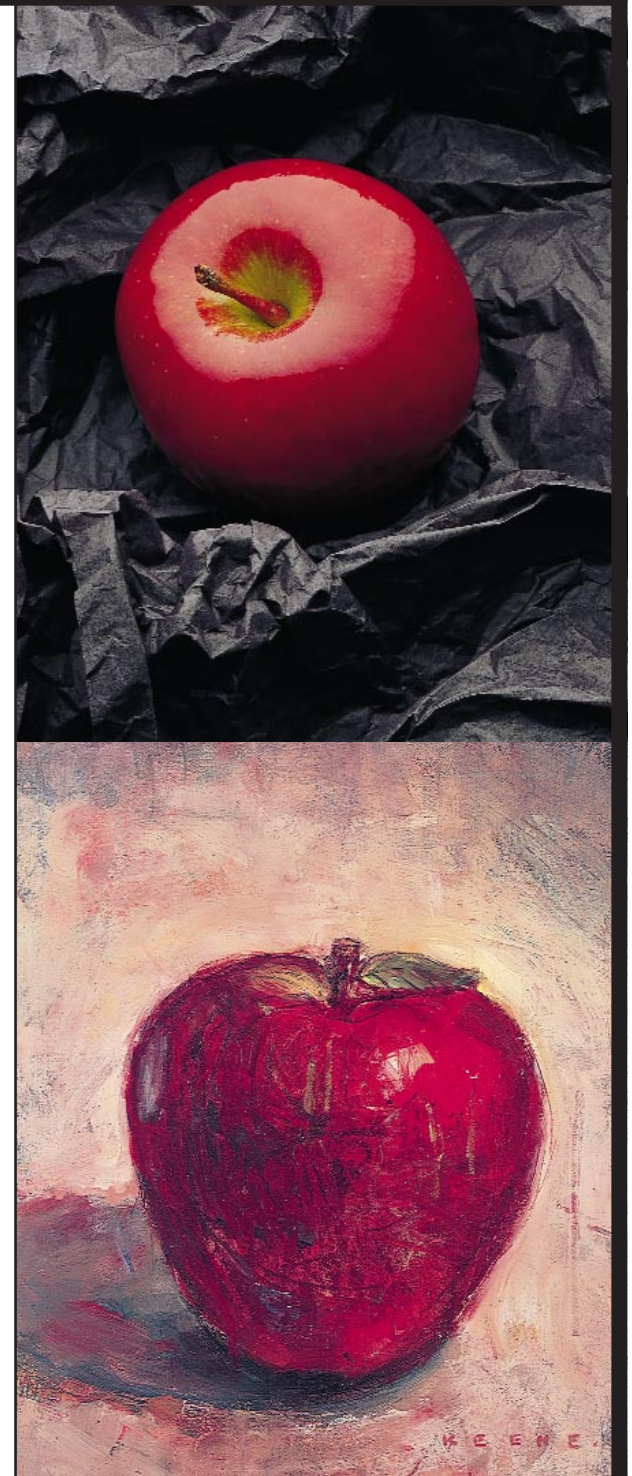
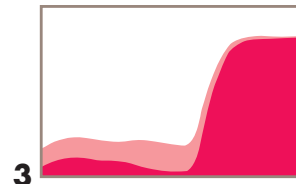
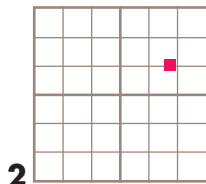
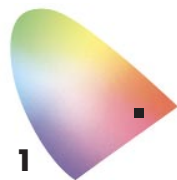
- *Scarlet* has all the power of *crimson*, but the additional *yellow* warms it up, giving it a friendly, outgoing quality

### Psychology

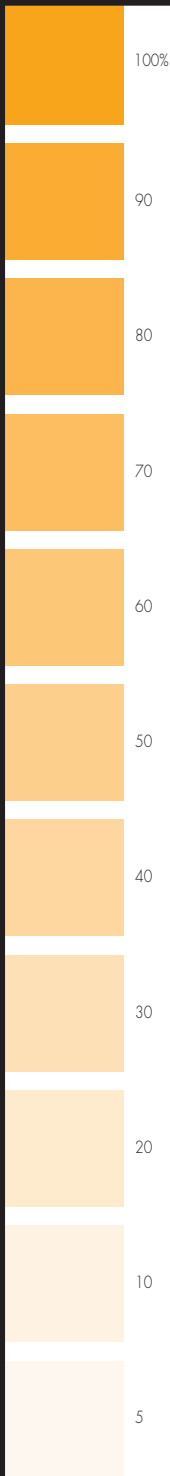
- *Bright, vivid*
- *Believable*
- *Positive*
- *Effective*

### Using Scarlet

- Overuse reduces its impact
- Save it for making a powerful statement
- Get more mileage out of *scarlet* by varying its density and texture









# 8 AMBER

**Between Orange and Gold**

			BC08
Cyan			0%
Magenta			40%
Yellow			100%

## Position

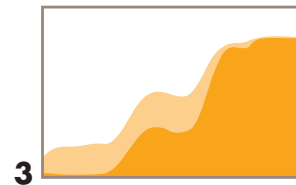
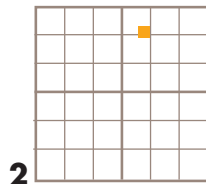
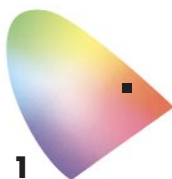
- *Amber*, a middle yellow, is warmer than *gold*
- The base for this hue is yellow

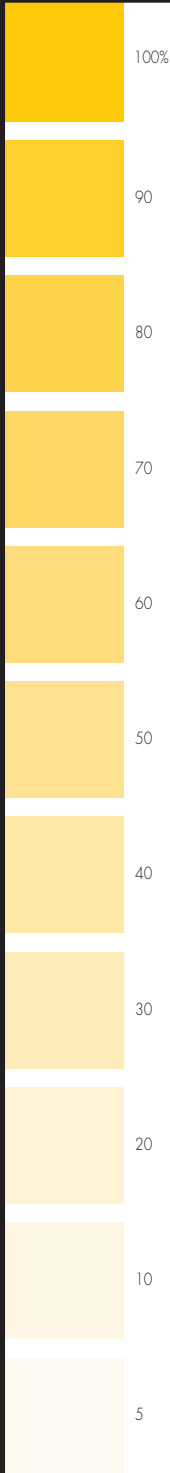
## Psychology

- *Mellow, contented*
- *Abundant*
- *Fertile*
- *Prosperous*

## Using Amber




- Visible day or night on dark or light backgrounds
- Strong enough to be used as a spot color
- Remains pleasant, never dangerous, even when used over large areas





# 9 GOLD

## Eureka...The Sun Is Falling

			BC09
Cyan			0%
Magenta			20%
Yellow			100%

### Position

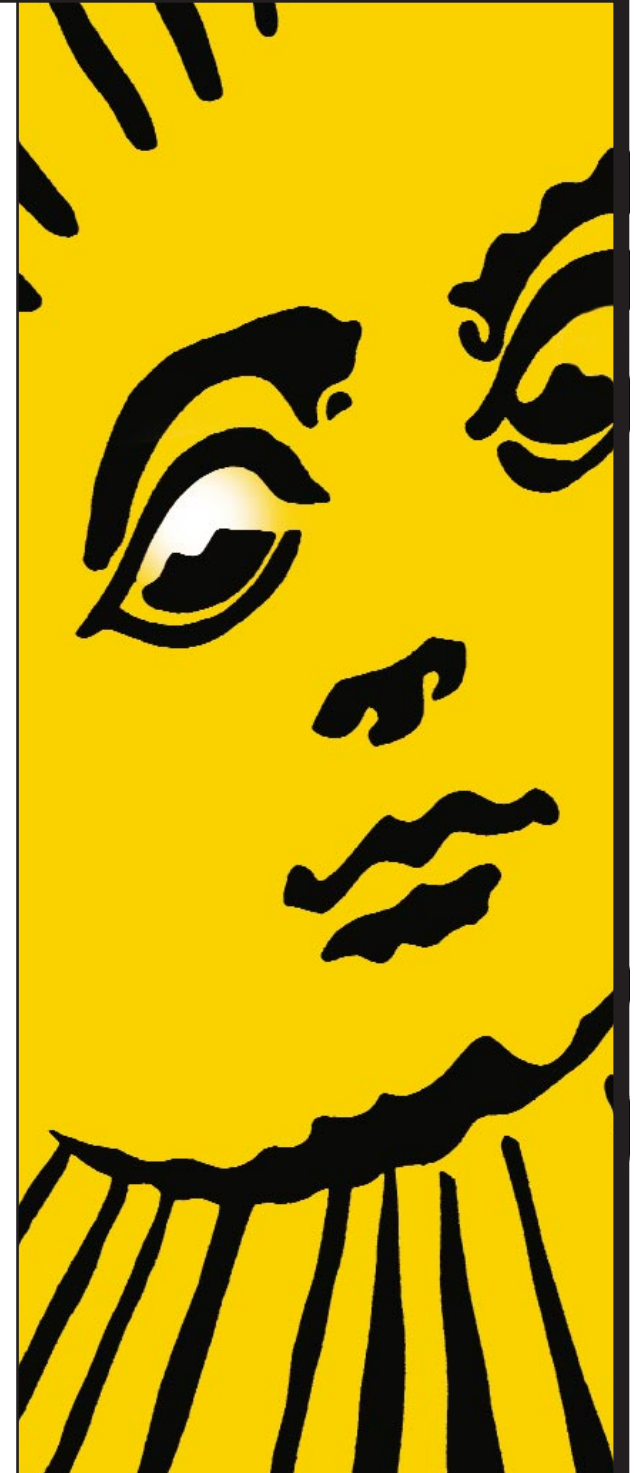
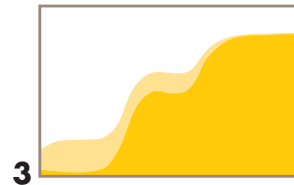
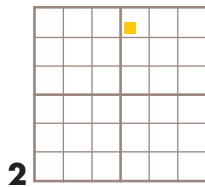
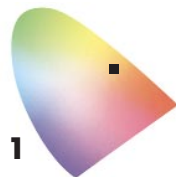
- The base hue of *yellow* with less *magenta* than *amber*

### Psychology

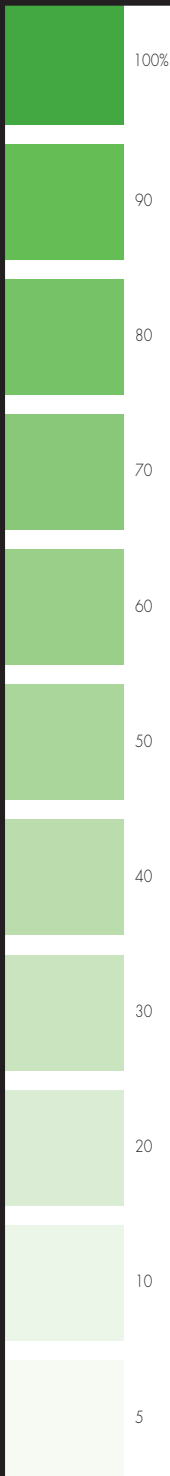
- *Joyful*
- *Sunny*
- *Rich, lavish*
- *Uncertain*

### Using Gold




- Though red attracts attention, humans, like plants, search for sunlight colors, even on a printed page or on a vehicle







# 11 LIME

			BC11
Cyan			70%
Magenta			0%
Yellow			100%

## Out of the Warm... Into the Cool

### Position

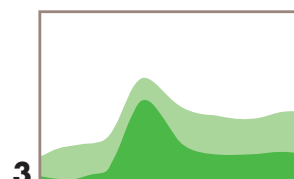
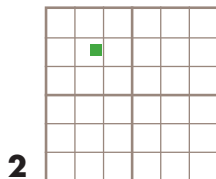
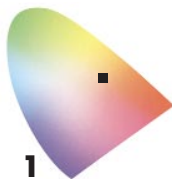
- The first green and the first cool color in the system

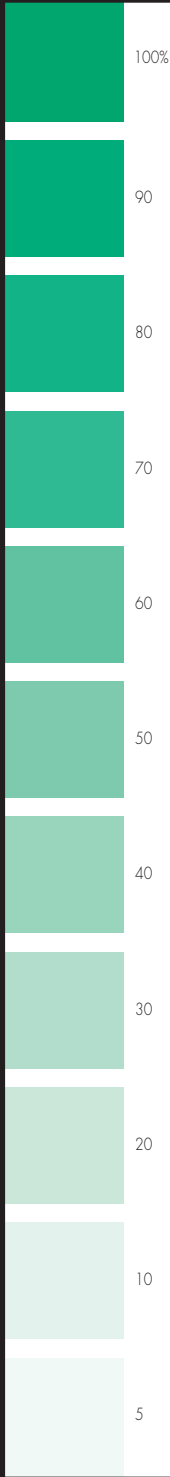
### Psychology

- *Young*
- *Fresh*
- *Sharp, clean*
- *Lively*

### Using Lime

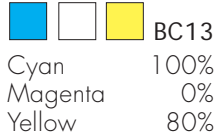
- The brightest of the greens, lime is not as sour as lemon, but it's not sweet either
- Will give a more youthful feel to a piece





# 13 SEA GREEN

## Diving Into the Depths of Green



### Position

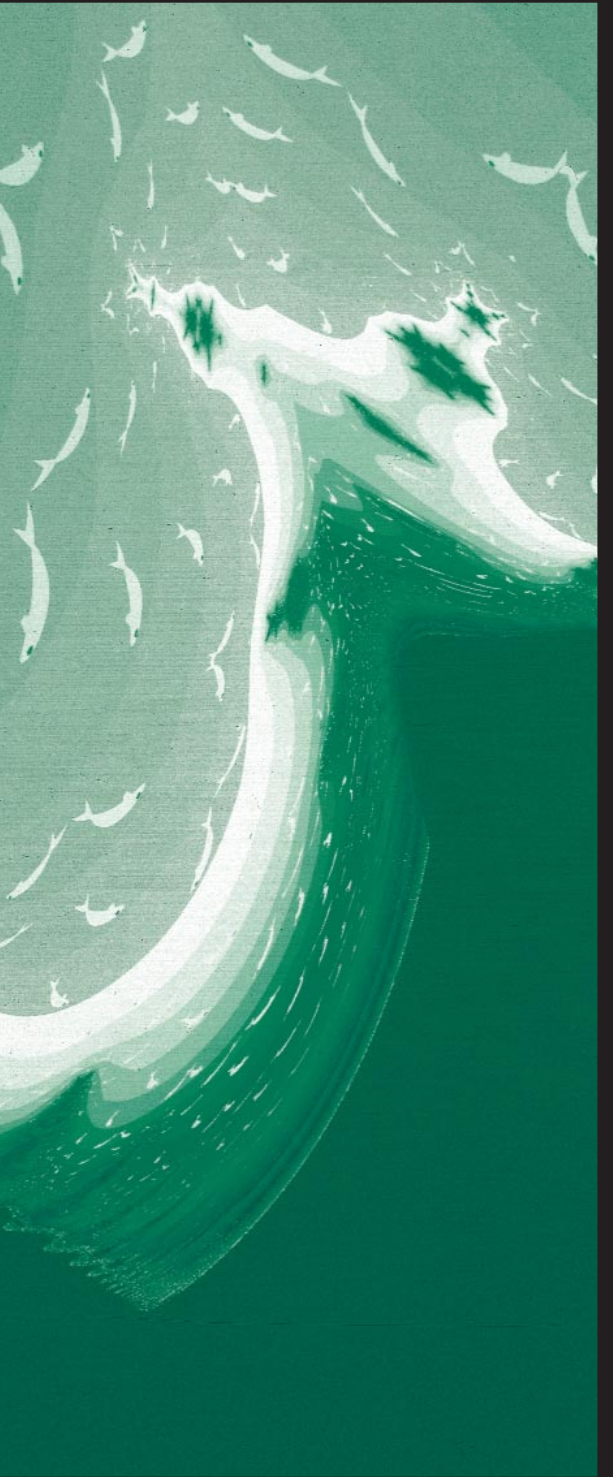
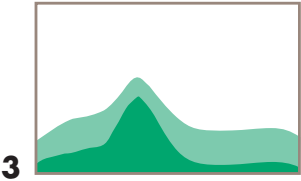
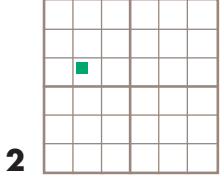
- *Sea green* is the third and middle green
- *Cyan* takes over as the base hue and *yellow* becomes the support hue

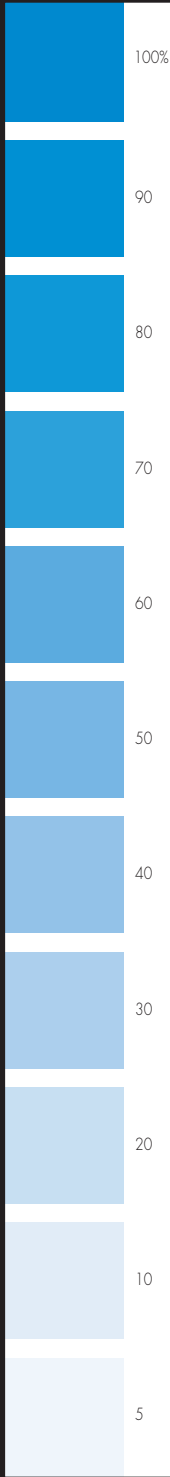
### Psychology

- *Mature*
- *Strong*
- *Moving*
- *Restless*

### Using Sea Green

- Tints of this color are clear and distinct
- Sea green works well on charts and fine, detailed images
- Effective over large areas





# 17 SKY BLUE

**All's Right with the World**

 BC17  
Cyan 100%  
Magenta 30%  
Yellow 0%

## Position

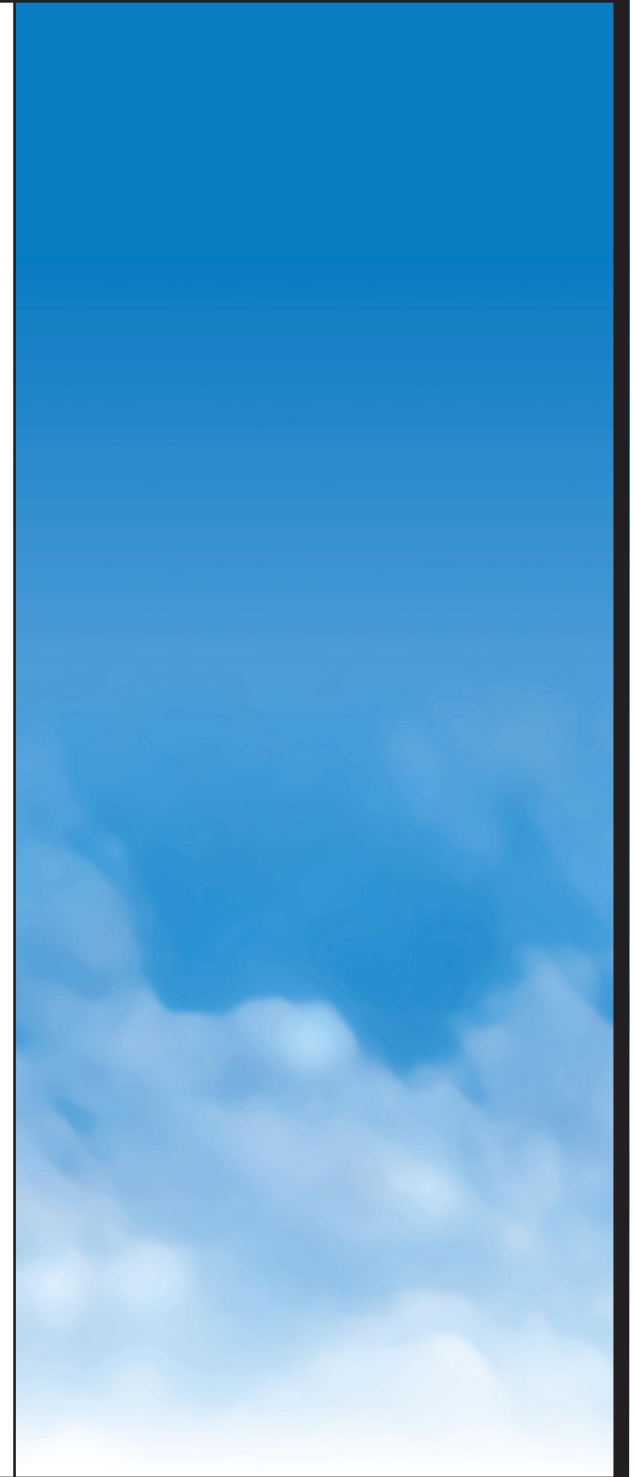
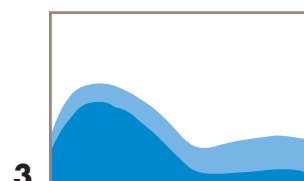
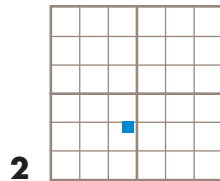
- *Sky blue*, the second blue, contains a touch of *magenta*
- With *magenta* as a support, the rawness of *cyan* becomes somewhat mellowed

## Psychology

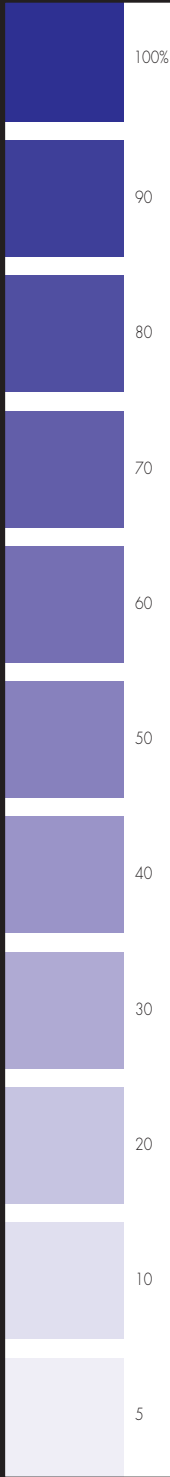
- *Honest, true*
- *Good*
- *Calm, peaceful*
- *Clean*

## Using Sky Blue

- Nearly always a good choice
- As comfortable and unpretentious as a faded denim work shirt







# 19 VIOLET

## Color's Winter Solstice

			BC19
Cyan			100%
Magenta			100%
Yellow			0%

### Position

- *Violet* is the fourth hue, at the end of the color spectrum
- This color contains 100% *cyan* and *magenta*

### Psychology

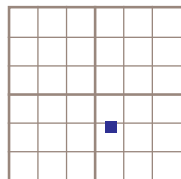
- *Moody*
- *Serious*
- *Thoughtful, reflective*
- *Quiet*

### Using Violet

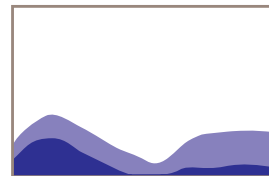
- Neutral color, similar to black
- Great for lettering and line detail because it is sharp, legible and sophisticated



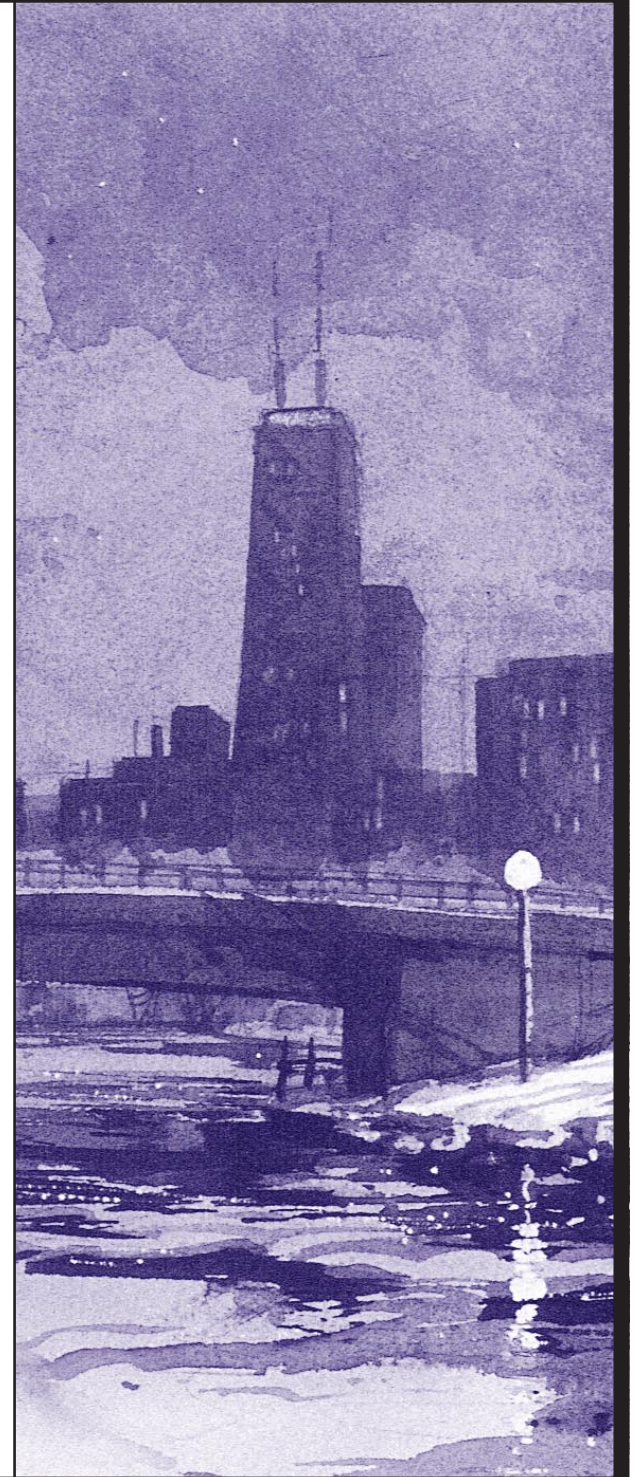
1



2



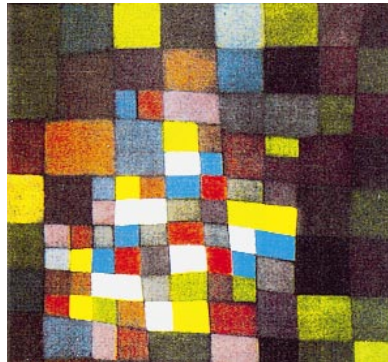
3



## Grays Create Shades

---

**Grays increase the contrast between colors; when they are used to darken one area, other areas appear brighter**



- Adding black/gray to any color adds depth and dimension
- Using black/gray allows us to create thousands of shades from the 20 colors and tints of the rainbow

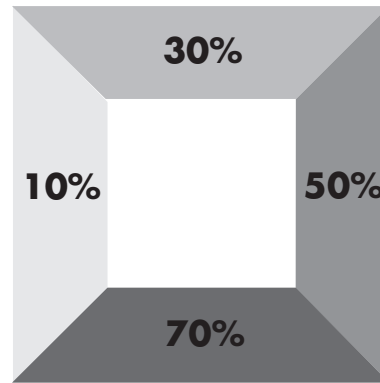
# Shades are Shadows

---

They give the colors depth and dimension



**100% LIME**



**GRAY VALUES**



**100% LIME  
AND GRAY VALUES**

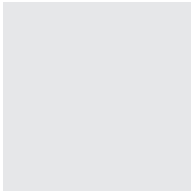


# Different Grays Make Different Shades

---



+



10%

=



+



30%

=



+



50%

=



+



70%

=



**100% LIME**

**GRAY VALUES**

**SHADES**

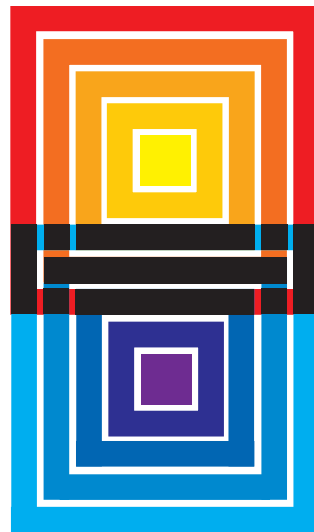
# What are Complements?

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**Complements are any two colors that, when combined, block out all reflected light (create neutral black)**



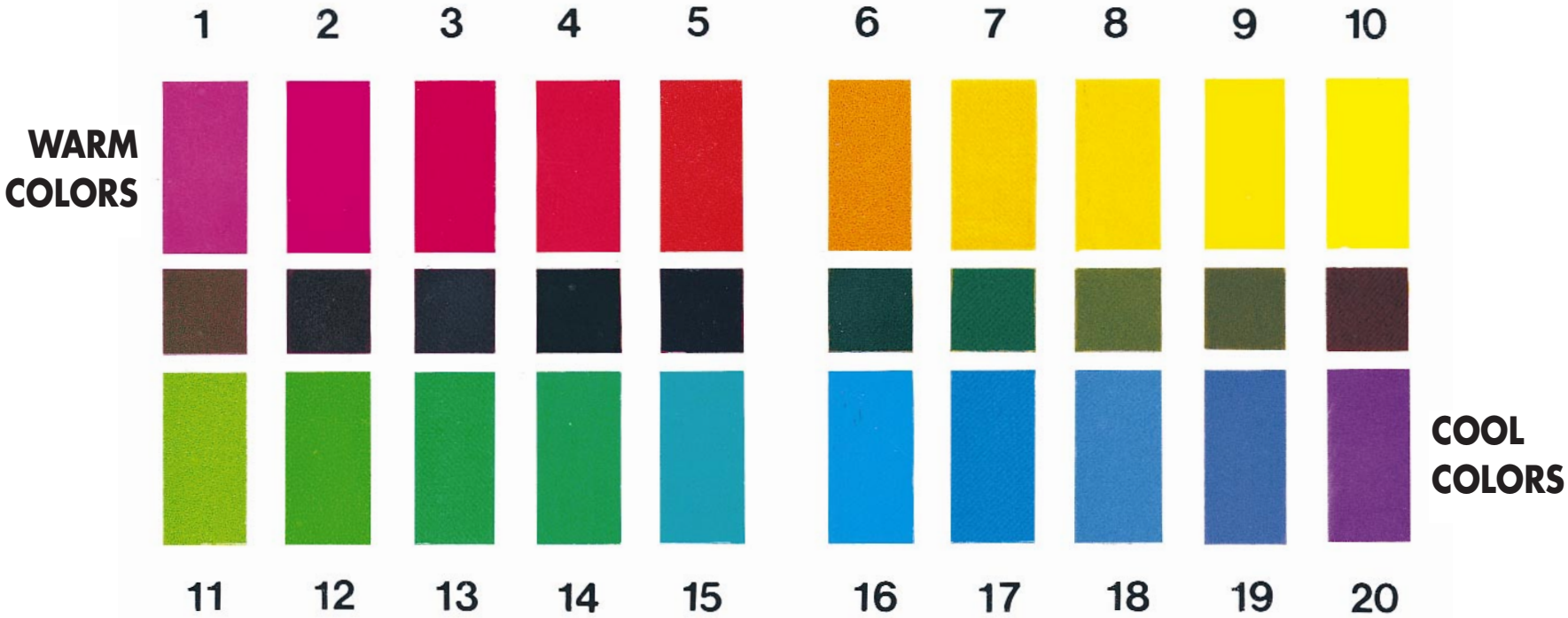
**"A" Complements**

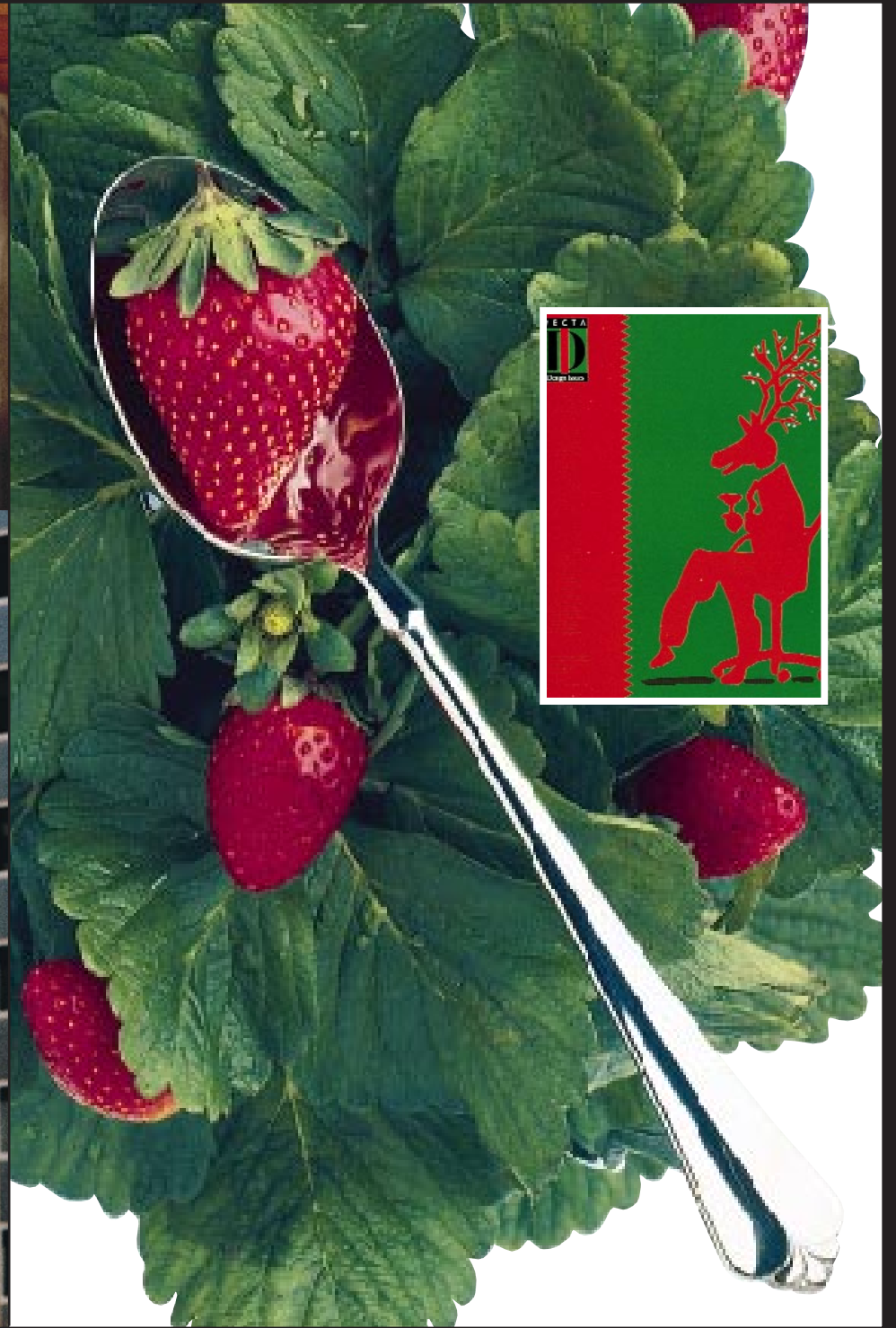


**"B" Complements**

- Used next to each other, complements make each other appear brighter
- Simultaneous contrast: *each color is surrounded by a contrasting aura*

# Complements Make Black









# OPEN & SHUT



THESE LIGHTS ARE  
 RECOMMENDED FOR  
 USE IN RESTAURANTS,  
 HOTELS, AND OTHER  
 COMMERCIAL SETTINGS.  
 THEY ARE AVAILABLE  
 IN A VARIETY OF  
 FINISHES AND  
 COLORS. CONTACT  
 YOUR LOCAL EATON  
 DISTRIBUTOR FOR  
 MORE INFORMATION.

Manufactured in China.

**EATON**

**BOURGES Analytical TWO-COLOR CHART**

THIS COLOR PRINT IS FIRST

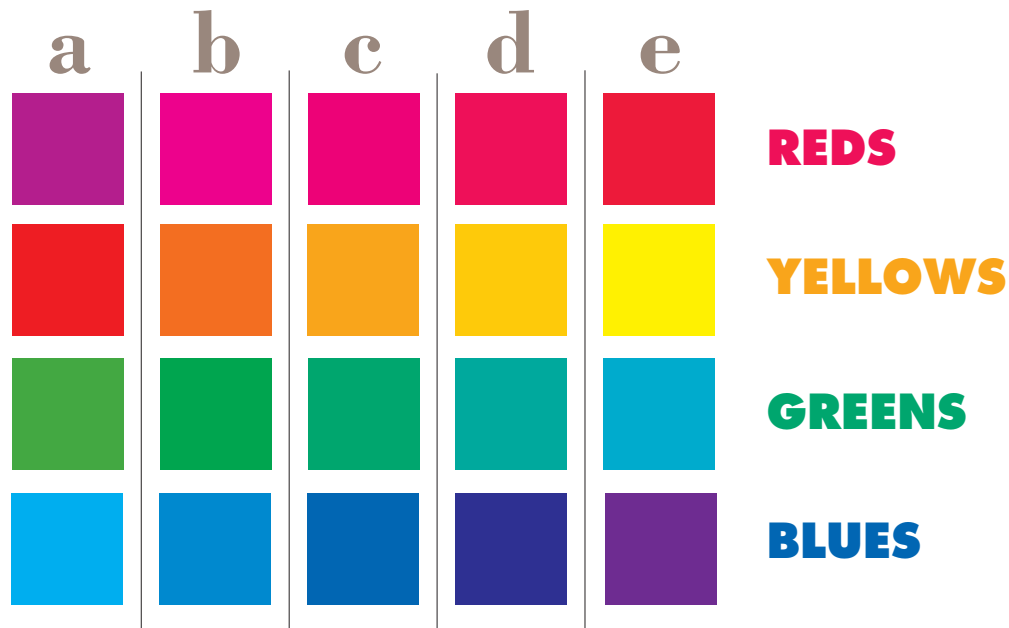
Color	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	

DESIGNED, ENGRAVED & PUBLISHED BY ALBERT R. BOURGES - NEW YORK CITY  
 PATENTED 1920

# Four Colors ARE Enough

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Harmonious groups of colors to help navigate the process maze within a simple structure



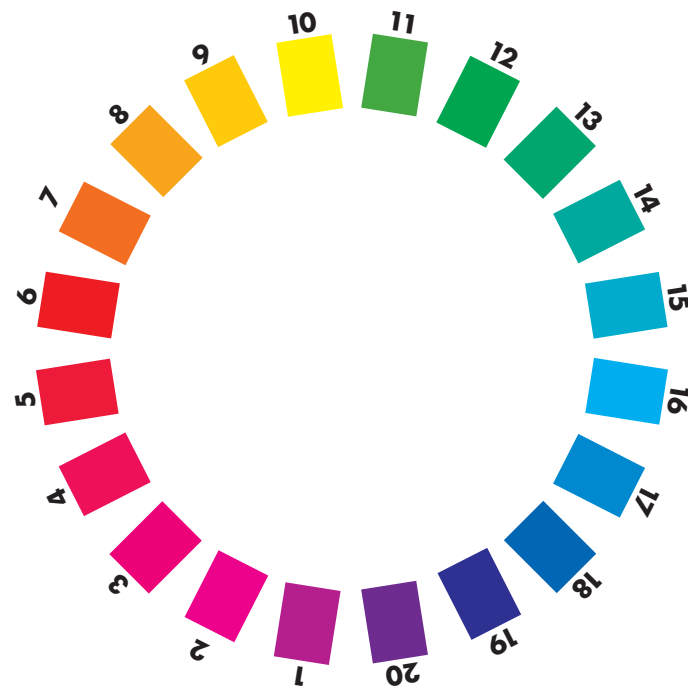
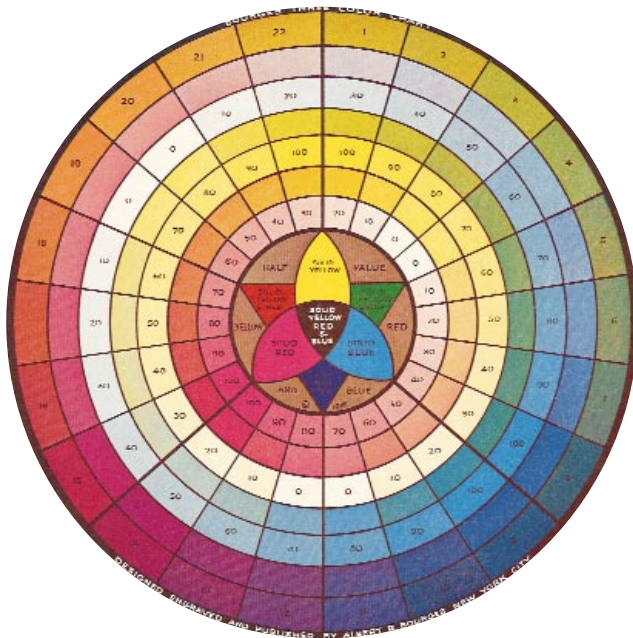
Swatches from each of the four color groups are placed over each other

Use these sets as a base together with the tints, shades and blends

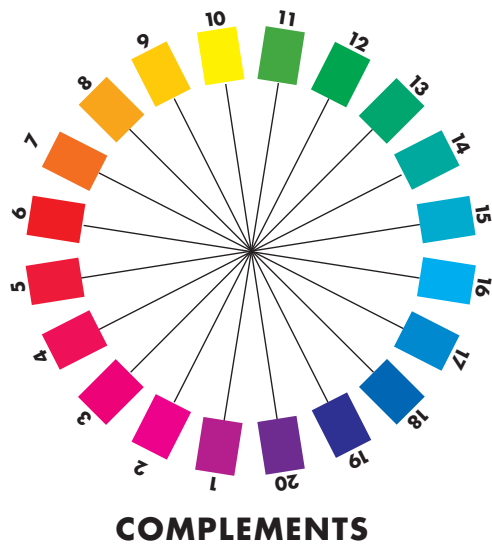
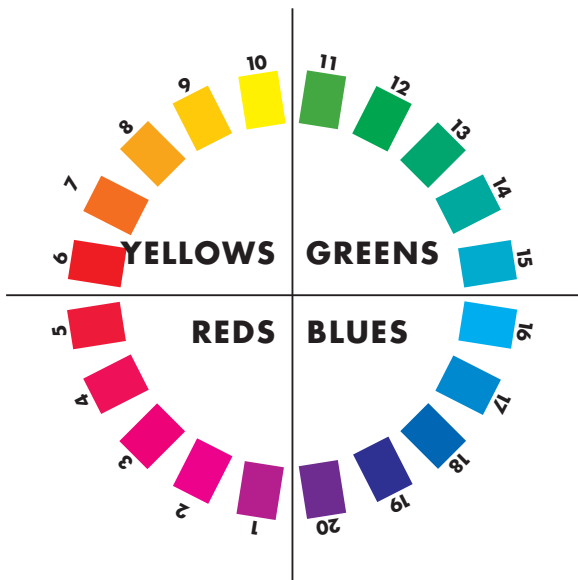
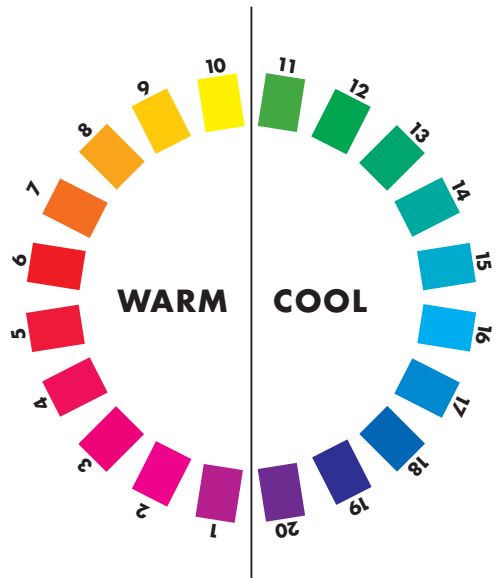
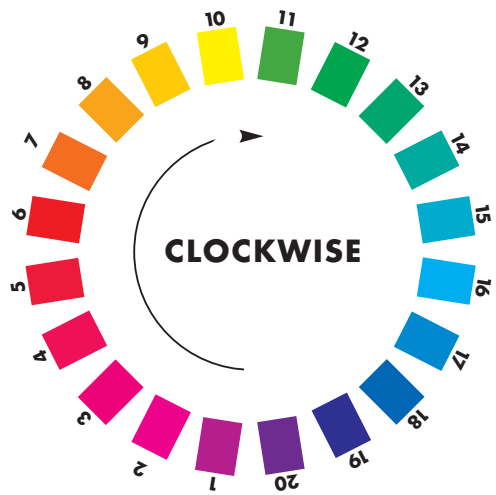


# Bourges Colors in a Circle

In 1918, Albert Bourges published his first process chart.  
**80 years later** here is the new Bourges process color wheel.



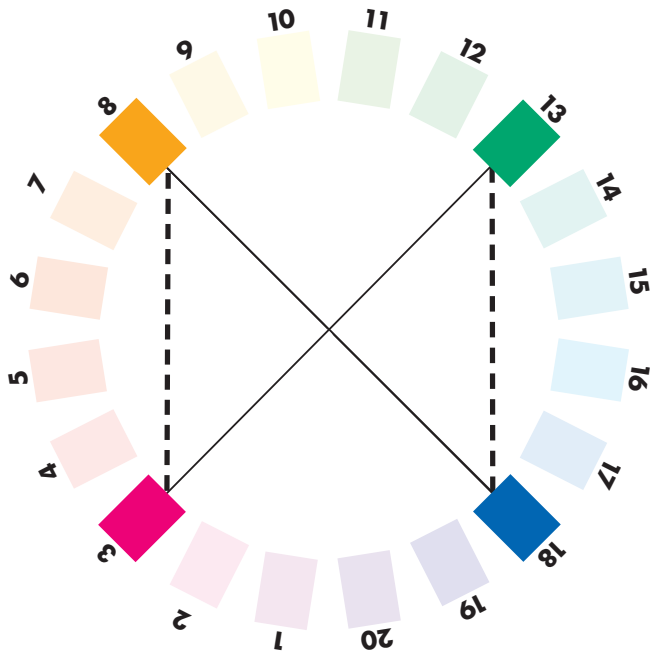
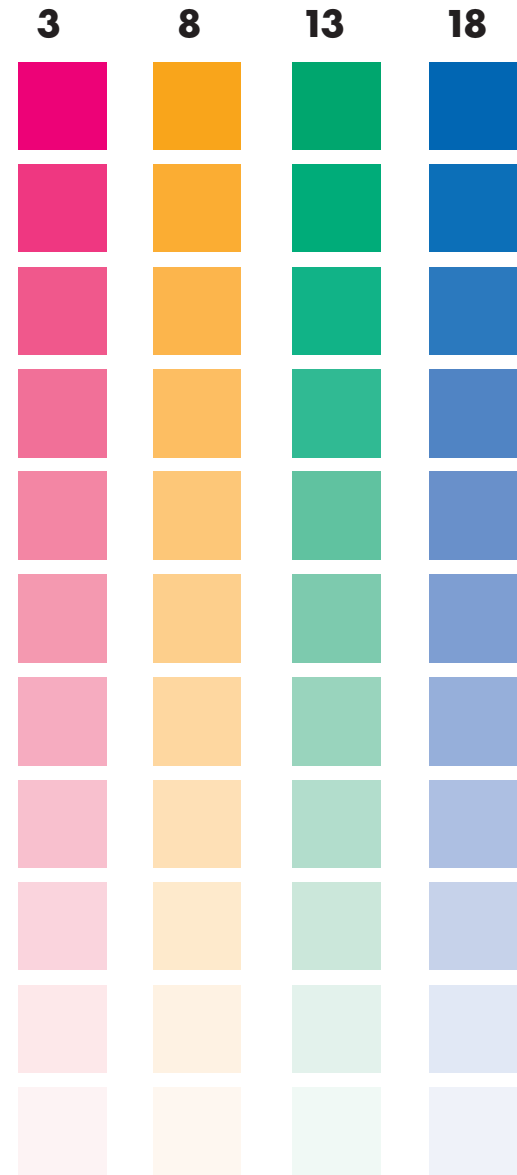
# HOW BOURGES WORKS







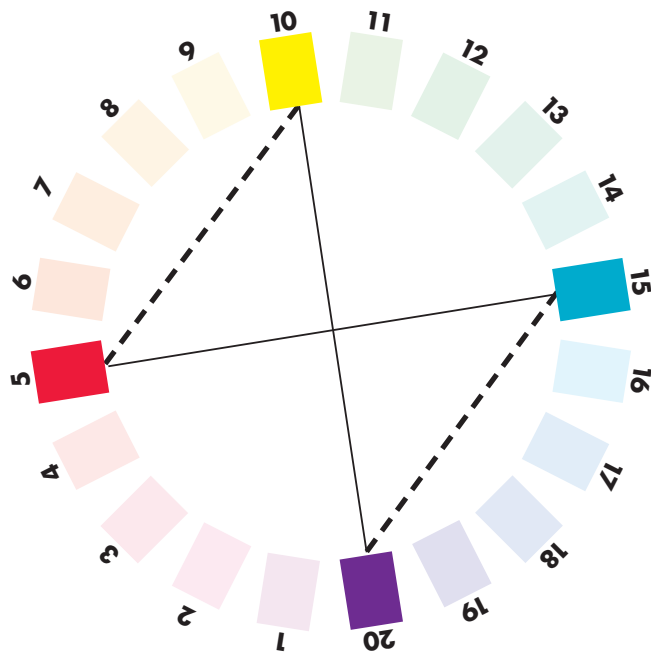
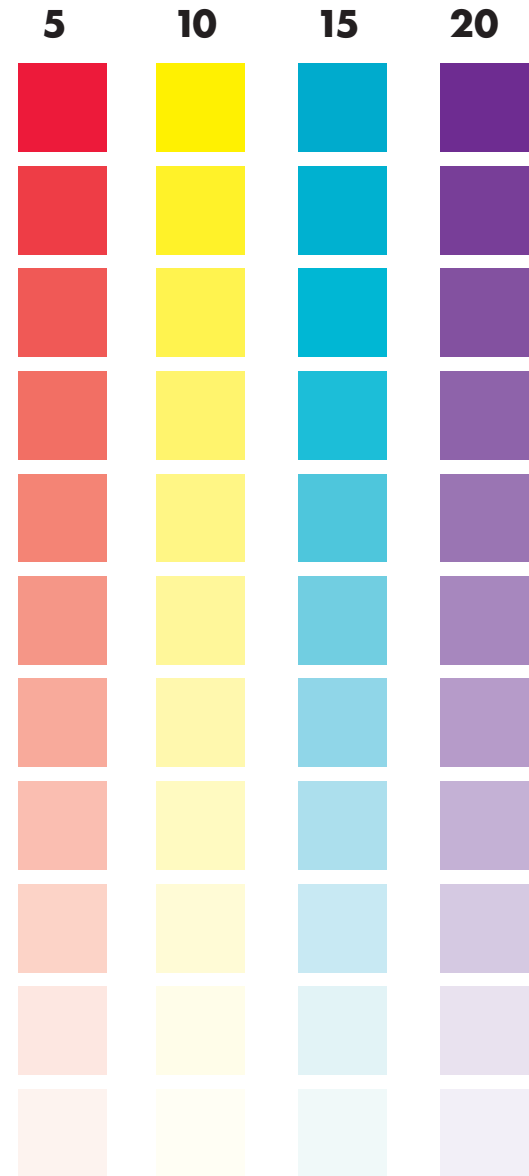
**RED**                    **3**      **Crimson**  
**YELLOW**                **8**      **Amber**  
**GREEN**                 **13**     **Sea Green**  
**BLUE**                    **18**     **Ultramarine**



— Compliments      - - - Related Hues



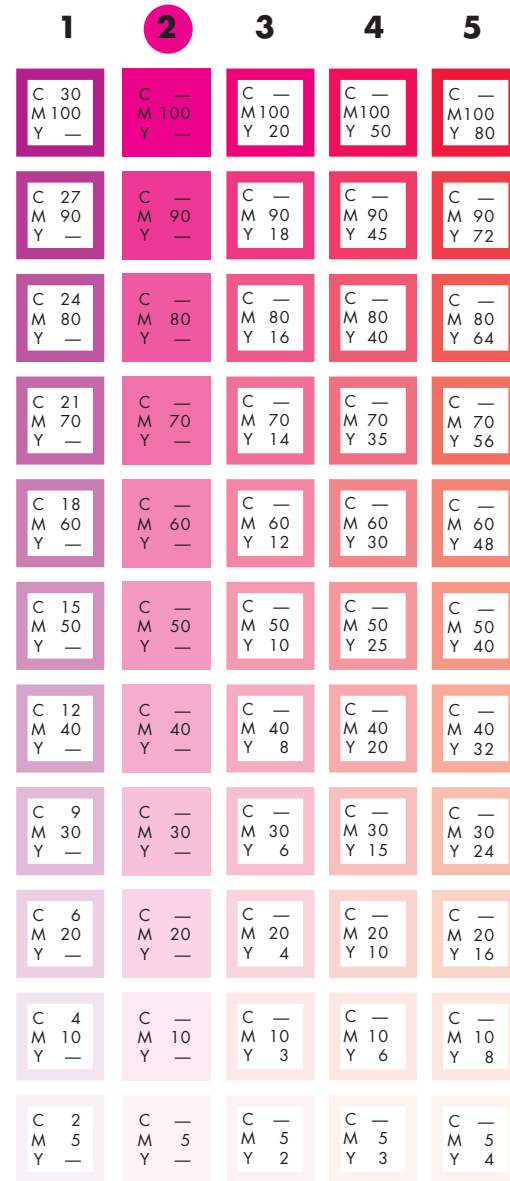
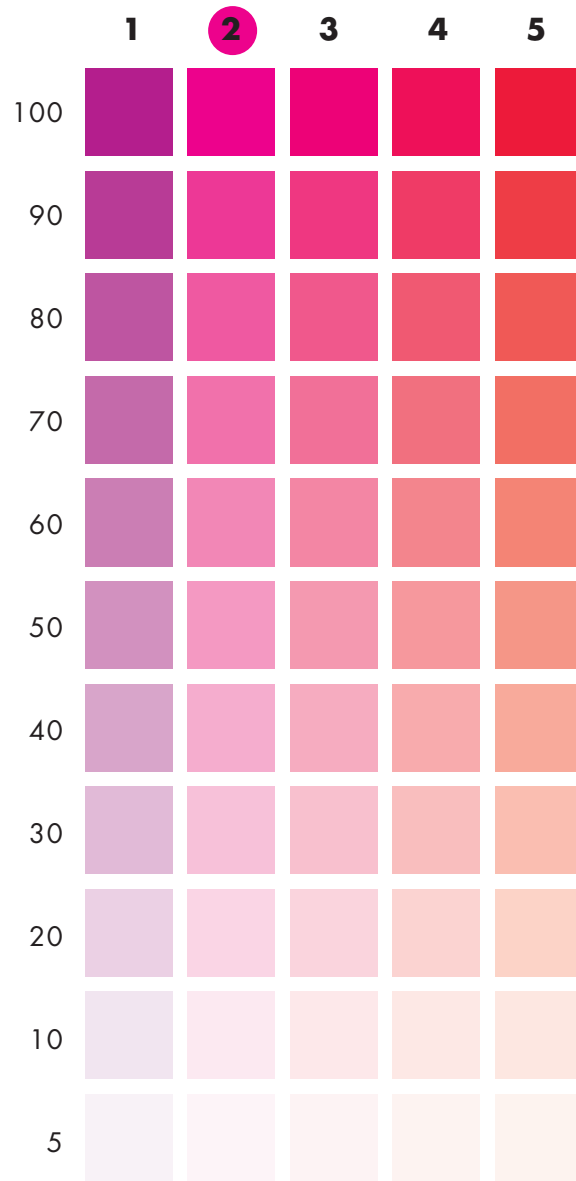
**RED**      **5**      **Poster Red**  
**YELLOW**      **10**      **Yellow**  
**GREEN**      **15**      **Teal**  
**BLUE**      **20**      **Purple**



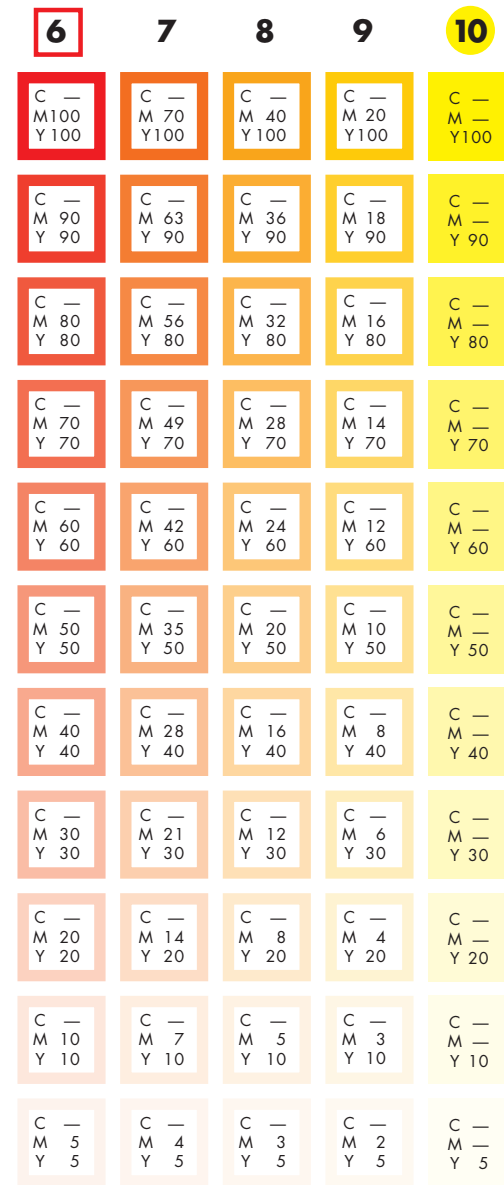
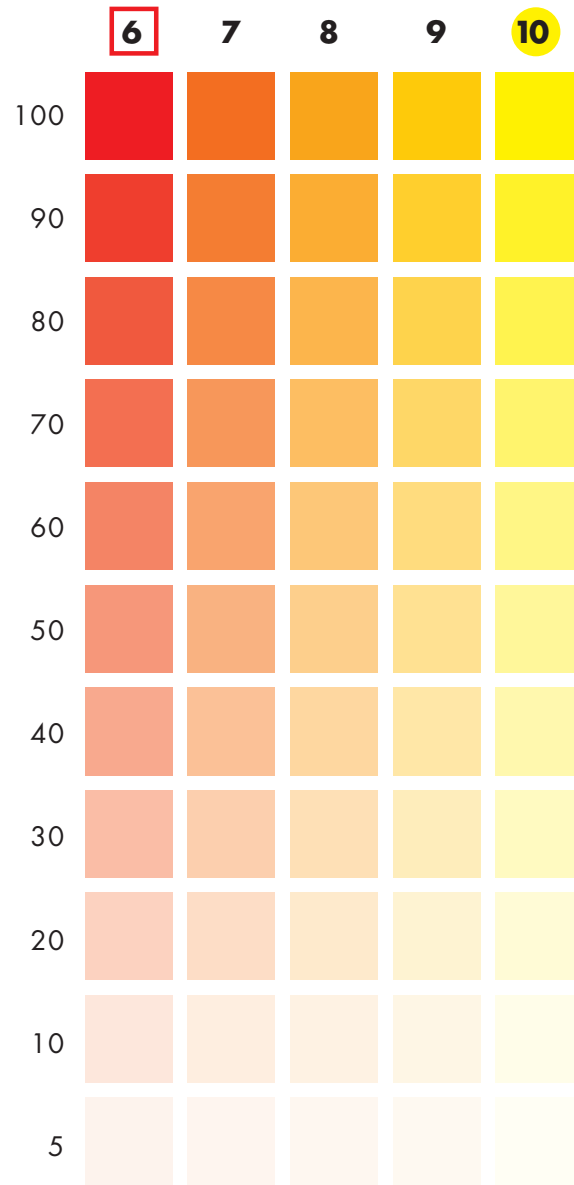
— Compliments      - - - Related Hues



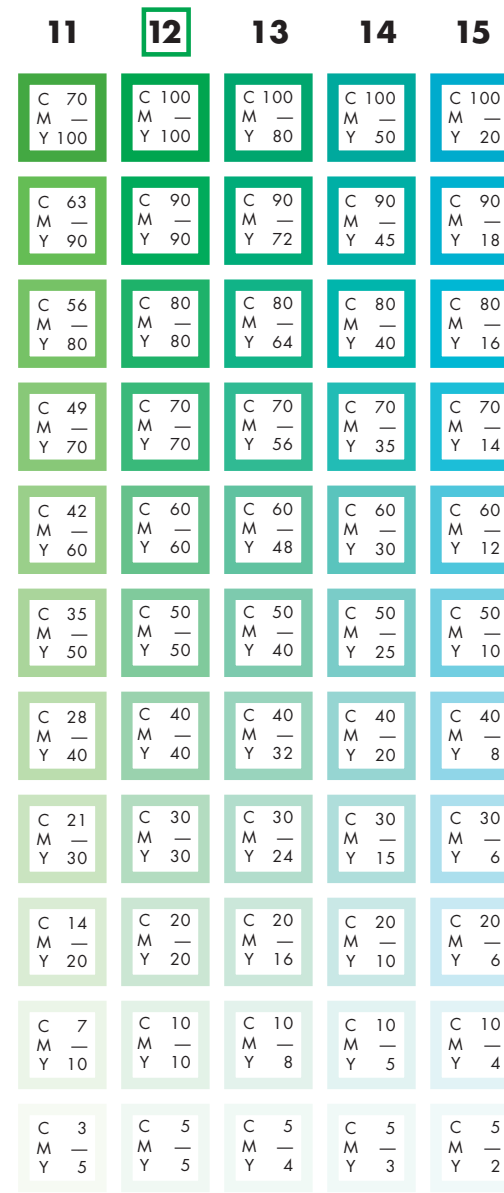
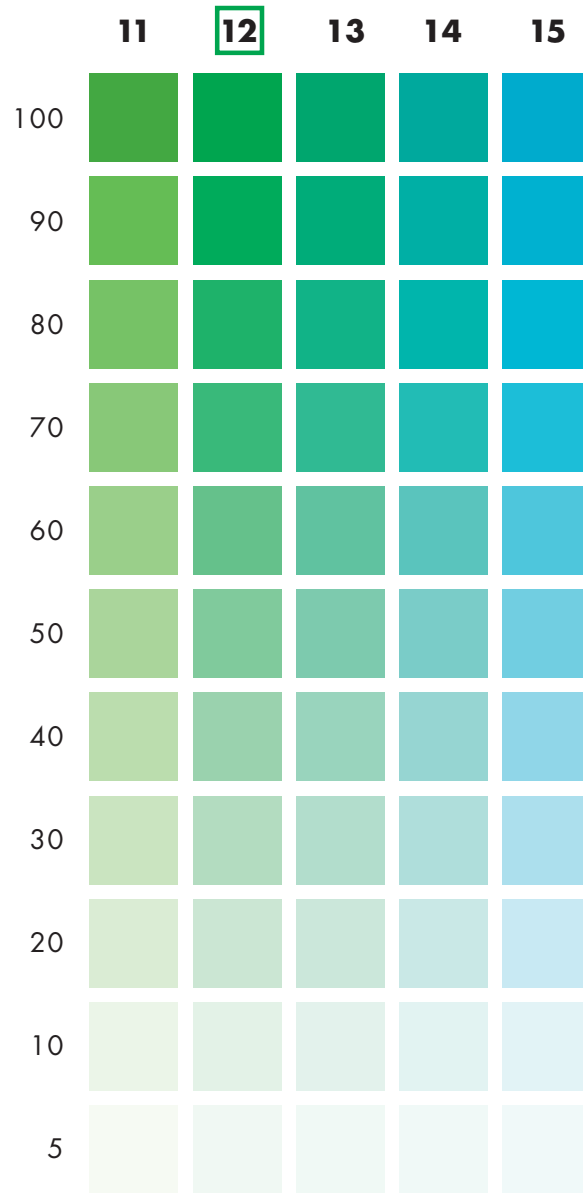
# REDS and CODES



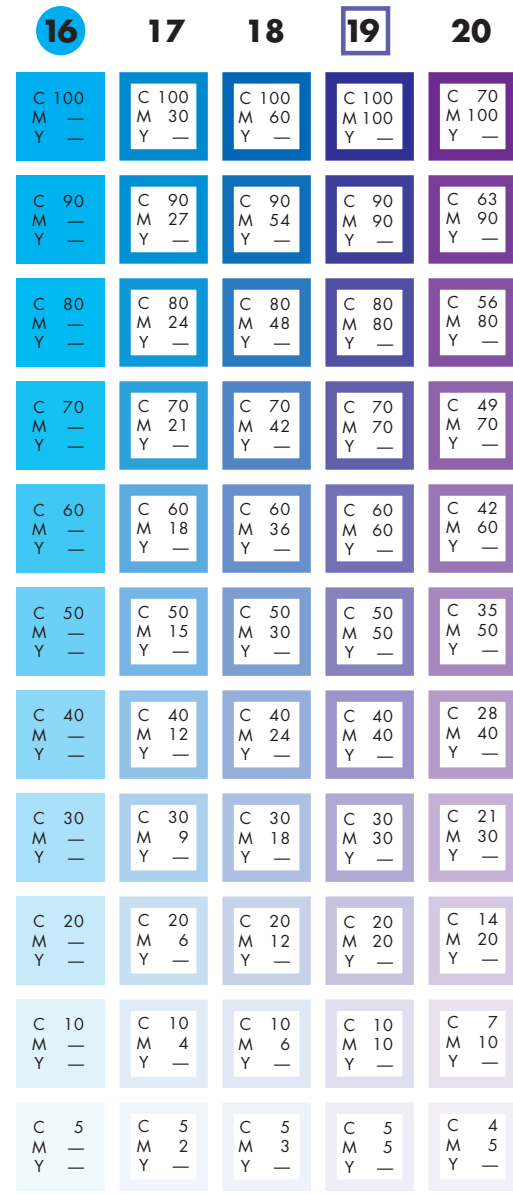
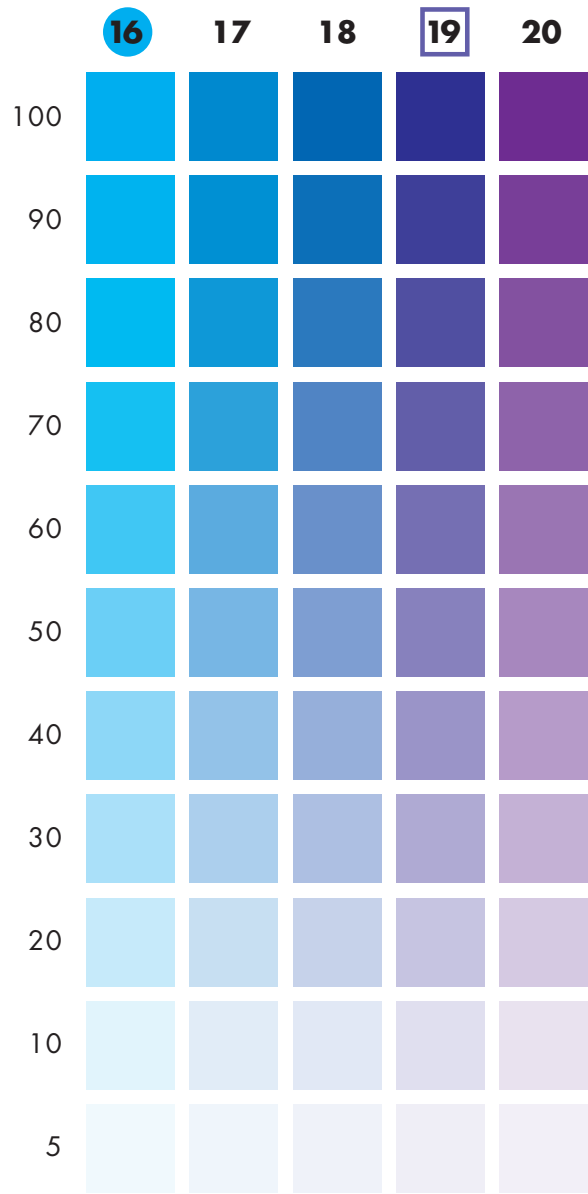
# YELLOWS and CODES



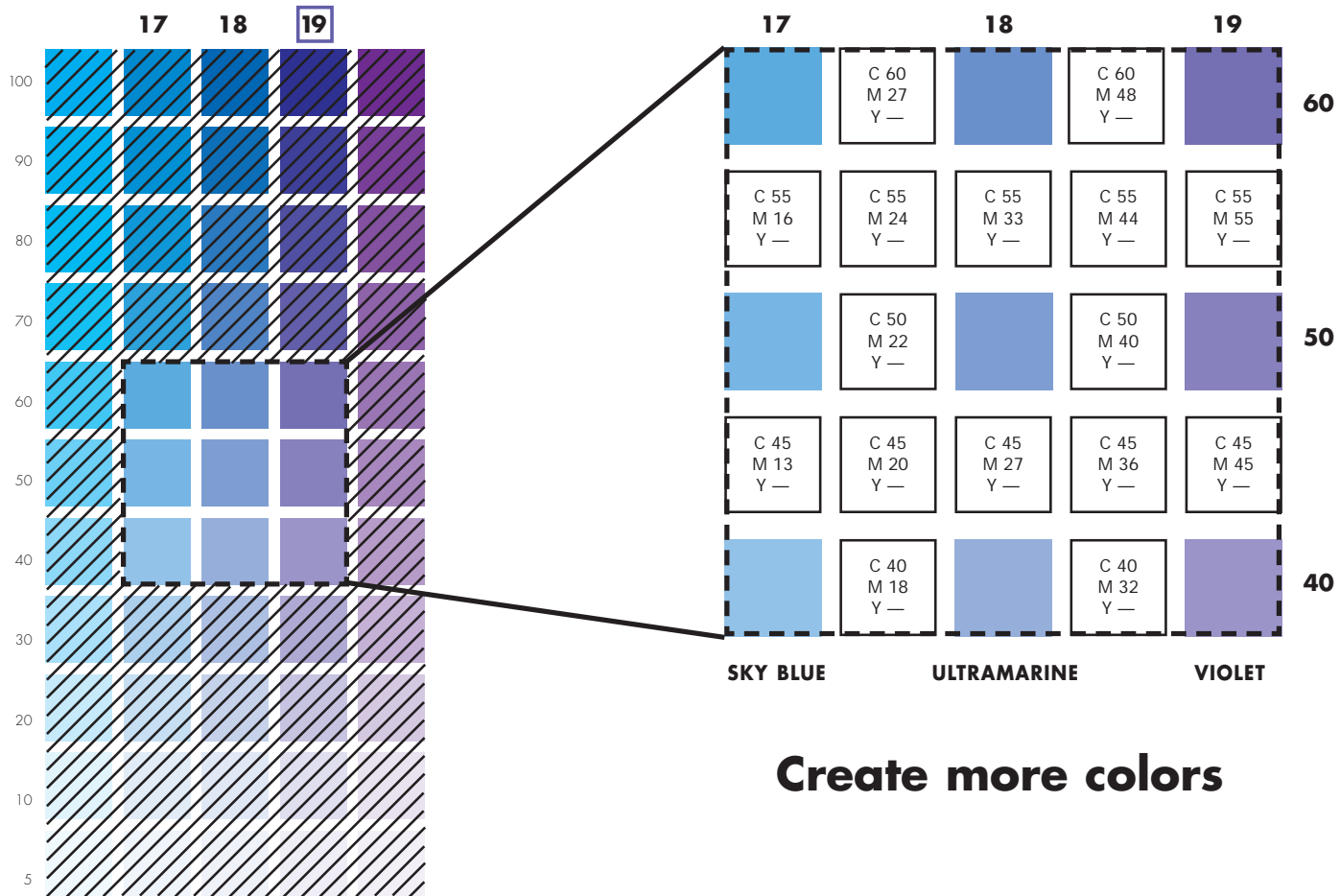
# GREENS and CODES



# BLUES and CODES



# Extrapolate any area



**Create more colors**



# Bourges Mosaic for Every Basic Color

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## 11 LIME



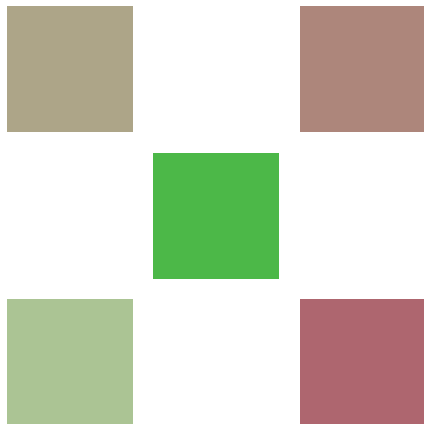
50% Tint + 30% mpc	50% TINT	50% Tint + 50% mpc
RELATED HUE	<b>BASIC HUE</b>	COMPLE- MENT
50% Tint + 10% mpc	+50%K SHADE	50% Tint + 70% mpc



# Blends Are the Muted Colors

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## 1 1 LIME

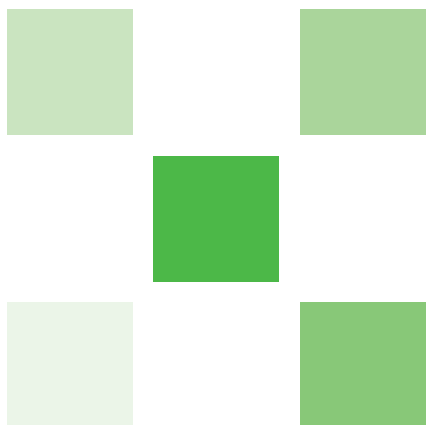


- All Bourges master colors consist of only two process colors
- Sophisticated, muted colors are created by blending a flat tint of the missing process color with the master hue
- Since **lime** is made up of **cyan** and **yellow**, for blends the missing process color is **magenta**

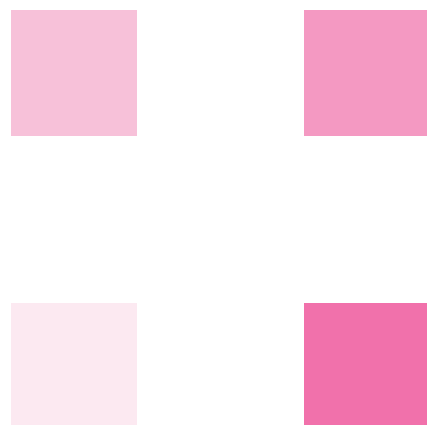
# Full Bourges Mosaic

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**11 LIME=CYAN/YELLOW**



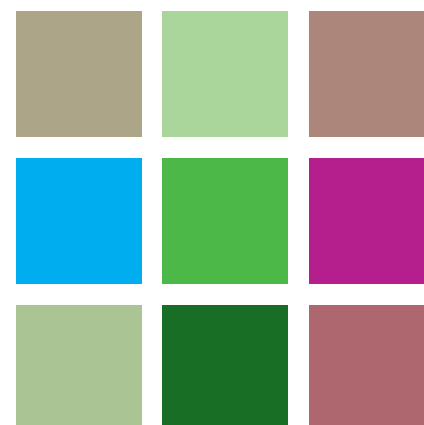
**MAGENTA**



+

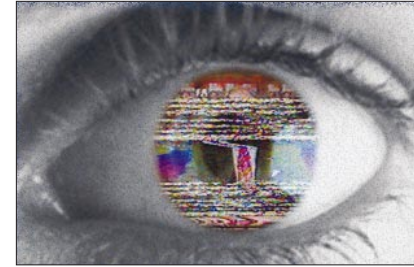
=

**FULL MOSAIC**

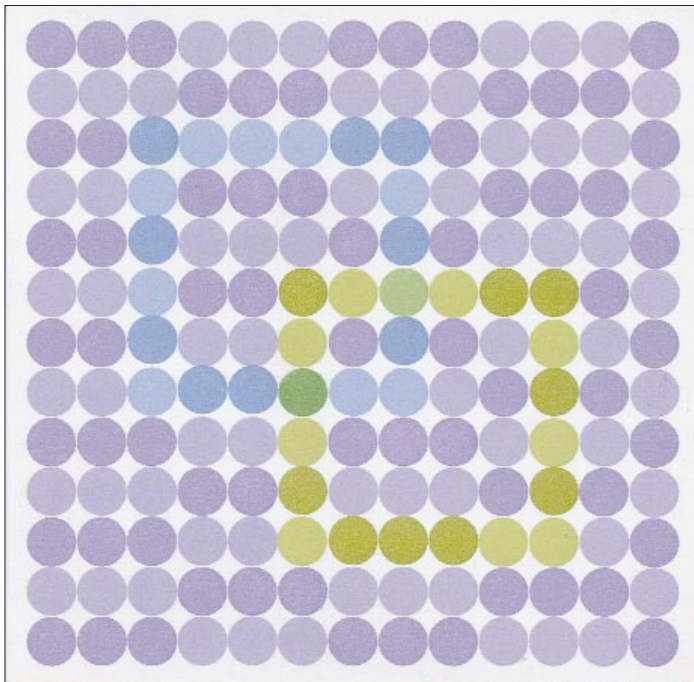


# Defective Color Vision

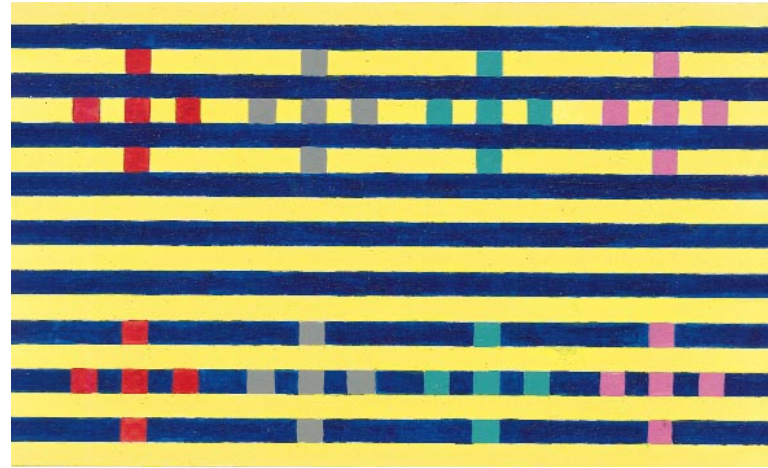
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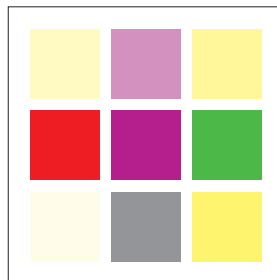
One of the most important factors about color is how we perceive it



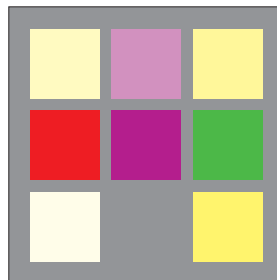
- Human perception of color is more elusive than scientific
- Gender, age and illness are factors in color vision



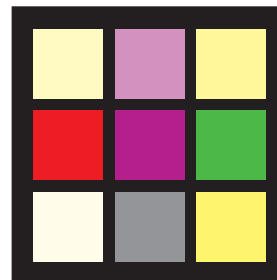
**Colors appear to change when different backgrounds are used**



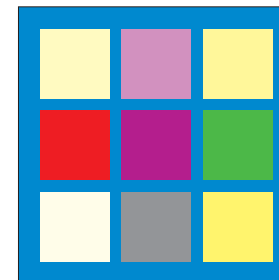
**White Background**



**50% Gray Background**



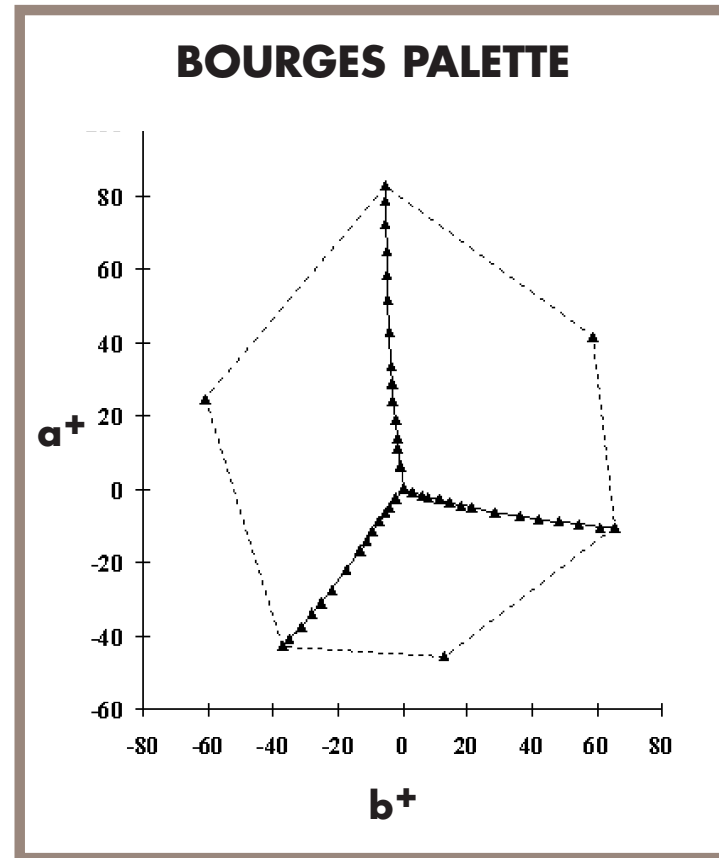
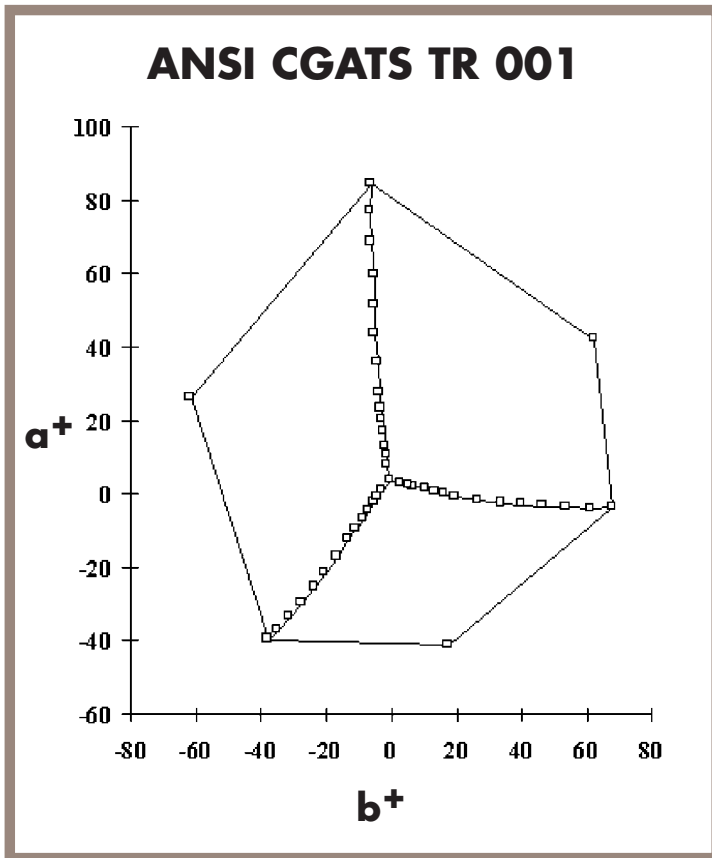
**Black Background**



**Color Background Sky Blue**

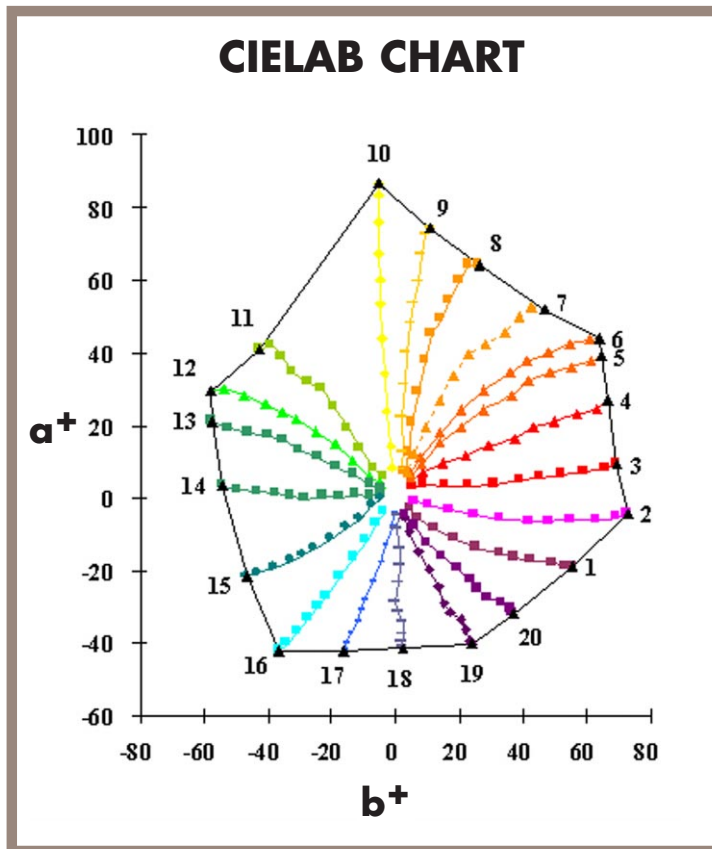


# CMY Process Colors—SWOP Standards



# Process Palette

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## Spider Chart

This shows the CIELAB plots for the full tonal scale of each Bourges color.

These colors were selected from a half century of art material sales.

# Original Bourges Color Concept

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## FULL SPECTRUM



## WARM COLORS



## COOL COLORS



## REDS



## YELLOWS



## GREENS



## BLUES



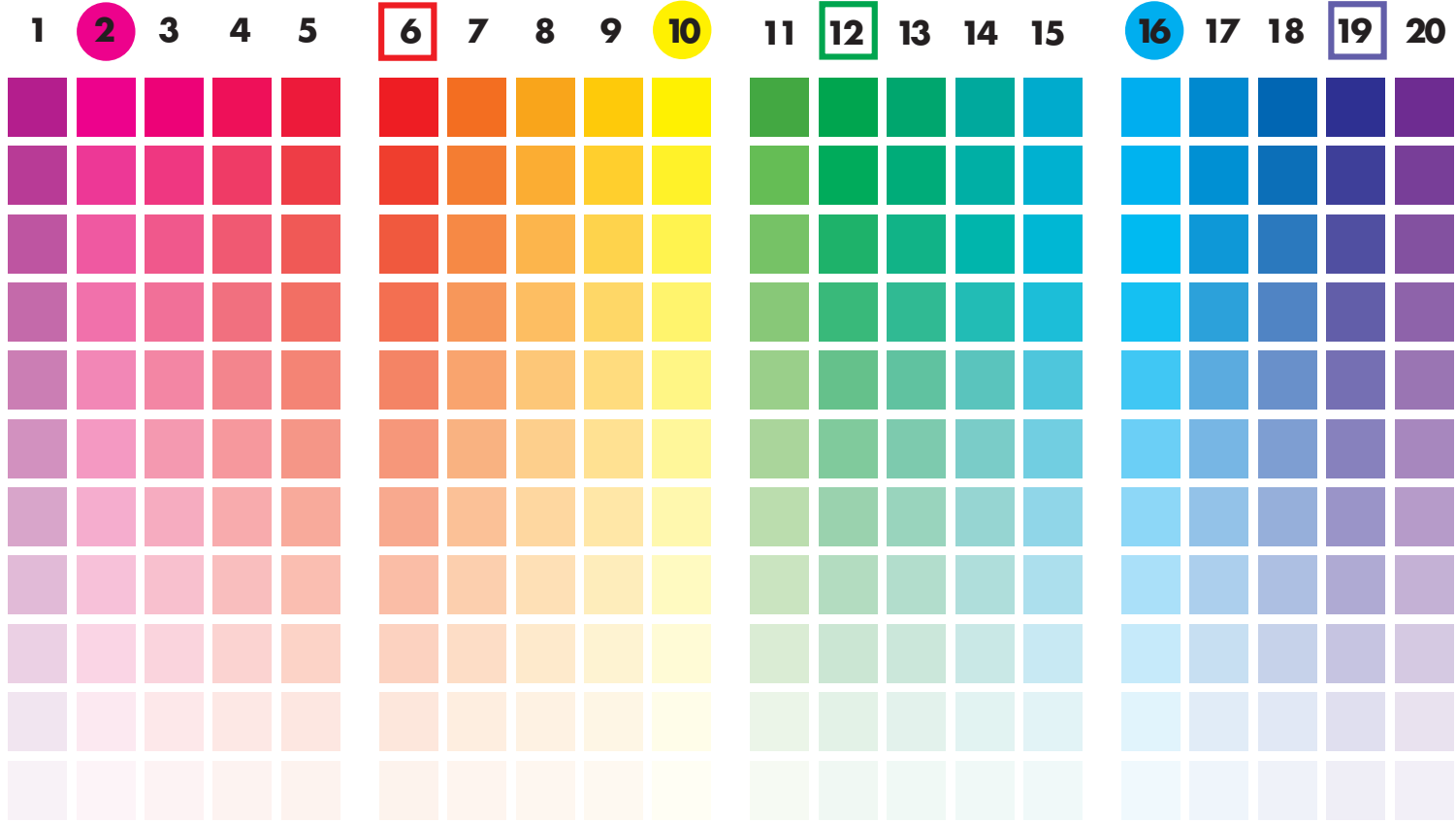
## "A" COMPLEMENTS



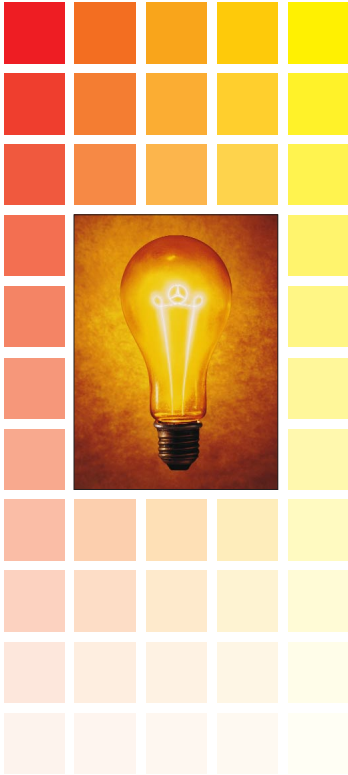
## "B" COMPLEMENTS



# Bourges Master Color Chart



# Create with Colors You Know will Print



Not the end...  
**just the beginning**

