

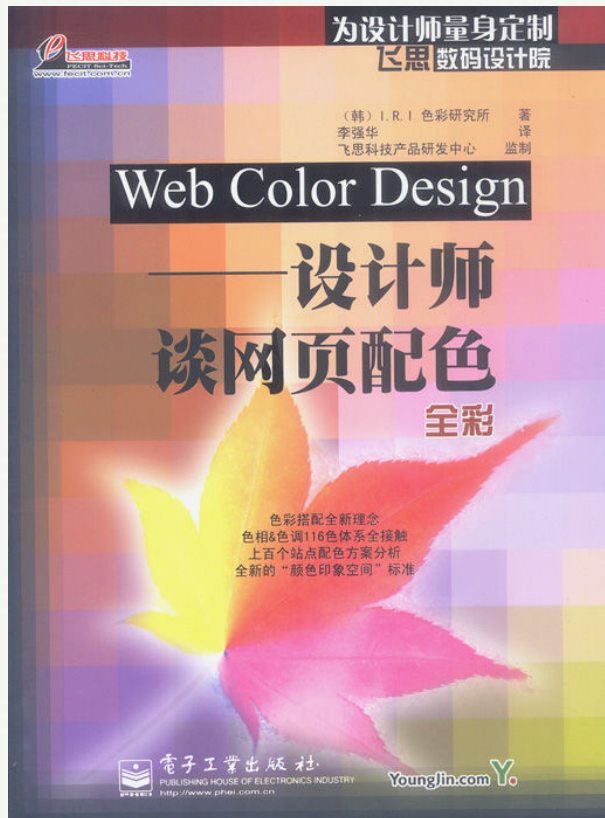
A decorative background featuring a cluster of green leaves in the upper right corner, with some leaves scattered across the page. The leaves are rendered in various shades of green, from light to dark, and have a slightly translucent appearance.

# Web Color Design

WDP [CN] 第七章，颜色与图形，192—220

WDP [EN] Chapter 7，Color and Graphics，239 — 276

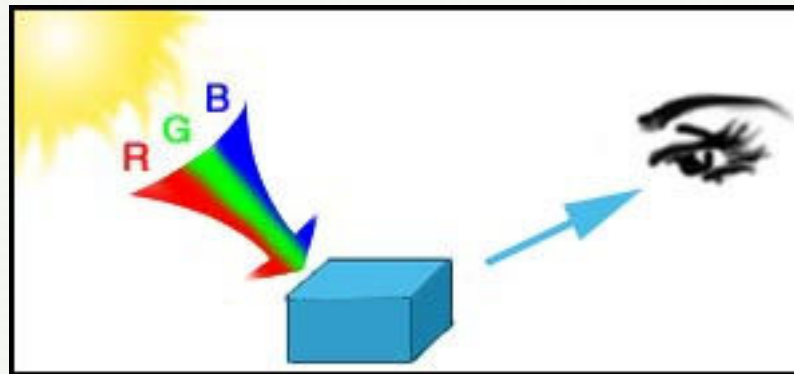
# Suggested Tools – Reference Books



- Web Color Design  
—设计师谈网页配色
- ISBN 7-5053-7931-3
- 电子工业出版社
- 韩国 I.R.I 色彩研究所

# What Is Color?

- Color is the byproduct of the spectrum of light, as it is reflected or absorbed, as received by the human eye and processed by the human brain.

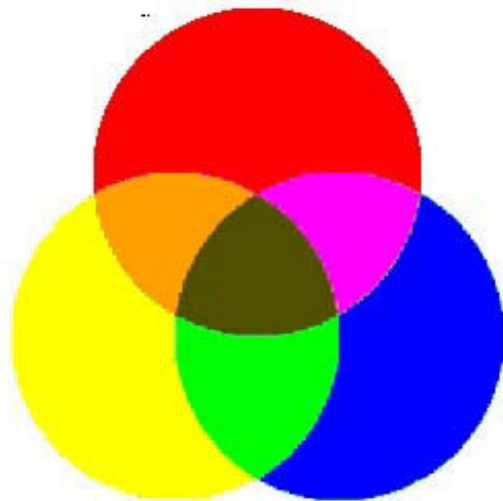


# What Is Color?

- The world is full of light. Visible light is made of seven wavelength groups.
- The reddish colors are the long wavelengths. The greenish colors are the mid-size wavelengths. The bluish color are the short wavelengths.

# Paint Colors Model

- This is the system that you probably learned in grade school, using poster paints or crayons. It is included here for the sake of comparison, since many people will remember it and perhaps wonder why the colors we use on computers are different.



**Primary colors:** red, yellow, blue

**Secondary colors:**

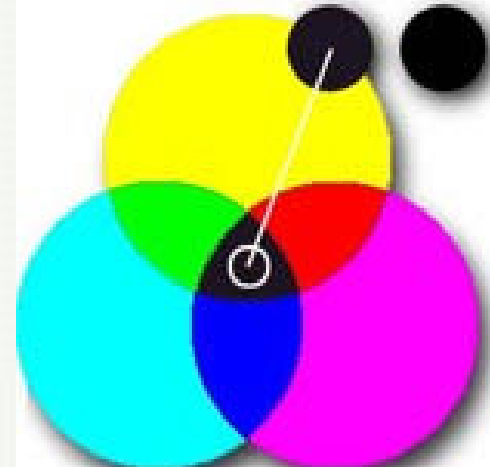
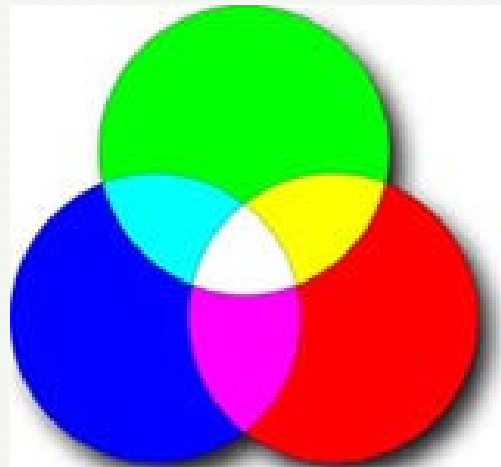
orange = red + yellow,

green = yellow + blue,

purple = blue + red.

# Digital Color Models

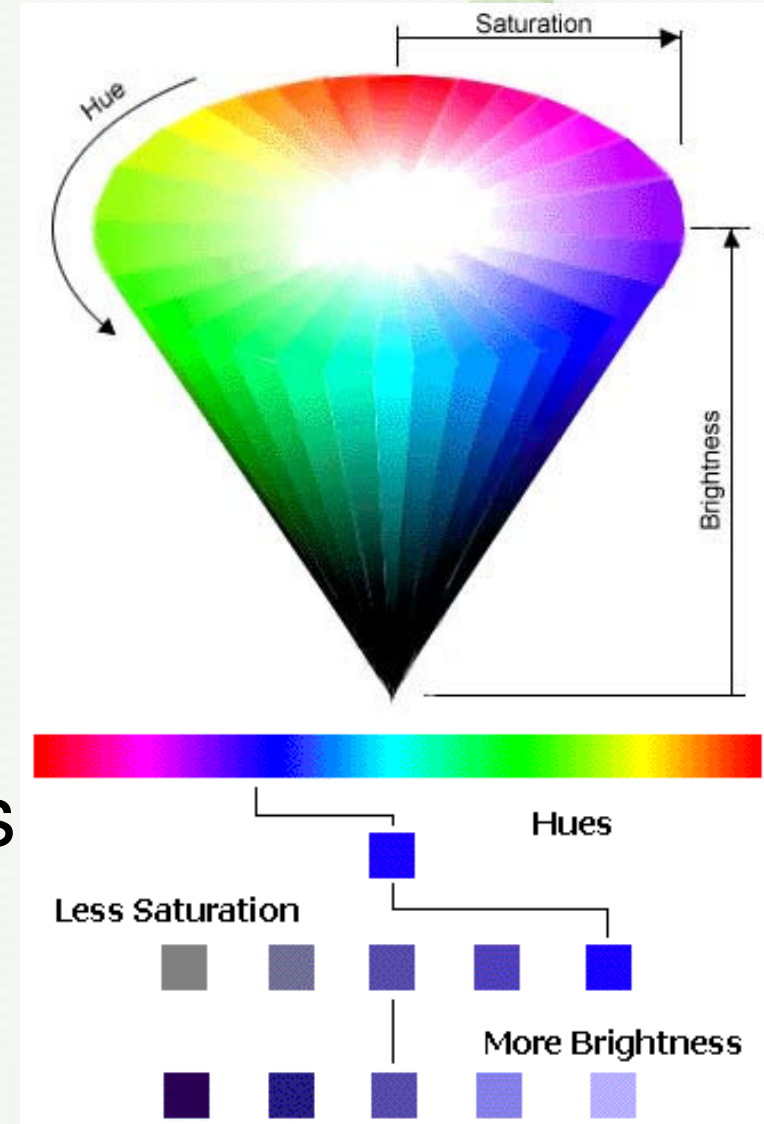
- A color model is an abstract mathematical model describing the way colors can be represented as tuples of numbers, typically as three or four values or color components.
- RGB Red, Green, Blue
- CMYK Cyan, Magenta, Yellow, Black



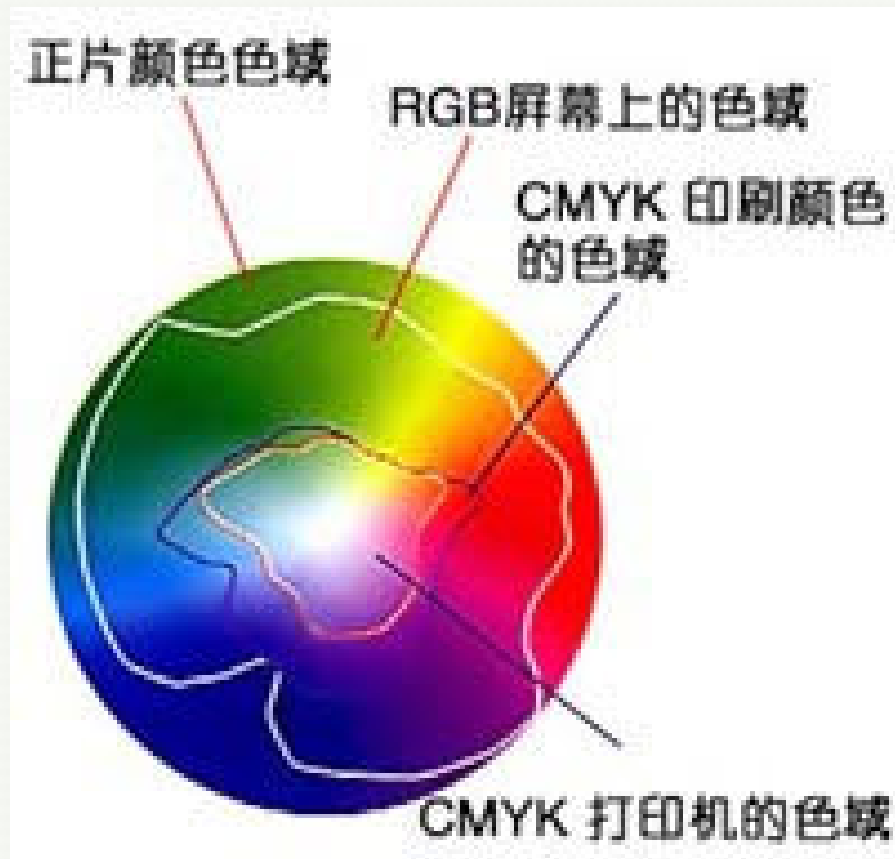


# Color Models

- HSB
- Hue is the actual color.
- Saturation is the purity of the color.
- Brightness is the relative lightness or darkness of a particular color. Brightness is also called Lightness in some contexts.



# Color Field





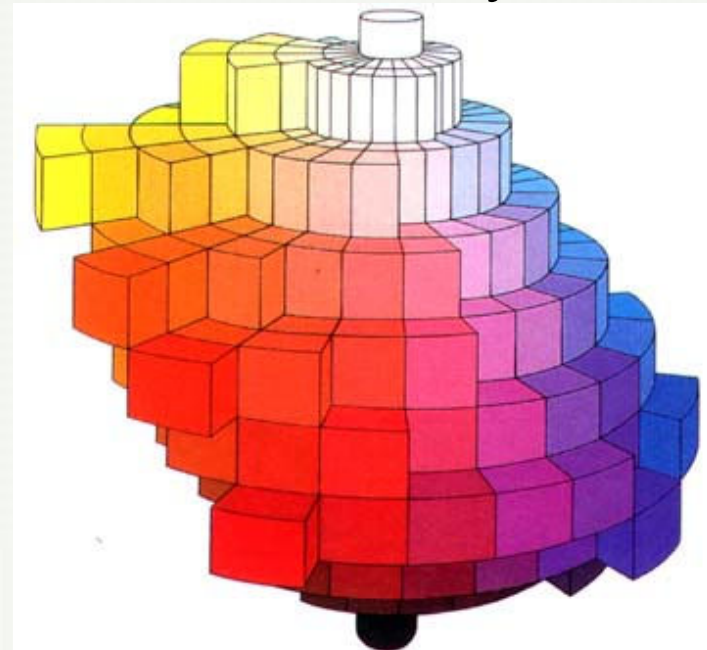
# Color Wheels

- Color wheels are a way to arrange colors, making it easier to select a palette that works.

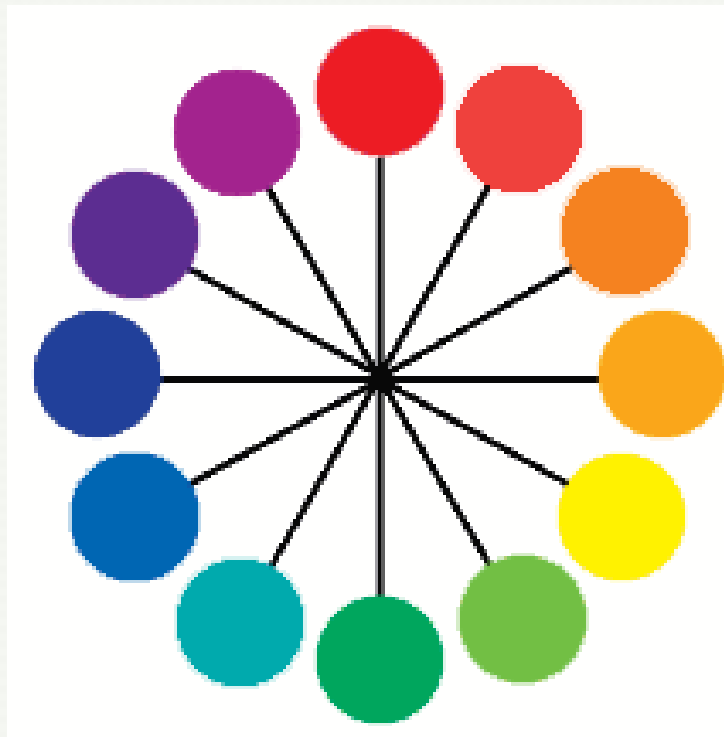
奥斯特华德色系 Der Farbatlas



Munsell Color System

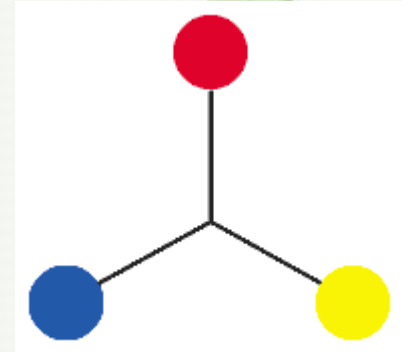


# 12 Hue Wheel



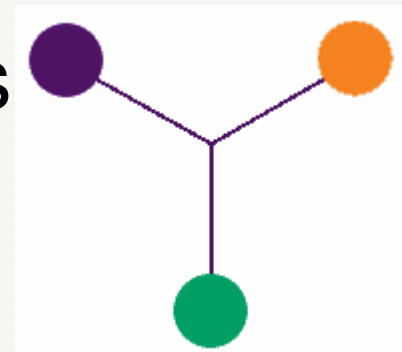
## primary hues:

colors are the defining colors of the wheel.



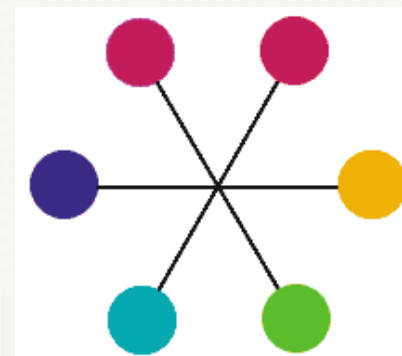
## secondary hues

colors are the three colors that are equal distant from the primary colors.



## tertiary hues

colors are the colors between each primary and secondary color.



# 10 Hue Wheel

Red  
Yellow Red  
Yellow  
Green Yellow  
Green  
Blue Green  
Blue  
Purple Blue  
Purple  
Red Purple

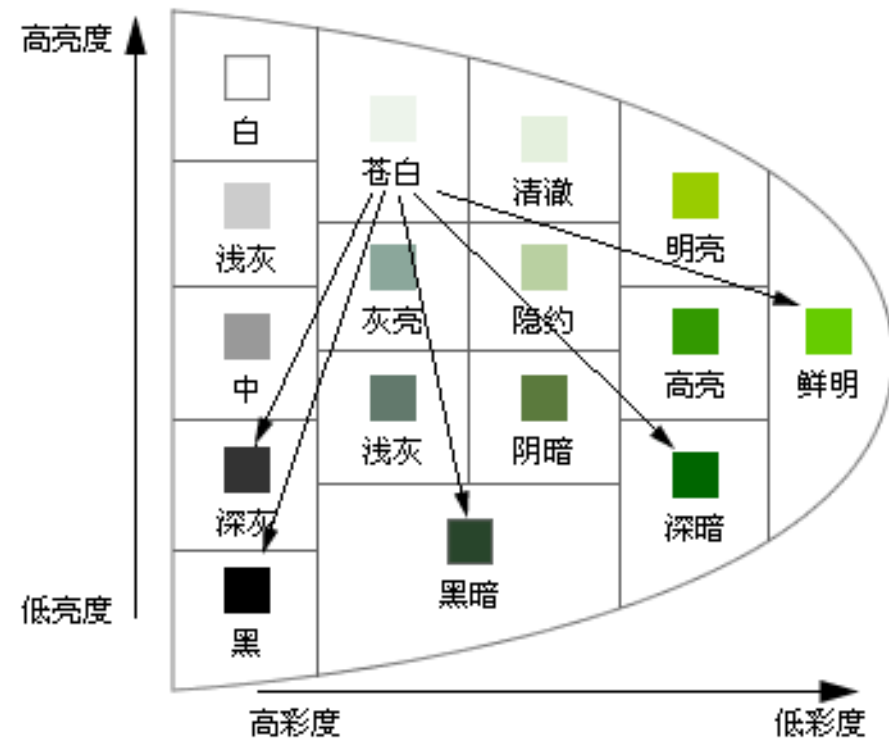
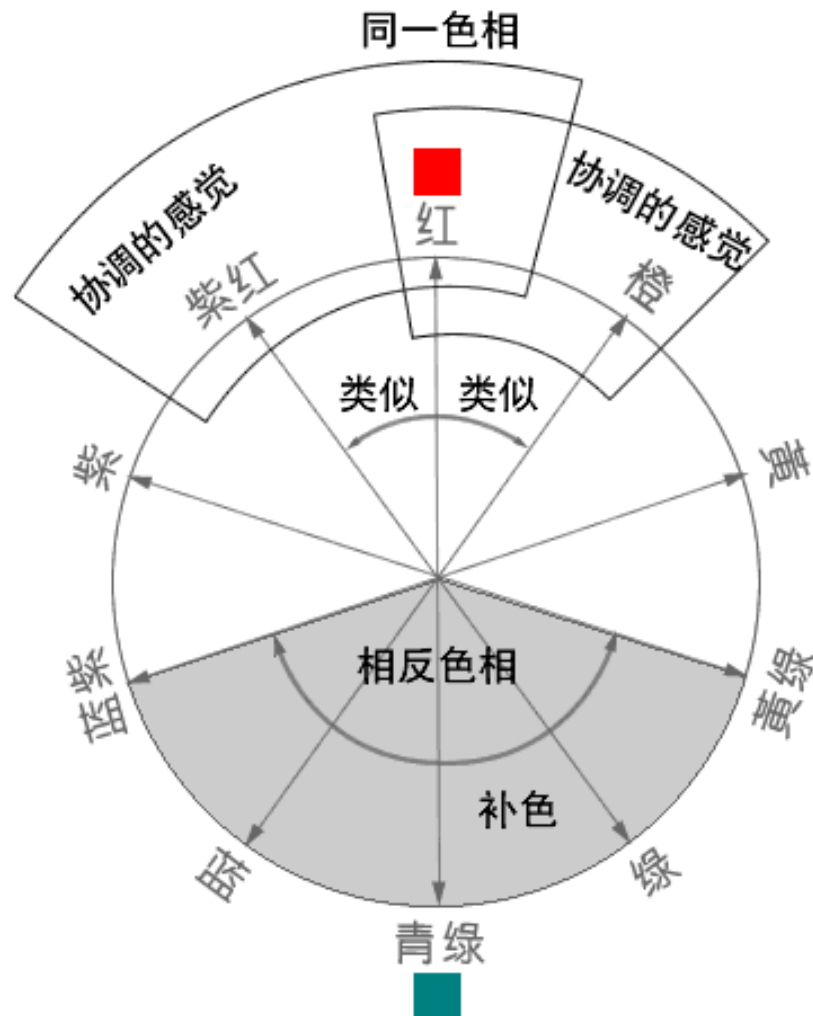


# Basic Match Colors

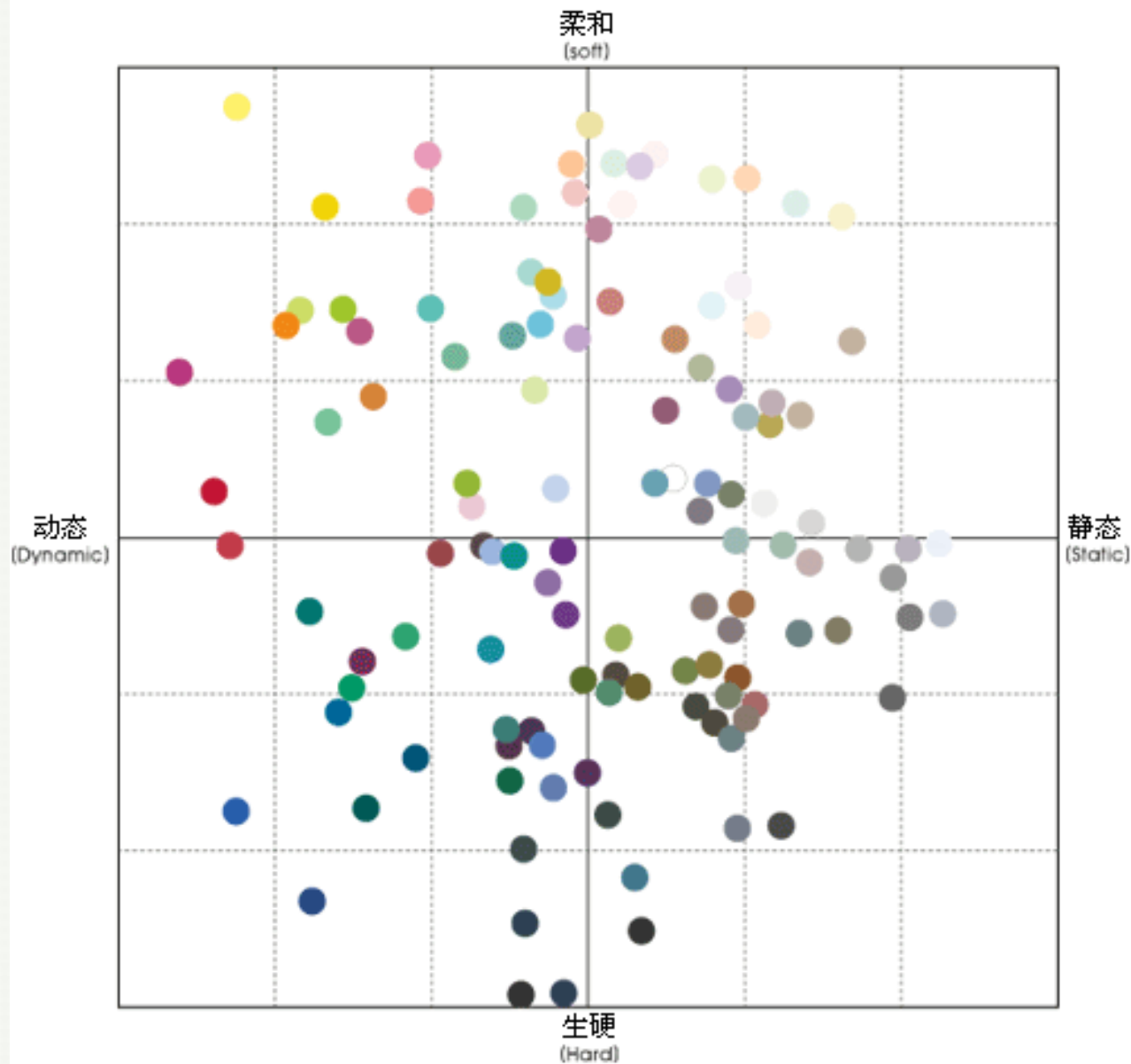
无色设计(achromatic)  
类比设计(analogous)  
冲突设计(clash)  
互补设计(complement)  
单色设计(monochromatic)  
中性设计(neutral)  
分裂补色设计(split complement)  
原色设计(primary)  
二次色设计(secondary)  
三次色三色设计(tertiary)



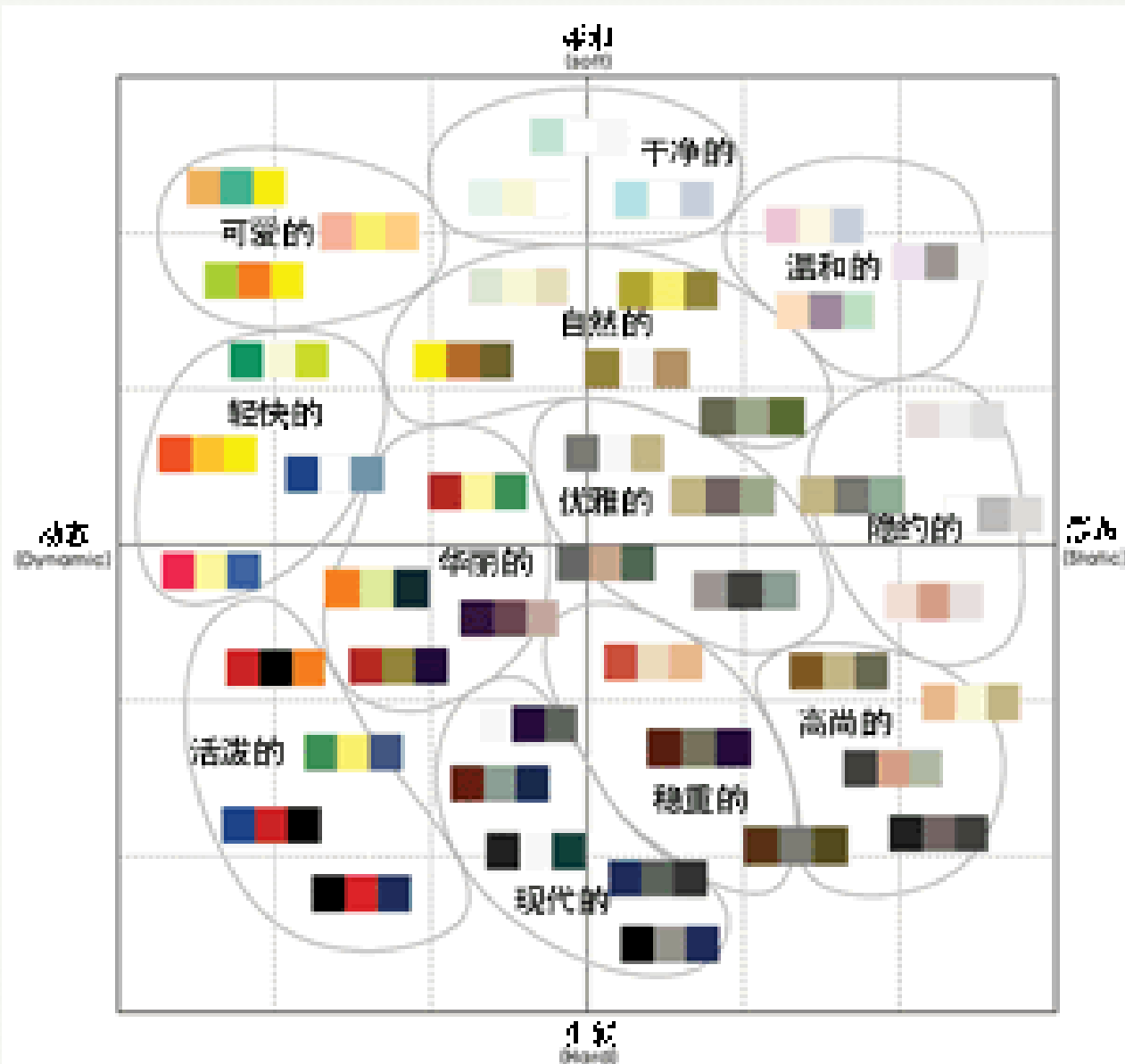
# Based on Hue or Tone



# Impression Space of Match Colors



# Impression Space of Match Colors





# How to define web color?

Color Name: aqua, black, blue, fuchsia, gray, green, lime, maroon, navy, olive, purple, red, silver, teal, white, and yellow

#RRGGBB

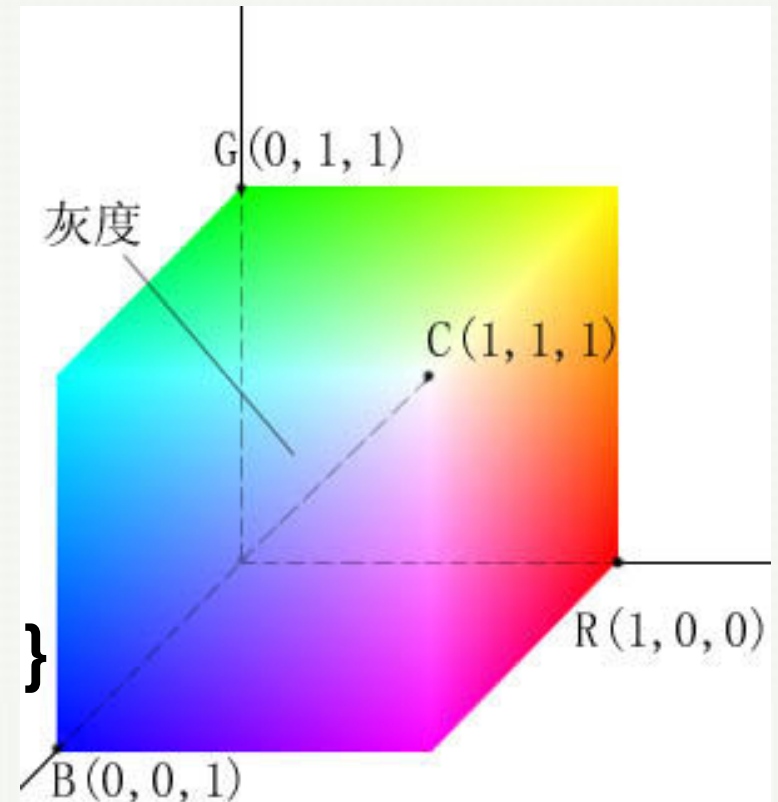
RGB ( *R,G,B* )

```
p { color:red }
```

```
p { color:#ff0000 }
```

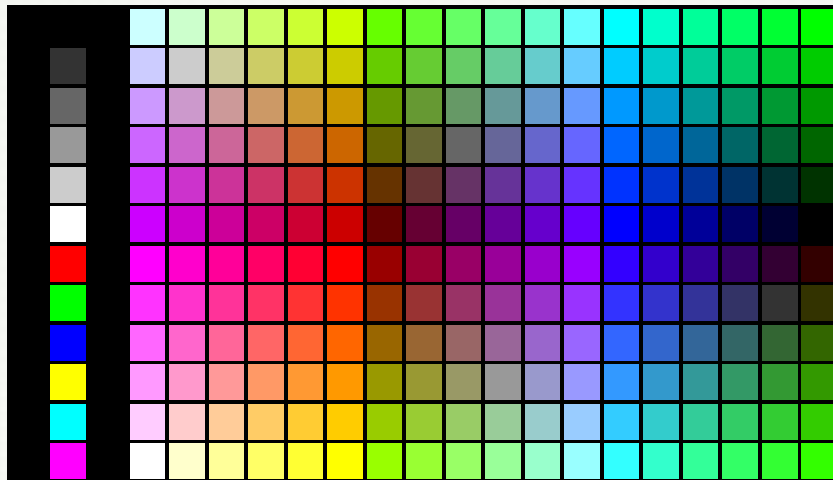
```
p { color:rgb(255,0,0) }
```

```
p { color:rgb(100%, 0%, 0%) }
```



# Safety color palette

- The safety color palette is a set of 216 different colors that should be used in images designed for the World Wide Web. By using this set of colors, you minimize the risk of unwanted dithering in your images.



彩色系(Chromatic Colors) 210

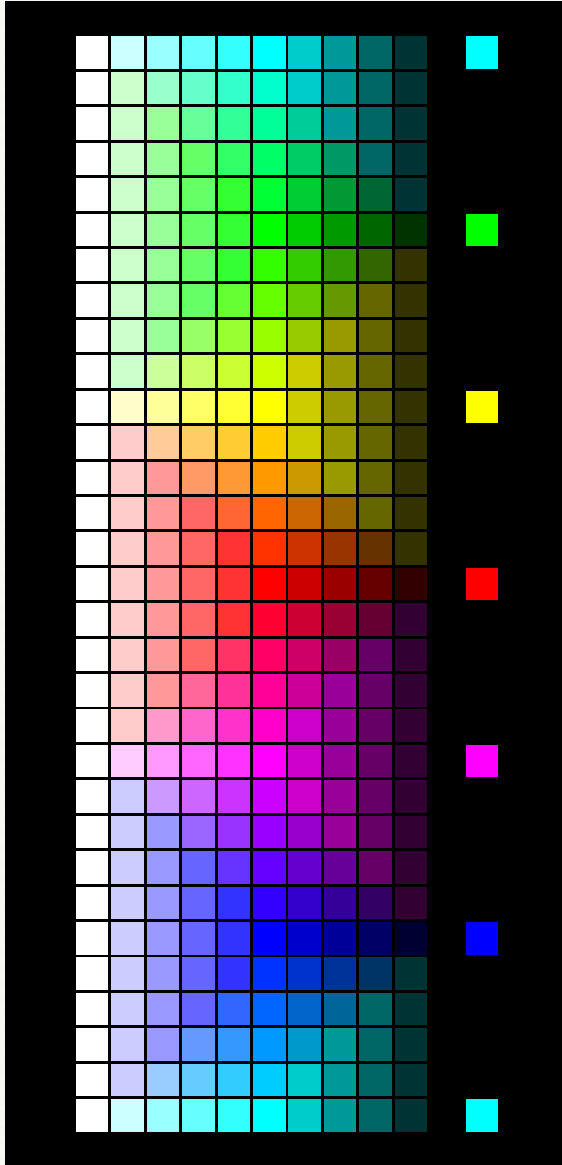
非彩色系(Achromatic Colors) 6

00 33 66 99 CC FF

#0033FF #3300FF

#00FF33 #33FF00

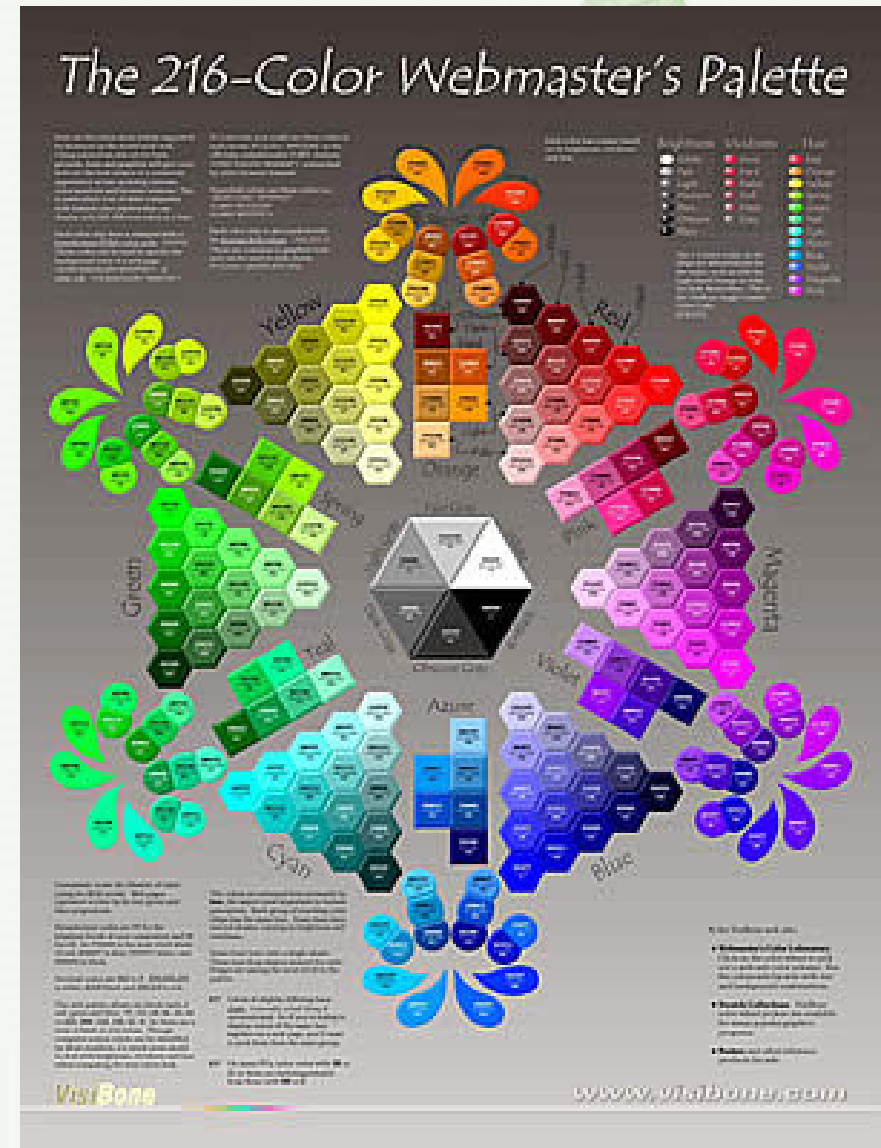
# Safety color palette

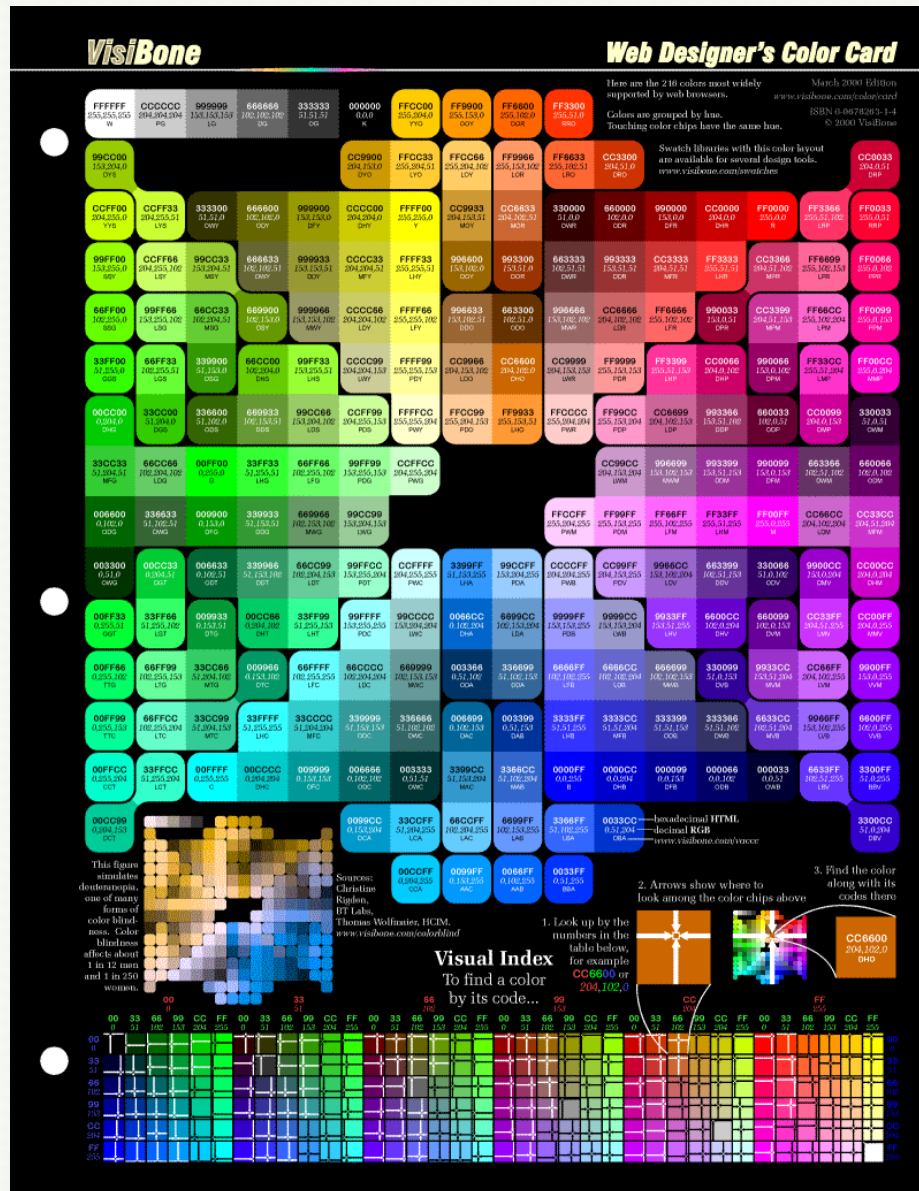


- Browser-Safe Color Palette
- The Browser-Safe Palette, as I so named it, is the actual palette that Mosaic, Netscape, and Internet Explorer use within their browsers. The palettes used by these browsers are slightly different on Macs and PCs. This palette is based on math, not beauty.

# Safety color palette

- 216-Color Webmaster's Palette
- All 216 universal browser-safe colors are arranged symmetrically by hue in a color wheel. Includes the original open airy collection and a new, ruthlessly compact collection.



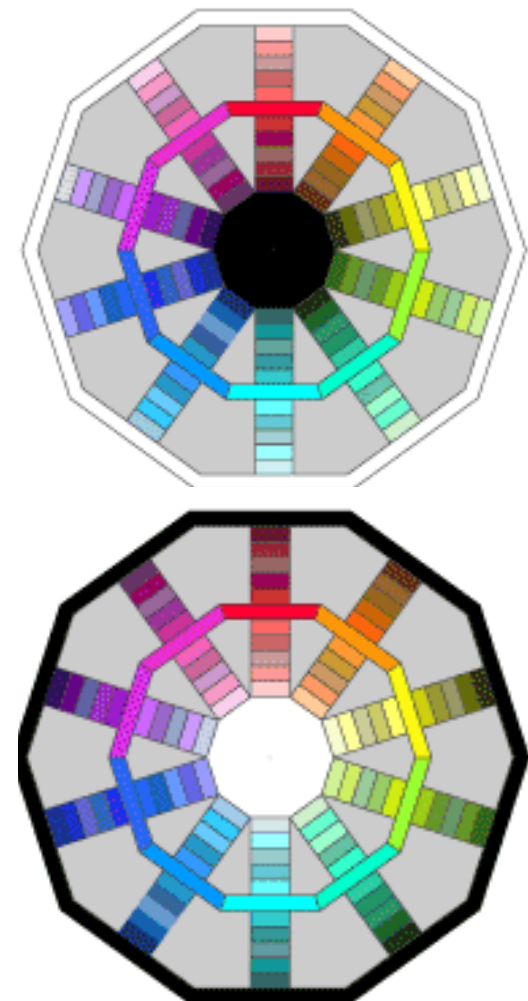
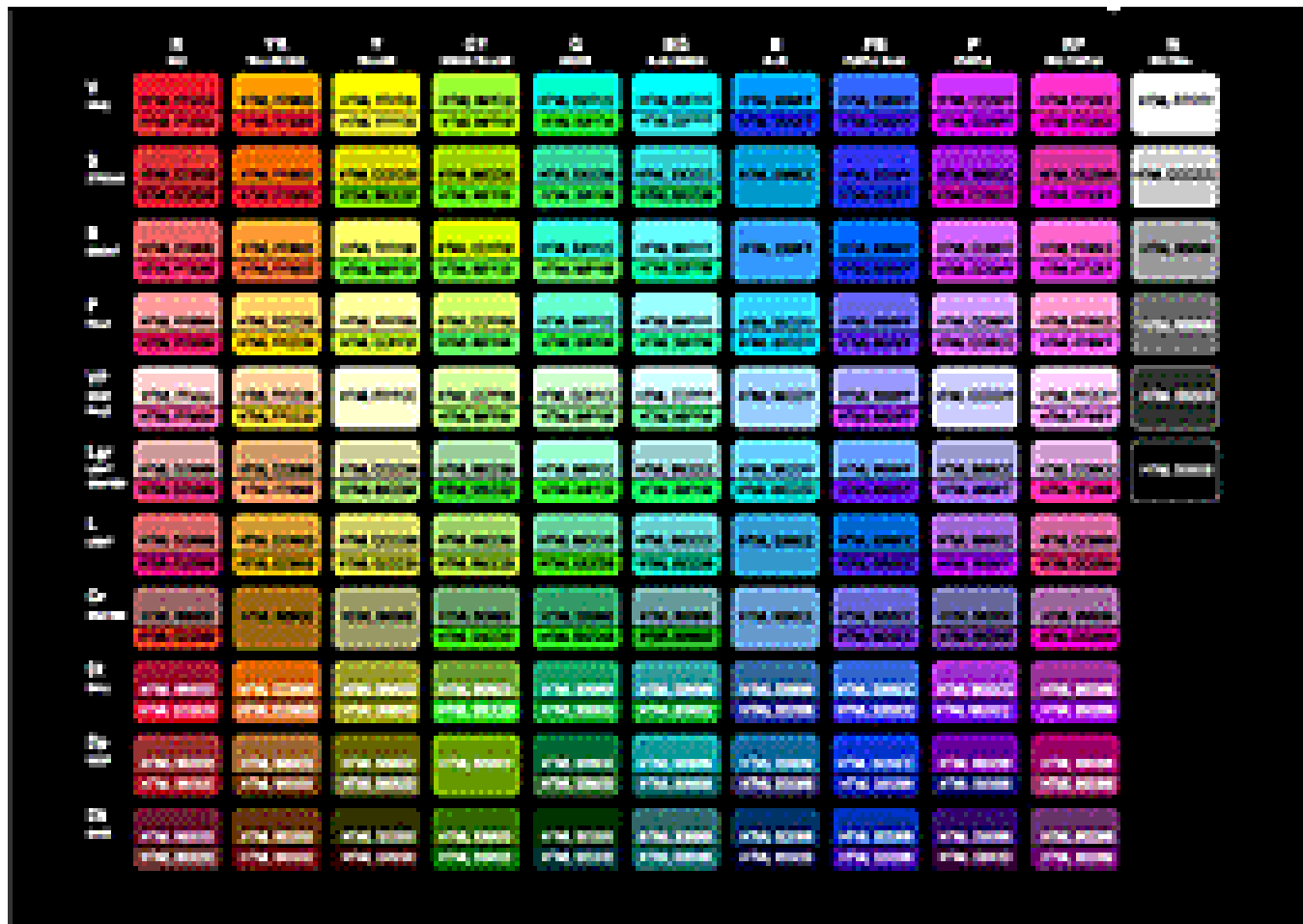




# Safety color palette

- I.R.I Web Color Sense Palette Series

- Hue & Tone 216 Palette



# Classified Design by Color

## •Red



- 红色在网页中大多数情况下都用于突出颜色，因为鲜明的红色极易吸引人们的目光。
- 高亮度的红色通过与灰色、黑色等非彩色搭配使用，可以得到现代且激进的感觉。
- 低亮度的红色通过冷静沉重的感觉营造出古典的氛围。



# Classified Design by Color

- Yellow Red • 使用了高亮度橙色的站点通常都会给人一种晴朗新鲜的感觉，而通过将黄色、黄绿色等类似颜色与成色搭配使用，通常都能得到非常好的效果。同时，中等色调的橙色类似于泥土的颜色，所以也经常用来创造自然的氛围。
- 橙色是可以通过变换色调营造出不同氛围的典型颜色，它既能表现出青春的活力也能够实现沉稳老练的效果，所以橙色在网页配色中的使用范围是非常广泛的。



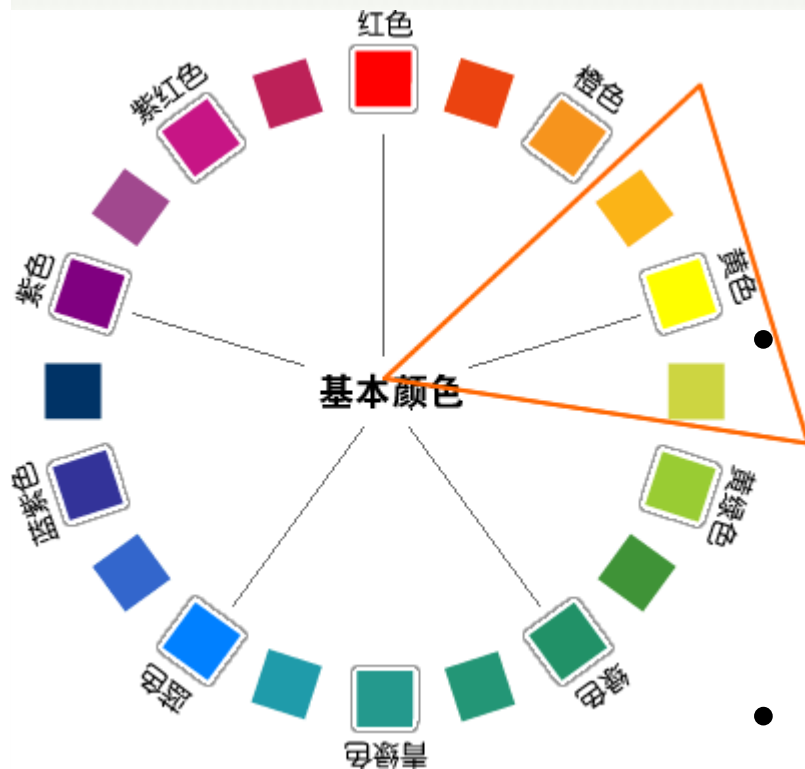
# Classified Design by Color

- Yellow

- 黄色在从儿童站点直至门户型网站等几乎每一个角落中都找到了自己的发挥空间，通过结合紫色、蓝色等颜色可以得到温暖愉快的积极效果。

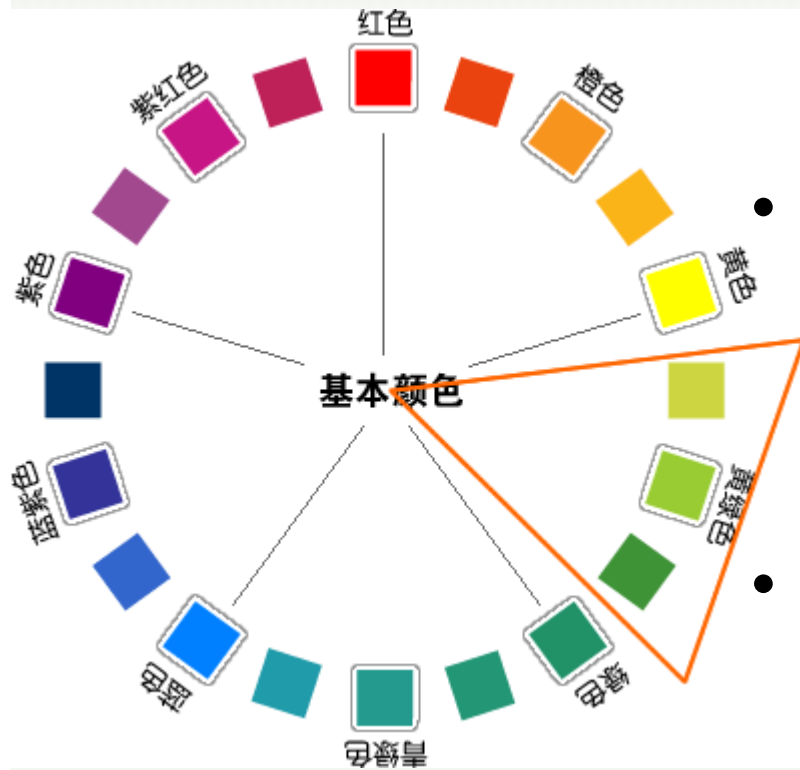
- 高彩度的黄色与黑色的结合可以得到清晰整洁的效果，这种配色实例在网页设计中经常可以见到。

- 采用同一色调的深褐色与黄色的搭配，可以表达一种成熟的城市时尚的感觉。



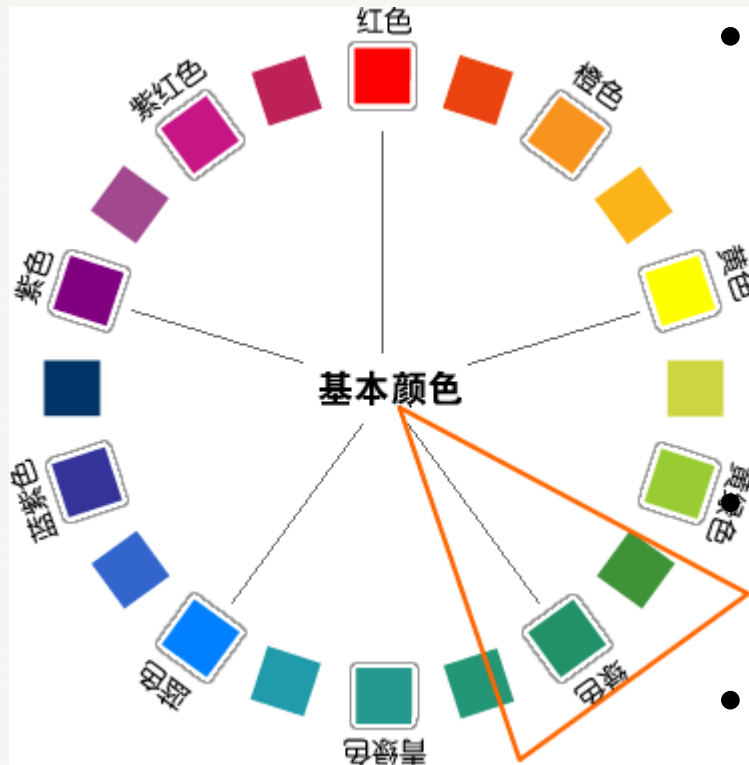
# Classified Design by Color

- Yellow Green . 黄绿色时而能够表现出自然的感觉，时而能够表现出未来虚幻的感觉。
- 原本这两种印象之间有很大的差异，但黄绿色就像穿越时间隧道那样能够自由自在地表现出这两种截然不同的感觉。
- 在网页中，黄绿色通常与蓝色搭配使用。总的来说，黄绿色主要用于表现温暖亲切的感觉或高科技神秘虚幻的感觉。



# Classified Design by Color

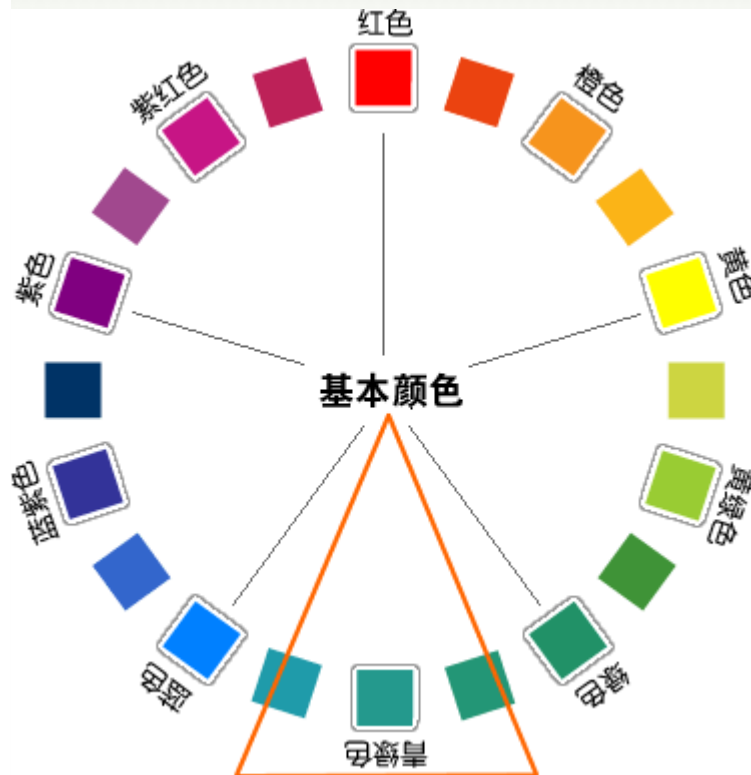
- Green



- 因为它本身具有一定的与健康相关的感觉，所以也经常用于与健康相关的站点。绿色还经常用于一些公司的公关站点或教育站点。
- 当搭配使用绿色和白色时，可以得到自然的感覺。
- 当搭配使用绿色与红色时，可以得到鲜明且丰富的感觉。

# Classified Design by Color

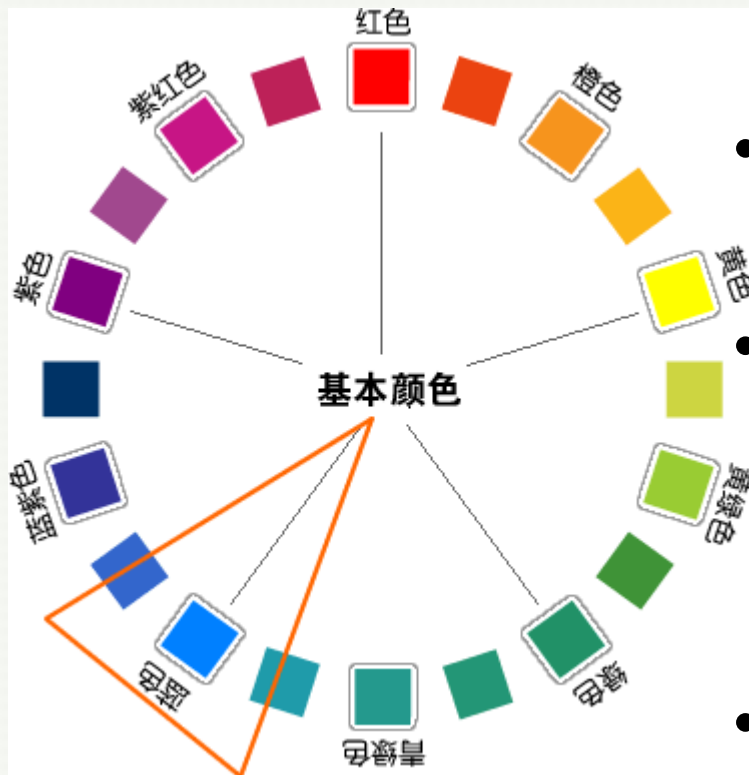
- Blue Green



- 青绿色会给人带来凉爽清新的感觉，且青绿色既可以使人原本兴奋的心情冷静下来，也可以使人原本沉静的心情活跃起来。
- 青绿色与黄色、成色等颜色搭配可以营造出可爱亲切的氛围。
- 青绿色与蓝色、白色等颜色搭配可以得到清新爽朗的效果。

# Classified Design by Color

- Blue

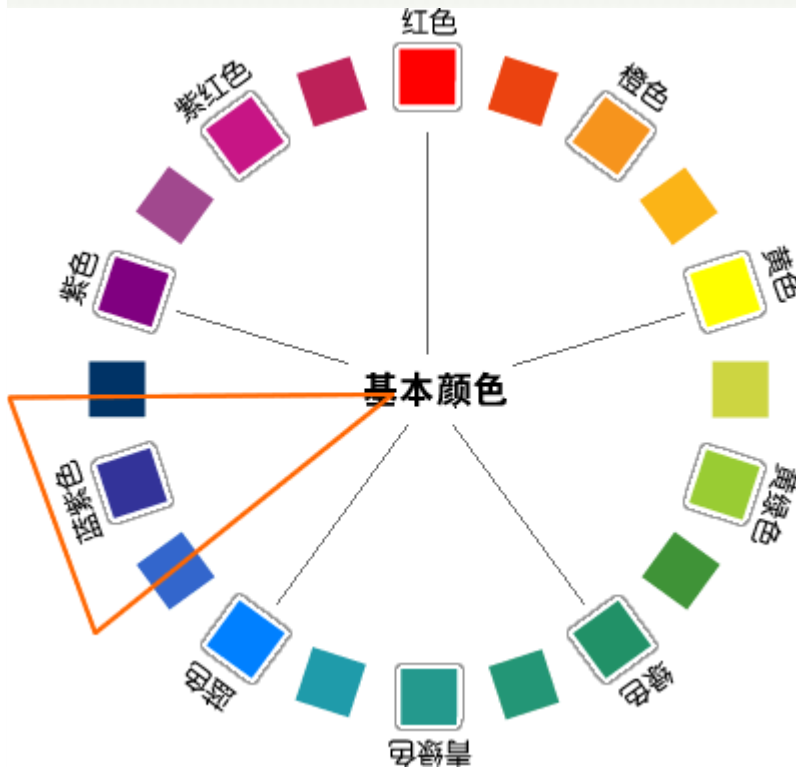


- 高彩度的蓝色会营造出一种整洁轻快的印象。
- 低彩度的蓝色会给人一种都市化的现代派印象。
- 主颜色选择明亮的蓝色，配以白色的背景和灰亮的辅助色，可以使站点干净而整洁，给人庄重、充实的印象。
- 蓝色、青绿色、白色的搭配可以使页面看起来非常干净清澈。



# Classified Design by Color

- Purple Blue



- 蓝紫色在色相环中位于蓝色和紫色之间，所以它也蕴含着紫色的一些神秘感。
- 低亮度的蓝紫色显得很有分量，而高亮度的蓝紫色显得非常高雅。在网页中，蓝紫色通常与蓝色一起搭配使用。



# Classified Design by Color

- Purple

- 紫色通常用于以女性为对象或以艺术作品介绍为主的站点，但很多大公司的站点中也喜欢使用包含神秘色彩的紫色。

较暗色调的紫色可以表现出成熟的感觉，但女性站点中使用的通常都是清澈（Pale）的紫色。

- 不同色调的紫色可以营造非常浓郁的女性化气息，而且在白色的背景色和灰色的突出颜色的衬托下，紫色可以显示出更大的魅力



# Classified Design by Color

- Red Purple



- 紫红色并不能随意在所有的站点中使用，但使用恰当的紫红色会给人留下深刻的印象。
- 白色、粉红色、天蓝色的颜色搭配，是最受少女欢迎的配色方案。
- 高彩度的紫色和粉红色之间的搭配通常都能得到较好的效果。

# Website Color Match

- Website oneness
- Match colors from Impression Space
- Pick colors from a Web-safe palette.
- Choose three or five colors