

# User Interface Design

## COMP1650

### Colour Theory and Typography

Dr Ralph Barthel

# Lecture Overview

- Basics of Colour Theory
- Colour Harmony
- Colour Palette Examples
- Introduction to Typography
- Best Practices
- Responsive Typography

# Learning Outcomes

The activities in this lecture are linked to the course learning outcome

- apply the concepts of colour theory, font terminology, layout and graphic design elements in terms of visual user interface design.



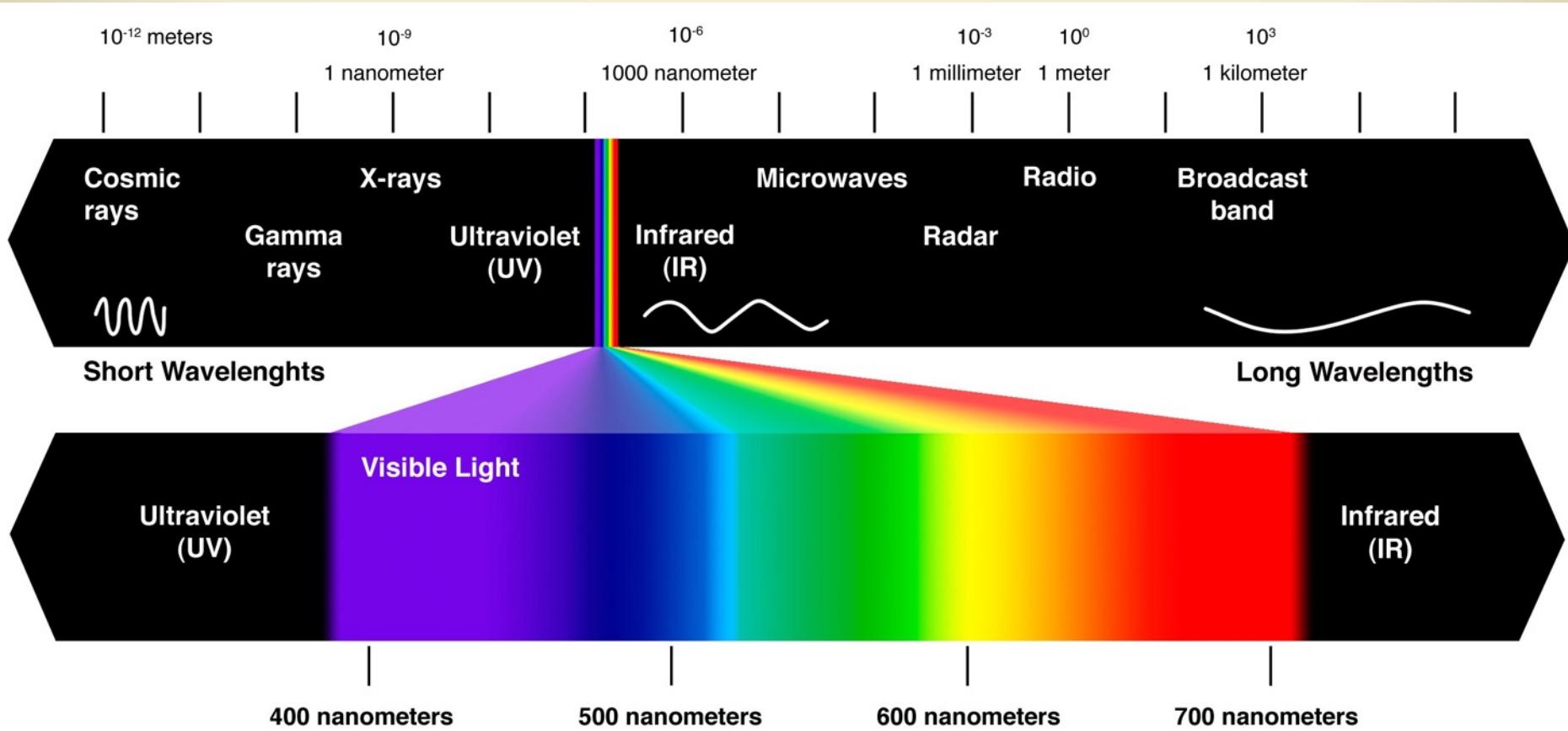
<https://pixabay.com/en/skittles-candy-food-colors-colours-924835/>

“I advise students on the subject of colour as follows: If it looks good enough to eat, use it.” *Abe Ajay*

# Colour Perception

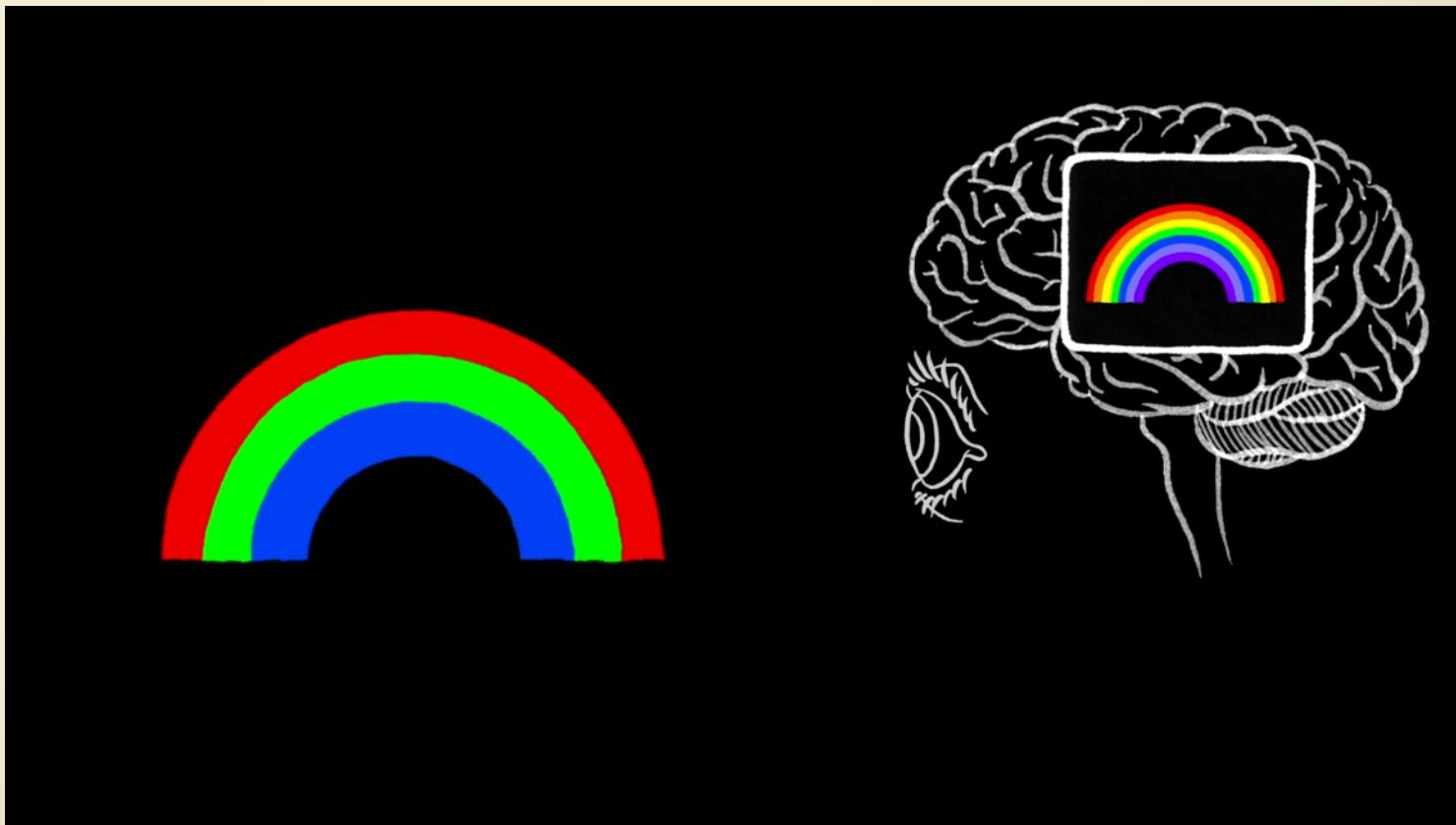
- Colour derives from the spectrum of light
- When light shines on an object light gets absorbed and light gets reflected
- The colours we perceive are based on the light that is reflected

# Colour Perception



# Colour Perception

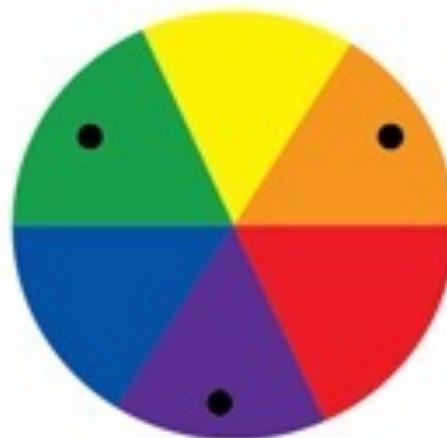
- How we see colour?



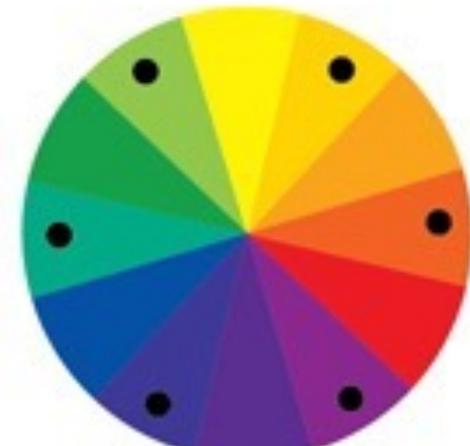
# Basic Colour Theory



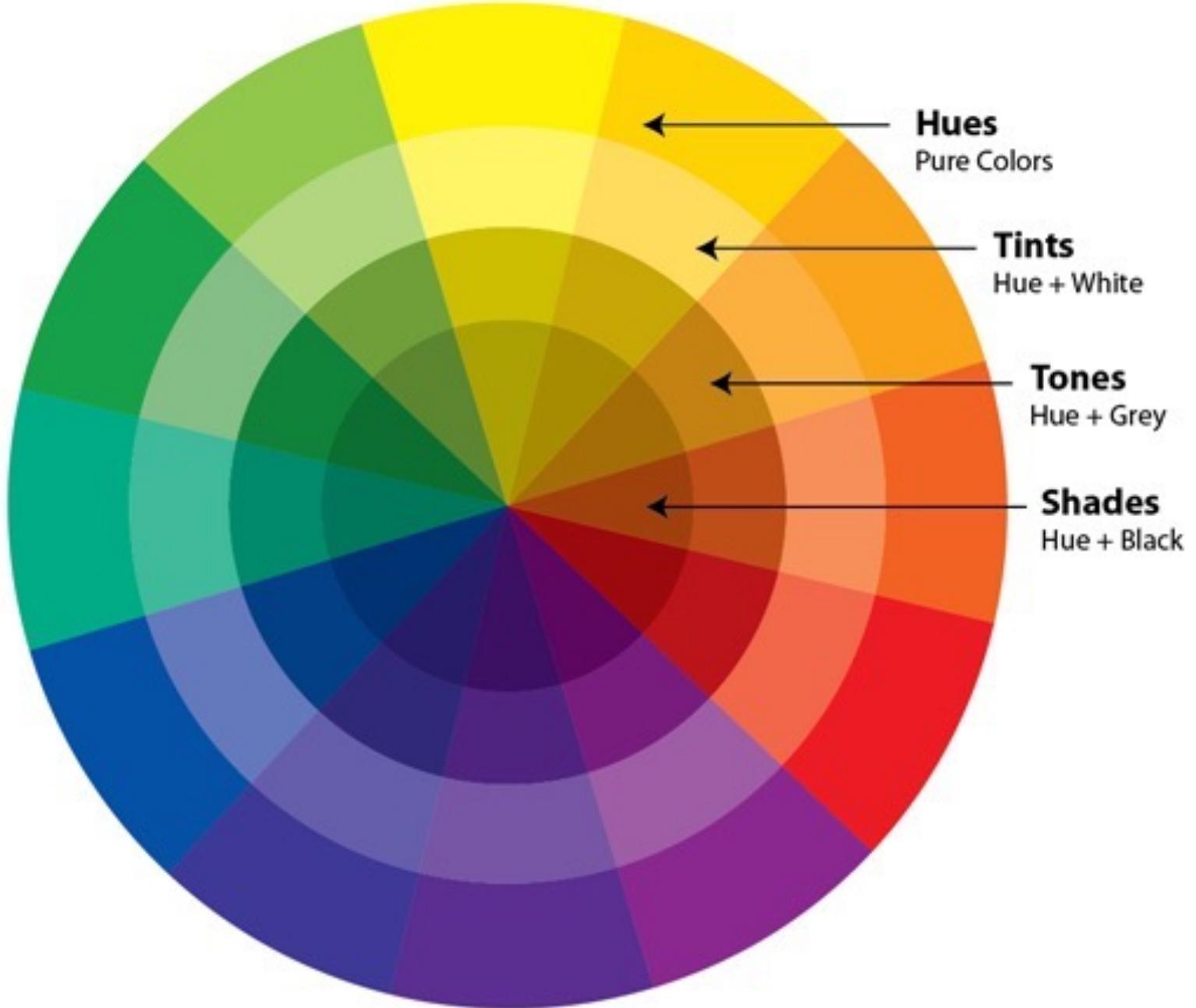
**Primary Colors**

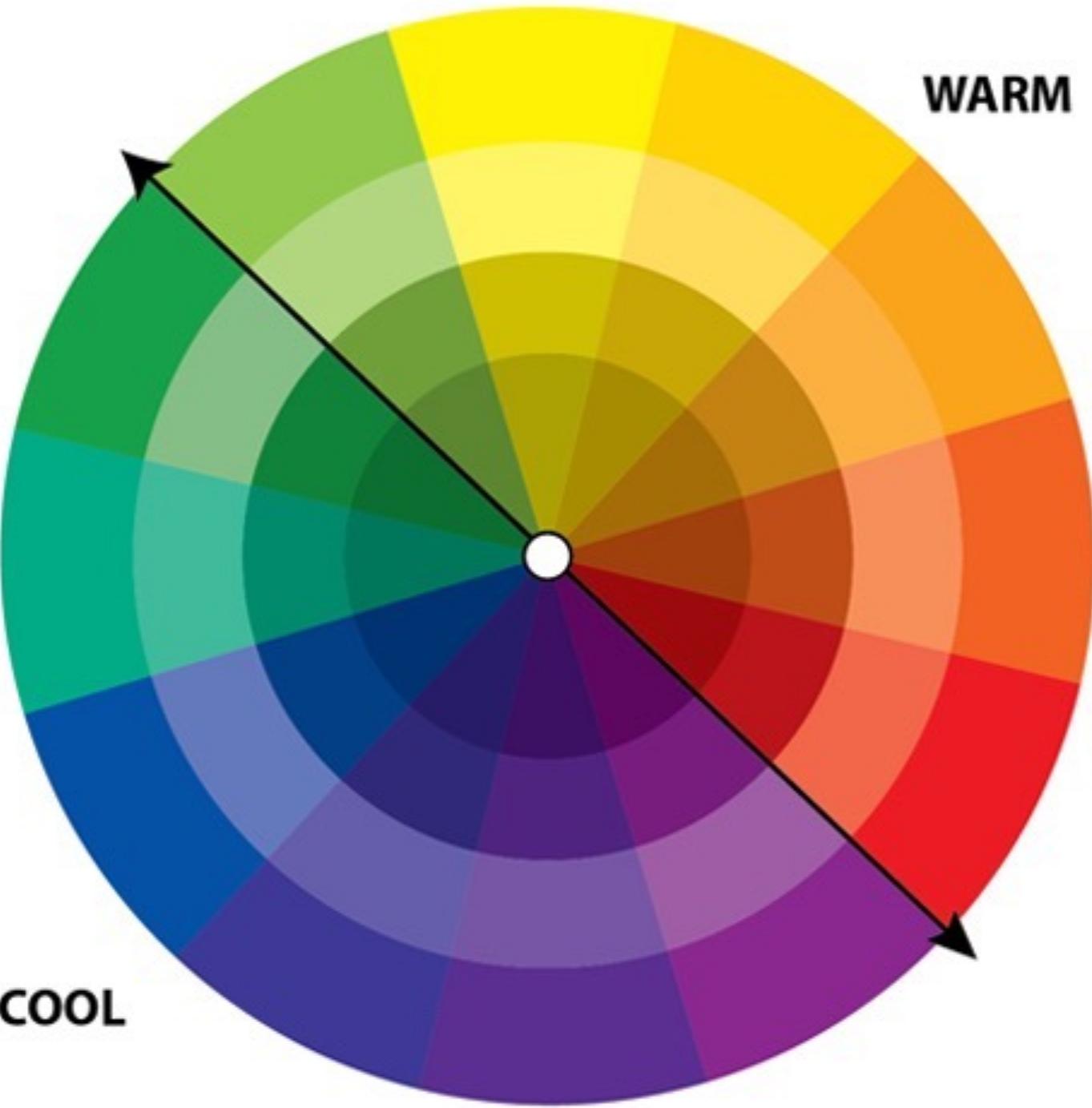


**Secondary Colors**



**Tertiary Colors**



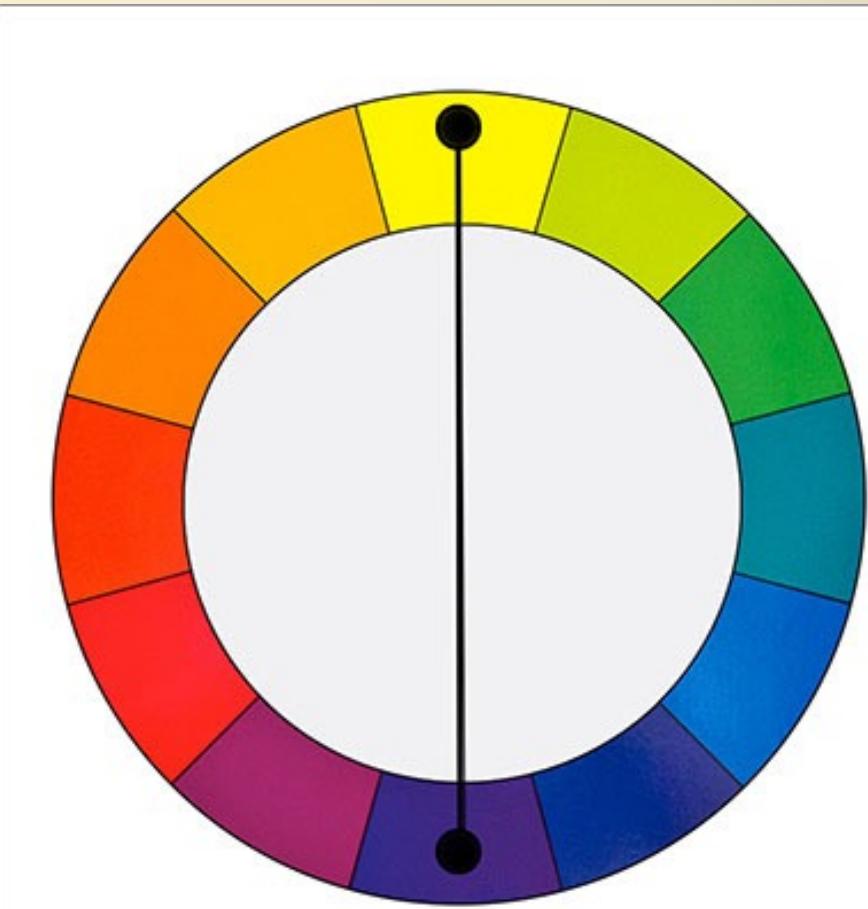


**WARM**

**COOL**

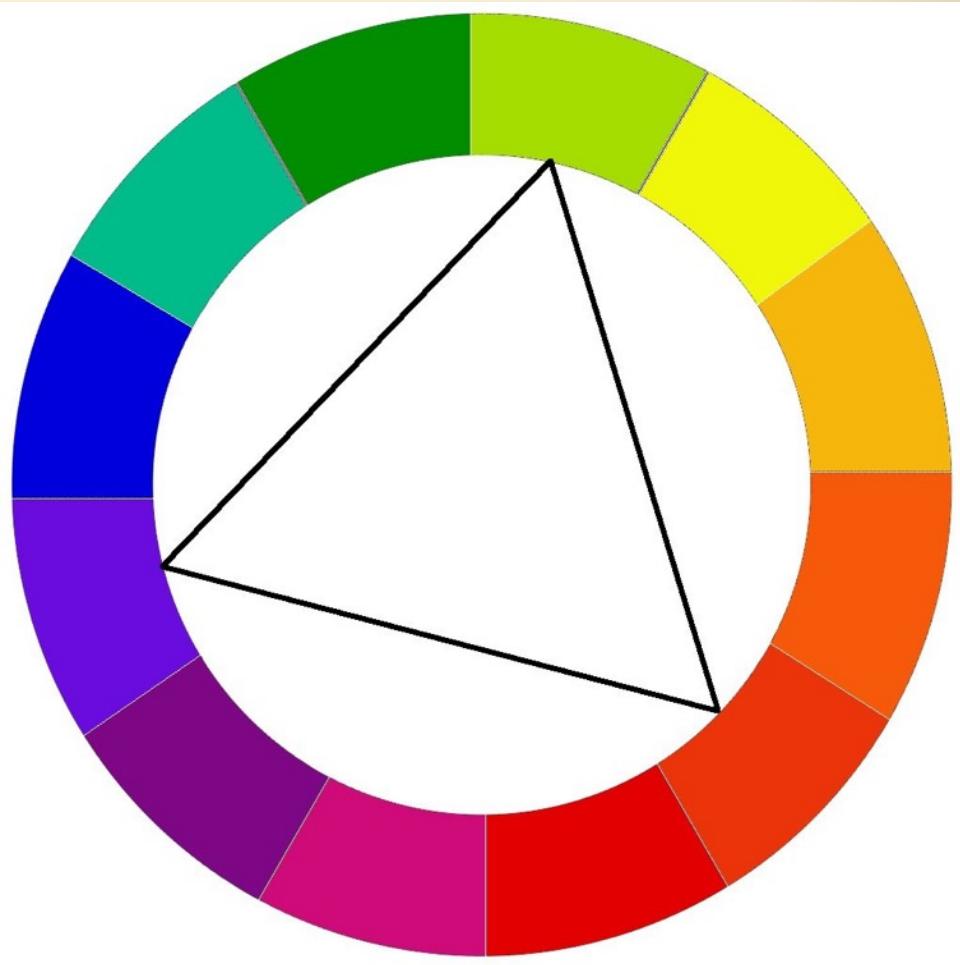
# Colour Harmony

- Two Complementary colours



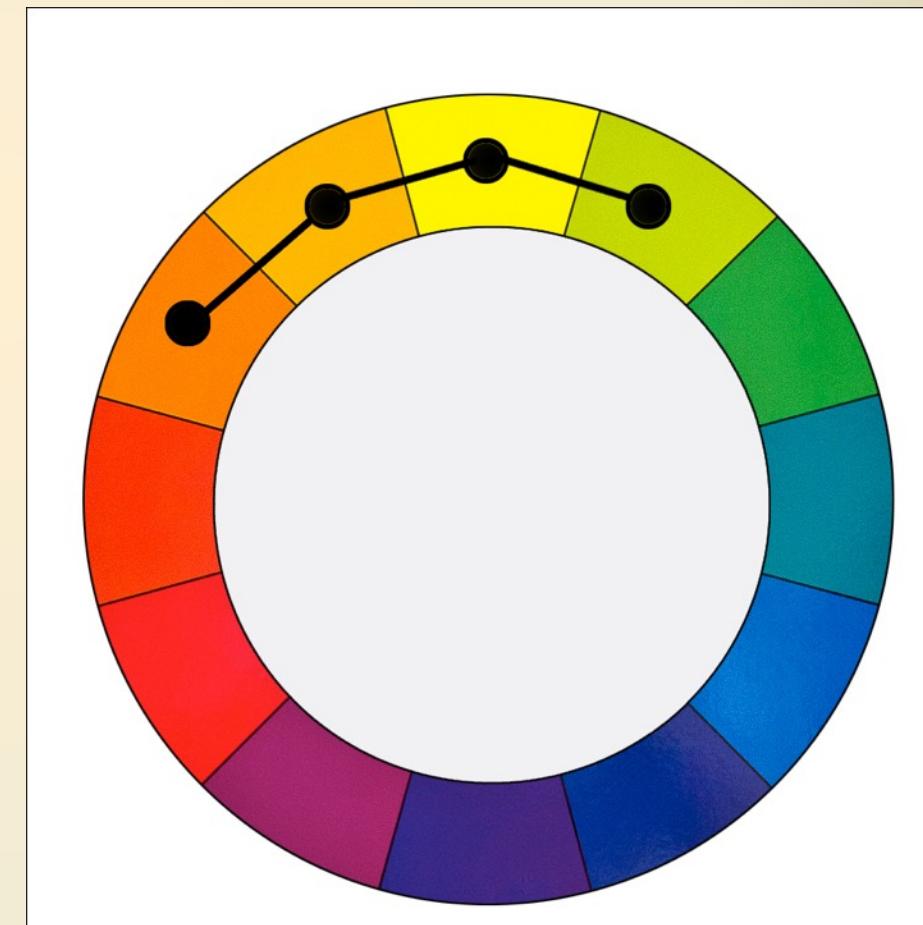
# Colour Harmony

- Triadic colours



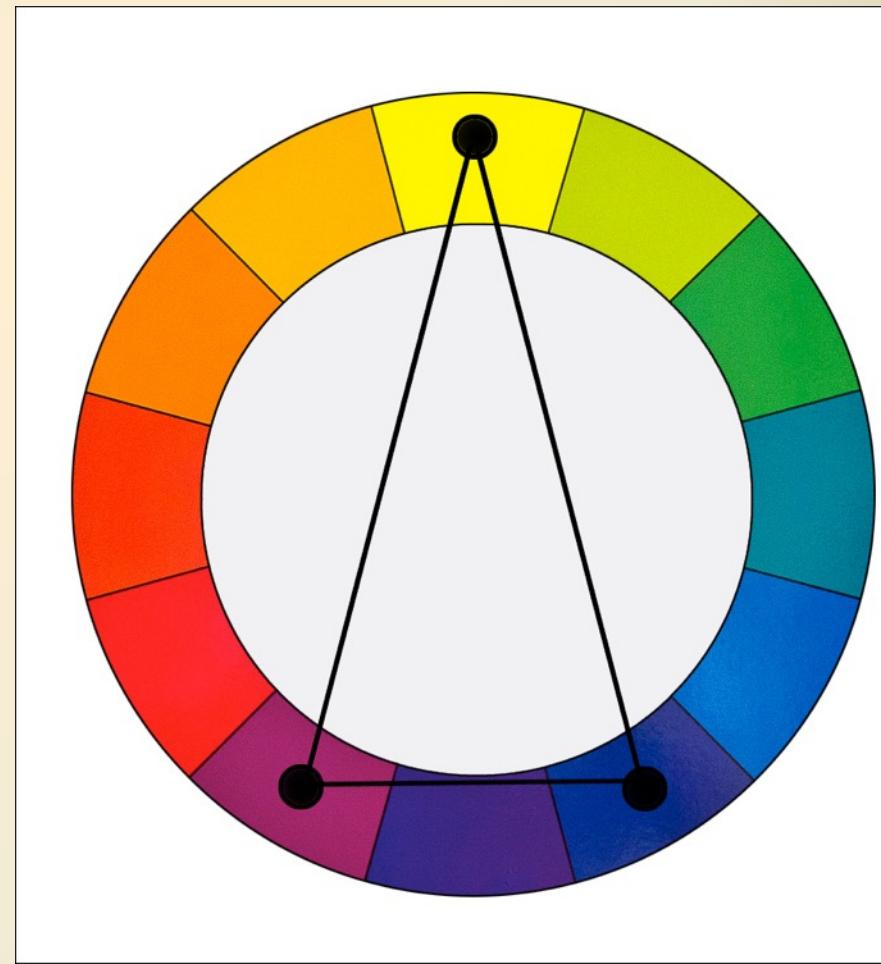
# Colour Harmony

- Analogous Colours



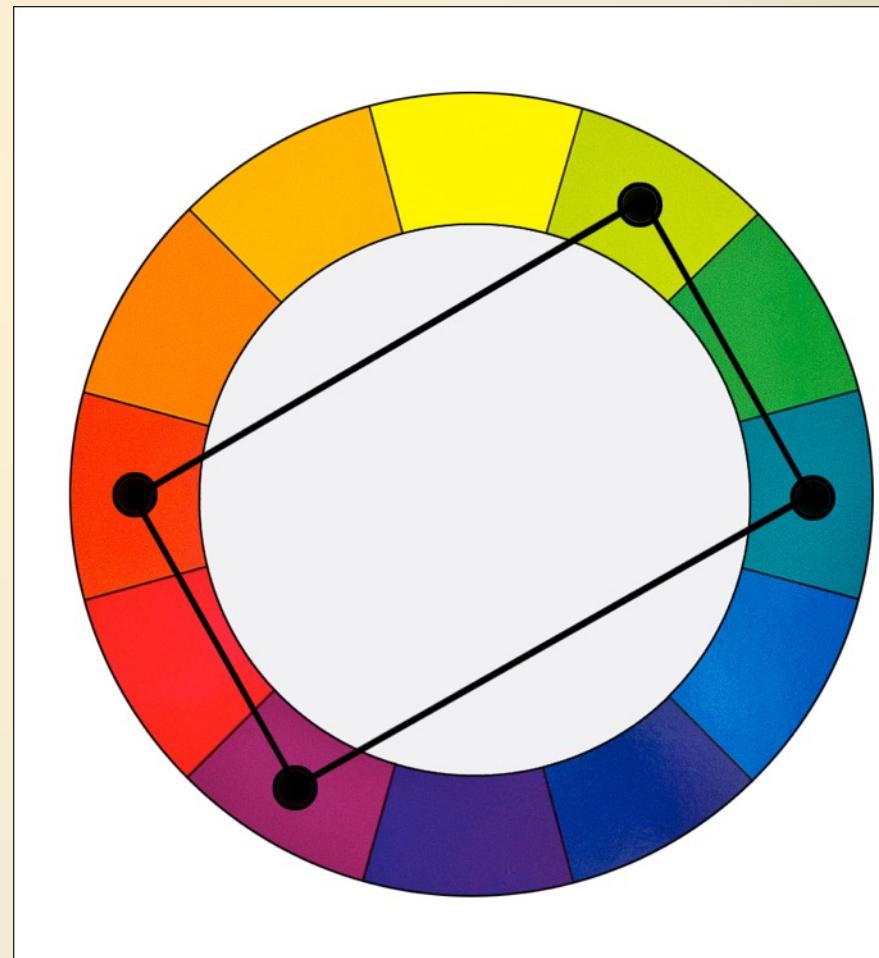
# Colour Harmony

- Split-complementary Colours



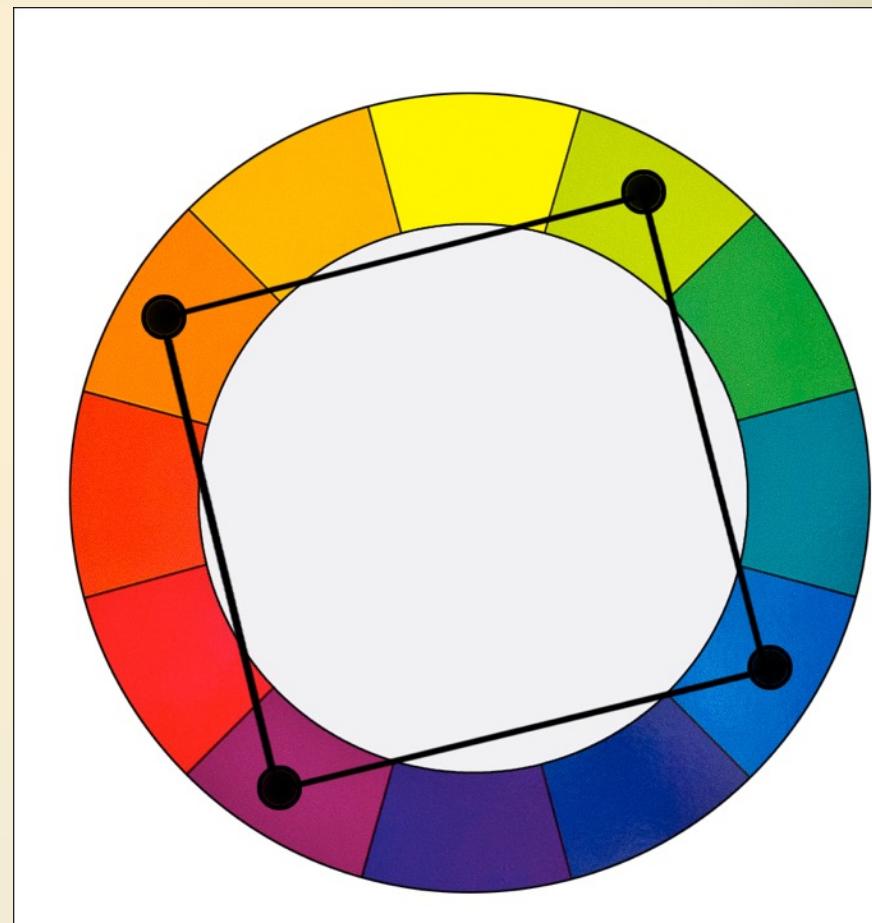
# Colour Harmony

- Rectangular (Tetradic Colours)



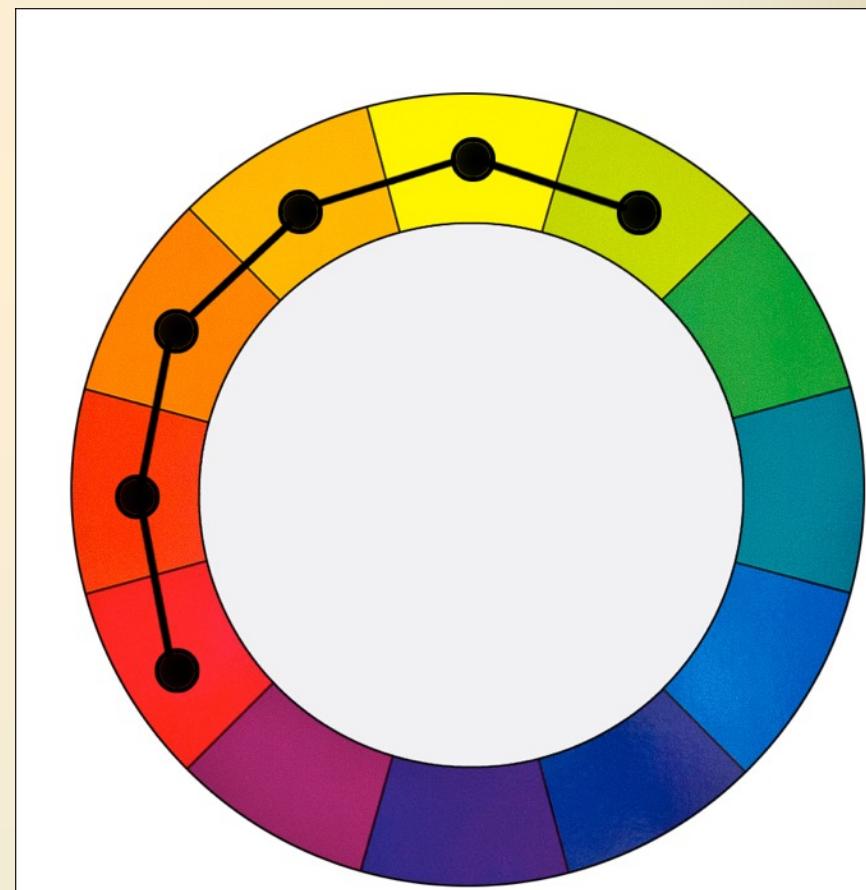
# Colour Harmony

- Square Colours



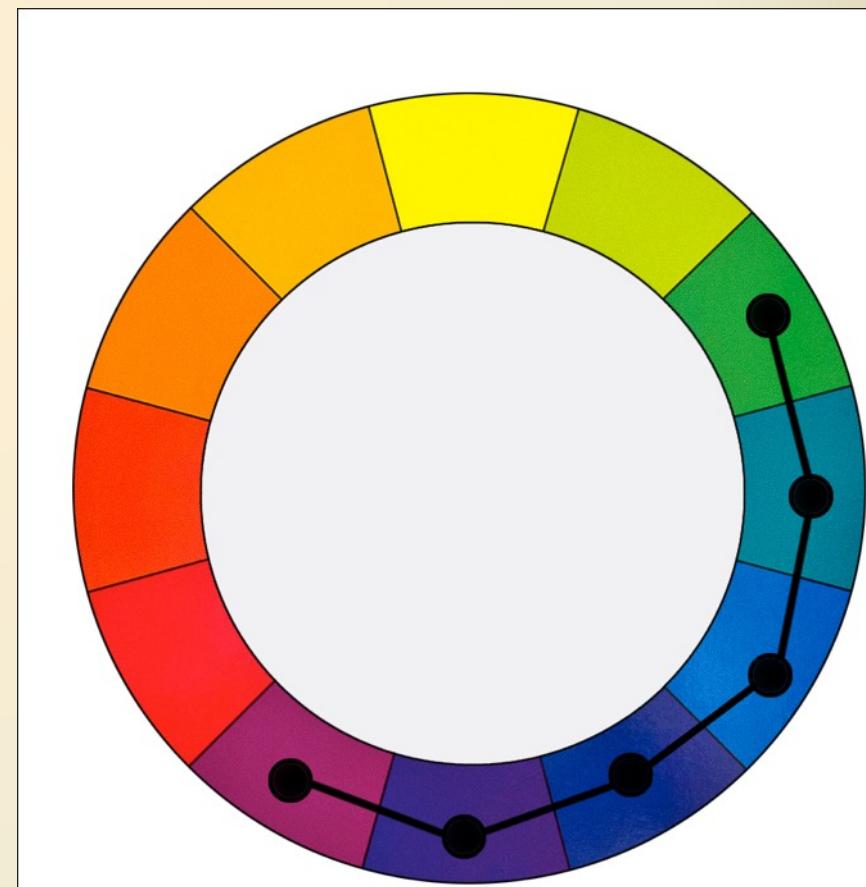
# Colour Harmony

- Warm Colour Dominance

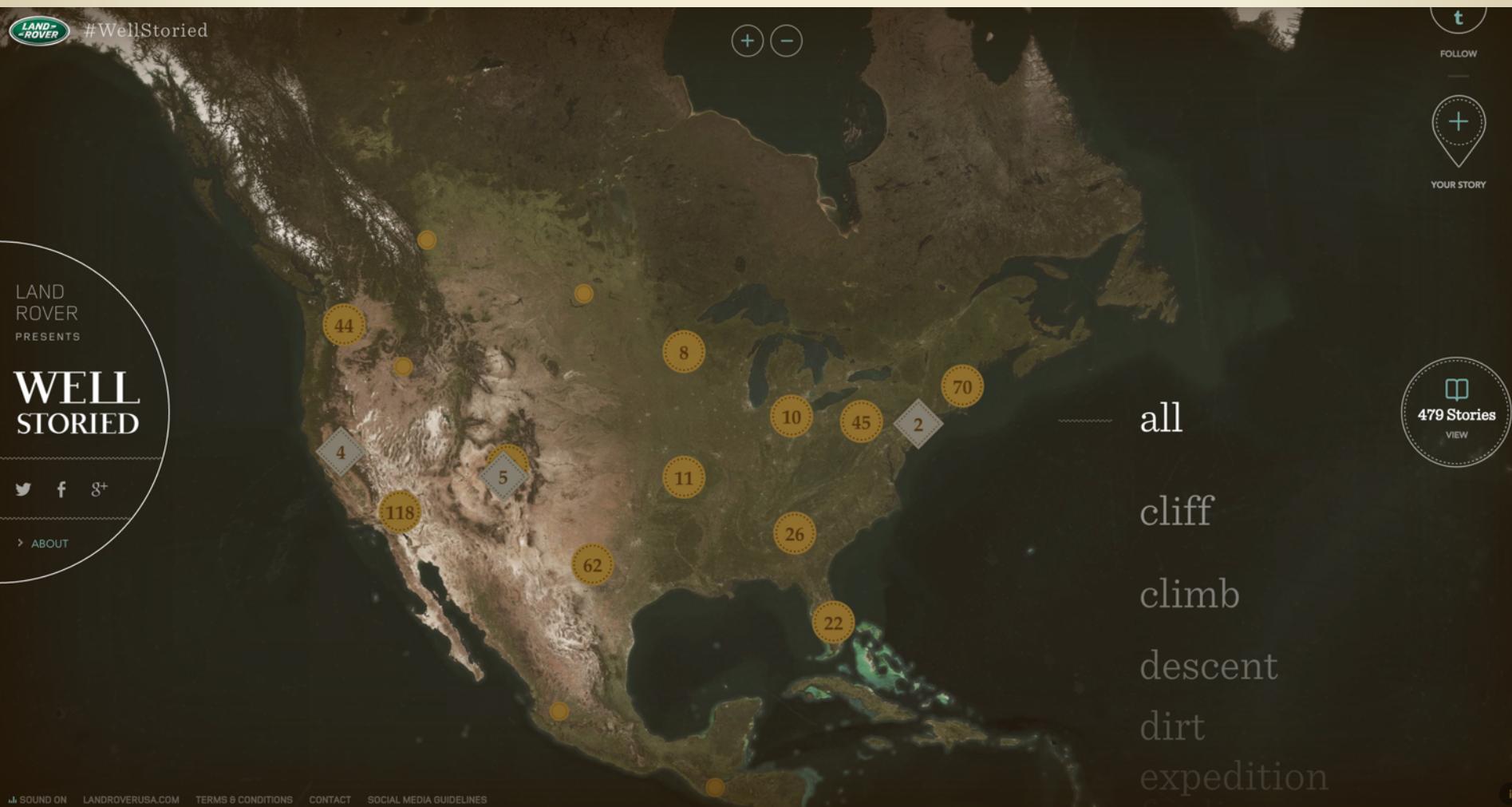


# Colour Harmony

- Cool Colour Dominance



# Colour Palette Example

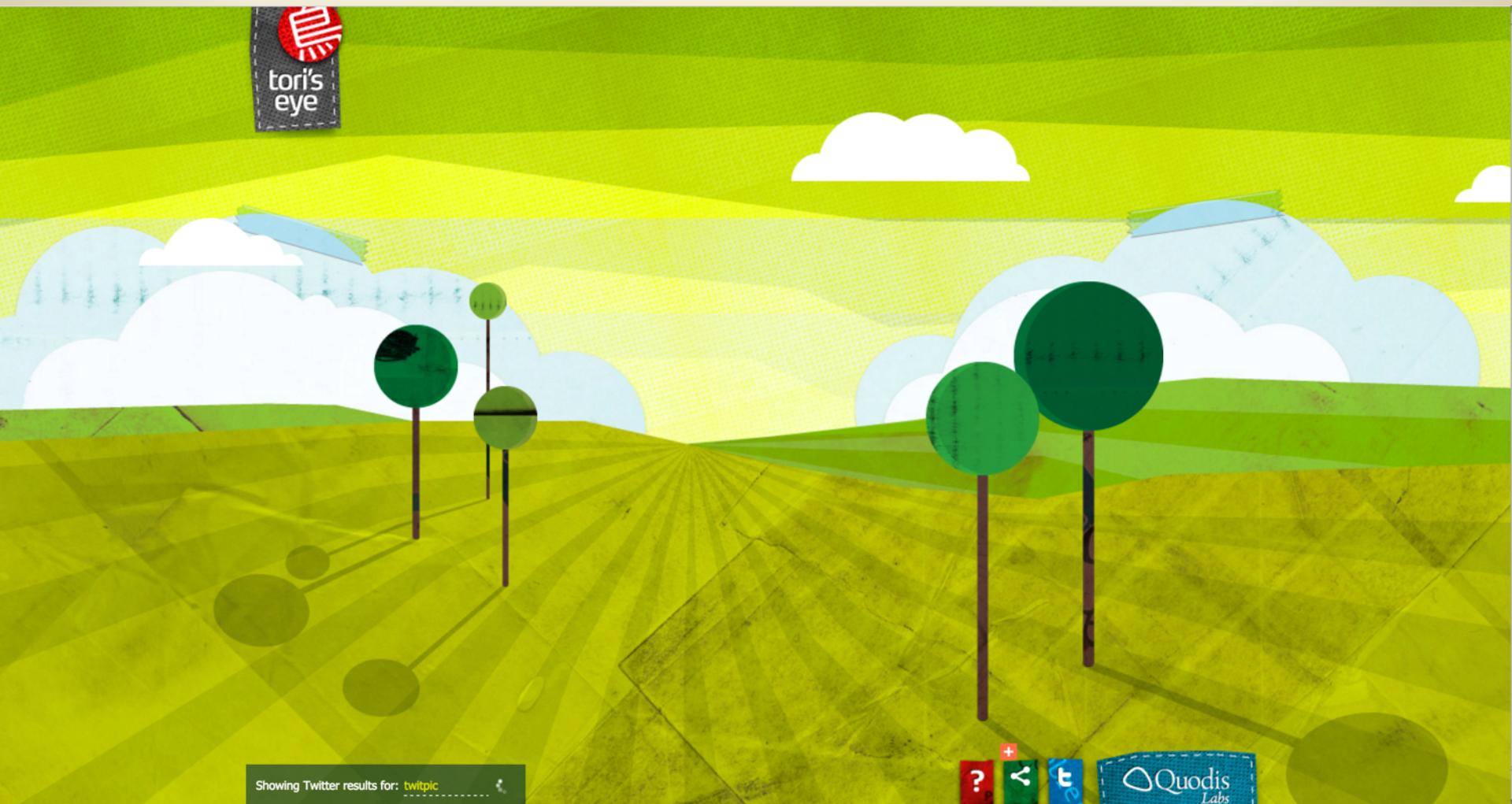


<https://wellstoried.com/map>

# Colour Palette Example

The screenshot displays the homepage of the Lake Nona website. The header features the "LAKE NONA" logo in black, followed by a navigation menu with links: COMMUNITY, LIVE, COMMERCE, LEARN, MEDICAL CITY, and a red "CONNECT" button. A secondary logo for "LAKE NONA GOLF & COUNTRY CLUB" is positioned in the top right corner. The main visual is a wide-angle photograph of a park-like setting with modern buildings, green lawns, and trees. In the foreground, two children are sitting on the grass reading books. A large blue circular overlay contains the text "Welcome to LAKE NONA" and "Continuously expanding to nourish minds and enrich lives.". To the right, there's a video player with the text "Discover a place LIKE NEVER BEFORE" and "MORE INSPIRING VIDEOS". At the bottom, social media links for "NONA social" and "LAKE NONA ON FACEBOOK" are shown, along with a "Explore the NEW LAKE NONA MAP" call-to-action.

# Colour Palette Example



<http://toriseye.quodis.com/>

# Colour Palette Example

The screenshot shows the homepage of eventfinds.com. The top navigation bar is teal with white text. It includes links for "sign up or login", social media icons for Facebook and Twitter, and categories like "about", "deals", "lucky finds", and "vendors". A large, stylized illustration of a tiered cake, balloons, and penguins is centered above the search bar. The search bar itself is teal with white text and includes fields for "browse", "city", "category", and an orange "go" button. Below the search bar, there's a large, semi-transparent teal overlay containing a white speech bubble with text and a penguin illustration. The speech bubble text reads: "Hi friend, I am here to help you plan an unforgettable event! Feel free to browse Event Finds deals and start saving today. Not a member yet? [Sign up.](#)". Below this, there's a "Like" button with 443 likes. The main content area features a photograph of a wedding ceremony under a purple-draped gazebo. A "featured" banner at the bottom of this section offers "25% Off Officiant Services" with a "View" link. The footer is a plain light gray with the website's name repeated.

event finds™

Hi friend, not a member yet? [sign up or login](#)

[about](#) [deals](#) [lucky finds](#) [vendors](#)

[f](#) [t](#)

Are you planning an event? Lucky you found us! We negotiate exclusive deals with quality vendors that have un-booked dates or special promotions and list them on our site allowing you to pay less and party more!

[sign up](#)

browse city category go

Hi friend.  
I am here to help you plan an unforgettable event!  
Feel free to browse Event Finds deals and start saving today. Not a member yet? [Sign up.](#)

[Like](#) < 443

  
featured: 25% Off Officiant Services [View](#)

# Activity

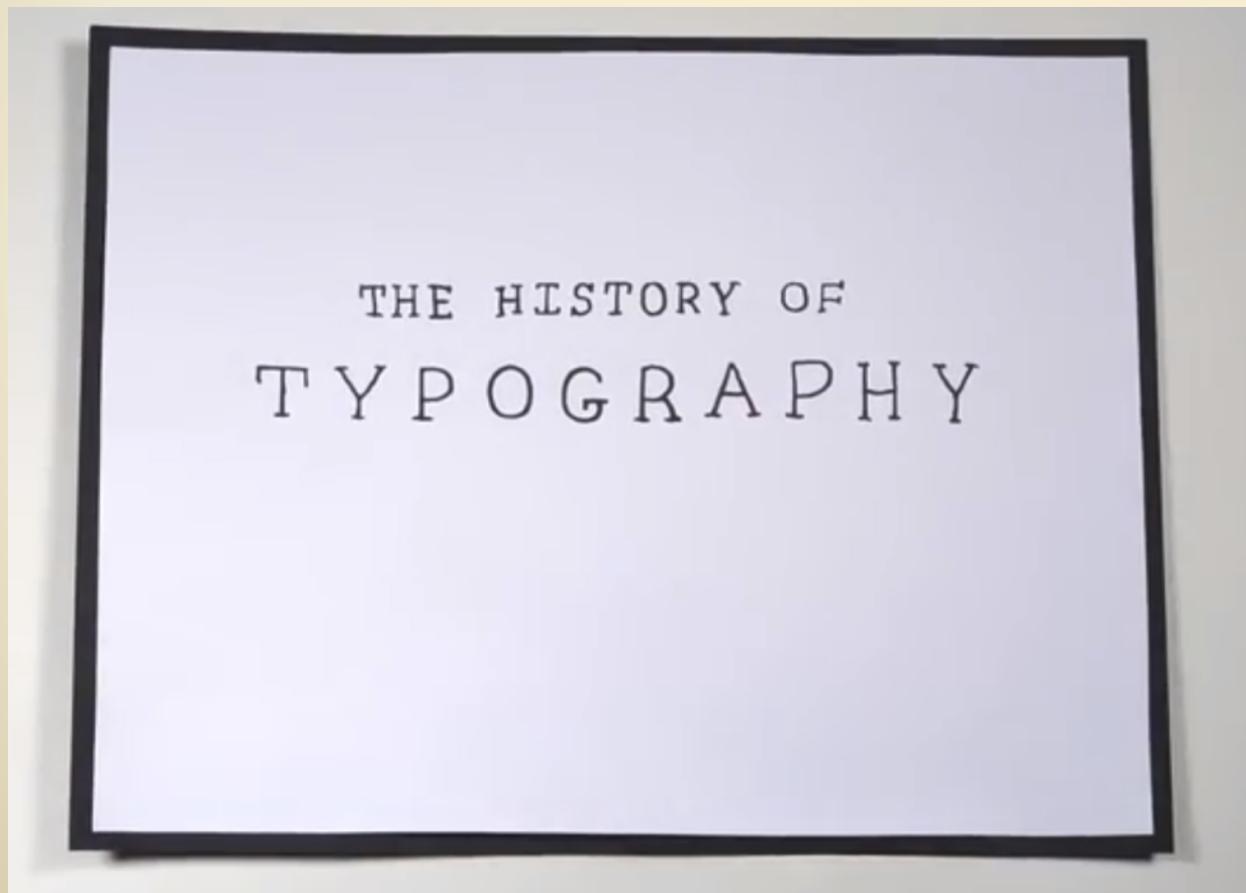
- Discuss and draft in small groups colour concepts for the prototypes of your coursework (~10mins)

# Additional Resources

- Series of Examples demonstrating the use colour harmony in Photography by Alain Briot
- Colour Tools for Webdesigners
- AWWWARDS Web Colour Palettes and Tools
- Color Harmony in Web Design (eBook ~ £0.77)

# Typography

- History of Typography



# Typography

Aa Bb Cc (Sans-serif font)

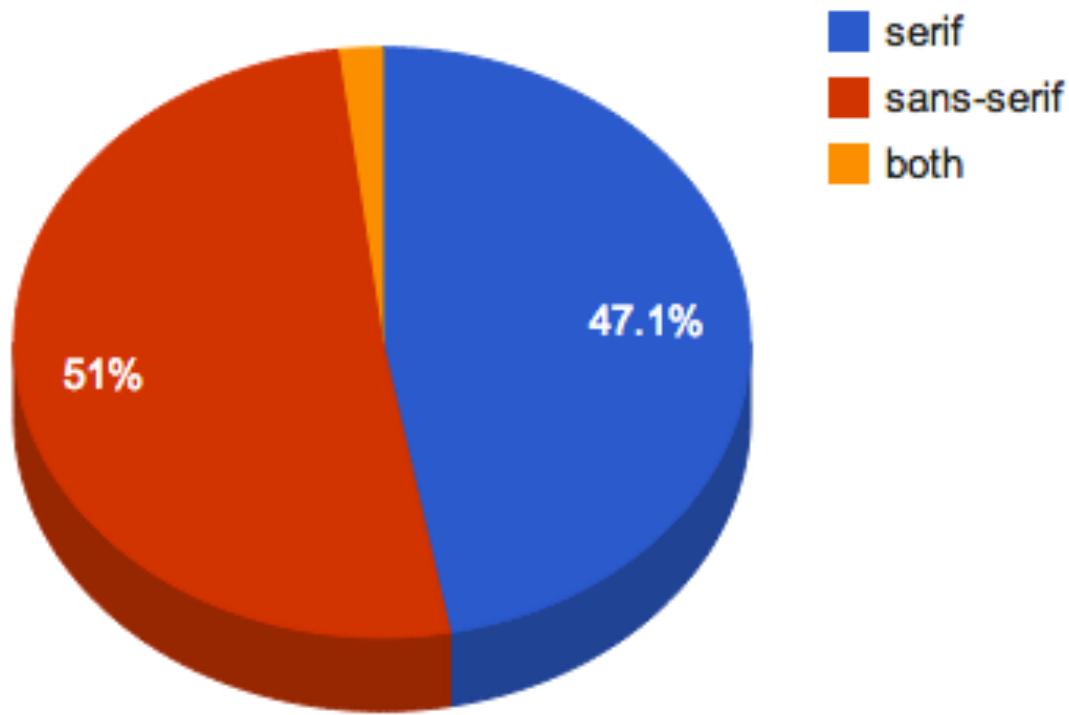
Aa Bb Cc (Serif font)

Gill Sans  
Helvetica  
Futura

Frutiger  
Serif

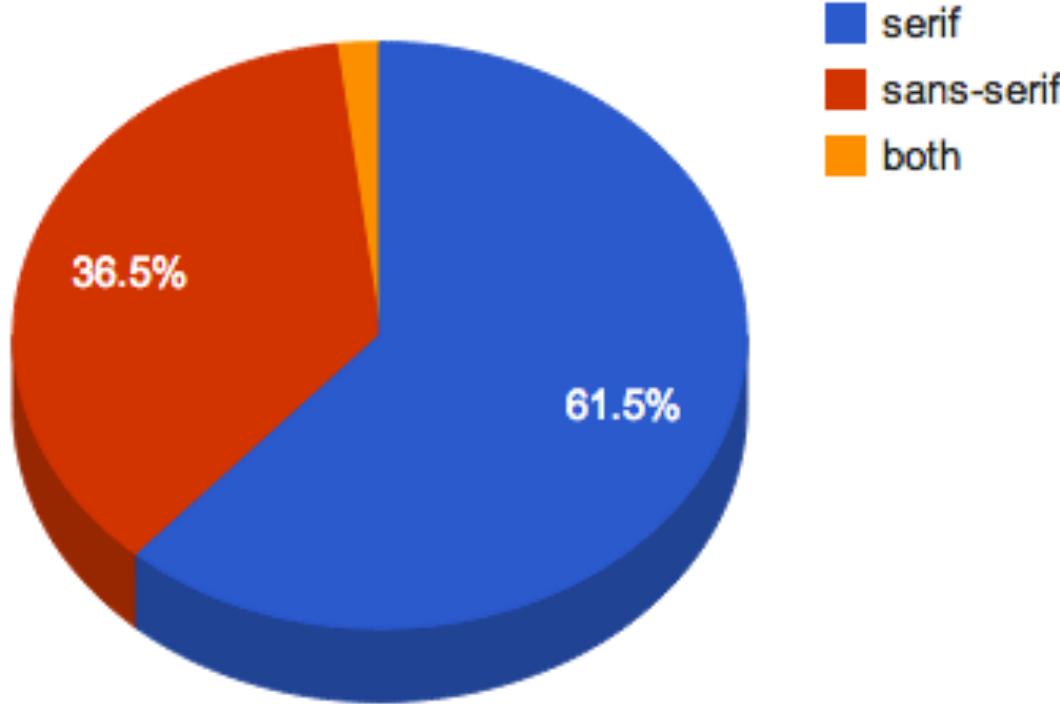
# Typography-Practises

**Headings: Serif vs. Sans-Serif**

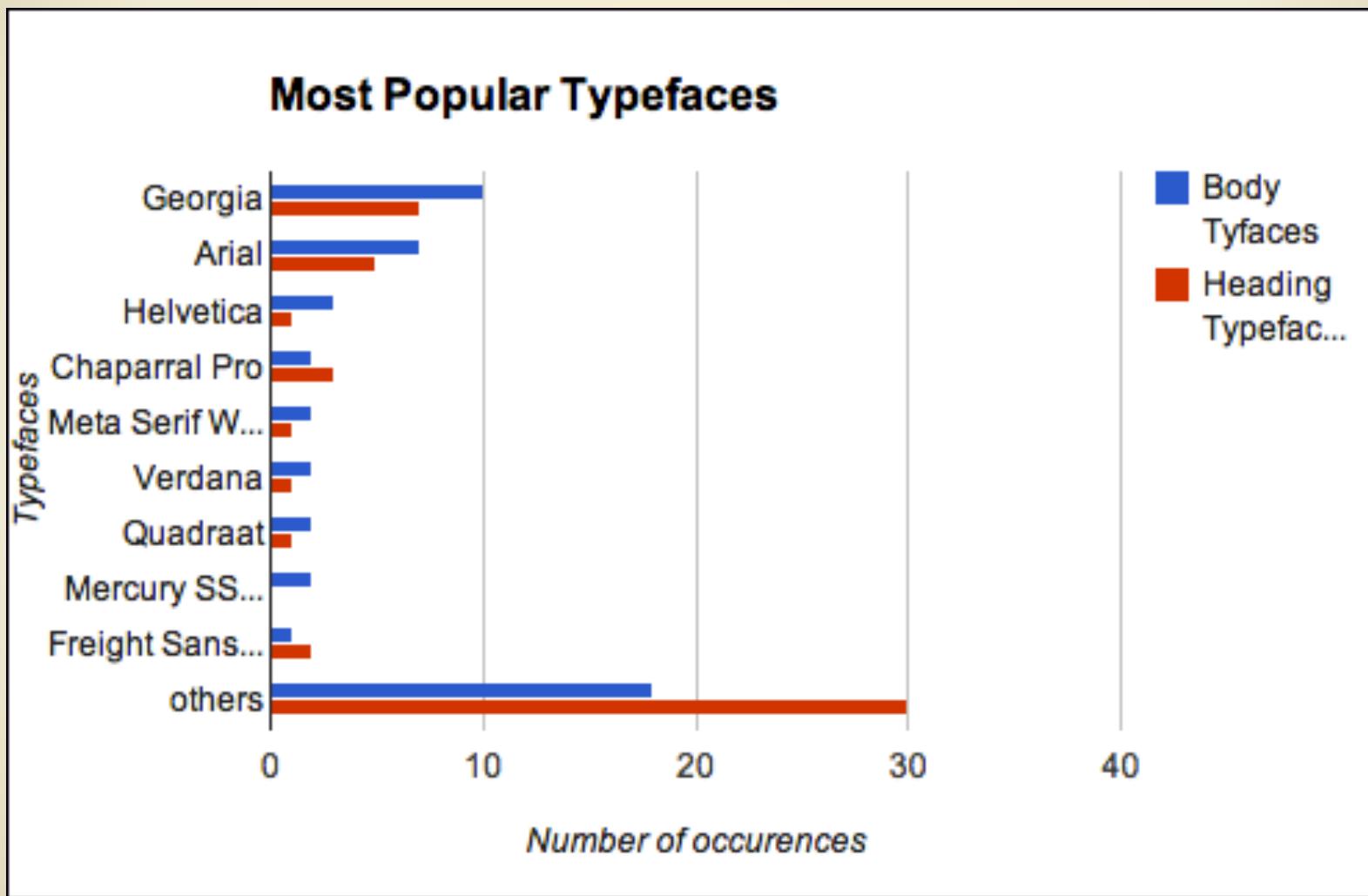


# Typography-Practises

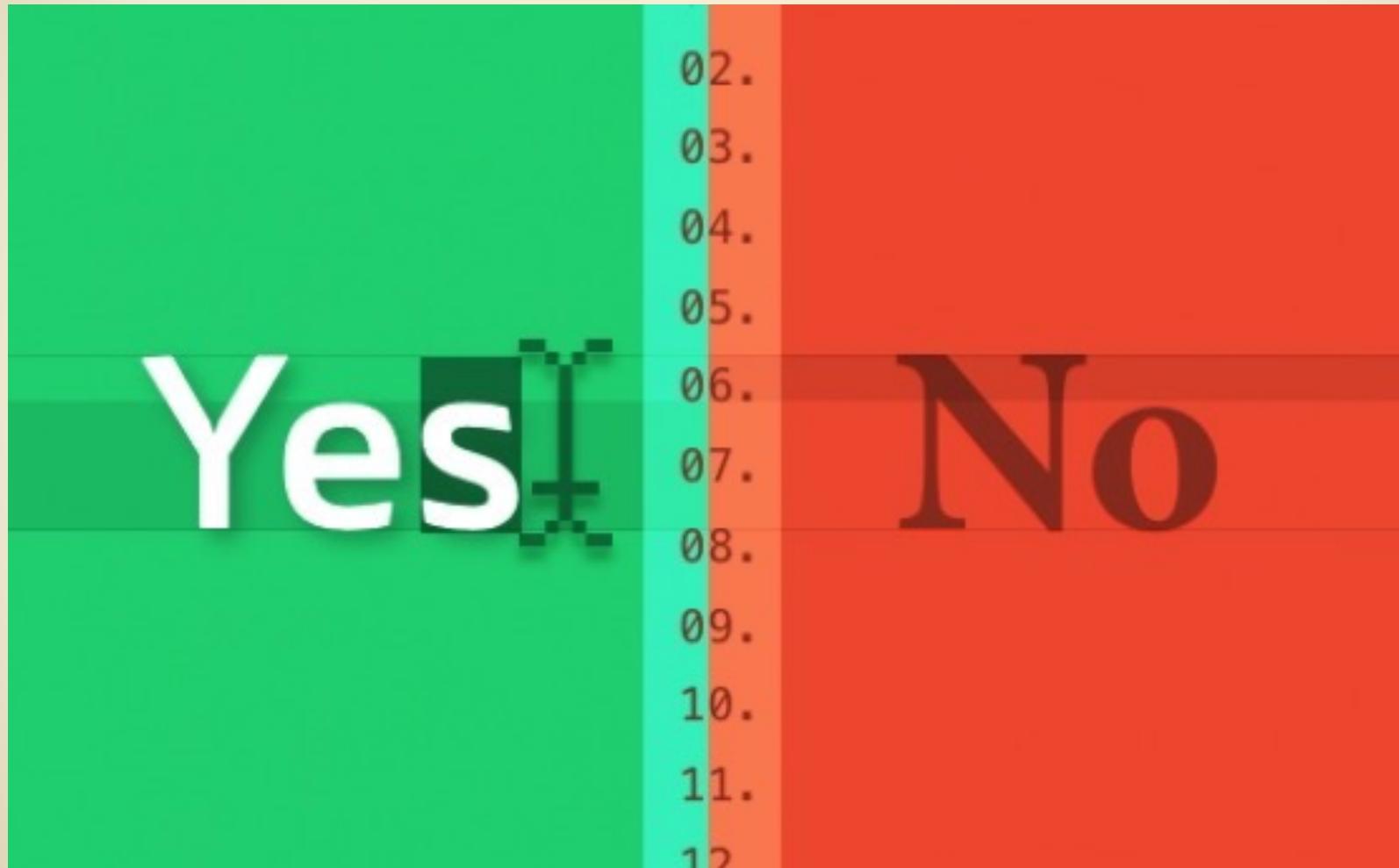
**Body: Serif vs. Sans-Serif**



# Typography-Practises



# Typography



# Typography - Recommendations

- Use high contrast between background and text (e.g. black text on white background)
- Combine a serif and a sans-serif font (e.g. one type for headline one for body copy text)
- Body font size web approx. 15-25px
- Heading font size approx. 36-48px

# Typography –Averages

- headline font size ÷ body copy font size = 2.4
- line height (pixels) ÷ body font size (pixels) = 1.47
- line length (pixels) ÷ line height (pixels) = 24.8
- space between paragraphs (pixels) ÷ line height (pixels) = 1.43
- characters per line between 75 and 90; However 45-75 characters per line is considered ideal

# Typography

- Responsive Typography versus
- Fluid Typography

# Typography - Psychology



<https://typetastingnews.com/why-fonts-matter-look-inside/>

# Typography - Psychology



<https://blog.crazyegg.com/2013/07/05/psychology-of-fonts-infographic/>

# Typography - Psychology

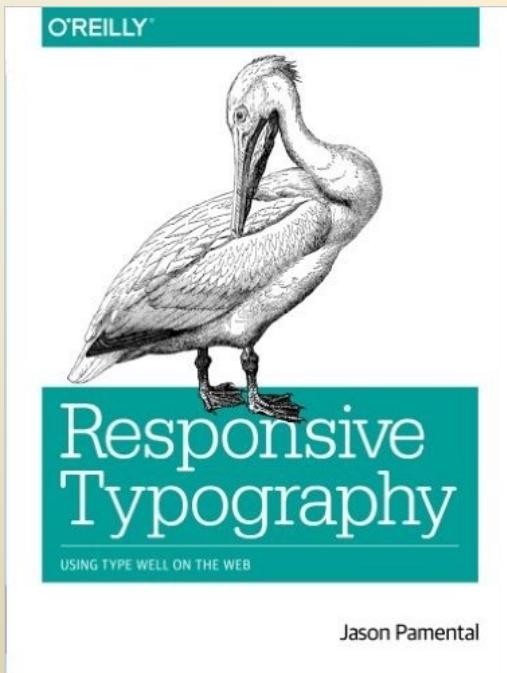
- Font choices set the tone for a design and influence emotions and mood
- Font choice can influence peoples opinion and decision making
- A font can support or distract from a message
- A font can capture the spirit of the time (Zeitgeist) when it was designed which can be utilised for design purposes

# Activity

- Discuss in small groups potential approaches for the use of typography in the prototype of your coursework (~10mins)

# Additional Resources

- Why Fonts Matter (Hyndman, 2016)
- Responsive Typography (Pamental, 2014)



# Additional Resources

- Typographic Design Patterns (Website)
- Web typography: Best Practises and Pitfalls (Website)
- Typography Best Practises (Website)
- Typography Game (Online Game)