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# Learn Enough Design to be Dangerous

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Design Foundations for Developers

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# How did I end up here?

I'm Kathryn Grayson Nanz (@kathryngrayson)

- Developer Advocate for KendoReact at Progress
- Helping designers and developers make cool stuff together
- BFA Studio Arts, concentration Graphic Design
- Just wanted to learn how to edit HTML email templates and ended up a front-end engineer



A Rosetta  
Stone for  
the World  
of Design



MYTH:



You have to have  
“an eye”  
for design



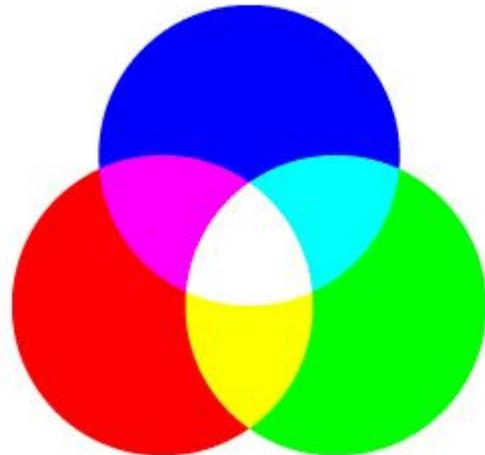
# Welcome to Foundations of Design

# Color

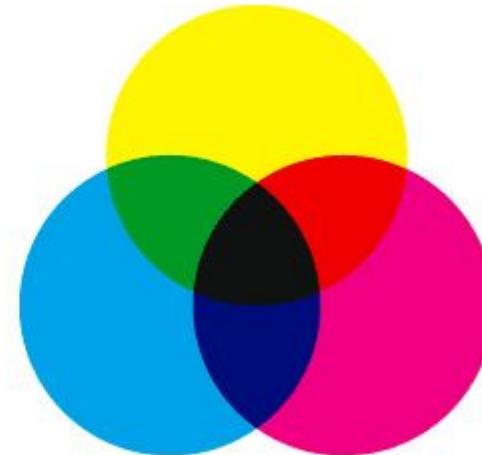




# RGB vs CMYK



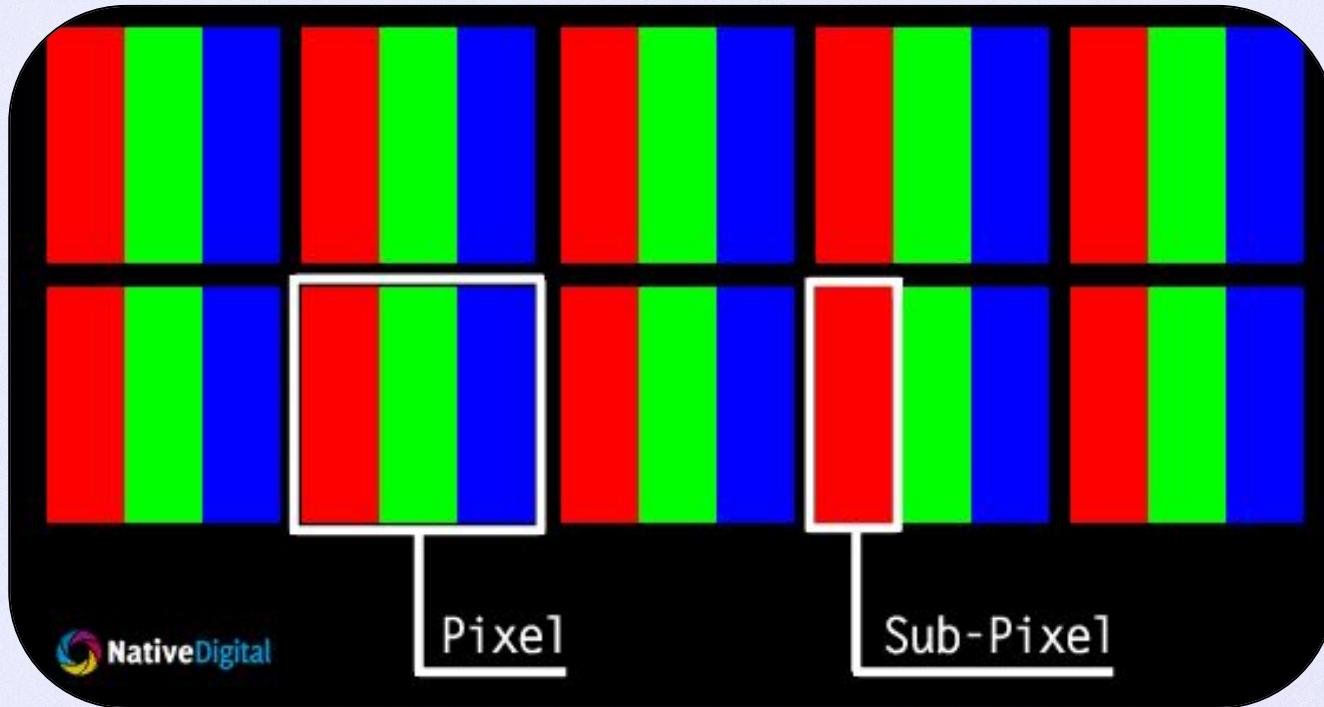
(RGB)



(CMYK)

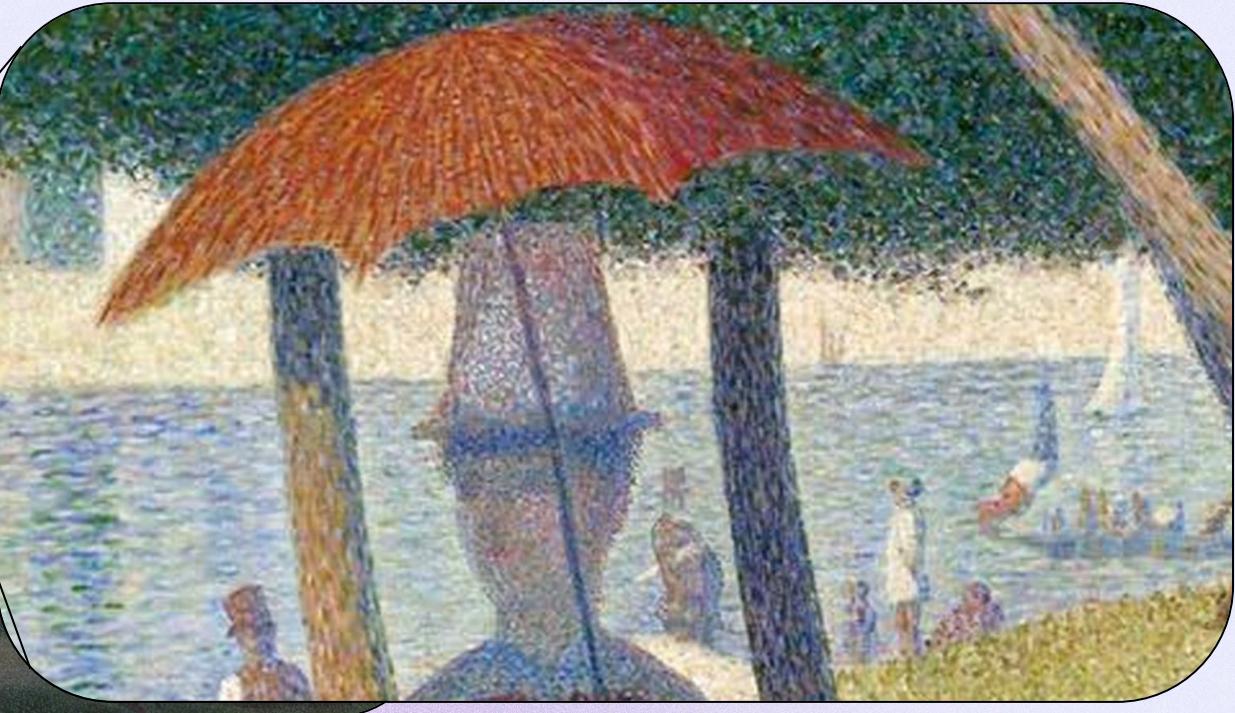
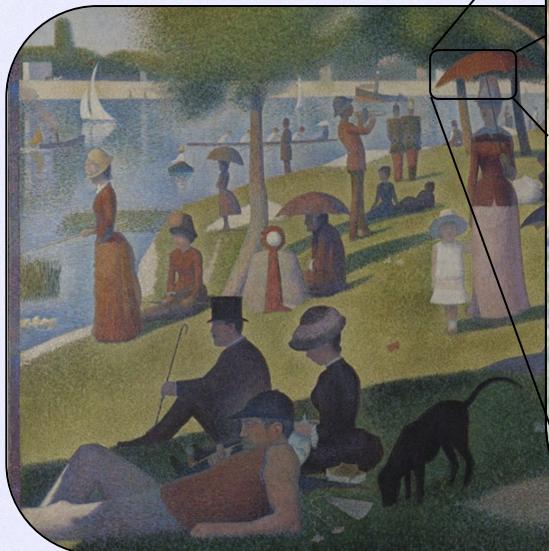


# RGB Pixels



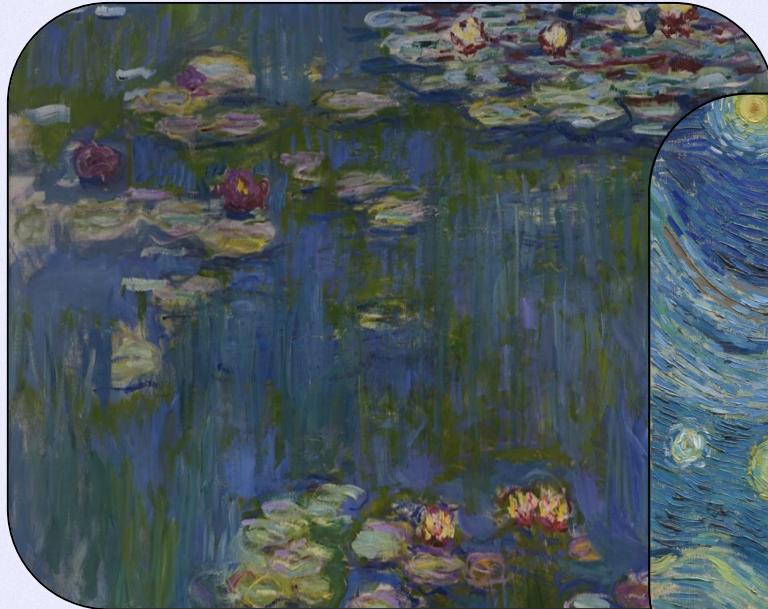


# *A Sunday on La Grande Jatte*





# Post-Impressionism



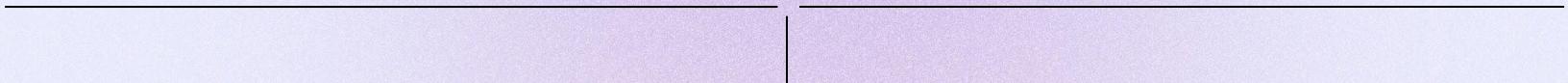
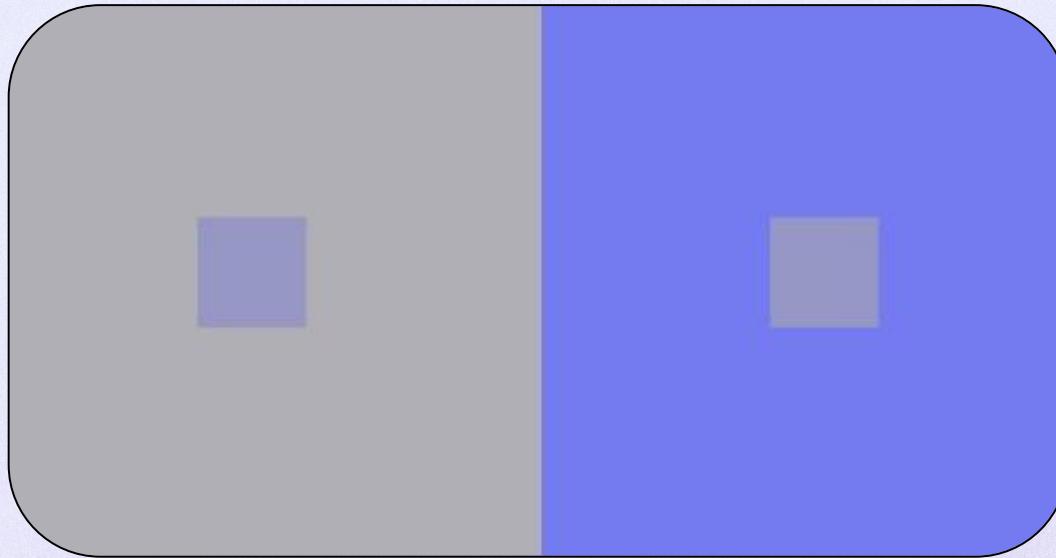
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<https://artsandculture.google.com/story/SgUR72IKcegxJQ?hl=en>

<https://artsandculture.google.com/asset/the-starry-night-vincent-van-gogh/bgEuwDxeI93-Pg?hl=en>

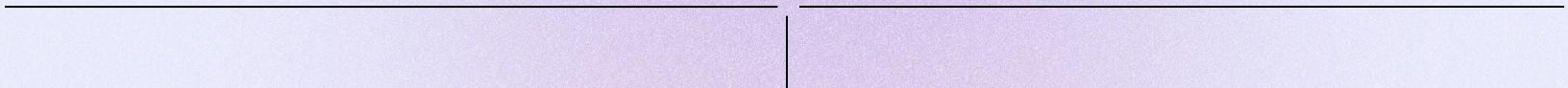


# Contextual Influence



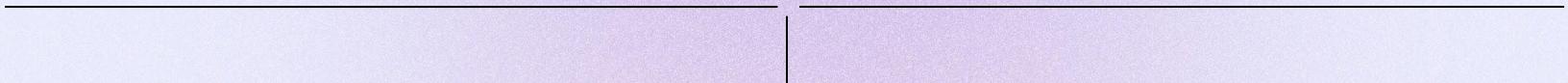


# Your Worst Enemy



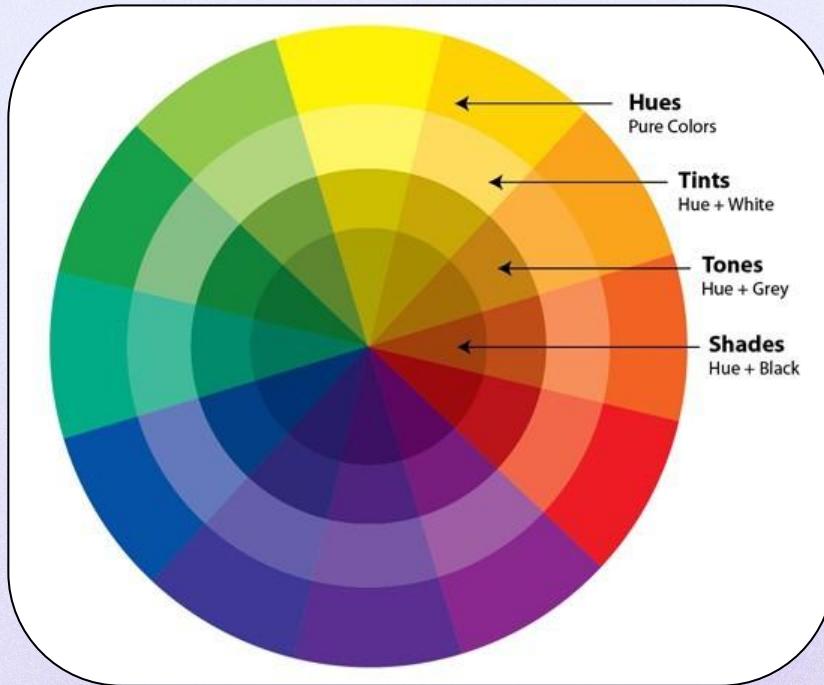


# The Color Wheel





# Hues, Tints, Tones, and Shades



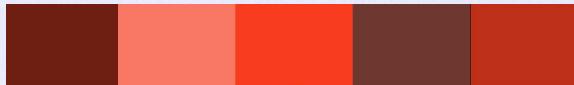


# Warm vs. Cool Colors





# Color Schemes



## Monochrome

Tints, tones, and shades of a single hue



## Analogous

Colors next to each other on the wheel



## Complimentary

Colors exactly opposite each other on the wheel

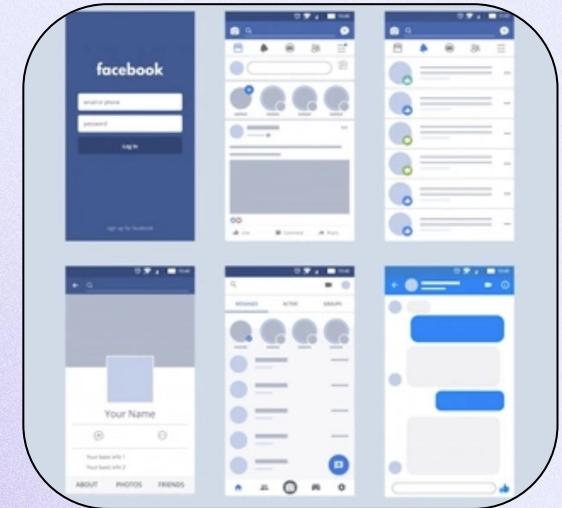


## Triadic

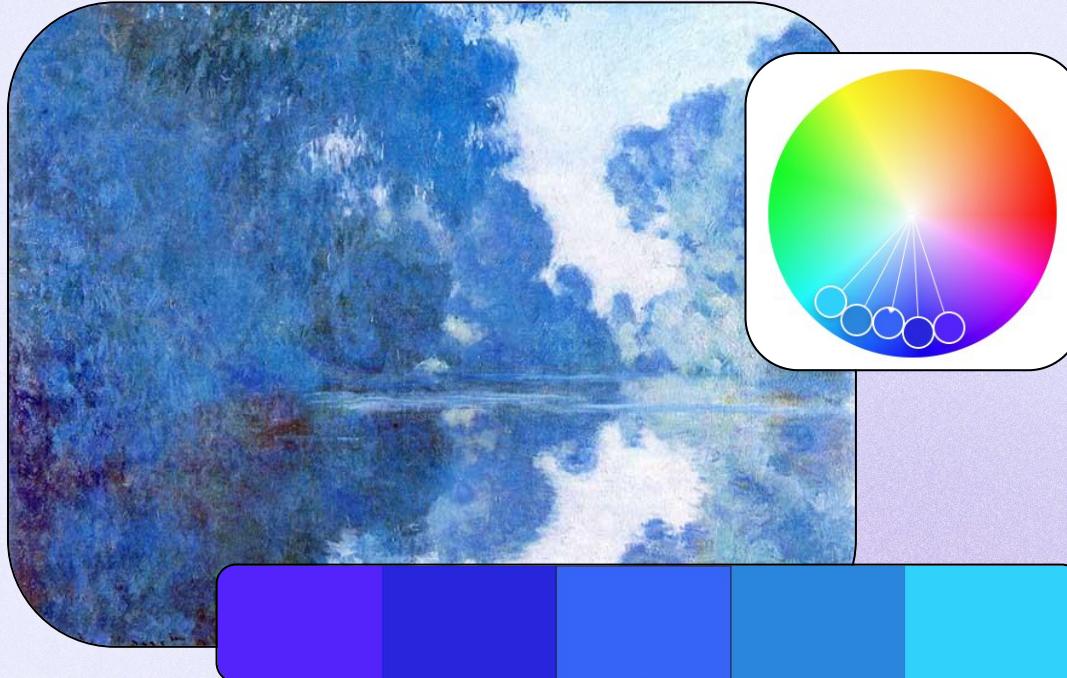
Colors that create a triangle across the wheel



# Monochrome



# Analogous



bp

Today

- Design work, engineering, and permitting studies to deliver both blue and green H2
- Working with customers and government to help deliver clean hydrogen to Teesside

Next steps

- Financial investment decisions, and commercial agreements with local businesses
- Construction begins, creating and securing jobs in the region
- Green hydrogen production begins

2027-2029

- 1GW blue hydrogen production online, ramping up in two 50 MW phases
- CO<sub>2</sub> transport and storage infrastructure via the East Coast Cluster is in place
- Over 2 million tonnes CO<sub>2</sub> captured annually
- Hydrogen storage and infrastructure is developed, balancing the system

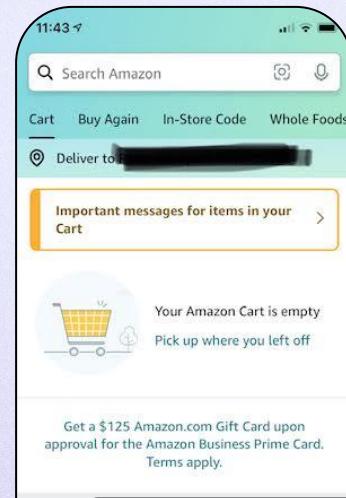
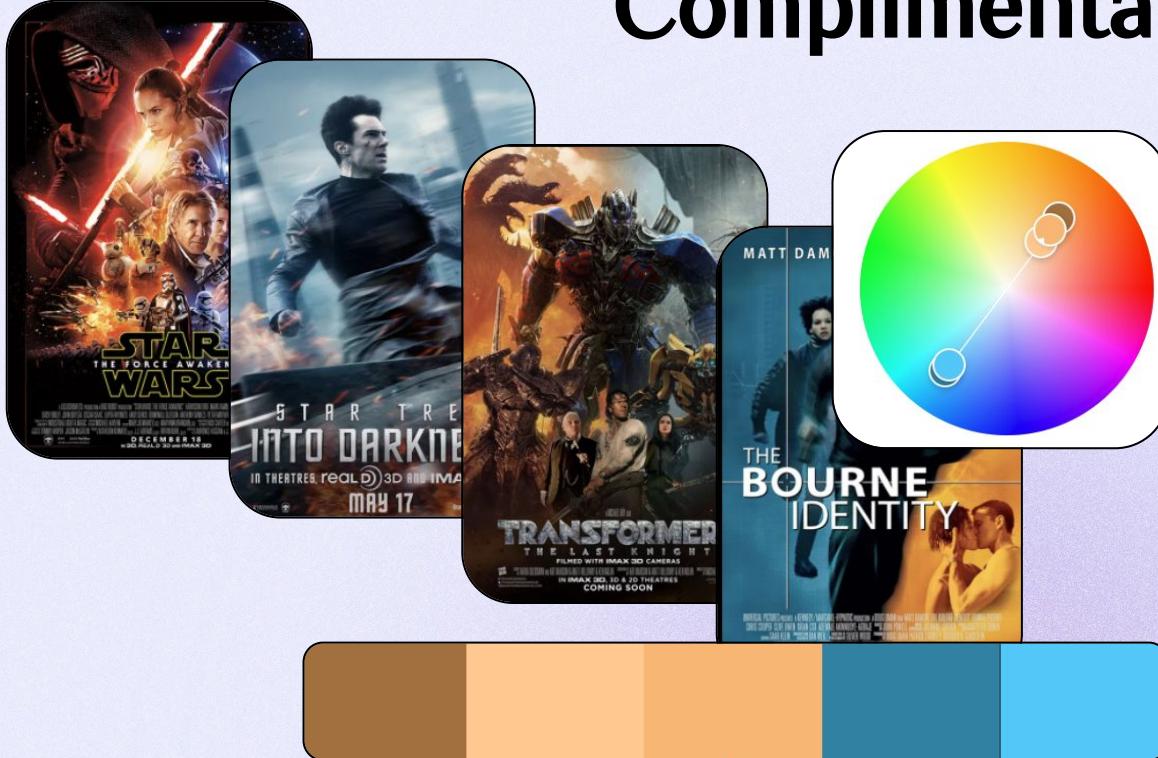
Looking to the future

- New industries enter the region driven by access to clean hydrogen fuel, feedstock, and clean power
- Expansion of clean hydrogen production facilities

"Hydrogen will play an essential role as the UK transitions to a"

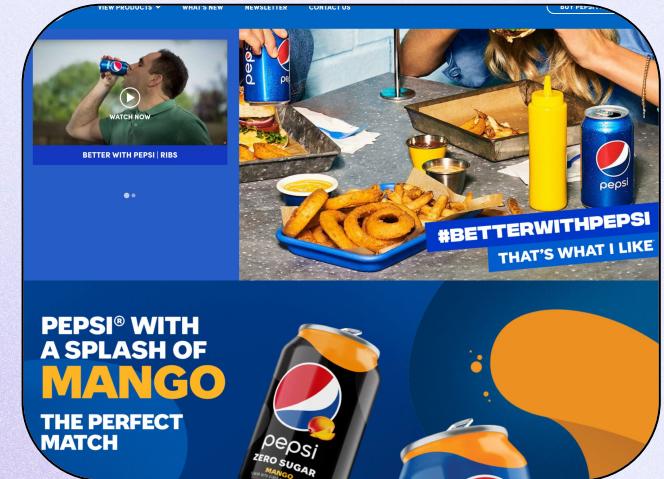


# Complimentary





# Triadic

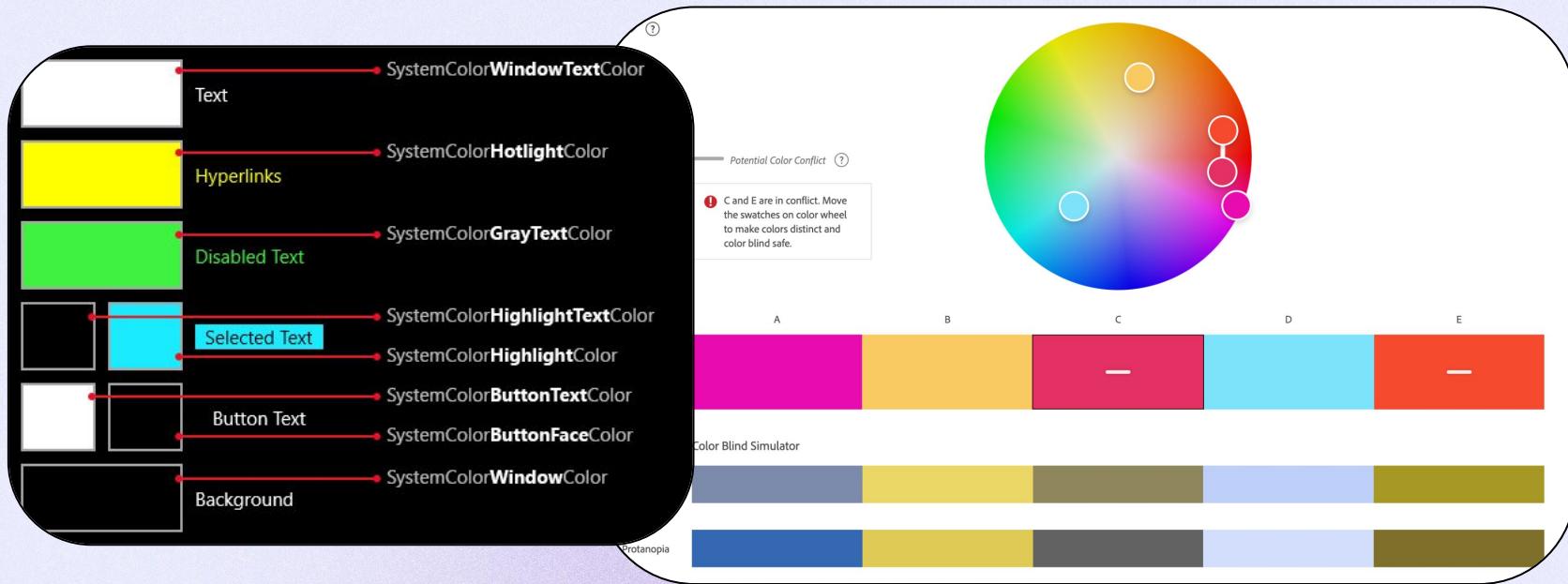


<https://mail.google.com/>

<https://www.theverge.com/2015/9/9/9288005/spotify-found-them-first>



# Colors & Accessibility



# Layout





# Braaaaaaaains





# Gestalt Principles of Design



## Similarity

Linking similar elements in a composition

## Closure

Mentally completing the “missing” part

## Continuity

The eye follows a continuous path

## Proximity

Objects placed closely together must be related

## Figure/Ground

We differentiate between figure (subject) and ground (background)

## Symmetry

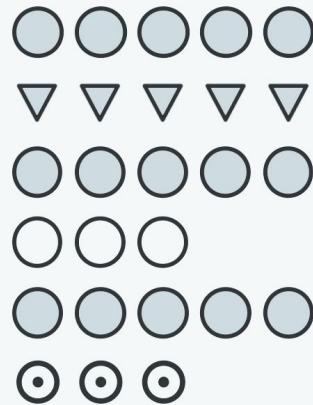
We prefer designs made up of equivalent parts

## Common Fate

Objects with coordinated movement must be related

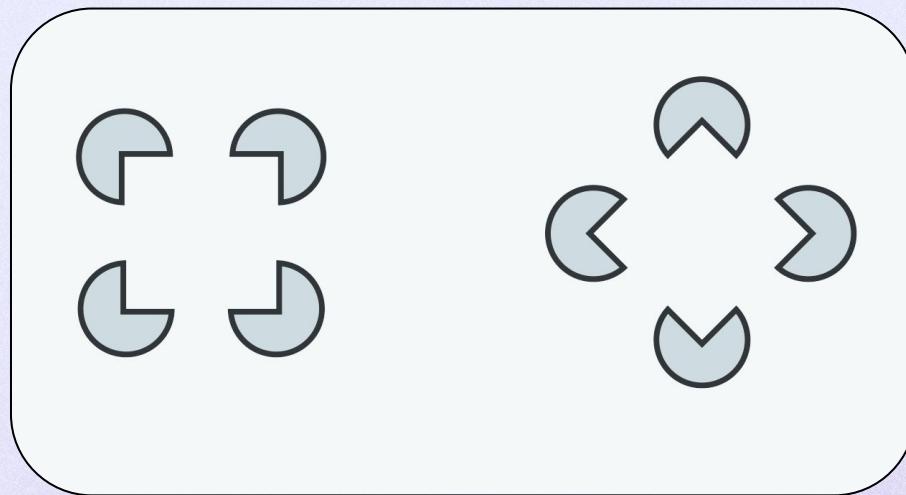


# Similarity



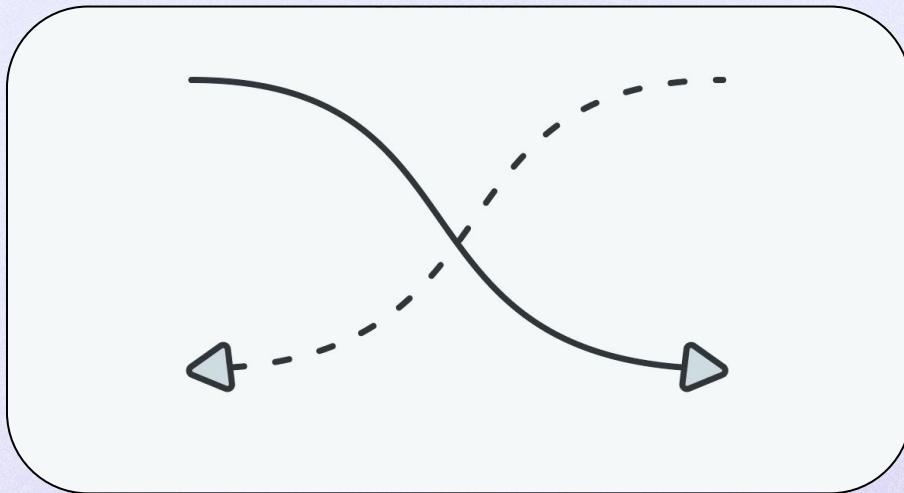


# Closure



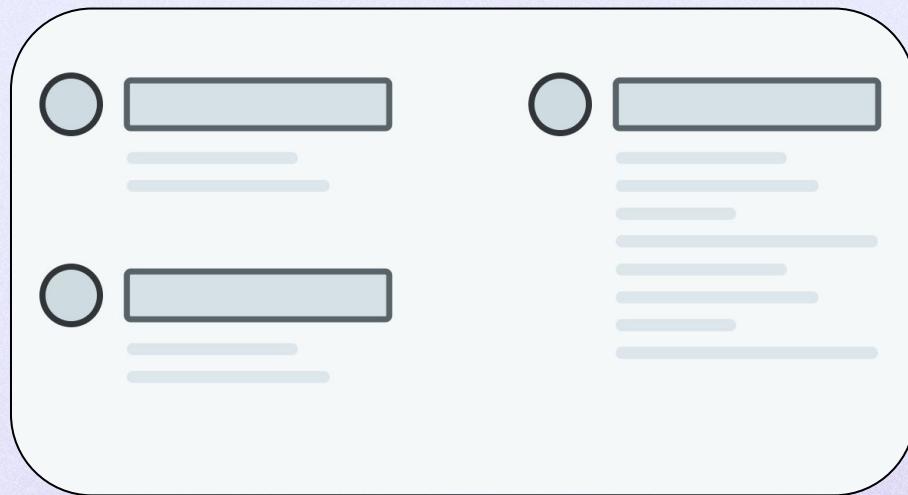


# Continuity



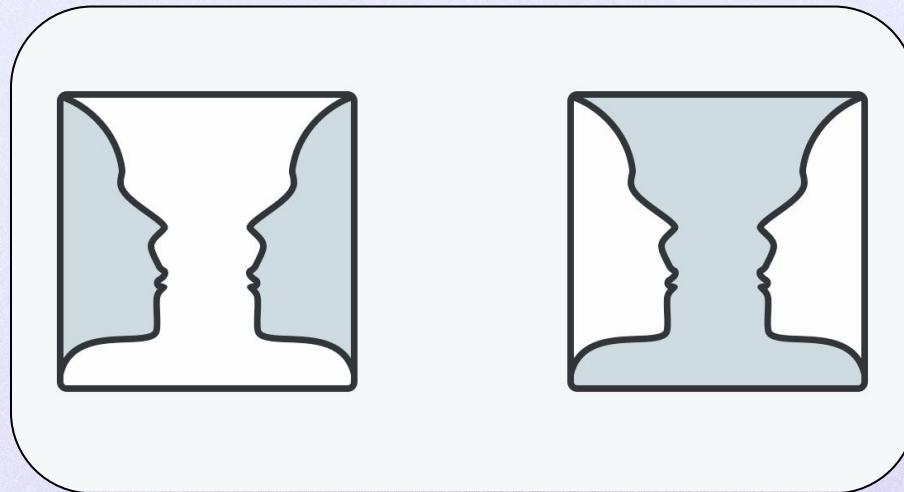


# Proximity



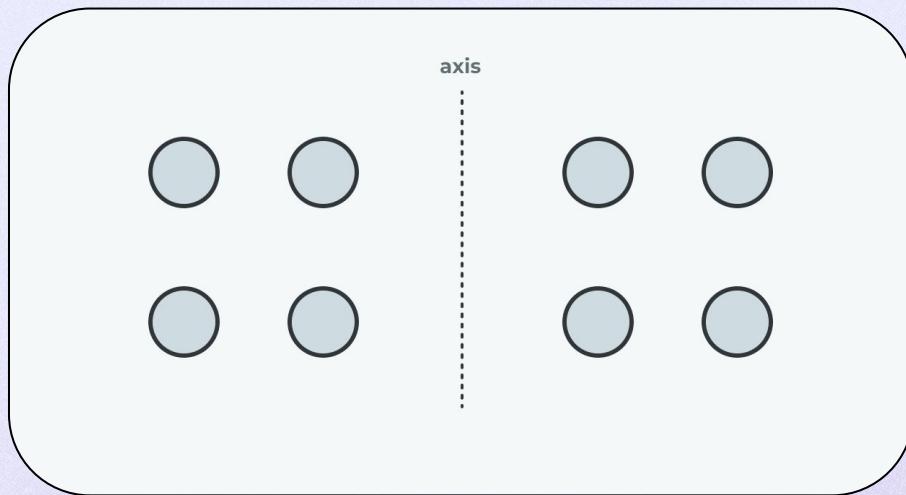


# Figure/Ground



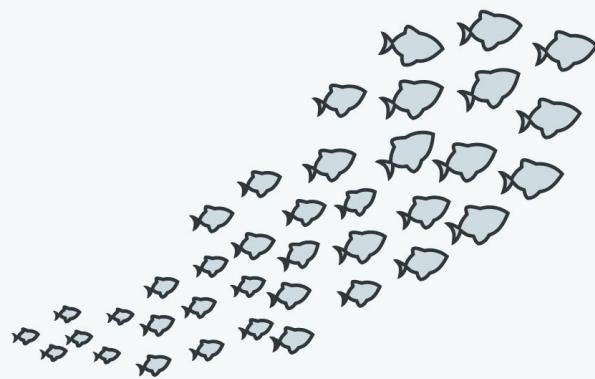


# Symmetry





# Common Fate

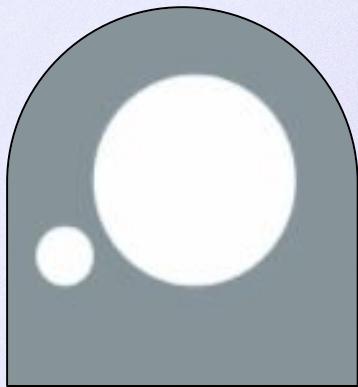




# Visual Hierarchy

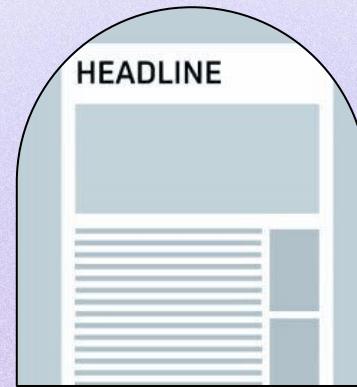
## Size

Larger elements draw the eye



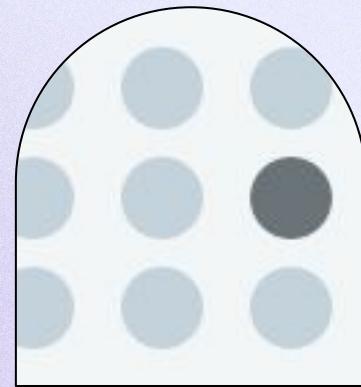
## Placement

Elements near the top draw the eye

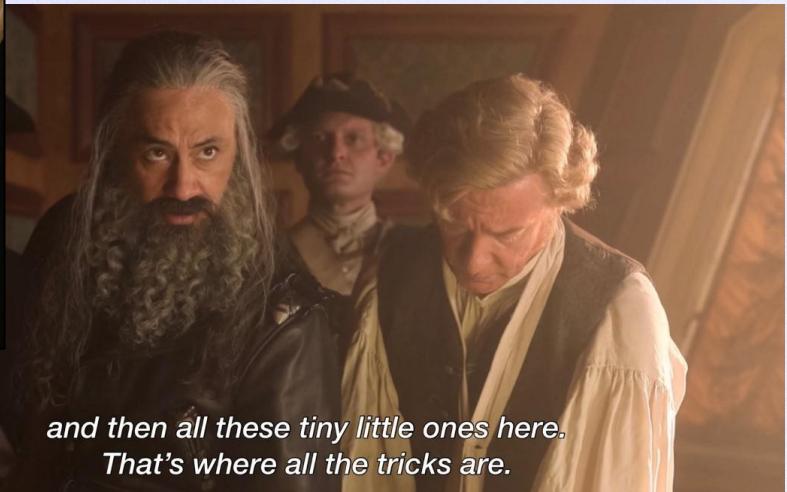
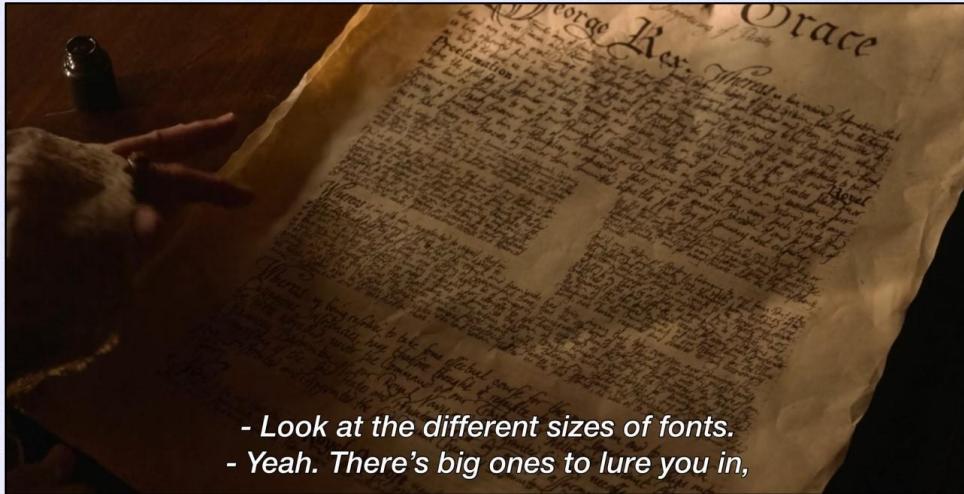


## Color

Differently colored elements draw the eye

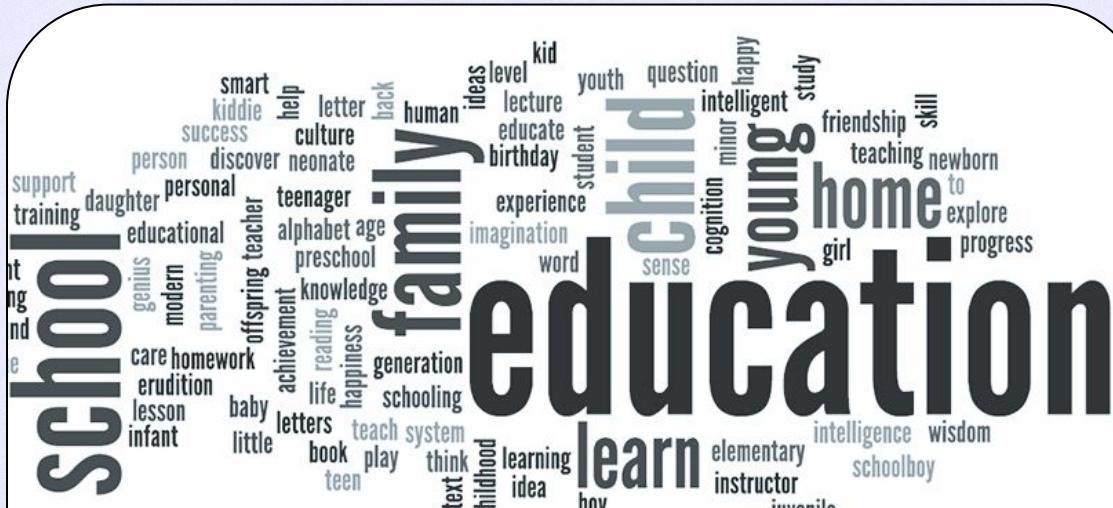


# Creating Hierarchy through Size





# Creating Hierarchy through Size



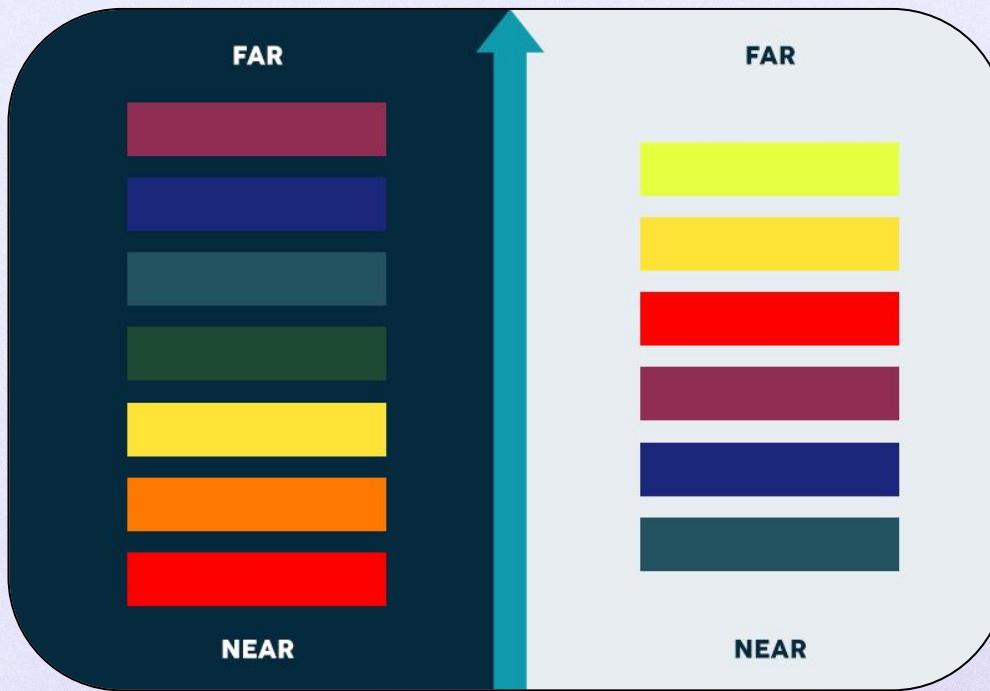


# Creating Hierarchy through Placement





# Creating Hierarchy through Color



# Creating Hierarchy through Color



A screenshot of an email from Spotify titled "FOUND THEM FIRST". The subject line is "How many artists did you stream before they made it big?". The main text area features a large, bold, blue word "FIRST". Above the word, the text "FOUND THEM" is visible. Below "FIRST", there is a "FIND OUT" button. A color palette is overlaid on the image, showing a gradient from purple to yellow. A color wheel is also present on the right side of the image.



<https://mail.google.com/>

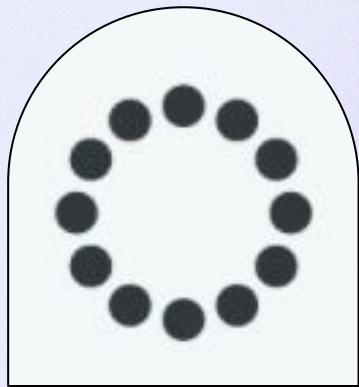
<https://www.theverge.com/2015/9/9/9288005/spotify-found-them-first>



# Balance

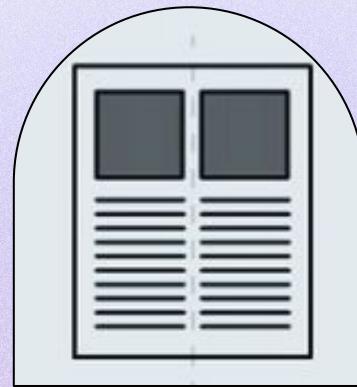
## Radial

Elements equally spread around a center point



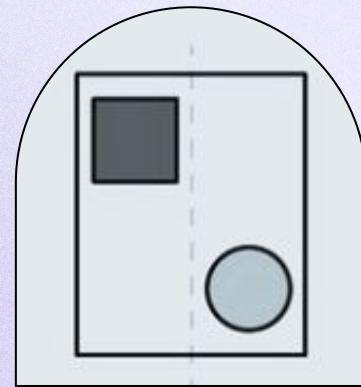
## Symmetrical

Elements perfectly mirror each other



## Asymmetrical

Elements' visual weights are equal





# This is fine.





# Unbalanced Designs





# Symmetrically Balanced Designs





# Symmetrically Balanced Designs

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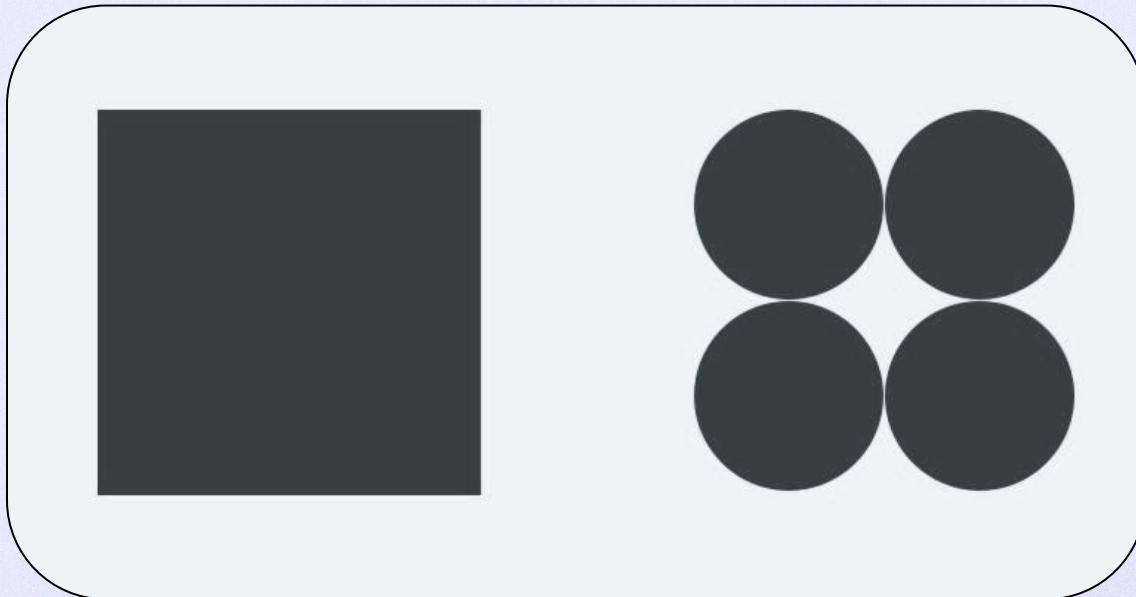
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# Asymmetrically Balanced Designs





# Asymmetrically Balanced Designs

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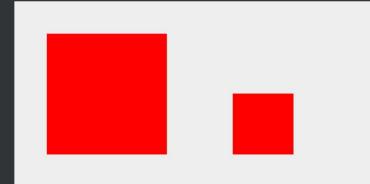


# Asymmetrically Balanced Designs

The image displays a composite view. On the left, a screenshot of the Atlassian Jira software interface is shown, specifically the 'Your work' section. The sidebar includes links for 'Your work', 'Dashboards', 'Projects', 'Issues and filters', 'Portfolio', 'Tempo', and 'Settings'. The main area lists several projects: 'Analytics Platform (CK)', 'CK board', 'MT board', 'Design System (MT)', 'All open', 'Home technology (HOME)', 'Change management request #147892', and 'Fabric Editor (CS)'. On the right, there is a conceptual diagram of visual balance. It consists of a horizontal line representing a balance beam. On the left side of the beam, there is a small black square and a larger black square. On the right side, there is a medium-sized black square. This illustrates the concept of asymmetric balance where one side has a larger element than the other.

Balance in a design is achieved by giving different elements the same visual weight. The concept of visual weight is one of those strange things that's difficult to describe, but immediately identifiable. The easiest example is bolding text – when we bold text, we make it stand out from the other text on the page by giving it a heavier visual weight that draws the eye. It feels silly, sometimes, to think about the "weight" of a bunch of elements that are (obviously) pixels on a screen and therefore innately weightless. But visual weight refers to how heavy something feels, based on how much it draws the viewer's eye.

## Unbalanced Designs



Let's look at an example, which side of this would you say is visually heavier: right or left? If you guessed the left side, you'd be correct; even though the squares are the same shape and color, the left side is significantly larger, which gives it a heavier visual weight. This creates an unbalance, or tension, when one part is visually heavier than the other. Creating unbalanced areas in your design can be a good thing – sometimes you want something to really stand out, or communicate a feeling of unease or discomfort. But when you don't intend to do



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By greenhead, goldfurd on 4th Sep 2013 1 Answer , 82 Views

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By Ashworth, Halifax on 4th Sep 2013 2 Answers , 33 Views

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# Typography



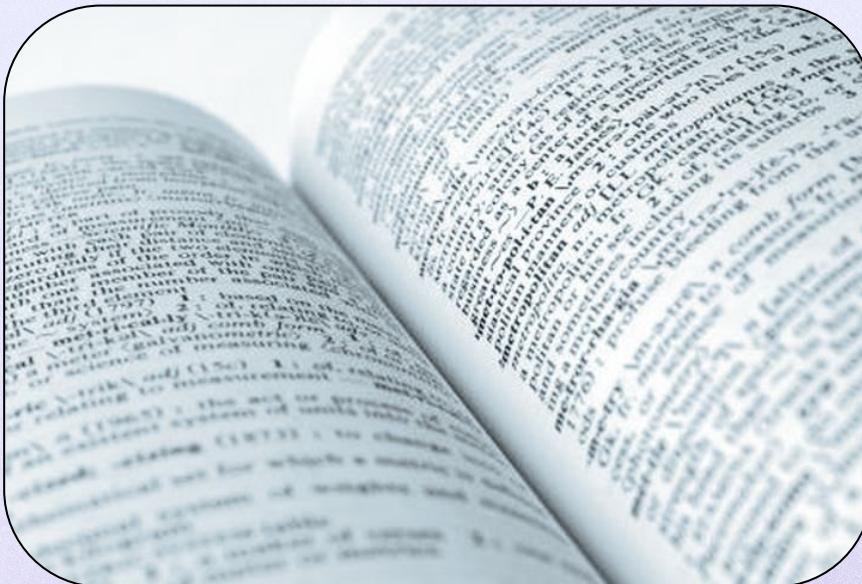


# Early Typography





# Typography Terms & Basics



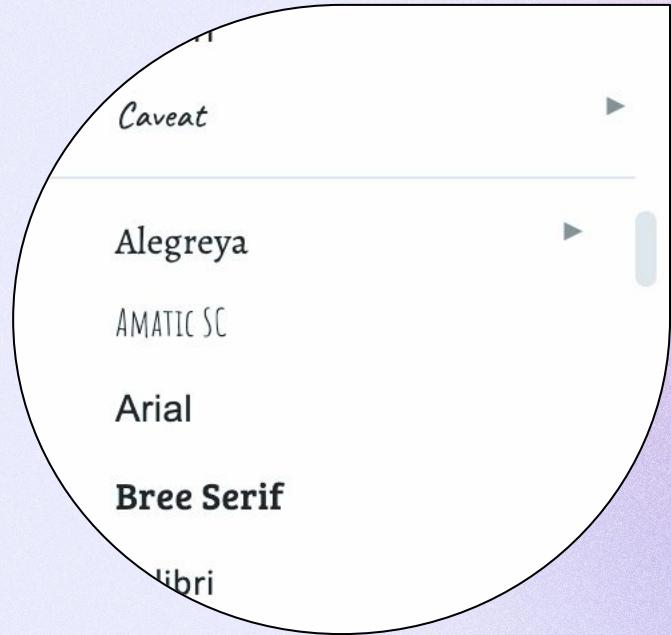


# Character

**Any single element.**

This could be a letter, a punctuation mark, or a number. Thinking back to the movable type system, a character would be a single block.





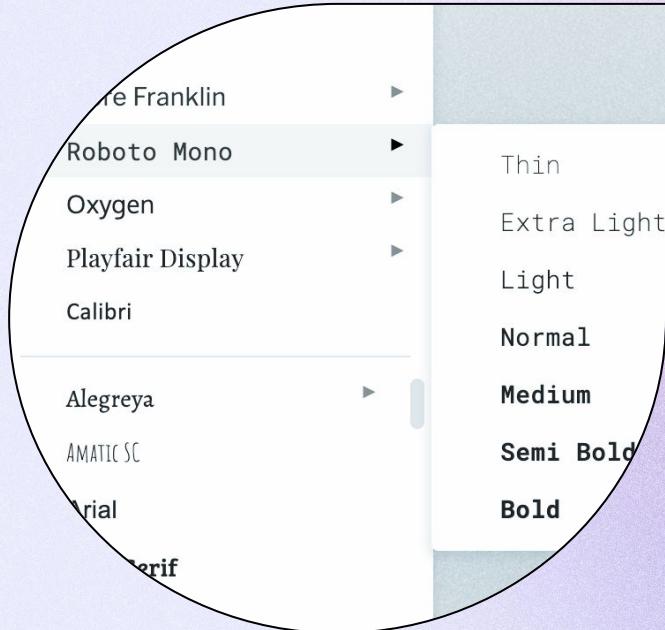
# Typeface

**A collection of characters in a specific style.** You already know them, because you work with some of the most common ones every day! Times New Roman, Bodoni, Futura, Calibri, and so many more.



# Font

A **font** is a specific version of a typeface. So for example, while Futura is a typeface, Futura Condensed is a font. Calibri is a typeface, but Calibri Bold is a font.





# Kerning

**The space between two characters.** With a proportional font, you'll sometimes want to give two letters a little more – or less – breathing room.

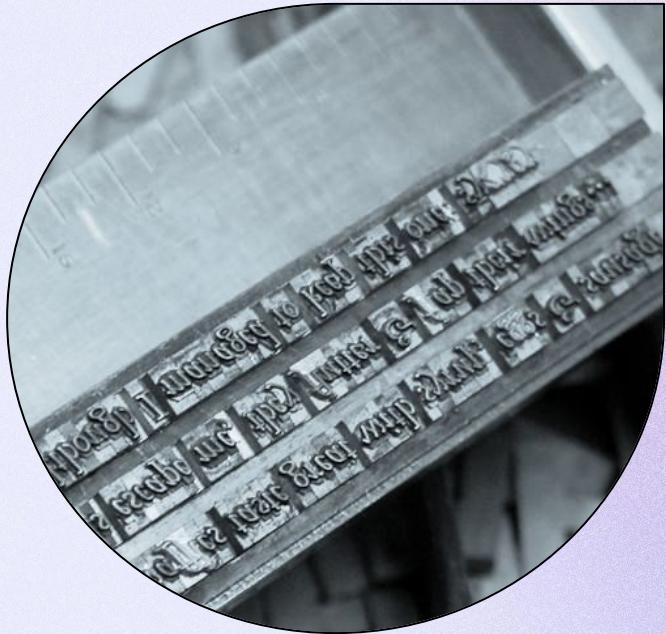


Tracking  
Tracking  
Tracking



## Tracking

While kerning refers specifically to the spacing between two characters, tracking is **a consistent amount of spacing between all characters.**



# Leading

**The space between lines of text.** Originally, this term comes from the lead strips that would be used to separate lines of metal block characters when setting type by hand.



# Widows, Orphans & Runts

## Widow

Ut placerat mauris a est consectetur vulputate.

Nunc nunc sem, finibus sed orci non, cursus ornare ipsum. Integer quis scelerisque nisl. Vestibulum ante ipsum primis in faucibus orci luctus et ultrices posuere cubilia Curae; Cum sociis natoque penatibus et magnis dis par-

Qu  
tor  
mo  
co  
se  
led  
so  
v  
it. Integer ma

Etiam tempus fringilla tempor. Nu por

## Orphan

imperdiet imperdiet est vel venenatis. Curabitur nisi erat, lacinia sed commodo a, sodales pretium velit. Mauris dictum eu mauris sit amet ultricies. Aliquam tincidunt ligula non porta cursus. Curabitur sed dolor, sagittis lobortis elit. Integer matto leo.

## Runt

**Widows:** when a last single line of text gets separated from the rest of its related paragraph.

**Orphans:** when the first line of text gets separated.

**Runts:** last words that wrap on to the next line all by themselves.

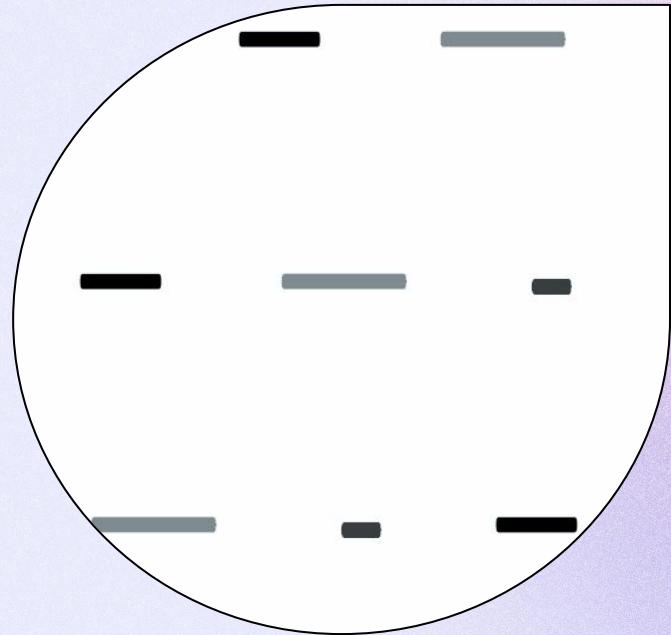


# Rivers

When you're unlucky enough for **the breaks between words to line up over several lines of text.** They create unintentional gaps of white space in the text block that are distracting to the reader.

that good things come in small packages. Though the Pearl measures less than 50 miles in total length from its modest source as a cool mountain spring to the roaring cascades and steaming estuary of its downstream reaches, over those miles, the river has in one place or another anything you could possibly ask for. You can roam among lush temperate rain forests, turgid white water canyons, contemplative meanders among aisles of staid aspens (with trout leaping to slurp all the afternoon insects from its calm surface), and forbidding swamp land as formidable as any that Humphrey Bogart muddled through in *The African Queen*.

**O**f all the great rivers of the world, none is as intriguing as the Pearl. Short by world standards, it epitomizes the old expression that good things come in small packages. Though the Pearl measures less than 50 miles in total length from its modest source as a cool mountain spring to the roaring cascades and steaming estuary of its downstream reaches, over those miles, the river has in one place or another anything you could possibly ask for. You can roam among lush temperate rain forests, turgid white water canyons, contemplative meanders among aisles of staid aspens (with trout leaping to slurp all the afternoon insects).



# Hyphens, em-, and en-dashes

**Hyphen:** used to hyphenate multi-part words (like mother-in-law)

**En-dash:** used to show ranges in numbers and dates (like June 10–20th)

**Em-dash:** used to separate thoughts in a sentence – like so.



# Types of Type





# Serif



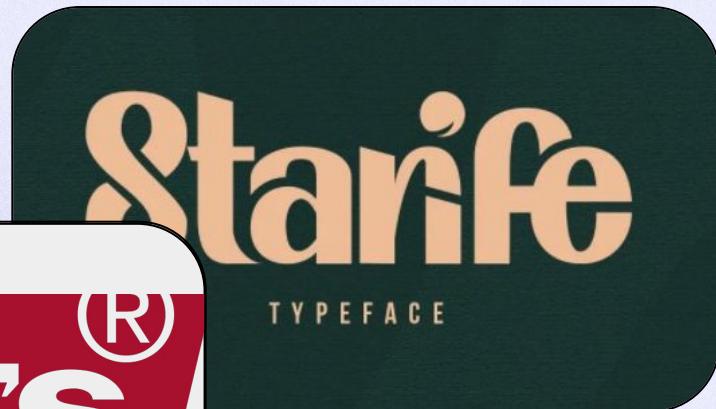
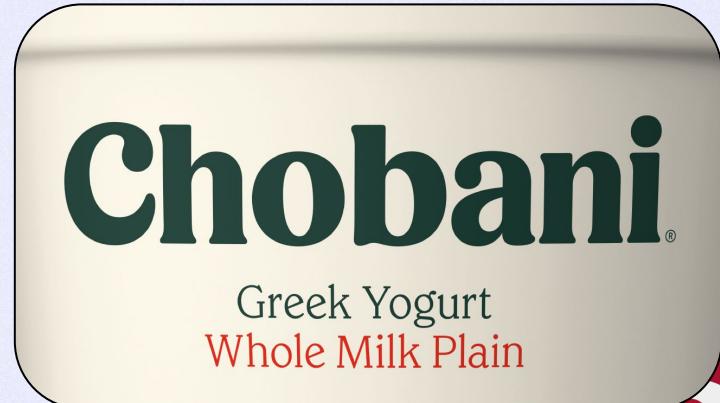


# Sans-Serif





# Display





# Script



# Choosing the Right Option

- What is the **primary message** you're communicating with your design?
- **Where and how** will the typeface be used?
- Will the user be reading the content from **close up or far away?**
- Is it more important for your message to feel **human and emotional, or exact and precise?**
- How important is **trust** in this communication? Are you presenting yourself as an **authority?**



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Ready to Start  
Designing?

