

# Visual Impact:

## Understanding Graphic Design Basics

Presented by Instructional Services' Graphic Design Team

# Presentation Outline

**03** Graphic Design Defined

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# What is **graphic design**?

visual communication

+

problem-solving

## **By utilizing...**

*Typography*

*Illustration*

*Symbols*

*Copywriting*

*Icons*

*Infographics*

*Photography*

*The art of creating a design that **communicates**  
a specific message and **performs** a particular function.*

# What is the **purpose** of graphic design?

attract , engage , or inform

## **Involves principles...**

*Color theory*  
*Typography*  
*Layout*  
*Composition*

## **Used in...**

*Branding*  
*Web design*  
*Editorial design*  
*Wayfinding*  
*Logos + more*

## **Considers...**

*Cognitive*  
*Cultural*  
*Physical*  
*+ Social factors*

## **Requires knowledge of...**

*Design principles*  
*Artistic sensibilities*  
*Technical skills*

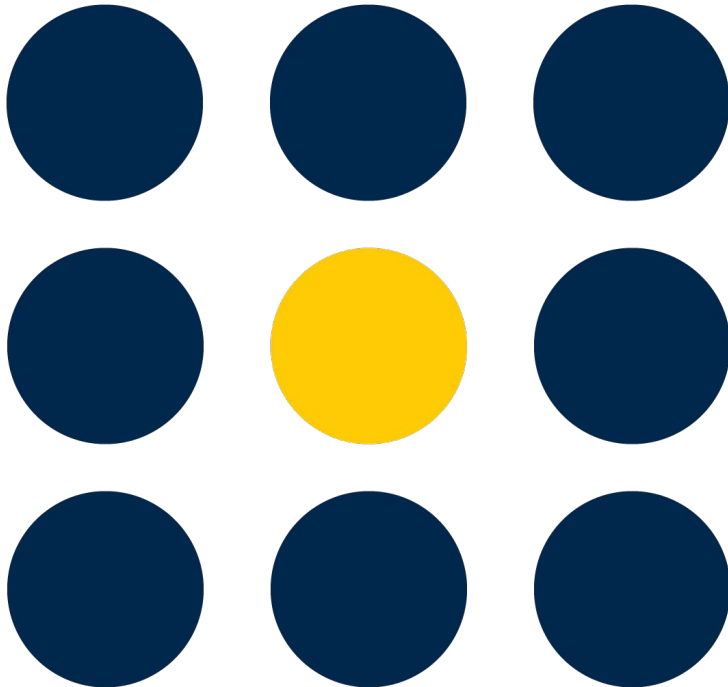
# Design principles

Understanding the basics of graphic design starts with familiarizing yourself with core elements and principles.

- 1 emphasis
- 2 balance + alignment
- 3 contrast
- 4 repetition
- 5 proportion
- 6 movement
- 7 white space

# Emphasis

The *hierarchy* in a design can be established using emphasis; ensuring that the **most important elements** are seen first or hold the most visual weight.



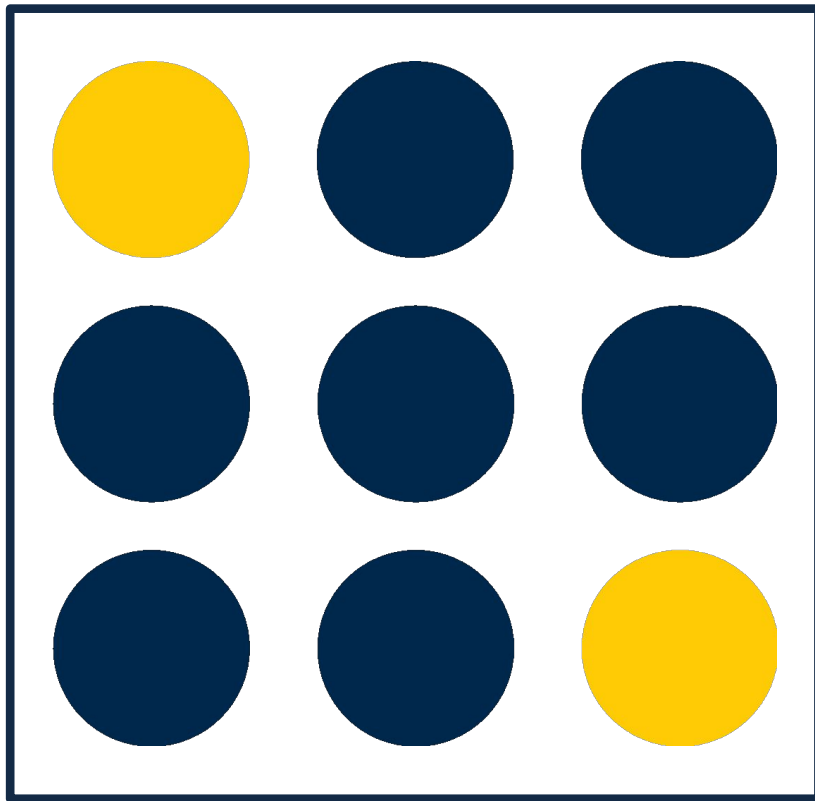
## Achieved by...

- *Size (larger elements typically seem more important)*
- *Color*
- *Contrast (differences in color, size, type etc.)*
- *Placement*
- *Alignment*
- *Proximity*
- *Repetition*
- *Surprise*

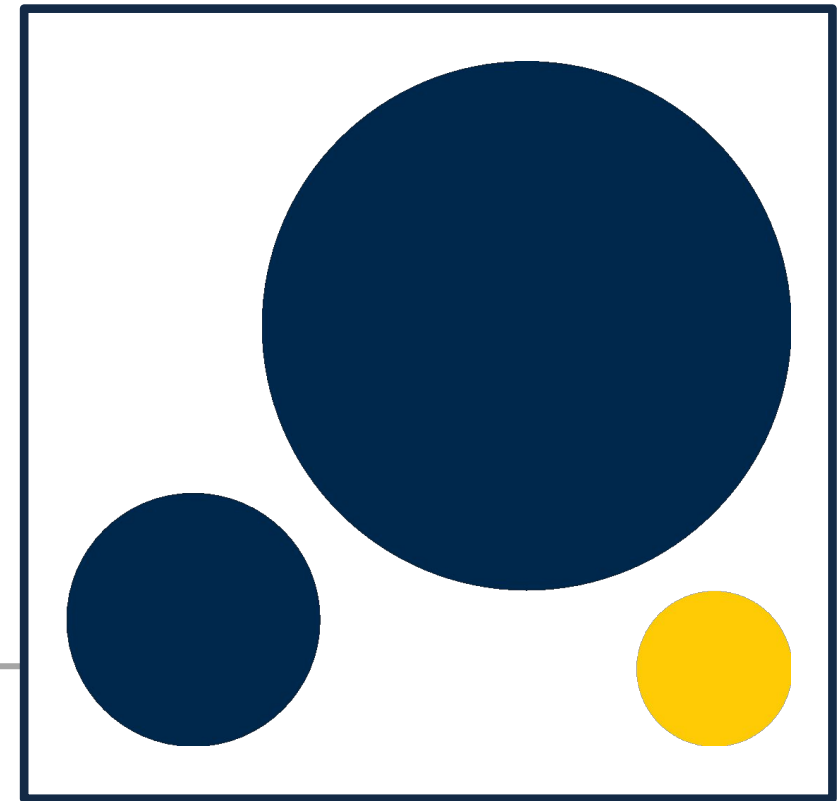
*The understanding of hierarchy could significantly improve the effectiveness and functionality of your design.*

# Balance + Alignment

*Balance and Alignment* are key principles in graphic design as they provide **structure** and **stability** to an artwork or design.



Symmetrical



Asymmetrical



# Balance + Alignment

***Balance and Alignment*** are key principles in graphic design as they provide **structure** and **stability** to an artwork or design.

## Left

Lorem ipsum dolor sit amet,  
consectetuer adipiscing elit.  
Maecenas porttitor congue  
massa. Fusce posuere, magna  
sed pulvinar ultricies, pur  
malesuada libero.

## Right

Lorem ipsum dolor sit amet,  
consectetuer adipiscing elit.  
Maecenas porttitor congue  
massa. Fusce posuere, magna  
sed pulvinar ultricies, pur  
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## Center

Lorem ipsum dolor sit amet,  
consectetuer adipiscing elit.  
Maecenas porttitor congue  
massa. Fusce posuere, magna  
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## Justified

Lorem ipsum dolor sit amet,  
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# Distribution of visual weight

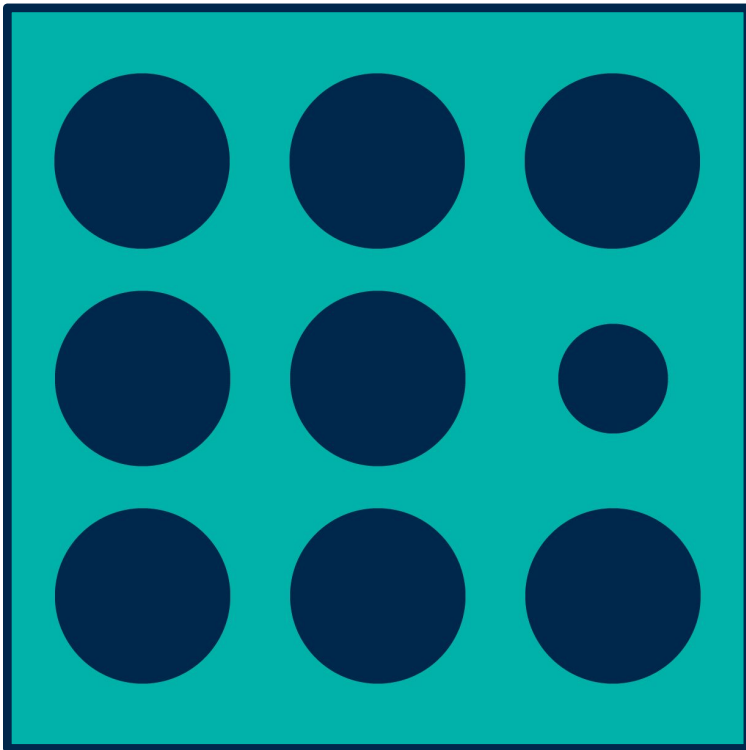
*Text boxes, images, and  
colors carry weight*

*Placement makes a design feel  
balanced or unbalanced*

*Lack of balance and alignment can make a design feel chaotic and haphazard, causing the message to be lost.*

# Contrast

**Contrast is a principle that involves placing opposing elements in a design to highlight their differences, and/or create visual interest or focal points.** (Ex: light and dark, black and white, large and small, textured and smooth, etc.)



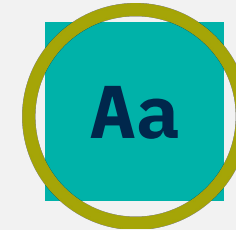
**Here are a few ways contrast can be used:**

- *Color Contrast*
- *Type Contrast*
- *Contrast in Space*
- *Size Contrast*
- *Contrast in Shape*
- *Contrast in Value*

**Accessibility tip:**

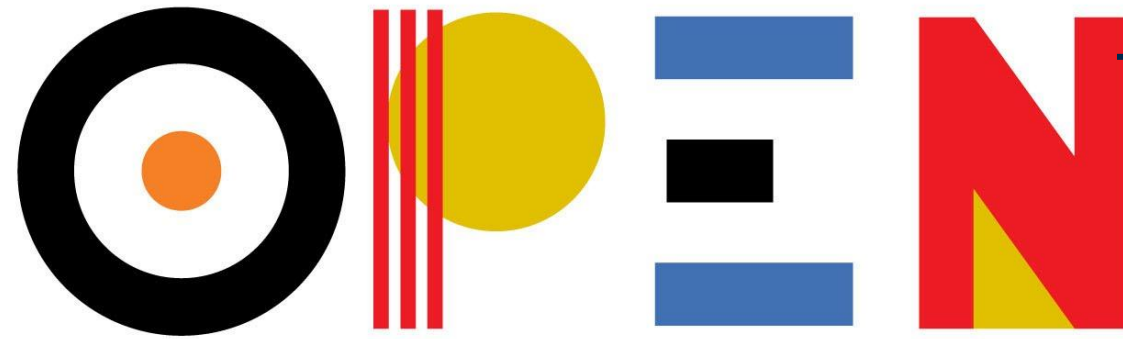


White text against  
Taubman Teal background  
**does not pass** accessibility  
standards



BUT using UM Blue  
against Taubman  
Teal **does**.

# Contrast



**Color contrast** throughout the letters in the title to draw attention.

**Size contrast** is creating hierarchy causing the viewer's attention to be drawn to the main event (title), and the company and event details after.

DIA  
MUNDIAL  
DA RÁDIO

GRUPO  
RENASCENÇA  
MULTIMÉDIA  
**R**



**Shape and type contrast** is present in the title by using using lines, circles, triangles etc. in place of a typeface.

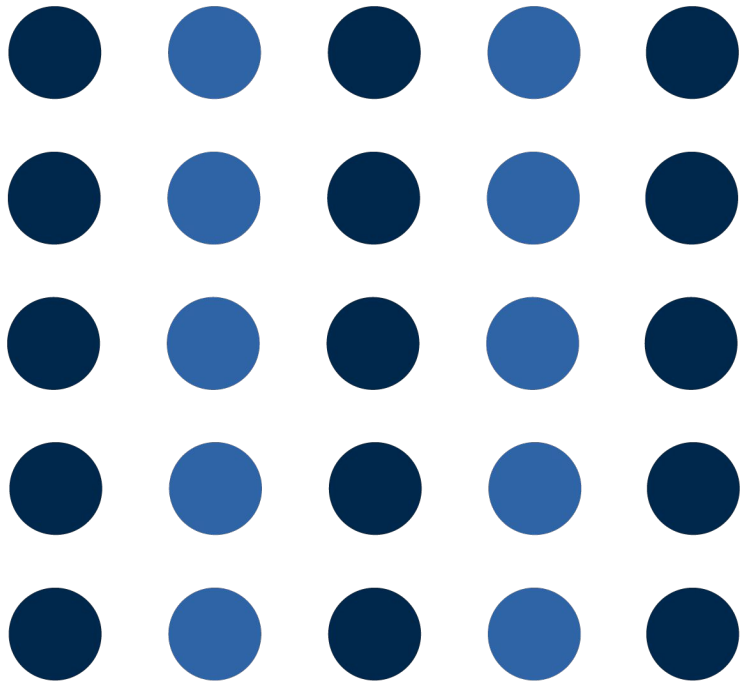
SOURCE: Helena Baltazar, NOSSA DESIGN.

## Accessibility tip:

Use High Contrast to ensure there is enough contrast between text and its background. This helps users with low vision or color blindness to read the content.

# Repetition

A fundamental principle in graphic design that *repeats certain elements* within a work to bring out a sense of **unity, consistency, and cohesiveness**.



## Repetition can include aspects like:

- Color
- Typography
- Imagery
- Styles
- Textures
- Icon

*A consistent layout throughout your design helps users, especially those with cognitive disabilities, to better understand and navigate your content.*

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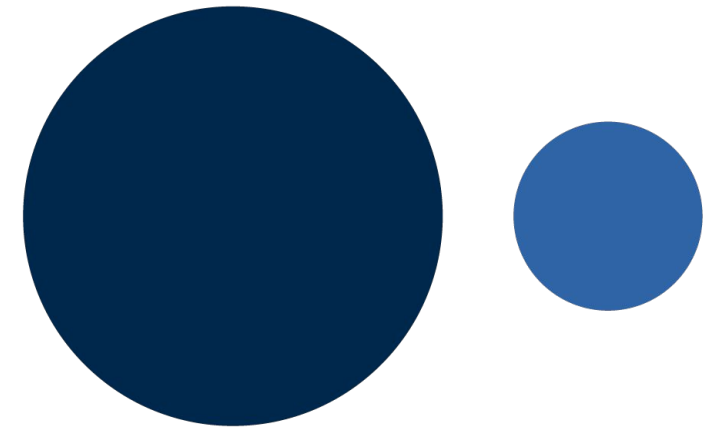
# Proportion

Proportion in graphic design refers to the relationship in size, position, and space between different elements in a design piece.

Proportion can be used to create emphasis and hierarchy.

## Goals:

- Creating a sense of balance and harmony where ***all parts of the design work together***
- No single element is overpowering or insignificant



**Example:** larger elements are typically seen as being more important and might be used to draw attention to a key message.



# Proportion



SOURCE: Noah Hammerman, Akshay Ram, Sammy Silverman.

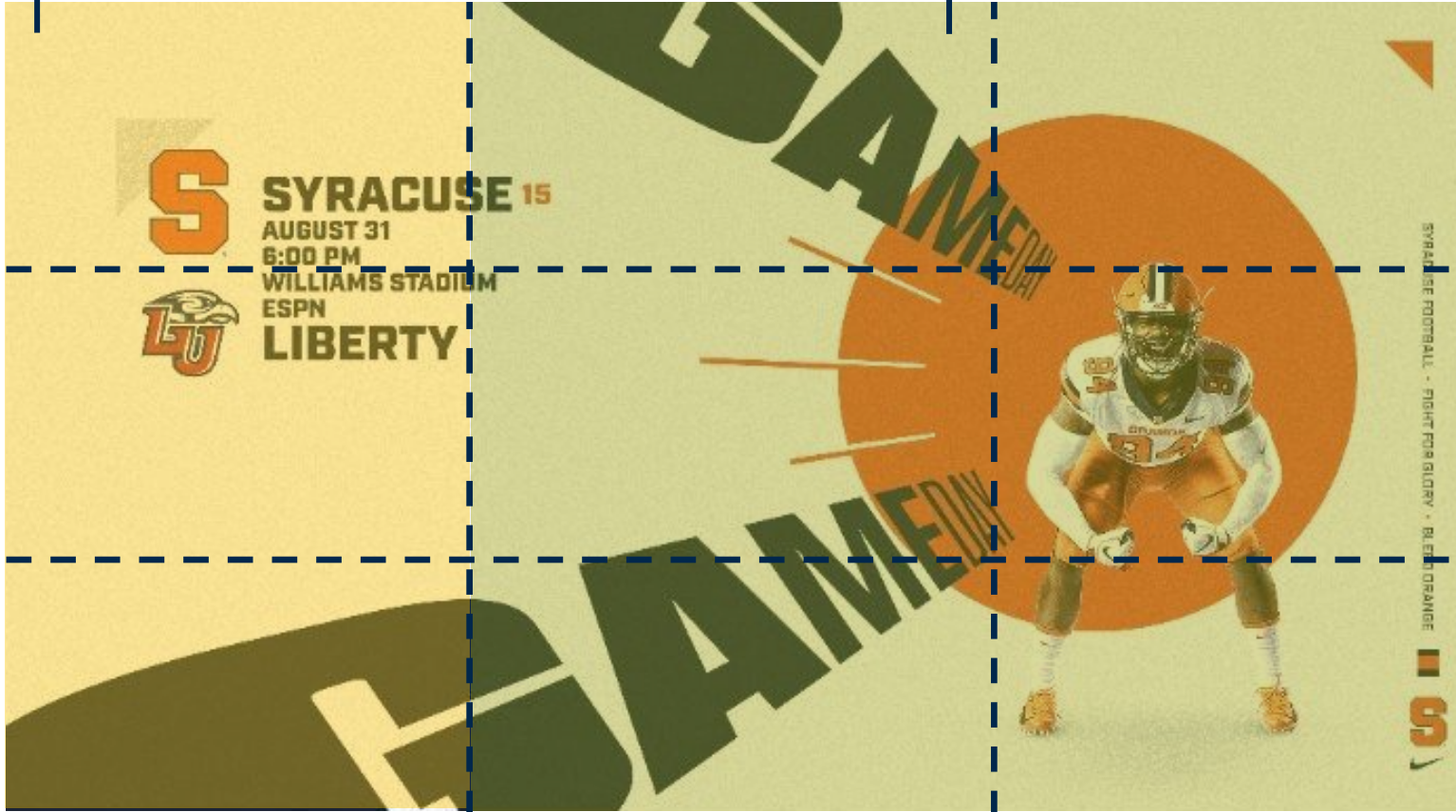
To achieve good proportion, designers often use grids, the rule of thirds, or the Golden Ratio to decide the placement and scale of visual elements.

This helps ensure that the design feels balanced and pleasing to the eye.

# Proportion

1<sup>st</sup> third contains event information

2<sup>nd</sup> third contains majority of graphic



To achieve good proportion, designers often use grids, the rule of thirds, or the Golden Ratio to decide the placement and scale of visual elements.

This helps ensure that the design feels balanced and pleasing to the eye.

*Rule of thirds example*

# Movement

Movement helps *guide a viewer's eye*, creating a flow from one element to another, **establishing direction and hierarchy** in a design.

## Some ways movement can be applied to design:

- *Lines and Shapes*
- *Color*
- *Size and Scale*
- *Typography*
- *Imagery + Composition*
- *Action Motion*

*Using the principle of movement, designers can create dynamic compositions that communicate their message.*

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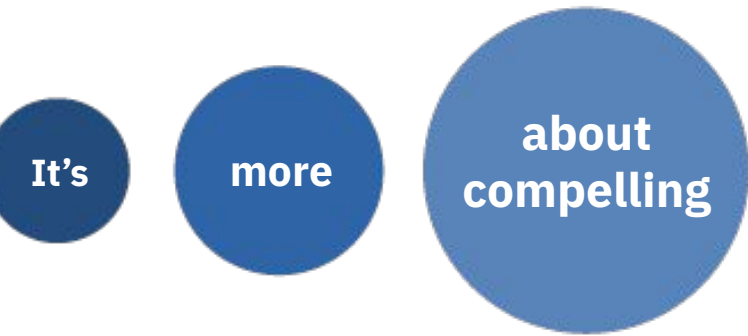
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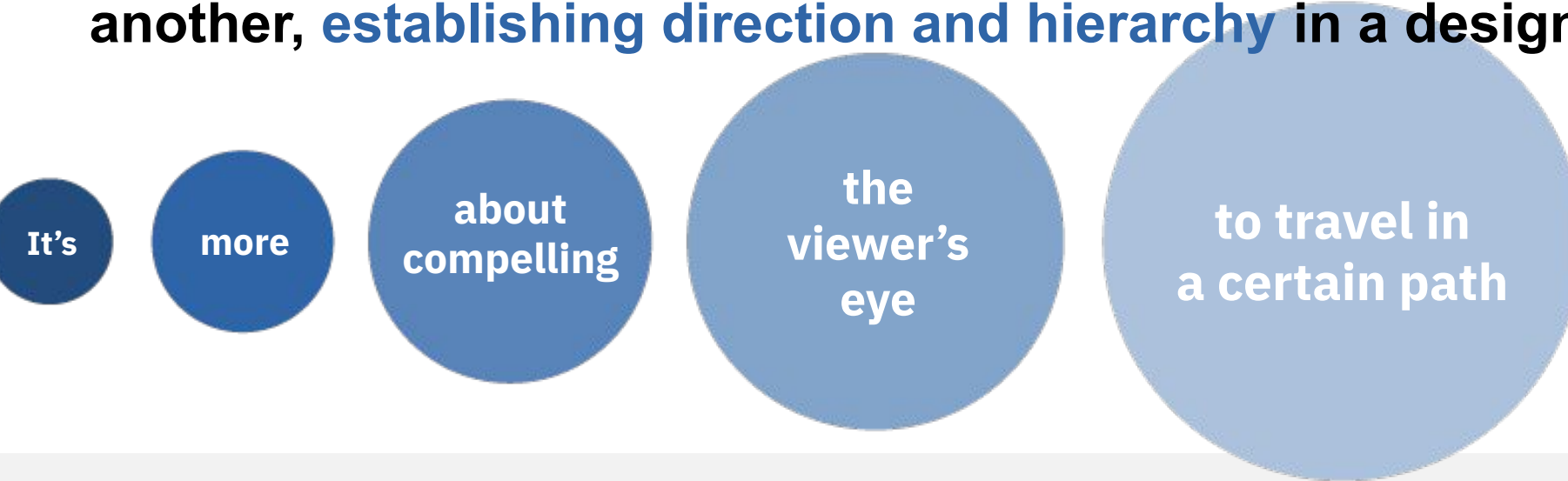
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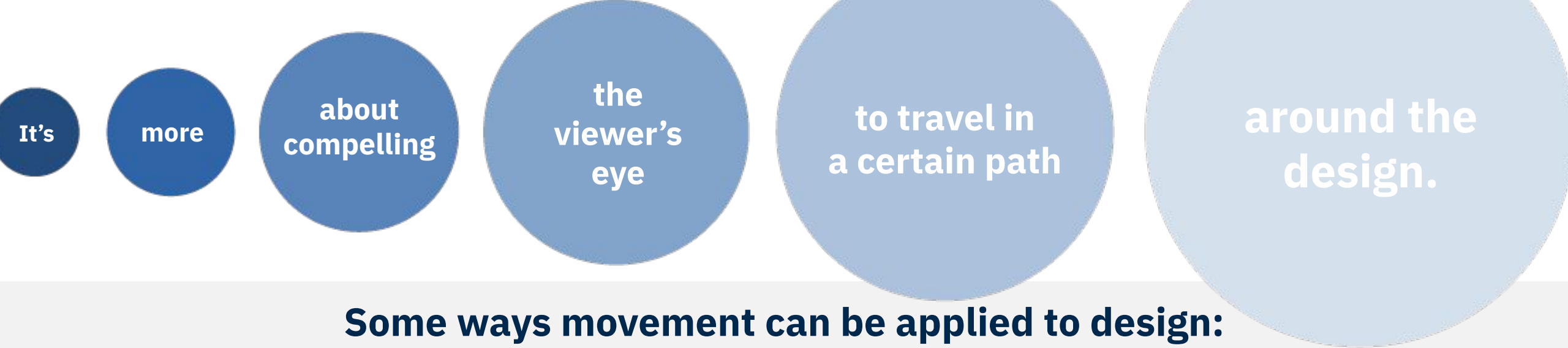
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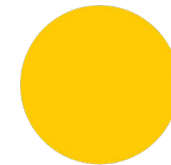
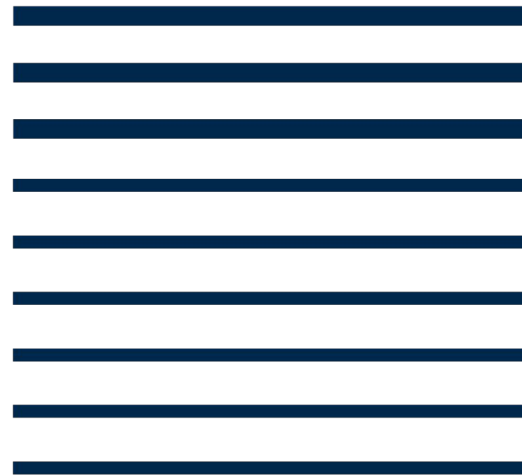
*Using the principle of movement, designers can create dynamic compositions that communicate their message.*

# White Space

White space (negative space) refers to the **empty areas** in a design. It's the space between graphics, margins, gutters, columns, and lines of type or figures and objects.

## Key functions include:

- *Legibility*
- *Focus*
- *Separation*
- *Clarity*
- *Balance*



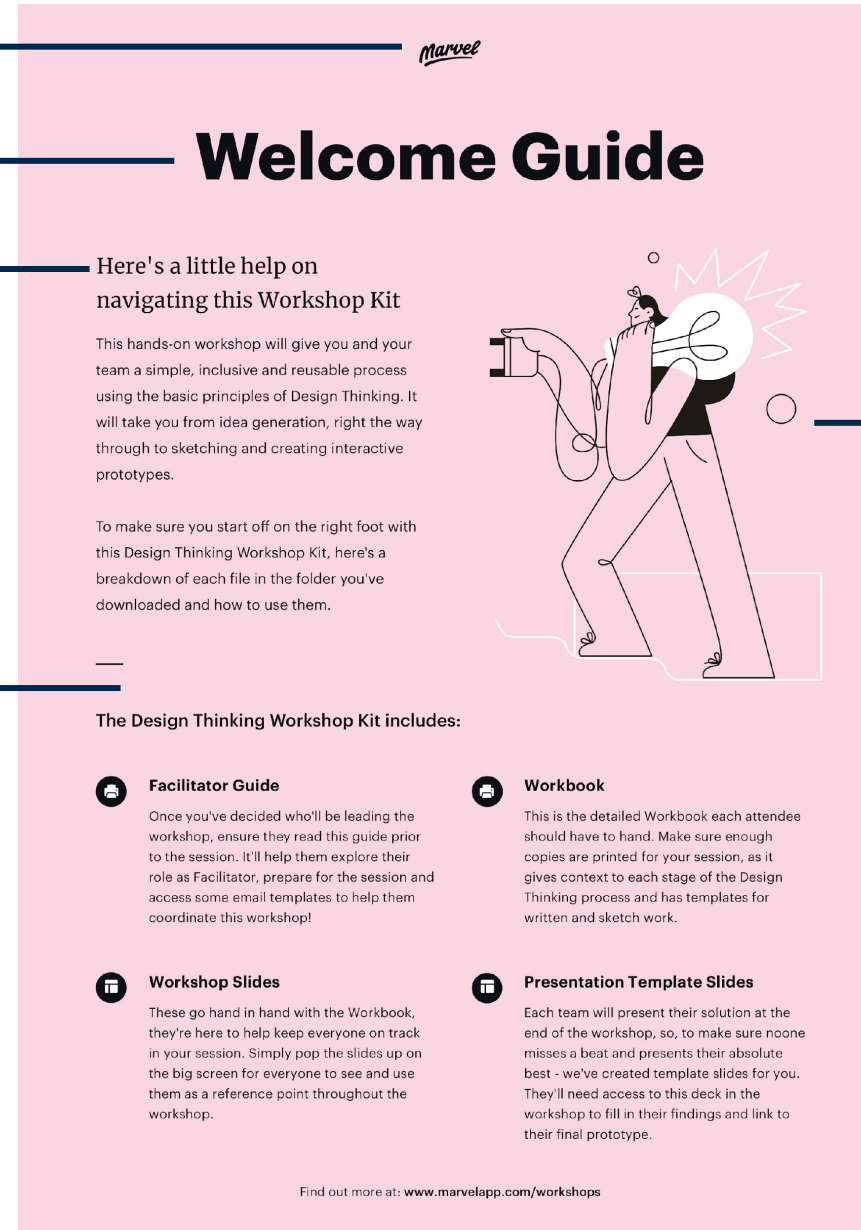
# White Space

Text hierarchy through various sizes and type usage that helps your eye travel through the document

Clear and uniformed space in margins and columns

## Goals:

- Reduce clutter
- Easy navigation through design
- Improve the viewer's experience



Clear and uniformed space around image

SOURCE: Filippo Chiumiento.

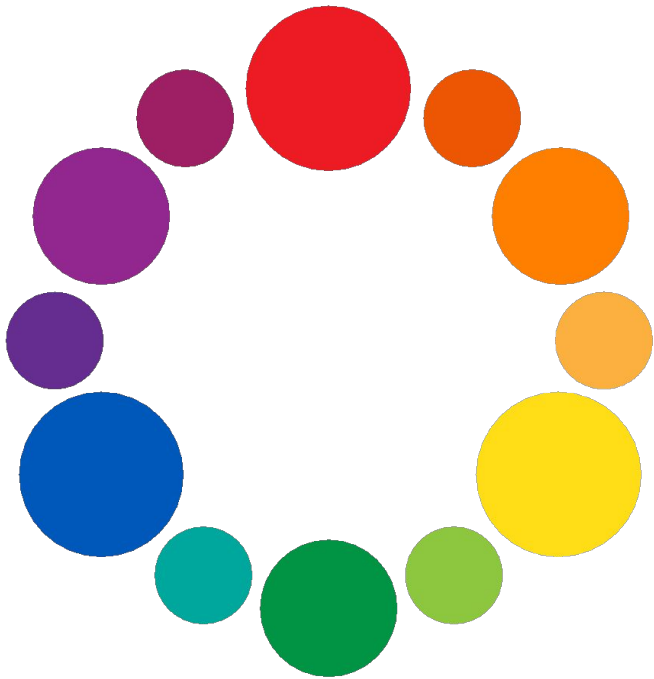
# Color Theory

*Colors influence how a design is perceived, so understanding the psychology of color and how colors work together is essential. Learn about **primary, secondary and tertiary** colors, **digital and conventional** color differences, and how to use color to create mood and emphasis.*



# Color Wheel

A color wheel is a circular diagram of colors arranged **chromatically** that *illustrates the relationships* between **primary, secondary, and tertiary colors**.



A helpful tool for **understanding color harmony** and **balancing colors** being used in fields like painting, fashion, interior design, and graphic design.

*Avoid using color as the sole means of conveying information or indicating an action.  
People who are color blind or who have low vision may not be able to understand the significance.*

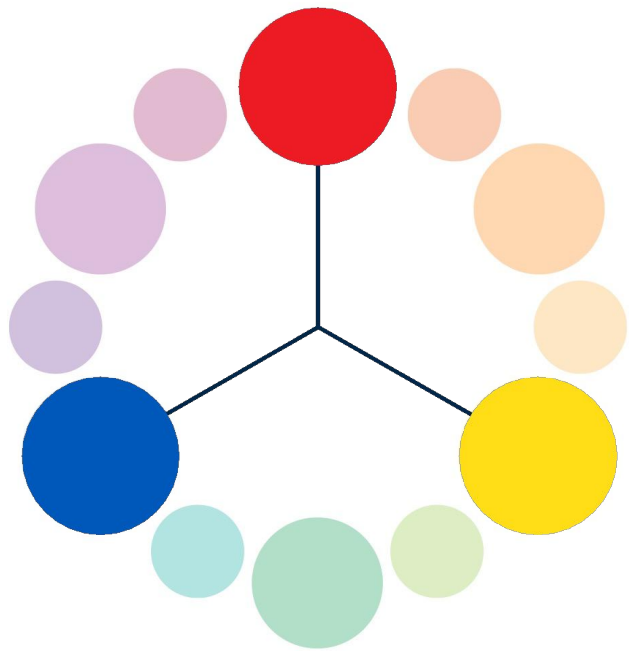
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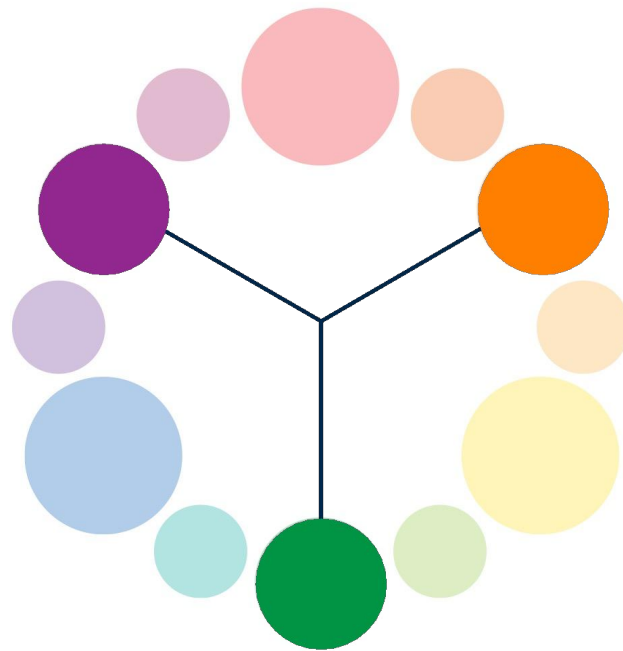
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## primary

cannot be created by  
mixing other colors

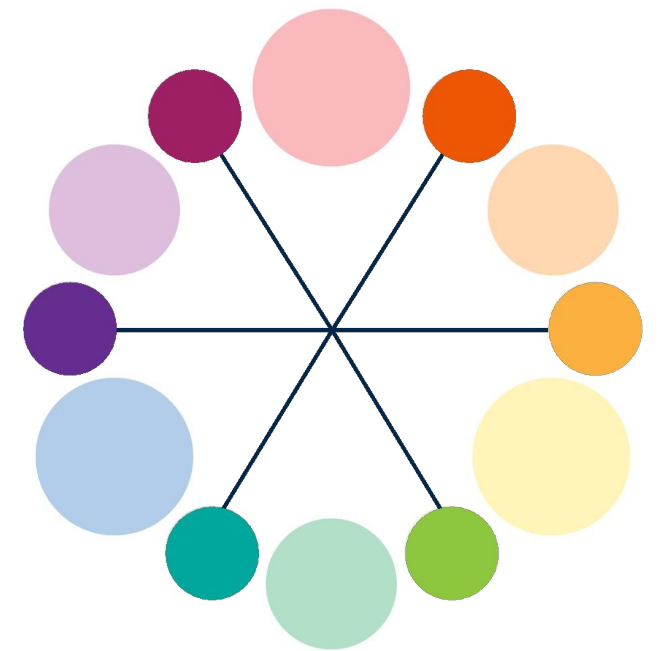
**Include:** red, blue, and yellow



## secondary

primary + primary

red + yellow = **orange**  
yellow + blue = **green**  
blue + red = **violet (purple)**



## tertiary

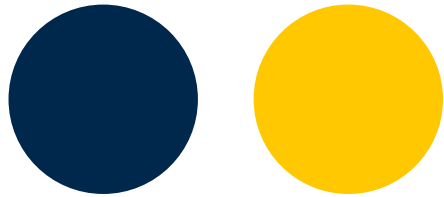
primary + secondary

**Ex:** red + orange = red-orange  
**Include:** red-orange, orange-yellow,  
yellow-green, green-blue, blue-violet,  
violet-red



# UM Color Palette

**primary**  
predominant

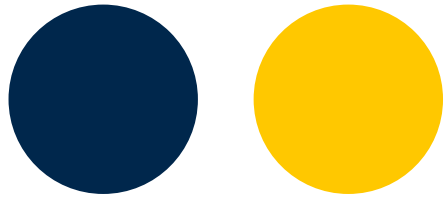


**secondary**  
supportive



# UM Color Palette

**primary**  
predominant

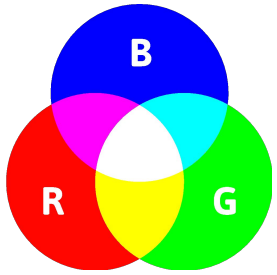


**secondary**  
supportive



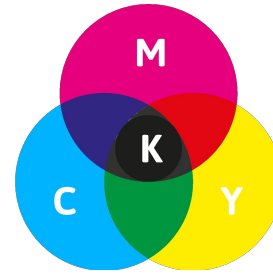
Certain colors do not pass accessibility standards and should not be used as text on white backgrounds and vice versa.

# Digital + Print



## RGB

RGB stands for **Red, Green** and **Blue**. In graphic design, these three colors are **used in a digital format** to display images on televisions, computers, phones and cameras.



## CMYK

CMYK stands for **Cyan, Magenta, Yellow**, and **Key** (Black) and is **used in color printing**. In the CMYK model, colors are formed by combining Cyan, Magenta, Yellow, and Black in various amounts.

## #FFCC33 Hexidecimal

Hex colors, also known as hexadecimal colors, are a six-digit, **three-byte hexadecimal number used in HTML, CSS, and design software** to represent colors.



## PMS/Pantone

Pantone Matching System colors are a standardized **color reproduction system used in the printing industry**. Developed in the mid-20th century, PMS colors allow for **nearly exact color matching** when specific color matching is crucial.

# Layout and Composition

**Layout and Composition** refer to the **arrangement of the visual elements in a design, including images, text, shapes, and colors.**

These elements directly affect how a design is perceived by viewers.

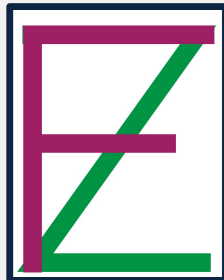
## Layout

**Layout is the arrangement of visual elements on a page.**

Layout involves decisions about alignment, grouping, placement, spacing, and more.

**Common types of layouts:**

Grid layouts, Z layouts, F layouts

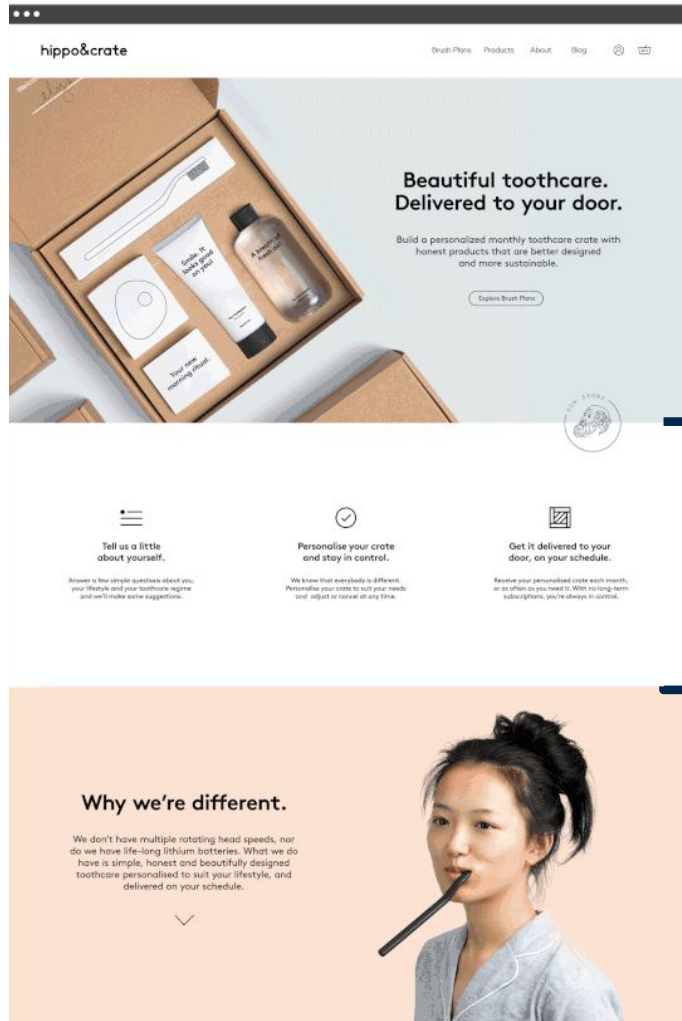


## Composition

**How different elements of a design interact with each other.**

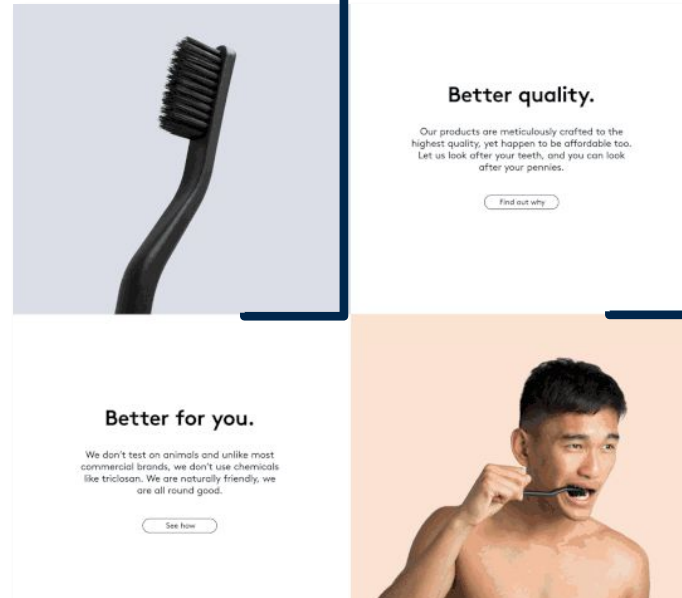
A good composition considers balance (either symmetrical or asymmetrical), contrast, repetition, alignment, and proximity.

# Layout and Composition



New section introduced by color

New section introduced by color and shape



SOURCE: Made by Alphabet



# Layout and Composition

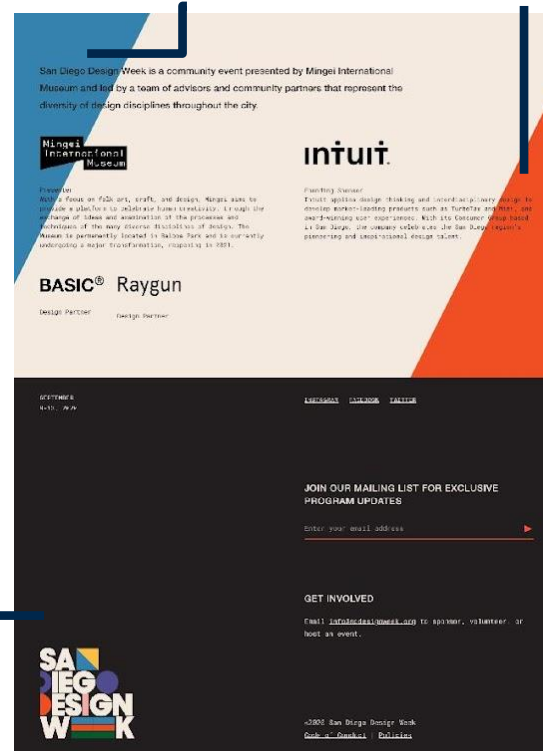


New section introduced by text



New section introduced by color and text

New section introduced by color and shape



New section introduced by color

SOURCE: San Diego Design Week



# Layout and Composition

## **Layout and composition ensure:**

1. Aesthetically pleasing design
2. Effective communication of the intended message



# Layout and Composition

Design a *winning* SCIENTIFIC POSTER

**Before you start**

Check the poster guidelines from your institution or conference:

FONT DIMENSIONS COLORS LOGO USAGE

**Also consider...**

**The submission date.** Prepare at least a few weeks in advance. Think about how much time it takes to design the poster, ask for feedback, and print. A good tip to ensure enough time is to work backwards from the due date.

**Your audience.** Who will be looking at your poster? How much do they know about your topic? Pick the aspect of your research that is most relevant and comprehensible for your audience.

**Your research.** What information do you want to include? What is the key topic or result that you want to highlight?

**Top Tips for Poster Design**

**Title Should Be Less than 100 Characters at 96pt Font or Above**

**1 Keep margins/padding consistent**  
Equal spacing between sections helps reduce clutter and improve readability of the content.

**2 Arrange sections in a grid**  
Clear organization helps direct the audience's eye. Information should flow from left to right, top to bottom.

**3 Pick 1 section to highlight (TL;DR format)**  
Draw attention to 1 key section by giving it a different colored background or section header.

**4 Apply text hierarchy**  
Bold or increase the font size to highlight key information. Ensure the text is large enough to read at a distance.

**5 Format figures specifically for posters**  
The colors, labels, arrows should all be consistent from one figure to another. Figures should be high resolution so they look nice and clear when printed.

**AVOID THESE:**

- Rounded corners to box sections
- Gradients or patterns as background
- Using too many fonts (try to limit to ≤2 fonts)
- Drop shadows and word art
- Logos with non-transparent background or poor contrast with background

www.biorender.com  
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Need help getting started? Go to [www.biorender.com](https://www.biorender.com) and try BioRender's Poster Builder to design a beautiful research poster in minutes. There are numerous professionally designed, fully customizable poster layouts and templates for you to start with!

bio RENDR

SOURCE: biorender

**TWO IS BETTER THAN ONE?**

Song function for joint territory defence and within pair communication in Lovely fairy-wrens

ANA V. LEITÃO\*, RAOUL A. MULDER, MICHELLE L. HALL  
School of Biosciences, The University of Melbourne, Melbourne, Australia

**INTRODUCTION**

Song in birds has been extensively studied and is considered a classical example of a sexually selected trait. However, this interpretation is based on studies of predominantly one sex, the male. There is growing evidence that female song is common and phylogenetically widespread, but there are still only a few species for which song similarities and differences between the sexes have been described.

In this study, we investigated the function of female and male song in the Lovely fairy-wren (*Malurus amabilis*), a tropical species that maintains and defends territories year-round.

**METHODS**

We used observational data to describe their song structure and examine sex-specific variation in song rate across breeding and non-breeding stages and seasonal variation.

We also used experimental data to examine female and male responses to simulated territorial intrusions, with song playbacks of solo intruders of either sex that varied in complexity.

**RESULTS**

Females and males had similar song metrics and natural song rates.

- Song duration
- Peak frequency
- Min. frequency
- Max. frequency
- Bandwidth
- Entropy

Pairs sang more during non-breeding periods than during breeding periods. Within each breeding stage, males sang more when females were incubating.

Male song playbacks elicited a stronger approach response from both sexes, than female song playbacks.

Pairs sang with shorter latency and at higher rates to simple (than complex) songs but, only when they were presented after complex songs.

**CONCLUSION**

- Similar acoustic structure and song across all metrics measured.
- Pairs sang year-round and overall with similar song rates.
- Pairs sang more when not nesting compared to all breeding stages, and when apart from their partner.
- Both sexes had coordinated and similar responses to the intrusions.

Overall, observations and experiments suggest that female and male songs function primarily for within-pair communication and joint territorial defence.

\*Contact: [anamvleitao@gmail.com](mailto:anamvleitao@gmail.com)

Design: [osvaldo.com.au](https://osvaldo.com.au)

SOURCE: Osvaldo Branquinho

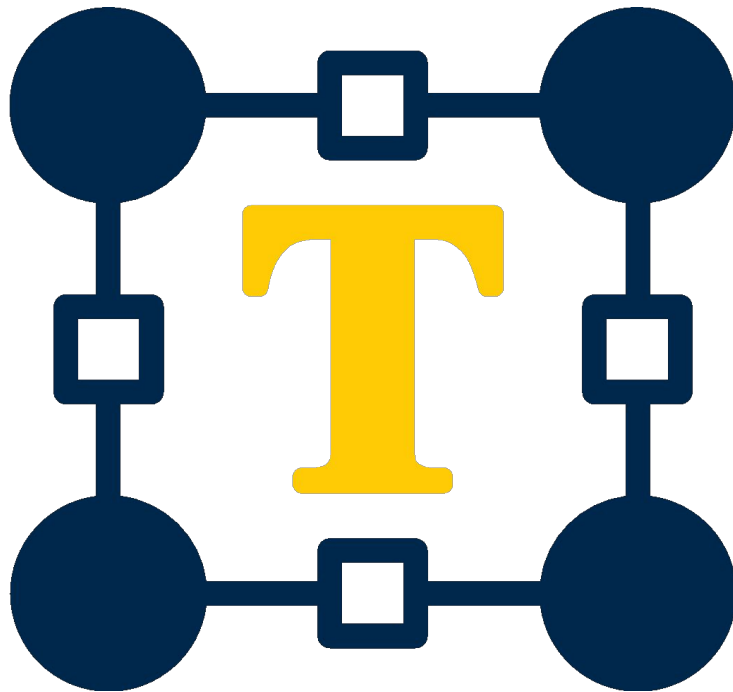
Working in a grid and keeping your sections as evenly spaced as possible, is a good practice when presenting lots of information.

Tips for designing a research poster



# Typography

*Typography in graphic design is the art of arranging type to make the text legible, readable, and visually appealing to the reader.*



## The core components of typography

- *Typefaces*
- *Fonts*
- *Line Lengths*
- *Leading*
- *Kerning*
- *Tracking*

*Typography can be used to convey a certain mood, evoke an emotion, or express a brand personality.*

# Typography



**Serif**  
'line' or 'pen stroke'

Serif fonts **include small lines** or decorative strokes that are attached to the ends of larger strokes in each letter.



**Sans serif**  
'without'

Sans Serif fonts are **without** the small lines at the end of strokes.

# Typography



**Serif**  
'line' or 'pen stroke'

They are easier to read in **printed works**, such as books, newspapers, and formal documents.

**Font examples:** Times New Roman, Georgia, and Garamond



**Sans serif**  
'without'

Often used in **digital media** because they typically display clearer at lower screen resolutions. Provides a cleaner, simpler and more modern look.

**Font examples:** Helvetica, Arial, and Futura

# Typography

*Italics* **ALL-CAPS**

Text in italics or all-caps can be more challenging to read, so they should be used sparingly.

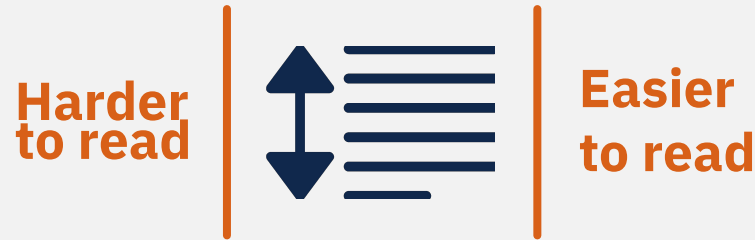
**bold**

Bold text can be used create emphasis or hierarchy in text.

# Typography



Font size **should be large** enough to read comfortably.



**Adequate line spacing** (at least 1.5) makes the text easier to read.



In digital mediums, using **customizable text** allows users to modify text size, font, spacing, and color according to their preference.

*Effective typography enhances the readability, accessibility, and usability of graphic design work.*

# Typography

*Use fonts that are easy to read. Avoid using **stylized** typefaces. SPH Brand Standards recommend the fonts **Arial, Lucida Grande, Georgia, Times New Roman, Verdana and Tahoma.***

# Copywriting

**Copywriting in graphic design helps to communicate the message of the design more effectively.**

## **Copywriting in graphic design:**

- *Enhances Visual Communication*
- *Creates Audience Engagement*
- *Defines Brand Voice and Personality*
- *Builds trust*
- *Helps Improve SEO*



# Copywriting

**Copywriting in graphic design helps to communicate the message of the design more effectively.**

## **Things to remember about copywriting in graphic design:**

- Keep sentences concise and to the point
- Avoid including unnecessary jargon or overly complex language
- Use headers and subheads to break up text and provide a roadmap of your content.
- Break up long chunks of info using bullet points

# Accessibility

Making graphic design accessible means *creating content that is accessed and understood by the widest range of users*, including those with **visual**, **auditory**, **cognitive**, and **physical impairments**.

**Here are a few ways to increase accessibility in graphic design:**

- *Use High Contrast*
- *Choose Fonts Wisely*
- *Add Alt Texts for Images*
- *Create a Consistent Layout*
- *Use Close Captions and Transcripts*
- *Avoid Reliance on Color*
- *Make Links Stand Out*
- *Write Copy in Simple Language*
- *Test the Design*

*For more info, visit Web Accessibility Initiative ([w3.org](https://www.w3.org)) and Web Accessibility in Mind ([webaim.org](https://www.webaim.org))*

# THE BRAND. THE BRAND. THE BRAND.

Branding is the **perception, marketing, and identity** of a company.

A **brand's identity** is a collection of design elements used to visually represent of a company.

This is achieved through design elements such as **color schemes, typefaces, and shapes** and can be seen in the **brand's logos, stationary, website, and more.**

[Download The School of Public Health's branding and style guide](#)

SOURCE: FIB (Fábrica de Ideias Brasileiras)



**A few takeaways!**

# Contact

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Got any **Questions?**