Color, Typography, Gestalt

Prof. Lydia Chilton
COMS 4170
28 February 2022

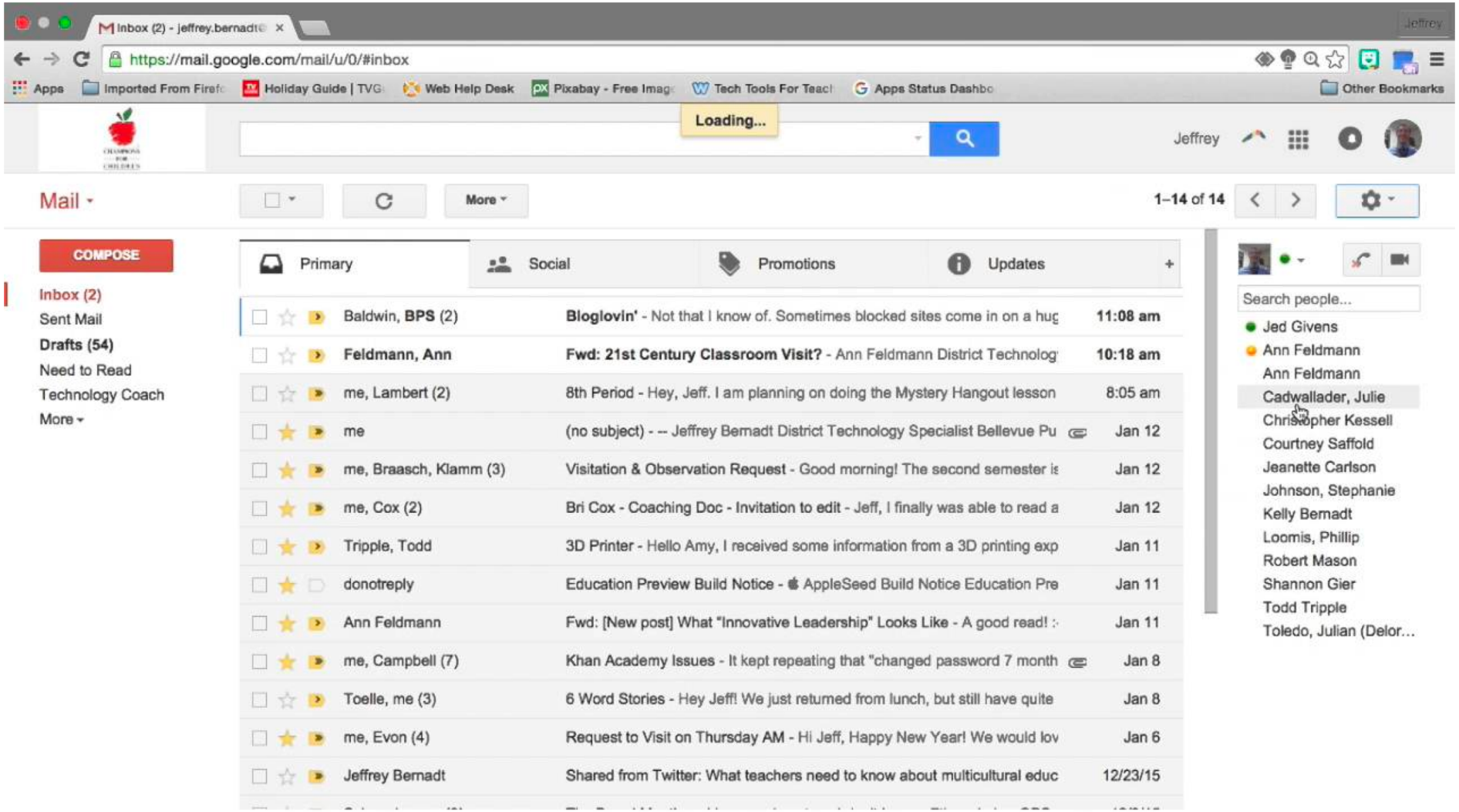
Raise your hand or type in zoom

The human brain is always interpreting meaning.

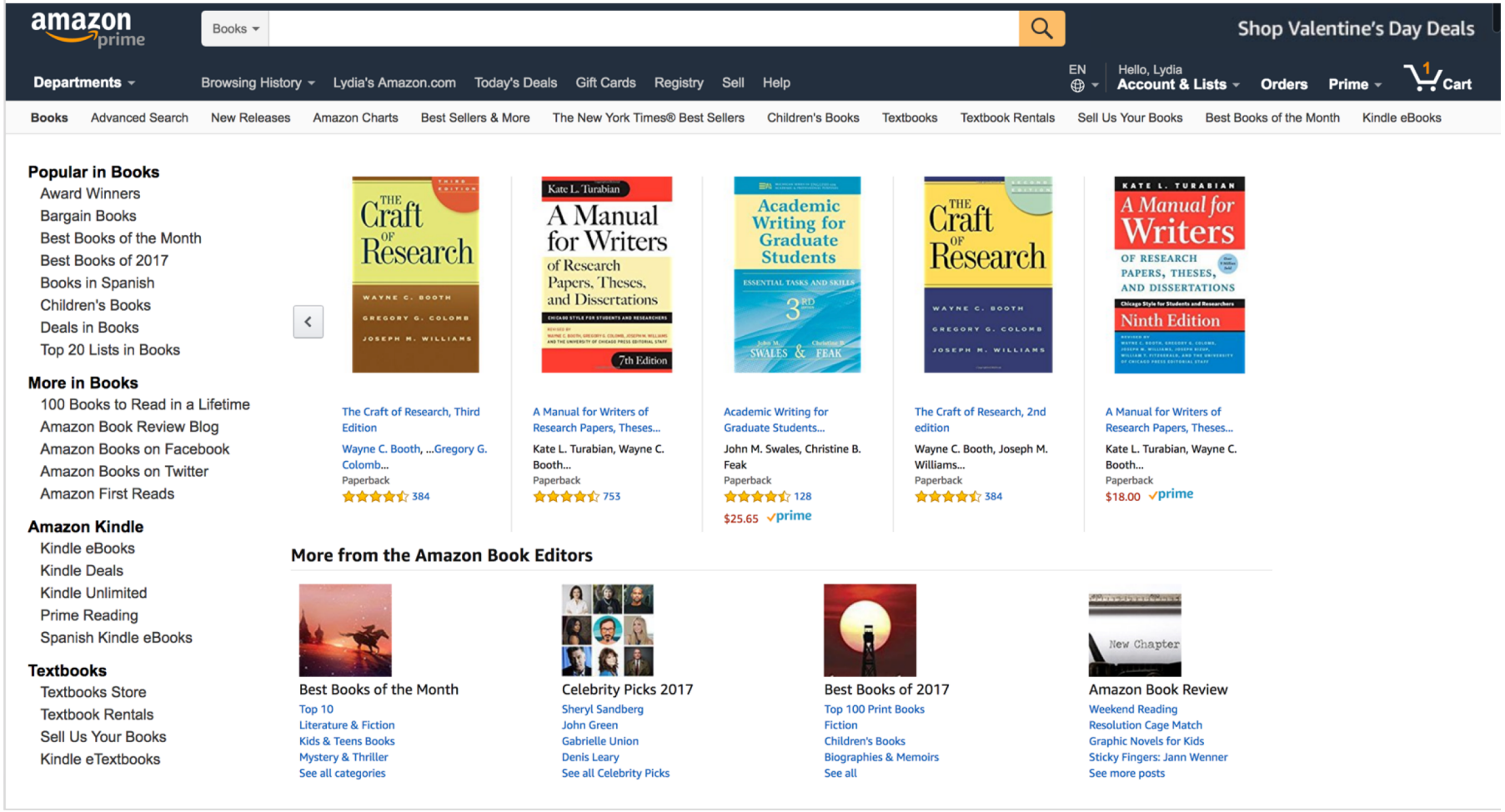
Color and Meaning

In addition to signaling importance, colors have meaning.

Where is color used? What does it mean?



Where is color used? What does it mean?



What are your associations with these colors?

Culture	Red	Blue	Green	Yellow	White
United States	Danger	Masculinity	Safety	Cowardice	Purity

And the associations in France?

Culture	Red	Blue	Green	Yellow	White
United States	Danger	Masculinity	Safety	Cowardice	Purity
France	Aristocracy	Freedom Peace	Criminality	Temporary	Neutrality

Do you see any contradictions?

Culture	Red	Blue	Green	Yellow	White
United States	Danger	Masculinity	Safety	Cowardice	Purity
France	Aristocracy	Freedom Peace	Criminality	Temporary	Neutrality
Egypt	Death	Virtue Faith Truth	Fertility Strength	Happiness Prosperity	Joy
India	Life Creativity		Prosperity Fertility	Success	Death Purity
Japan	Anger Danger	Villainy	Future Youth Energy	Grace Nobility	Death
China	Happiness	Heavens Clouds	Ming Dynasty Heavens Clouds	Birth Wealth Power	Death Purity

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What does blue mean in India?

Culture	Red	Blue	Green	Yellow	White
United States	Danger	Masculinity	Safety	Cowardice	Purity
France	Aristocracy	Freedom Peace	Criminality	Temporary	Neutrality
Egypt	Death	Virtue Faith Truth	Fertility Strength	Happiness Prosperity	Joy
India	Life Creativity		Prosperity Fertility	Success	Death Purity
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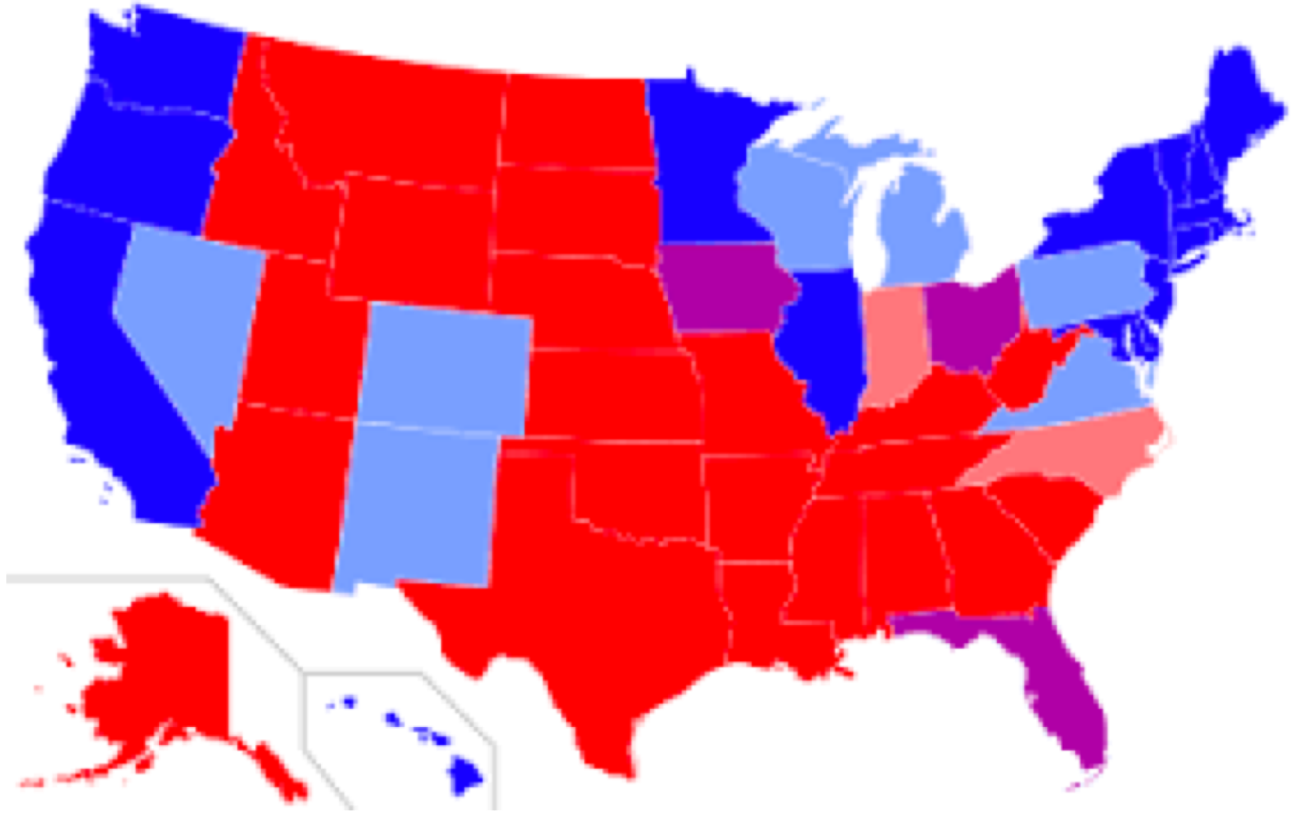
COLOR EMOTION GUIDE
OPTIMISM
CLARITY
WARMTH
FRIENDLY
CHEERFUL
CONFIDENCE
EXCITEMENT
YOUTHFUL
BOLD
CREATIVE
IMAGINITIVE
WISE
TRUST
DEPENDABLE
STRENGTH
PEACEFUL
GROWTH
HEALTH
BALANCE
NEUTRAL
CALM

What cultural associations do these colors have?

Republicans

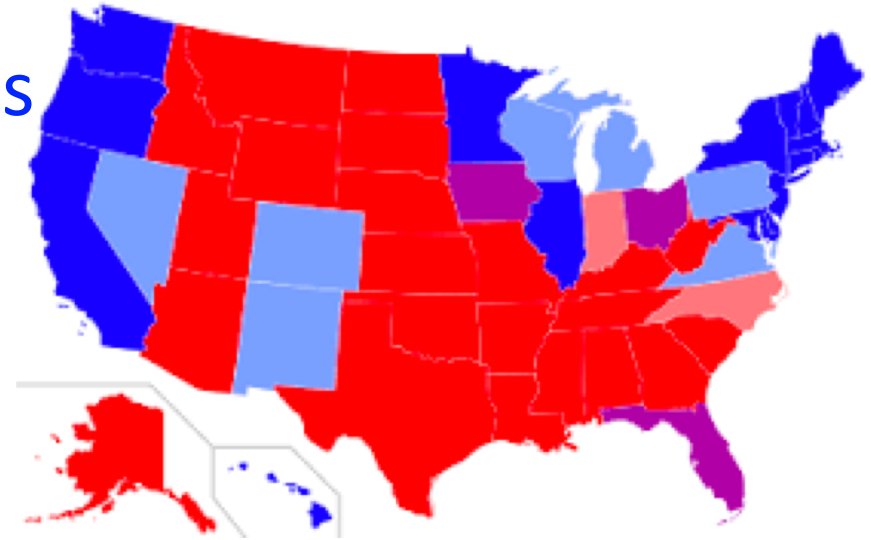
Democrats



What cultural associations do these colors have?

GOP

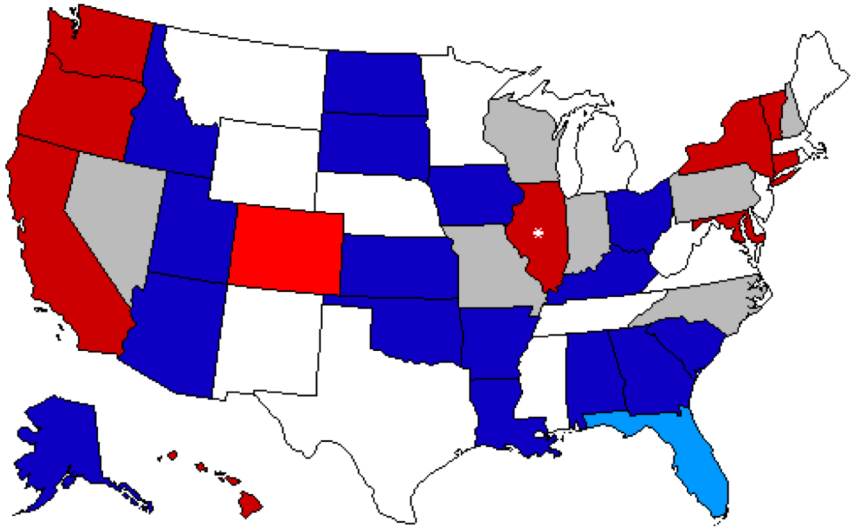
Dems



2016

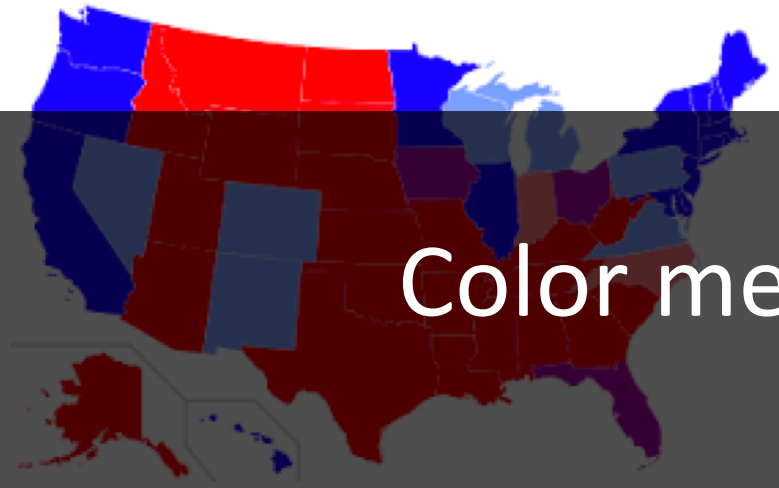
GOP

Dems



1992

Are color meanings arbitrary?



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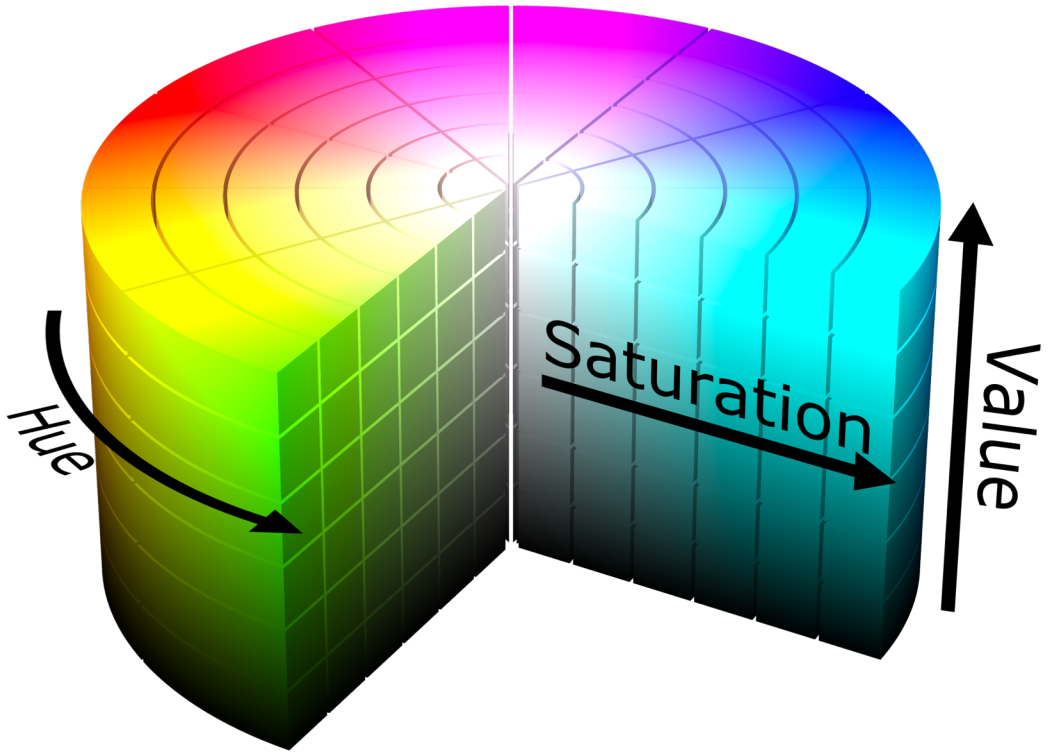
China	Happiness	Heavens Clouds	Ming Dynasty Heavens Clouds	Birth Wealth Power	Death Purity

Color meanings are not absolute.

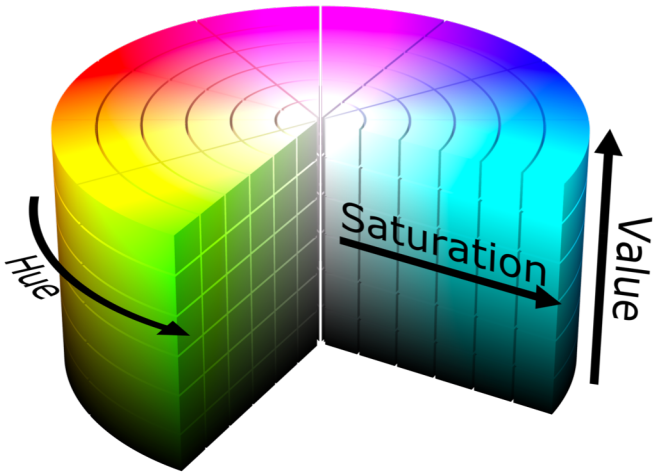
But at any time and place,
they may mean something you don't intend.

Color Representation

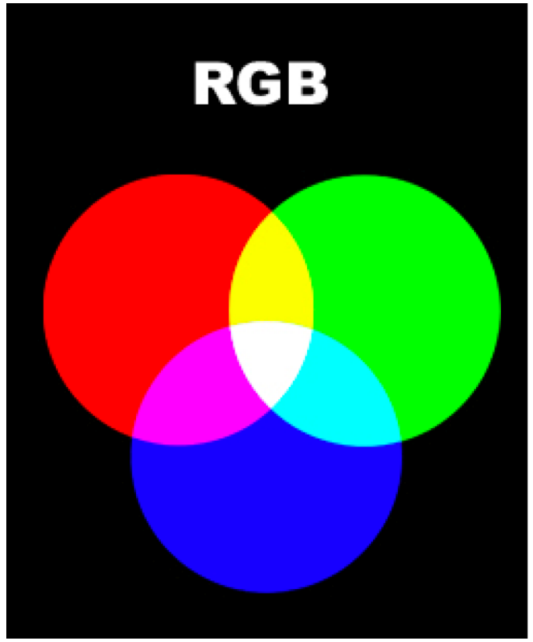
There are three perceptual dimensions of color: HSV – Hue, Saturation, Value (Brightness)



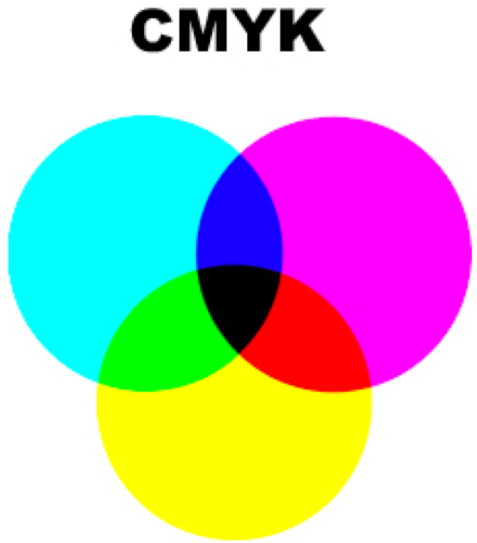
There are many ways to represent Color



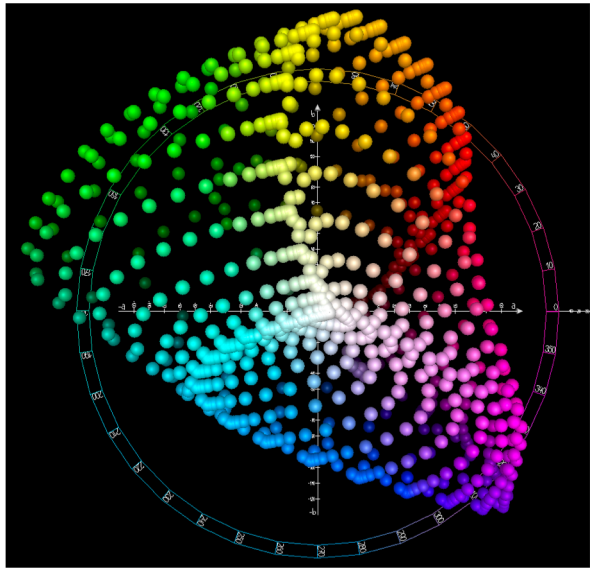
Hue, Saturation, Value



Red, Green, Blue

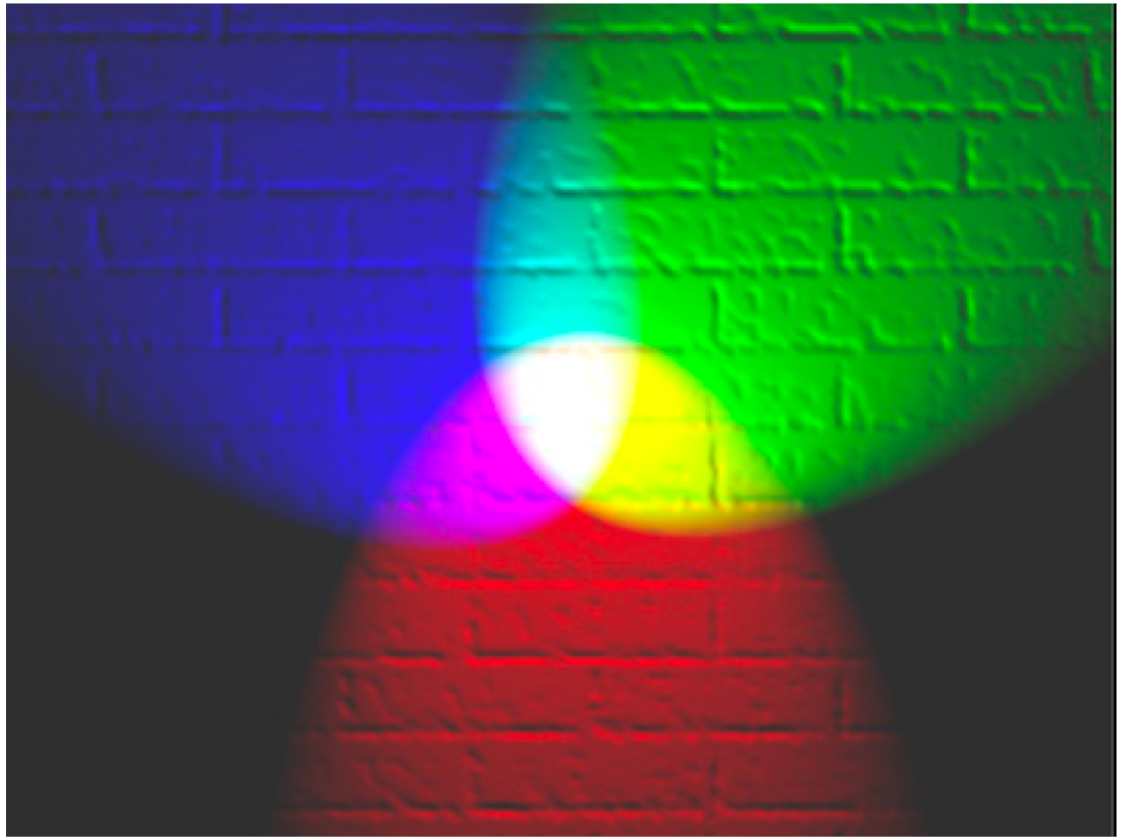


Cyan, Magenta, Yellow (Black)



Luminosity, a, b

The web uses represents color in RGB



If you have have
Red: **0**, Green: **0**, Blue**: 0**
What color will you get?

Black

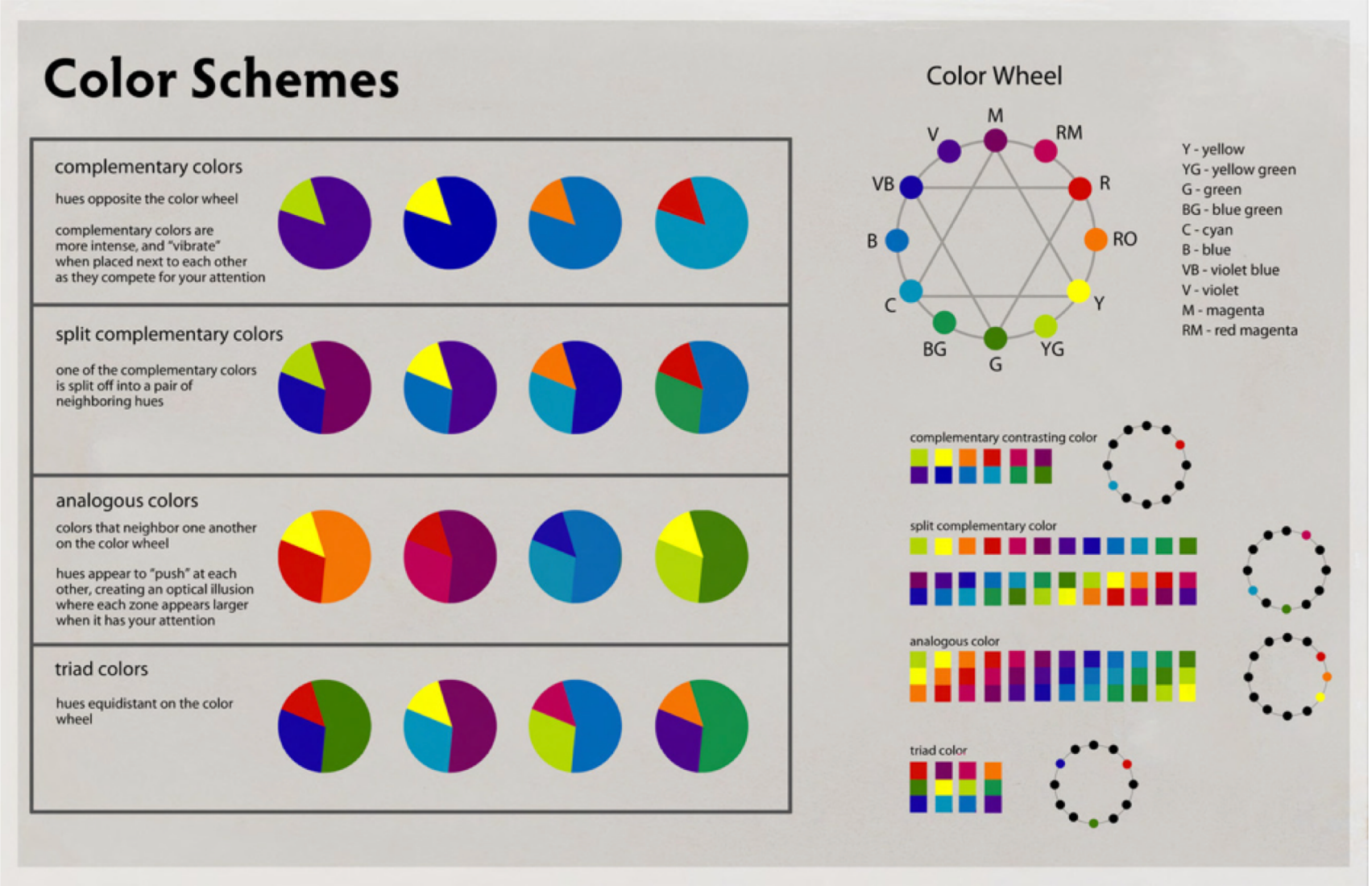
If you have have
Red: **100%**
Green: **100%**
Blue: **100%**
What color will you get?

White

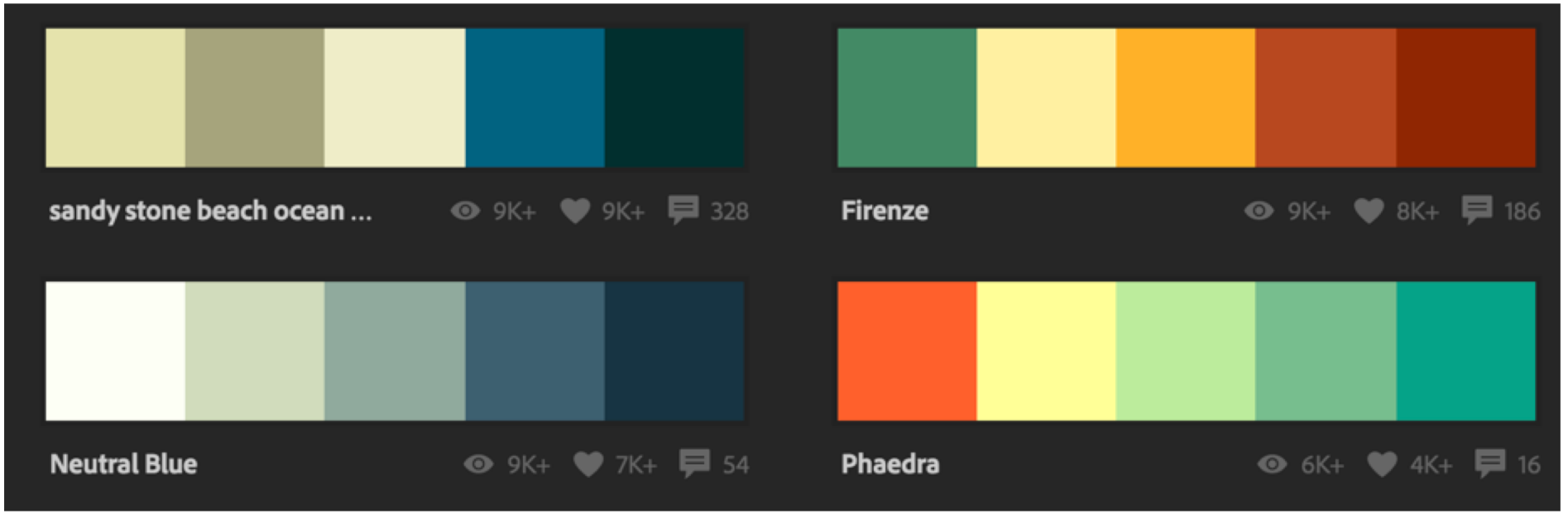
Ways to specify a color in HTML

```css
.blue_text{
    color: blue;
}


.blue_text{
    color: rgb(0,0, 255);
}


.blue_text{
    color: #0000FF;
}


.blue_transparent_text{
    color: rgba(0,0, 255, 0.5);
}
```

Choosing color combinations



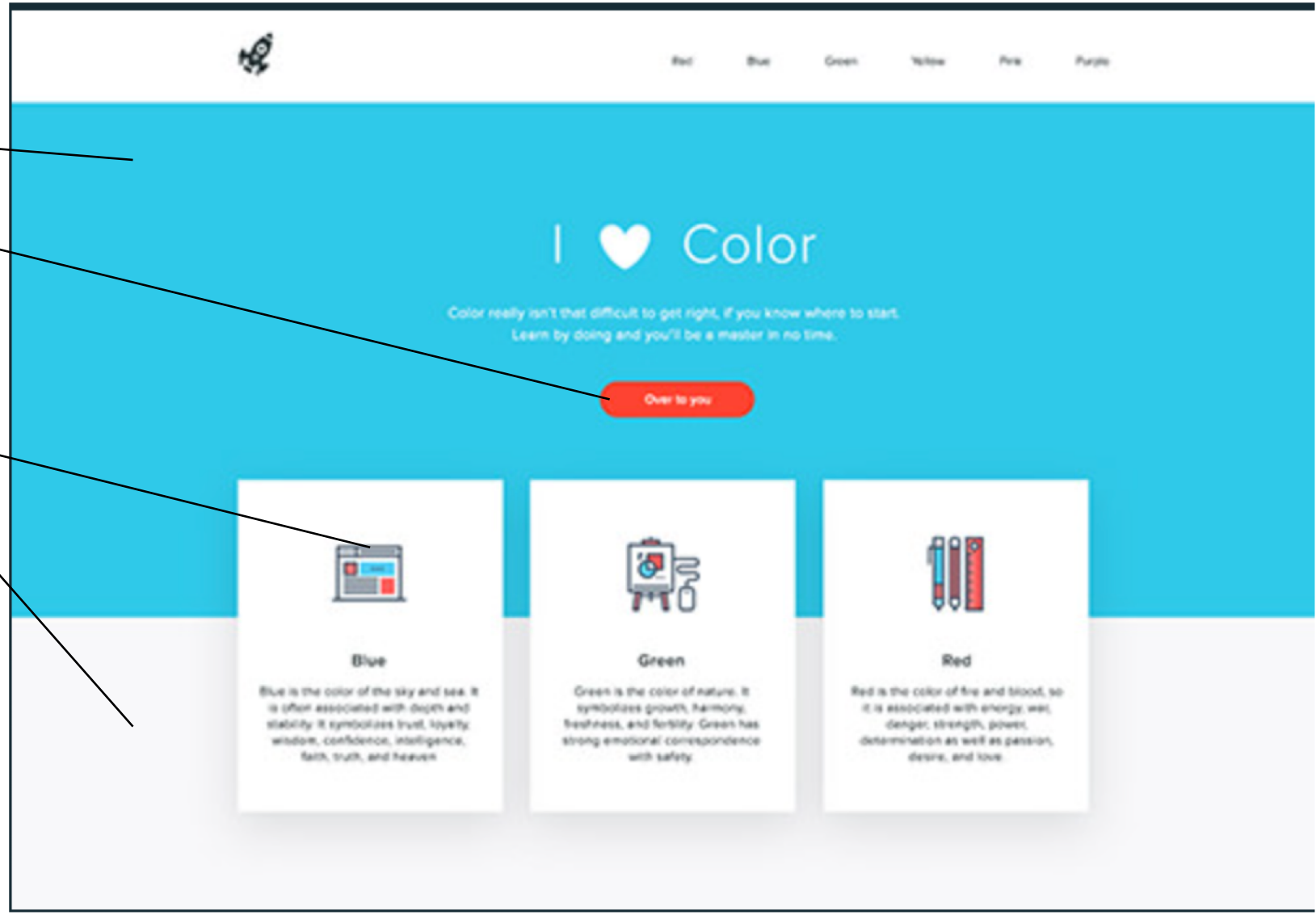
If you are not a color expert, get inspiration from experts.



Basic Web Color Advice

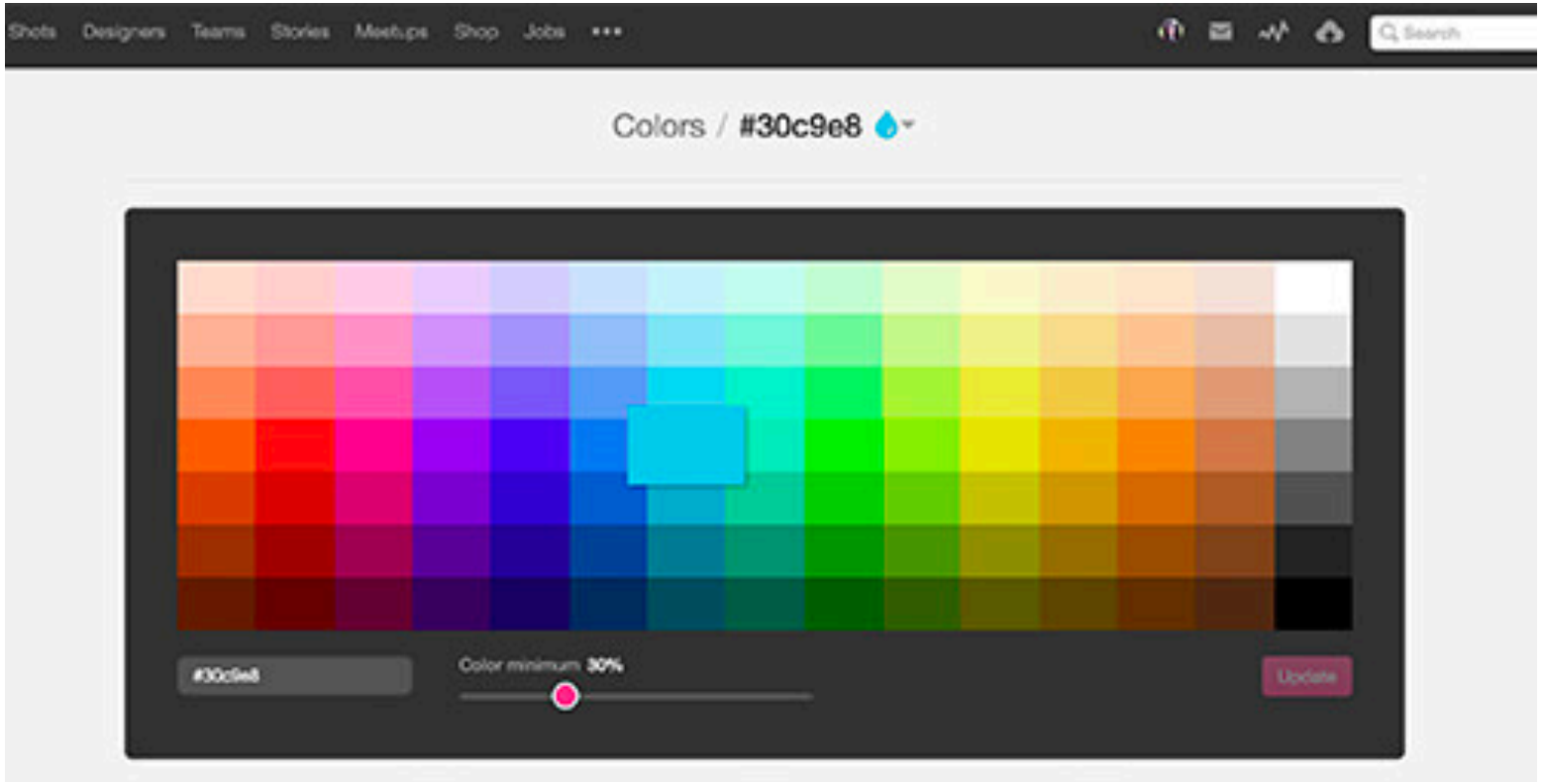
Pick four colors (and a white background)

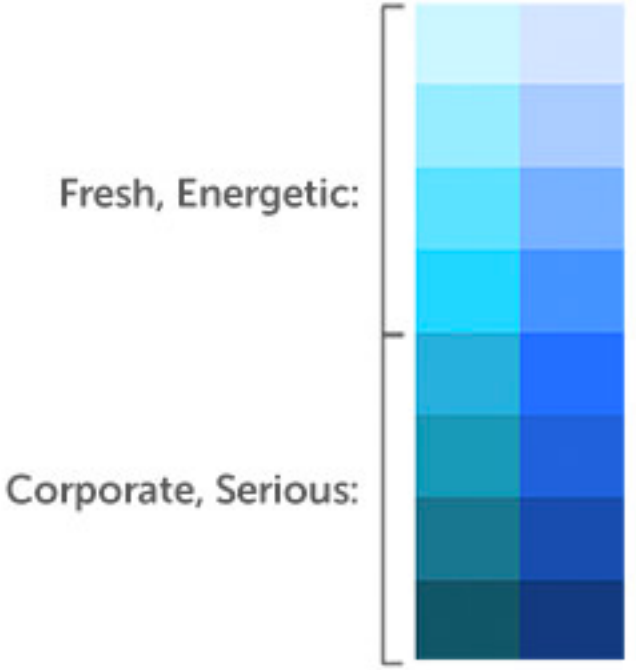
- A base color
- An accent color
- A light grey
- A dark grey



https://www.smashingmagazine.com/2016/04/web-developer-guide-color/

There are tools to help pick base colors



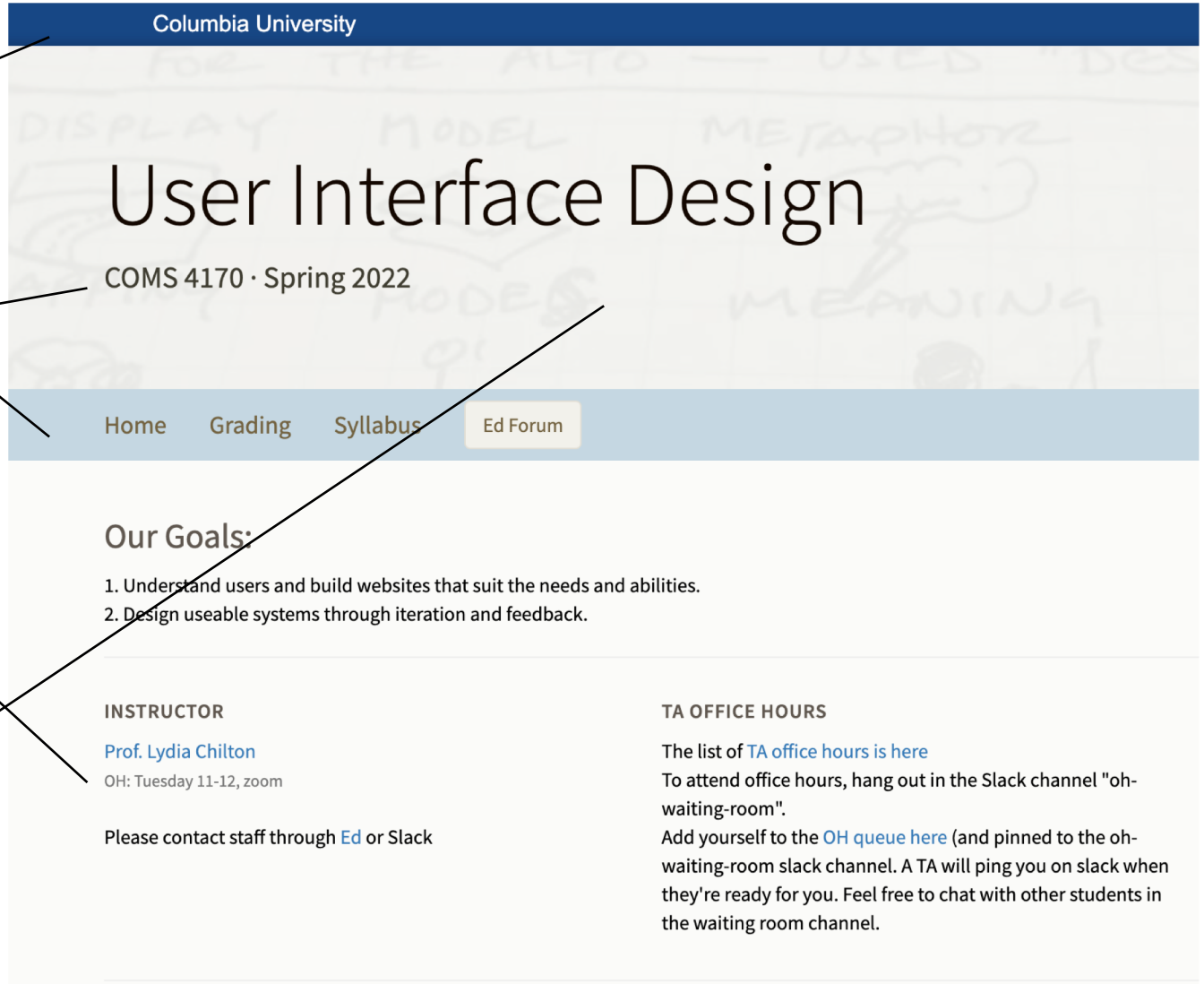


Make your design in greyscale first!

What are the 4170 site colors?

- A base color
- An accent color
- A light grey
- A dark grey

I also use a texture/image for the hero



J. Carter

Works Testimonials FAQ Contact More

Buy Template

UI/UX

Hi there!

Illustrations

Photography

Work with me
Request a Quote

HI THERE, I'M JAMES

A **product designer** with passion to web

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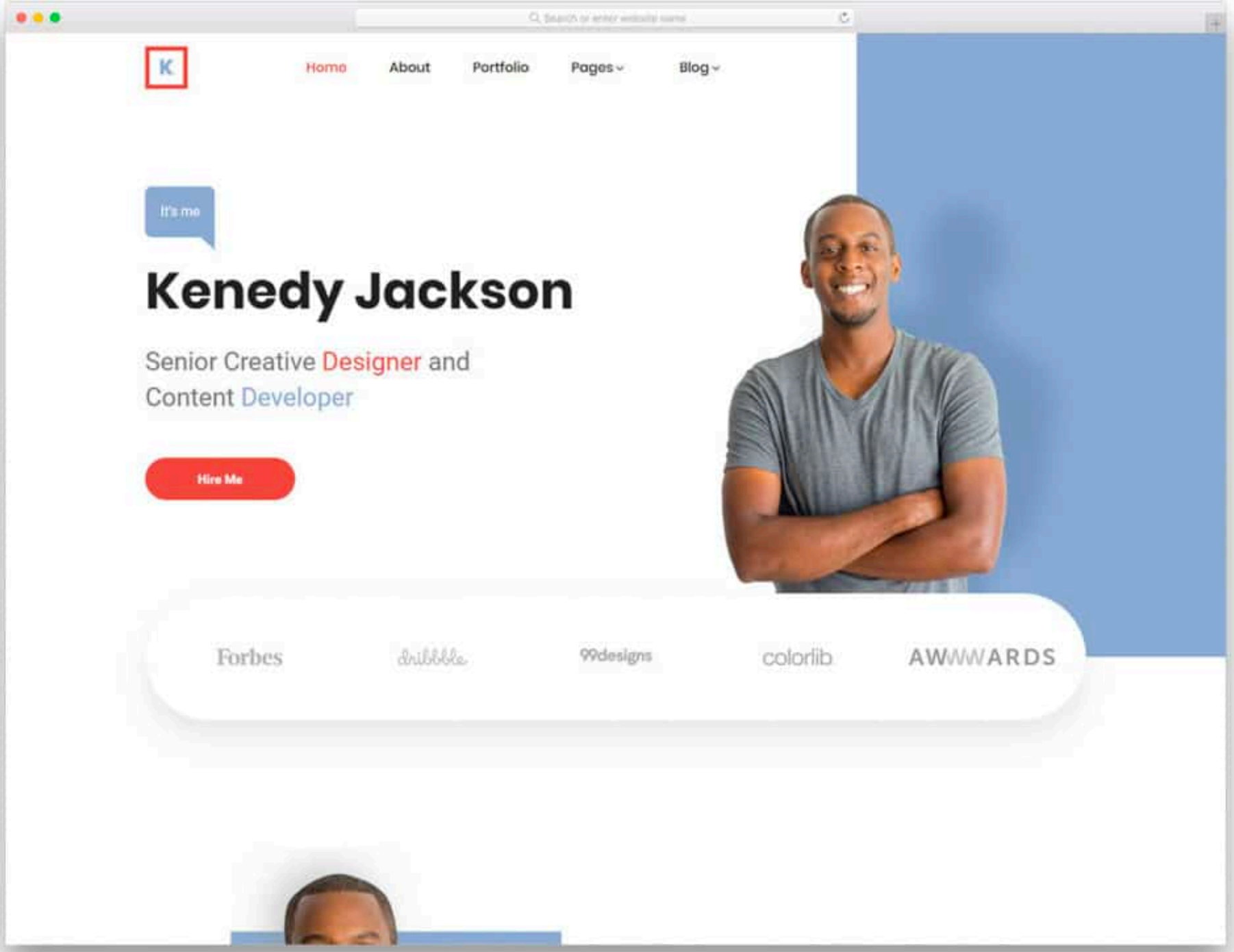
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Content Developer
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dribbble
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colorlib
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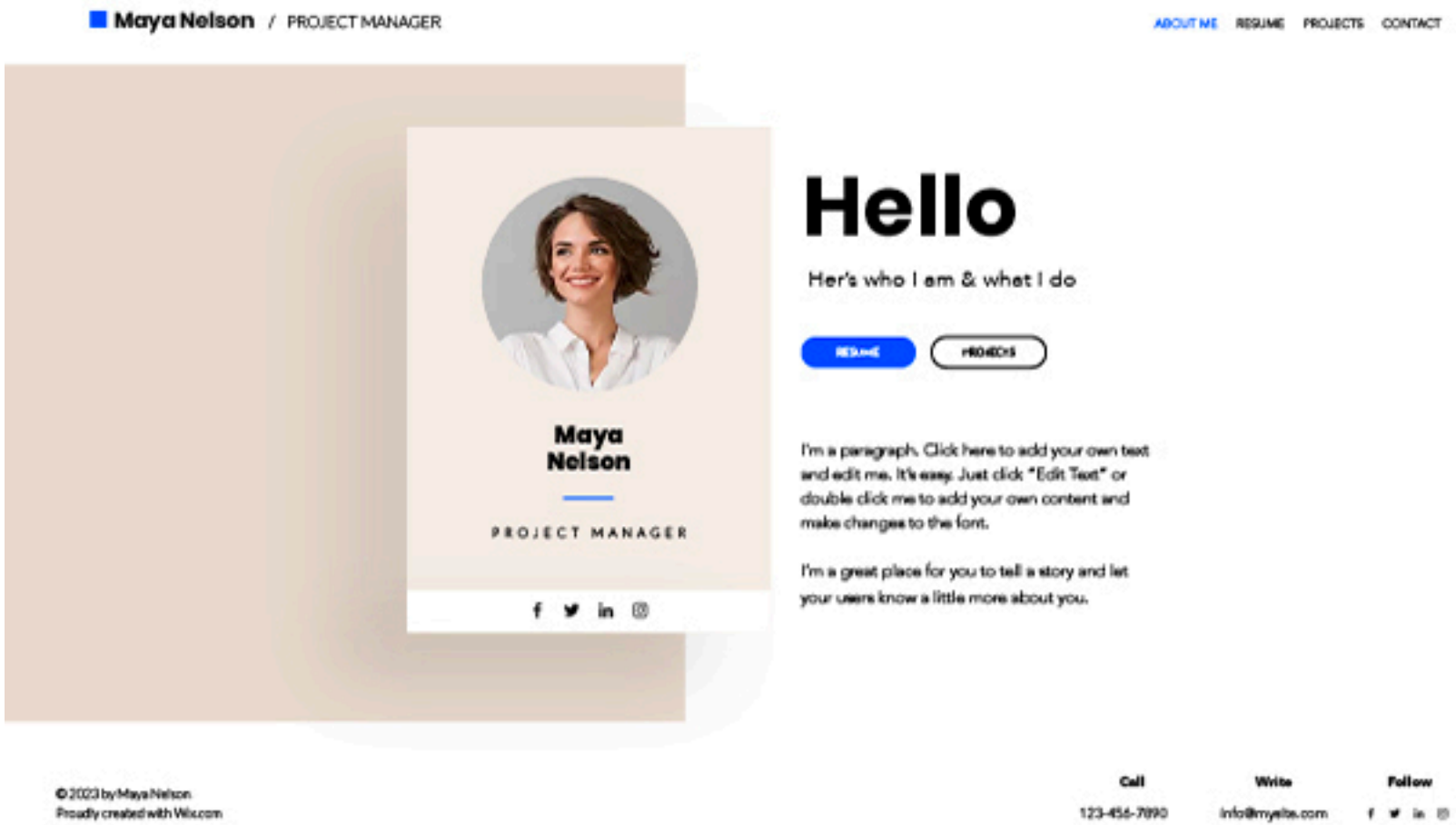
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PROJECT MANAGER
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I'm a paragraph. Click here to add your own text and edit me. It's easy. Just click "Edit Text" or double click me to add your own content and make changes to the font.
I'm a great place for you to tell a story and let your users know a little more about you.
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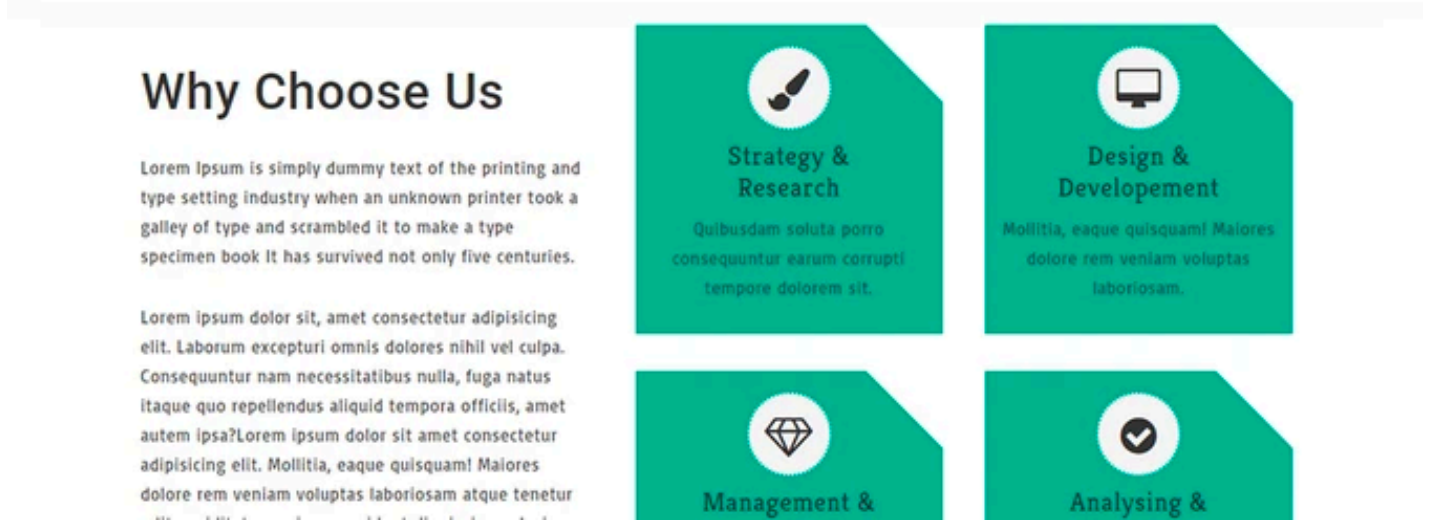
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Lorem Ipsum is simply dummy text of the printing and type setting industry when an unknown printer took a galley of type and scrambled it to make a type specimen book It has survived not only five centuries.
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Design & Developement
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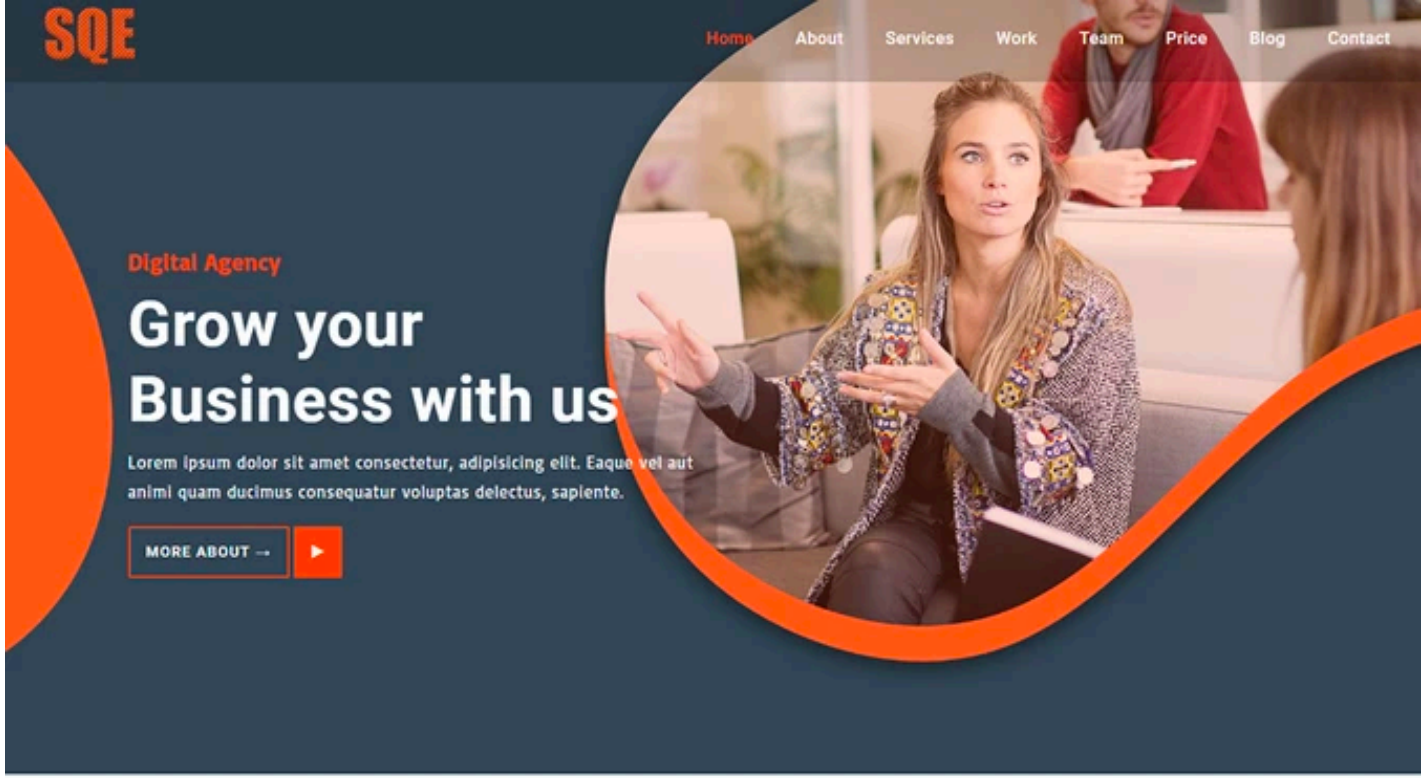
Management &
Analysing &



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Strategy & Research

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Design & Developement

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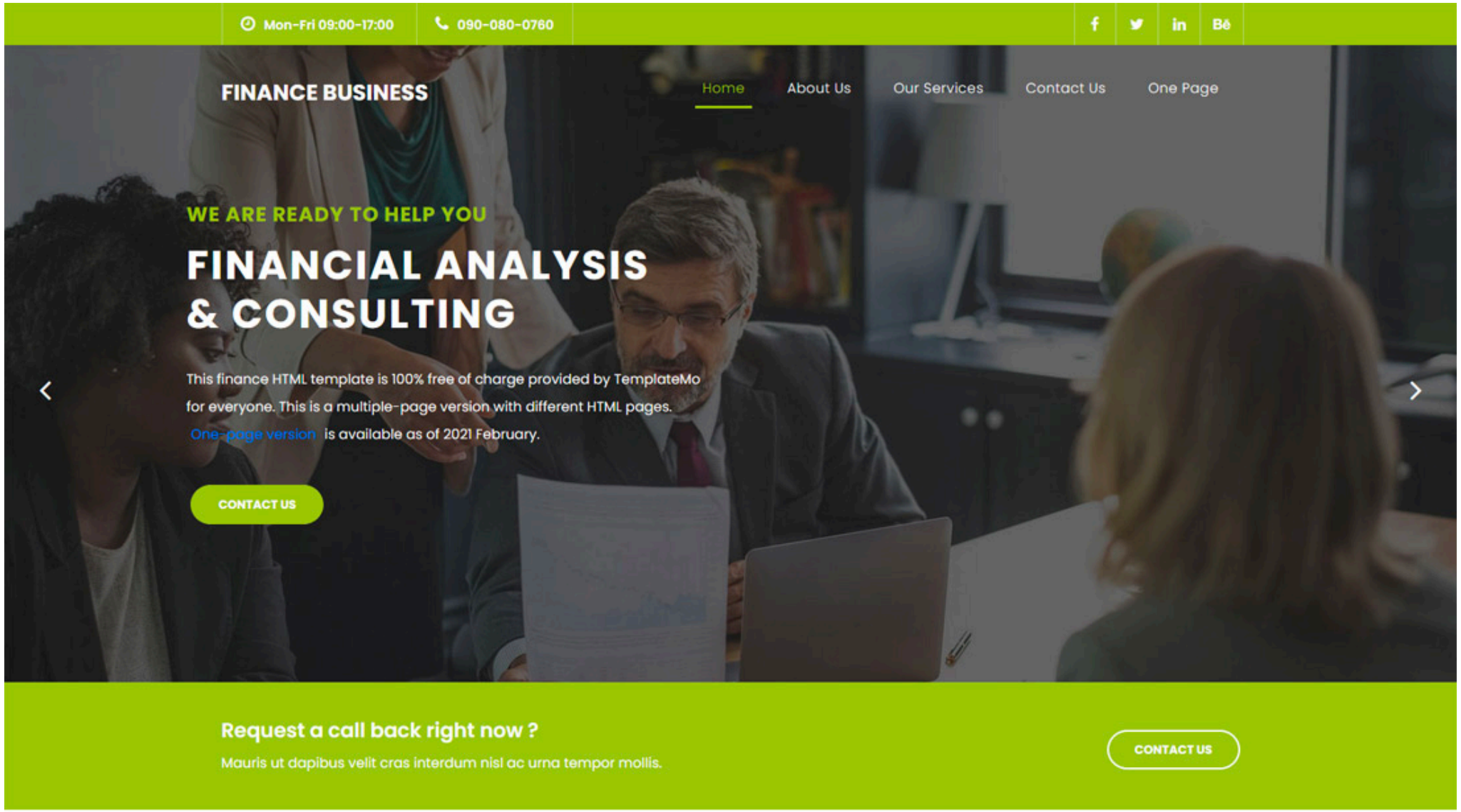
Analysing &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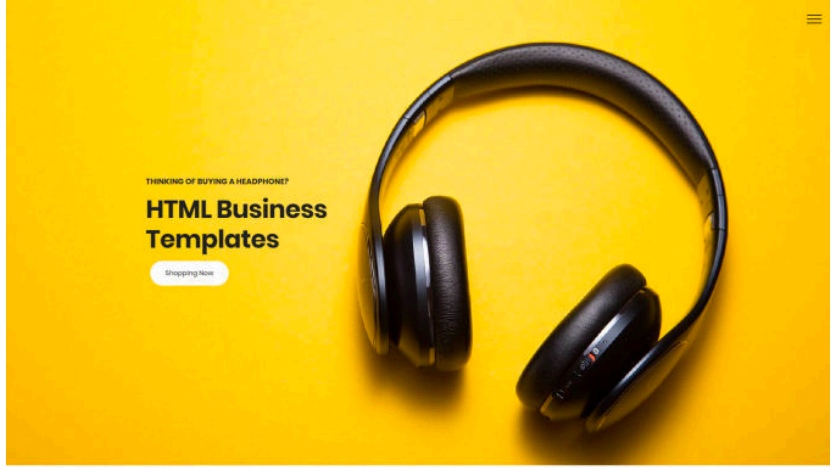

Find a quality and right headphones not easy

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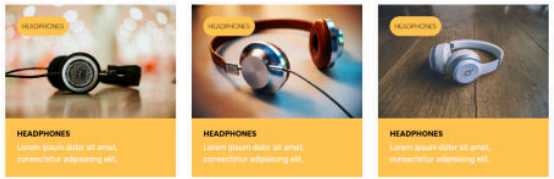
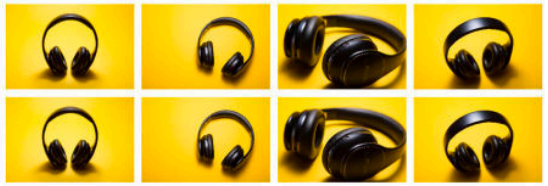
Hottest headphones of the month



Meet Our New Headphones



HURRY UP, THE OFFER IS LIMITED

Like it? Pre-order and get a discount

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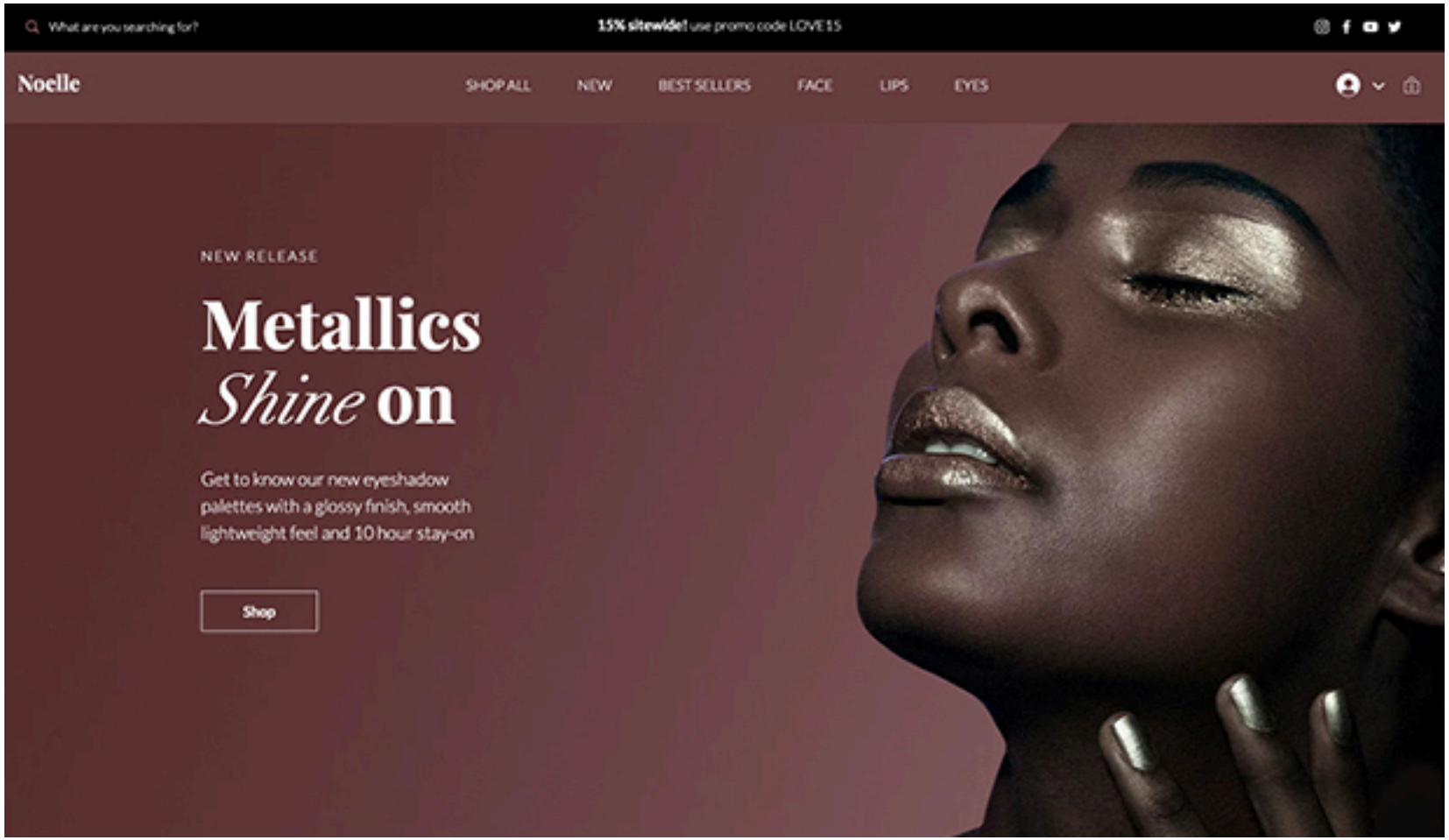
Why do you have to buy headphones only for us?

01. HIGH QUALITY
02. ORIGINAL DEVICES
03. YEAR WARRANTY
04. WEEK TO CHECK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Shop

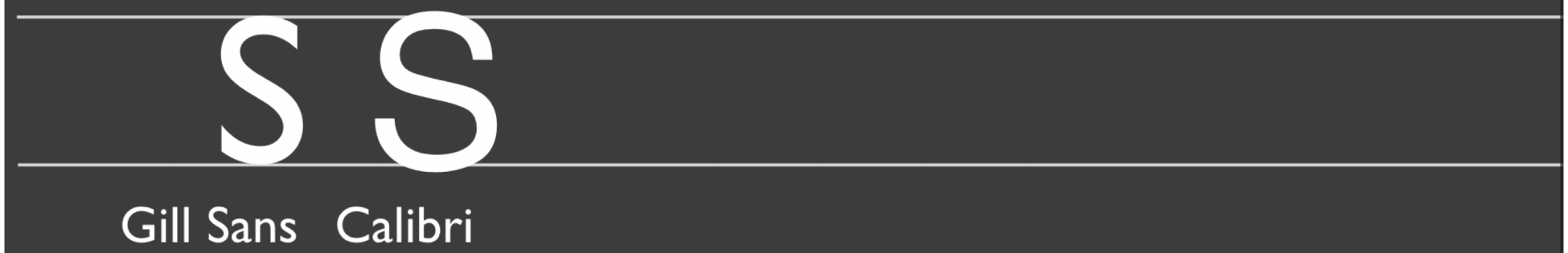
Typography

Typography is an art form

Gill Sans, designed by Eric Gill and released by the Monotype Corporation in 1928

Six Typographic terms

Point size



Calibri: 2005, Lucas de Groot for Microsoft, www.microsoft.com/typography/fonts/family.aspx?FID=287

Six Typographic Terms
} Leading
Six Typographic Terms

Six} x-height

Typographic Terms

Gill Sans

Lucida Bright
high x-height

Baskerville
Low x-height

Typefaces with high x-height:
easier to read at small point size

Typefaces with low x-height:
harder to read at small point size

Lucida Bright: 1993, Charles Bigelow & Kris Holmes · Baskerville, 1757, John Baskerville

Text

Six Typographic **Terms**

light regular **bold**

weight

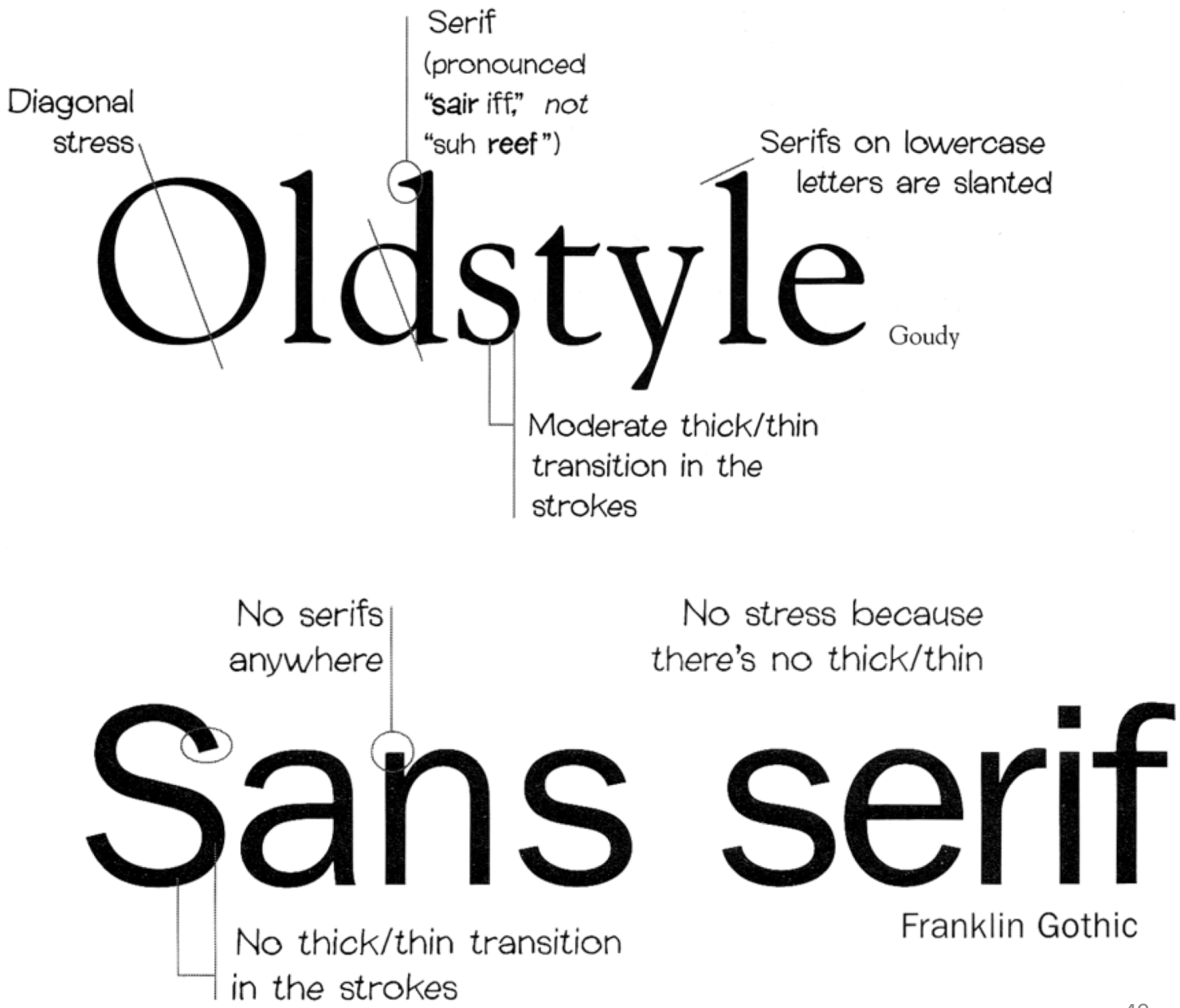
Weights and Styles

Roboto Thin & *Thin Oblique*
Roboto Light & *Light Oblique*
Roboto Regular & *Oblique*
Roboto Medium & *Medium Oblique*
Roboto Bold & *Bold Oblique*
Roboto Black & *Black Oblique*
Roboto Condensed Light & *Condensed Light Oblique*
Roboto Condensed & *Condensed Oblique*
Roboto Condensed Bold & *Condensed Bold Oblique*

What indicates a serif font?

Serifs – there's more!

Serif vs. Sans serifs



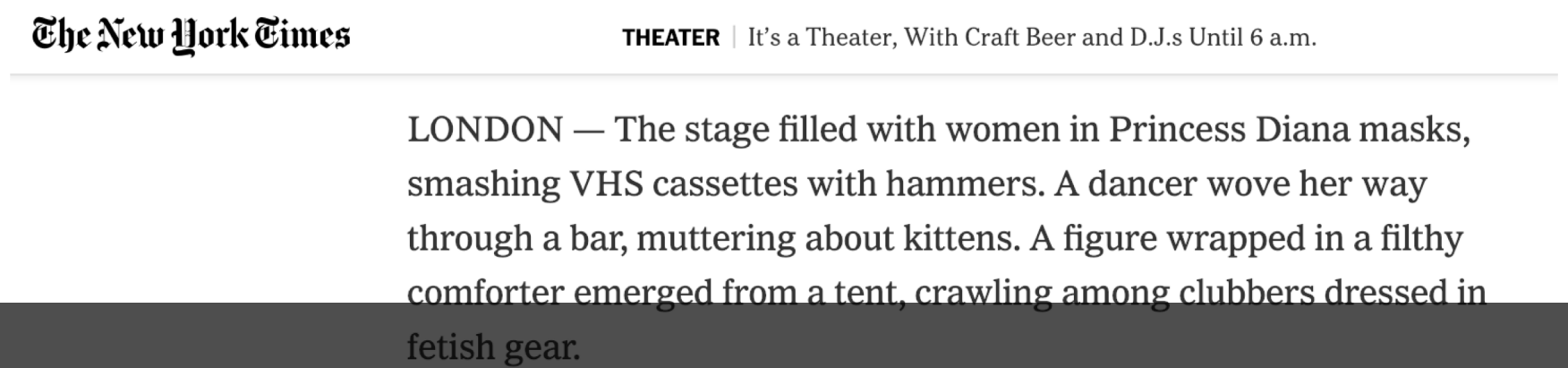
The Serif Hypothesis

Serif fonts are faster to read.
The little hooks indicate where your eyes should move next.

There is no evidence to support this.

Any differences in reading speed are dwarfed by individual differences, or familiarity.

Who follows the Serif Hypothesis?


The New York Times

THEATER | It's a Theater, With Craft Beer and D.J.s Until 6 a.m.

LONDON — The stage filled with women in Princess Diana masks, smashing VHS cassettes with hammers. A dancer wove her way through a bar, muttering about kittens. A figure wrapped in a filthy comforter emerged from a tent, crawling among clubbers dressed in fetish gear.

VICE News

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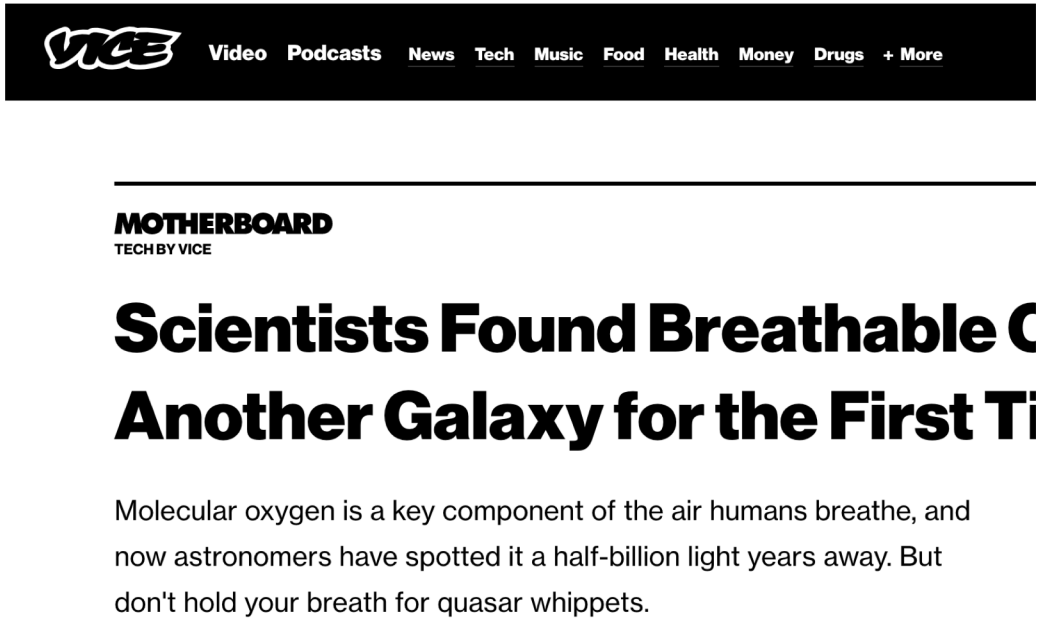
BUDAPEST, Hungary — An hour's drive from the capital, across the flat and frozen Hungarian plain, the small town of Halásztelek is noisy with construction work as builders put the finishing touches on new single-story houses. They look like a 1950s American suburb that was dropped in the middle of Central Europe, but their humble appearance belies great ambition.

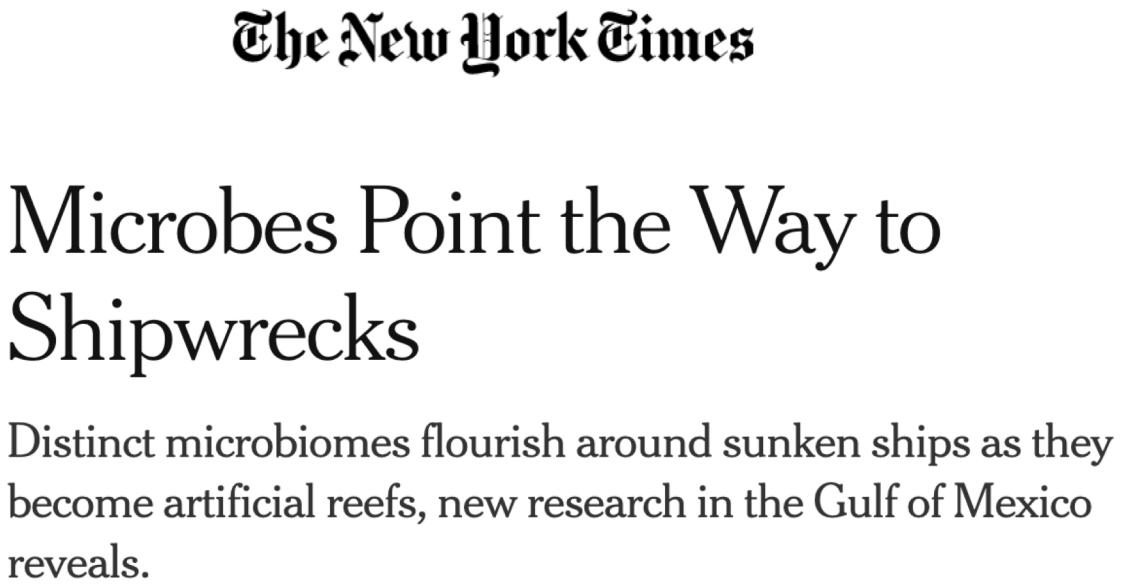
Should you?

Serif
Sans-serif
UI Designers
JAKE-CLARK.TUMBLR

Like colors, there are cultural connotations for fonts

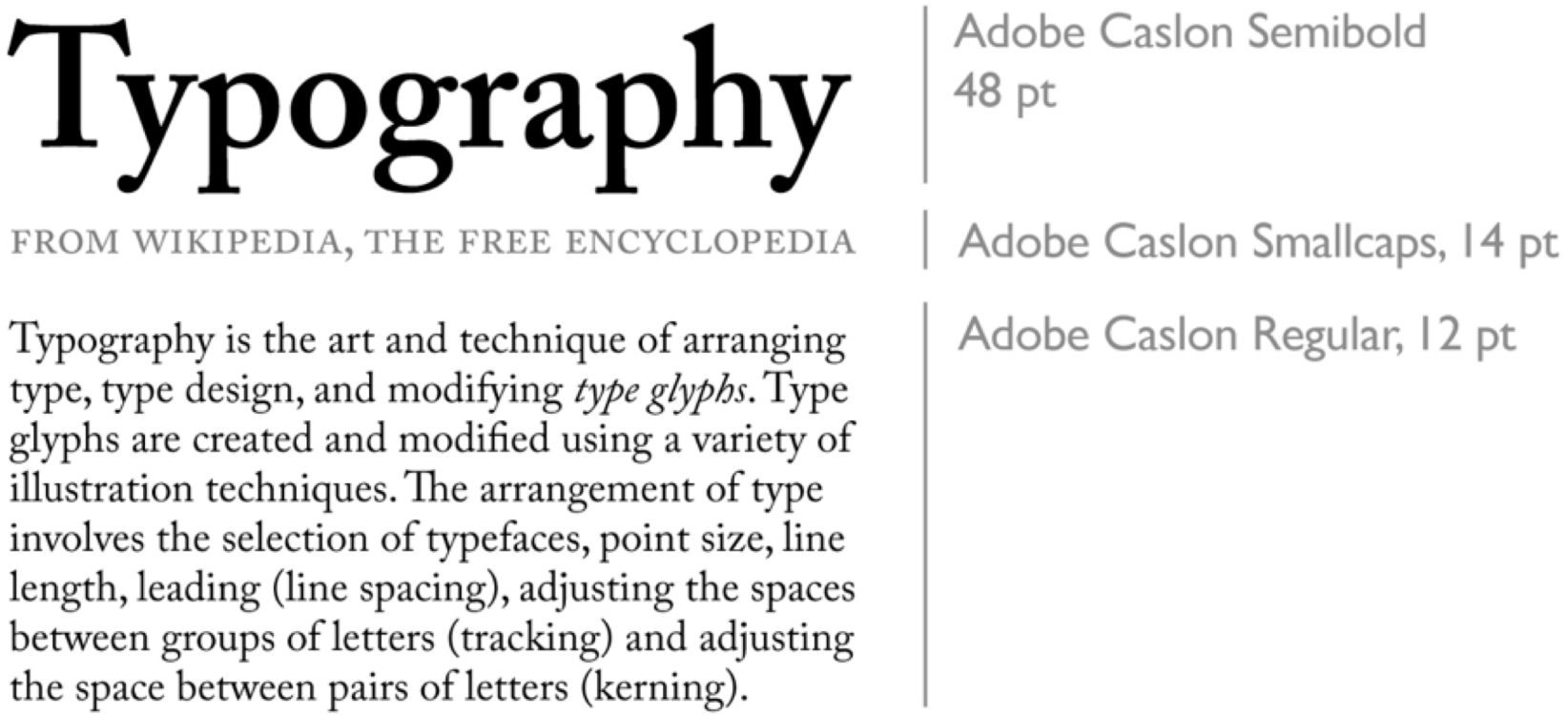


San Serif =
Modern, simple



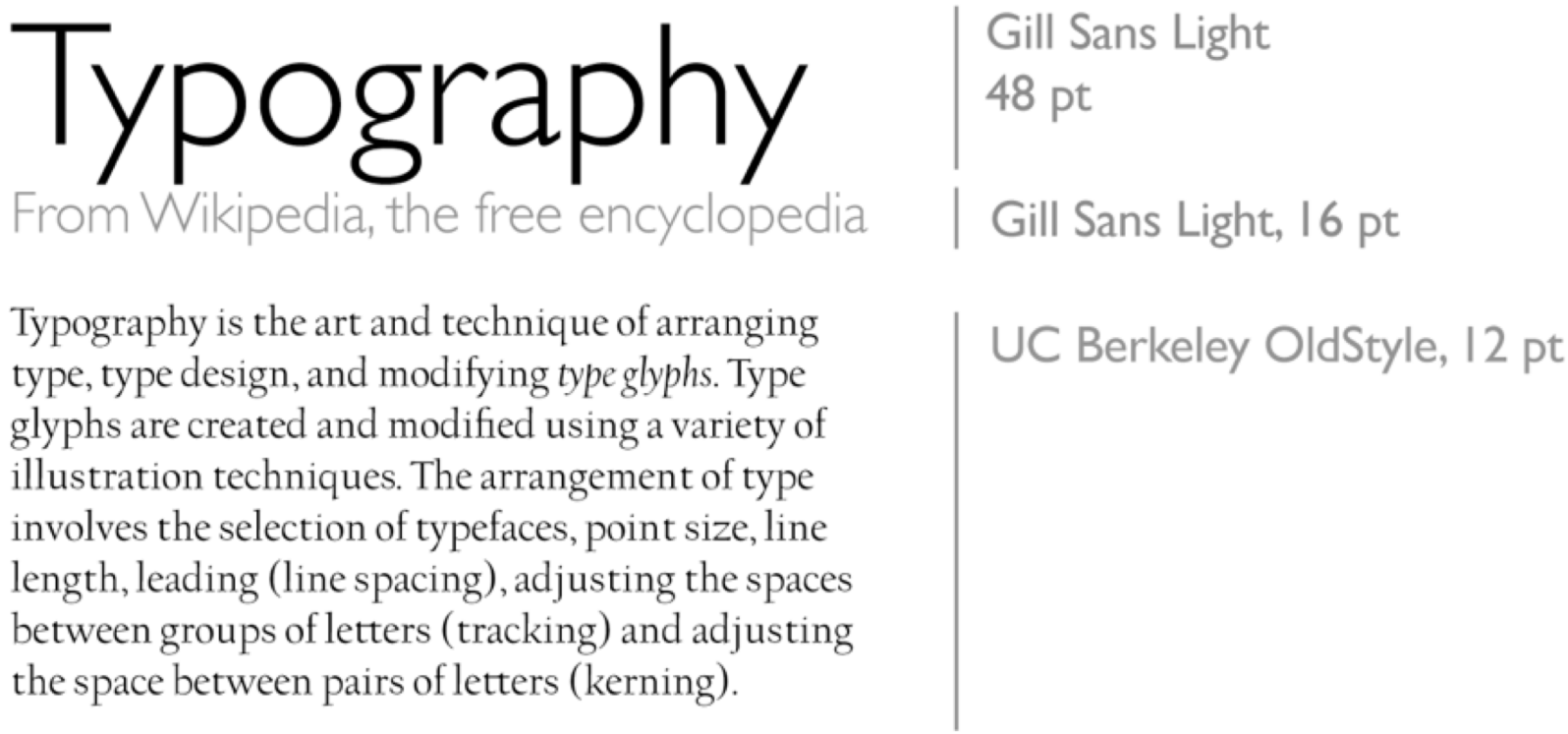
Serif =
Intellectual, Elite

Mixing fonts: Concordant fonts



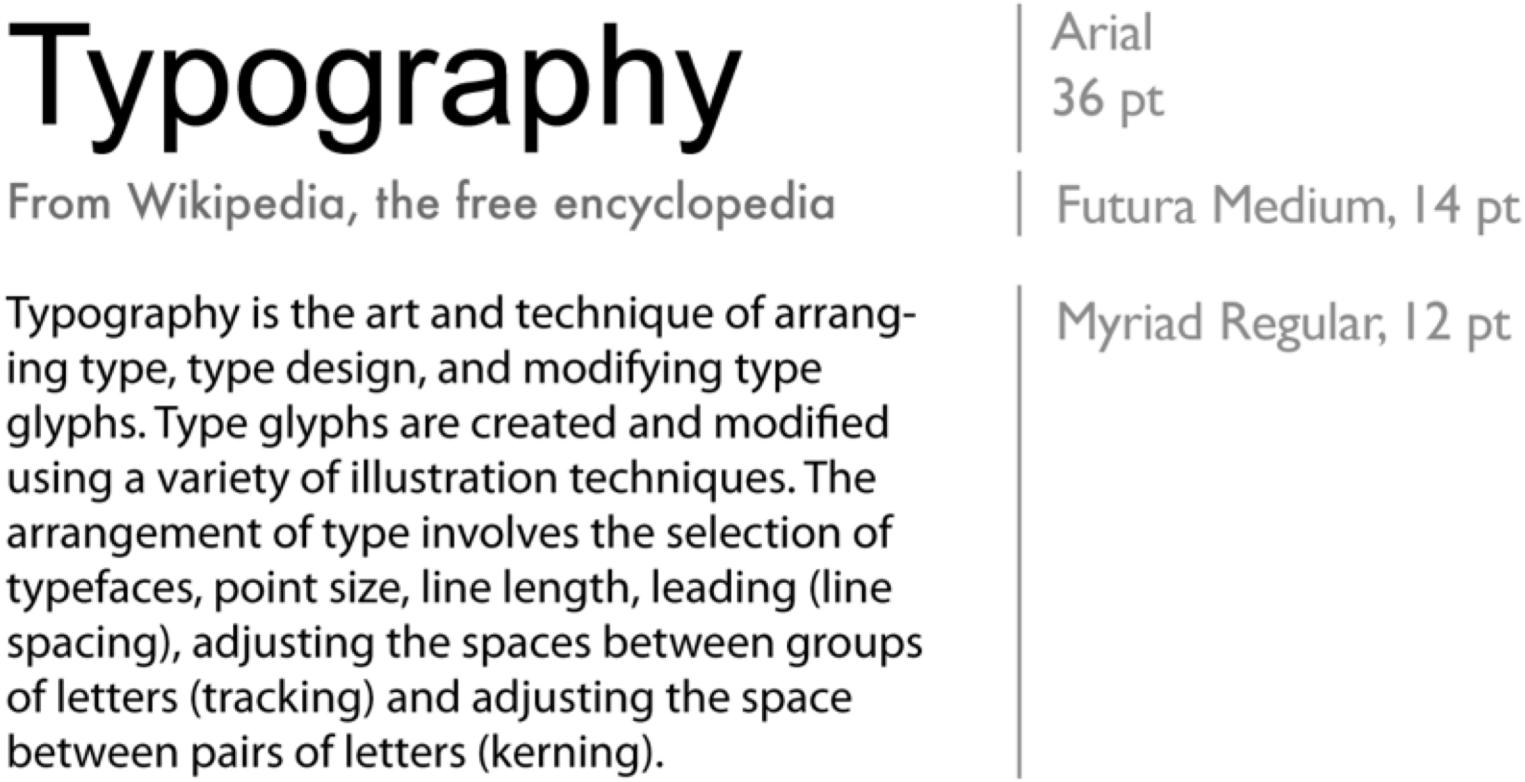
Mixing fonts of the same font-family is great.

Mixing fonts: Contrasting fonts



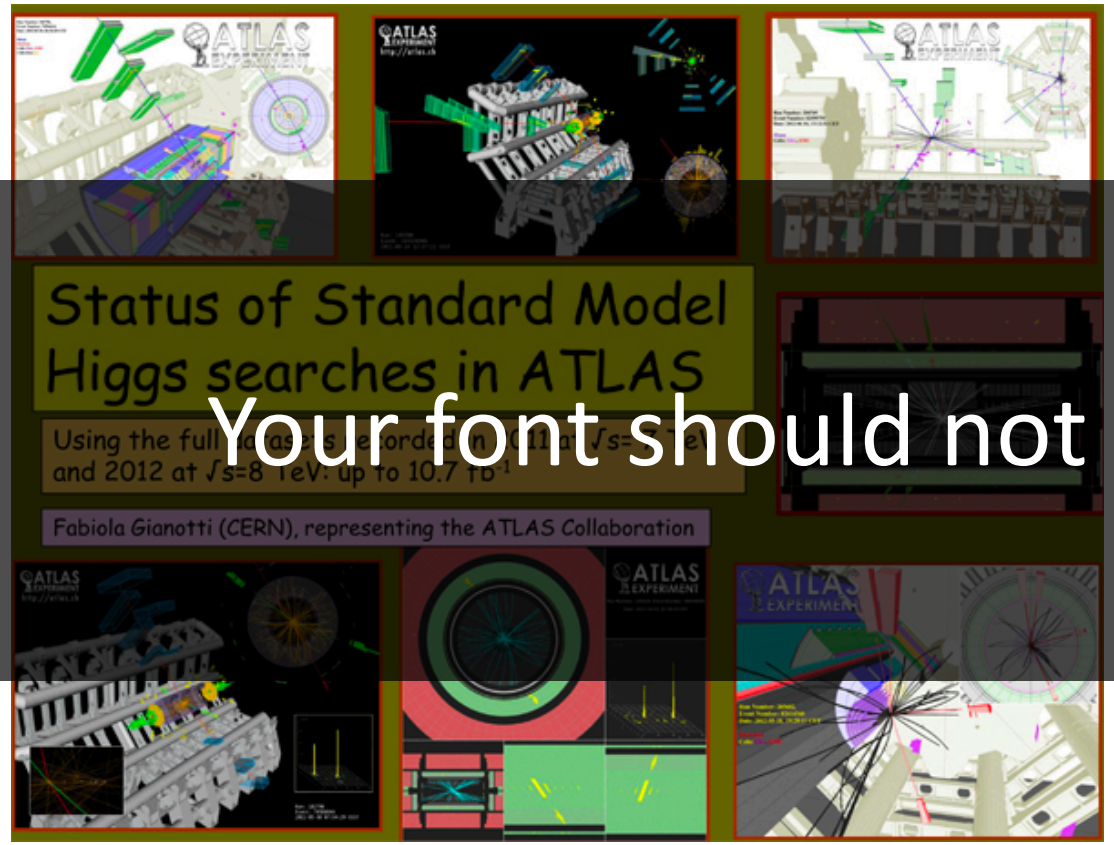
Mixing San Serif and Serif is ok. (But edgier)

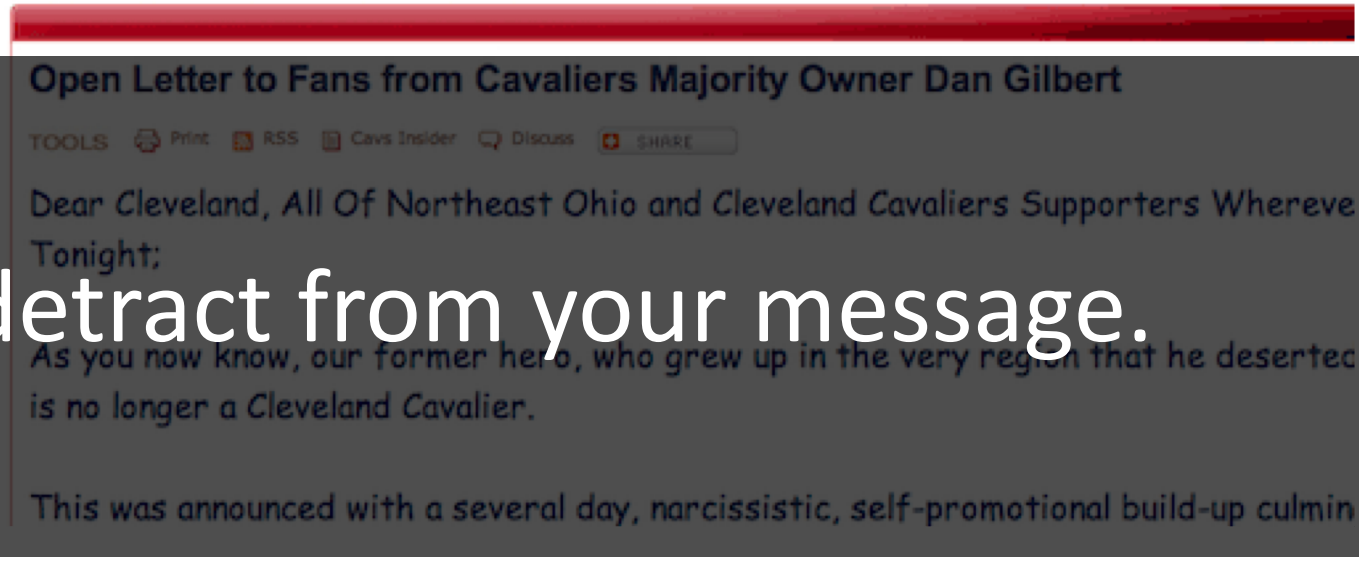
BAD font mix: Conflicting fonts



Mixing multi San Serif or Serif fonts is considered bad.
It doesn't look intentional.

What connotation does this font have?





Your font should not detract from your message.

You're an idiot.

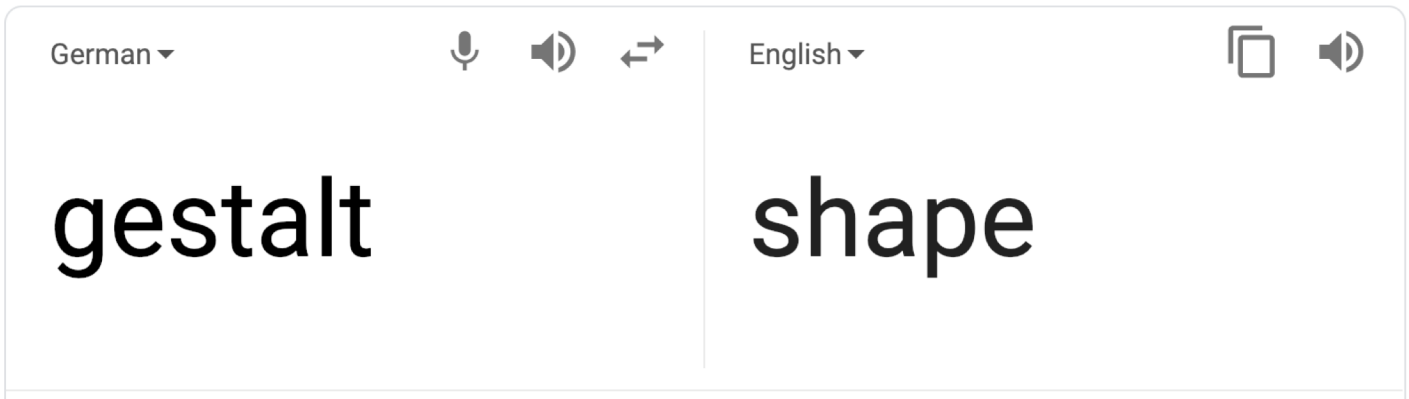
Eight Gestalt Principles

ge·stalt

/gəˈSHtält/

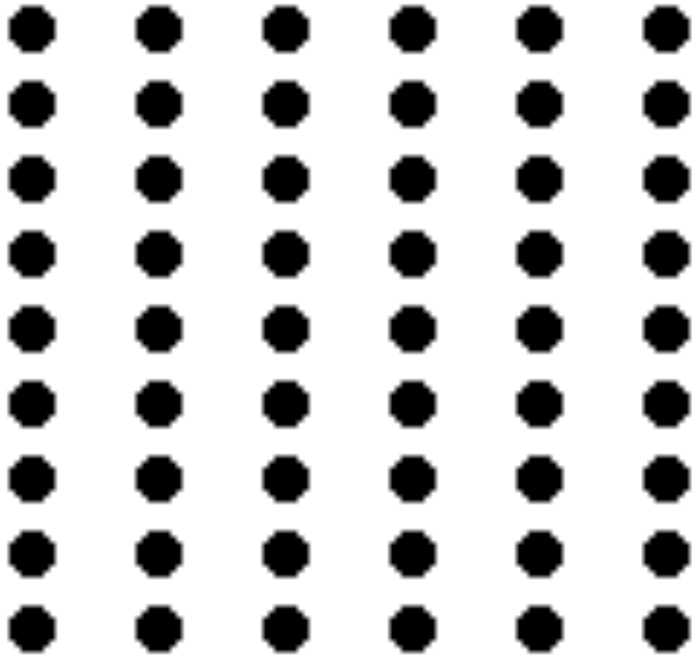
noun PSYCHOLOGY

an organized whole that is perceived as more than the sum of its parts.

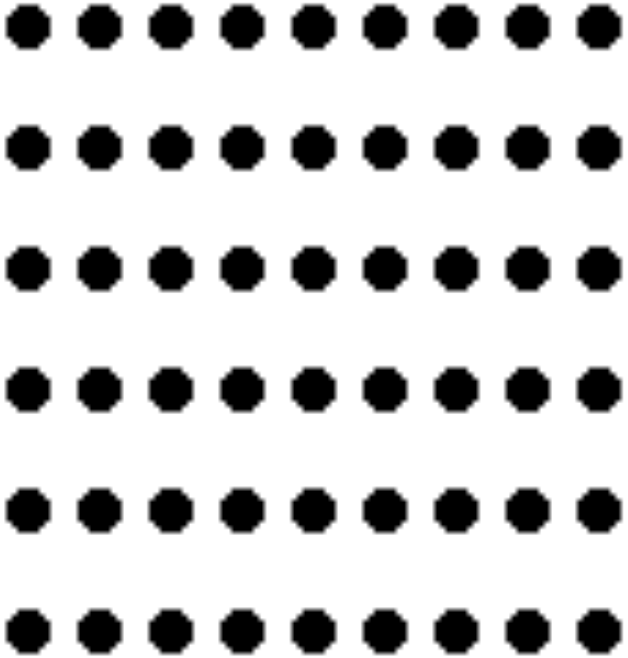


Gestalt Principle #1:

Proximity



Dots appear as **columns**

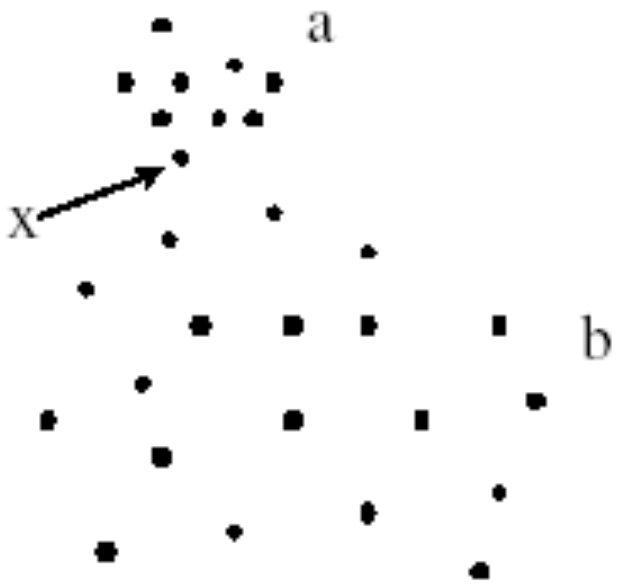


Dots appear as **rows**

Gestalt Principle #1:

Proximity

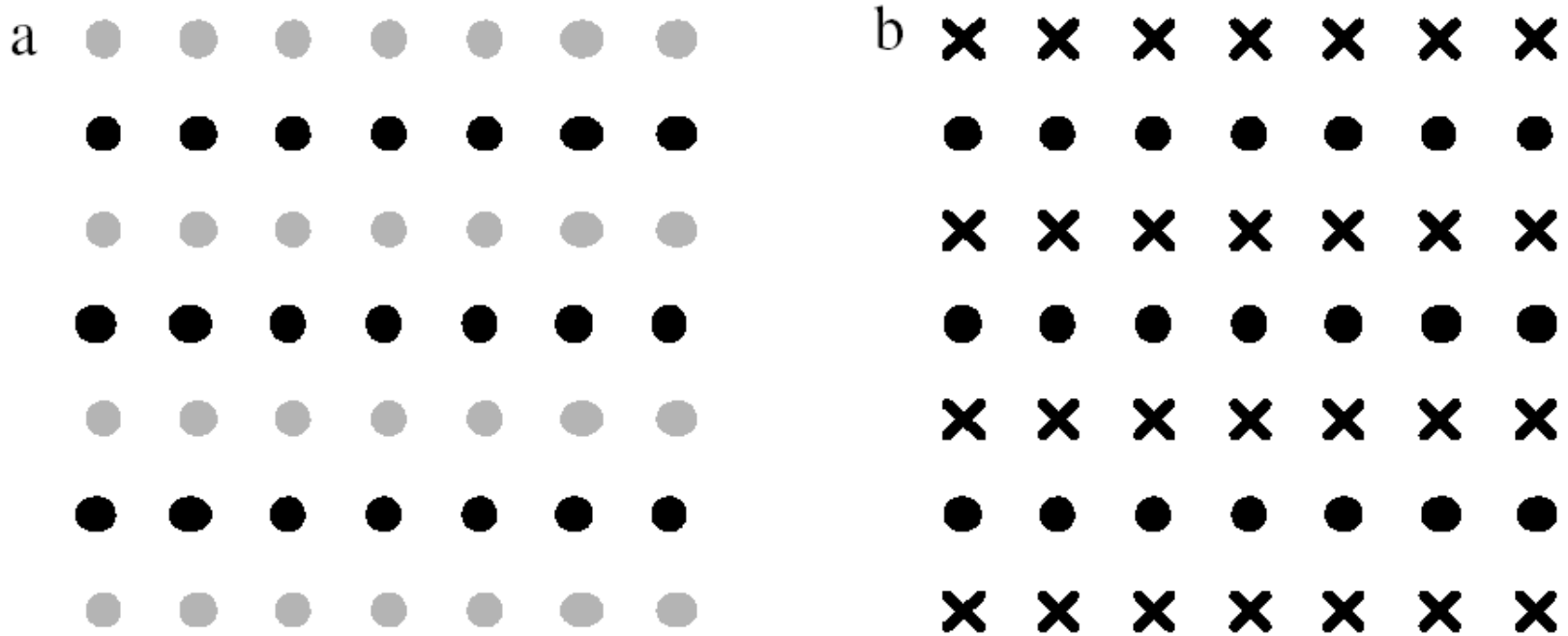
Dots appear as **two groups**



X is in group a.

Gestalt Principle #2:

Similarity



How is **similarity** used to convey meaning?

Tuesday, November 4 —Election Day

An American Menu
$75

Caesar salad with anchovies, egg, and Parmesan cheese

Clam chowder with Maine lobster and pancetta

Grilled chicken with house-made barbeque sauce with potato purée and greens

Apple and raspberry pecan crisp with vanilla ice cream

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Apple and raspberry pecan crisp
with vanilla ice cream

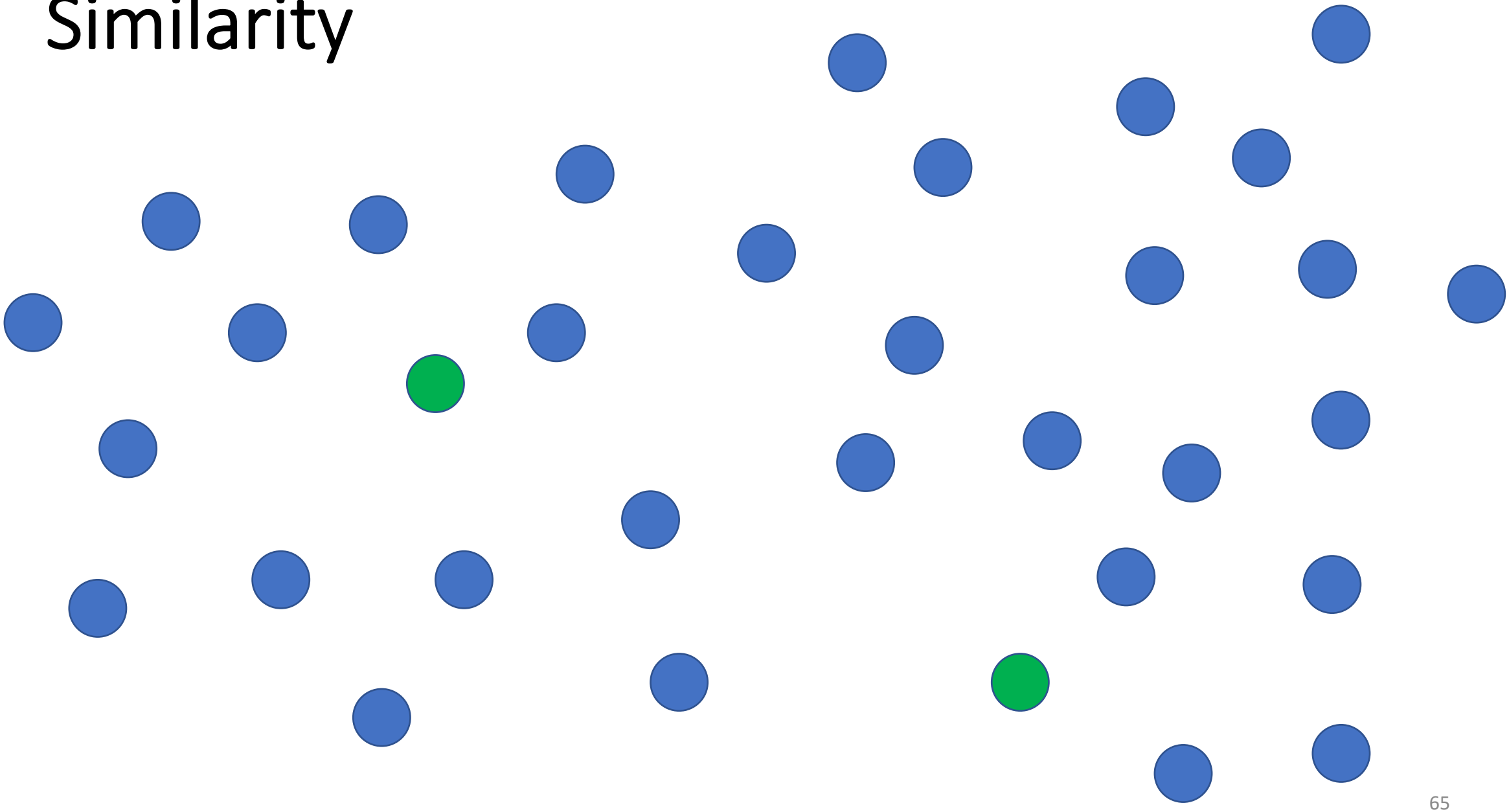
Gestalt Principle #2:

Similarity

How many **green circles** are there?

Gestalt Principle #2:

Similarity

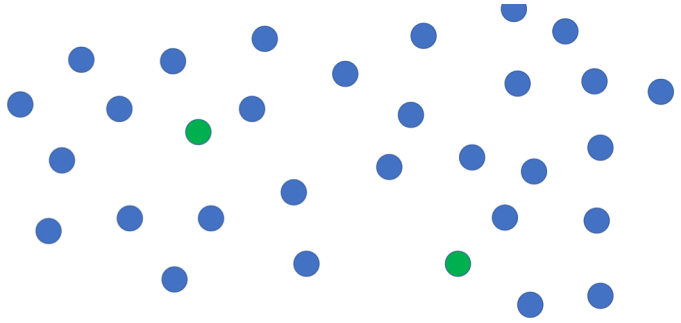


Gestalt Principle #2:

Similarity

How many **green circles** are there?

2



Colors are easy to scan for

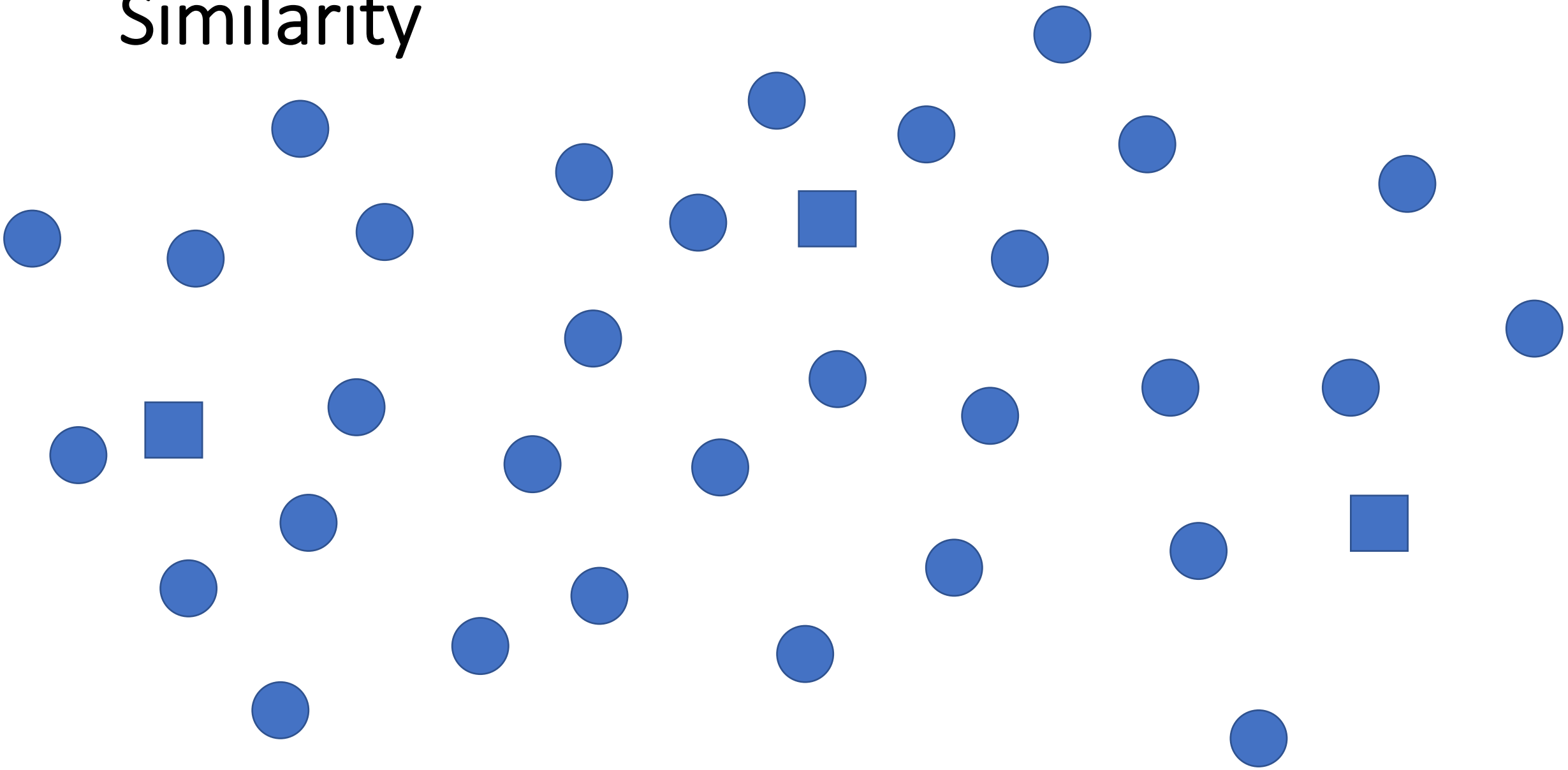
Gestalt Principle #2:

Similarity

How many **rectangles** are there?

Gestalt Principle #2:

Similarity

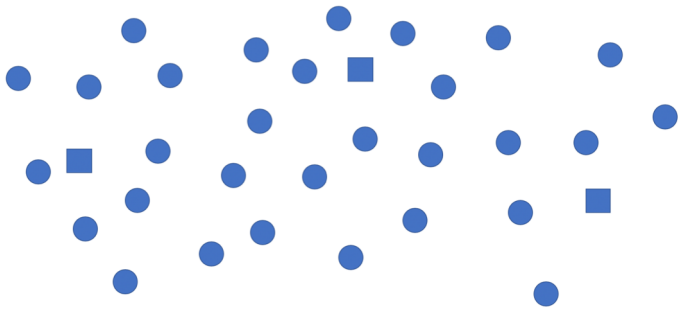


Gestalt Principle #2:

Similarity

How many **rectangles** are there?

3



Shapes are hard to scan for

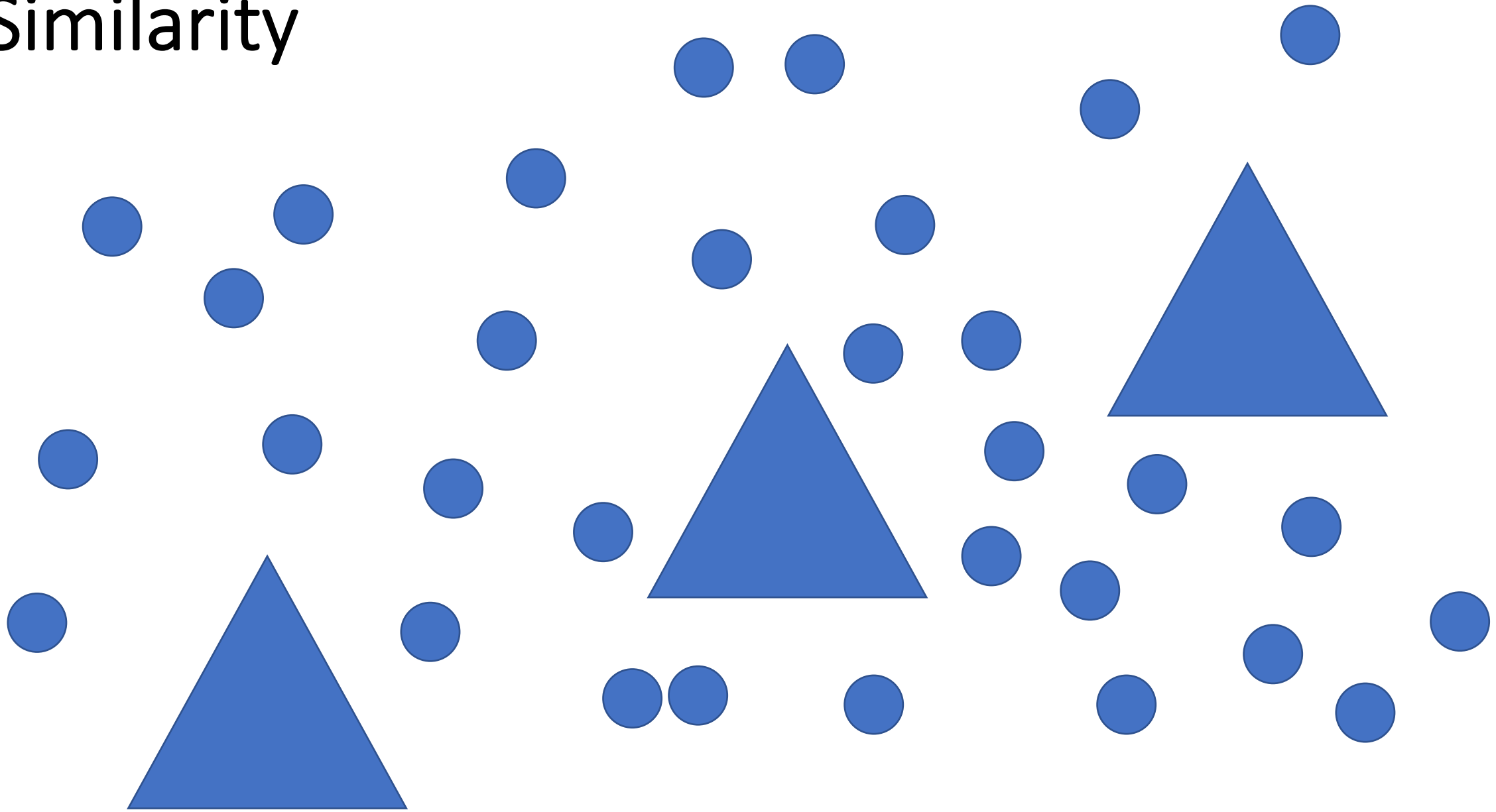
Gestalt Principle #2:

Similarity

How many **triangles** are there?

Gestalt Principle #2:

Similarity

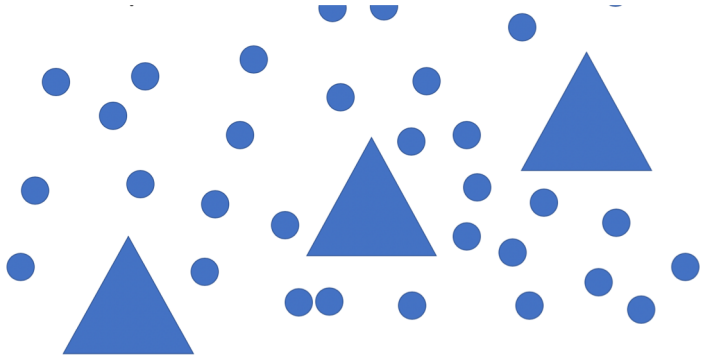


Gestalt Principle #2:

Similarity

How many **triangles** are there?

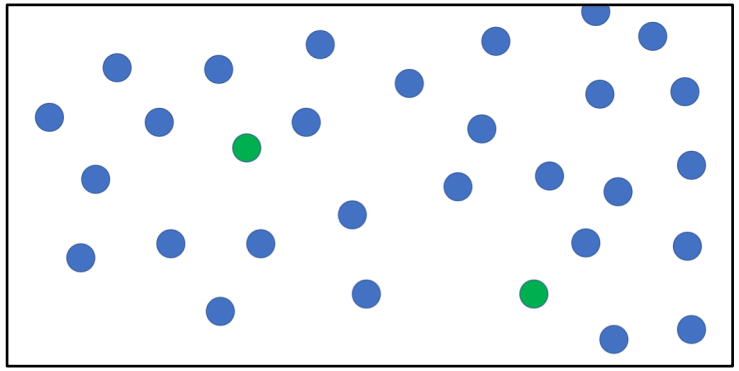
3



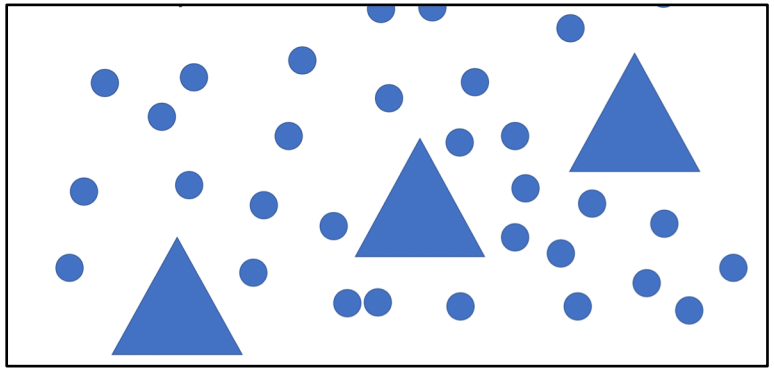
Size is easy to scan for

What properties are easy to scan for similarity?

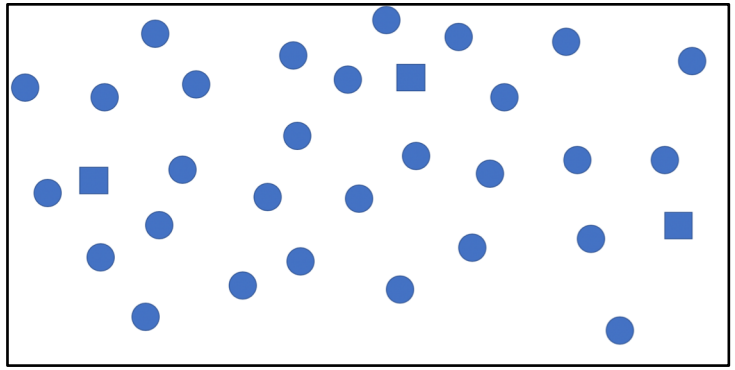
Color



Size



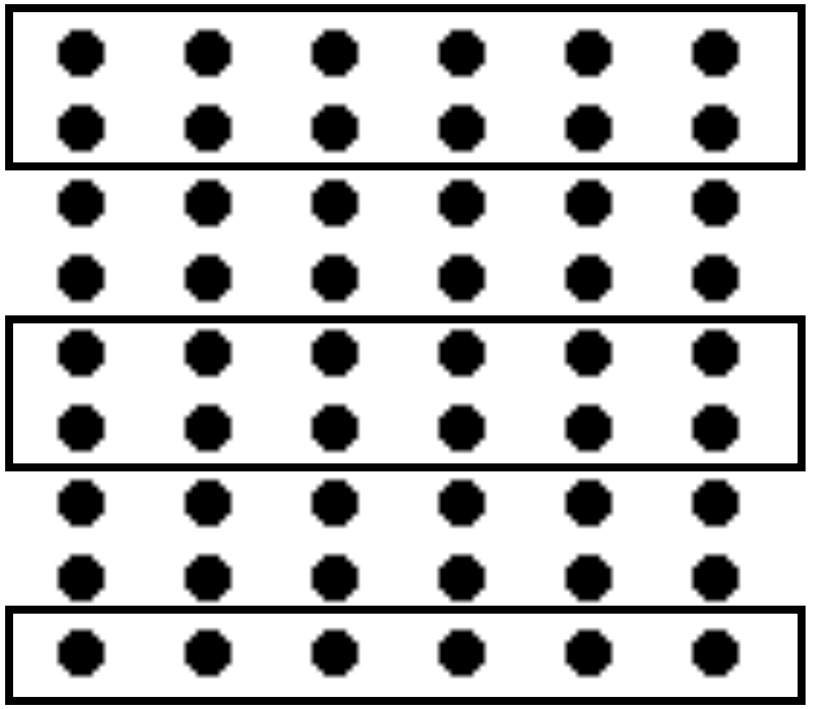
Shape



Color and **Size** scans better than **shape**

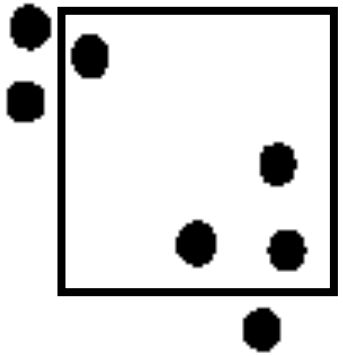
Gestalt Principle #3:

Enclosure



Gestalt Principle #3:

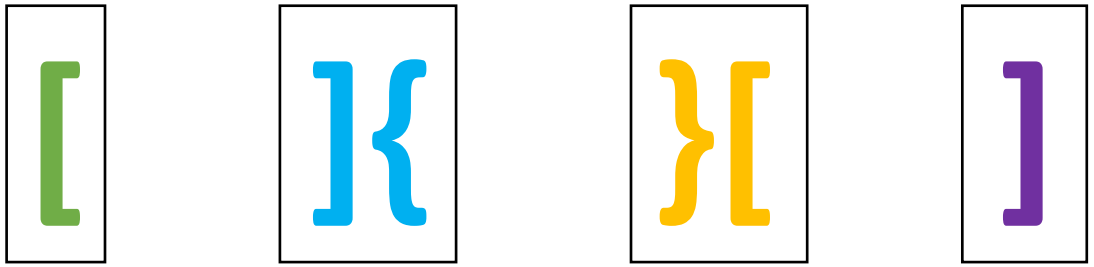
Enclosure



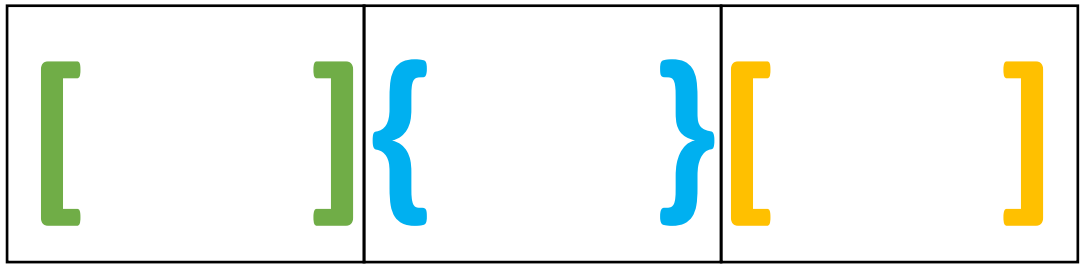
Gestalt Principle #4:

Symmetry

[ ]{ }[ ]



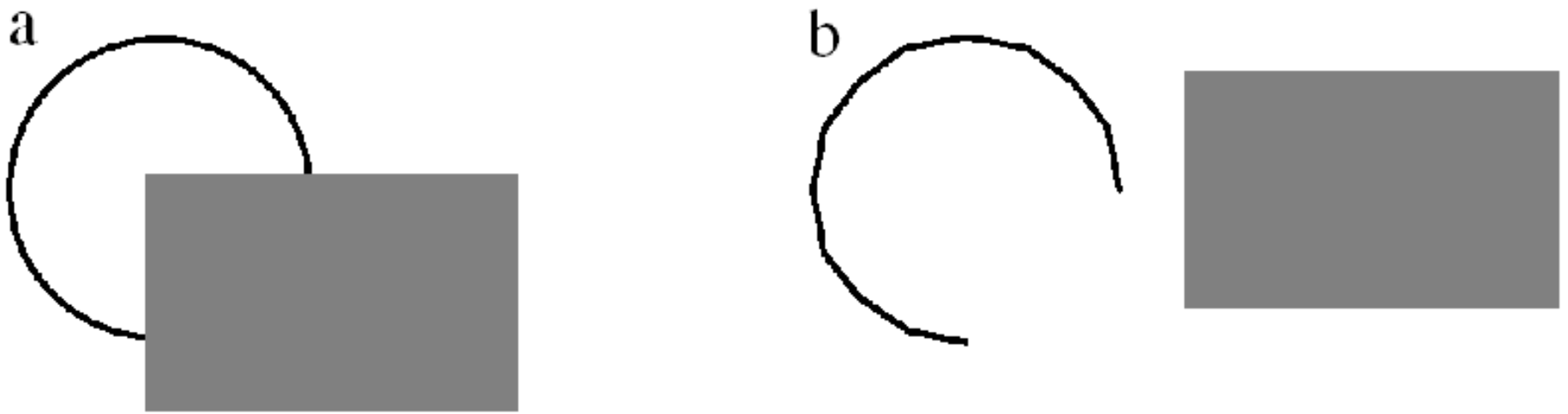
Proximity indicates 4 groups



Symmetry indicates 3 groups

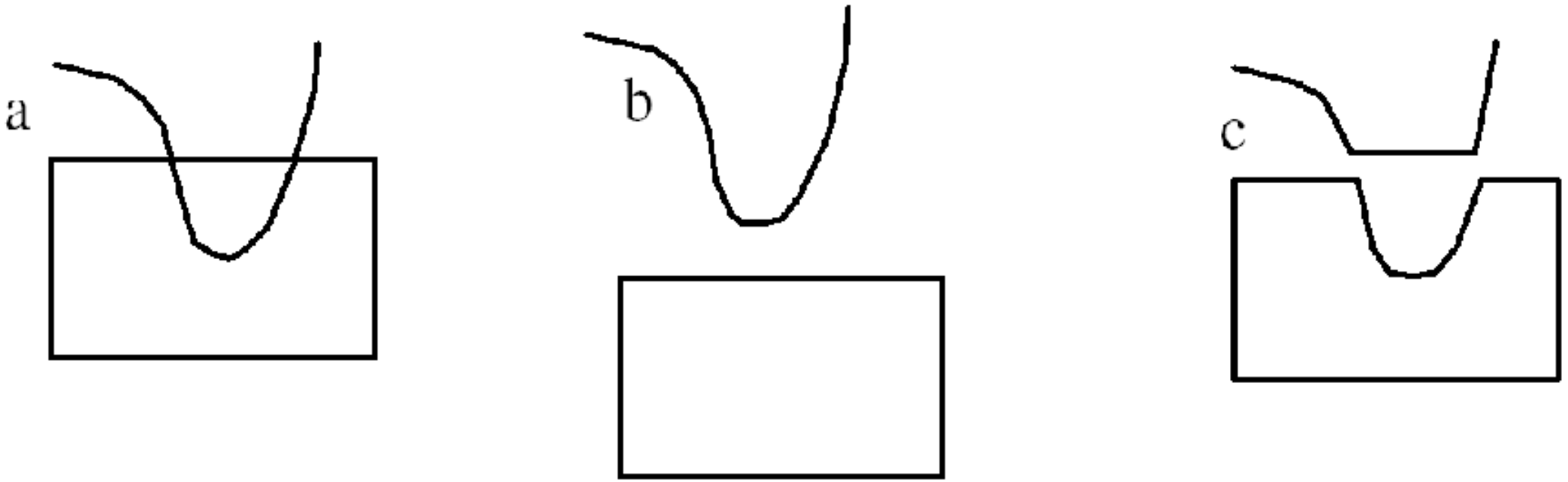
Gestalt Principle #5:

Closure



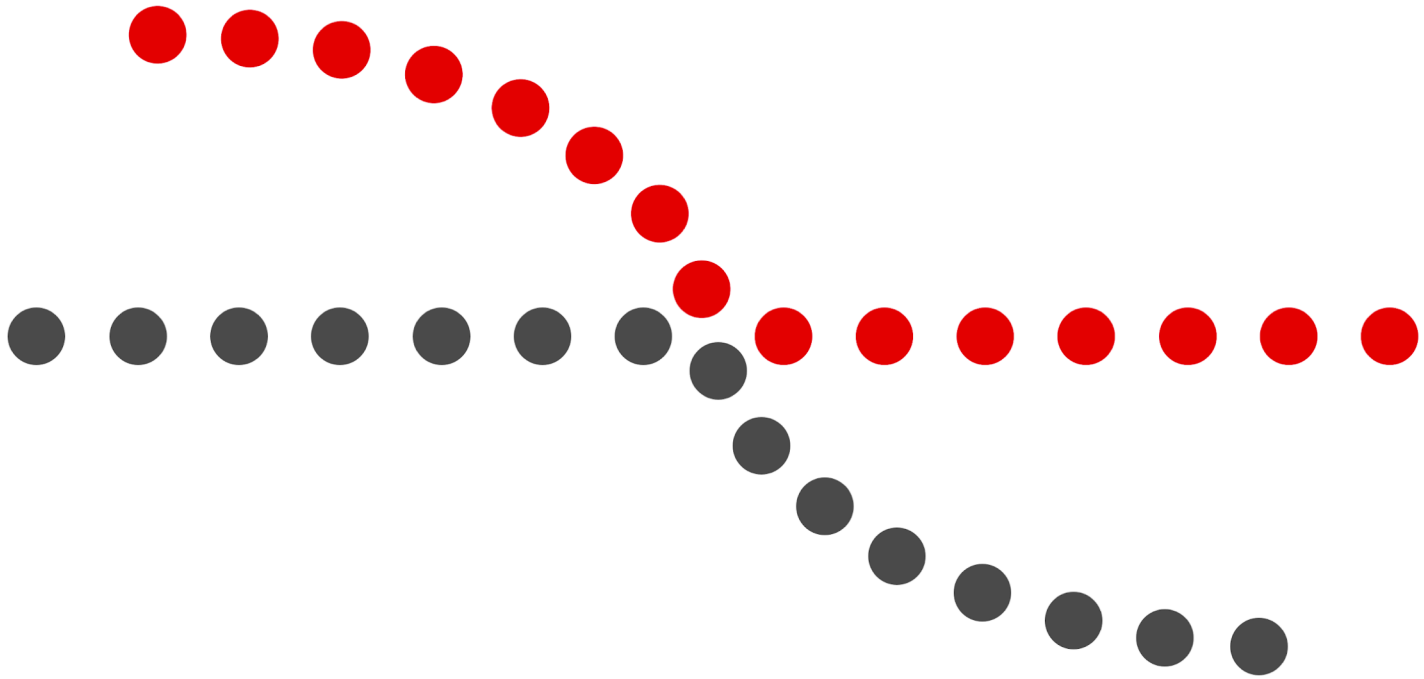
Gestalt Principle #6:

Continuity



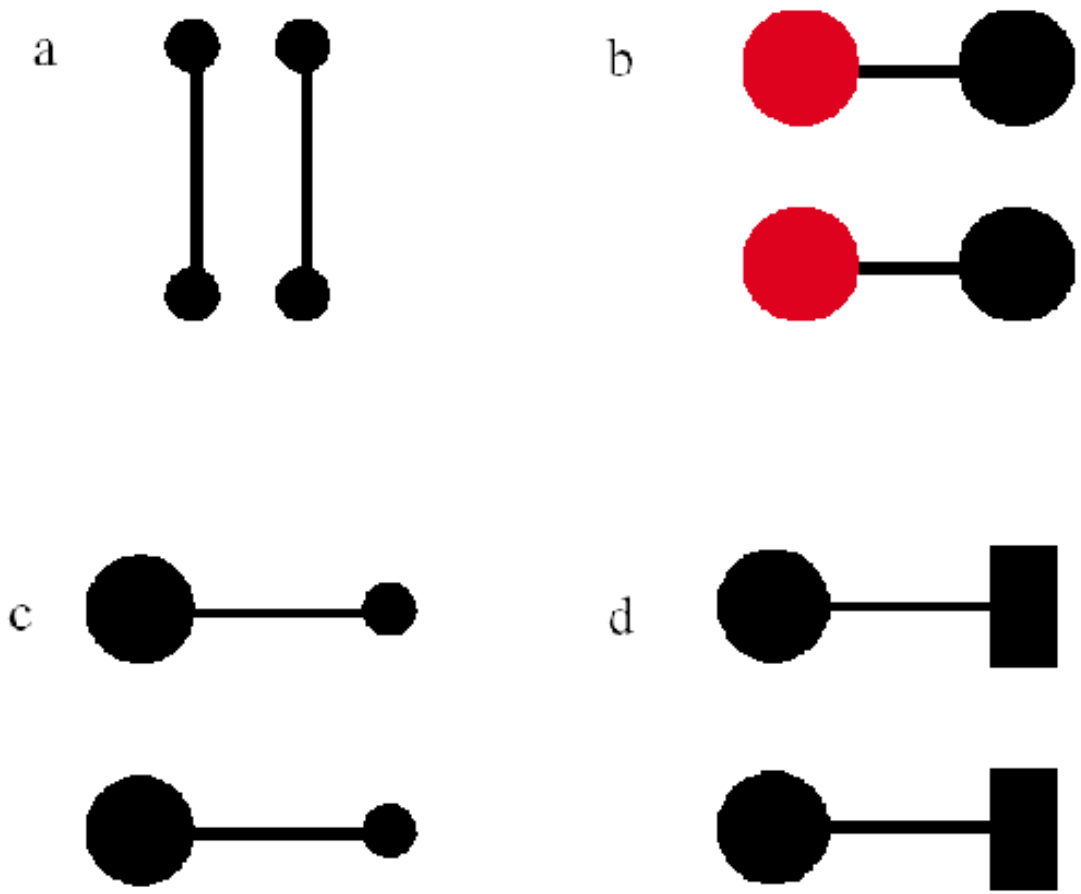
Gestalt Principle #6:

Continuity



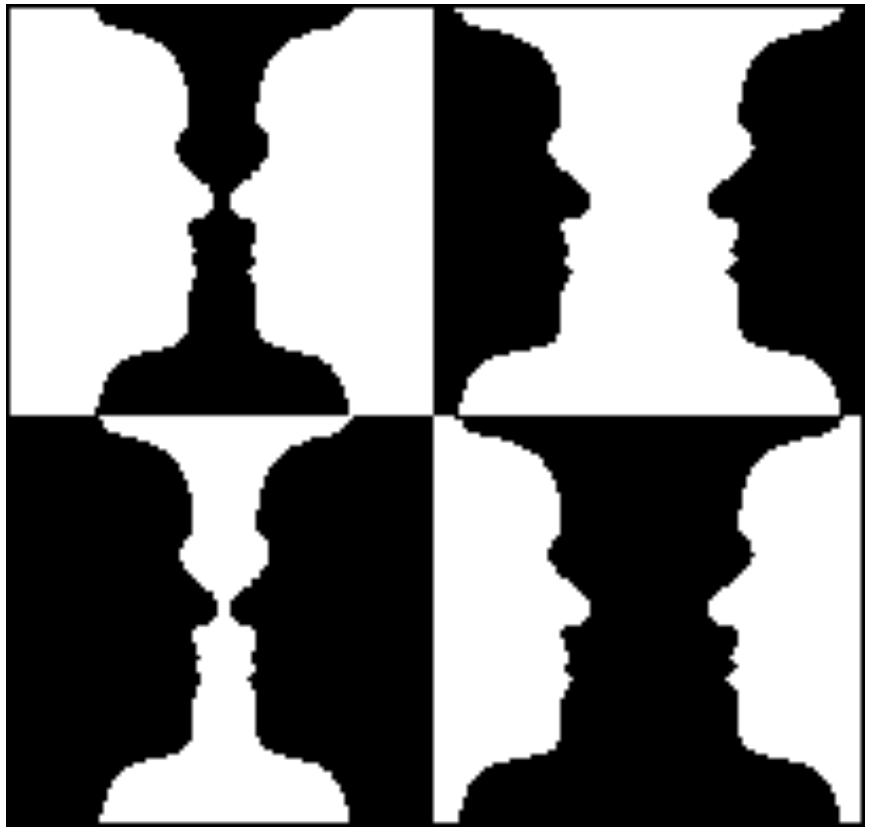
Gestalt Principle #7:

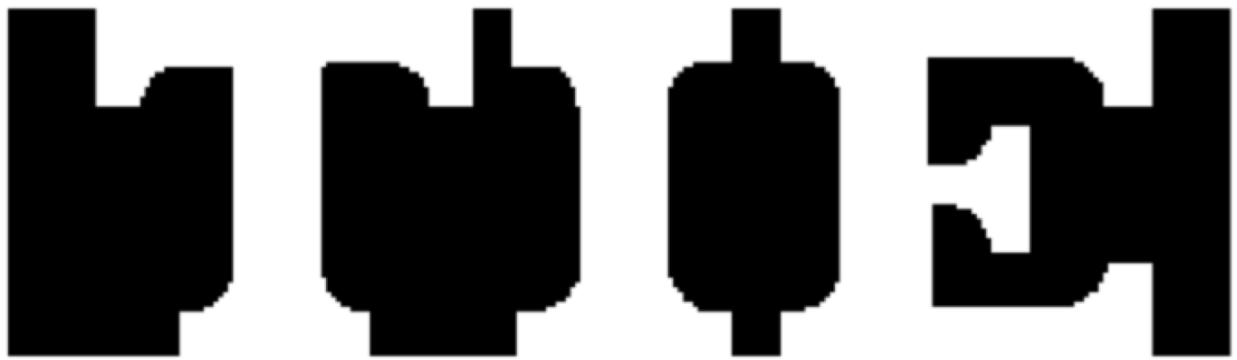
Connection



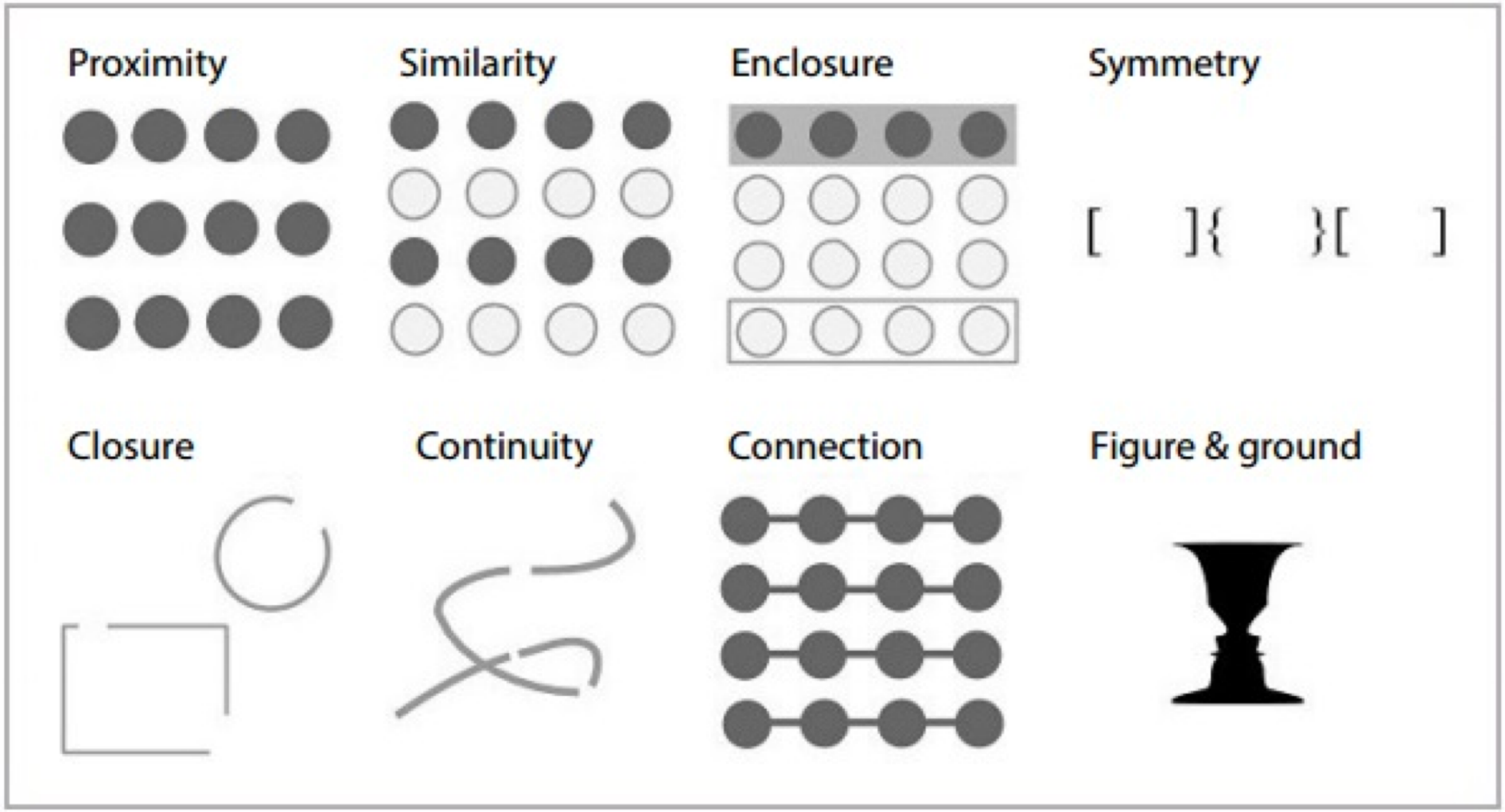
Gestalt Principle #8:

Figure and Ground

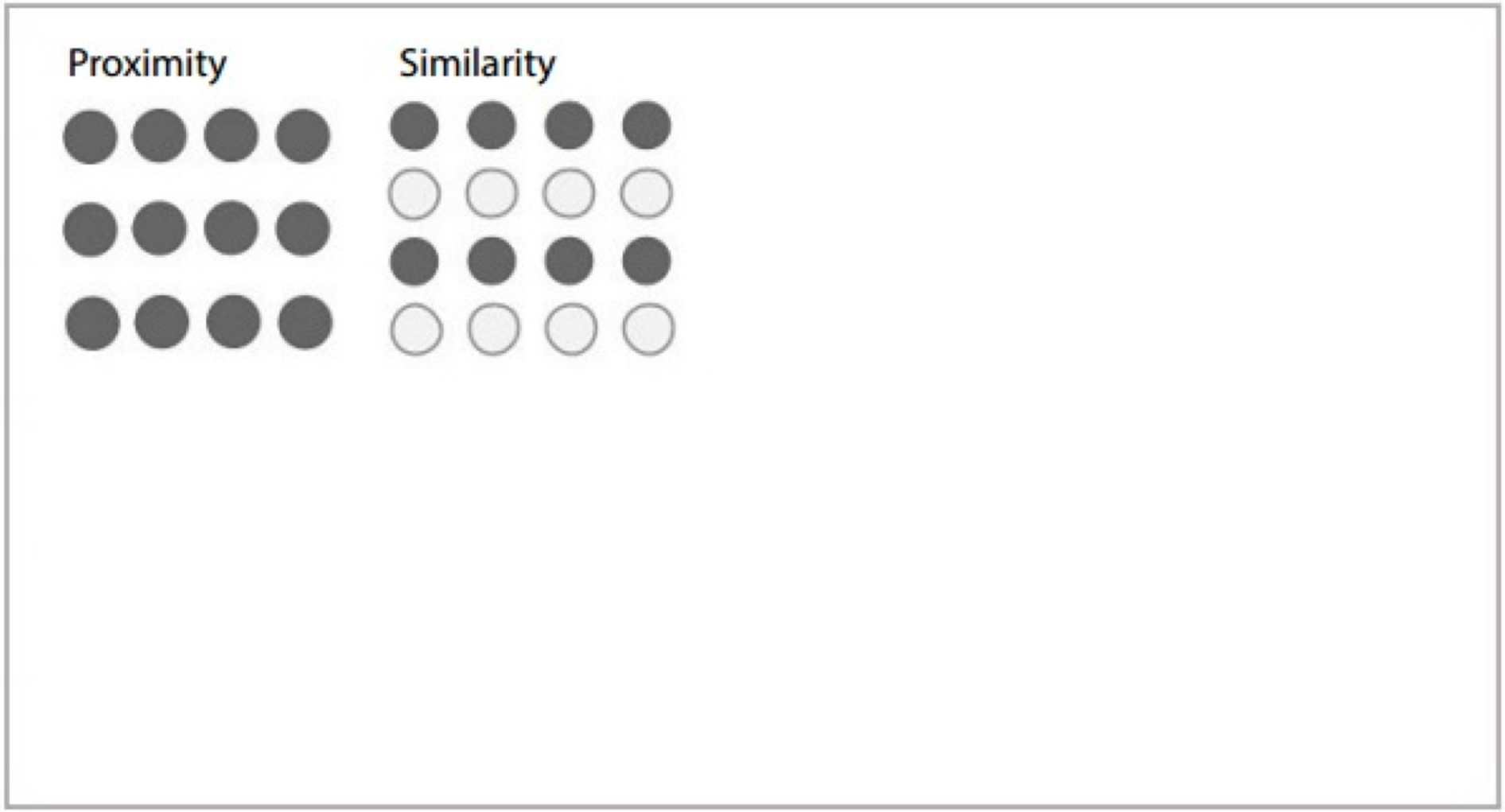




8 Gestalt Principles



2 Gestalt Principles I actually use



I use **proximity** and **color/contrast similarity**

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$75

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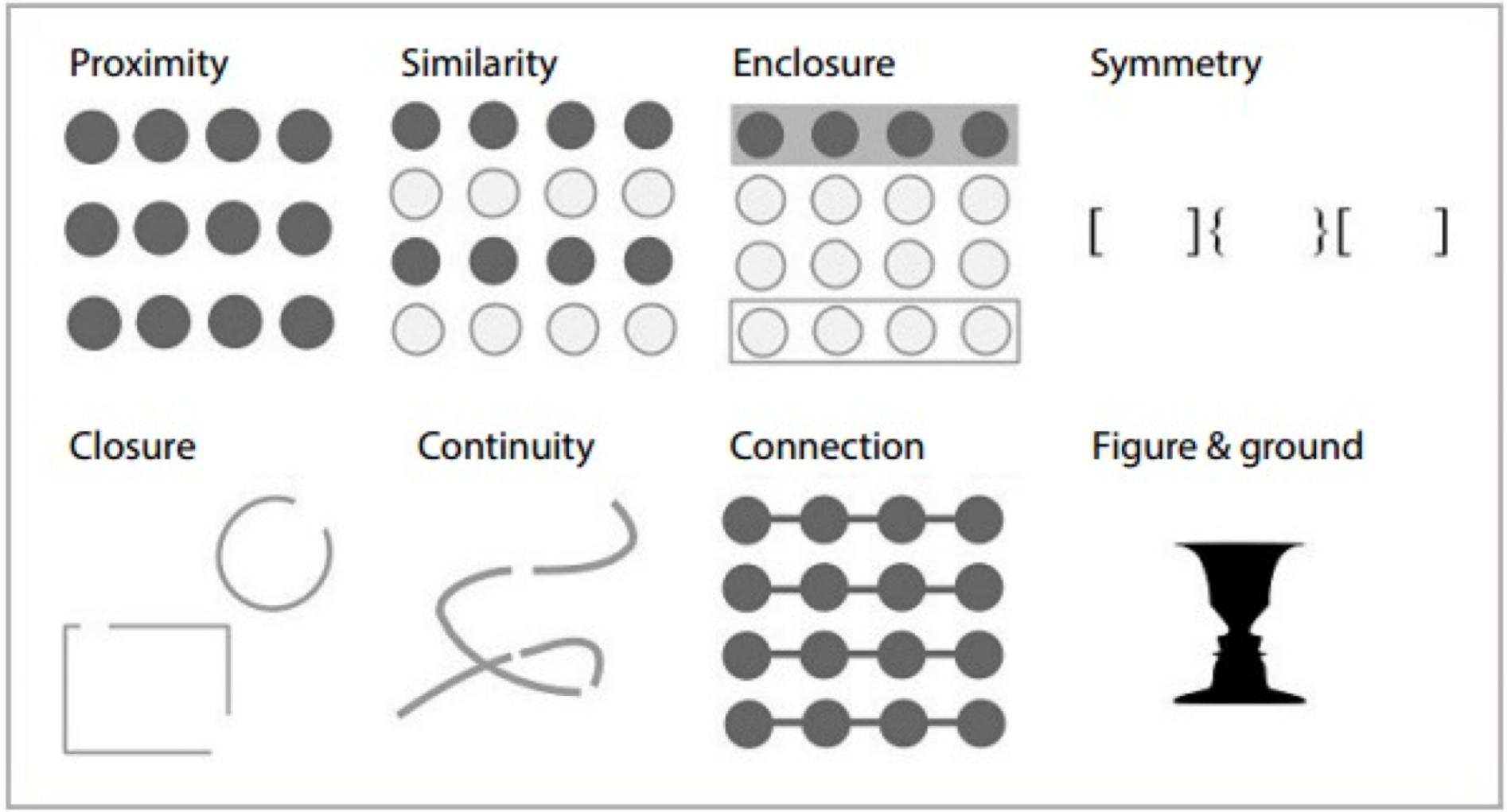
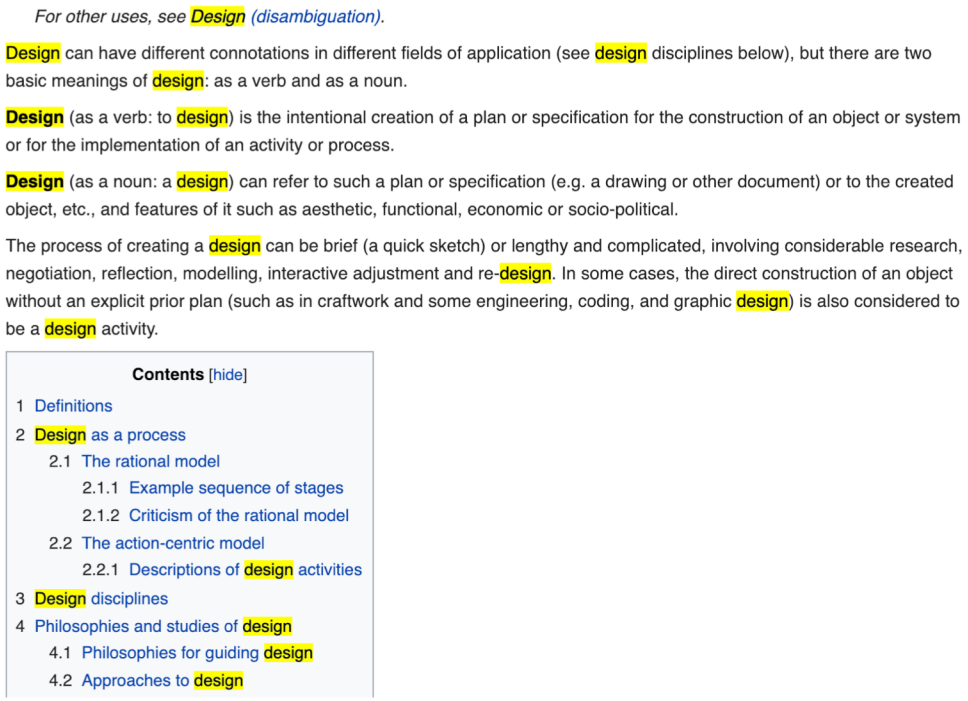
Quiz: 8 Gestalt Principles



Quiz: what property is being used here?



For other uses, see Design (disambiguation).

Design can have different connotations in different fields of application (see design disciplines below), but there are two basic meanings of design: as a verb and as a noun.

Design (as a verb: to design) is the intentional creation of a plan or specification for the construction of an object or system or for the implementation of an activity or process.

Design (as a noun: a design) can refer to such a plan or specification (e.g. a drawing or other document) or to the created object, etc., and features of it such as aesthetic, functional, economic or socio-political.

The process of creating a design can be brief (a quick sketch) or lengthy and complicated, involving considerable research, negotiation, reflection, modelling, interactive adjustment and re-design. In some cases, the direct construction of an object without an explicit prior plan (such as in craftwork and some engineering, coding, and graphic design) is also considered to be a design activity.

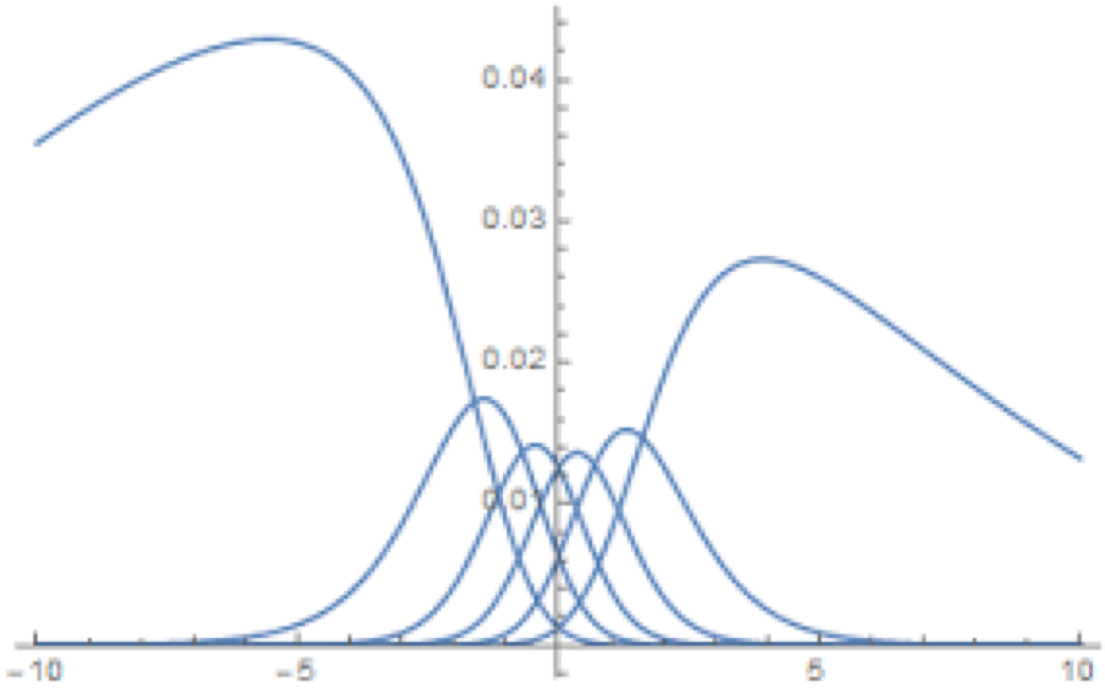
Contents [hide]

1 Definitions
2 Design as a process
  2.1 The rational model
    2.1.1 Example sequence of stages
    2.1.2 Criticism of the rational model
  2.2 The action-centric model
    2.2.1 Descriptions of design activities
3 Design disciplines
4 Philosophies and studies of design
  4.1 Philosophies for guiding design
  4.2 Approaches to design

Similarity of Color

It is easy to scan for color

Quiz: what property is being used here?



Continuity

Our minds perceive lines and curves as continuing on their trajectory

Quiz:
what property is being used on the right?

Closure

Our minds fill in missing details

Quiz:
what property is being used here?

Proximity

Similar data are close to each other

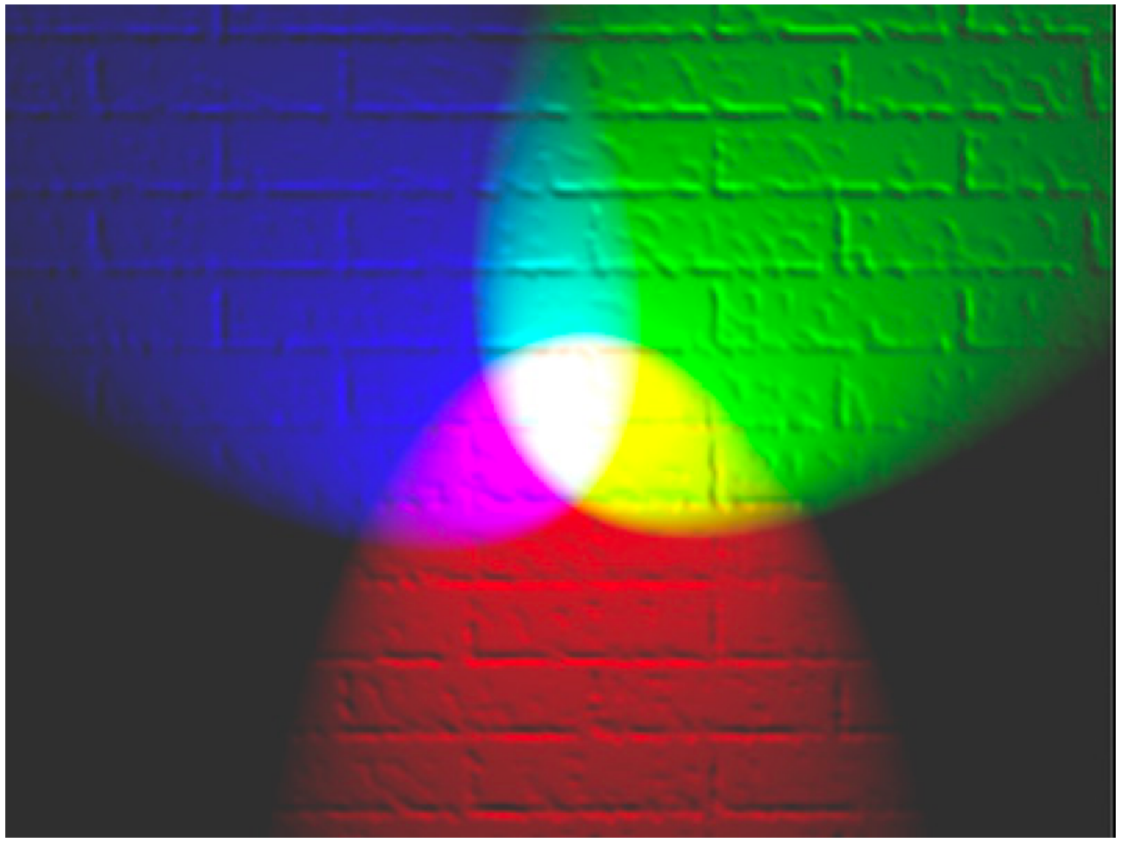
Summary

The human brain is always interpreting meaning, even if it’s not there.

Use color, type, and gestalt carefully

Color Meaning and Representation

Culture	Red	Blue	Green
United States	Danger	Masculinity	Safety
France	Aristocracy	Freedom Peace	Criminality
Egypt	Death	Virtue Faith Truth	Fertility Strength
India	Life Creativity		Prosperity Fertility
Japan	Anger Danger	Villainy	Future Youth Energy
China	Happiness	Heavens Clouds	Ming Dynasty Heavens Clouds



```
.blue_text{
    color: blue;
}


.blue_text{
    color: rgb(0,0, 255);
}


.blue_text{
    color: #0000FF;
}


.blue_transparent_text{
    color: rgba(0,0, 255, 0.5);
}
```

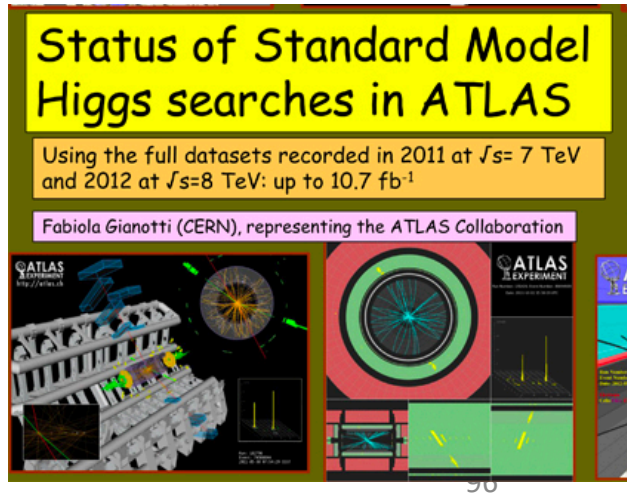
Typography Terms

Serif fonts are faster to read.
The little hooks indicate where your eyes should move next.

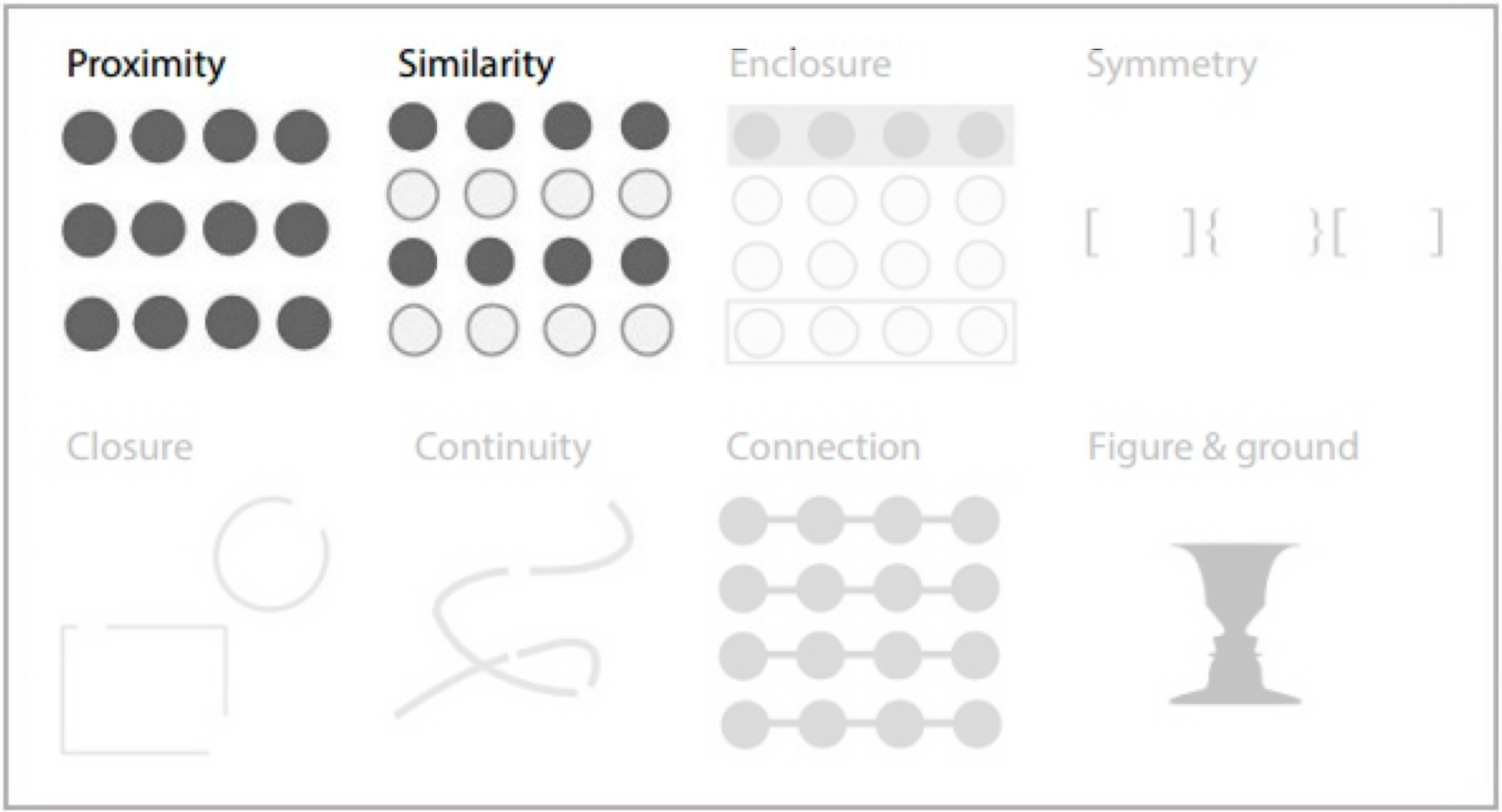
There is no evidence to support this.
Any differences in reading speed are dwarfed by individual differences, or familiarity.

Your font should enhance your message,
Not detract from it.

Microbes Point the Way to Shipwrecks

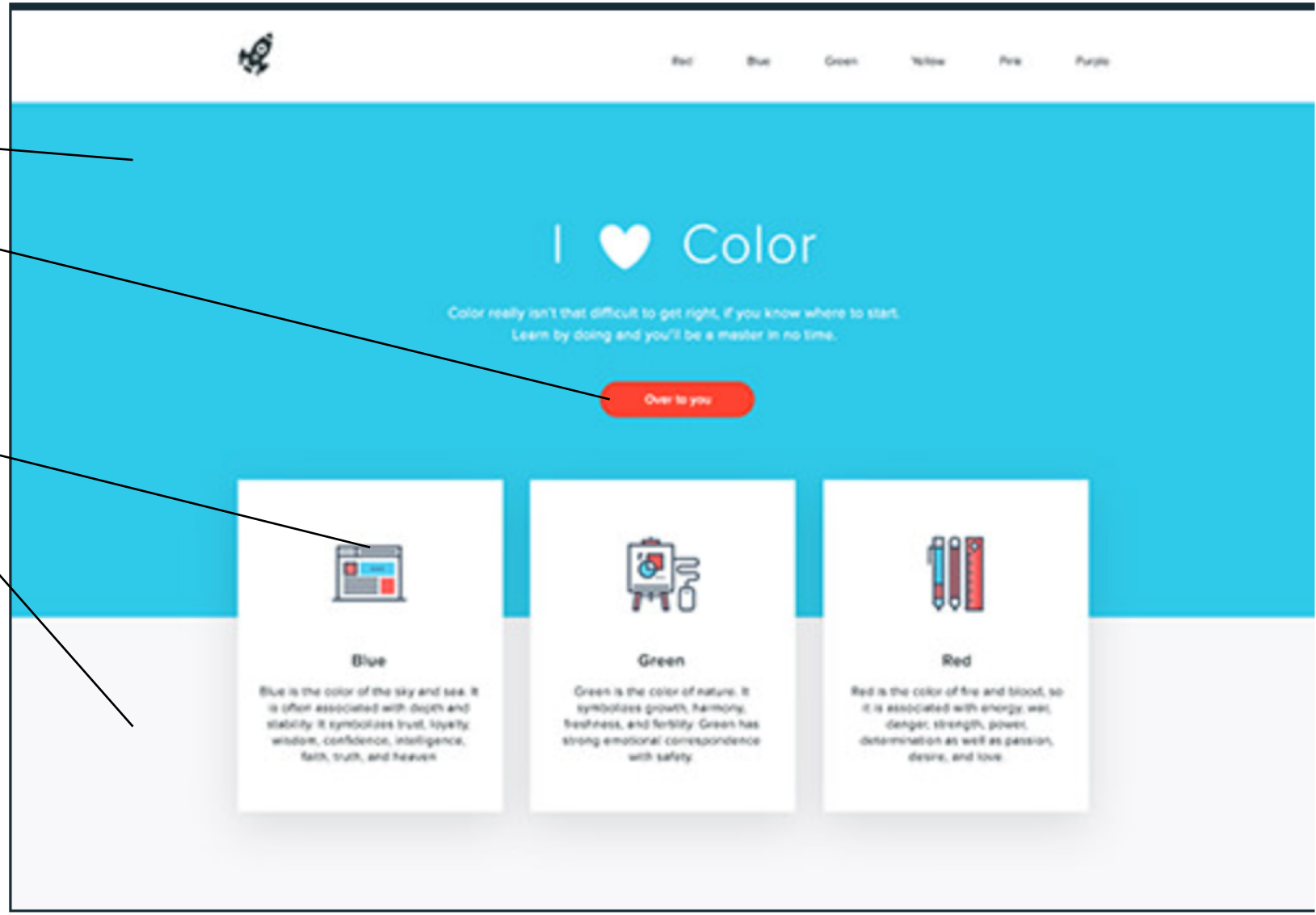


8 Gestalt Principles



Pick four colors (and a white background)

- A base color
- An accent color
- A light grey
- A dark grey



https://www.smashingmagazine.com/2016/04/web-developer-guide-color/