# **Design Day**

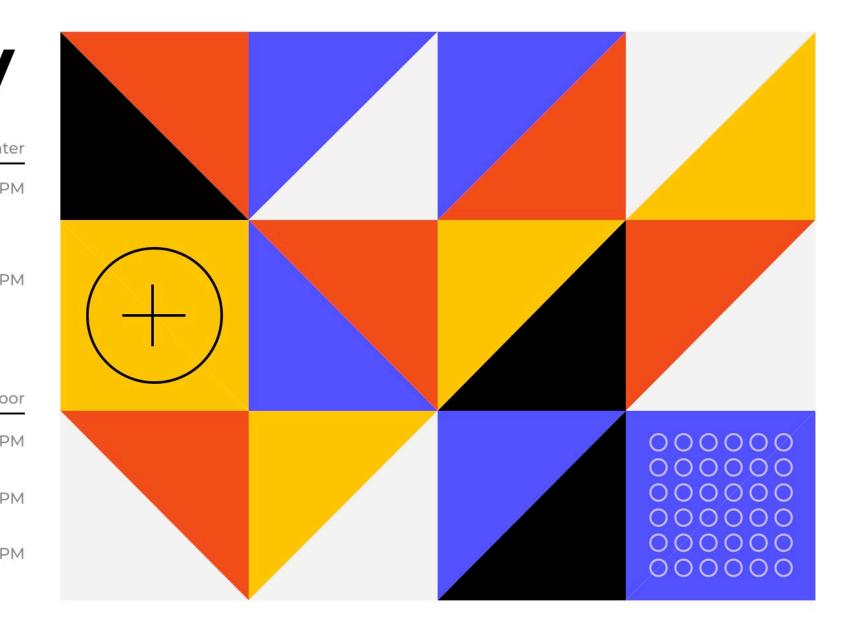
Thurs, Feb 27th	Kraft Center
<b>Design Industry Keynote</b> Professor Harry West, Former CEO at frog design <i>A Pizza Included</i>	6-7PM
Breaking into Design Panel Columbia designers from companies	7-8PM

including Google, United Nations, Airbnb, IDEO, Tencent, and Nike

#### Fri, Feb 28th

Pulitzer Hall, 1st Floor

How to Get a Design Job Portfolio & Design Recruiting	2-3P
<b>Building Practical Design Skills</b> Figma 101	3-4P
Creating Your Design Story Branding & Storytelling	4-5P



# Color, Typography, Gestalt

#### No screens



Prof. Lydia Chilton COMS 4170 24 February 2020



PRINCIPLE

COLUMBIA UNIVERSITY

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



#### Use color, type, and gestalt carefully dots means: "wow, don't make me say what want to say cause if I did, it will blow your mind, dot, dot, dot, dot, dot,

# Color

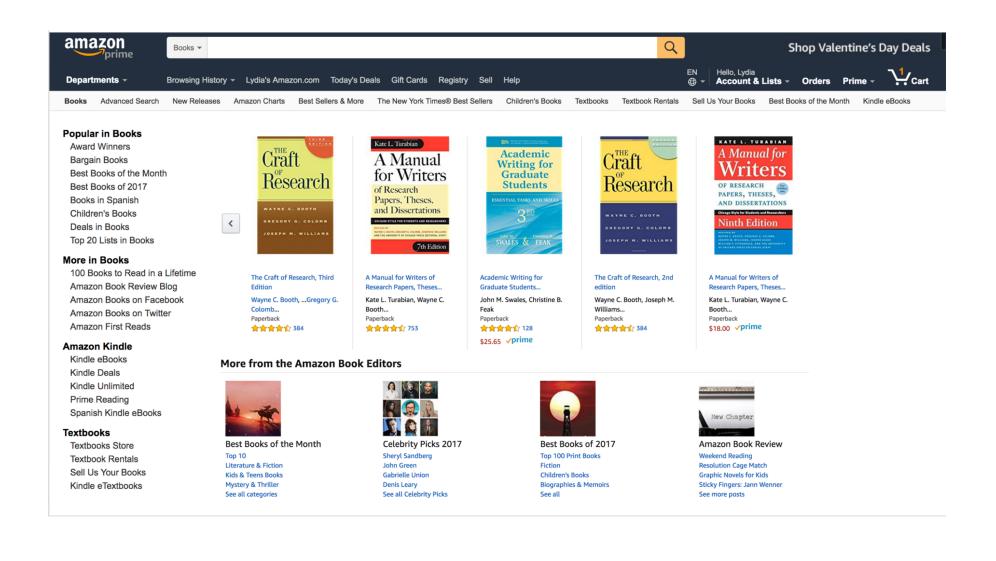
# In addition to signaling importance, colors have meaning.



#### Where is color used? What does it mean?

	ogle.com/mail/u/0/#inb						
Apps imported From Firefo	Holiday Guide   TVG	10 Web Help Desk	Pixabay - Free In		pps Status Dashbo		Cther Bookm
CHARMENN CHILDREN				Loading	- <	Jeffrey	· ^ 🗉 O 🕼
Mail -	□ · C	More *				1–14 of 1	4 < > 🕸 -
COMPOSE	Primary	:4	Social	Promotions	Updates	+	🖉 • - 🖉 🖿
Inbox (2) Sent Mail	🗌 🛧 🕑 Baldwin	a, BPS (2)	Bloglovin' -	Not that I know of. Sometimes bloc	ked sites come in on a hug	11:08 am	<ul><li>Search people</li><li>Jed Givens</li></ul>
Drafts (54) Need to Read	📩 🔁 Feldma	inn, Ann	Fwd: 21st C	entury Classroom Visit? - Ann Fe	Idmann District Technolog	10:18 am	Ann Feldmann
Technology Coach	📋 🙀 💌 me, Lar	mbert (2)	8th Period -	Hey, Jeff. I am planning on doing th	e Mystery Hangout lesson	8:05 am	Ann Feldmann Cadwallader, Julie
More -	🗆 🚖 💌 me		(no subject)	Jeffrey Bernadt District Technol	ogy Specialist Bellevue Pu	Jan 12	Christopher Kessell Courtney Saffold
	🖂 🛨 💌 me, Bra	asch, Klamm (3)	Visitation &	Observation Request - Good mornin	ng! The second semester is	Jan 12	Jeanette Carlson
	🗆 🛨 💌 me, Co	x (2)	Bri Cox - Co	aching Doc - Invitation to edit - Jeff,	I finally was able to read a	Jan 12	Johnson, Stephanie Kelly Bernadt
	🗌 🛨 🕨 Tripple,	Todd	3D Printer -	Hello Amy, I received some informa	tion from a 3D printing exp	Jan 11	Loomis, Phillip
	🗌 🛨 🕞 donotre			review Build Notice - & AppleSeed		Jan 11	Robert Mason Shannon Gier
	🗌 🛨 💿 Ann Fel			ost] What "Innovative Leadership" L		Jan 11	Todd Tripple
				my Issues - It kept repeating that "c			Toledo, Julian (Delor
		mpbell (7)					
	🗌 🚖 🕑 Toelle,			es - Hey Jeff! We just returned from		Jan 8	
	🗌 🌟 💌 me, Evo	on (4)	Request to \	/isit on Thursday AM - Hi Jeff, Happ	by New Year! We would lov	Jan 6	
	🗌 🚔 💌 Jeffrey	Bernadt	Shared from	Twitter: What teachers need to know	w about multicultural educ	12/23/15	

#### 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



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

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

Culture	Red	Blue	Green	Yellow	White
United States	Danger	Masculinity	Safety	Cowardice	Purity
France	Aristocracy	Freedom Peace	Criminality	Temporary	Neutrality
Egypt	Death	/irtue Faith Fruth	Fertility Strength	Happiness Prosperity	Јоу
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

Culture	Red	Blue	Green	Yellow	White
United States	Danger	Masculinity	Safety	Cowardice	Purity
France	Aristocracy	Freedom Peace	Criminality	Temporary	Neutrality
Egypt	Death	/irtue Faith Fruth	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

#### What does blue mean in India?

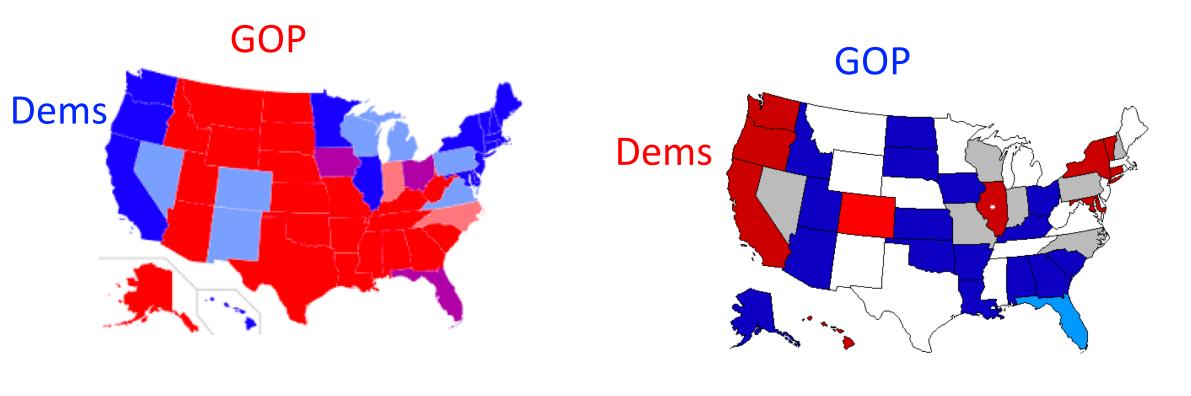
Culture	Red	Blue	Green	Yellow	White
United States	Danger	Masculinity	Safety	Cowardice	Purity
France	Aristocracy	Freedom Peace	Criminality	Temporary	Neutrality
Egypt	Death	Virtue Faith Truth	Fertility Strength	Happiness Prosperity	Joy
India	Life Creativity		Prosperity Fertility	Success	Death Purity
Japan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

#### What cultural associations do these colors have?

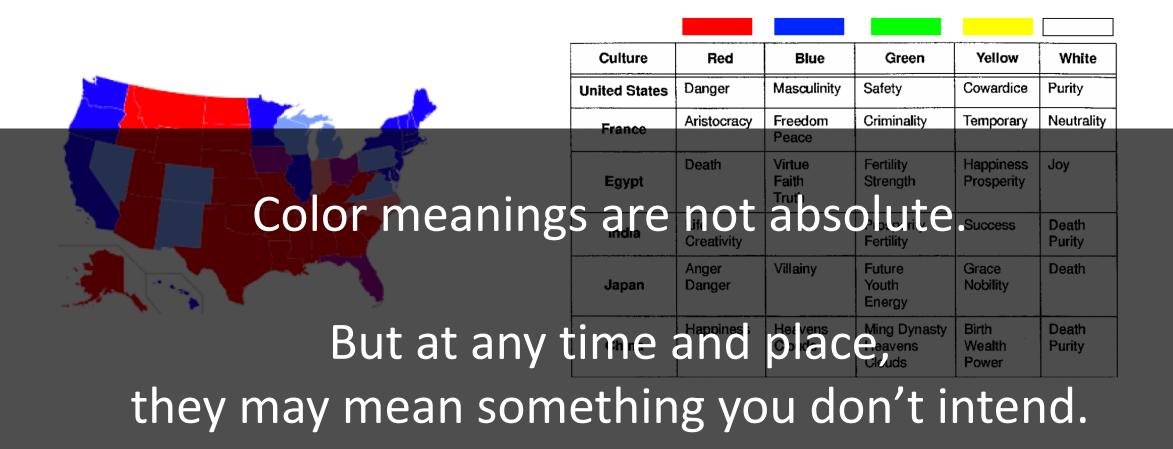
# Republicans **Democrats**

15

#### What cultural associations do these colors have?

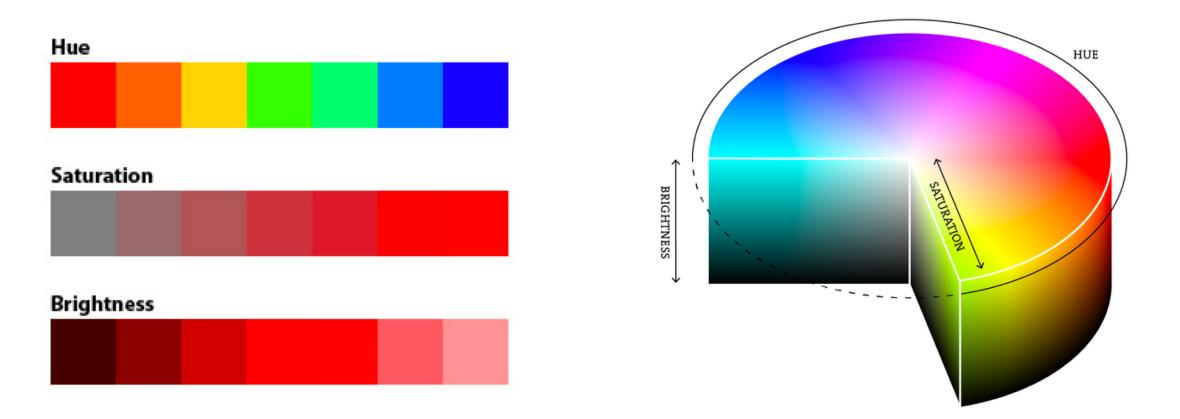


#### Are color meanings arbitrary?

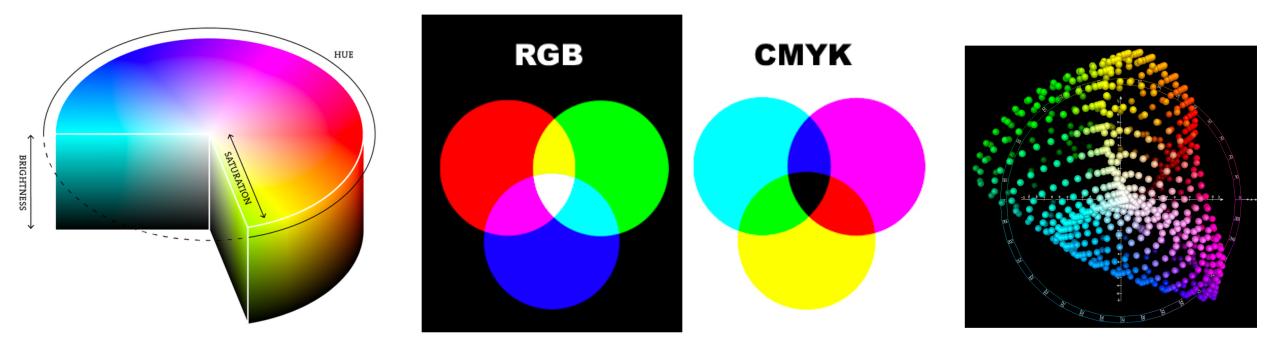


### **Color Representation**

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



#### There are many ways to represent Color

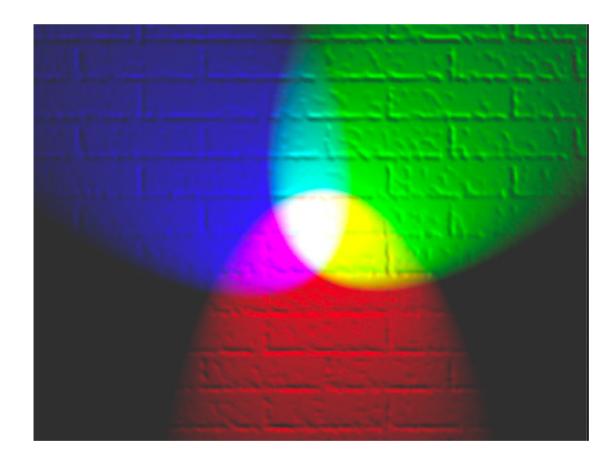


Hue, Saturation, Value

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

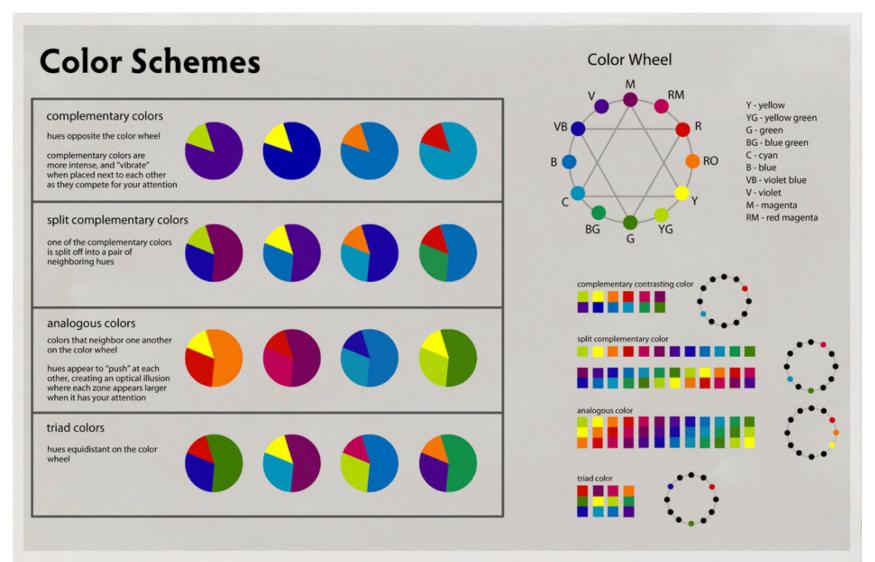
If you have have Red: **100%** Green: **100%** Blue: **100%** What color will you get?

White

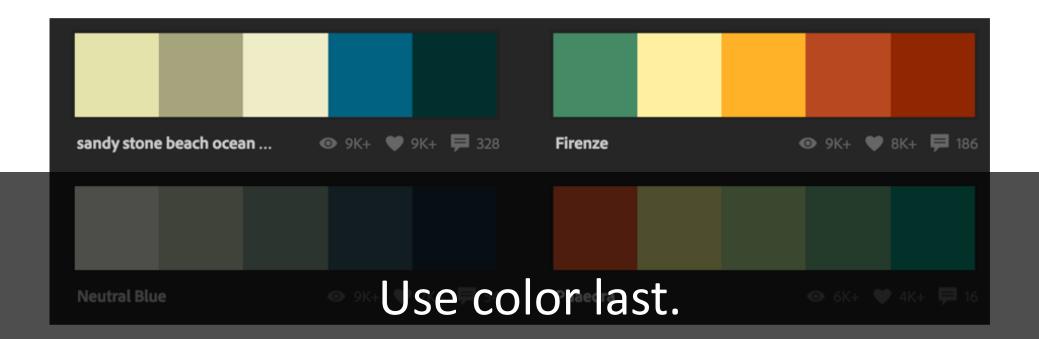
#### Ways to specify a color in HTML



#### Choosing color combinations



#### If you are not a color expert, let an expert pick for you



# Typography

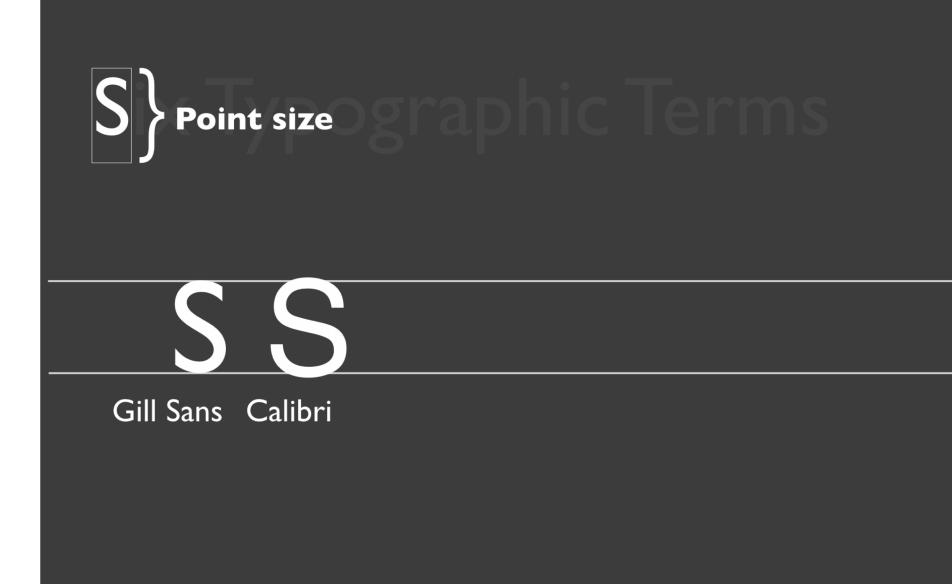
# Typography is an art form



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

#### Six Typographic terms





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

## S } Leading S

#### SiX } x-height

# Six Six Six

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



descenders

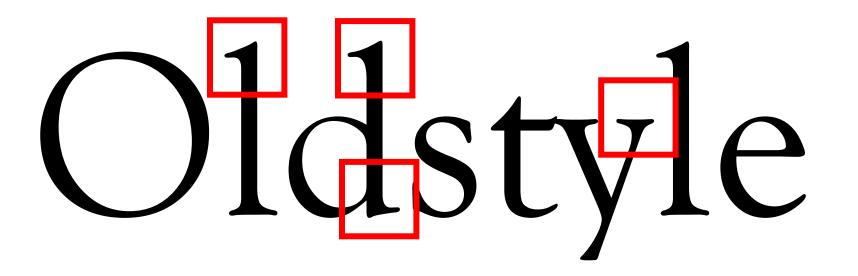
#### Six Typographic Terms light regular bold

weight

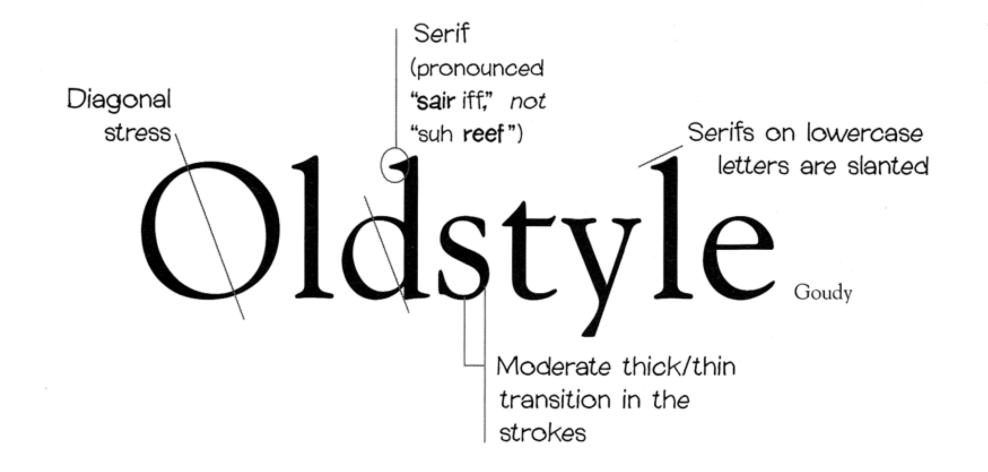
#### Weights and Styles

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 Bold & *Condensed Bold Oblique* 

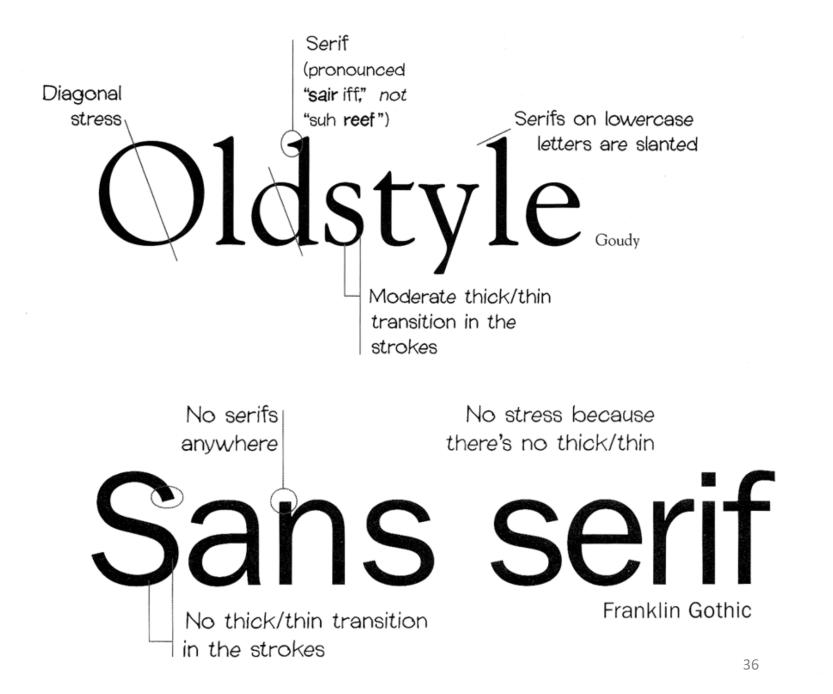
#### What indicates a serif font?



#### 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.



Europe, but their humble appearance belies great ambition.

# Like Colors, there are cultural connotations for fonts



Video Podcasts News Tech Music Food Health Money Drugs + More

#### **MOTHERBOARD** TECH BY VICE

#### **Scientists Found Breathable C Another Galaxy for the First T**i

Molecular oxygen is a key component of the air humans breathe, and now astronomers have spotted it a half-billion light years away. But don't hold your breath for quasar whippets.

# San Serif = Modern, simple

#### The New York Times

# Microbes Point the Way to Shipwrecks

Distinct microbiomes flourish around sunken ships as they become artificial reefs, new research in the Gulf of Mexico reveals.

39

# Serif =

Intellectual, Elite

# Mixing fonts: Concordant fonts

# Typography

FROM WIKIPEDIA, THE FREE ENCYCLOPEDIA

Typography is the art and technique of arranging type, type design, and modifying *type glyphs*. Type glyphs are created and modified using a variety of illustration techniques. The arrangement of type involves the selection of typefaces, point size, line length, leading (line spacing), adjusting the spaces between groups of letters (tracking) and adjusting the space between pairs of letters (kerning). Adobe Caslon Semibold 48 pt

Adobe Caslon Smallcaps, 14 pt

Adobe Caslon Regular, 12 pt

#### Mixing fonts of the same font-family is great.

# Mixing fonts: Contrasting fonts

Typography From Wikipedia, the free encyclopedia

Typography is the art and technique of arranging type, type design, and modifying *type glyphs*. Type glyphs are created and modified using a variety of illustration techniques. The arrangement of type involves the selection of typefaces, point size, line length, leading (line spacing), adjusting the spaces between groups of letters (tracking) and adjusting the space between pairs of letters (kerning). Gill Sans Light 48 pt

Gill Sans Light, 16 pt

UC Berkeley OldStyle, 12 pt

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

# **BAD** font mix: Conflicting fonts

# Typography

From Wikipedia, the free encyclopedia

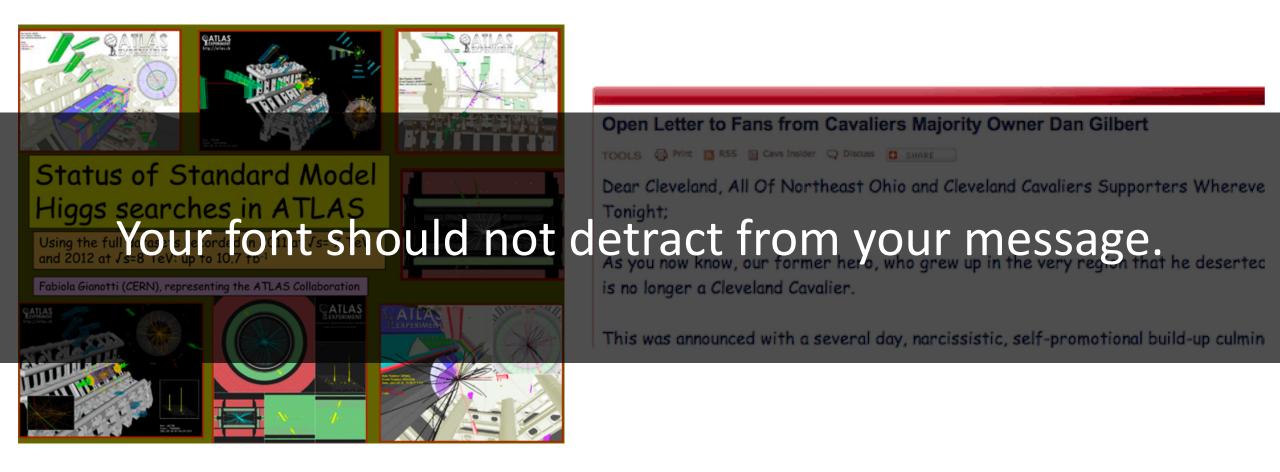
Typography is the art and technique of arranging type, type design, and modifying type glyphs. Type glyphs are created and modified using a variety of illustration techniques. The arrangement of type involves the selection of typefaces, point size, line length, leading (line spacing), adjusting the spaces between groups of letters (tracking) and adjusting the space between pairs of letters (kerning). Arial 36 pt

Futura Medium, 14 pt

Myriad Regular, I2 pt

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

# What connotation does this font have?



# You're an idiot.

# Eight Gestalt Principles

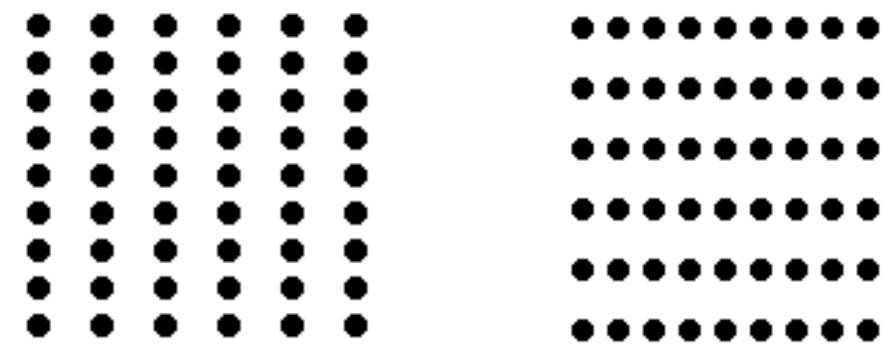
## **ge·stalt** /gəˈSHtält/ •)

noun PSYCHOLOGY

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

German <del>-</del>	<b>V</b>	$\stackrel{\bullet}{\leftarrow}$	English <del>-</del>	
gestalt			shape	

Gestalt Principle #1: Proximity

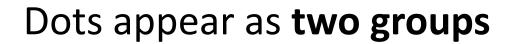


........ ......... ........ . . . . .

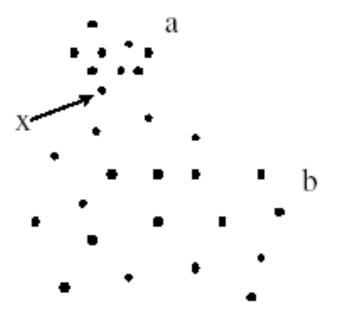
Dots appear as **columns** 

Dots appear as **rows** 

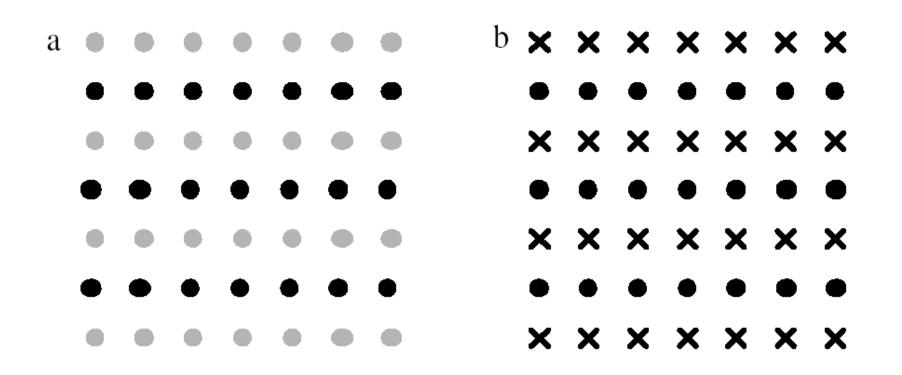
## Gestalt Principle #1: **Proximity**







## 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

TUESDAY, NOVEMBER 4 – ELECTION DAY

#### **AN AMERICAN MENU** \$75

**Caesar salad** with anchovies, egg, and Parmesan cheese

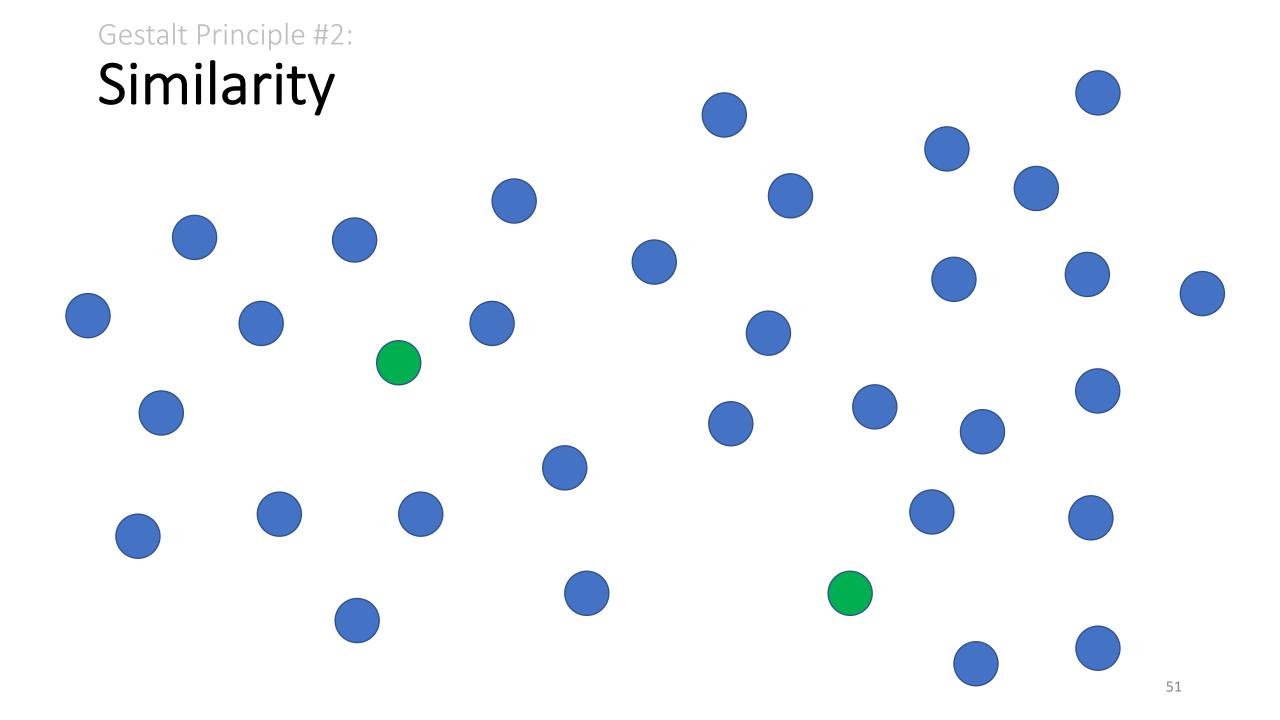
**Clam chowder** with Maine lobster and pancetta

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

Apple and raspberry pecan crisp with vanilla ice cream

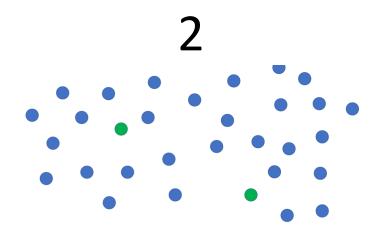


# How many green circles are there?





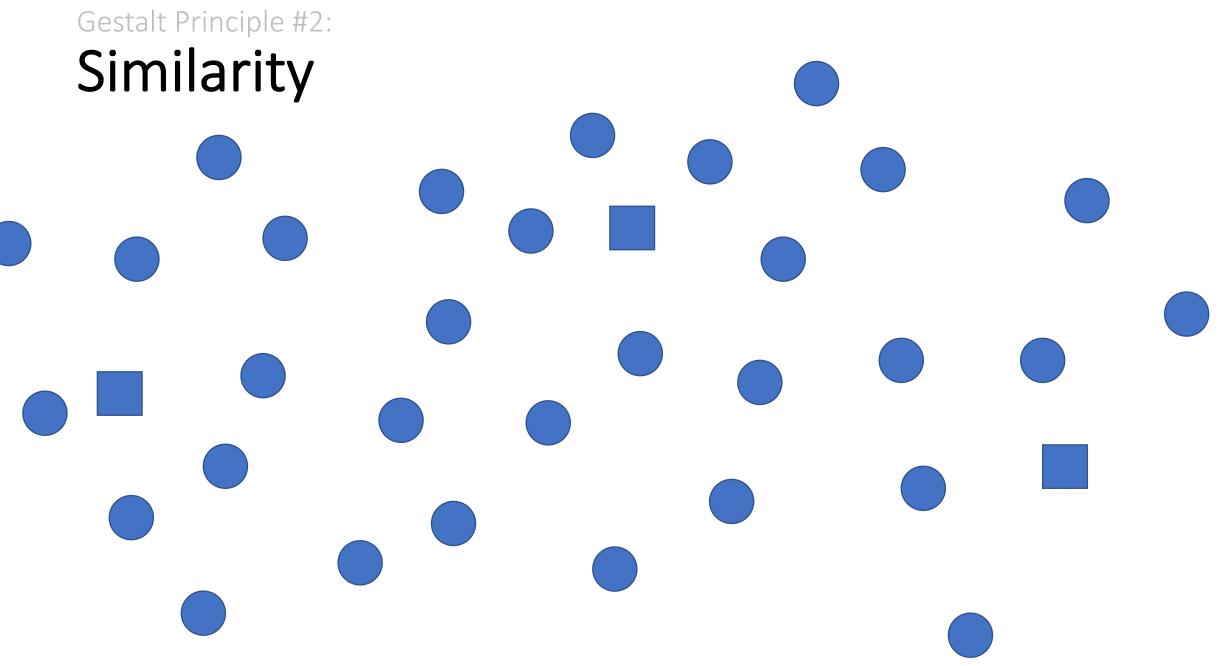
# How many green circles are there?



Colors are easy to scan for

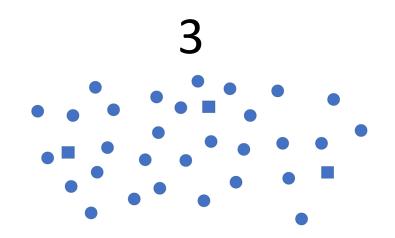


# How many **rectangles** are there?





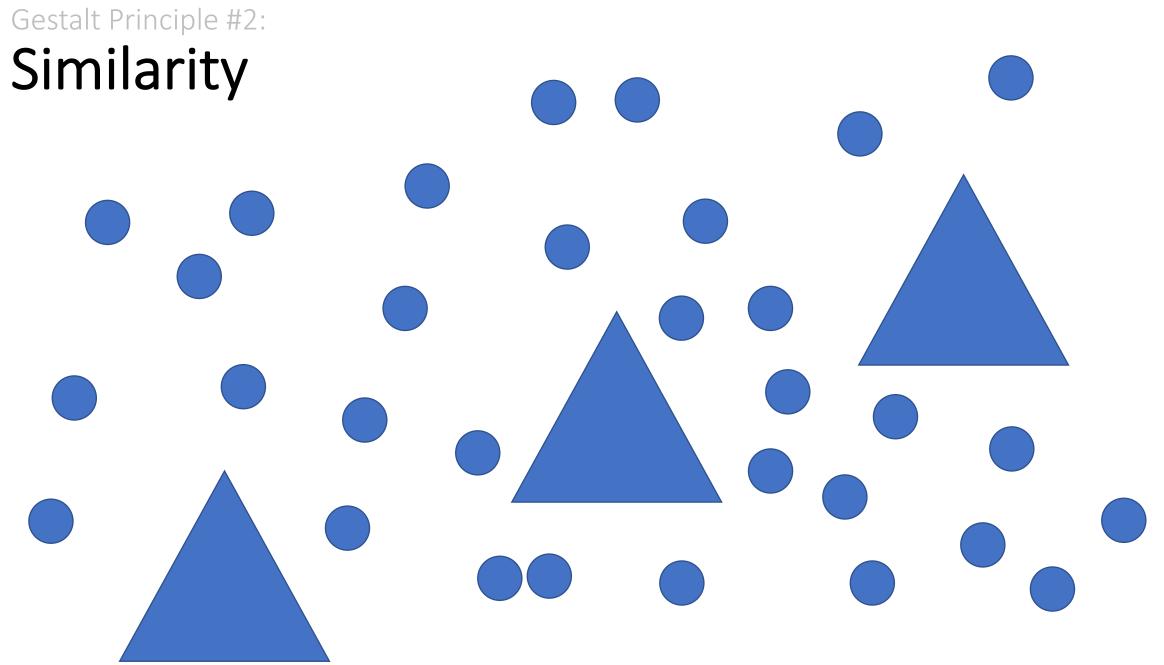
# How many **rectangles** are there?



Shapes are hard to scan for

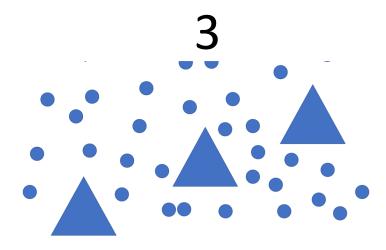


# How many **triangles** are there?



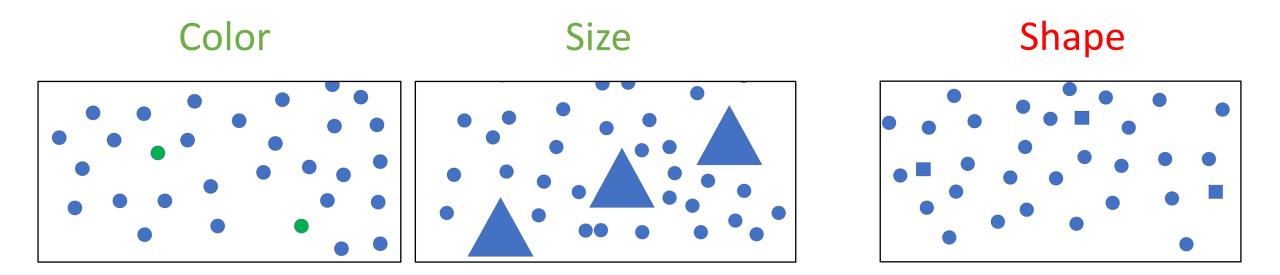


# How many triangles are there?



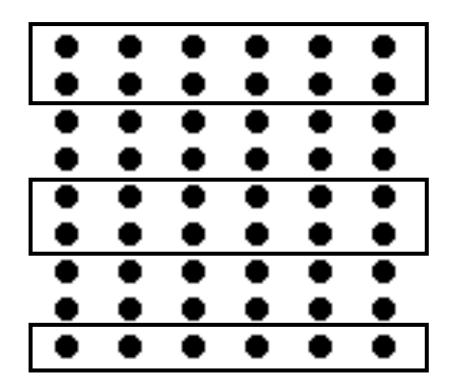
Size is easy to scan for

# What properties are easy to scan for similarity?

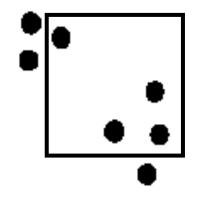


#### **Color** and **Size** scans better than **shape**

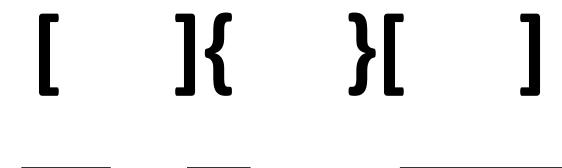
## Gestalt Principle #3: Enclosure

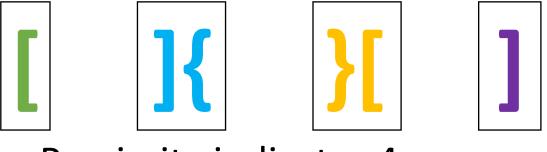


## Gestalt Principle #3: Enclosure







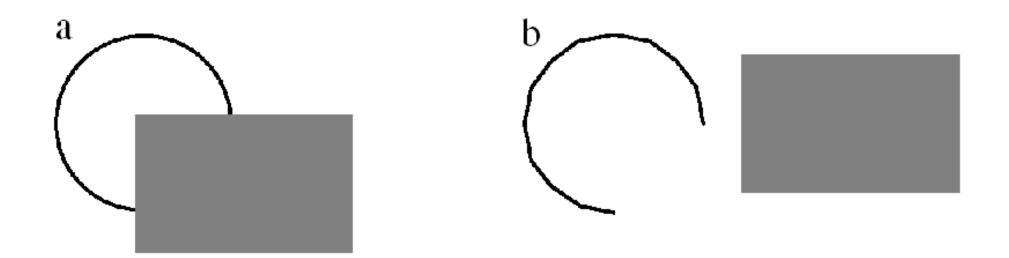


Proximity indicates 4 groups

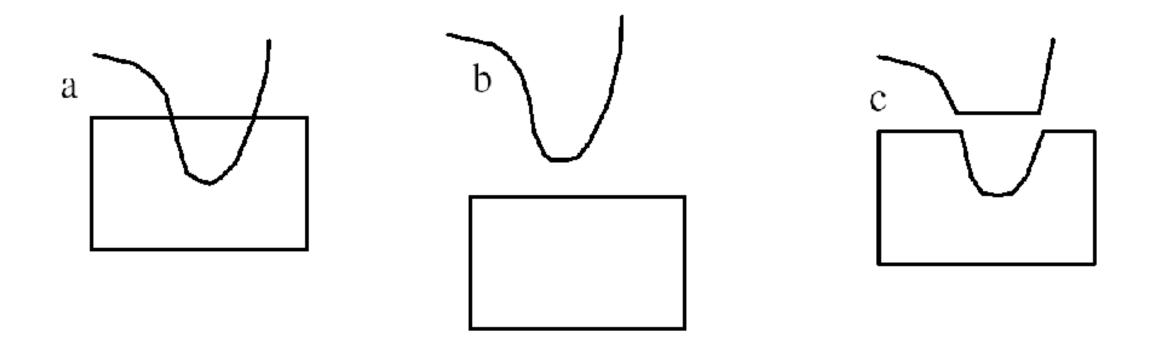


Symmetry indicates 3 groups

## Gestalt Principle #5: Closure

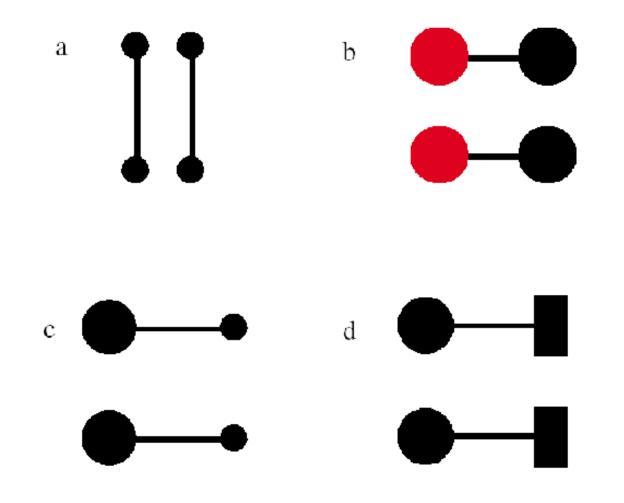


# Gestalt Principle #6: Continuity



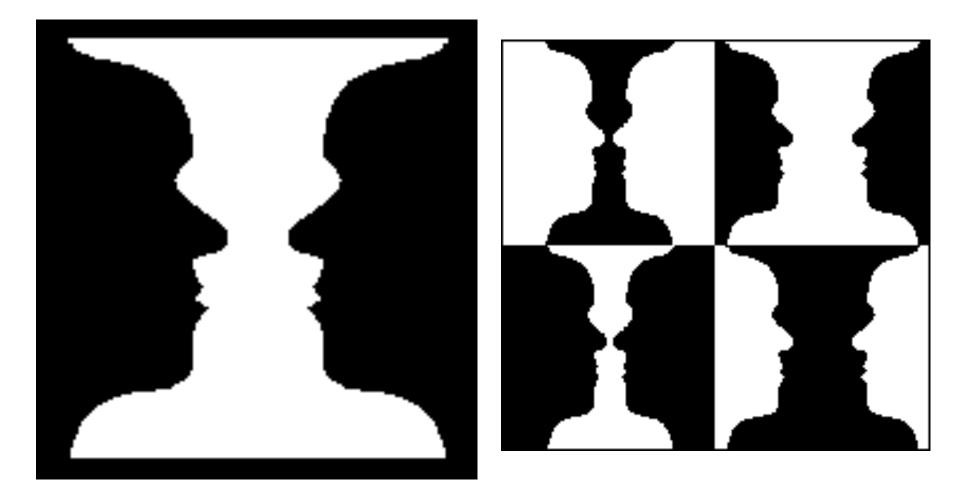
## Gestalt Principle #6: Continuity

## Gestalt Principle #7: Connection

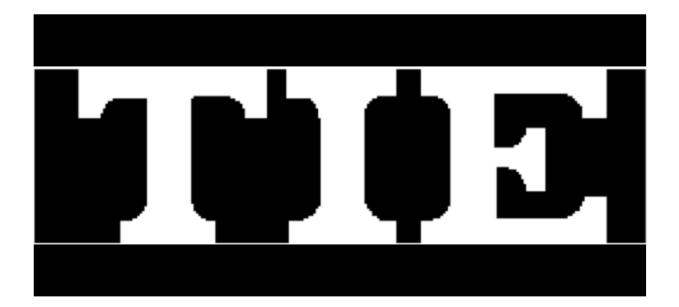


Gestalt Principle #8:

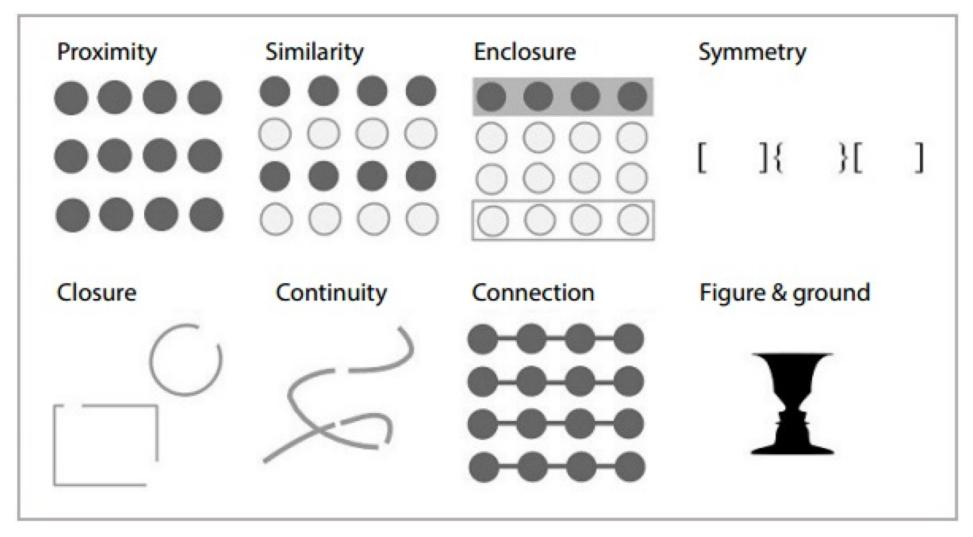
# Figure and Ground



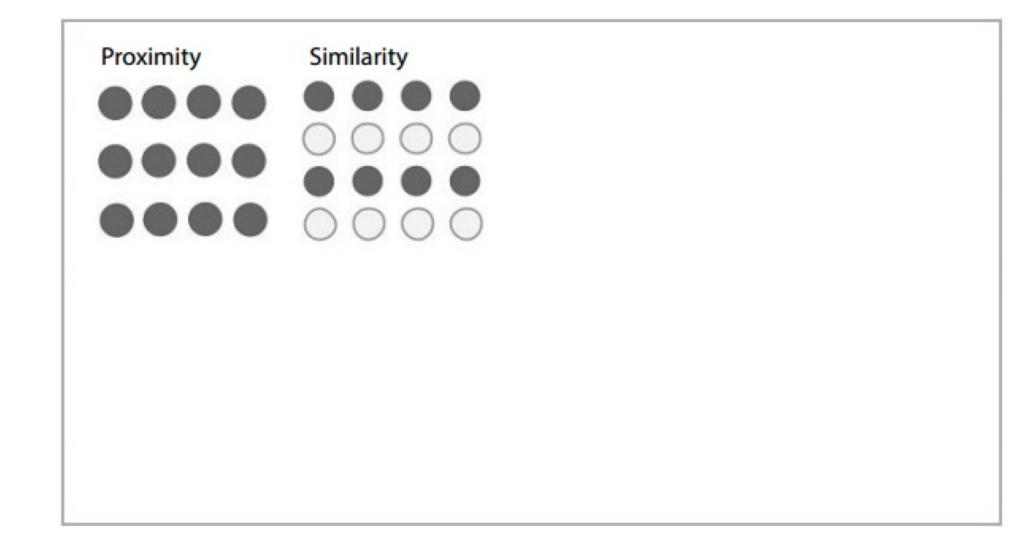
# 



# 8 Gestalt Principles



# 2 Gestalt Principles I actually use



# I use proximity and color/contrast similarity

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

TUESDAY, NOVEMBER 4 - ELECTION DAY

#### **AN AMERICAN MENU** \$75

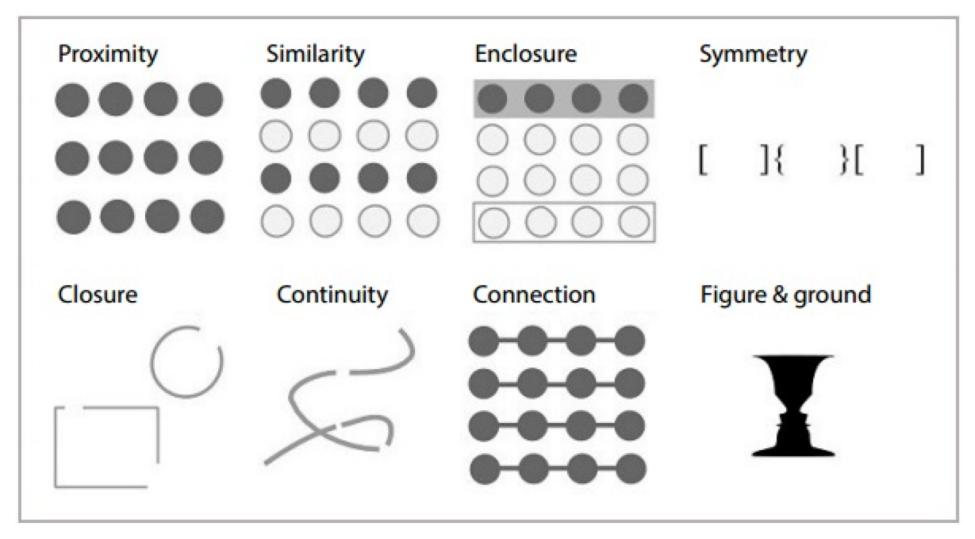
Caesar salad with anchovies, egg, and Parmesan cheese

**Clam chowder** with Maine lobster and pancetta

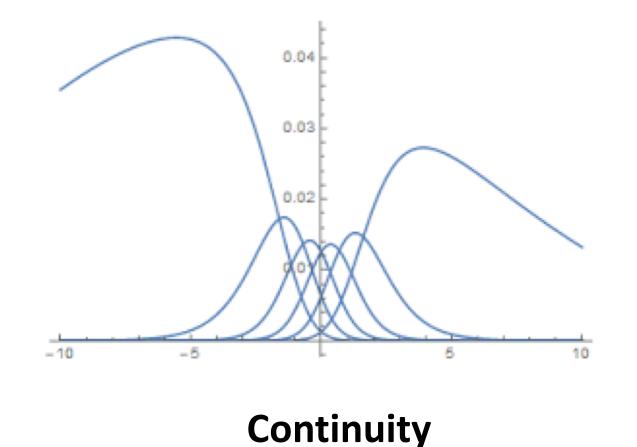
**Grilled chicken** with house-made barbeque sauce with potato purée and greens

Apple and raspberry pecan crisp with vanilla ice cream

# Quiz: 8 Gestalt Principles



# Quiz: what property is being used here?



Our minds perceive lines and curves as continuing on their trajectory

# 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.



#### Similarity of Color It is easy to scan for color

# Quiz: what property is being used here?



#### Figure and ground

# Summary

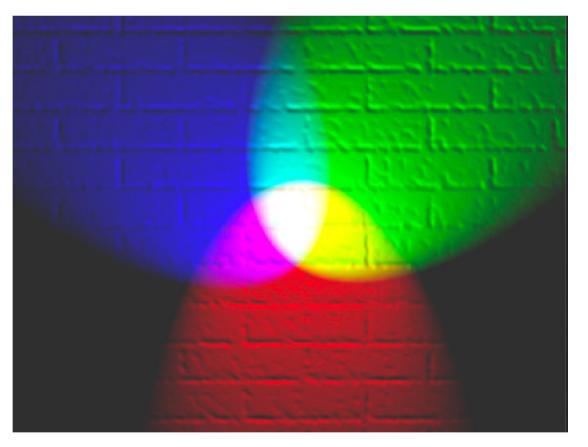
# The human brain is always interpreting meaning, even if it's not there.

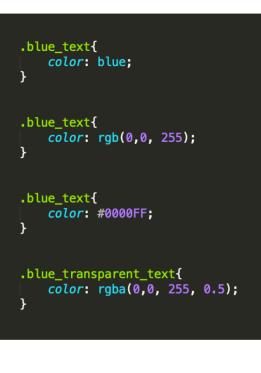


#### Use color, type, and gestalt carefully dots means: "wow, don't make me say what want to say cause if I did, it will blow your mind, dot, dot, dot, dot, dot,

# 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





# Typography Terms



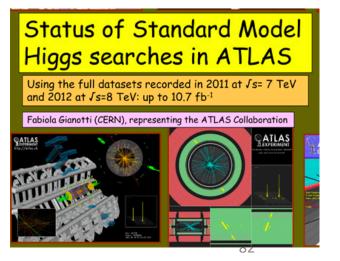
**Serif fonts are faster to read.** The little hooks indicate where your eyes should move next.

#### There is no evidence to support this.

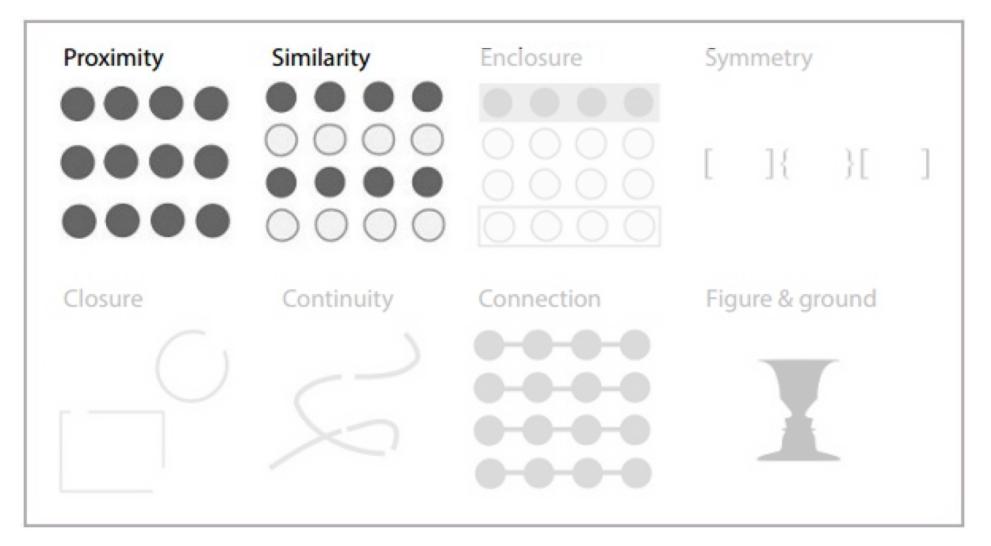
Any differences in reading speed are dwarfed by individual differences, or familiarity.

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

#### Microbes Point the Way to Shipwrecks



# 8 Gestalt Principles



# Fill out participation now! HW 5 is due Wednesday.

	Columbia University	
	ser Interface Des	ign
Hom	e Grading Syllabus Piazza	
6	FEBRUARY 24	FEBRUARY 26
	Participation Form HW4 Review Color, Type, Gestalt	Homework 5 due @ 4pm