



Frontend: Design principles and Gestalt - 12.04.2016

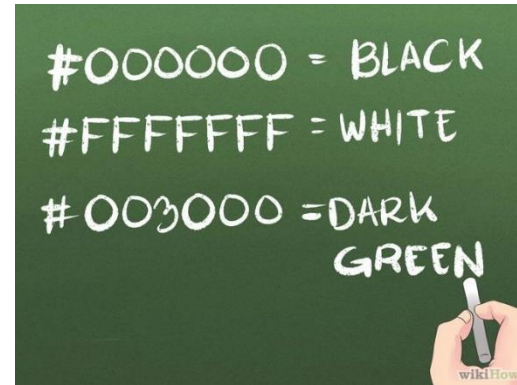
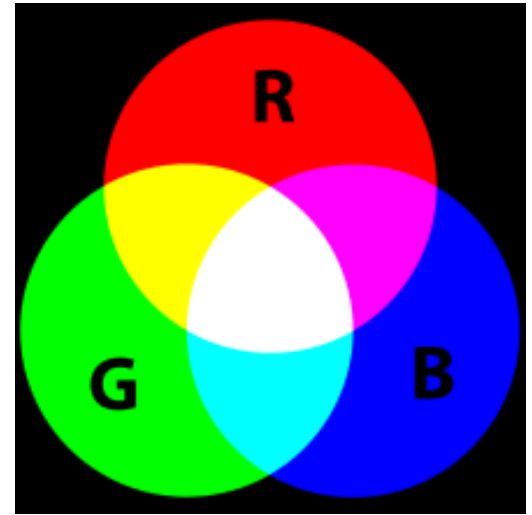
Time	Subject
8.30	Agenda and recap
8.45	Gestalt theory
9.25	Web page
9.40	Codeschool + Design as Science
10.00	Break
10.30	Gestalt on web + website
11.10	Presentation of mandatory assignment
11.20	Work on mandatory
12.00	Preparation for next time

Today's Agenda



Colours

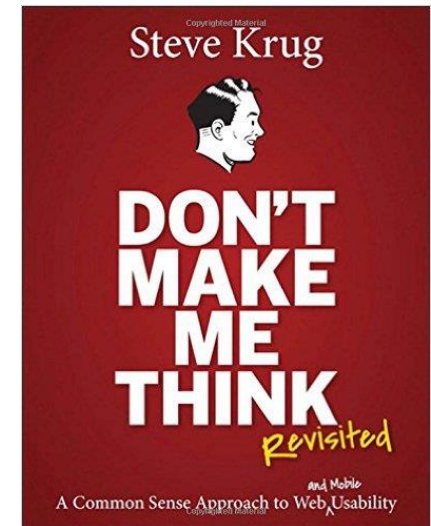
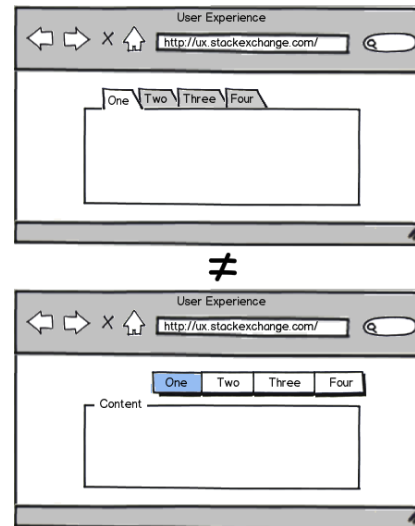
- Additive colour vs. subtractive colour.
- Hue, Saturation and Lightness.
- Colours are processed without ore focused attention and set a mood for us.
- Don't pick one colour - Build a colour scheme.
- Mono, Analogue, Complementary, and more.



What happened last time?

Navigation

- Find what you are looking for and where we are.
- What is here and what to do.
- Sends a signal about the creators and is a strong indicator of good design.



What happened last time?

This time:

Topic: Rules of thumb and gestalt principles to create composition.

Read / watch:

[Dikun] 11 min video on Layout – Must watch all three! [##](#)

[Johnson] Jeff Johnson – Designing with the Mind in Mind
Chapter 1 – 4: p. 1 – 50 on basic gestalt theory.

[Krug] Steven Krug – Don't make me think:
Chapter 1 – 4: p. 11 – 47 on basic design considerations.

Homework and preparation



The designer's neighborhood guide

Travel the world through the eyes of creatives.



Created by Hyperakt.
Curated by designers around the world.

New York

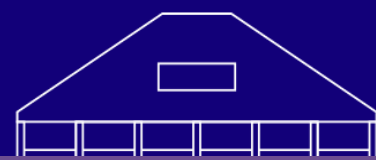
Ambassador: Hyperakt



Rotterdam

Ft. Lauderdale

Ambassador: Nick Rourke



Dallas

Ambassador: Drew Simel



Why Composition?



The Cooling plant app

The engineer of a cooling plant needs a better way of inspecting and managing the 4 cooling tanks (tank A, B, C, D) and the material inside.

It has been decided that a mobile app is the best solution. You are the team of programmers chosen to design the app and the interface.

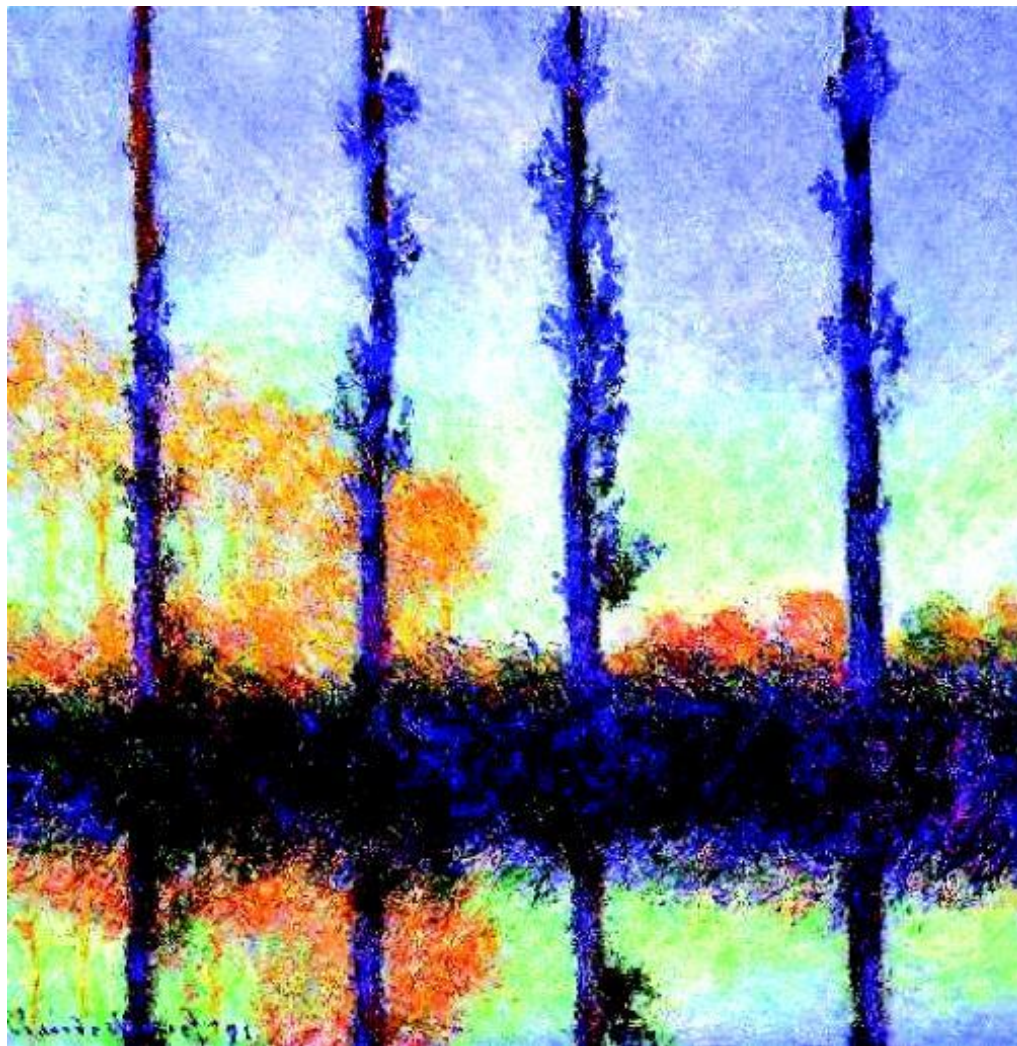
The main features include:

- *Inspecting and changing temperature.*
- *Viewing capacity.*
- *Transferring material between tanks.*

The engineer is always outside and on the move, walking around the tanks, moving to the top of the tanks, and even leaving the area to work elsewhere.



Exercise – Cooling plant App



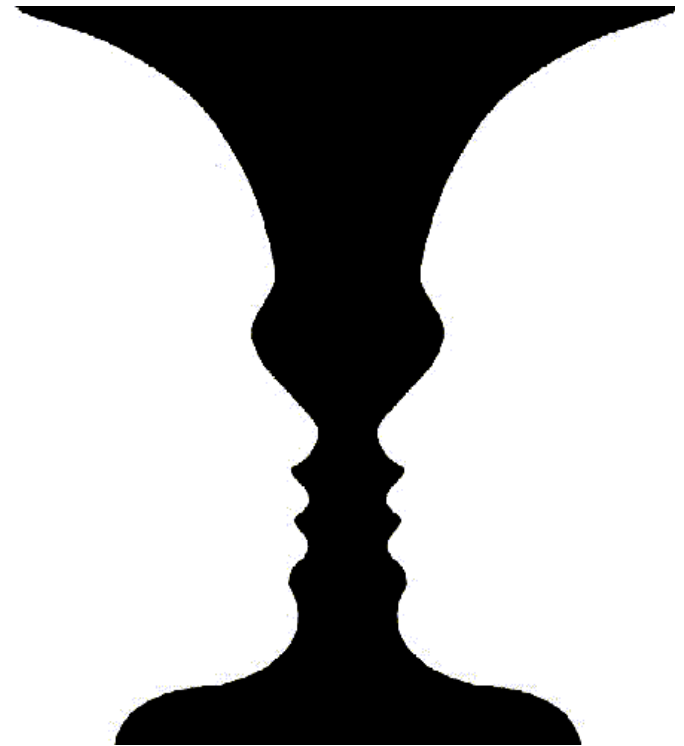
Gestalt Principles



What is the gestalt theory of visual perception?

Dos it work on everybody?

Can gestalt theory be applied when designing an interface? -
How?



Discussion



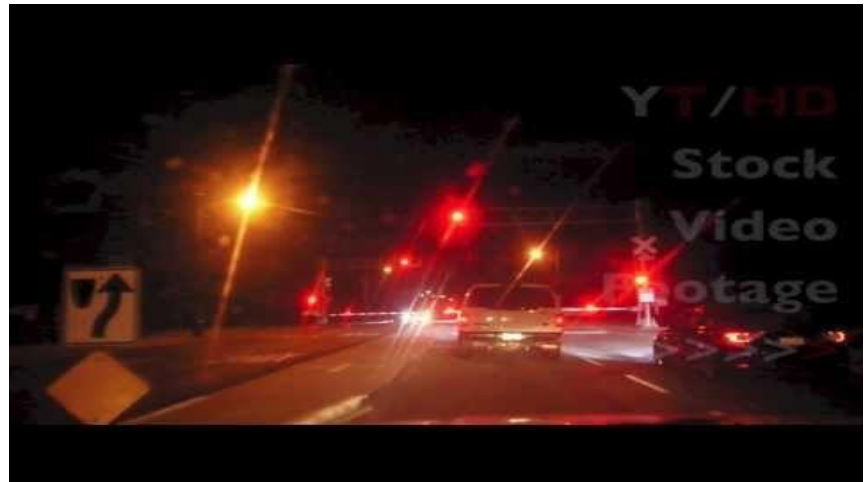
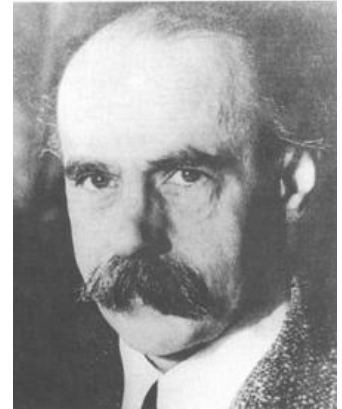
The gestalt theory of visual perception is:

The theory of how our brain structures visual objects in certain patterns.

Patterns that affect how we perceive these objects.

Also related to the Theory of the unified whole.

Max Wertheimer
Psychologist -1920-ish.



A bit of history

A definition:

“What is 'seen' is what appears to the seer and not what may 'actually be there'. The nature of a unified whole is not understood by analyzing its parts.”



The Unified Whole

Screens are two-layered affairs
(at least! Mirror, window, surface).

In everyday life the depicting surface is
virtually transparent. We see through it
and immediately grasp the represented
content, which is often also two-layered.

What is seen might not actually be there.



Gestalt Principles

Name the main principles and describe how they work

1. Proximity

5. Ground / Figure

2. Continuity

6. Symmetry

3. Similarity

7. Closure

4. Common fate

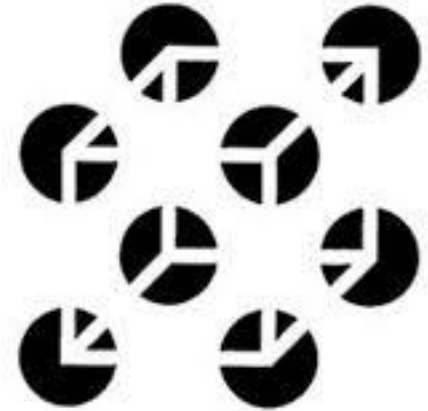
Grounping

The main principles



The main principles?

- | | |
|---------------|------------------|
| 1. Proximity | 5. Symmetry |
| 2. Similarity | 6. Figure/ground |
| 3. Continuity | 7. Common fate |
| 4. Closure | 8. ? |

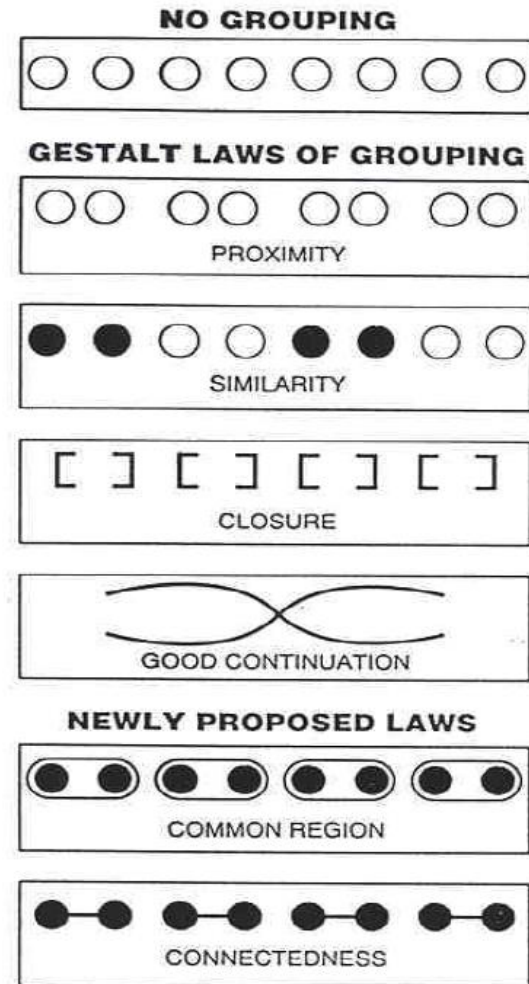


The main principles

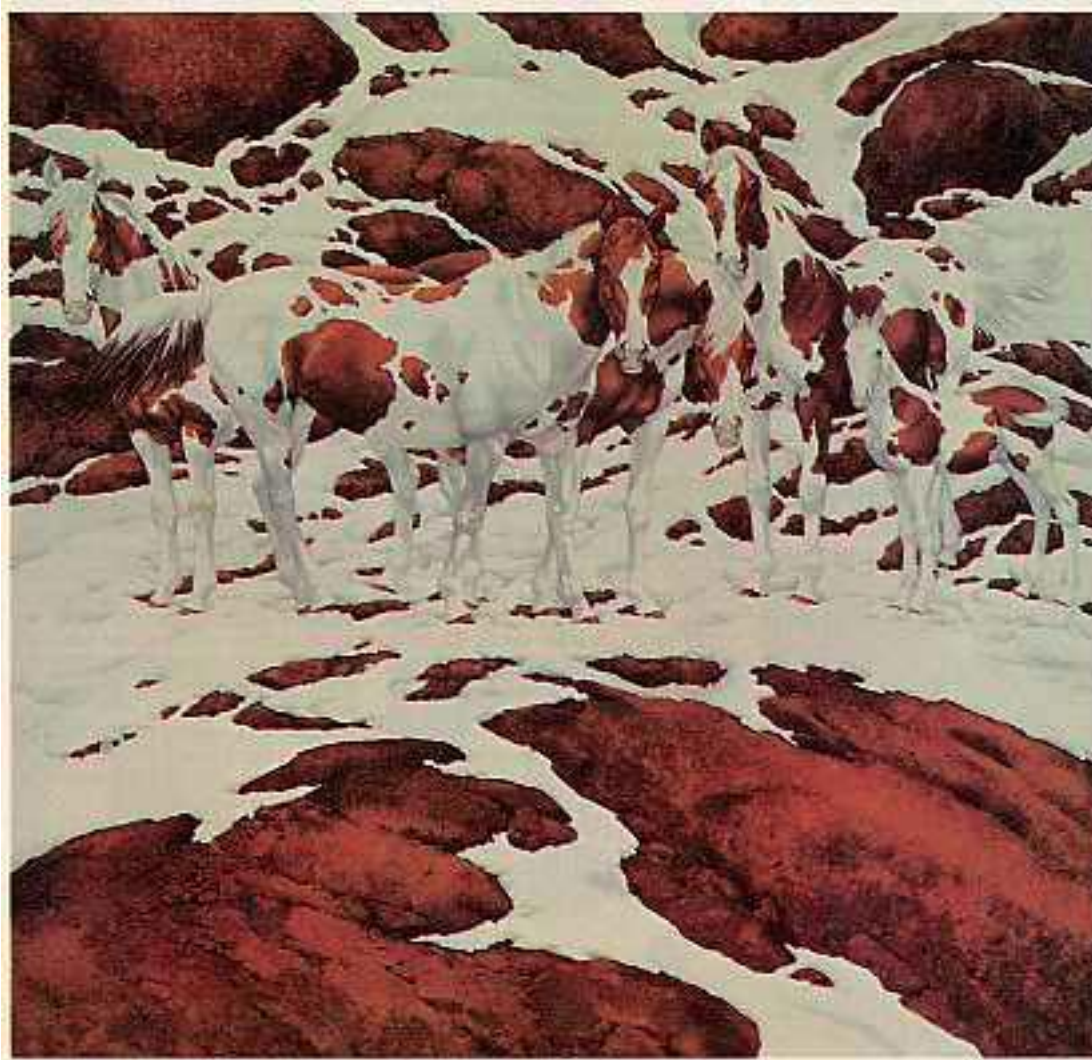


Principles of organization and Grouping.

All principles work towards grouping –
creating patterns of groups to
structure and ascribe meaning to our
perception.



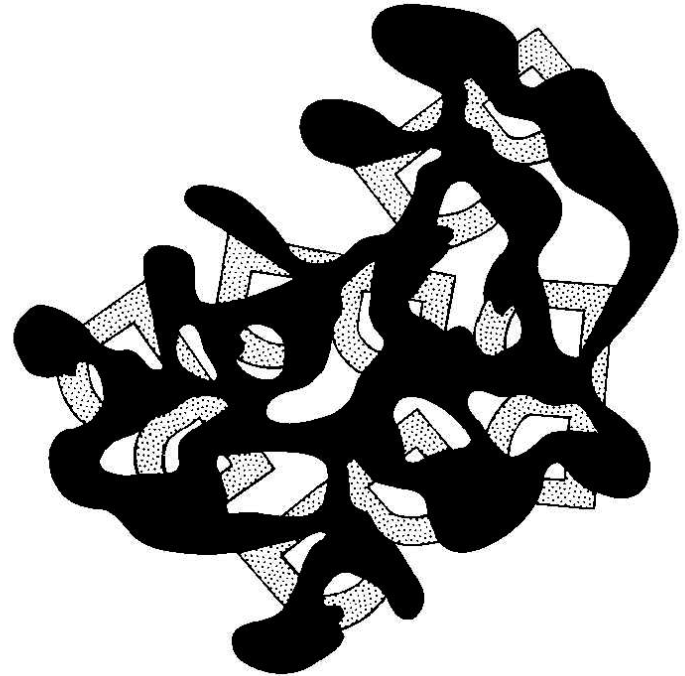
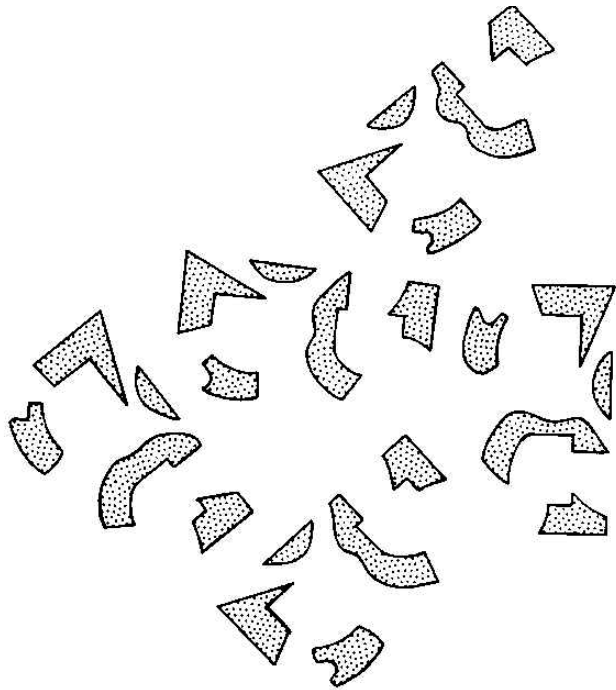
Grouping



Bev Doolittle

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AARHUS

Many (if not all) visual illusions have been constructed to show the existence of a low level rule of perceptual processing. Here is Bregman:



Bergman

If there is a conflict, often proximity prevails, but not always

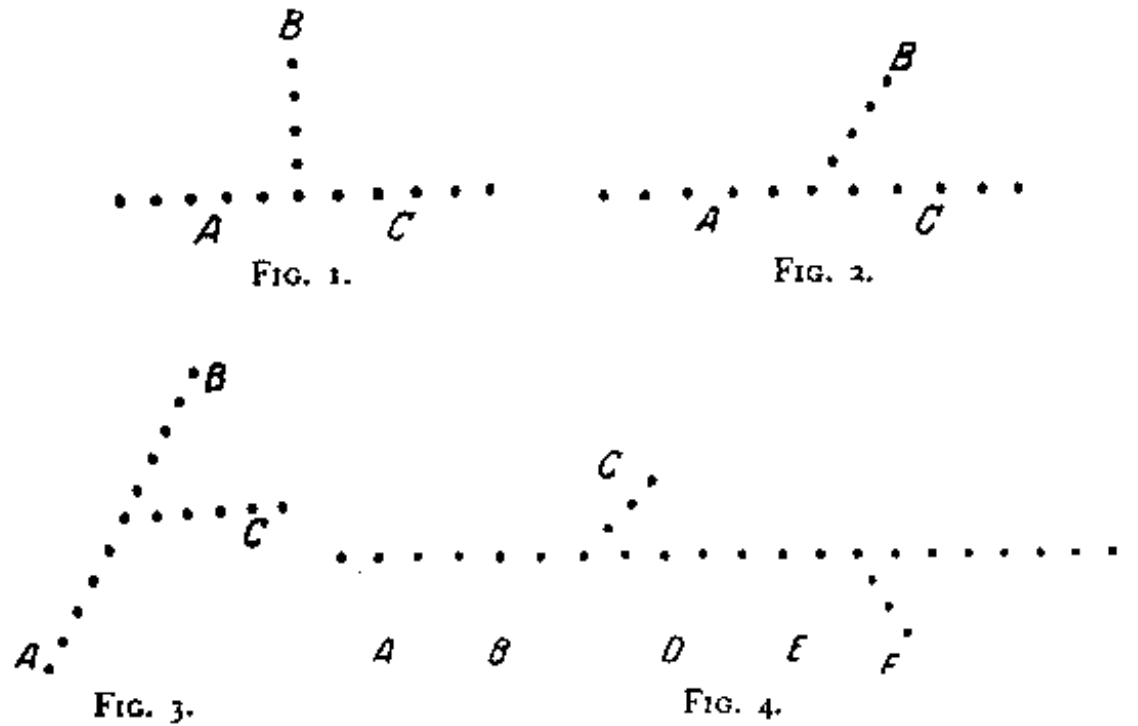
• ○ ○ • • ○ ○ • (xix)

○ • • ○ ○ • • ○ ○ • • ○ • ○ (xx)

Notice that, you don't just see two aspects of the same thing: you see two different things according to two different arrangements.

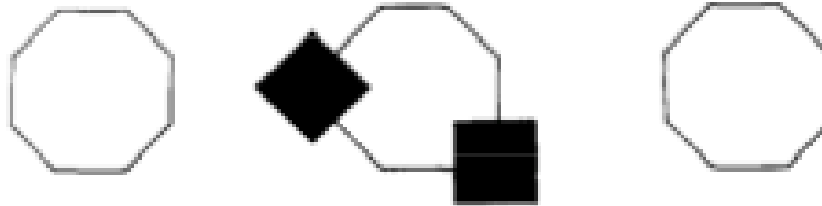
Laws may conflict

Continuity overrides proximity



Laws may conflict

Conflict between perception and conception



Even when primed as above, our visual system completes the figure in the middle as follows:



Conception



Non generic perspective by coincidence



A few extra



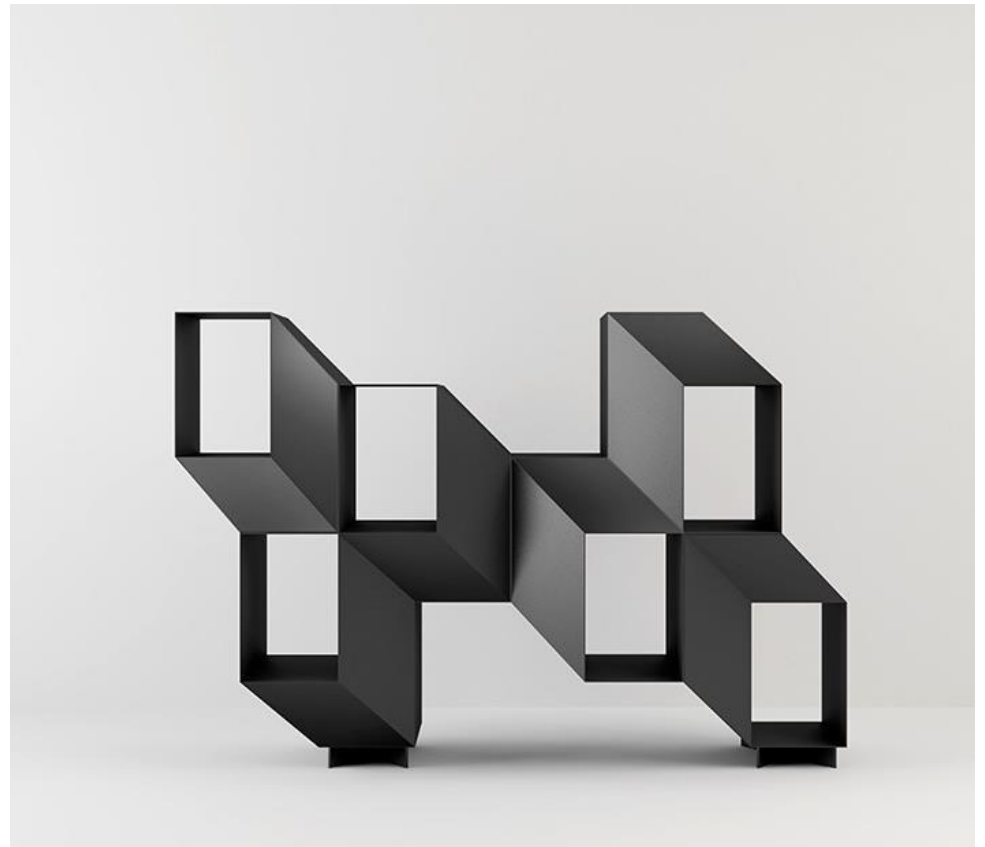




Non Generic Art

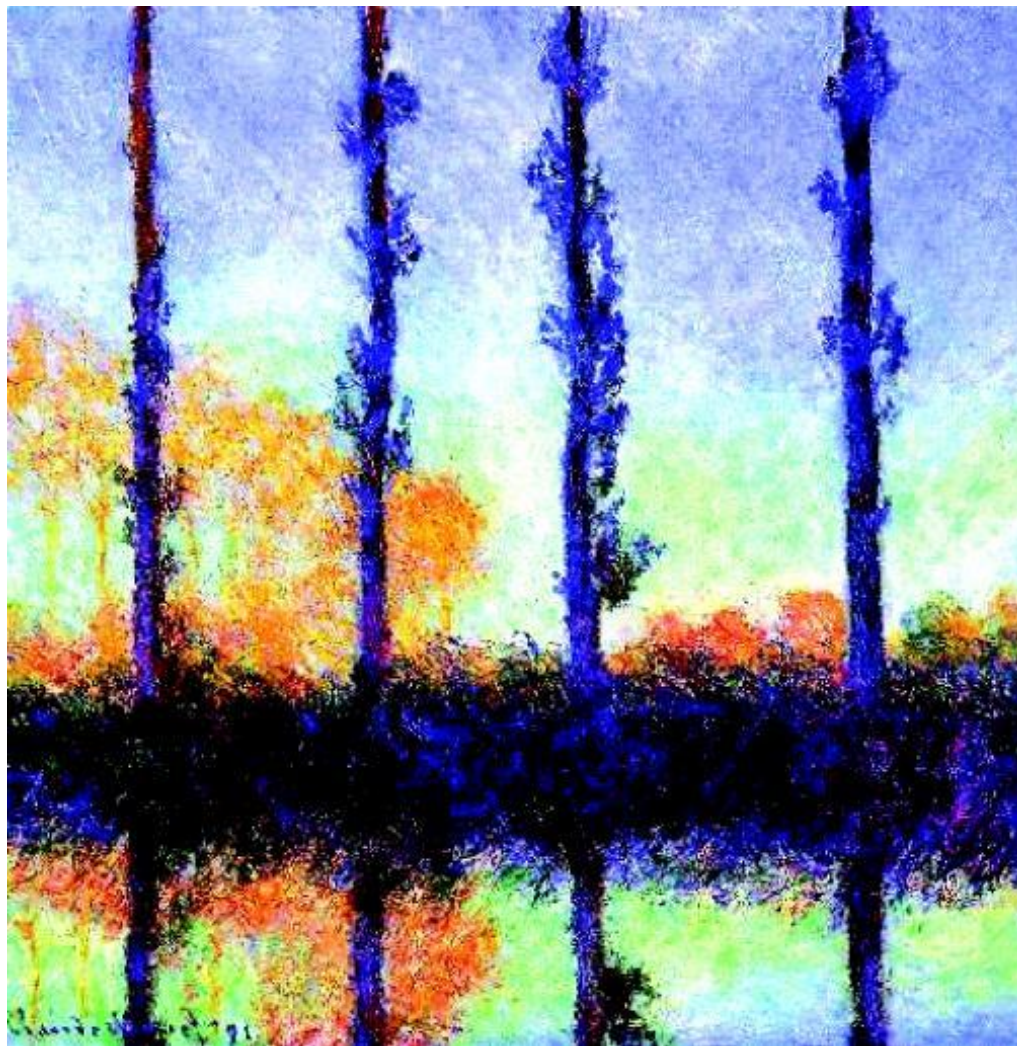






Gestalt Principles





Gestalt Principles





IN PIECES

30 SPECIES 30 PIECES

1 FRAGMENTED SURVIVAL

SELECT A PIECE FROM THE RING, OR
SELECT A **PIECE RANDOMLY**

A Webpage!!

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1. Gestalt principles. What principles appear strongest?
 - Can you describe the composition?
 - Find examples of each Gestalt principle according to Johnson.
 - Describe how they create a grouping effect.
2. What is this sites mission and goal? And how can you tell?
 - What industry does it belong to?
 - How does the gestalt composition support this goal?
3. Who are the sites users? How do you know?
4. Colour considerations and Typography
 - How do the colours support the content? How to they set the mood?
 - What does the fonts signify? What values do they carry?

A Webpage!!



LEVEL 3

Layout

3.1

BASIC LAYOUT

- ▶ Basic Layout
- Layout Principles I
- Layout Principles II
- Directional Cues I
- Directional Cues II

3.2

THE GRID

- ▶ The Grid
- Baseline Adjustments
- Grid Alignments

3.3

WHITESPACE & BALANCE

- ▶ Whitespace & Balance
- Whitespace I
- Whitespace II
- Symmetrical Layouts
- Asymmetrical Layouts
- Summary Challenge

[Check My Work](#)

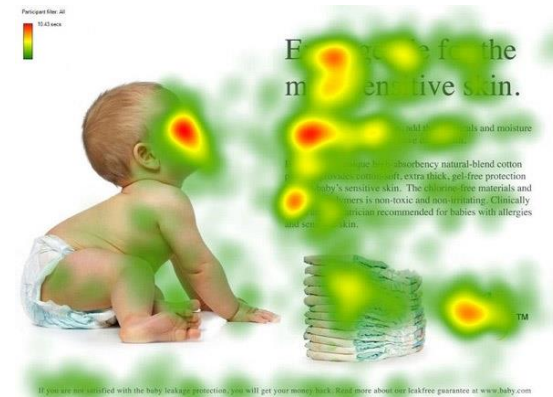
Do CodeSchool exercises

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Visual hierarchy

Content reinforces hierarchy

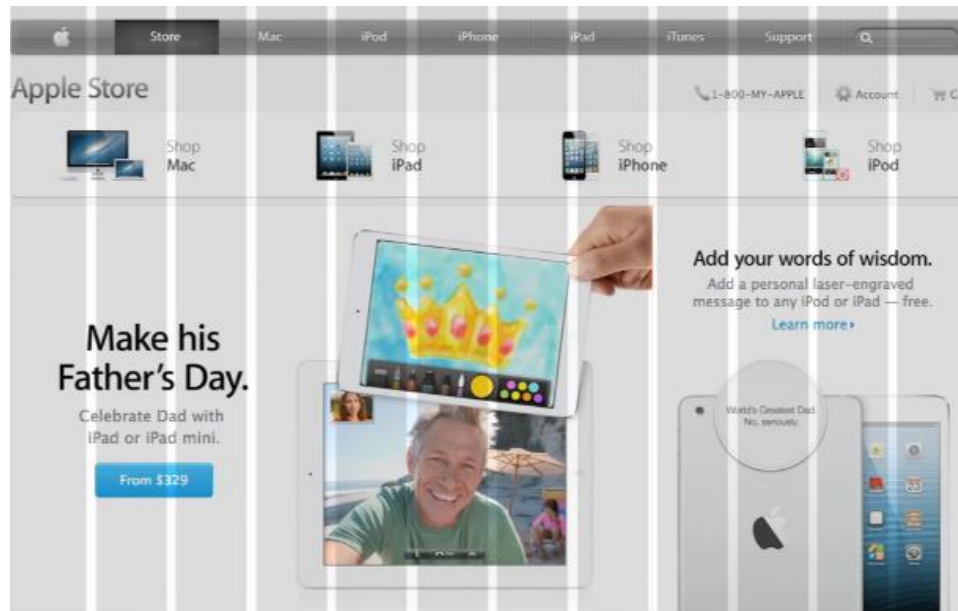
- Directional cues should point to the main content.
- Directional cues can be photos, arrows, colours or even just compositional (gestalt)



Code School

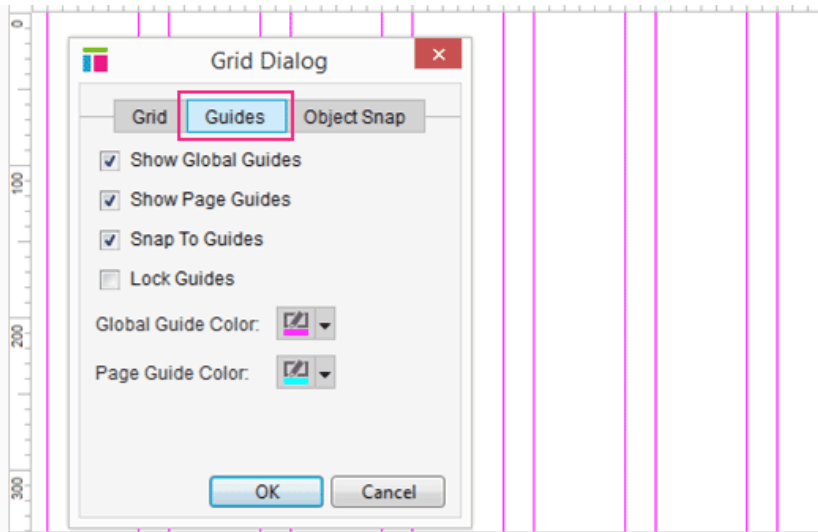
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The Grid system ensure a certain amount of compositional structure and harmony. Don't be limited by it. Don't box your design just because you use grids.



Code School

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Guide Settings

Show Global Guides: Toggles the visibility of Global Guides in your project

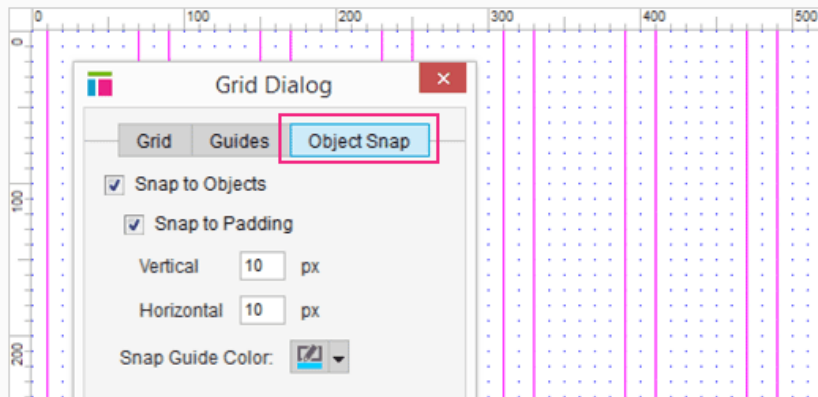
Show Page Guides: Toggles the visibility of Page Guides in your project

Snap to Guides: Toggles the snapping of widgets the guides

Lock Guides: Toggles ability to move guides on the design area

Global Guide Color: Changes color of Global Guides

Page Guide Color: Changes color of Page Guides



Object Snap Settings

Snap to Objects: Toggles the snapping of widgets to the edges of other widgets

Snap to Padding: Toggles the snapping of widgets to a defined pixel width surrounding other widgets

Vertical: Sets the vertical padding which widgets will snap to

Horizontal: Sets the horizontal padding which widgets will snap to

Grids in Axure

Why are widows a problem according to the gestalt laws?

The image shows a screenshot of the Code School website. At the top, there is a navigation bar with the Code School logo and a user profile icon. Below the navigation bar, the main content area is titled "Widow Removal I" with a green checkmark icon. The instruction reads: "Adjust only the headline's size to eliminate the widow." To the right of this instruction is a button that says "Use a Hint". Below the instruction, there is a preview of a text layout. The headline "The Brothers of Harlem Dance to Music" is highlighted in yellow. Below the headline, there is a paragraph of text: "Video games aren't made to last. The vast majority of floppy discs aren't readable by today's computers. Hardly a year goes by before another online game disconnects its servers, closing its doors to faithful players. Small teams of independent developers release their titles on digital marketplaces without any physical copies to accompany them." To the right of the main content area is a sidebar with two sections: "LAYERS" and "TYPOGRAPHY". The "LAYERS" section shows a preview of the headline with a large 'T' icon and the text "HEADLINE The Brothers of Harlem Da..". The "TYPOGRAPHY" section shows the font family set to "Times New Roman" and the font size set to "36px".

Code School

Widow Removal I

Adjust only the headline's size to eliminate the widow.

Use a Hint

The Brothers of Harlem Dance to Music

Video games aren't made to last. The vast majority of floppy discs aren't readable by today's computers. Hardly a year goes by before another online game disconnects its servers, closing its doors to faithful players. Small teams of independent developers release their titles on digital marketplaces without any physical copies to accompany them.

LAYERS

HEADLINE The Brothers of Harlem Da..

TYPOGRAPHY

Times New Roman

36px 1.0

Code School

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Elements of Design

from **matt greenwood** PLUS 1 year ago | more



+ Follow

▶ 377K ♥ 9,198 📺 468 💬 96

Share

Animation & Design - Matt Greenwood - mattgreenwood.tv

Music by Proem - proemland.com

More from matt greenwood

Autoplay off



Elements of D
from matt green



Foundry Proj
from matt green

Design as Science?

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- Line
- Plane
- Rhythm
- Balance
- Scale
- Texture
- Framing
- Grid
- Color
- Transparency
- Layers
- Symmetry
- Pattern
- Negative space
- Point
- Rules
- Randomness
- Hierarchy Contrast
- Composition
- Typography
- Harmony
- Tension
- Movement
- Space

Design as Science.



“Design is not a science. Just move things around until it feels right”?

Why is it right/wrong?

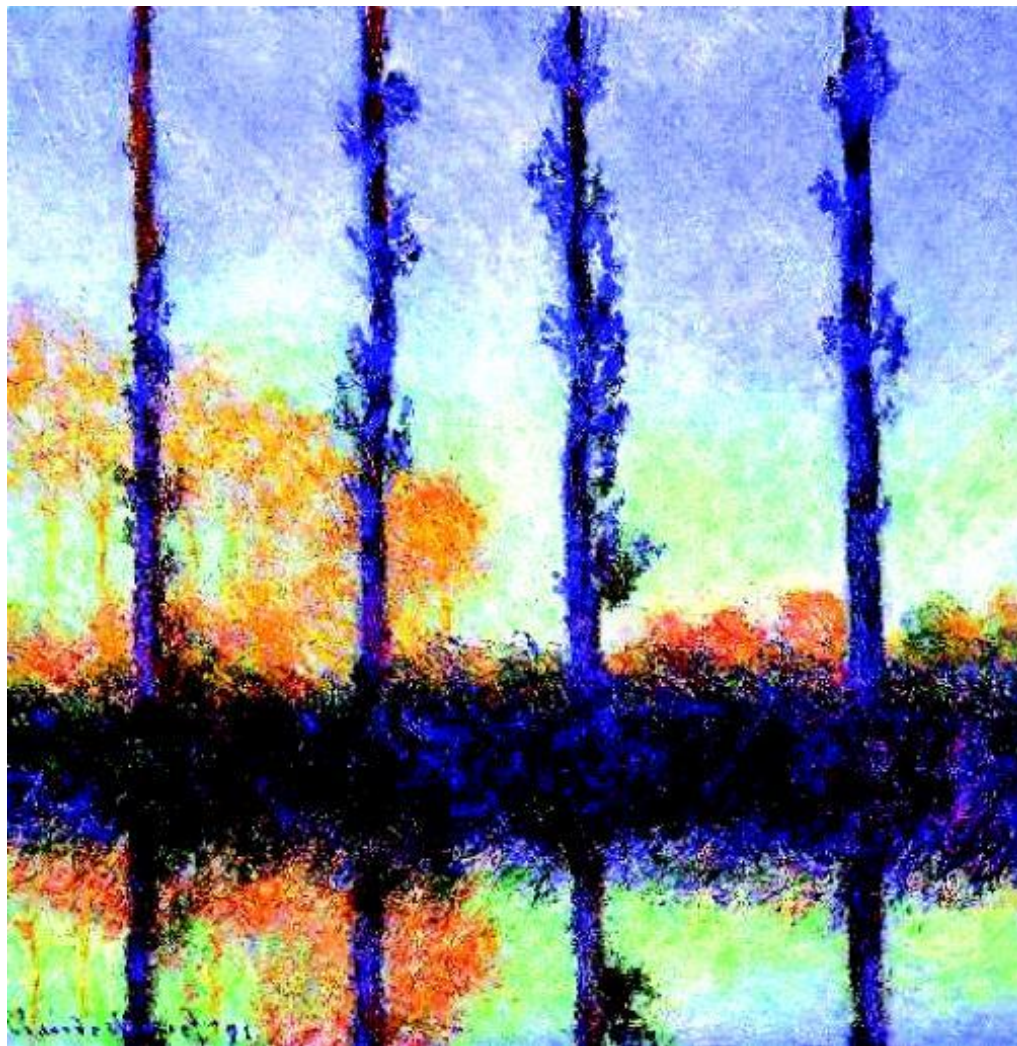
1. The demonstration shows that design is a science. A systematic building and organizing of knowledge which can be tested. A body of knowledge that can be rationally explained and reliably applied.
2. We use Laws of Gestalt Theory in our work (Applied Science).
It is a Sciences of Perception.
3. Like all science, the better and more you know and understand the higher the chance that your work will be a success.

Design as Science!



Break – 30 minutes



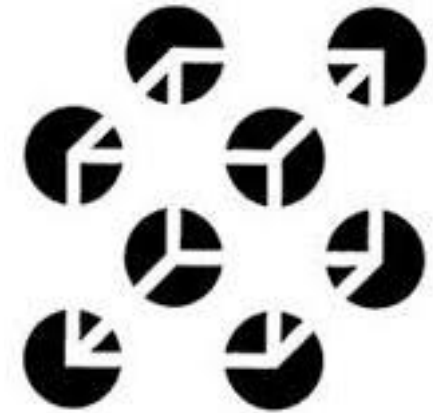


Gestalt Principles



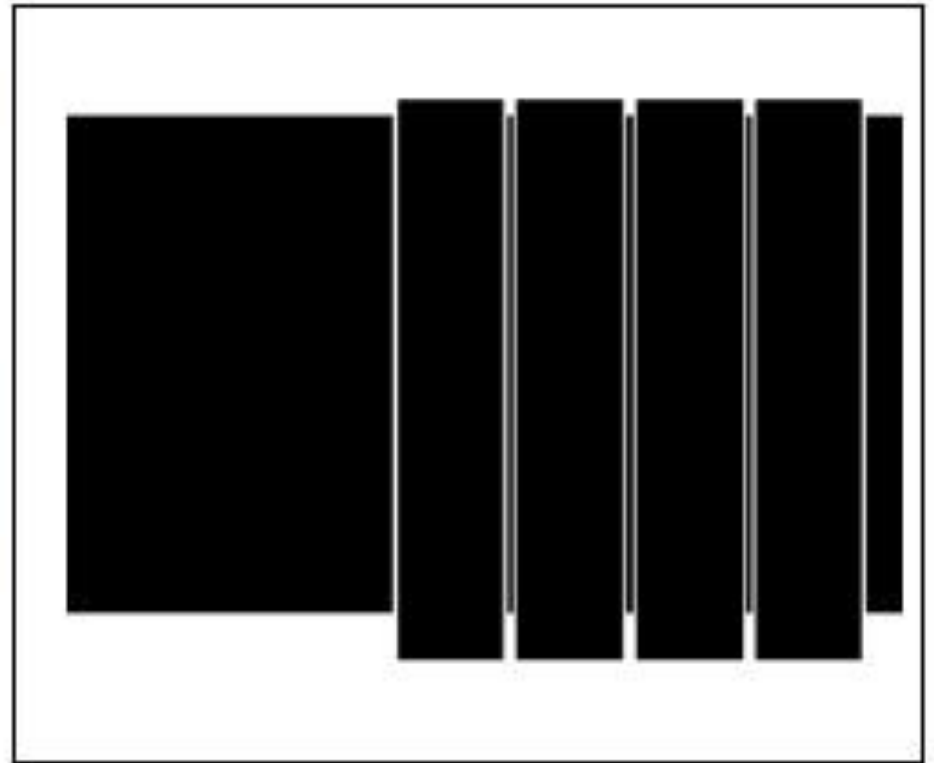
The main principles

- | | |
|---------------|---------------------------|
| 1. Proximity | 5. Symmetry |
| 2. Similarity | 6. Figure/ground |
| 3. Continuity | 7. Common fate |
| 4. Closure | <u>N. Grouping</u> |

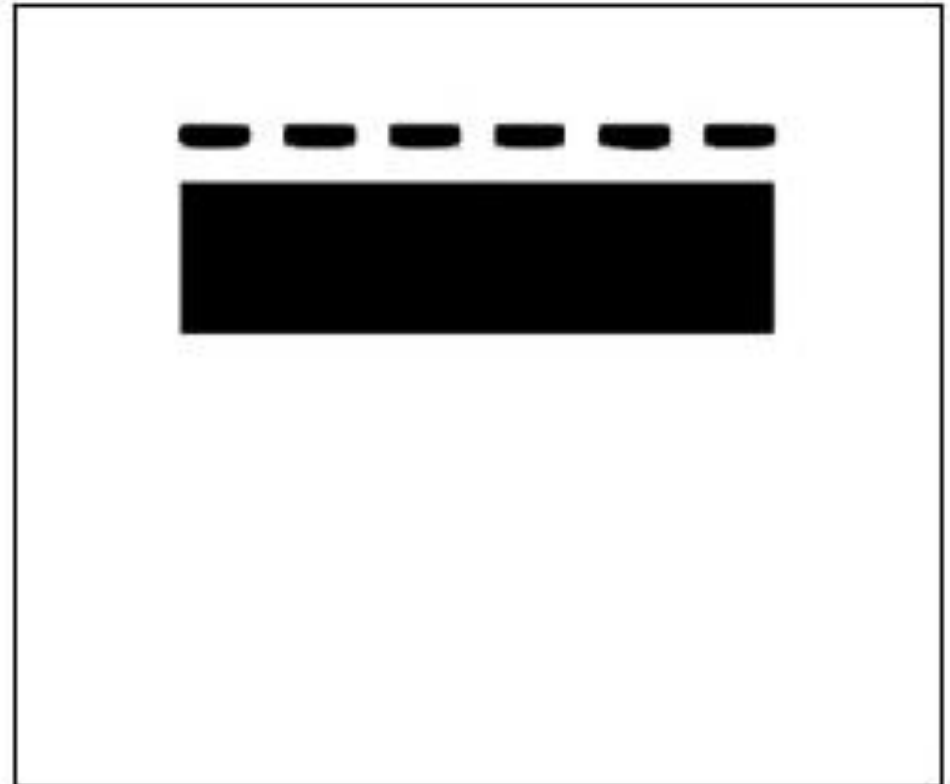


The main principles



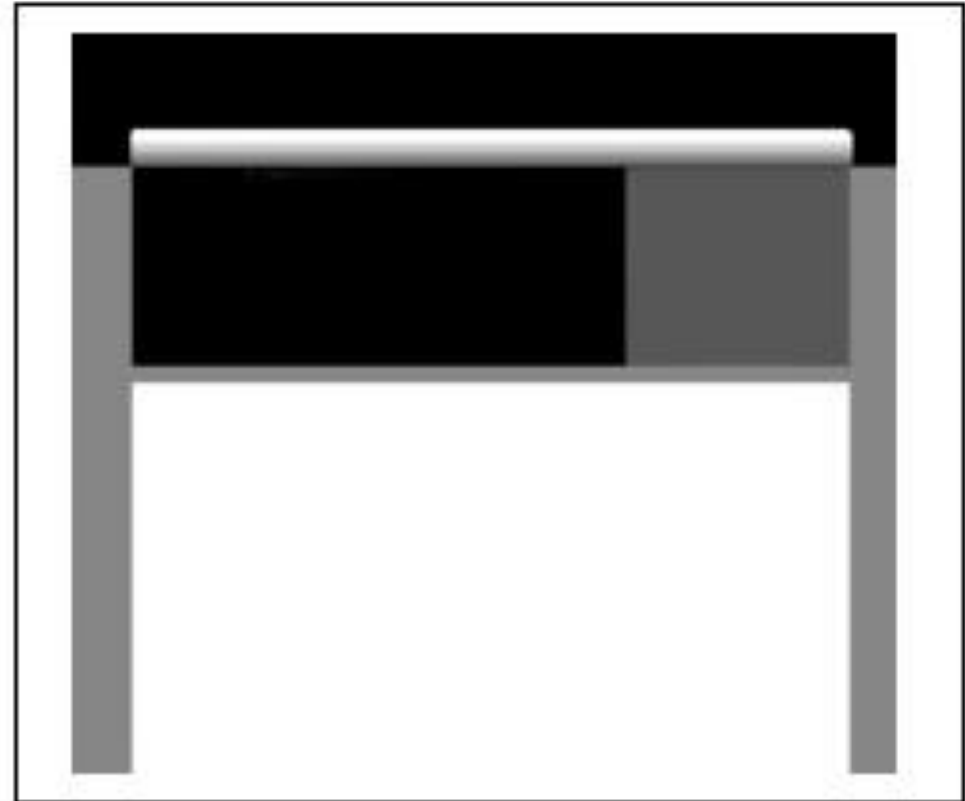


Gestalt on webpages

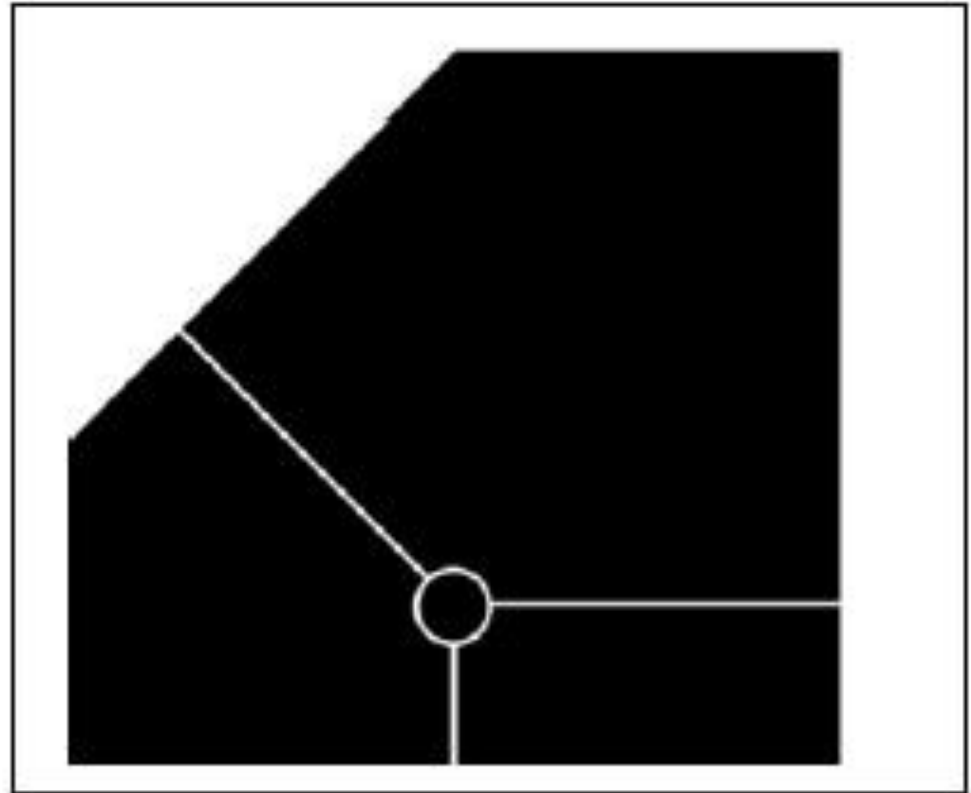


Gestalt on webpages

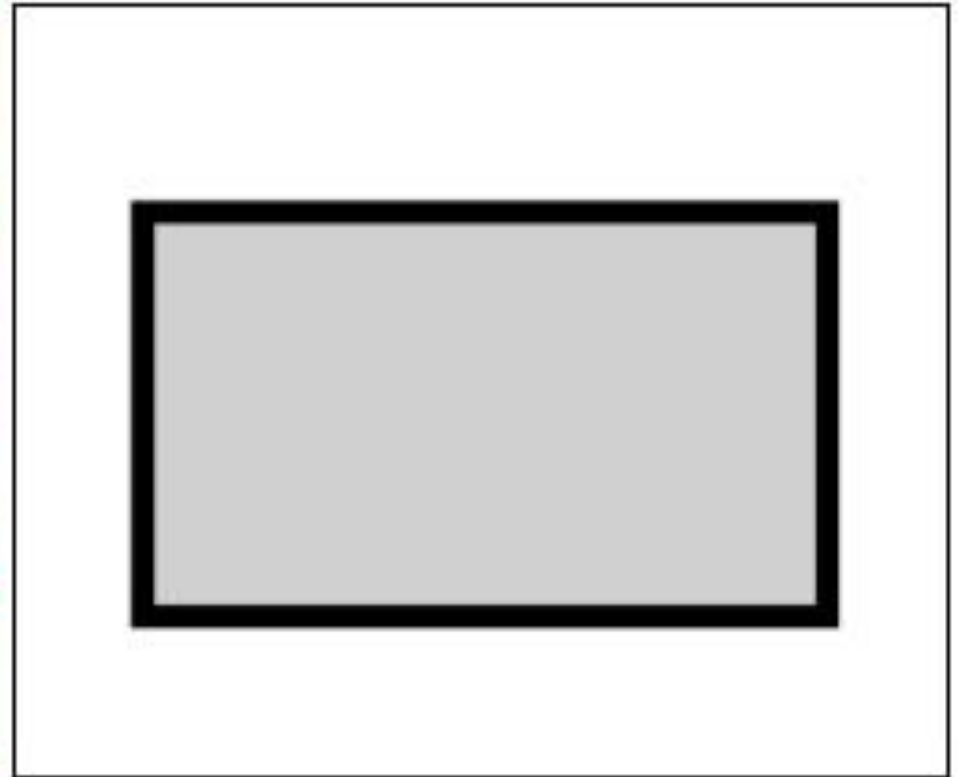




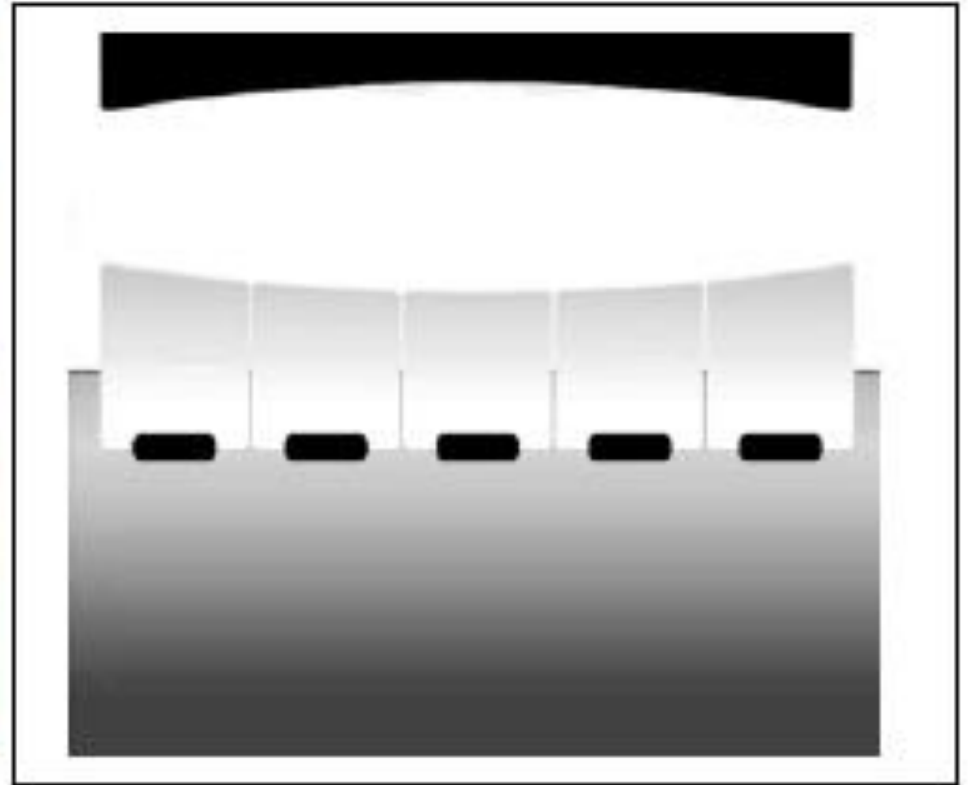
Gestalt on webpages



Gestalt on webpages



Gestalt on webpages



Gestalt on webpages

Always start with the container - the overall structural shell of a design!
Forget the details and individual components for now.



Starting with content will lock the shape in to place.

Tips for working with Gestalt



Work in groups of two and identify gestalt silhouettes on the following pages:

Make a black and white sketch and present it next to the site, as you saw in the examples. Use grayscale to indicate importance.

<http://owltastic.com/>

<http://www.shell.co.uk/>

<http://www.kino.dk/>

<http://edition.cnn.com/>

<http://www.chillicon.se/>

Sometimes it helps to
look at the screen
from a distance!

Exercise

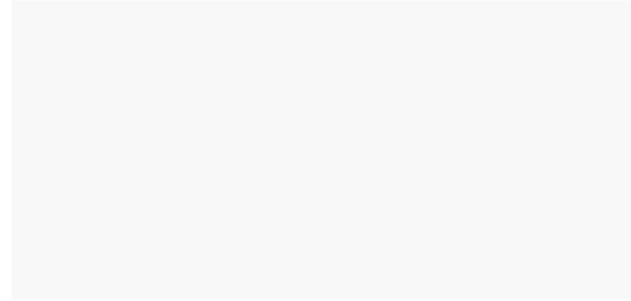
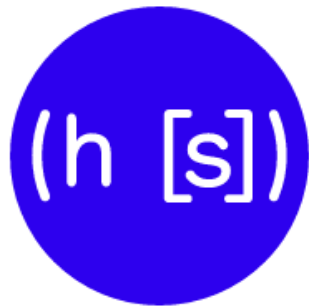
Show and tell

With two people from another table!

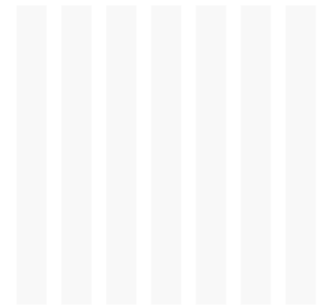
Did you see the same patterns?

What did you make?





HyperScience is
an artificial
intelligence
startup.



We're currently

A webpage!

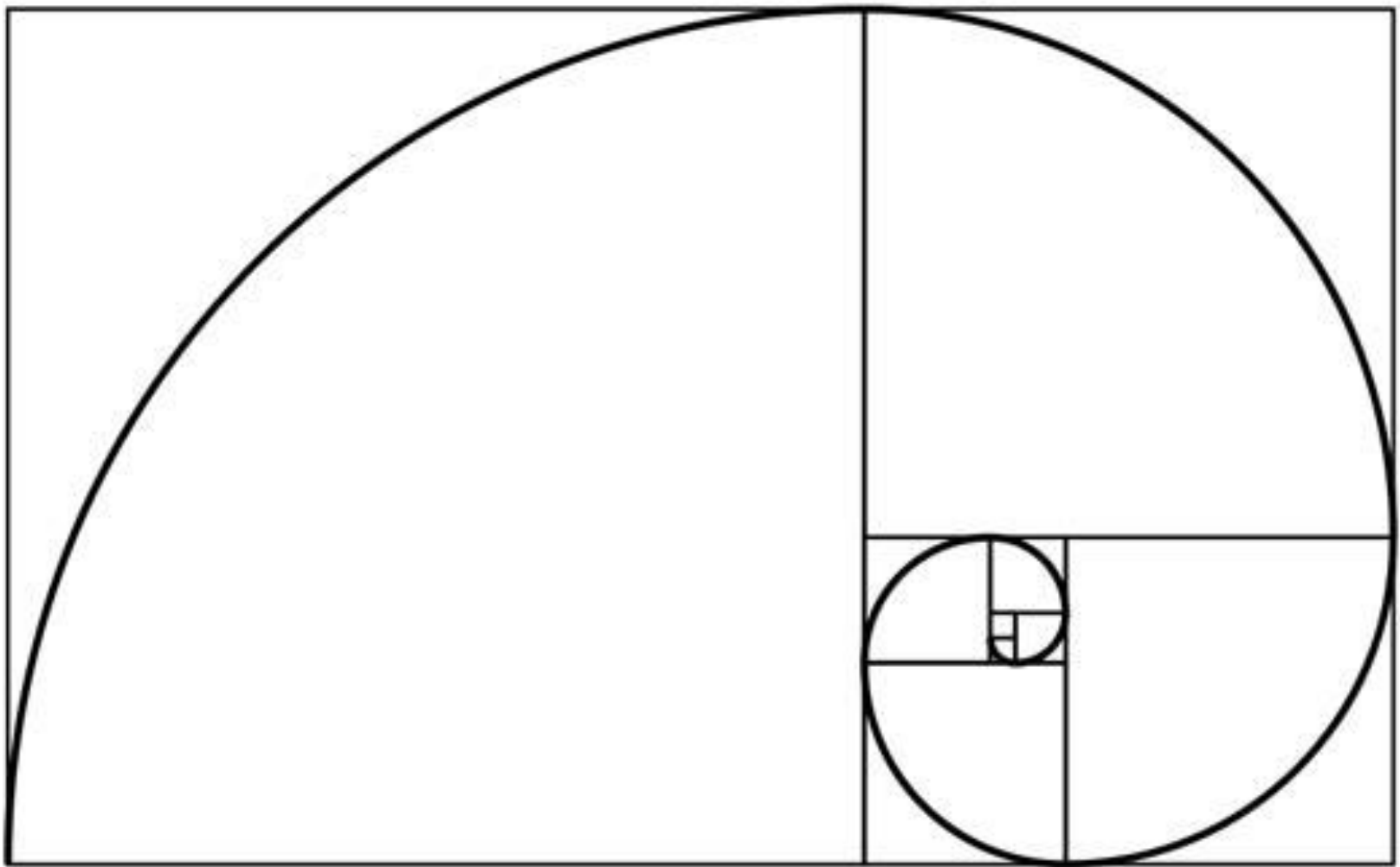


1. Gestalt principles. What principles appear strongest?
 - Where does grouping happen? Can you describe the composition?
2. What is this sites mission and goal? And how can you tell?
 - What industry does it belong to?
 - How does the gestalt composition support this goal?
3. Who are the sites users? How do you know?
 - Age, gender, salary, origins, hobbies, motivations?
4. Colour considerations and Typography
 - How do the colours support the content? How to they set the mood?
 - What does the fonts signify? What values do they carry?

We're currently

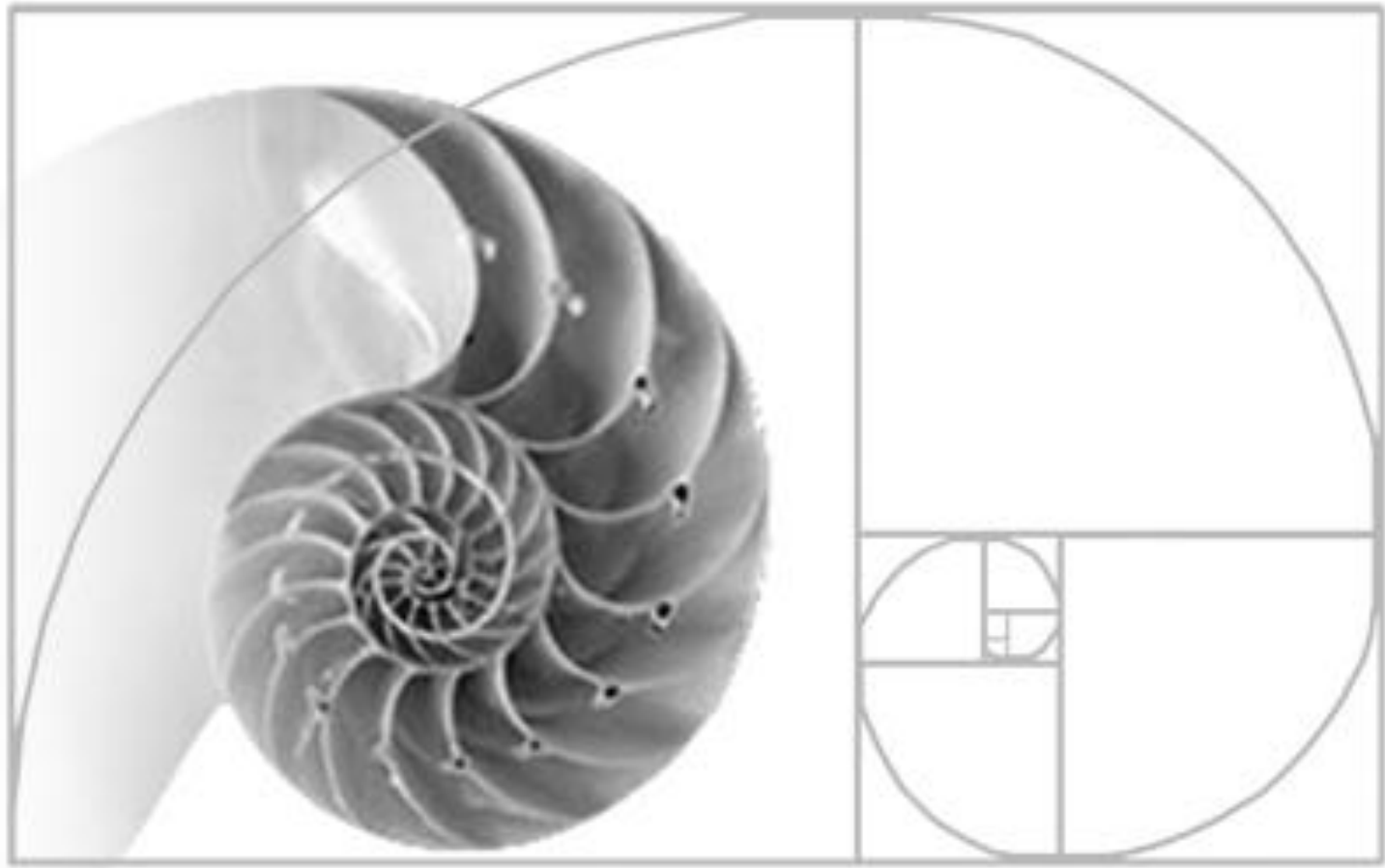
A webpage!





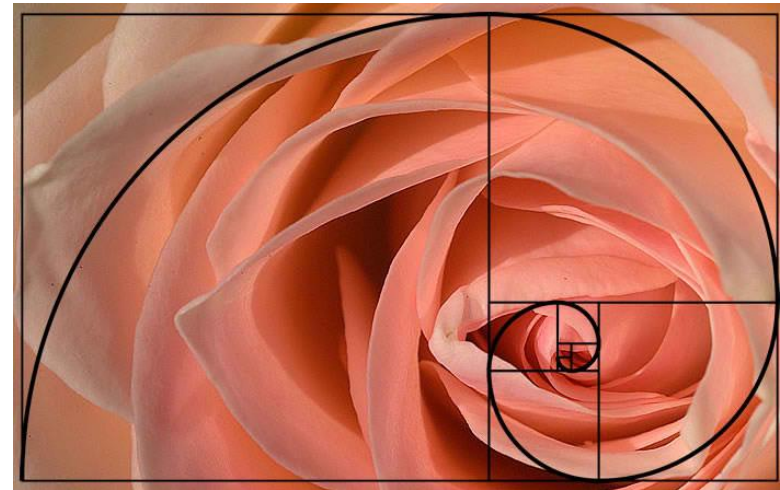
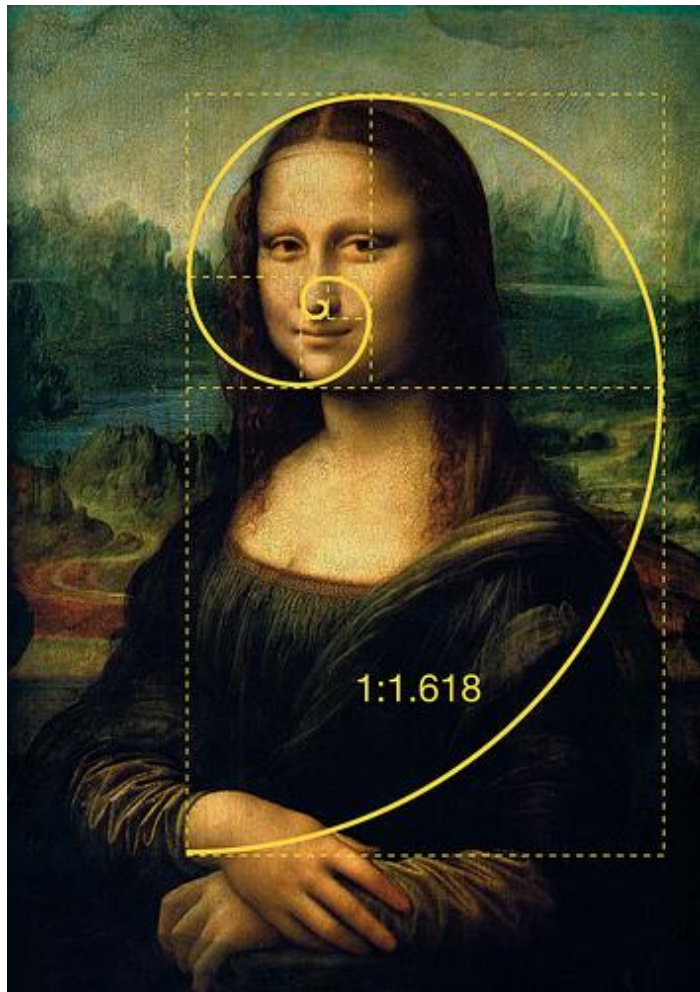
The Golden Ratio

$$\frac{a}{b} = \frac{a+b}{a} \quad \text{or} \quad 1.618$$



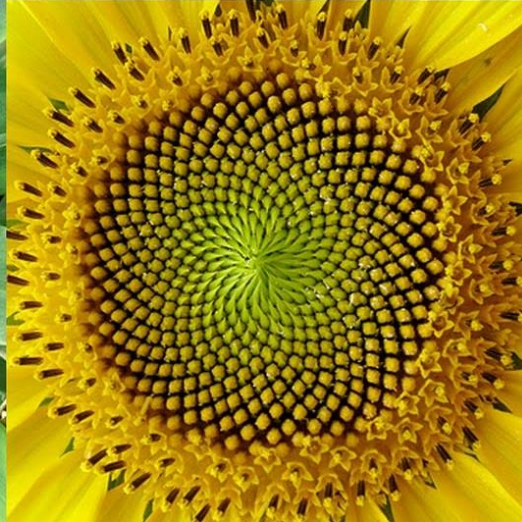
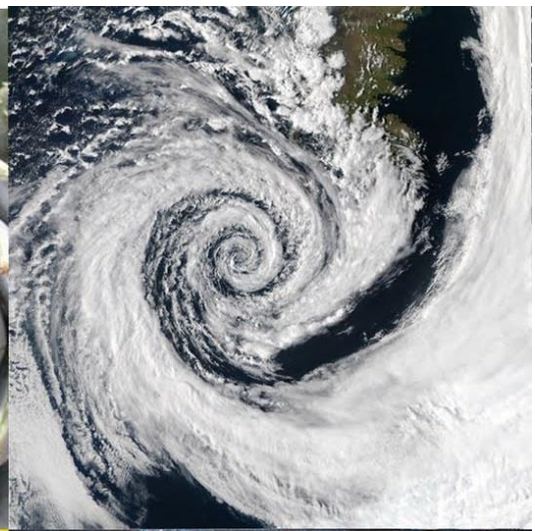
The Golden Ratio

$$\frac{a}{b} = \frac{a+b}{a} \quad \text{or} \quad 1.618$$



The Golden Ratio

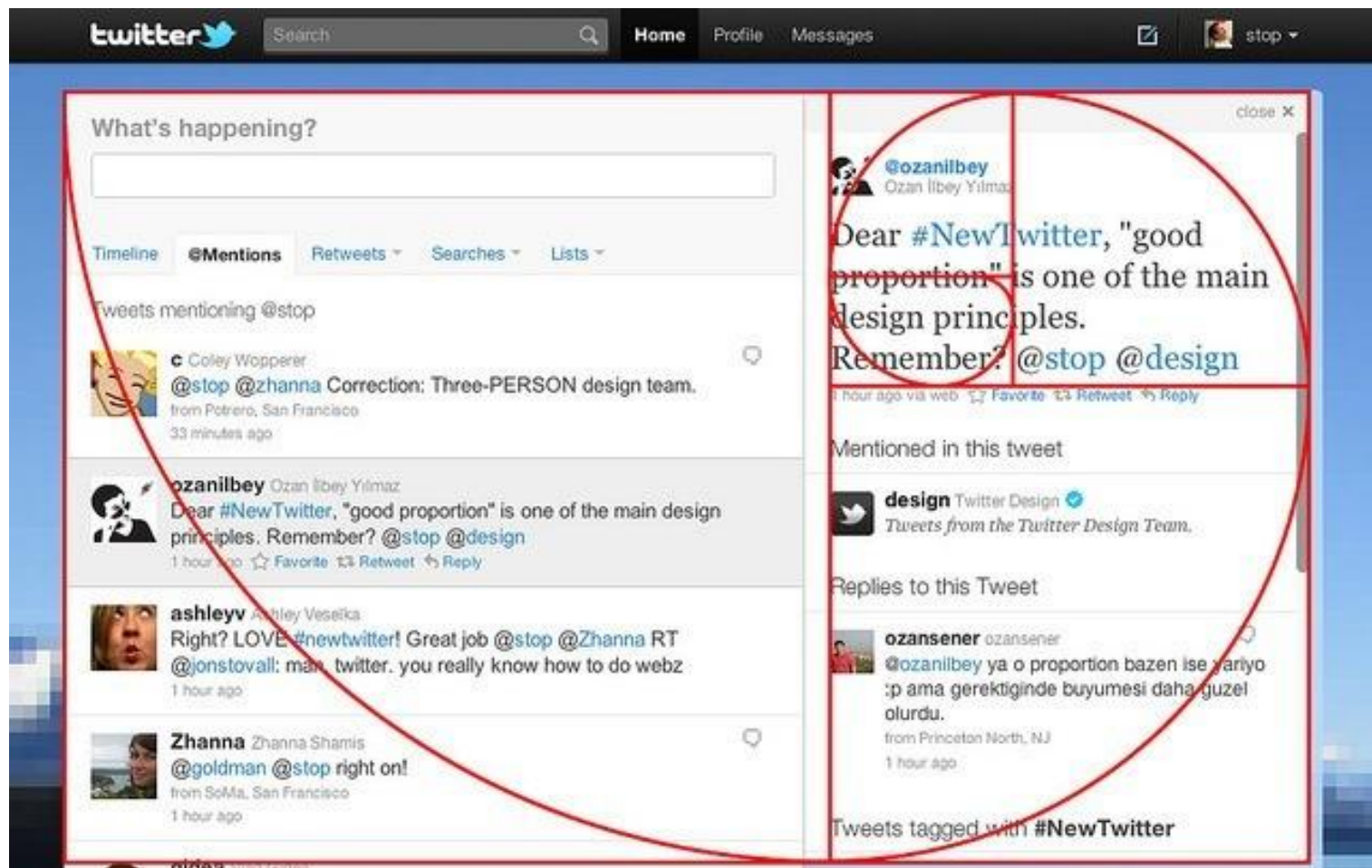
$$\frac{a}{b} = \frac{a+b}{a} \quad \text{or} \quad 1.618$$



The Golden Ratio

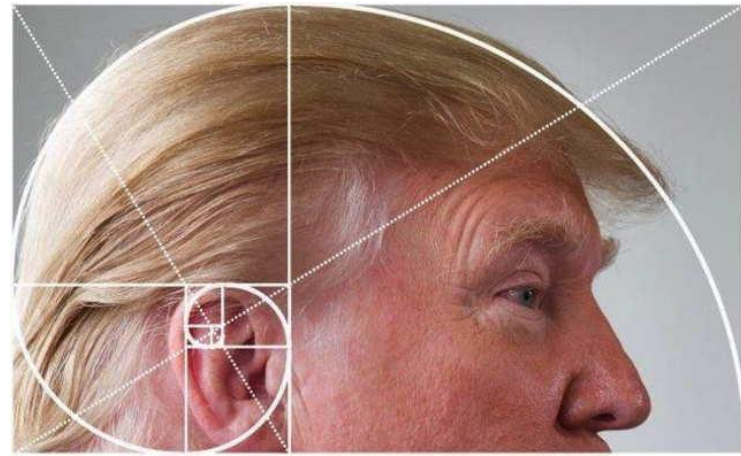
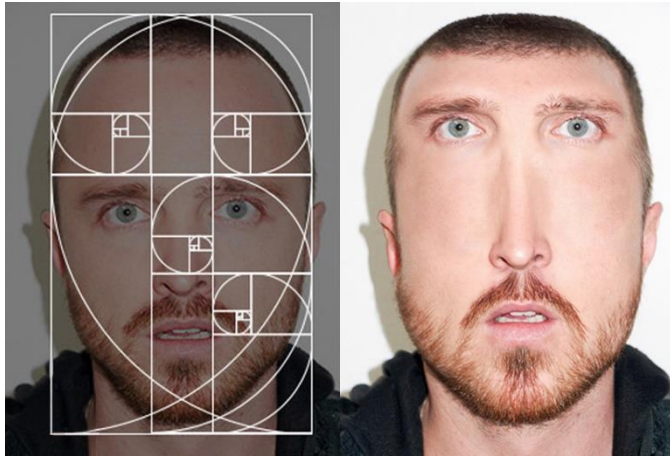
$$\frac{a}{b} = \frac{a+b}{a} \quad \text{or} \quad 1.618$$





The Golden Ratio

"We're creatures who are genetically programmed to see patterns and to seek meaning" – even if there is non.



"They are victims to their natural desire to find meaning in the pattern of the universe, without the math skills to tell them that the patterns they think they see are illusory." – Keith Devlin prof. math.

The Golden Ratio

Create a style guide

This exercise will be part of the mandatory assignment. Work individually, but share ideas and thoughts.

Start out by deciding on attributes of your target group:

- **Audience:** Age, gender, cultural niche.
- **Tone:** Casual, friendly, formal, fun.
- **Purpose:** Information, conversion, conversation.

Headline Text

B-Head (Or Sub-Head) Text

Nav Item 1 | Nav Item 2 | Nav Item 3

This is body copy. Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris nisi ut aliquip ex ea commodo consequat.

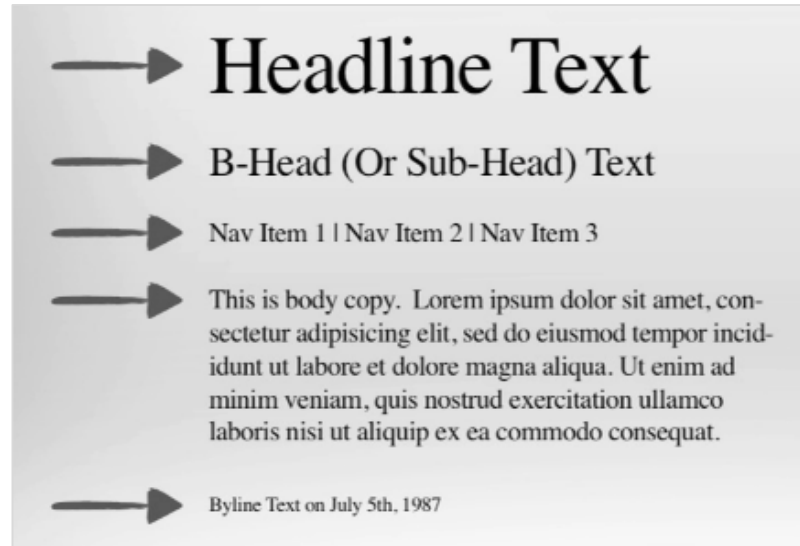
Byline Text on July 5th, 1987

Exercise – Style Guide

Create a style guide

Using your typography cheat sheet, decide on:

- Headline
- B-head
- Navigation
- Body
- Byline



IMPORTANT: Write down an explanation as to why you made these choices.

Exercise – Style Guide

Make a colour scheme to add to your style guide for the mandatory assignment.

Make sure to present each Style guide with:

1. Clear and distinct examples of all the colours:

- #code and CMYK-code for each.
- A description of where, when and why.
- Simple example or mock-up with colour.



2. Clear and distinct examples of all fonts:

- Get the name right and provide link.
- A description of where, when and why.
- Simple example or mock-up with font.



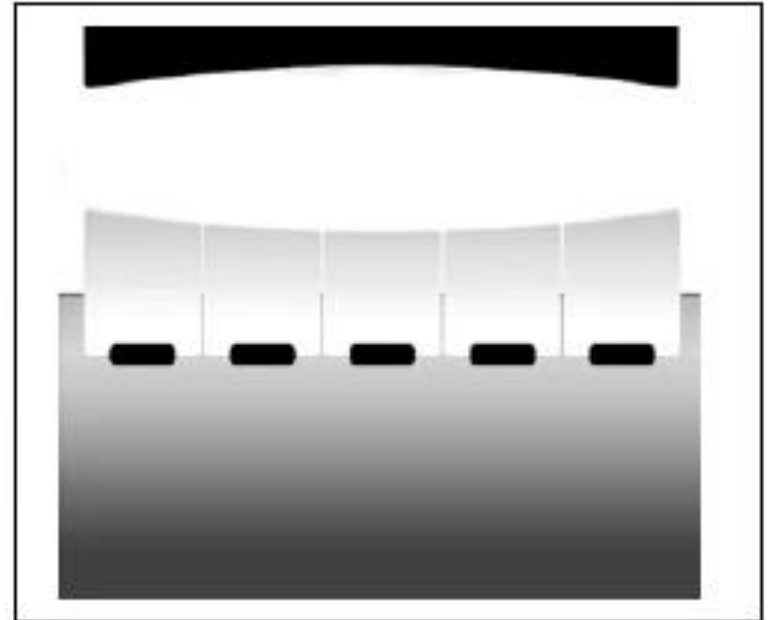
Colours of you

Make a gestalt sketch

1. Make a **gestalt sketch of the composition**

2. Write a description of:

- Which gestalt principles are dominant in your layout?
- How do they support grouping and why did you use it here?
- What effect/meanings are you supporting with you choices?



Colours of you



Before you start designing your app and writing your report remember two things:

First: The Burger Menu Icon is overrated.

Second: You will fail - if you write: “The burger menu icon consists of proximity, similarity and symmetry and therefor I have applied gestalt rules in my project”

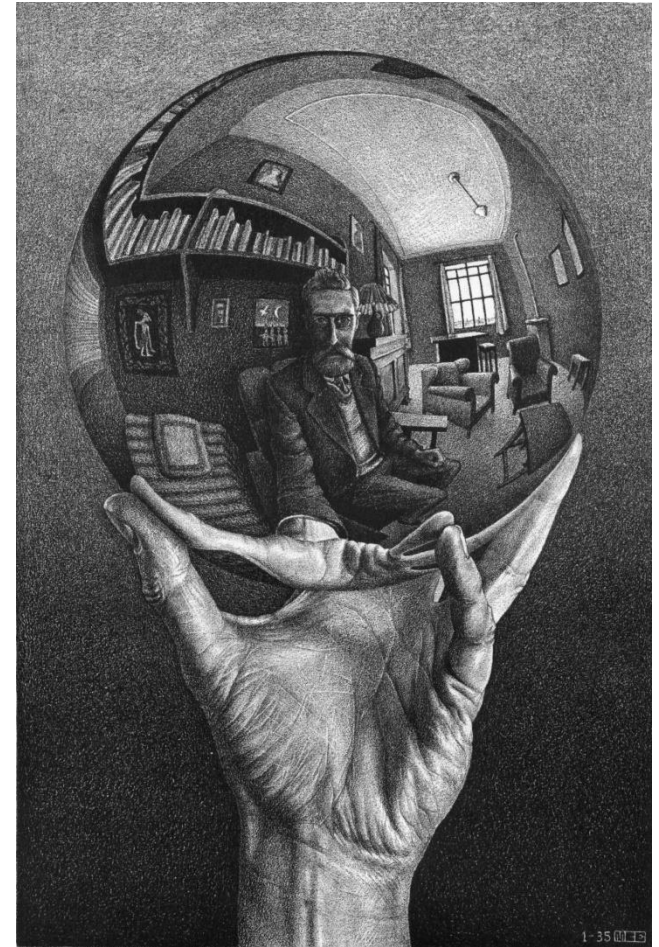


The Burger Menu



Composition and Gestalt

- Principles include:
 - Proximity, Similarity, Continuity, Closure, Symmetry, Figure/ground, Common fate
- The main principles are about bringing elements together and create a meaningful grouping effect.
- Balance and Harmony in any interface rests on a well made composition.
- Visual cues must support the main content.
- Start with a gestalt sketch to shape the site.
- The golden ratio.



What happened today?

Next time:

Topic: Moving beyond the basics. Why beautiful (simple) things work better.

Read:

[Dixon] p. 5 – 36. On not over doing it.

[Krug] Chapter 9. Pages 111 – 141 On usability testing for the smart.

[Krug] Chapter 11 + 12. Pages 165 – 181 On what to do next?!

[Norman] Beautiful things work better.

Homework and preparation

