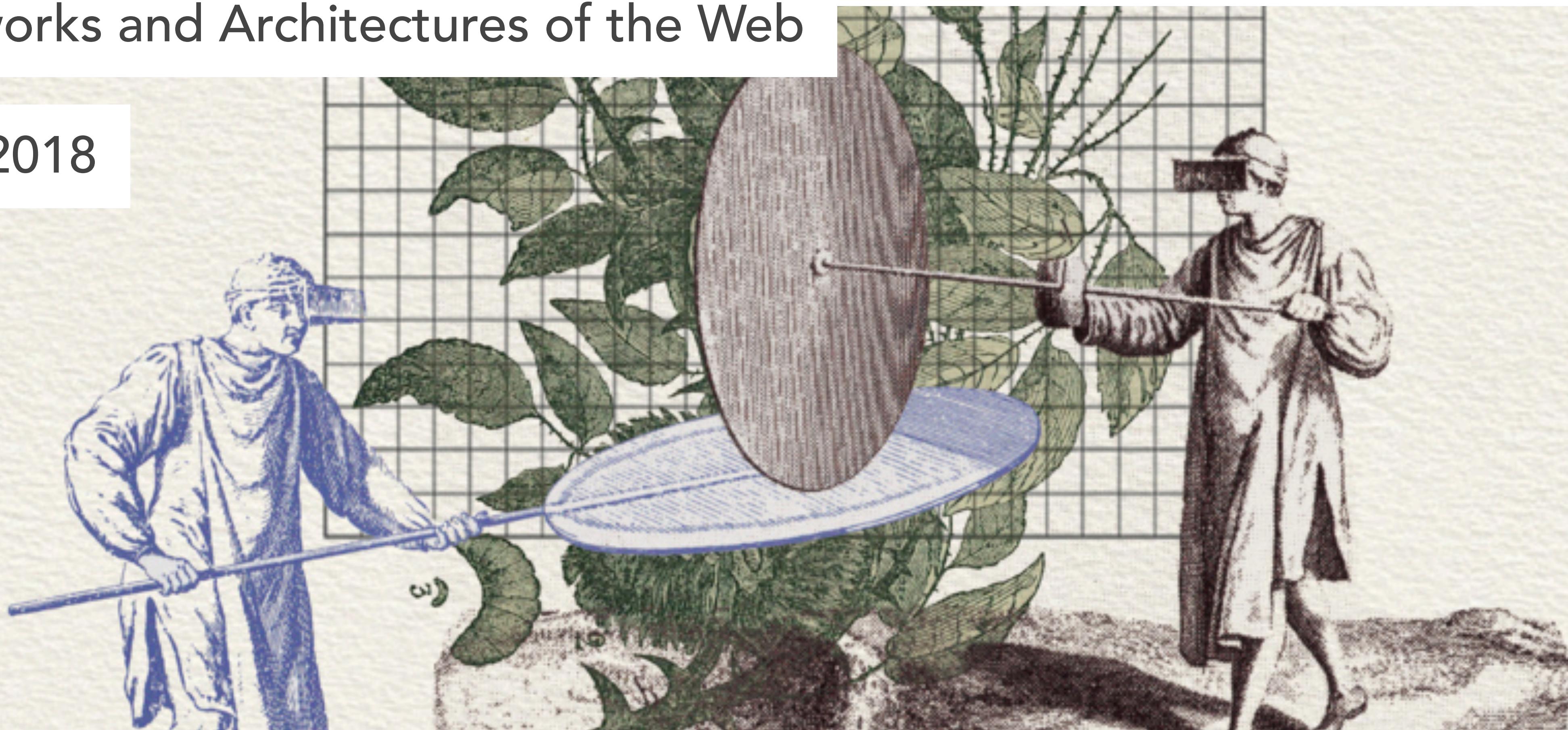


Interface Principles, Design Patterns and Aesthetics

Frameworks and Architectures of the Web

Spring 2018



Today's Program

Introduction to the “Enspire” case study

Visual Perception and Gestalt Principles

Design Principles

Break

Demonstration of Design Tools

Exercises

eNSPIRE

- Orange Evening
DWIG
Big Tales

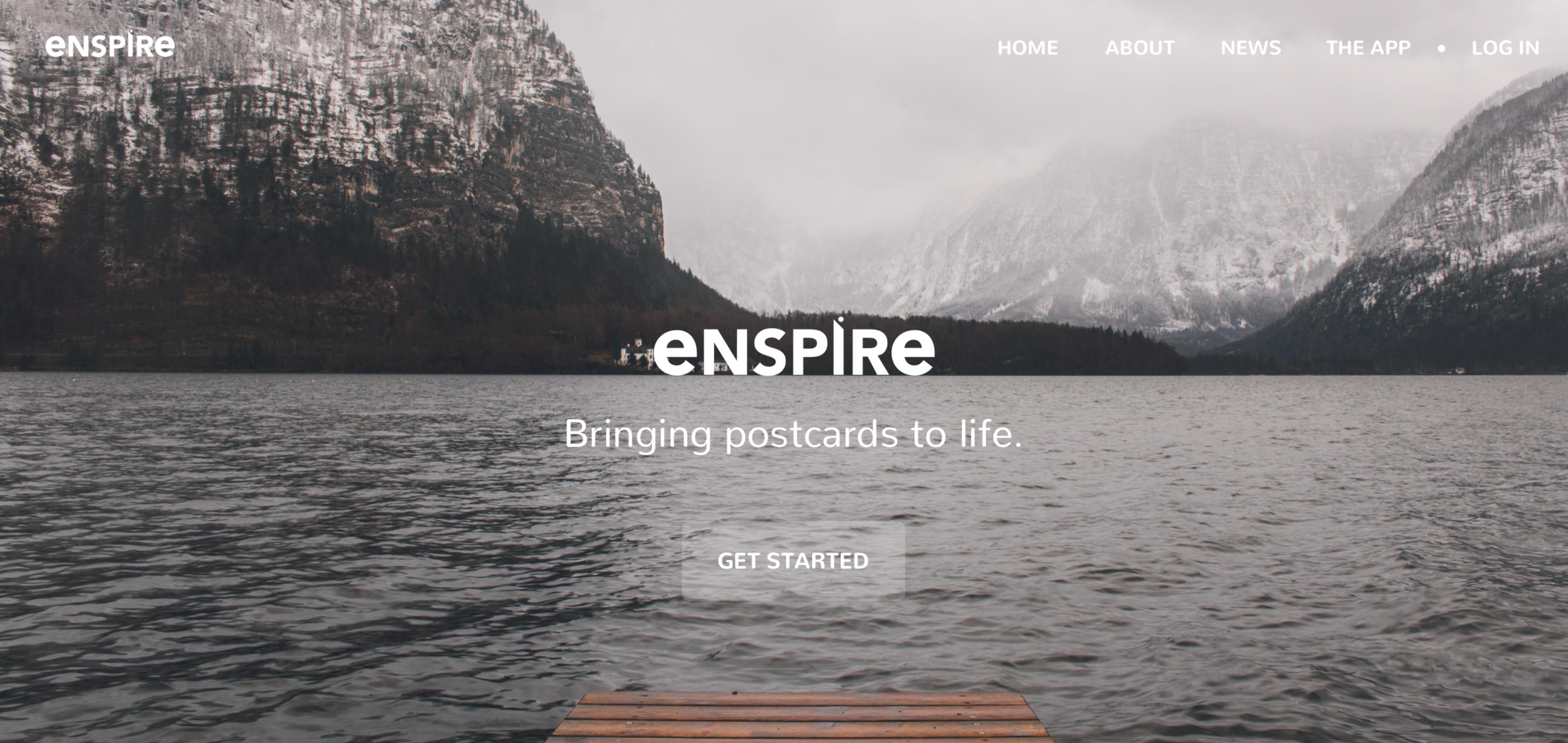
Course Outline

Foundation

Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
Introduction, HTML Syntax, Structure and Semantics	Interface Principles, Design Patterns and Aesthetics	HTML and CSS Preliminaries	CSS Layout & Positioning	Mobile and Responsive Design, Forms and Data Validation	Introduction to JavaScript	Document Object Model and Events in JavaScript	CSS3, Graphics and Media and Advanced JavaScript
Web Project - Design, Wireframes and Interactive Prototype						Web Project - Implement	

A wide-angle photograph of a serene landscape. In the foreground, a dark wooden dock extends from the bottom center towards the middle ground. The middle ground is filled with the calm, dark water of a lake. In the background, several majestic, rugged mountains rise against a hazy, overcast sky. The mountains are covered in dense forests of dark evergreen trees, with patches of white snow clinging to their upper slopes. The overall atmosphere is peaceful and inspiring.

eNSPIRE



eNSPIRE

HOME ABOUT NEWS THE APP • LOG IN

eNSPIRE

Bringing postcards to life.

GET STARTED



Our imagination is boundless.
And so is yours ...

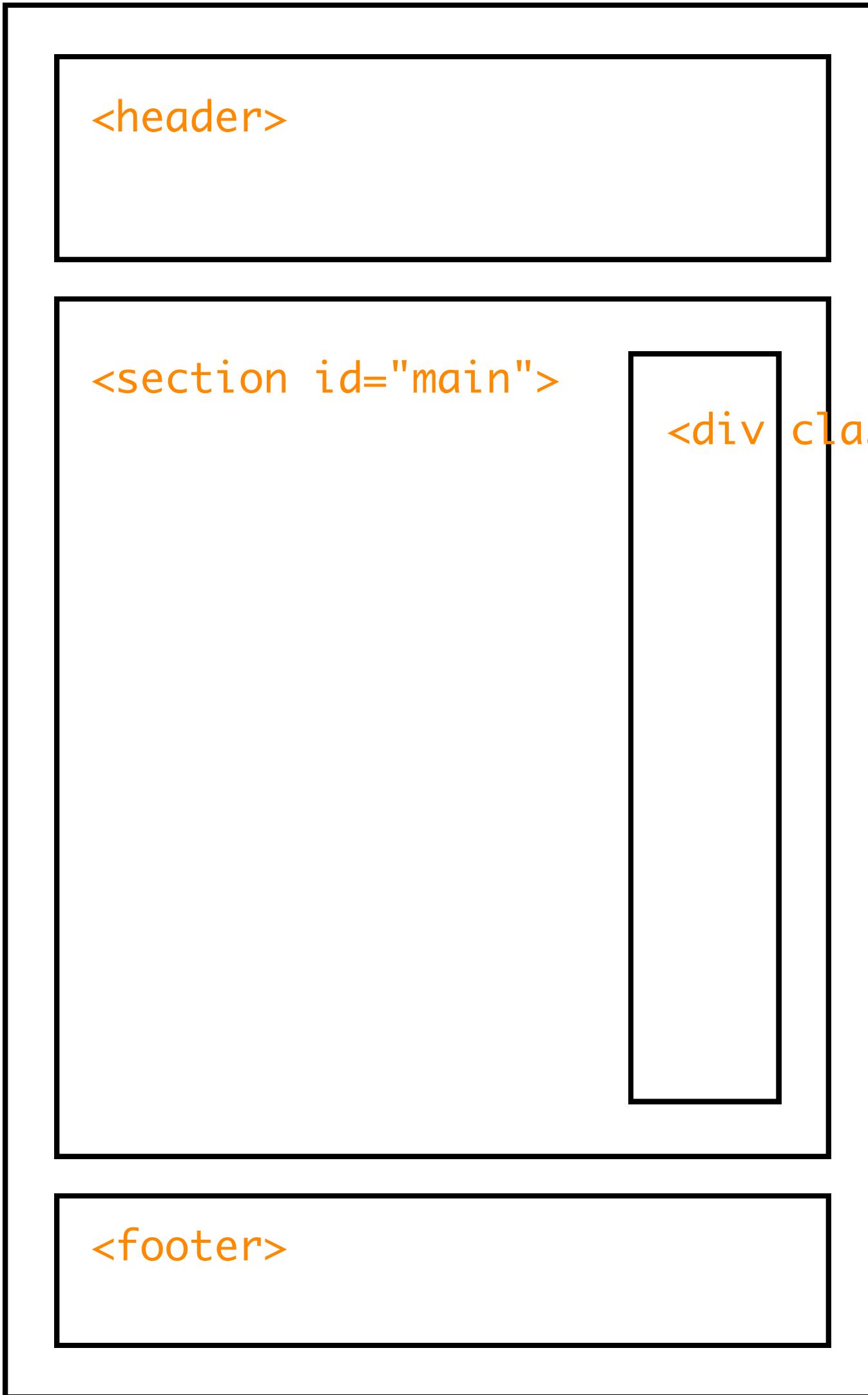
Our easy-to-use design tools make it easier than ever to

A Product Site

A simple CMS driven product site written
in WordPress.

A Rich Web App

Image manipulation and creation.
It's a little like Instagram.
Written in AngularJS.

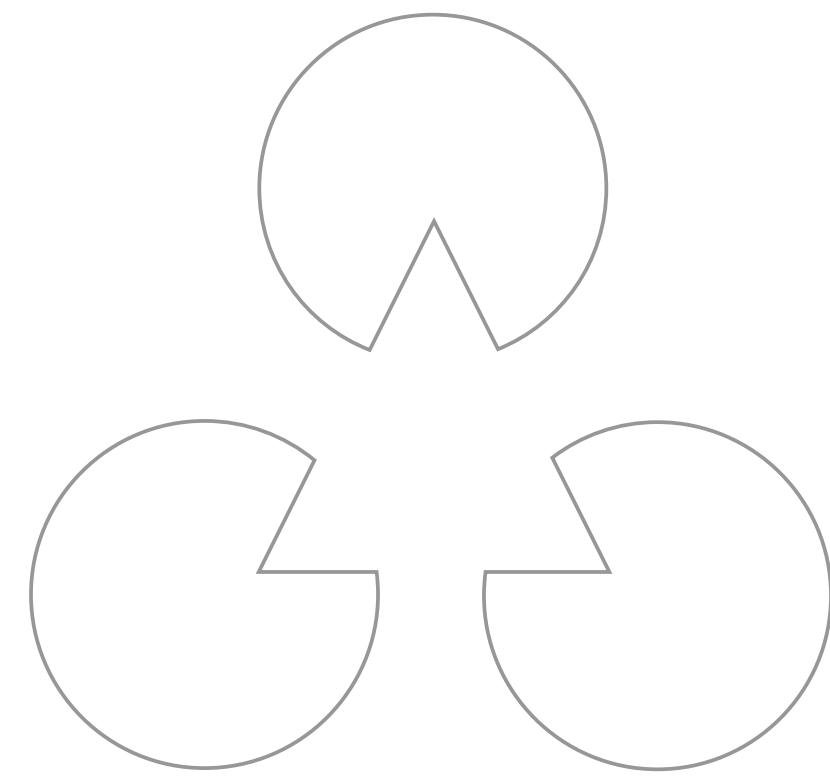


```
<!DOCTYPE html>

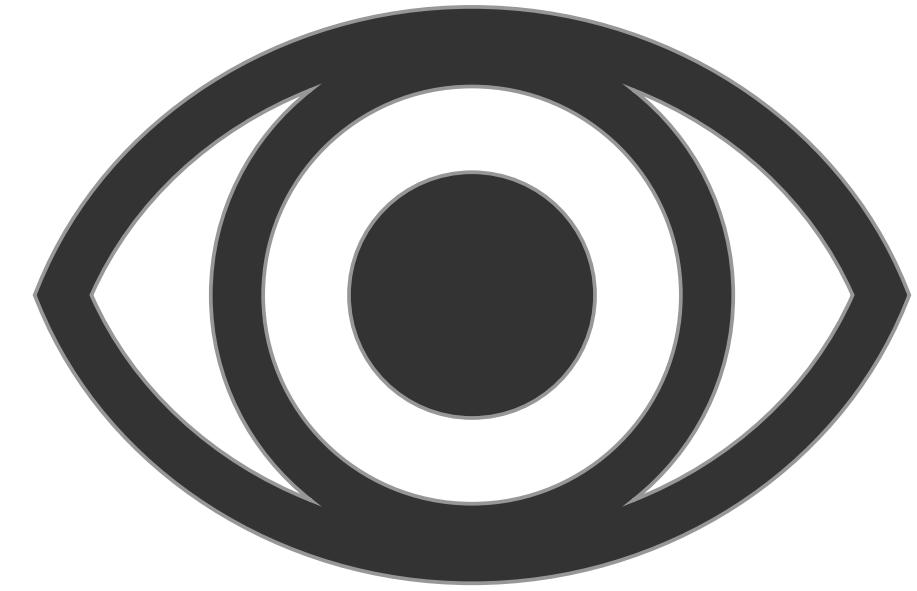
<html>
  <head>
    <title>A Basic HTML Document</title>
  </head>
  <body>
    <header></header>
    <section id="main">
      <div class="sidebar"></div>
    </section>
    <footer></footer>
  </body>
</html>
```

STRUCTURE

UNITY



Visual Perception and Gestalt Principles



Please have your eyes ready ...
... and ensure that they are switched on.

Our eyes and our minds are our tools of perception.

We can intuitively sense that good design and bad design can be boiled down to an understanding of perception.

Human perception is dictated by relationships: how things stand out or blend in; how things are similar and dissimilar; and how they contrast and blend with one another. It dictates how hierarchies are formed based on the way we organise things. It gives us the separation of attention from noise, and content from context.

Gestalt principles will guide you on how to do that.

How to create hierarchy; when and where to use delineation; understand how contrast and similarity can be used to create pleasing, clear and concise visual explanations of your design.

An understanding of Gestalt principles simplifies the design process, allowing you to much better articulate your creative ideas.

The origins of Gestalt theory are based on principles of Gestalt psychology as applied to human perception.

Figure Ground Relationship

Similarity

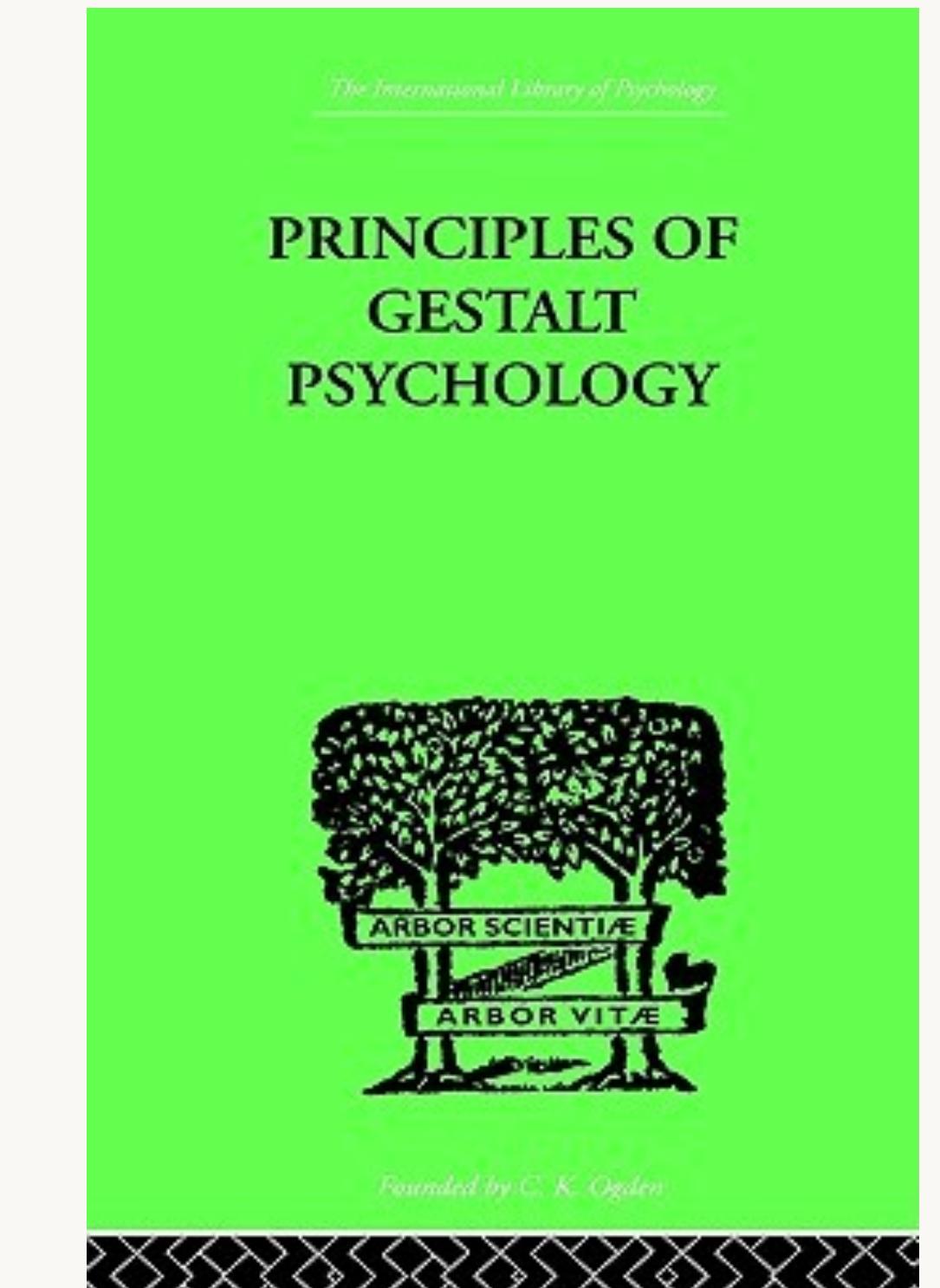
Proximity

Uniform Connectedness

Good Continuation

Common Fate

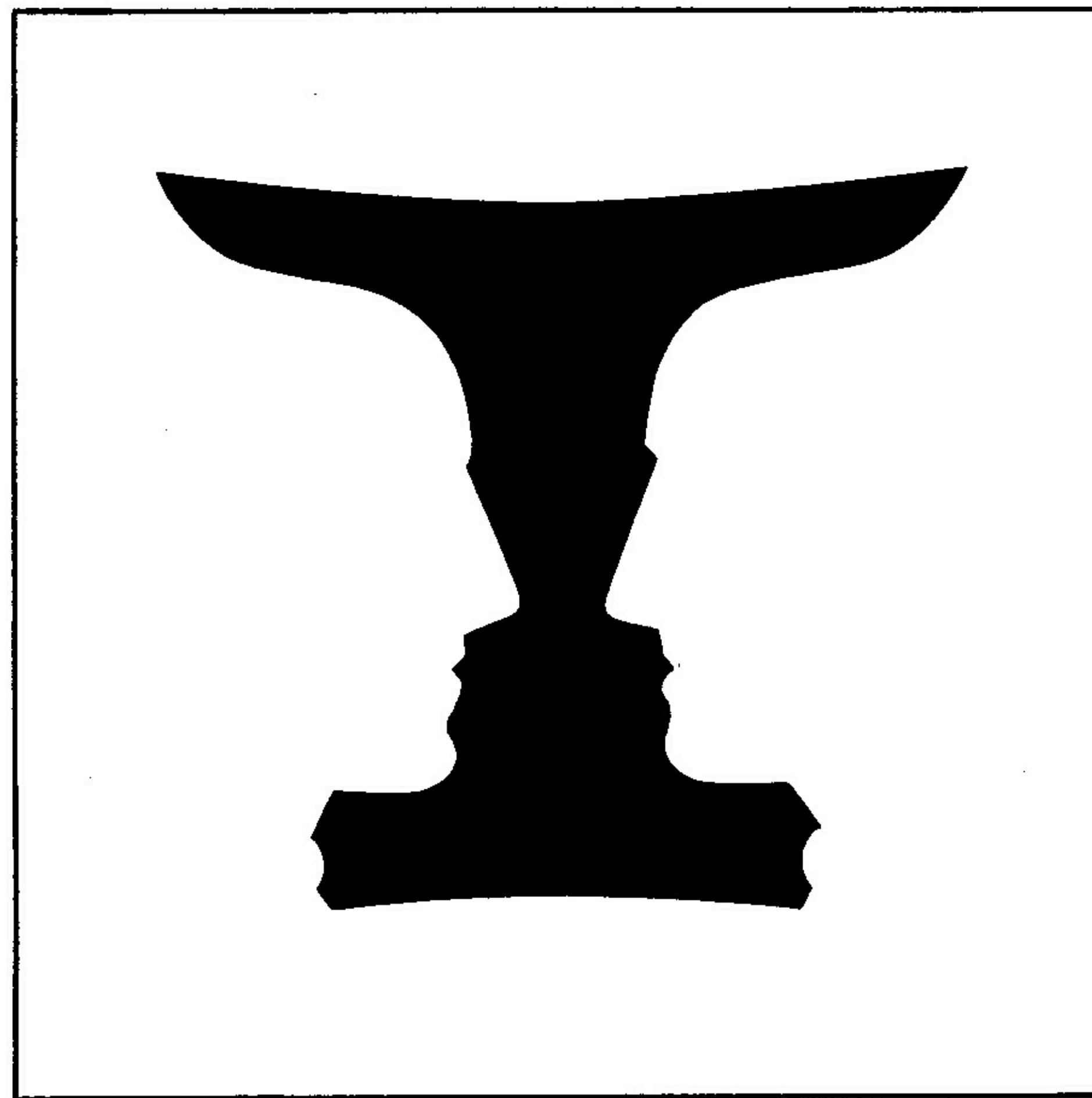
Closure



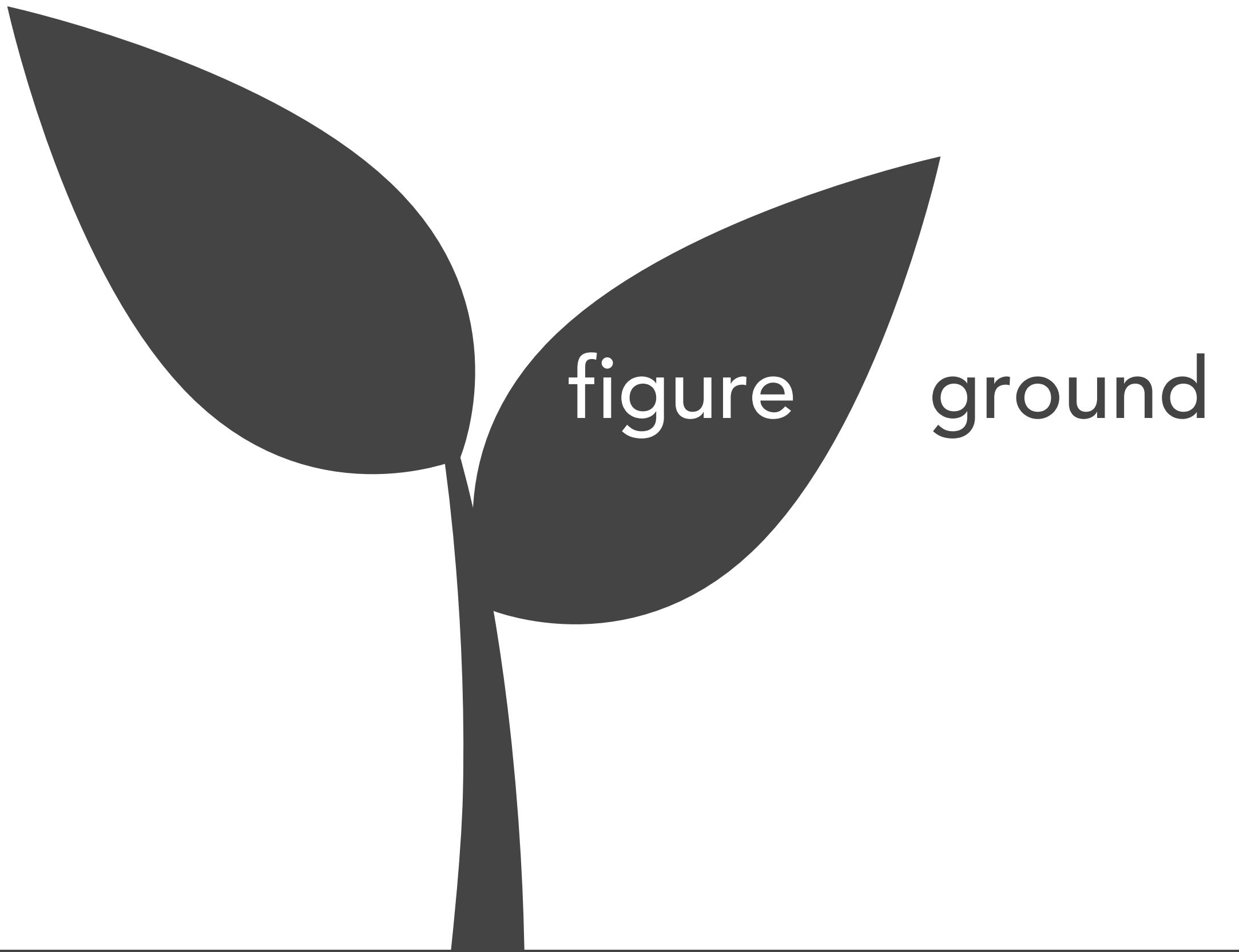
Koffka, K. (2013). Principles of Gestalt psychology (Vol. 44). Routledge.

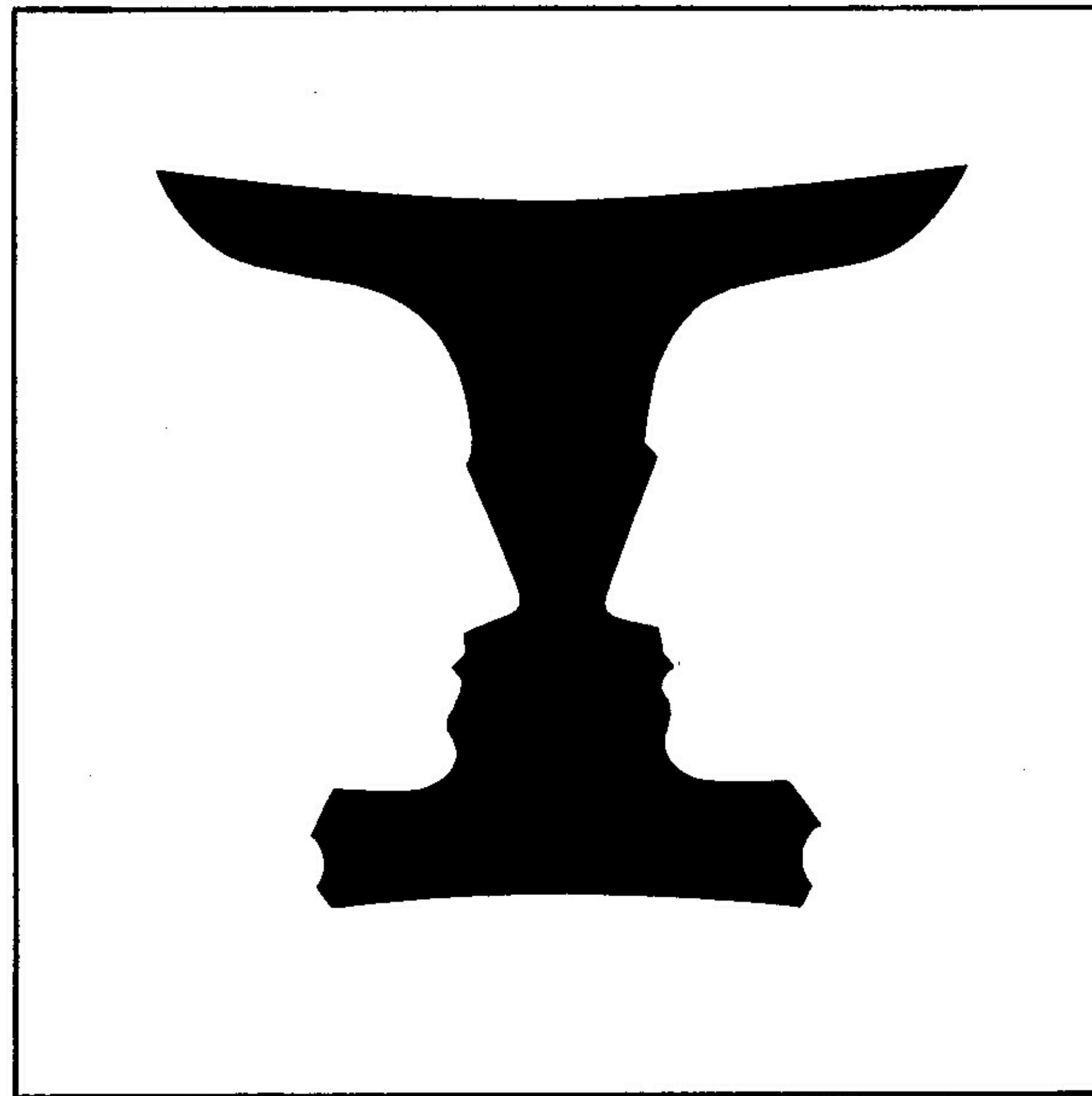


What do you see here?



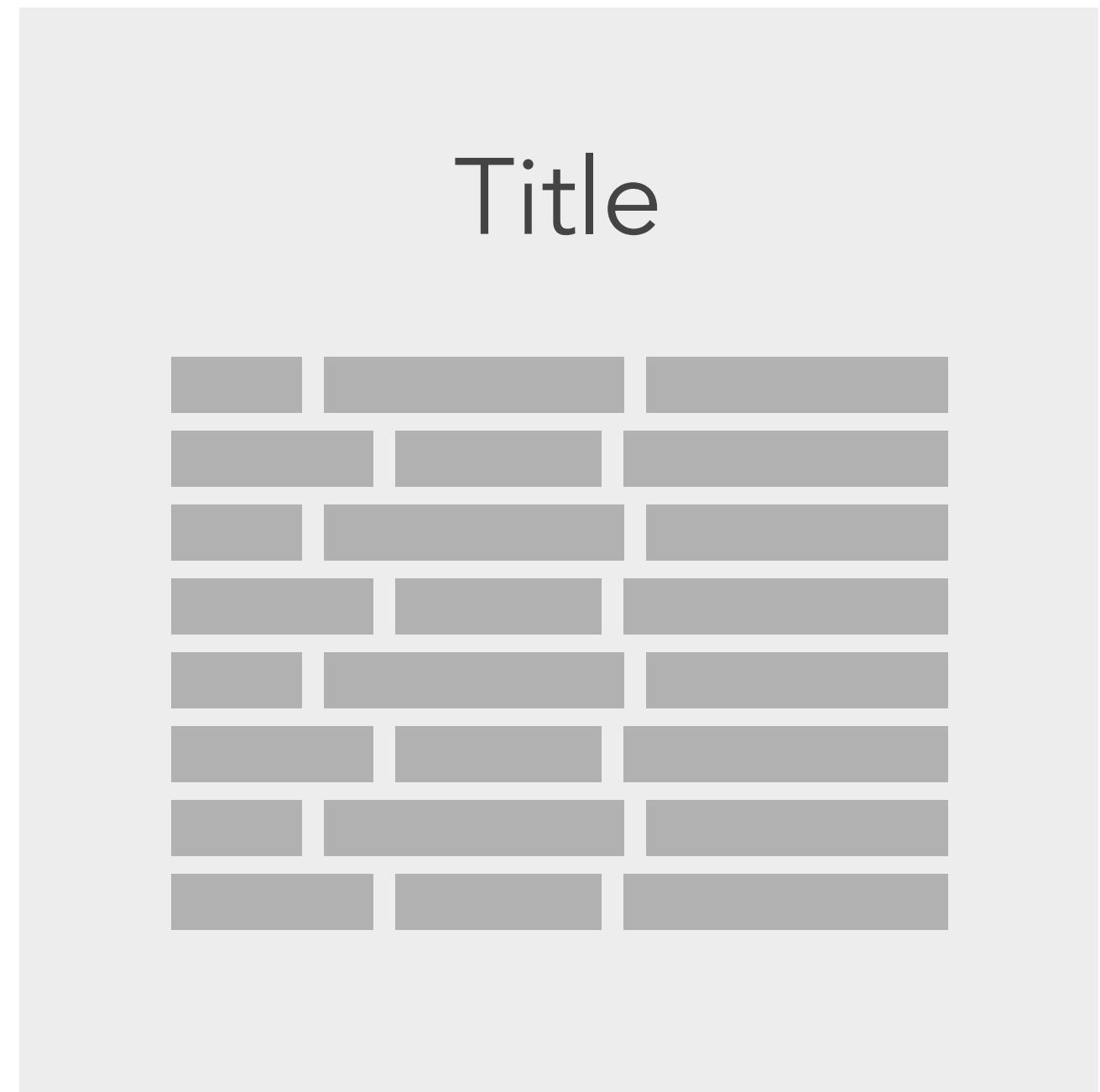
What do you see here?



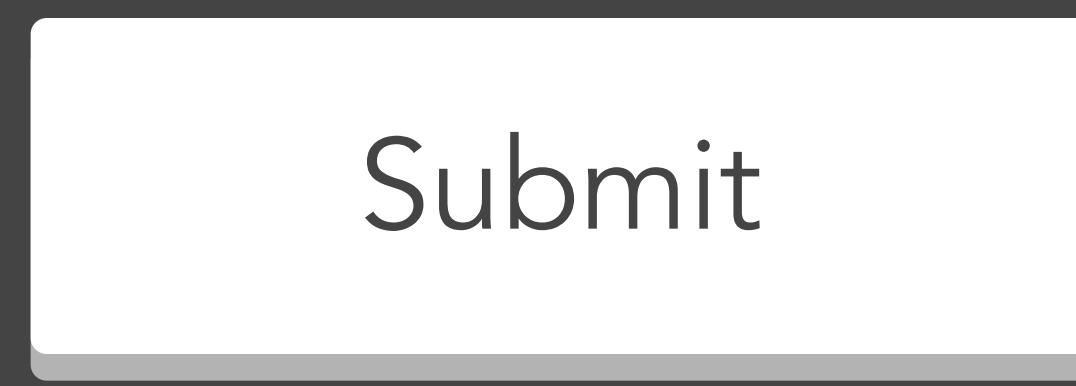


Multistability

Ambiguity in figure-ground relationship.



Our figure ground perception allows us to distinguish content from structure.



It allows us to distinguish foreground elements, such as text or user interface elements, from their background.

LIVE THERE

Book homes from local hosts in 191+ countries and experience a place like you live there.

Where to? Check In → Check Out 1 Guest Search

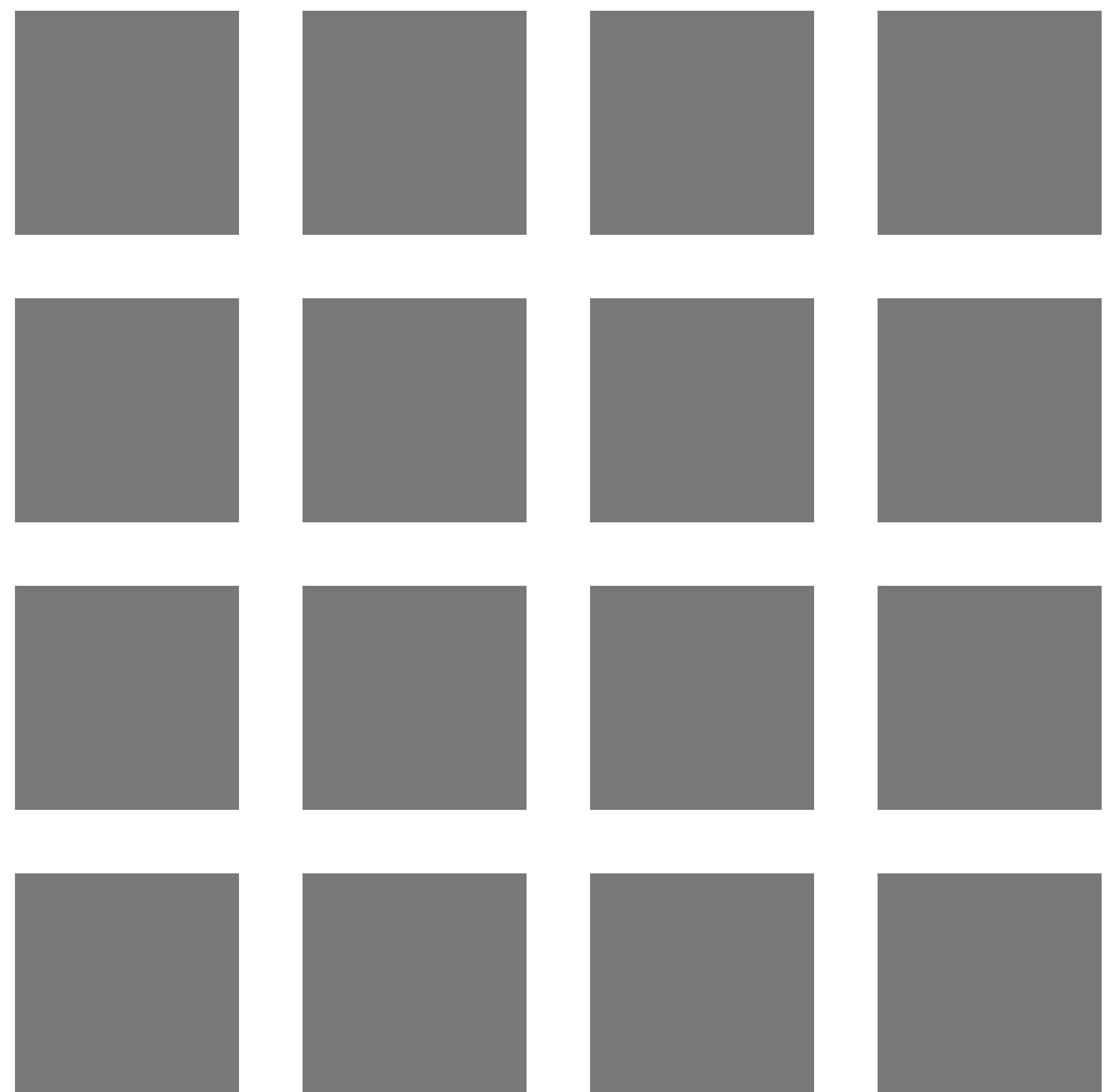
Become a Host Trips

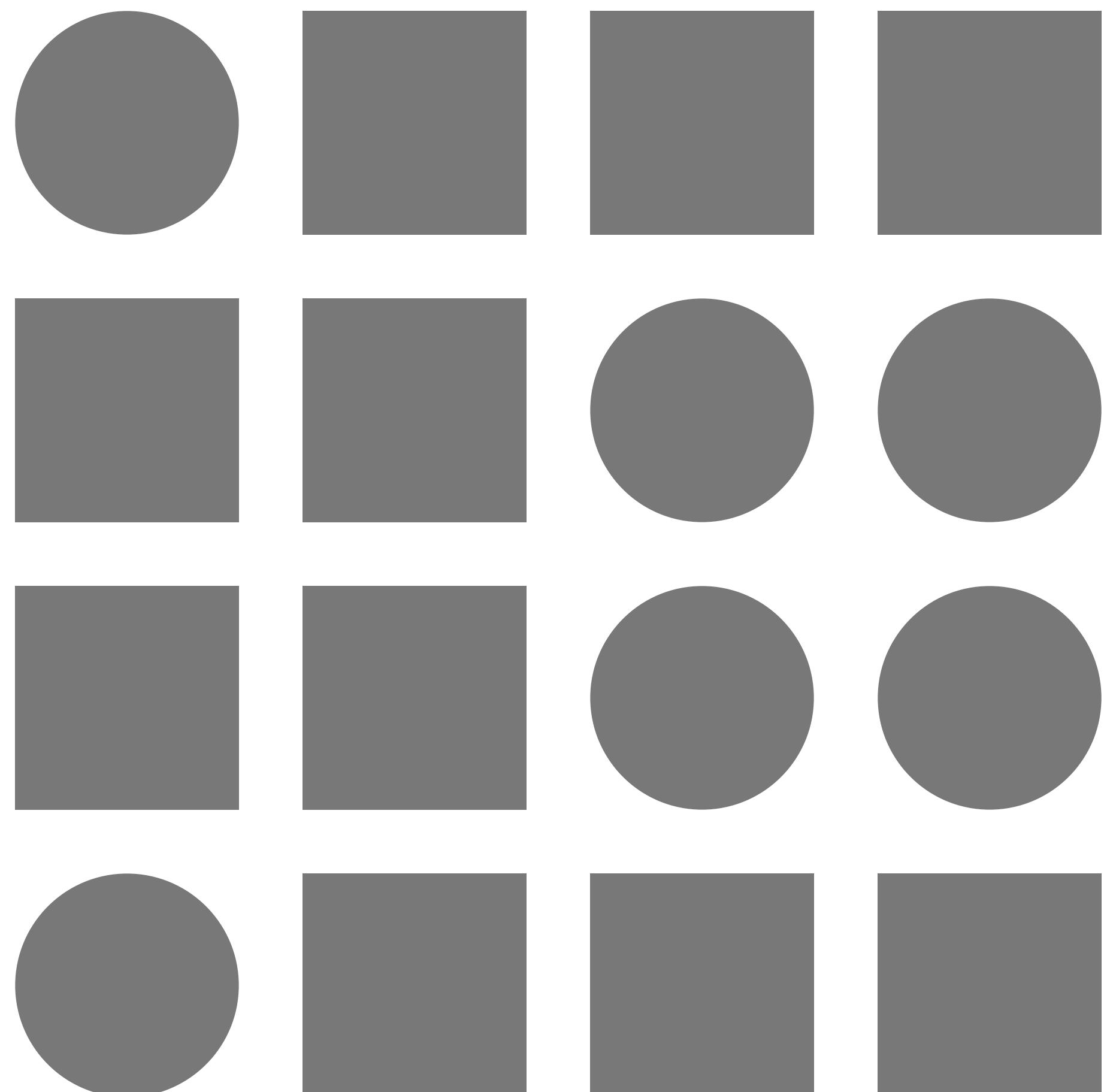
List Your Space
See What You Can Earn
How Hosting Works

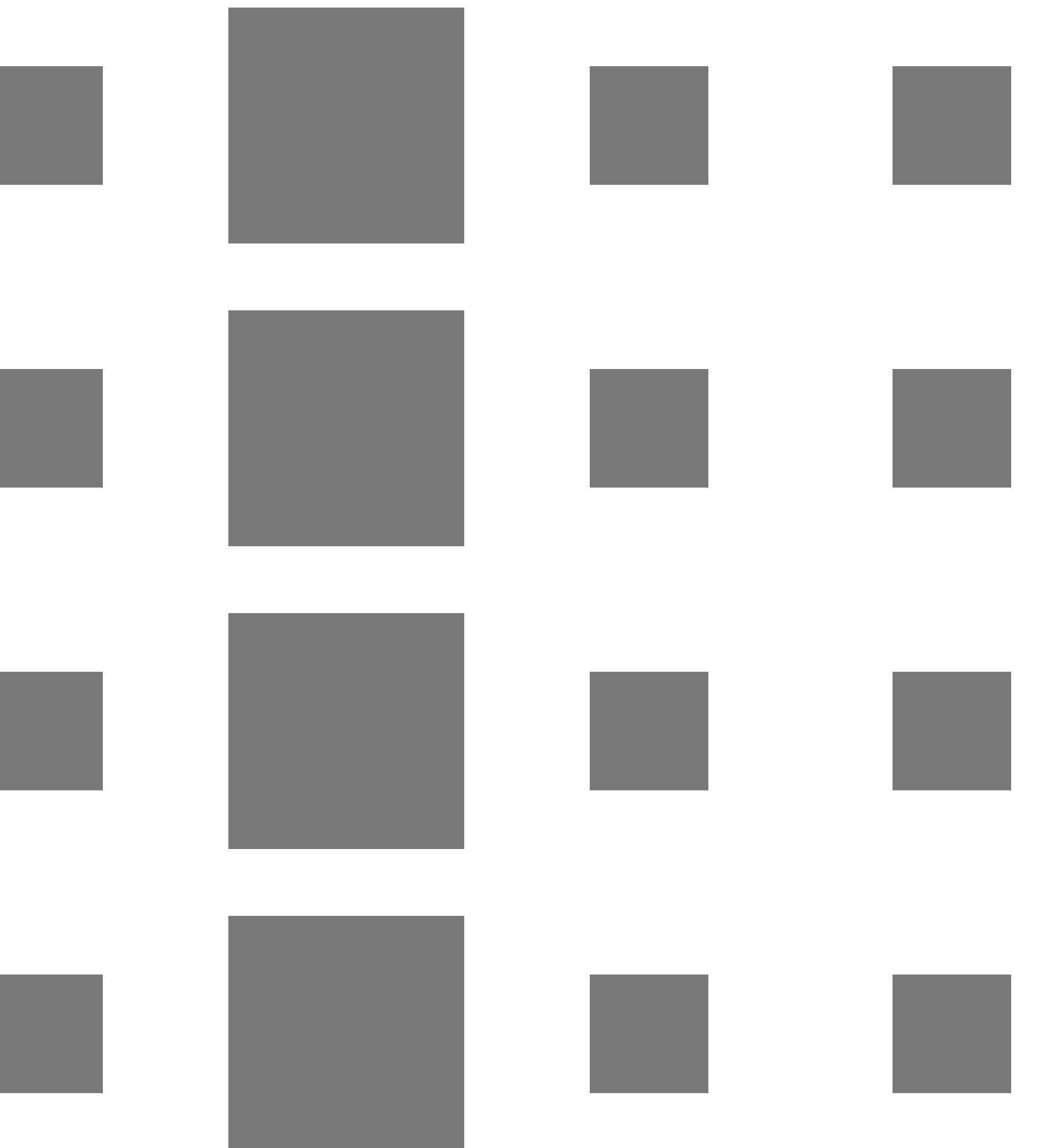
Can you see the figure-ground relationship in use here? Where do you see it?

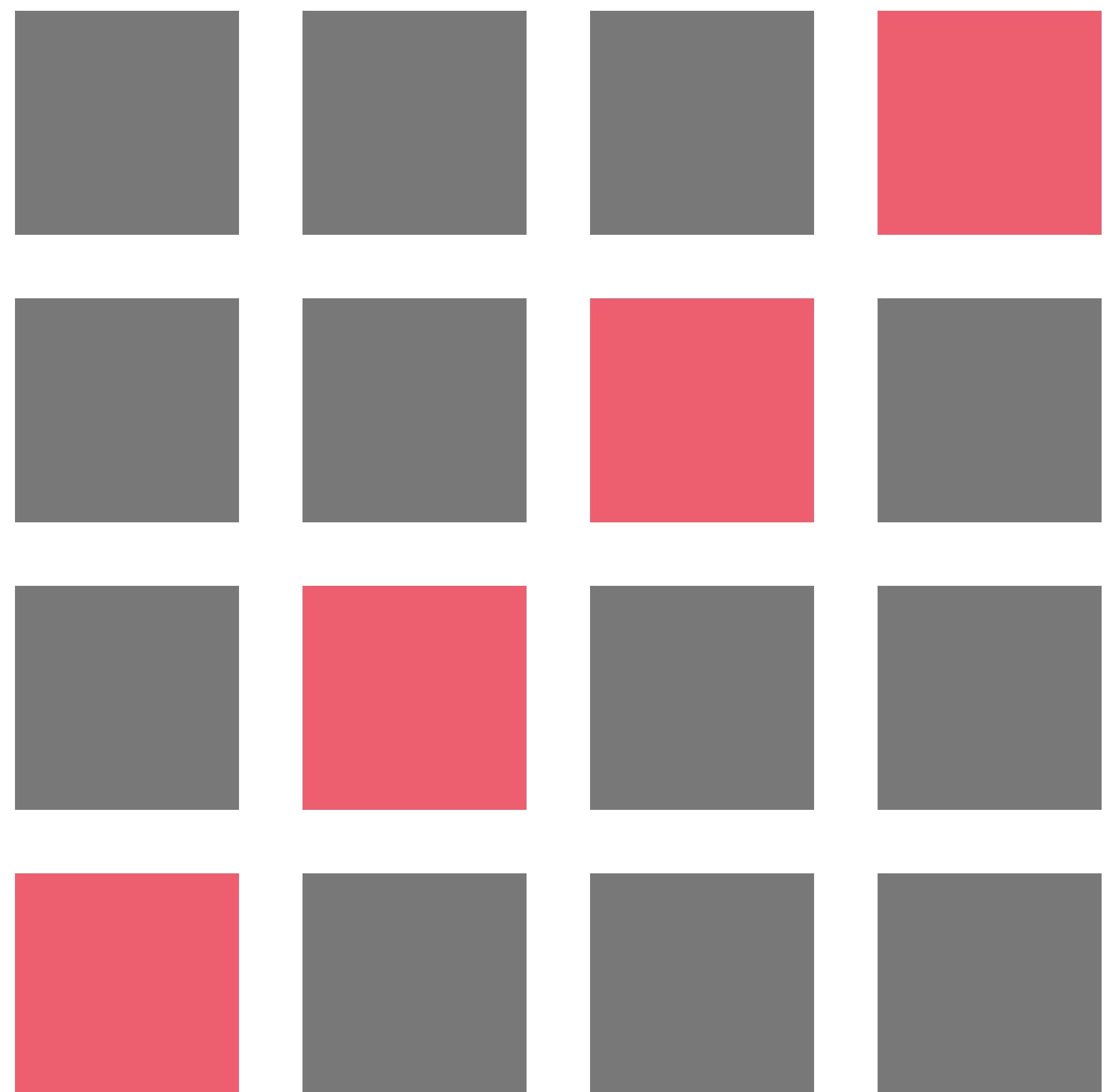
Hosting opens up a world of opportunity

Earn money sharing your extra space with travellers.

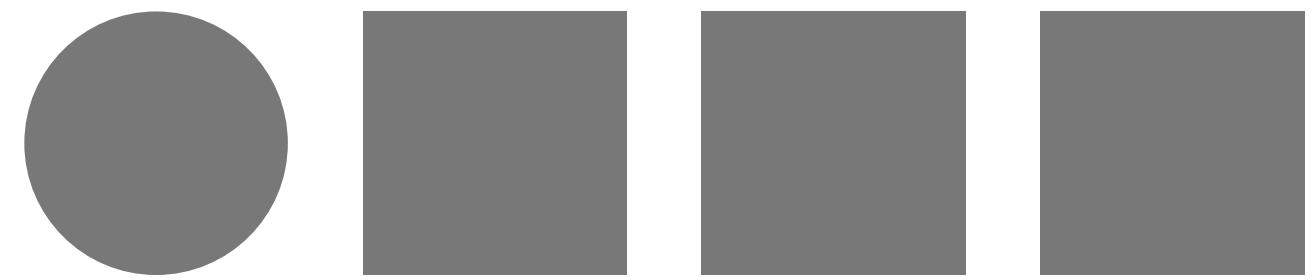
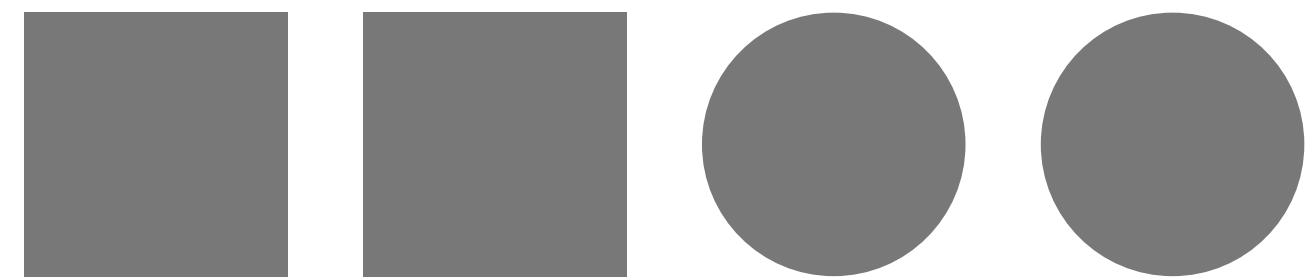
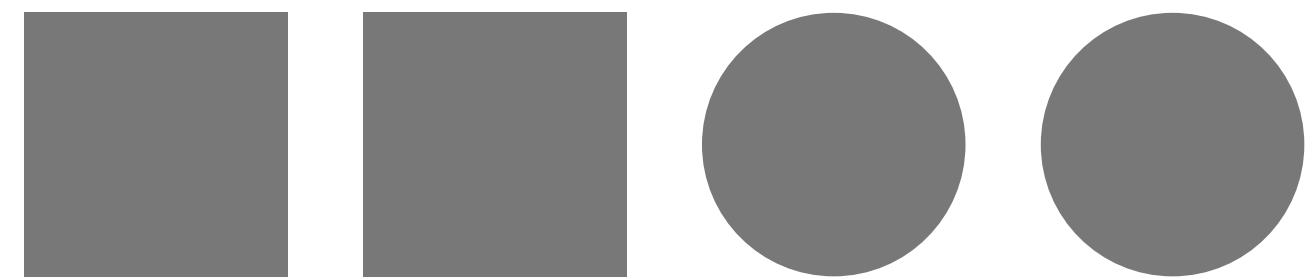
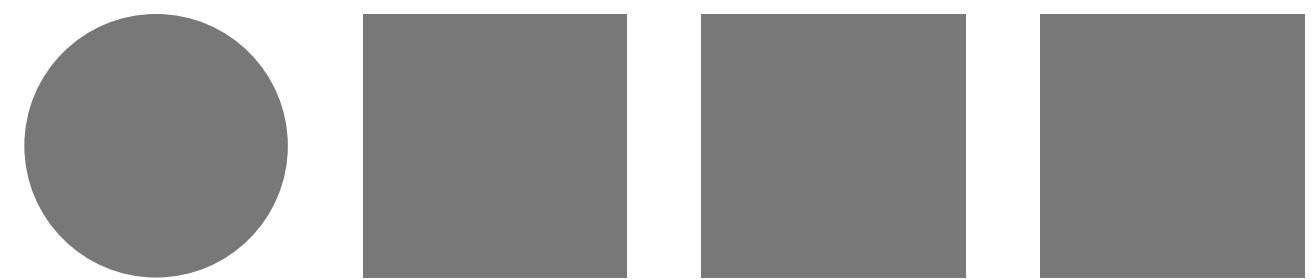








You can show relationship among elements if those elements have similar:

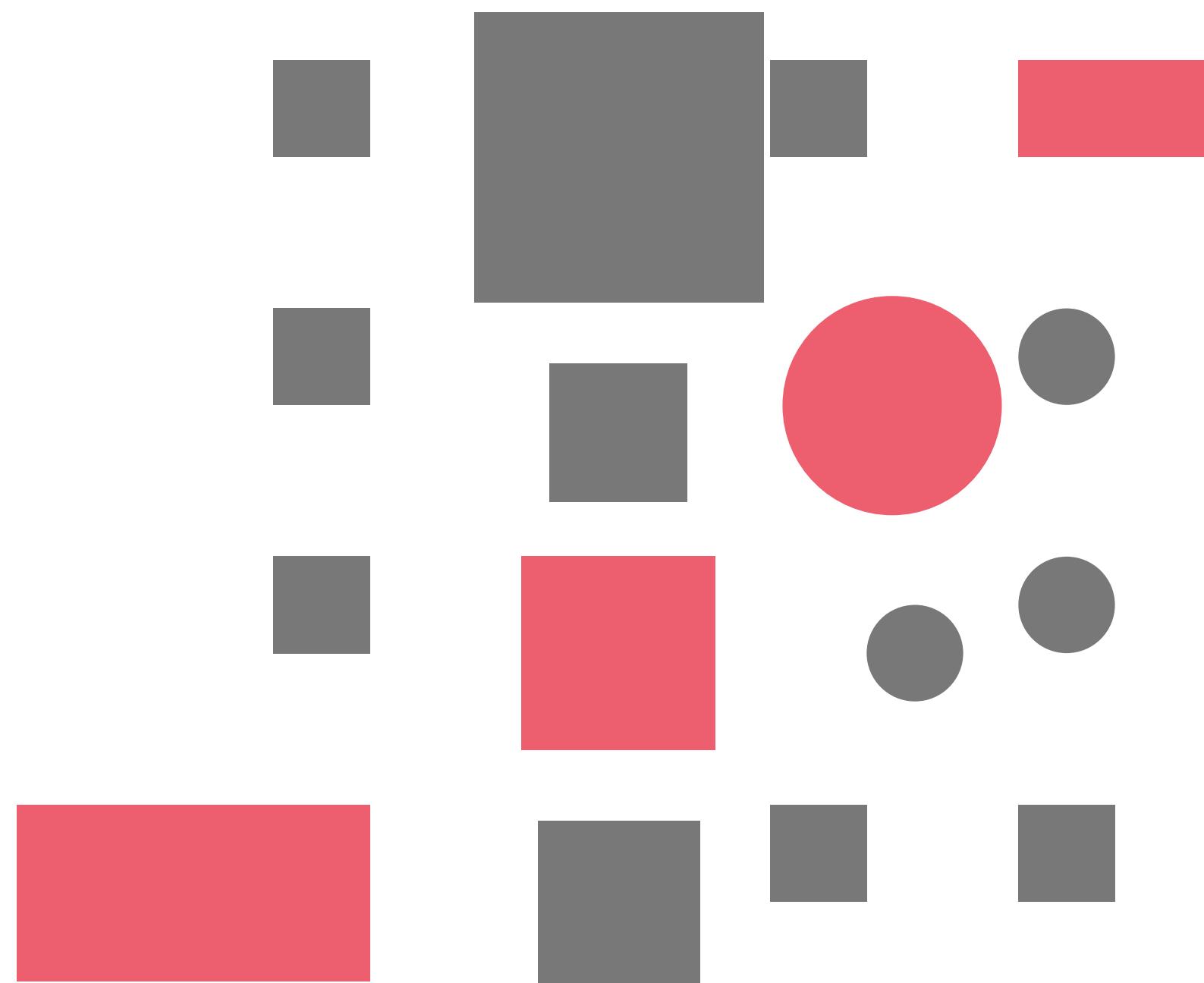


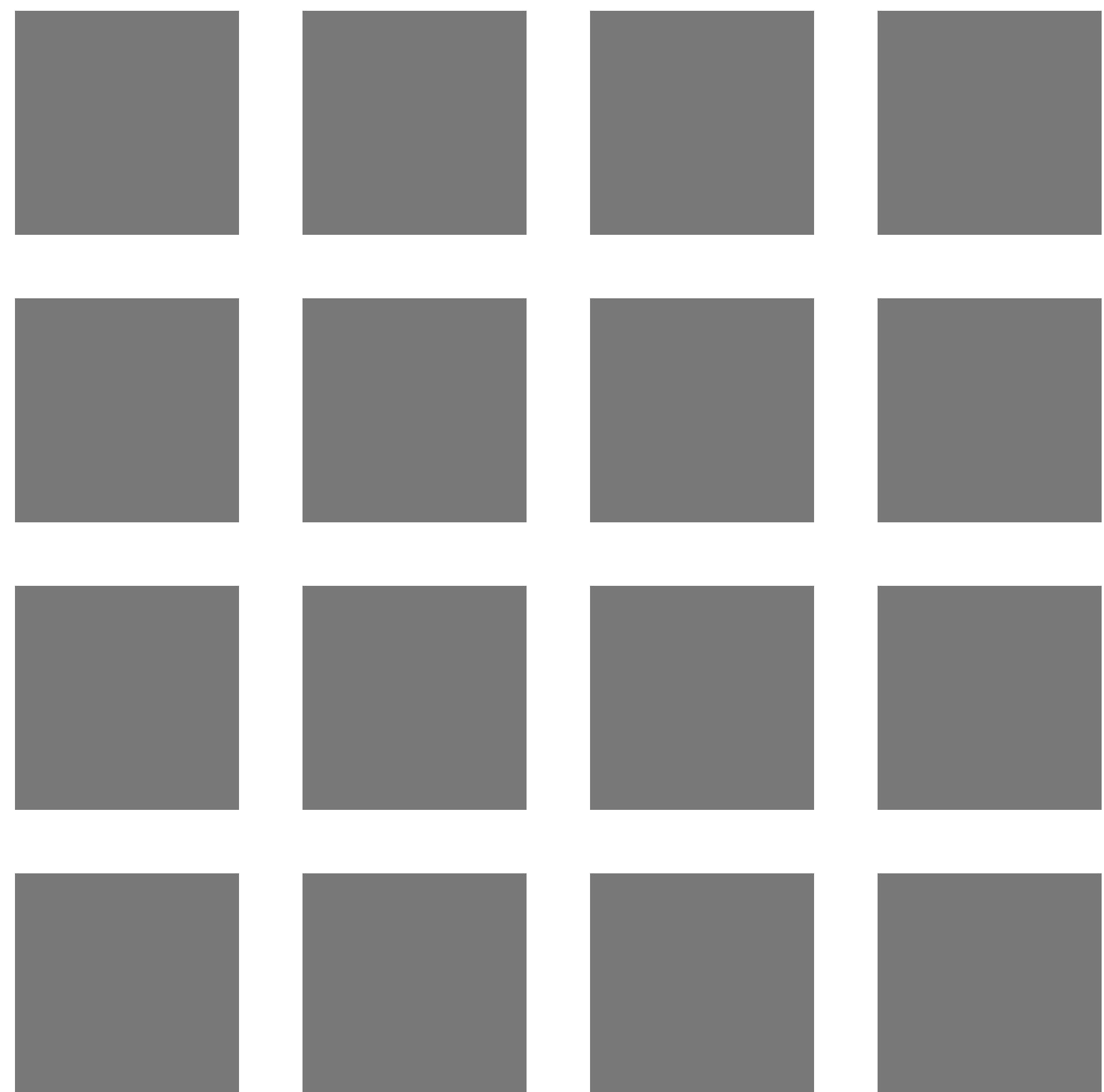
shapes

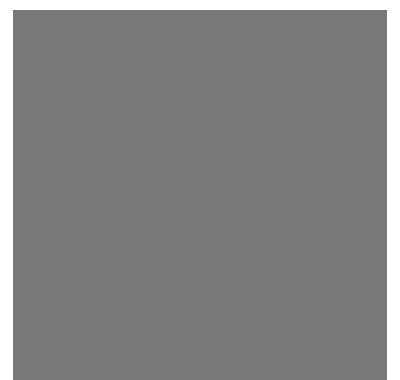
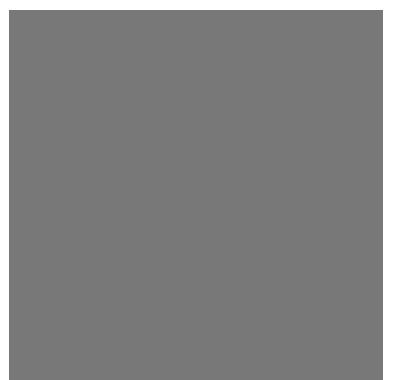
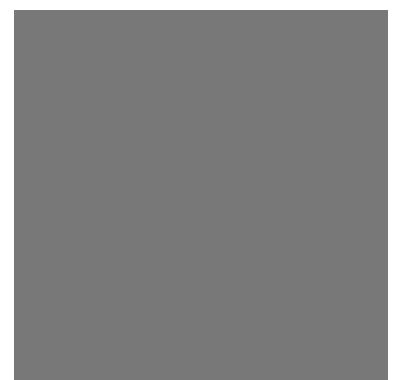
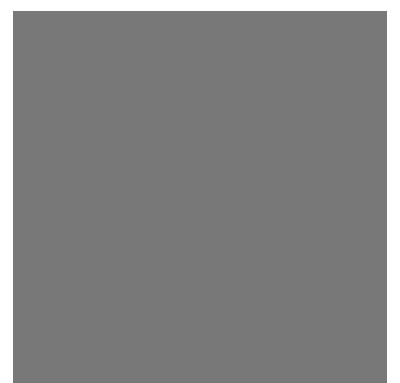
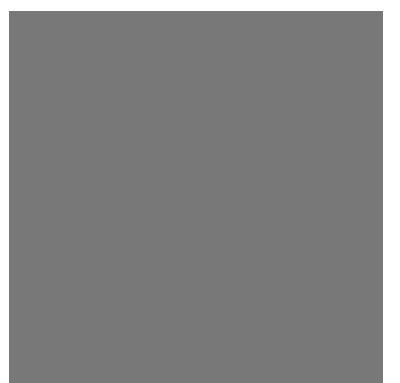
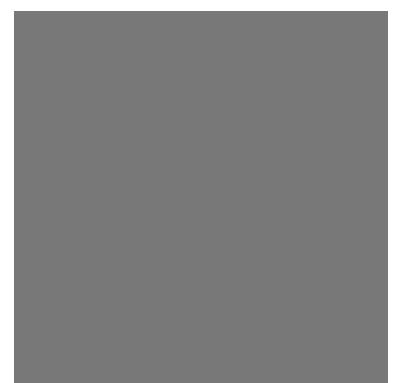
sizes

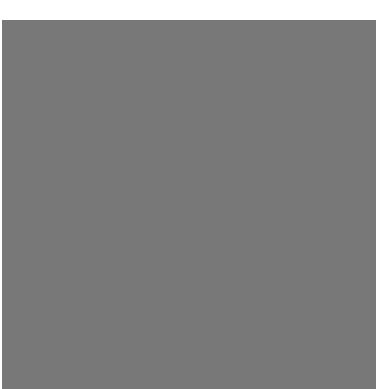
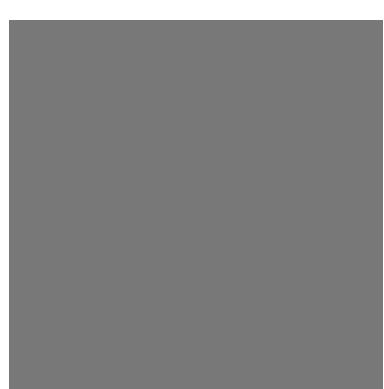
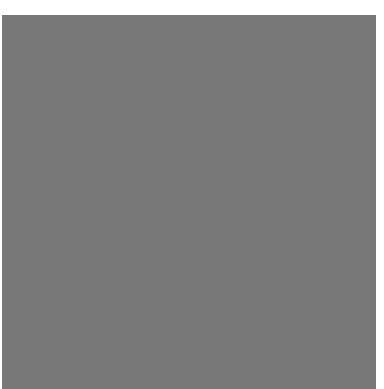
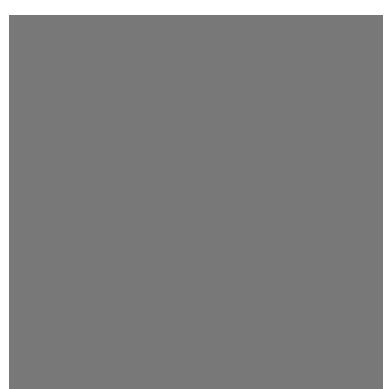
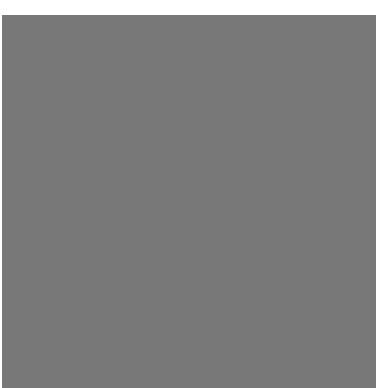
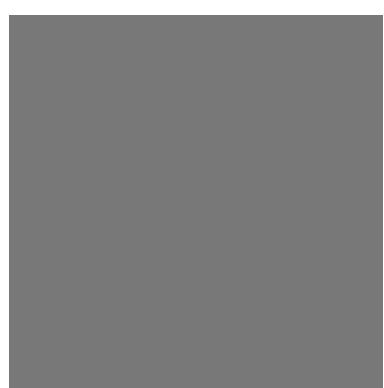
colour

Which group of elements stand out the most? Why?









Proximity

Things that are close to one another are perceived to be more related than things that are spaced further out.

(STAFF PICK)

OSSA

from IMBRO

Puppetry is spectacularly deconstructed through stop motion.

▶ Watch now



Human-curated Staff Picks



No Needle, Just A Haystack
Garret Harkawik | 3,925 plays



LAND WE LOVE
Pudim | 7,304 plays



KIDS OF THE APOCALYPSE - BETTER IS LIFE
Ernest Desumbila | 5,874 plays



The Magic of Mount Seymour (4k)
Nathan Starzynski | 12.4K plays

[View channel >](#)

What's trending



Shango
Michael Rhima | 19.6K plays



My Coccinelle
IMBRO | 2,273 plays



Nate Tyler - 'To The Land'
Vacation Club | 13.1K plays



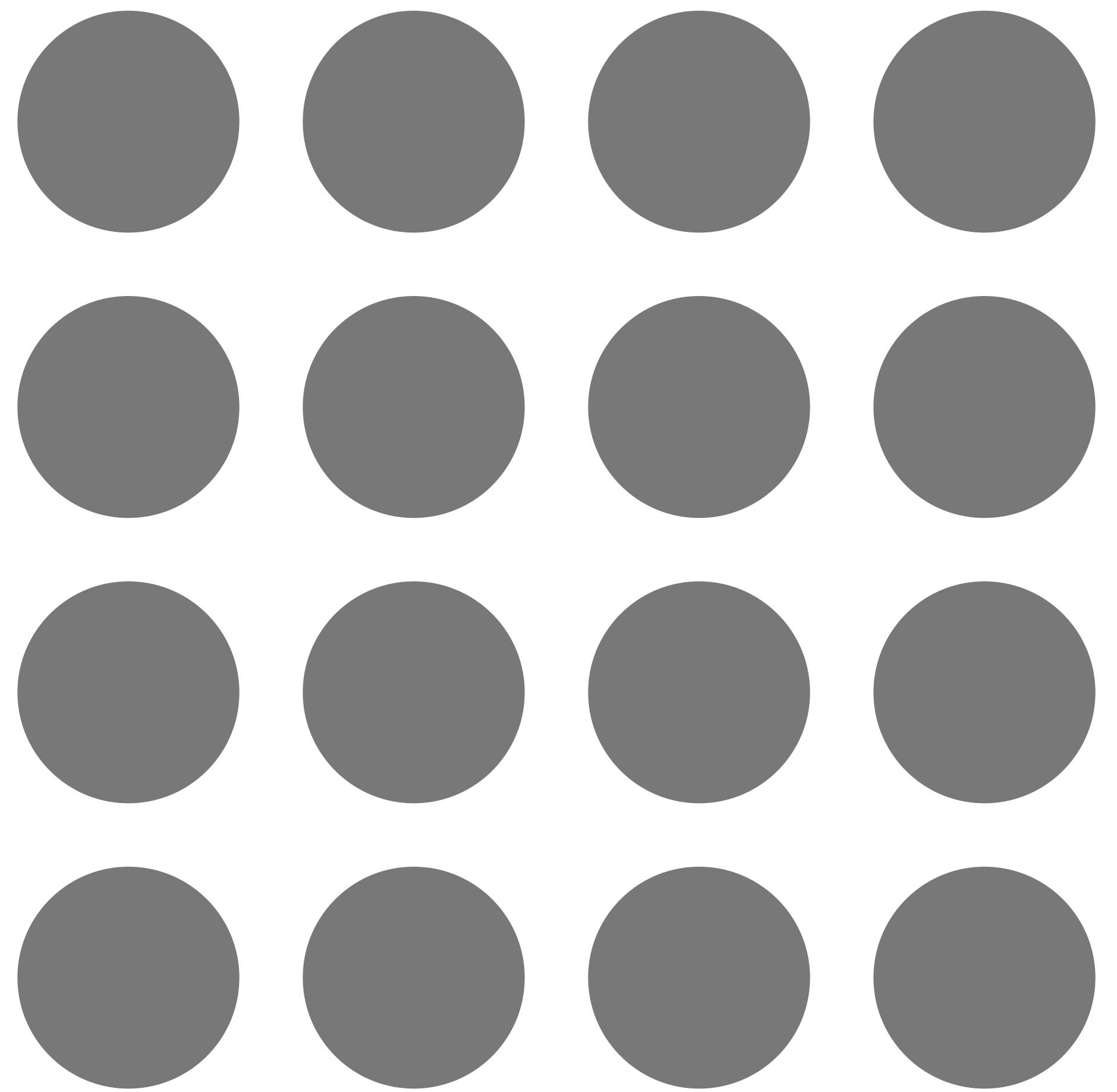
蘭嶼 - Kasiboan 咖希部灣
Gavin Yin | 15.5K plays

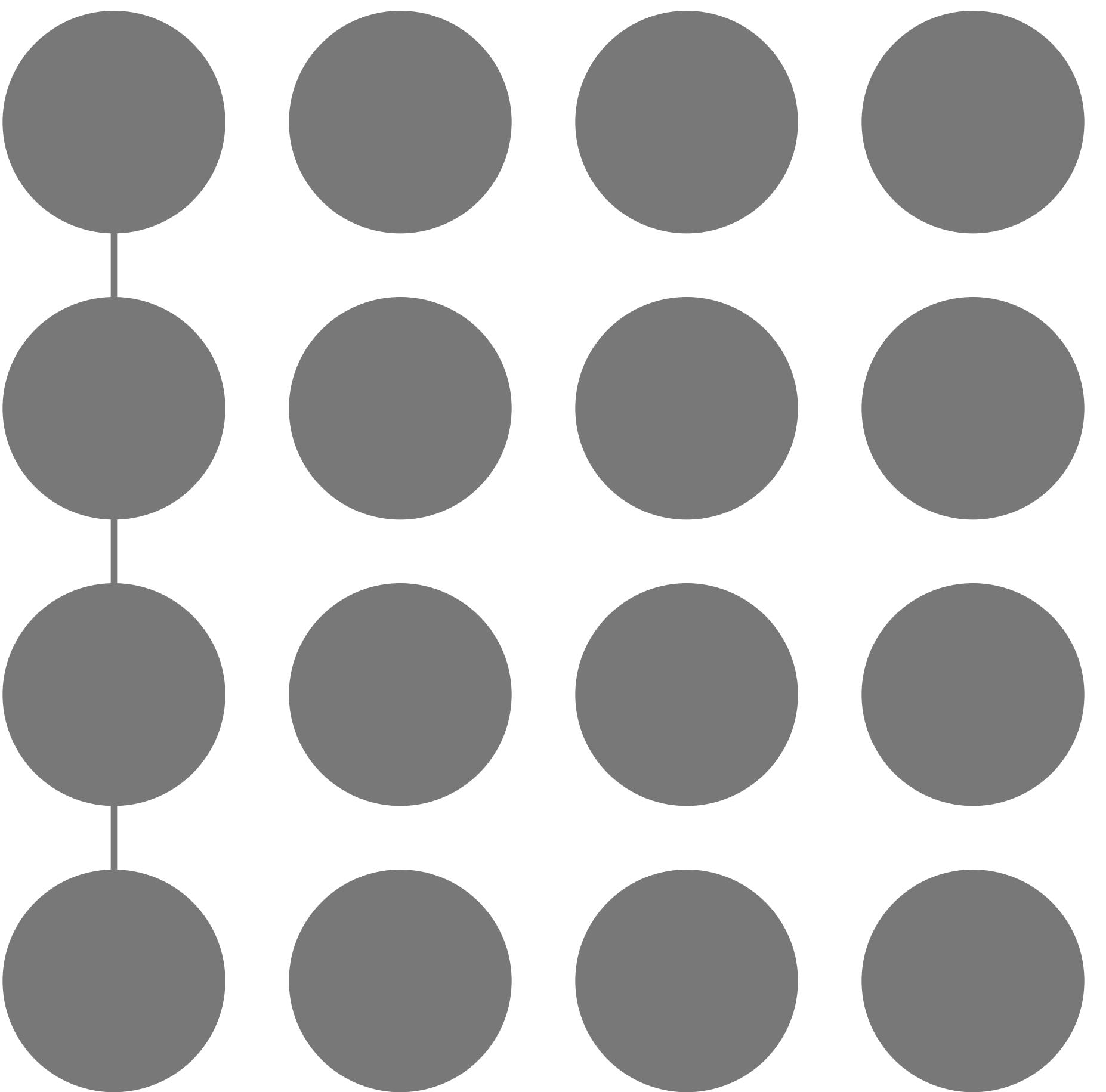
Music videos we love

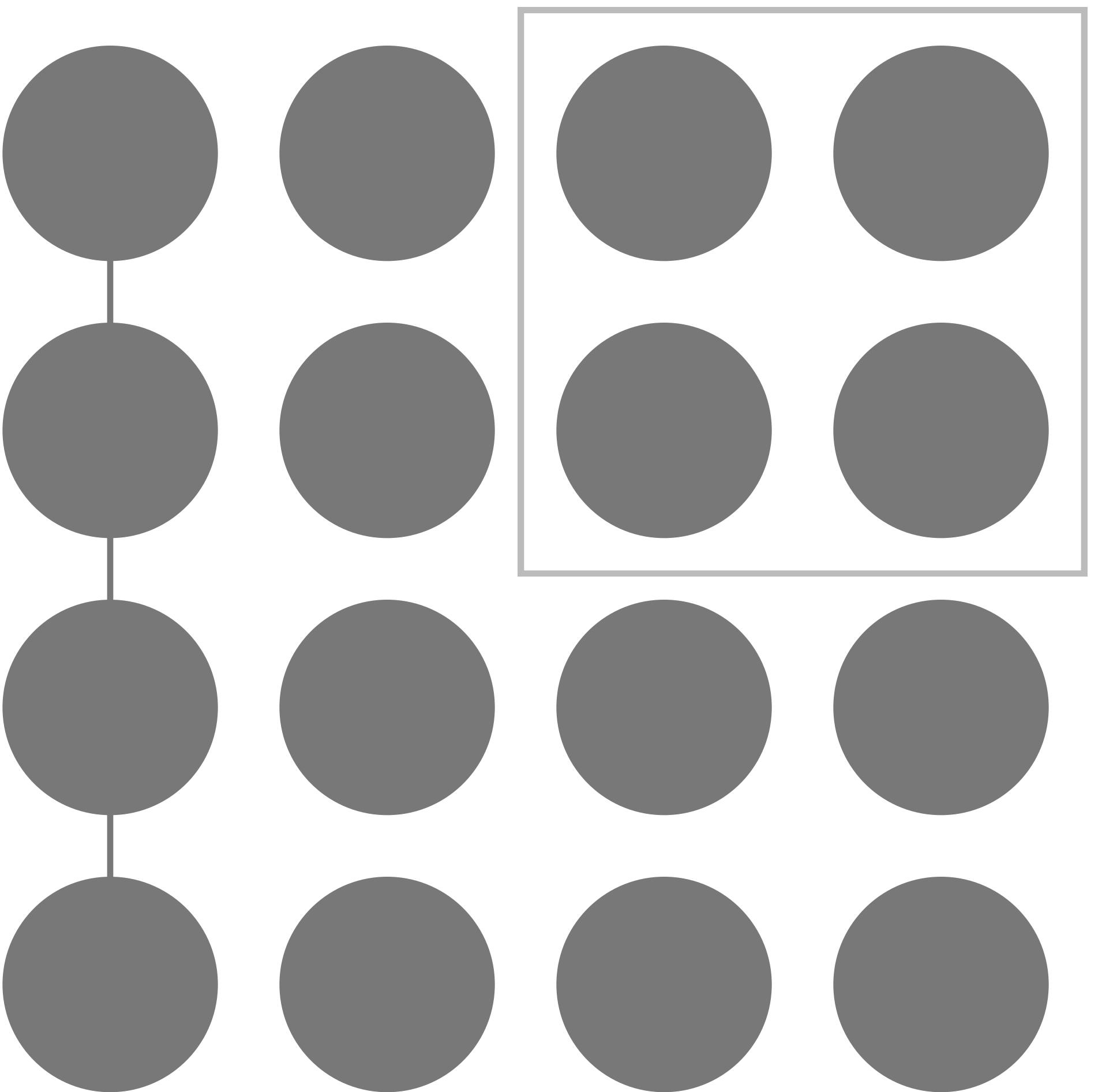
[View category >](#)



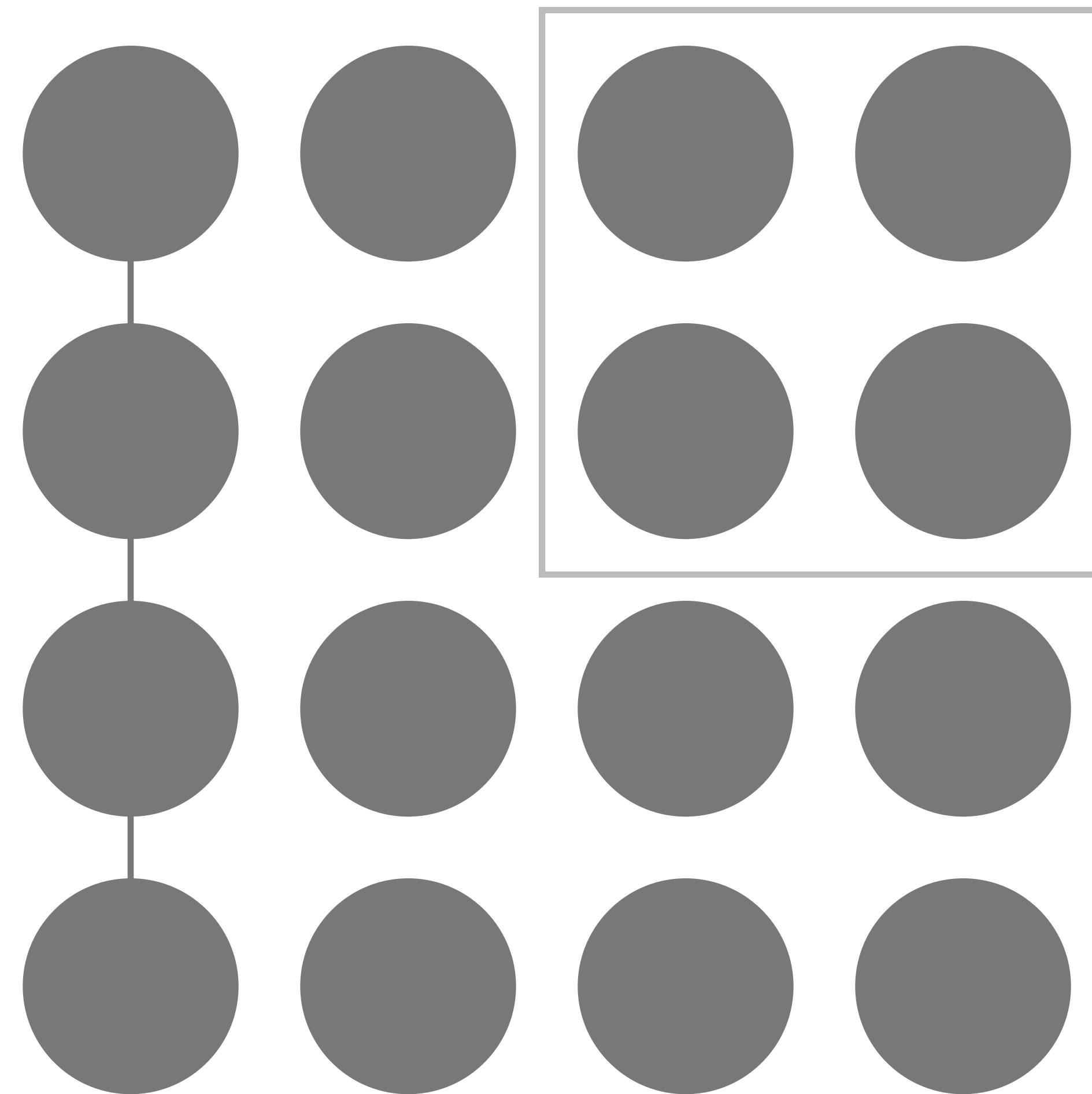
How are the principles of similarity and proximity used to communicate grouping and visual hierarchy?



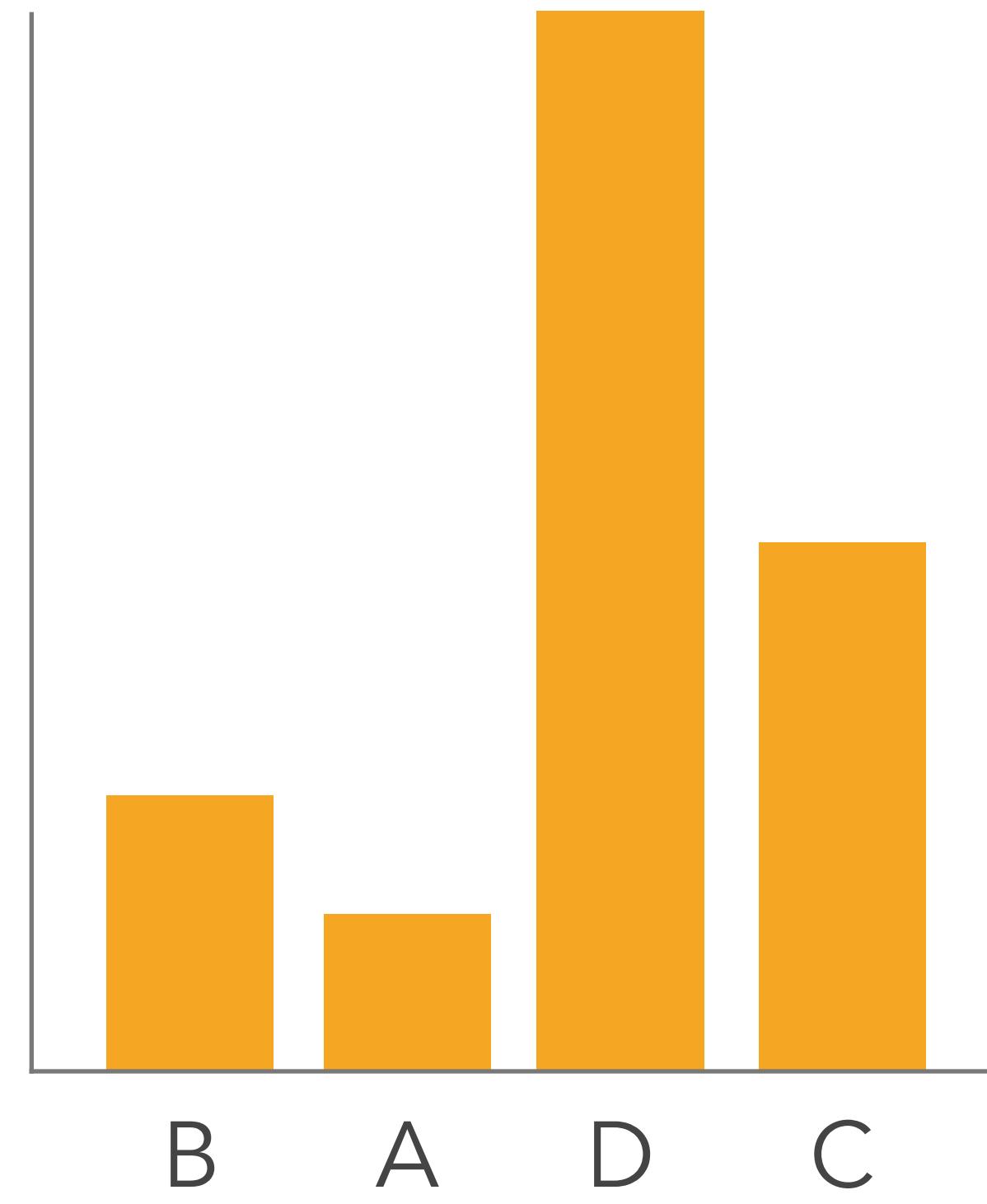


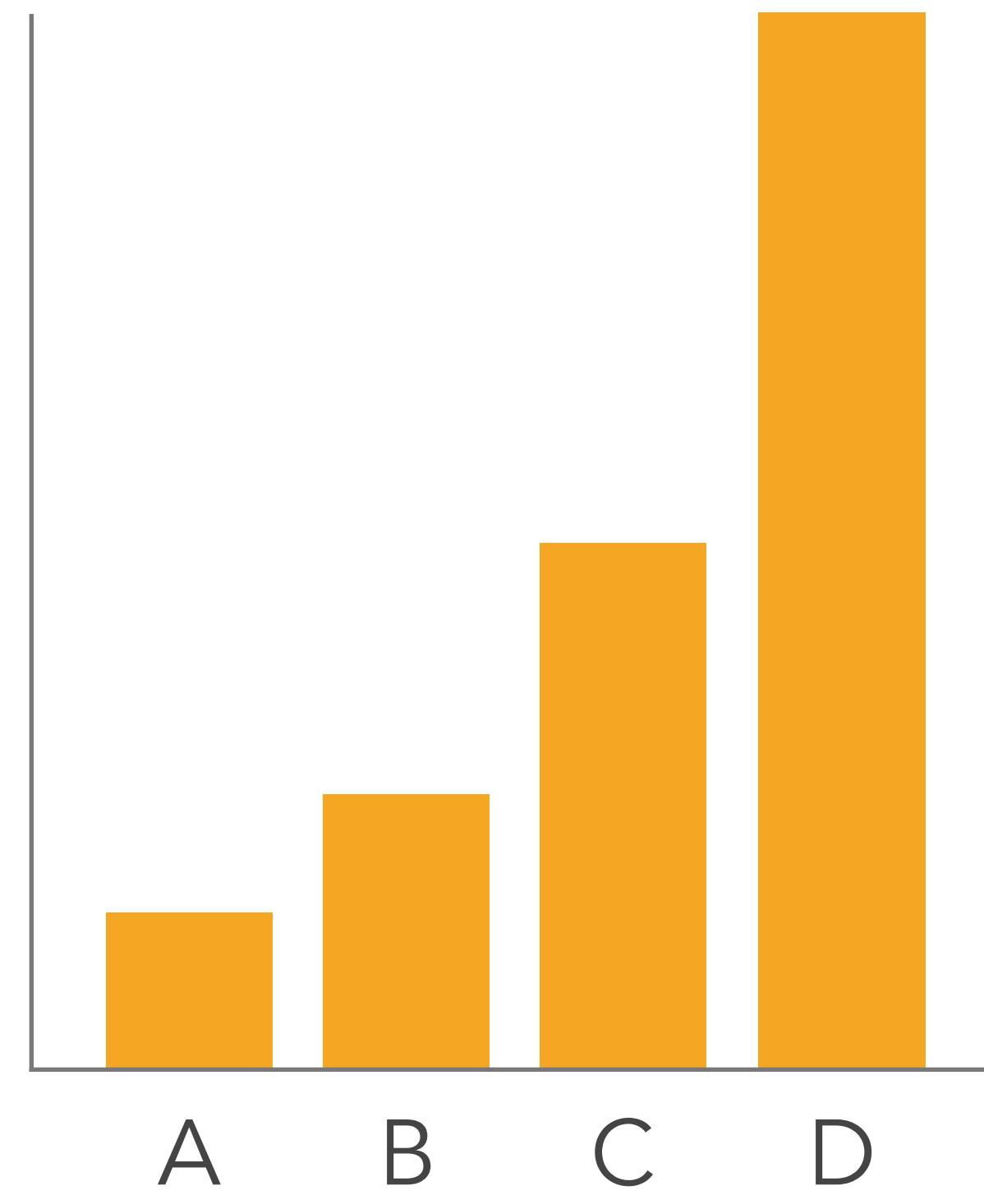


Uniform Connectedness

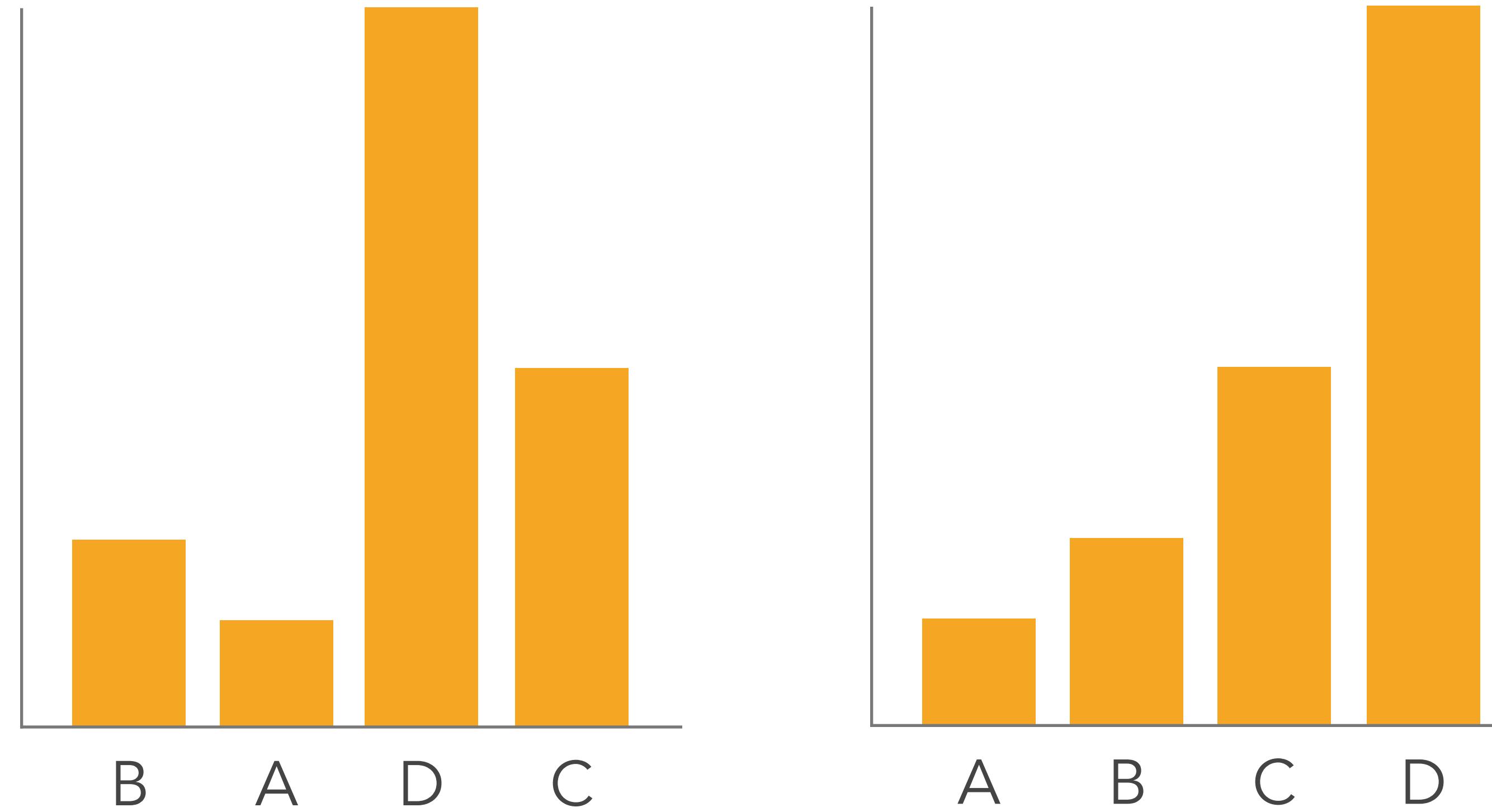


Elements that are connected by uniform visual properties are perceived as being more related than elements that are not connected.

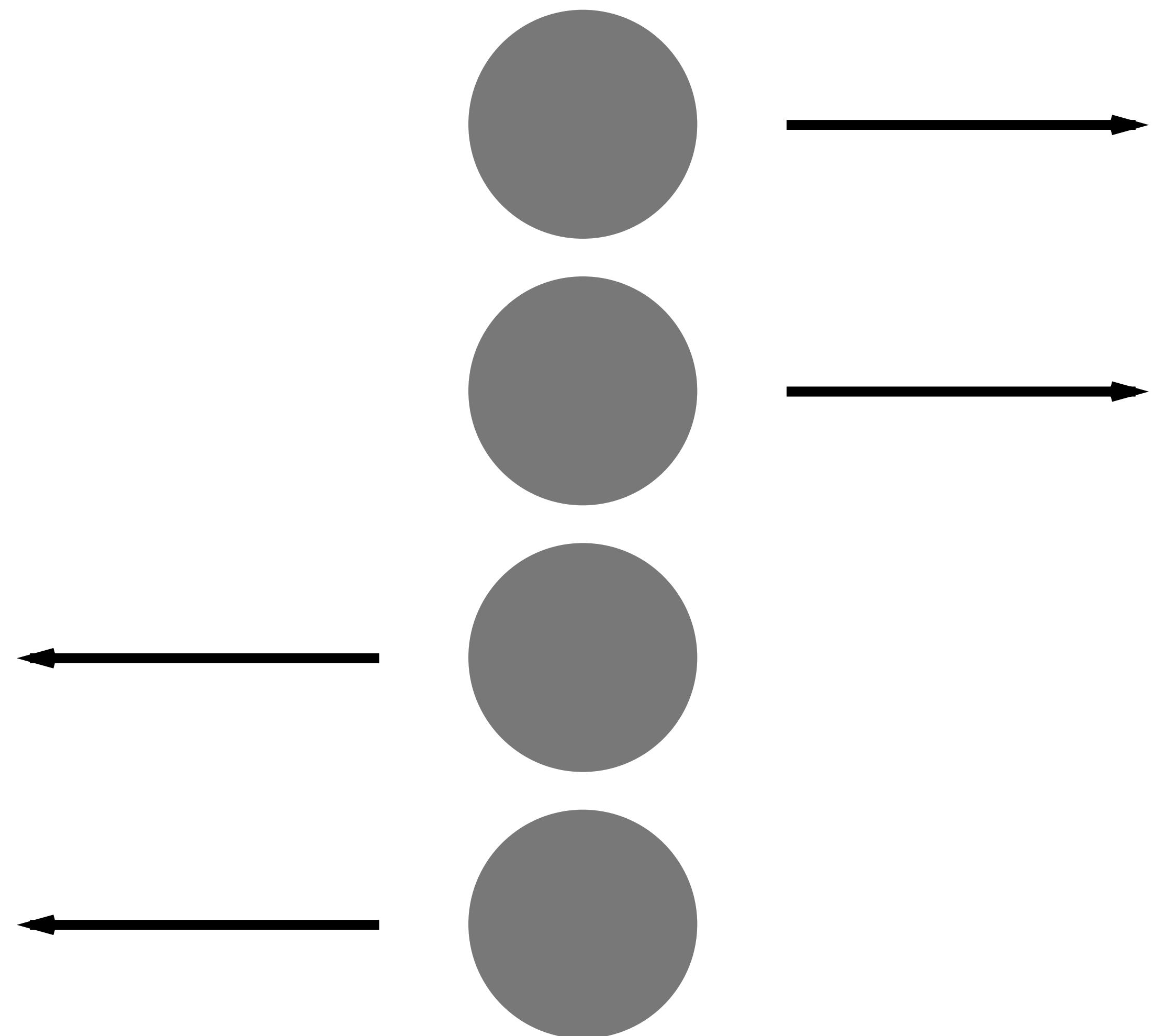




Good Continuation



Even though both graphs show the same data, the graph on the right more clearly shows a rising trend. The graph on the right communicates a visual continuity of its values: from smallest to largest.

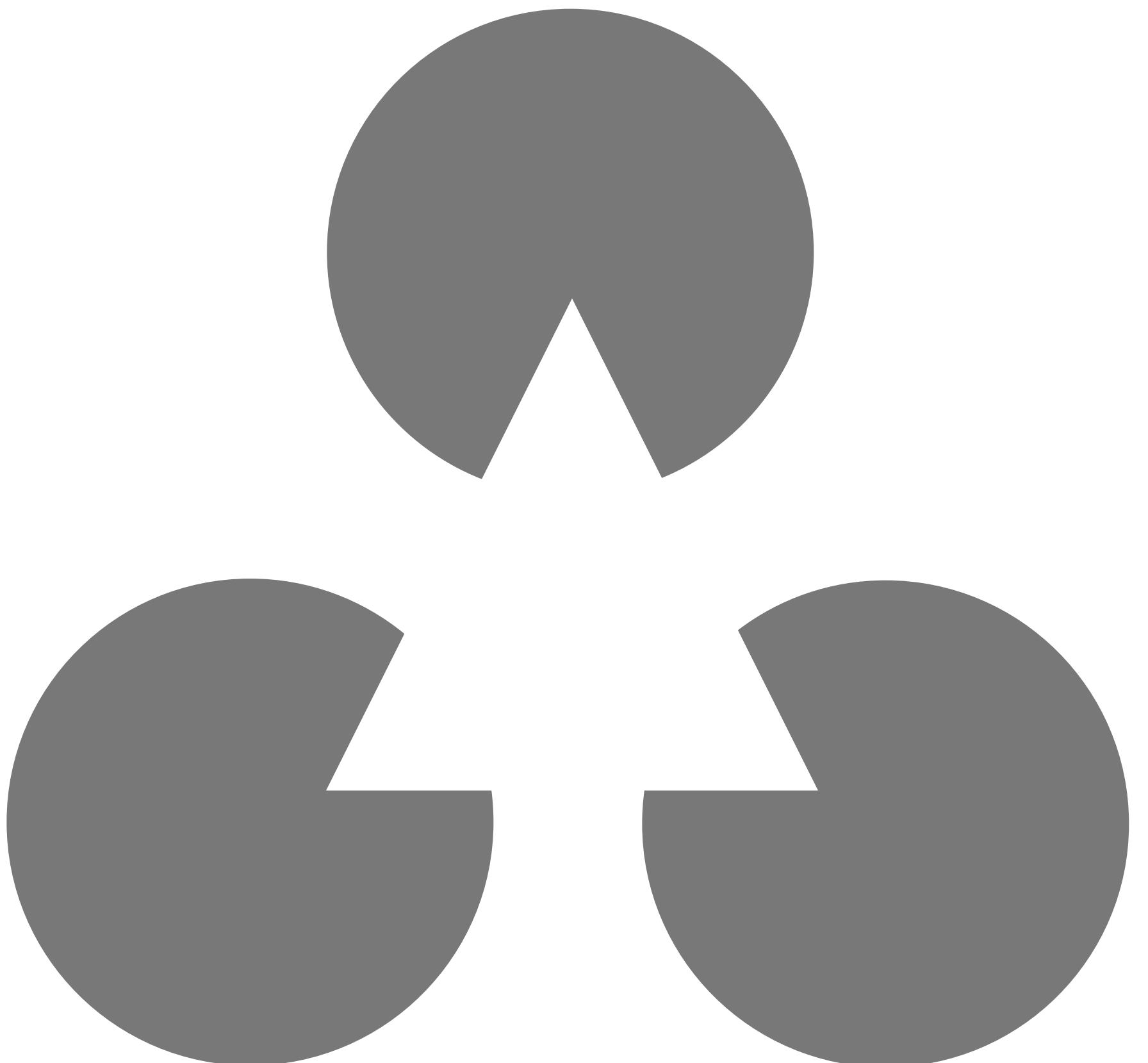


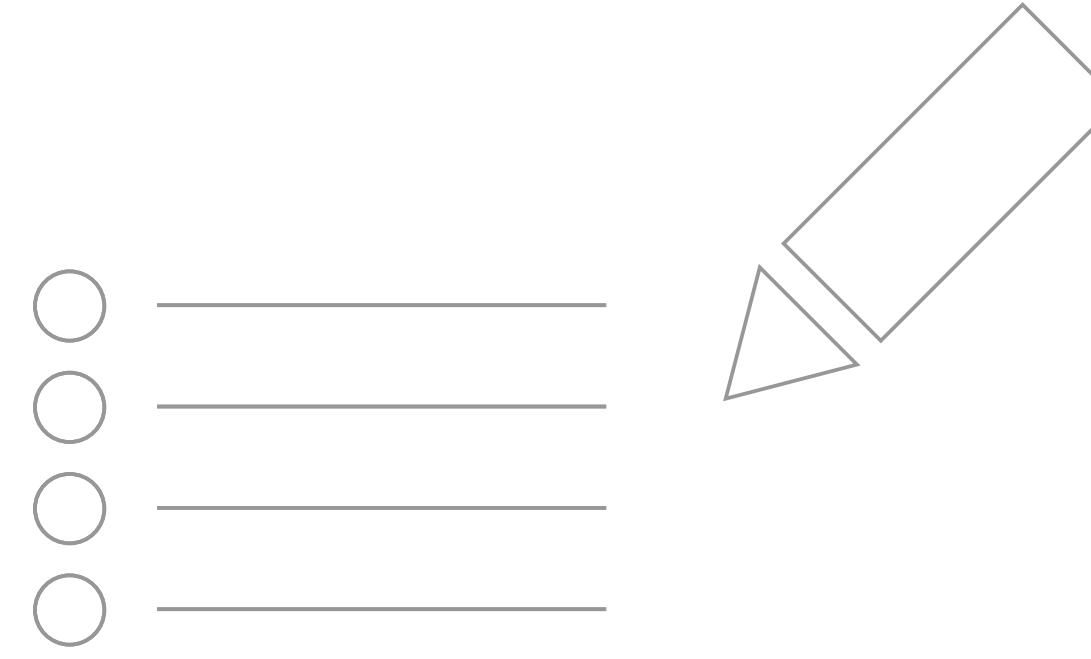
Common Fate

Humans tend to perceive elements moving in the same direction as being more related than elements that are stationary or that move in different directions

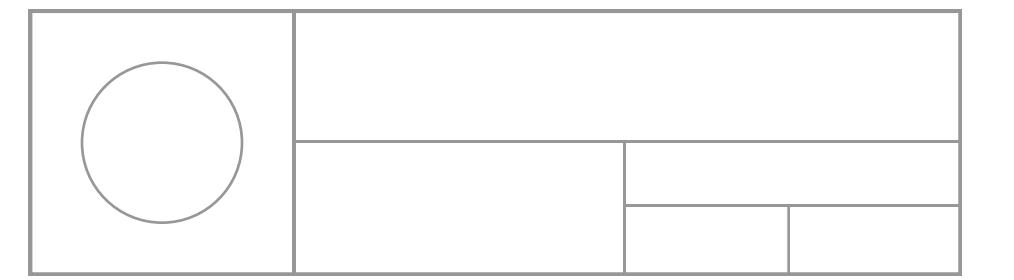
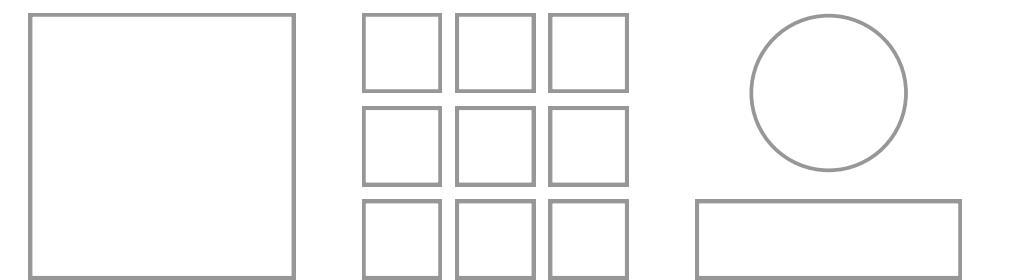
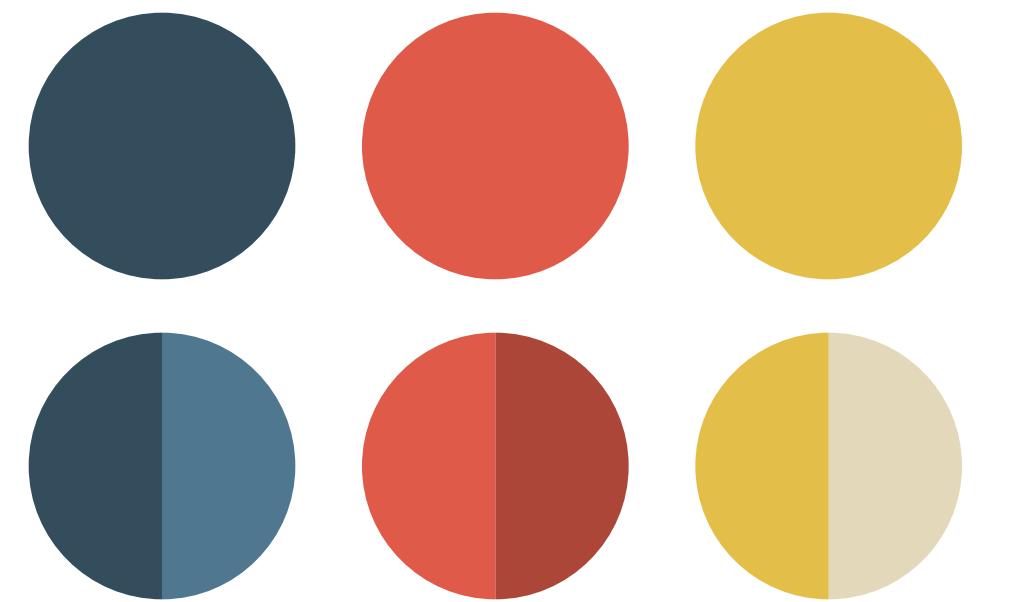
Closure

The principle of closure dictates that when we look at a complex range of visual elements, we tend to first look for a single, recognisable pattern.



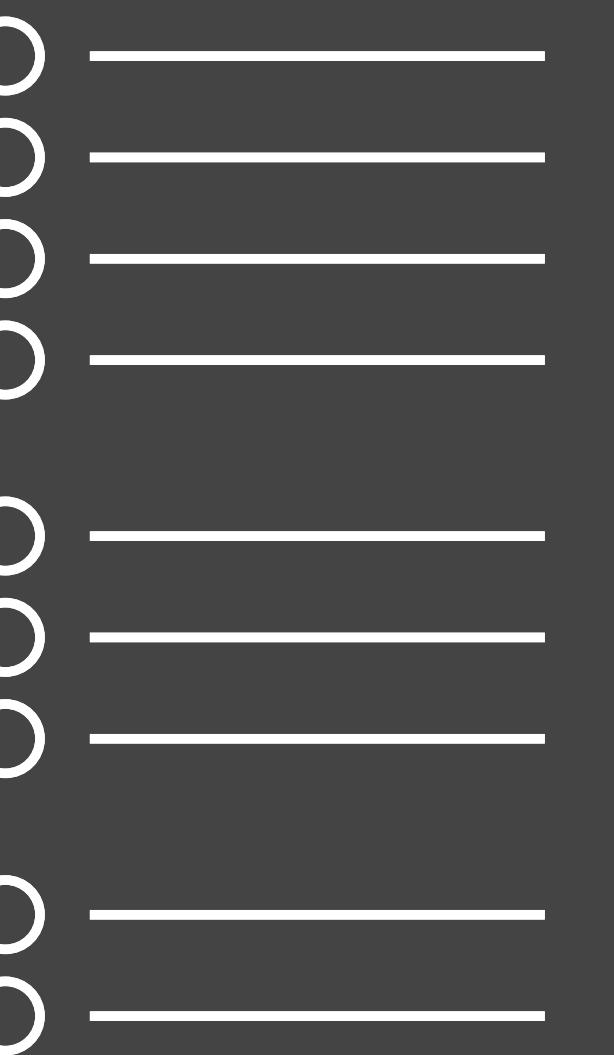


Design Elements



AaGgYy

Design Elements



Design Principles

Design Elements vs. Design Principles

Design principles are rules that you should always consider when creating your design, whereas design elements are the actual components that make up a design. As a designer, it's important to understand the various elements of design, while considering best practice principles in applying them.

Design Elements

The design elements covered are colour, contrast, shape, form, space and type.

Colour

Contrast

Shape

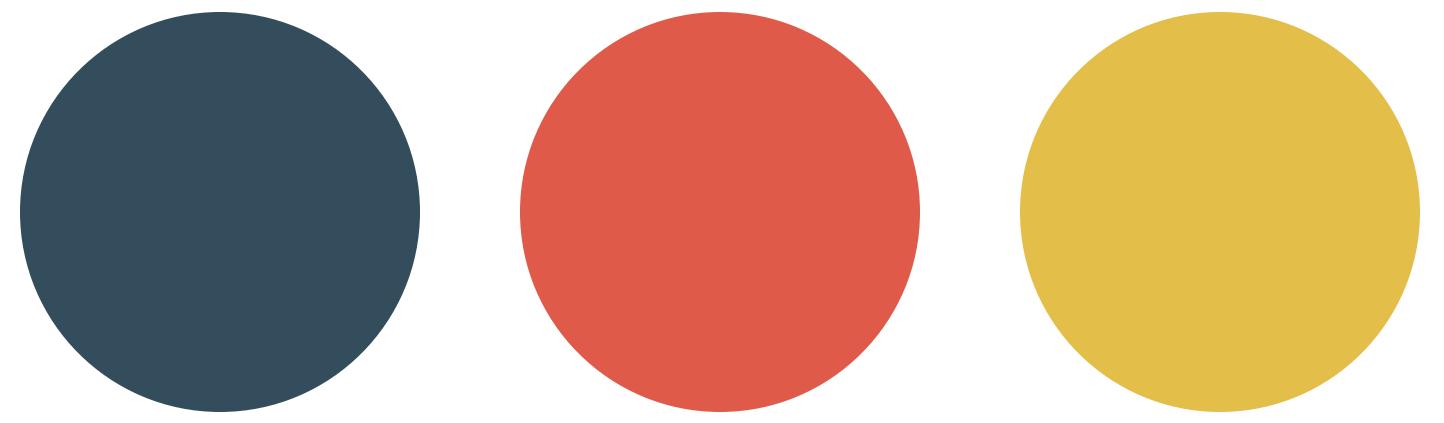
Form

Space

Type

Colour

Colour is a very strong element of visual communication. It can be used to set mood, draw attention and create a sense of depth within a design.



Colour

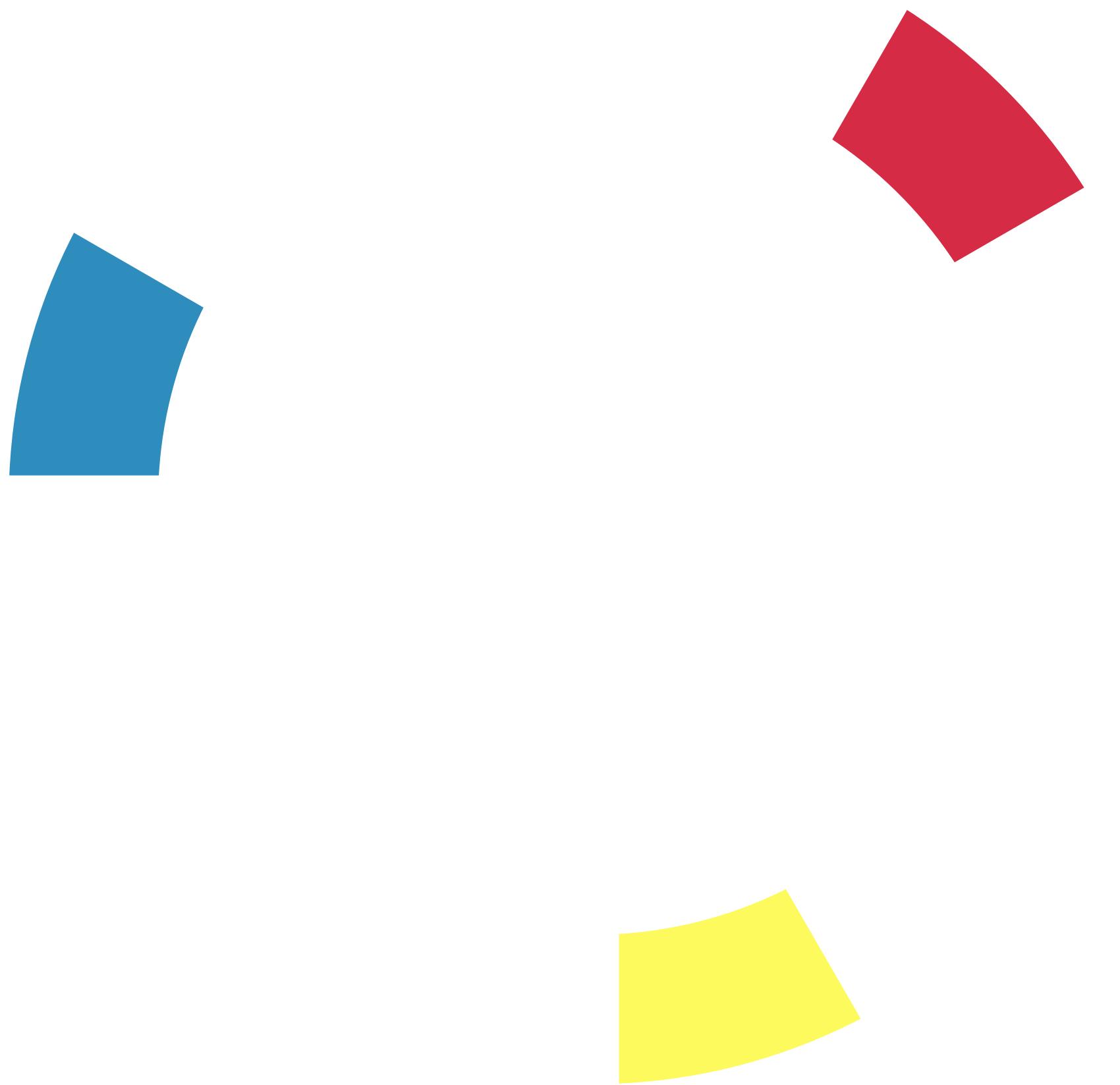
The Colour Wheel

We'll begin the discussion of colour by introducing the colour wheel. The colour wheel covers the entire spectrum of colour — or its hue — as you rotate throughout the wheel.



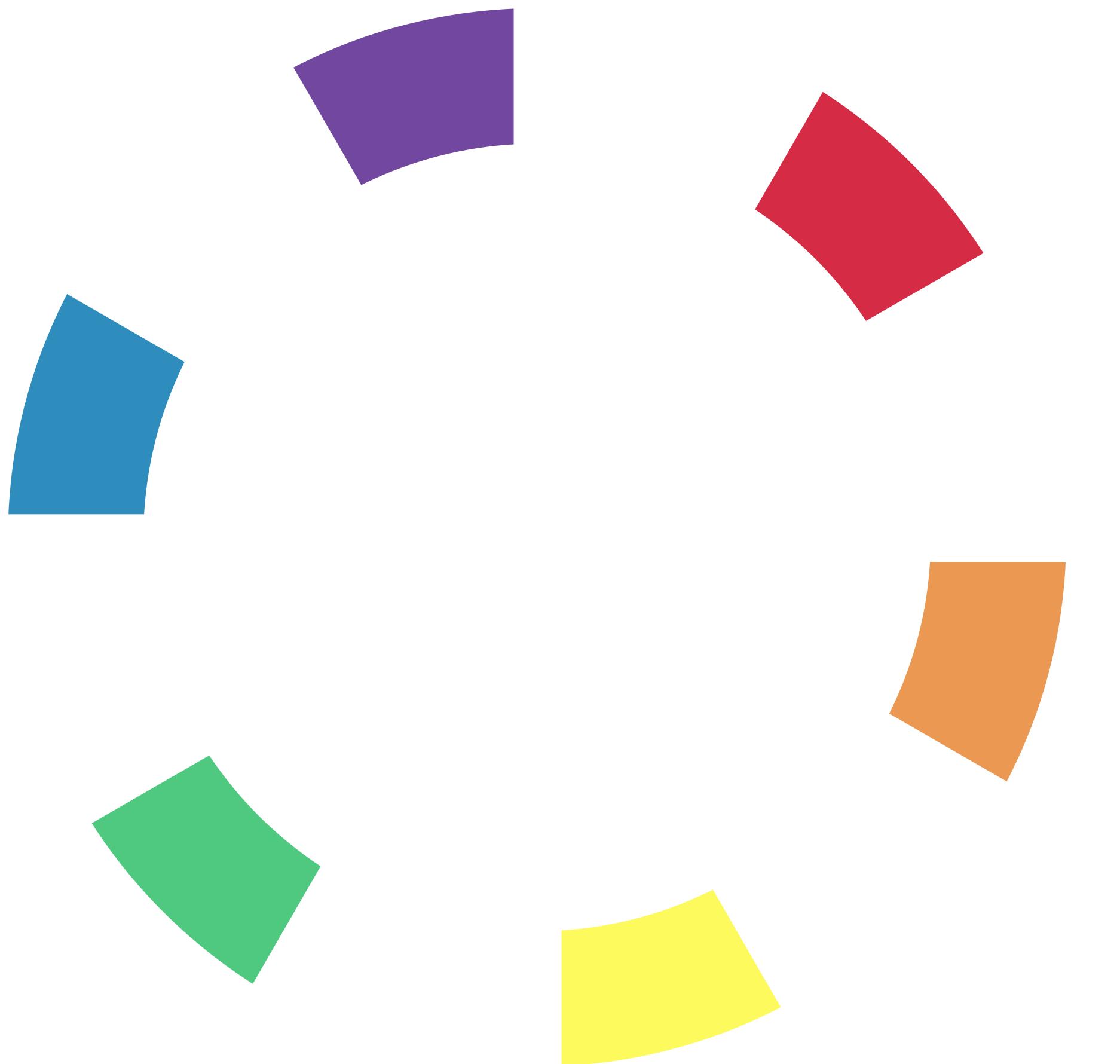
The Primary Colours

The three primary colours are red, yellow and blue.



The Secondary Colours

When you mix these colours together, you get orange, green and violet.



The Tertiary Colours

When you mix the secondary colours with the primary colours, you get orange-red, orange-yellow, yellow-green, teal, indigo, and purple-red.

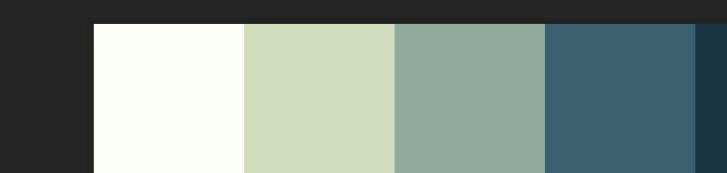
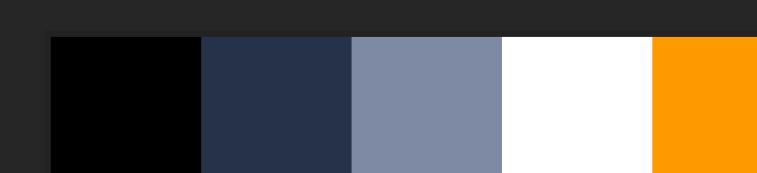
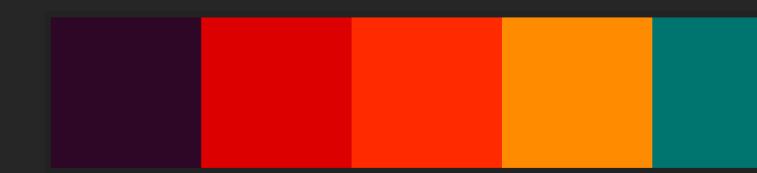
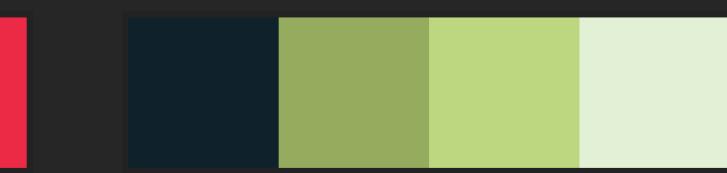
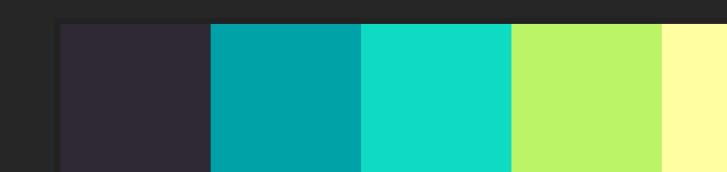


Tints & Shades

Within the spectrum of colours are tints, which are colours mixed with white, and shades, which are colours mixed with black.



Most Popular ▾

sandy stone beach ocean ... 9K+ 9K+ 362Firenze 9K+ 9K+ 190Neutral Blue 9K+ 9K+ 54Phaedra 9K+ 9K+ 26Honey Pot 9K+ 7K+ 50Aspirin C 9K+ 7K+ 31Flat UI 9K+ 7K+ 26Vitamin C 9K+ 6K+ 411944mustang 9K+ 6K+ 51Sea Wolf 9K+ 6K+ 42Watermelon 9K+ 5K+ 152Cherry Cheesecake 9K+ 5K+ 108Circus III 9K+ 4K+ 51Tech Office 9K+ 4K+ 20CS04 6K+ 4K+ 14zen and tea 6K+ 4K+ 42Vintage Ralph Lauren 6K+ 4K+ 21Friends and foes 5K+ 4K+ 28Pear Lemon Fizz 5K+ 3K+ 14Times Changing 5K+ 3K+ 31Japanese Garden 8K+ 2K+ 80Orange on gray 8K+ 2K+ 46Ocean Sunset 8K+ 2K+ 27Granny Smith Apple 8K+ 2K+ 61

A Creative Cloud Service

Language: English

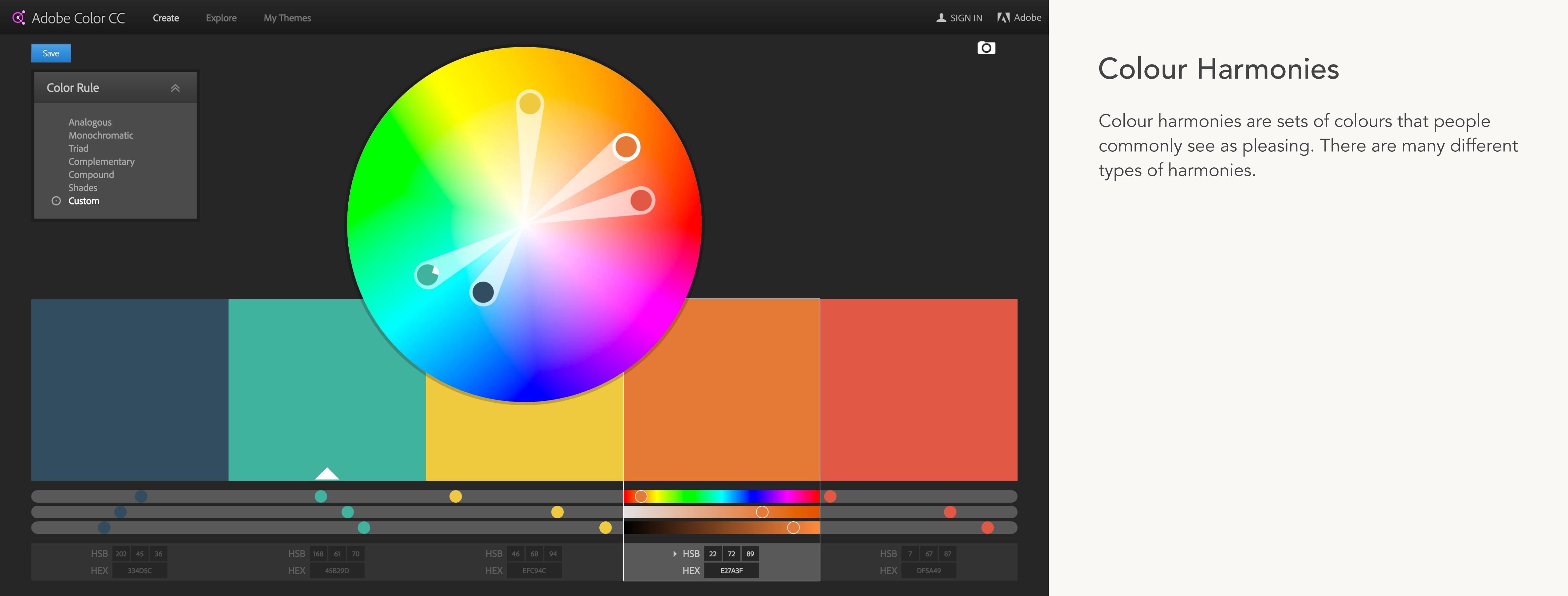
[More](#)[Terms of Use & Privacy Policy](#)

Adobe Color CC

A really good resource for you to play and experiment with colour is a tool called Adobe Color CC. Here you can browse and explore various colour palettes that users have created, and modify them to suit your own colour harmony.

Adobe Color CC

<https://color.adobe.com/>



Colour Harmonies

Colour harmonies are sets of colours that people commonly see as pleasing. There are many different types of harmonies.

Colour Harmonies

Colours people commonly see as pleasing.

Adobe Color CC Create Explore My Themes SIGN IN Adobe

Save

Color Rule

- Analogous
- Monochromatic
- Triad
- Complementary
- Compound
- Shades
- Custom

HSB 168 61 100
HEX 63FEE0

HSB 168 61 70
HEX 45B29D

HSB 168 31 75
HEX 83BFB3

HSB 168 31 100
HEX AFEEFF

HSB 168 61 50
HEX 317F70

Monochromatic Colours

Monochromatic colours have the same hue, but have varying tints and shades, or degrees of black and white.

Monochromatic

Colours of the same hue, but with varying values (shades & tints).

Adobe Color CC Create Explore My Themes SIGN IN Adobe

Save

Color Rule

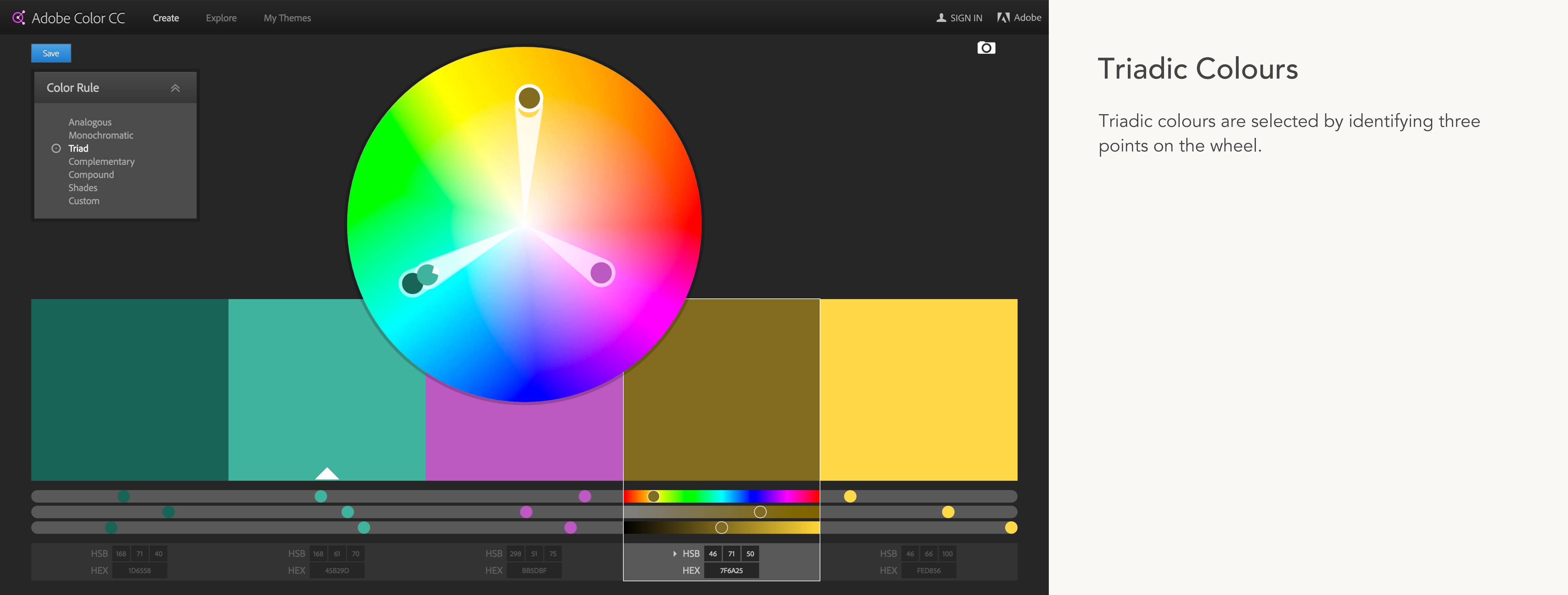
- Analogous
- Monochromatic
- Triad
- Complementary
- Compound
- Shades
- Custom

Complimentary Colours

Complimentary colours: contrast is created by selecting colour at opposite ends of the wheel.

Complimentary

Colours on the opposite ends of the wheel.



Triadic Colours

Triadic colours are selected by identifying three points on the wheel.

Triadic

Colours that are at three points on the wheel.

Adobe Color CC Create Explore My Themes SIGN IN Adobe

Save

Color Rule ▾

- Analogous
- Monochromatic
- Triad
- Complementary
- Compound
- Shades
- Custom

HSB 201 66 75
HEX 4093BF

HSB 168 61 70
HEX 45B29D

HSB 185 66 79
HEX 44BEC9

HSB 151 66 79
HEX 44C98A

HSB 134 66 75
HEX 40BF5F

Analogous Colours

Analogous colours are located close to one another on the wheel.

Analogous

Colours that are close to one another on the wheel.

Colour can be used to dictate mood and emotion. Colour can also carry a symbol and a meaning. On a post-it note, write down:

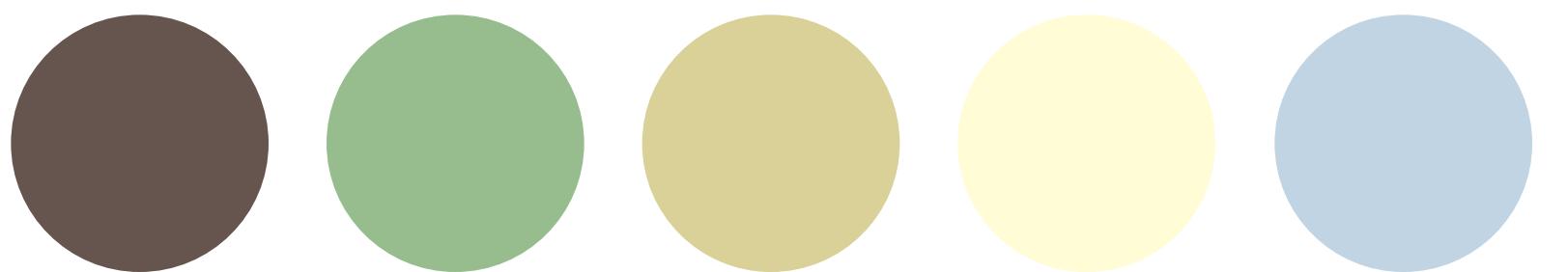
What mood or emotion would you normally associate with this colour?

In your every-day life, where would you normally see this colour?

From your own experience, where have you seen this colour used on advertisements and branding materials? What kind of products / services are they selling? Why do you think they are using this colour?

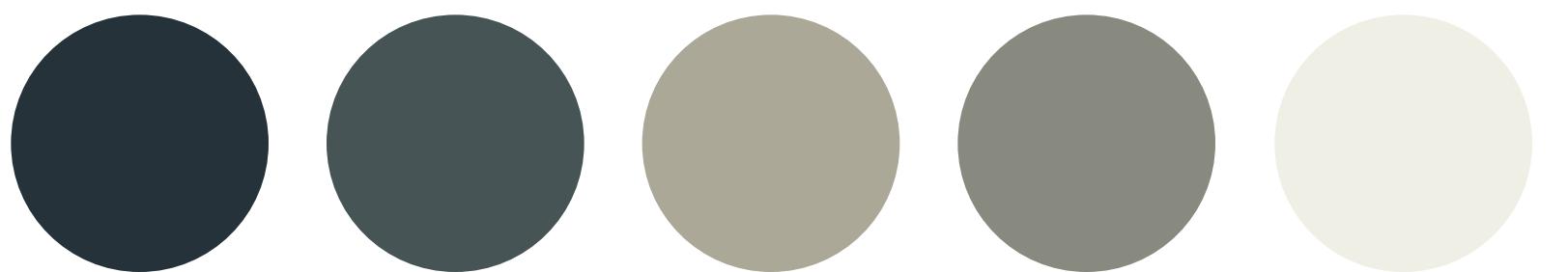
Teacher

Examples of Colours



“Spa Style”

Template from Adobe Color CC



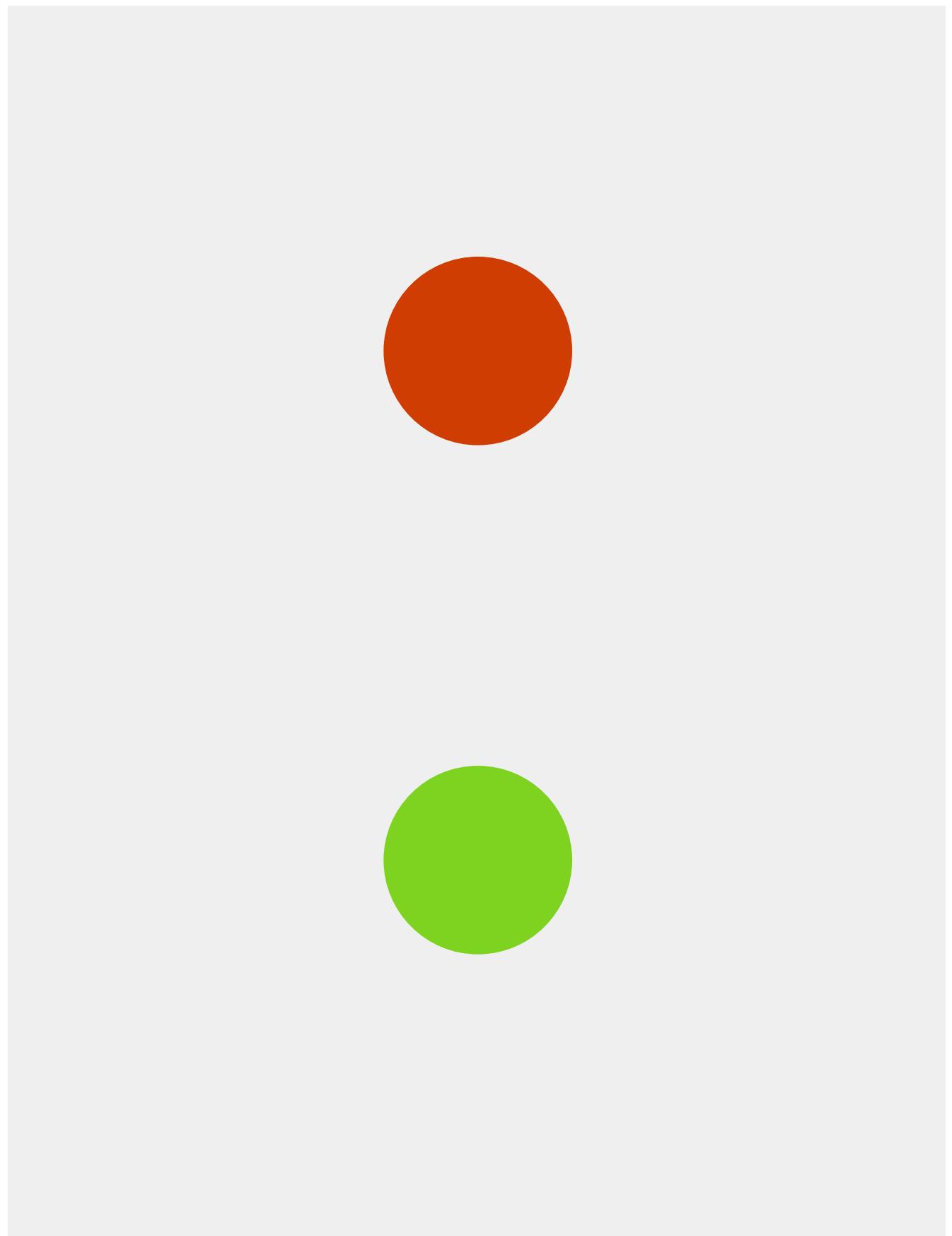
“Corporate Cool”

Template from Adobe Color CC

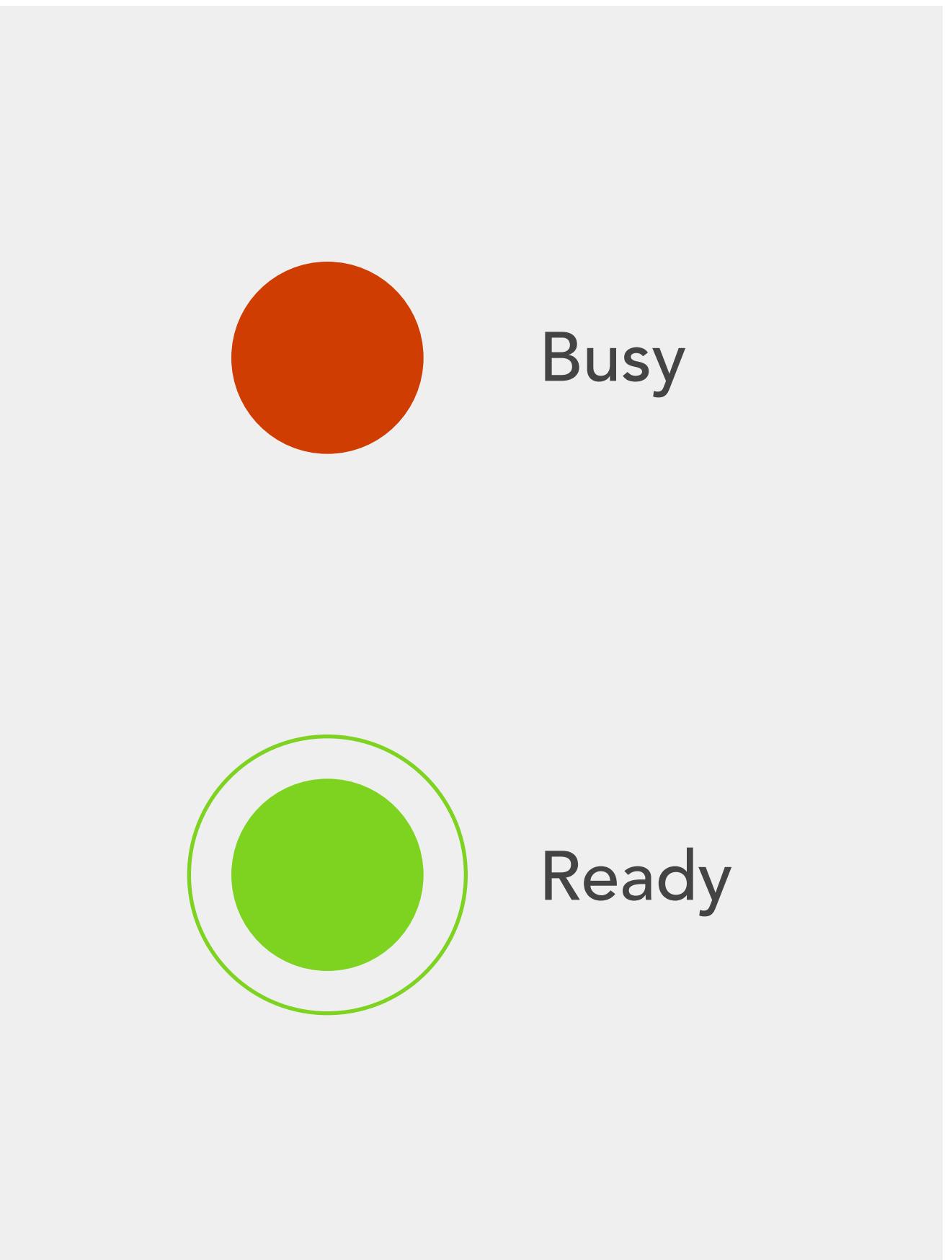
Remember that your choice of colour can be highly dependant on the mood that you would wish to set for your audience. For example, if you are designing a website for a day spa, you'll choose vibrant, airy pastel colours, as opposed to more muted and understated colours of a large and well-established law firm.

Important Notes About Colour

Keep in mind that colours and shapes can be synonymous with one another. For example, green and ticks are commonly used to indicate good, whereas red and crosses are commonly used to indicate bad. Also, when indicating a state within a user interface element, don't rely on colour alone. Not everyone can see colours perfectly and it often helps to provide additional cues. It's also important to be mindful of colour contrast. There needs to be good contrast between text and background, to make sure that information is visible for all users, and that your screen-based design is legible under all lighting conditions.



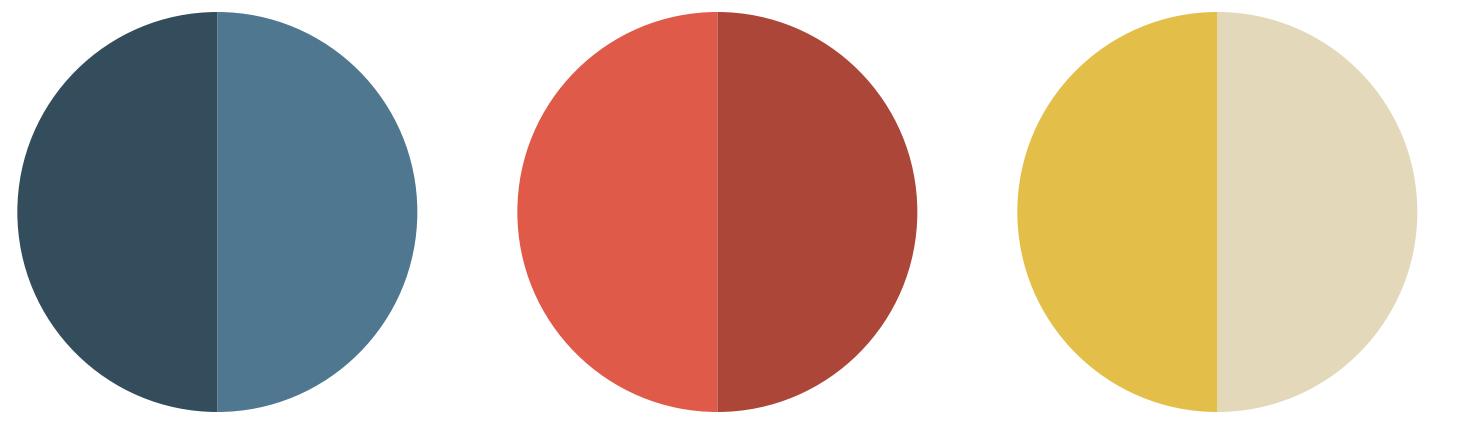
DON'T



DO

Contrast

The design principle of contrast is about comparing two or more things and noticing differences. It is the juxtaposition of opposing elements, such as colour, lines and shapes, to show emphasis. It is an important principle that allows you to highlight important elements in your design.



Contrast

Contrast

It is therefore a good idea to decide which elements need the most emphasis so you can use the principle of contrast to show which parts should be highlighted.

Logo

Sidebars

Header

Featured Items

Navigation

Articles

Banner

Search Bars

Slider

Galleries

News Items

Footers



videos

US / ▶ Democrats share why they'll miss Obama

1:02

Democratic convention / ▶ Delegate, 102, thrilled to see woman nominated

1:26

>

tralia

ent About ▾
ne changemakers

g labs

New teaching model gets better results from students

Empowering women to win in finance

Innovation in farming means strawberry fields forever

True colours: creating a workplace where people bring their whole self to work

Paid for by

on

“ The marriage equality plebiscite and the constitution: it may not be plain sailing

Richard Ackland

379

“ Australia can do much better than a rank of 20 on sustainable development goals

John Thwaites

“ I spend my time writing about the economy but the climate data hits me right in the gut

Greg Jericho

I love my graphs and get car

“ The juvenile detention scandal

Contrast

How do Web designs use contrast effectively? A news site may use contrast to show featured stories. In this particular example, the dark background of the feature video makes it stand out quite prominently as compared to the white spacing on the rest of the website.



Contrast

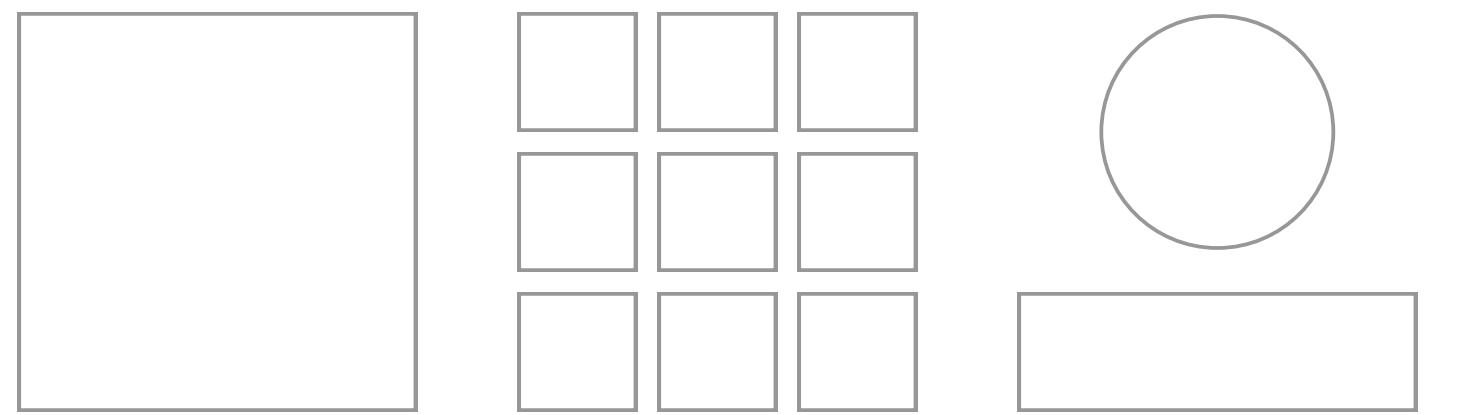
In a photo sharing website, the strongest areas of contrast may be the images themselves.

You can achieve contrast by using different colours on the colour wheel, dark and light tones within and next to one another, and through the use of harmonious font pairings, such as serif and sans serif.

Use contrast effectively to draw attention -- too little contrast can prevent site visitors from knowing where to look. Too much contrast can create too much visual noise and confuse users. With contrast used effectively, you can highlight specific areas of interest on your site and engage your users to the parts that matter.

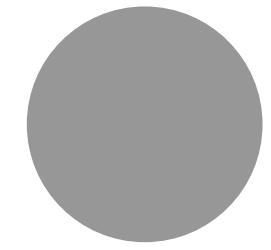
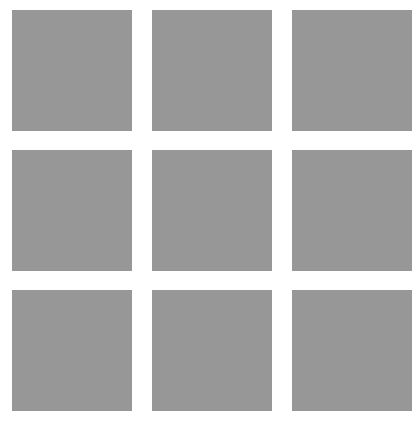
Shape

A shape is defined as any flat area that is bound by line, value or colour. Shapes can have structure and be geometric and artificial, curvilinear, organic and natural.

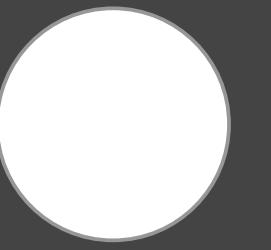
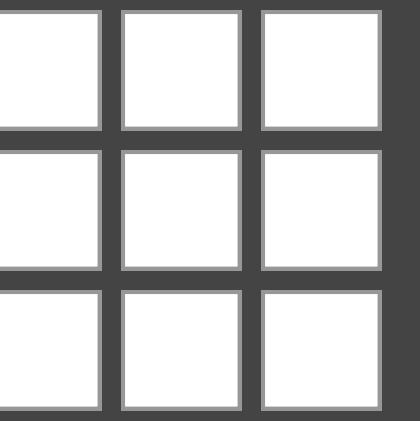
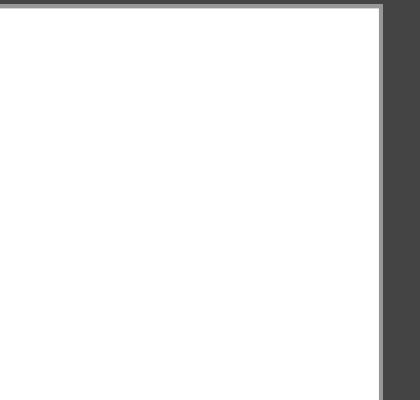


Shape

Positive



Negative

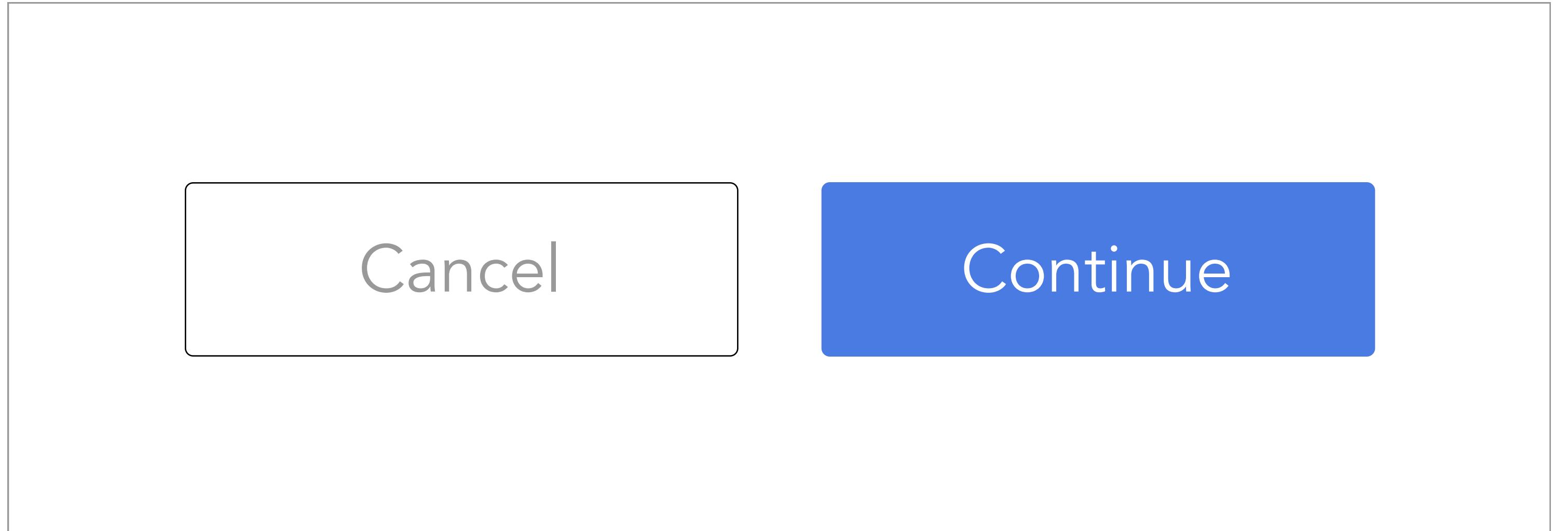


Shape

Shapes can be positive or negative: positive shapes occupy space, whereas negative shapes occupy the negative space between elements, or are cut out within other positive elements.

Shape

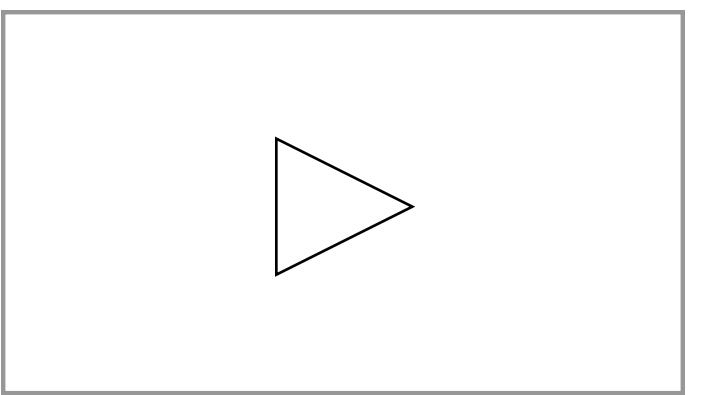
When we think about the principle of the figure ground relationship, shapes can be used to highlight areas and draw attention.



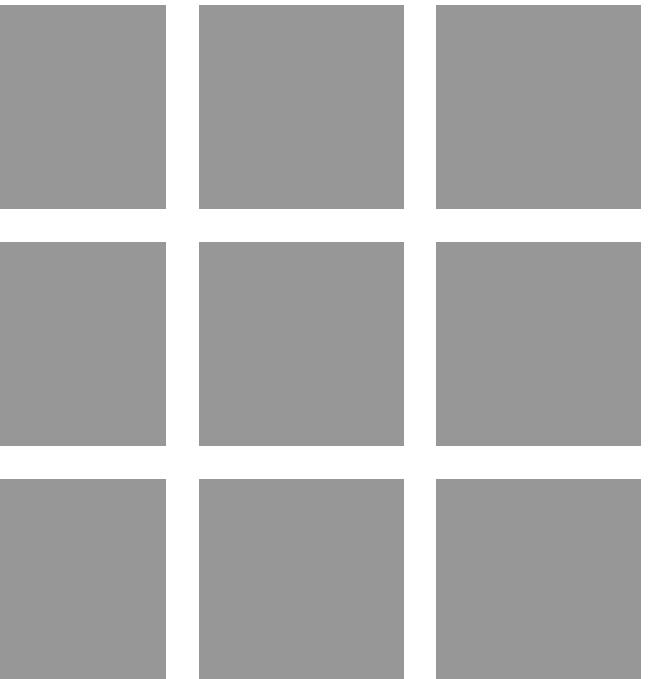
When we think about the principle of similarity, a repetition of similar shapes creates a sense of harmony and unity in design, as it creates a visual consistency. Repeating shapes can be used for your navigation, and as a way of organising various elements in your design. Remember, shapes can be consistent both in terms of their positive space (i.e., the shape itself) and their negative space (e.g., consistent spacing between elements).



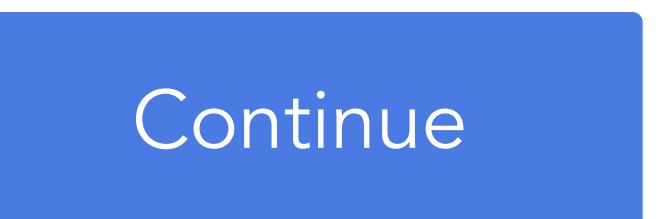
Profile Picture



Movie



Gallery



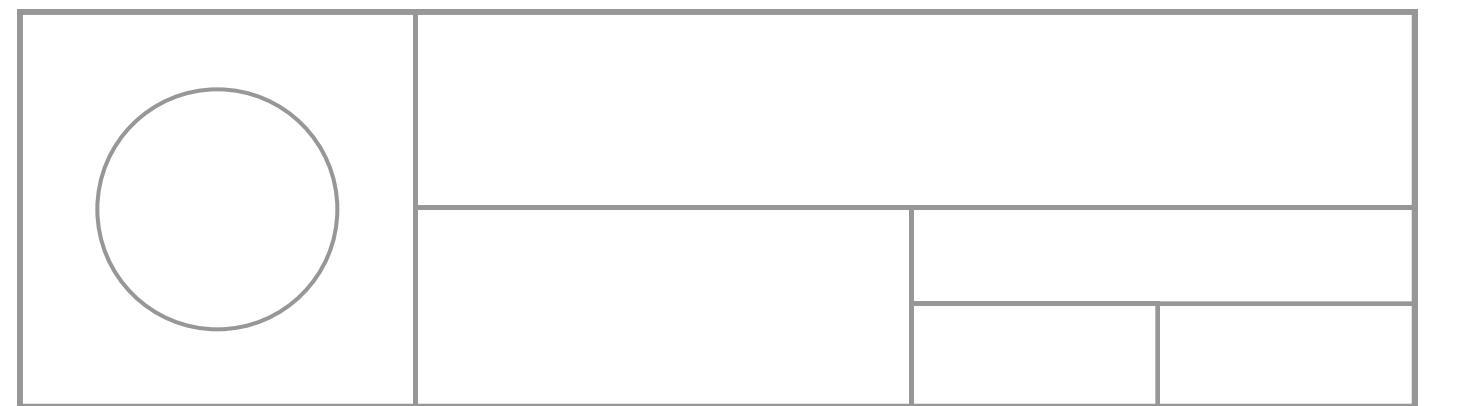
Button

Shape

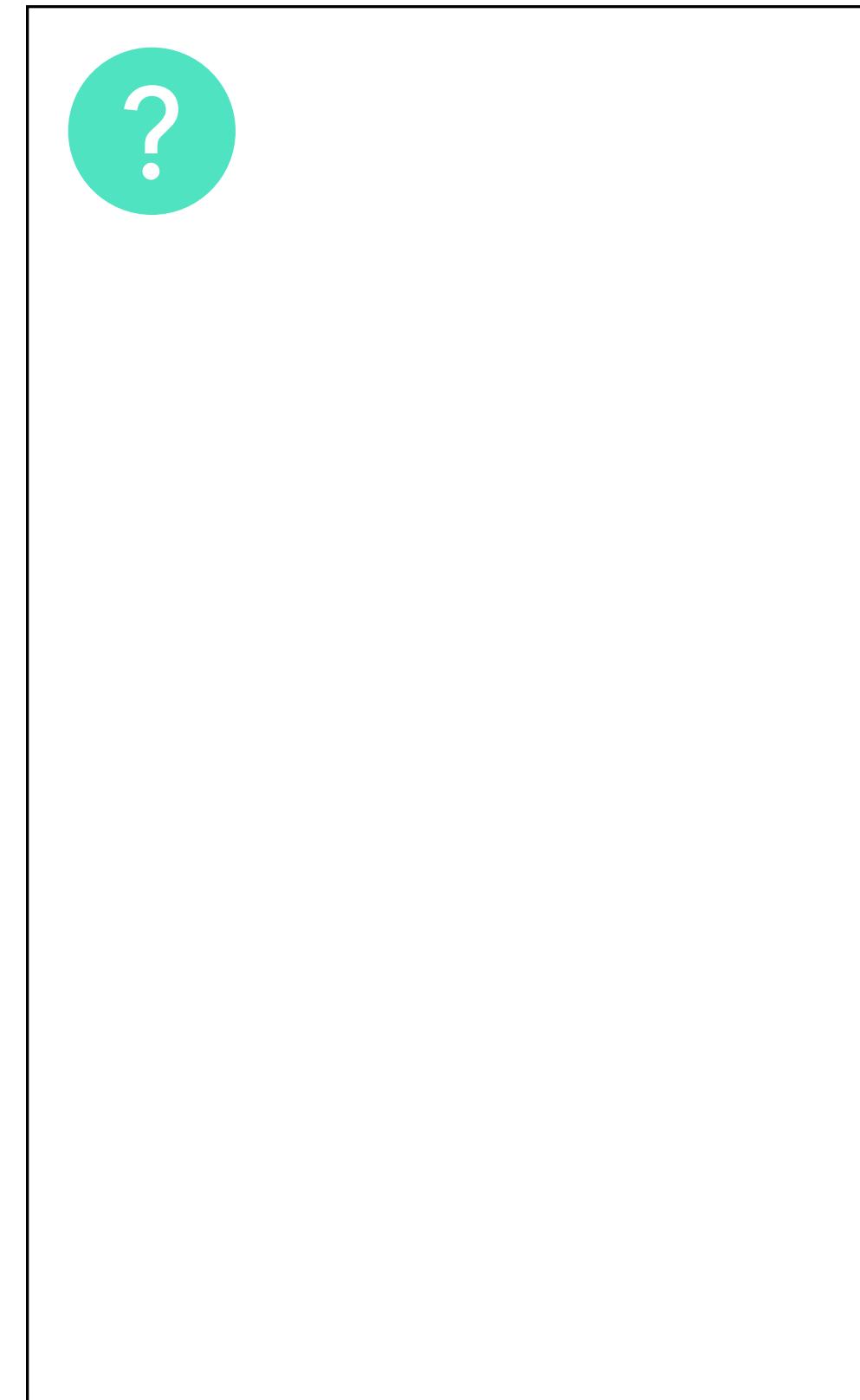
Shape can also be used to convey meaning: a) circles for profile pictures, a grid of tiles could represent gallery. A triangle can indicate both a disclosure arrow, or a play button. Rounded rectangles are commonly used for buttons.

Form

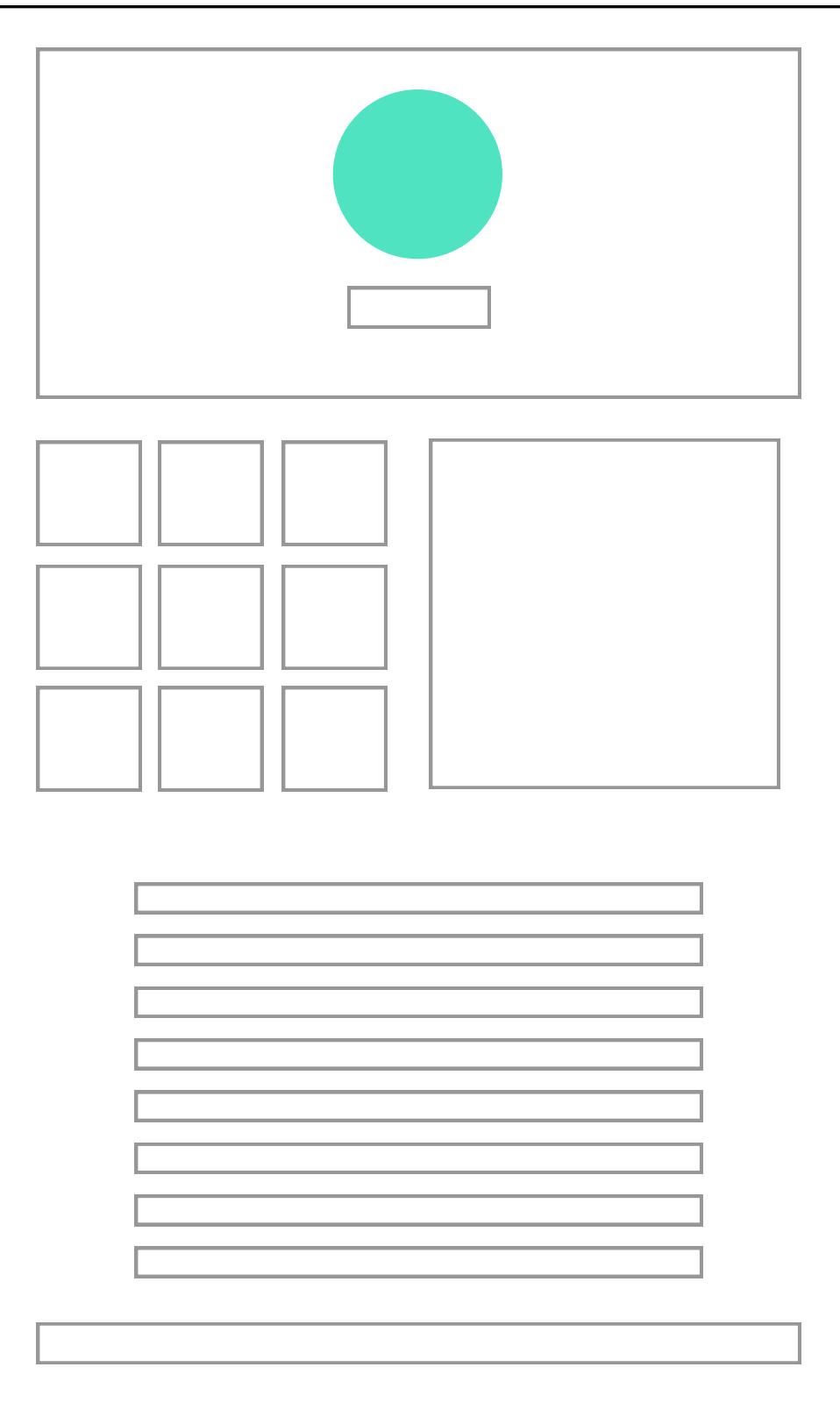
Form refers to your design as a unified whole, its shapes and elements and the relationships between them. Collectively speaking, form refers to "the sum of all the parts."



Form



The Part



The Whole

Form

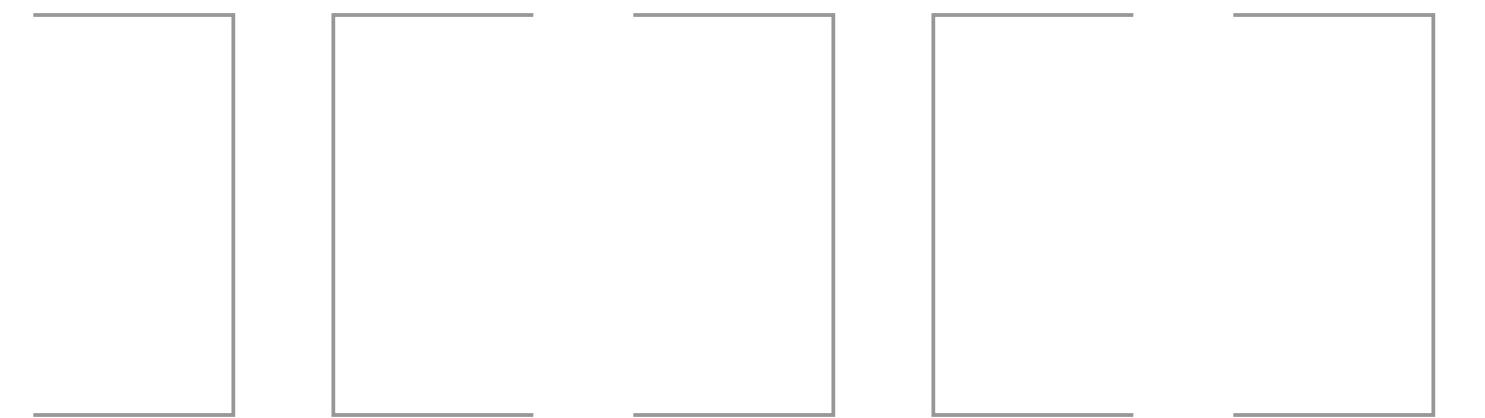
Let's look at a site's logo. Where does it go? You could place it at the top or in the centre, but you could only really decide on its position once you've laid out the rest of the elements, and consider the group of elements as a whole. We've previously examined elements such as colour, contrast and shape in detail. Form is about how it all fits in. Good form is where everything looks like it's meant to go together. This is why the wireframing process is so important, as it allows you to focus on structure, form and flow, before honing on the finer details of contrast, shape and colour.

Laying out the structure of your design and creating good form takes practice, time and care. You should explore multiple design possibilities before arriving at a single solution.

Websites with good form are clean and well balanced with clearly defined areas of interest. Well formed websites use shapes, colour and type to group content, draw attention and create visual hierarchy. During the wireframing process, your content placement should be nuanced and deliberate, while considering how the pieces of your design fit together as a single whole.

Space

Space refers to the areas and measurable distances between your design elements. The empty areas between your elements are just as important as the elements themselves. Space is an integral part of your design.



Space is related to our visual perception. It gives the eye a place to rest between our elements. Subsequently, elements that are surrounded by space are perceived as being related to one another. Empty space allows our eyes to focus on the elements that we want to draw users to.

Space



Bootstrap is the most popular HTML, CSS, and JS framework for developing responsive, mobile first projects on the web.

[Download Bootstrap](#)

Currently v3.3.7

Designed for everyone, everywhere.

Bootstrap makes front-end web development faster and easier. It's made for folks of all skill levels,

Space in Web Design

In Web Design, there's often a lot of space within the header so we can draw our eyes to the title, the logo, and any call to actions that we may want to highlight to the user. Space can also be used to separate repeating elements so that the contents of those elements don't collude with one another.



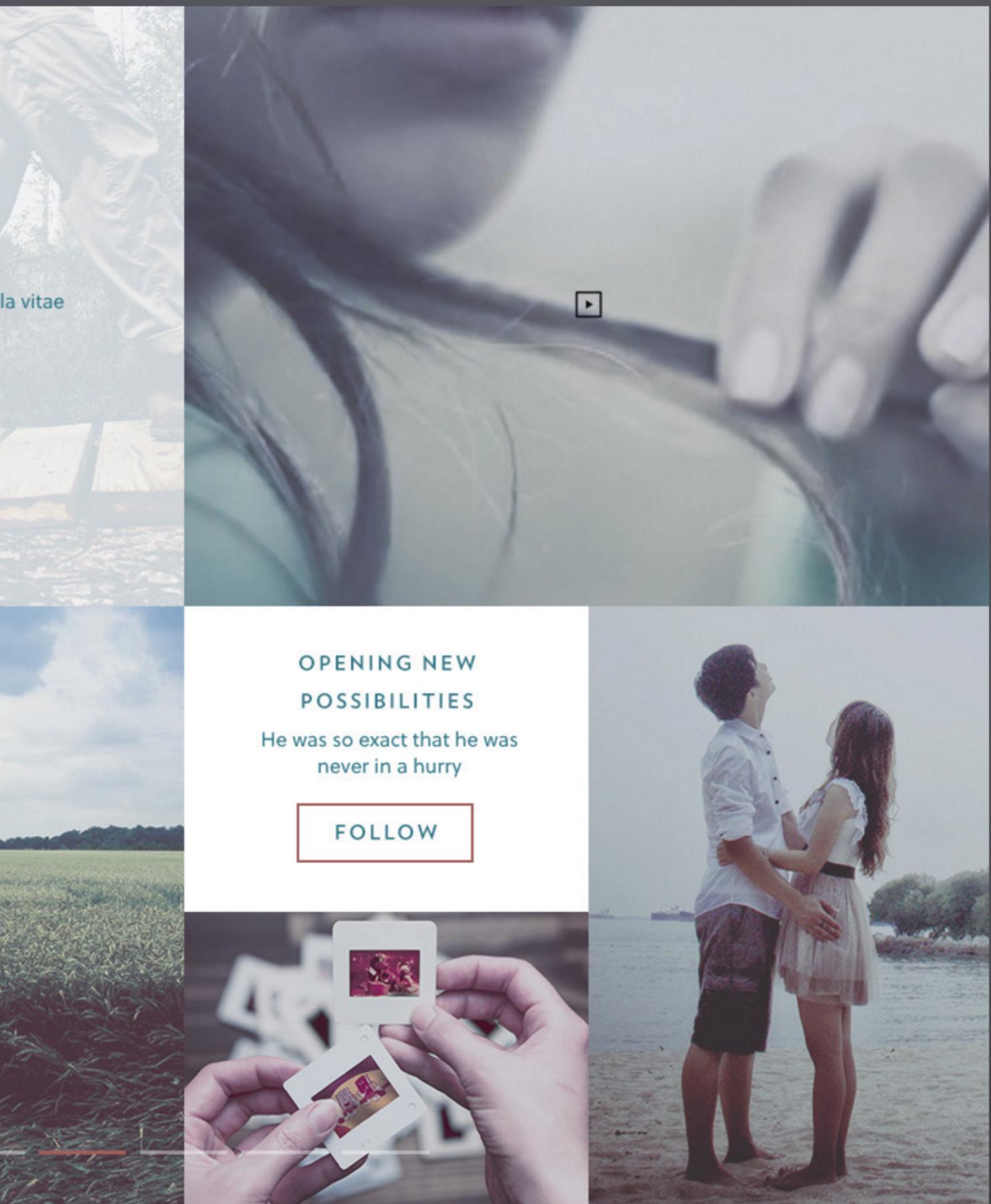
AI WEBSITES THAT DESIGN THEMSELVES
JOIN THE EVOLUTION

REQUEST ACCESS

WATCH THE VIDEO

The Grid

The Grid uses space really nicely to showcase its product offering.



A Site As Colorful As You

INTELLIGENT COLOR DETECTION & CORRECTION

Our algorithms expertly analyze your media and apply color palettes that keep your messaging consistent and unique. The Grid also detects color contrasts, automatically adjusting typography color to maximize legibility.

The Grid

They effectively use space to elegantly tell a story. Although The Grid claims to offer a very fully-featured product, they use space to break down their narrative into compelling, easy-to-read components with examples.

Typography

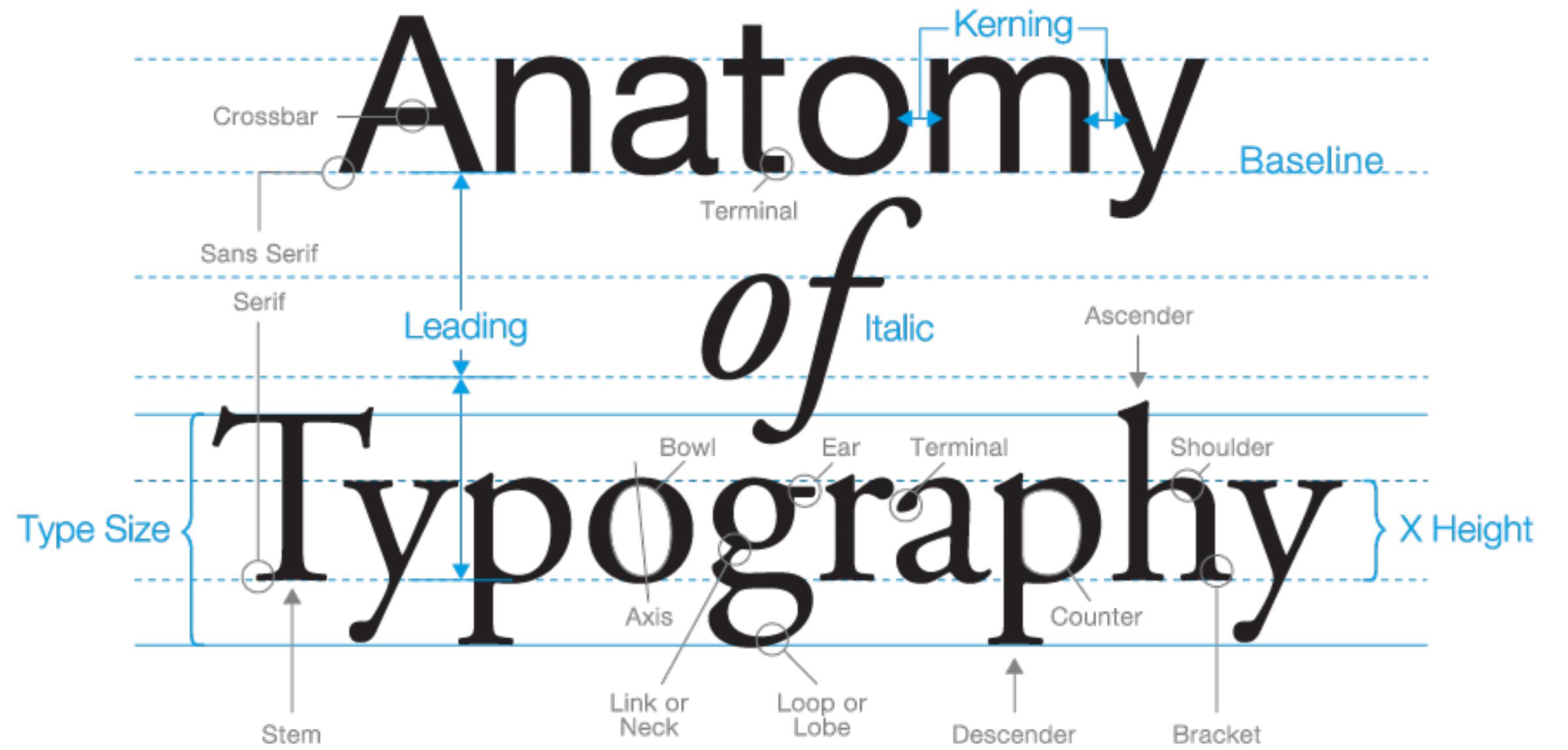
Type refers to the fonts you use in your design, and how you actually use them to communicate your design and provide a sense of visual hierarchy. Fonts can also be used to communicate the right mood to your target audience.

AaGgYy

Typography

Typography

It is important to know all of the elements of a typeface. Fonts have many different parts to them. Generally speaking, fonts with a larger x-height are easier to read.



Source: <http://writinginpublic.com/the-truth-and-lies-of-typeface/>

Serif

sans serif

Serif vs. Sans-serif

In general, the two main font styles you can choose from are serif and sans-serif. There are several other categories for fonts, these include: cursive, handwriting, decorative and typewriter fonts. In general, people find it easier to read serif fonts, especially in print design, because the serifs guide the eye from one letter to the next, and word shapes are easier to recognise.

On the Web, which until recently has traditionally been a low-resolution format, sans-serif fonts are used because they render more crisply on the screen than serif fonts.

Another point of attention is the leading, which refers to the spacing between the lines of text. On the Web, line height can easily be adjusted using the CSS line-height property. It is a good idea to play around with the line height to ensure legibility of your text -- line height can be used to create a sense of space within your design.

You should use fonts consistently -- too many different fonts on a Web page can create a disunity in your design. It is much easier, and preferable, to choose one or two fonts that go well together, and then use variations in their size and weight to highlight headings, sub-headings and to create a visual hierarchy within your design.