

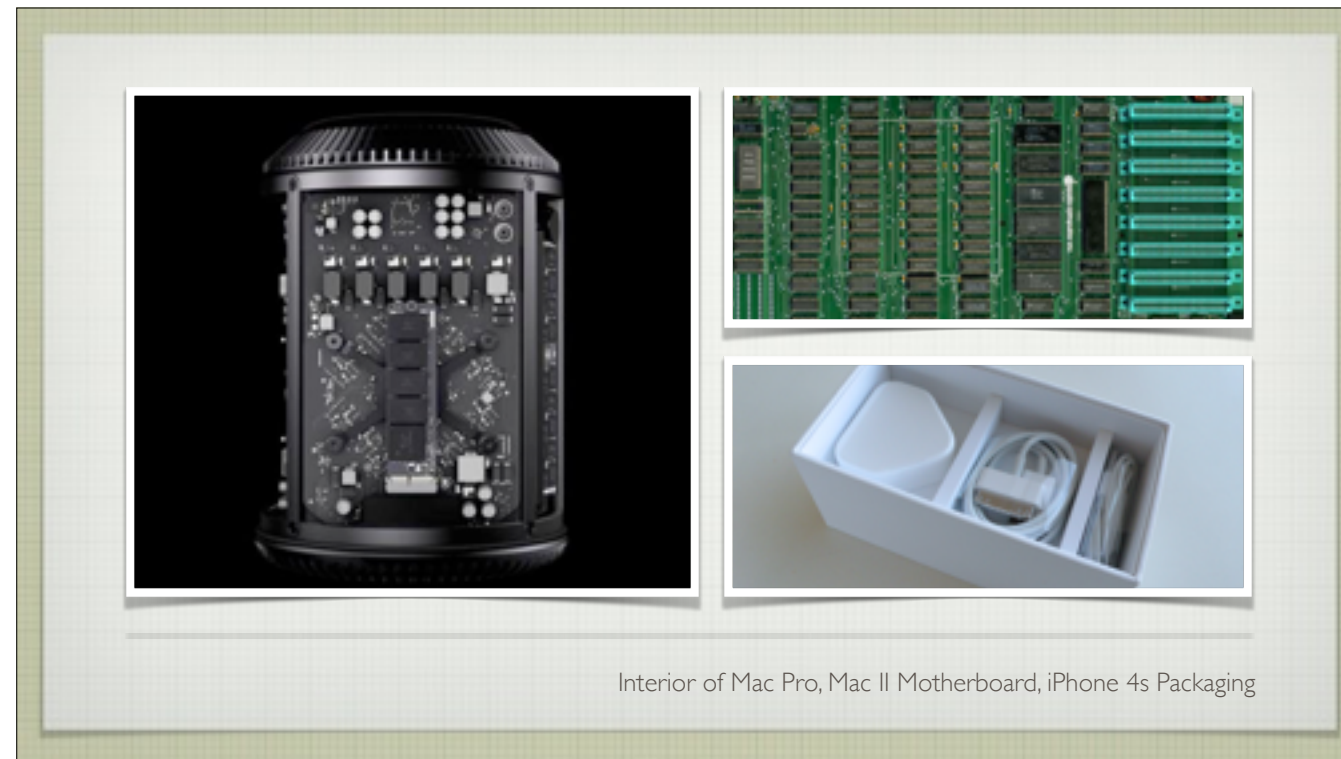


This course focuses on the understanding and comprehension of the basic tools and strategies for design within a two-dimensional environment. In addition to design, web development and interactivity will be covered, including a discussion of various display platforms, including mobile development.

In most people's vocabularies, design is a veneer. It's interior decorating. It's the fabric of the curtains of the sofa. But to me, nothing could be further from the meaning of design. Design is the fundamental soul of a human-made creation that ends up expressing itself in successive outer layers of the product.

- Steve Jobs

Jobs was so obsess with design to the point where he would reject motherboard configurations if they were not beautifully designed.



Interior of Mac Pro, Mac II Motherboard, iPhone 4s Packaging

“I want it to be as beautiful as possible, even if it’s inside the box. A great carpenter isn’t going to use lousy wood for the back of a cabinet, even though nobody’s going to see it. When you’re a carpenter making a beautiful chest of drawers, you’re not going to use a piece of plywood on the back, even though it faces the wall and nobody will ever see it. You’ll know it’s there, so you’re going to use a beautiful piece of wood on the back. For you to sleep well at night, the aesthetic, the quality, has to be carried all the way through.” - Steve Jobs

Design Affects Credibility

- ❑ 46% of all comments about the credibility of the sites were related to visual design
- ❑ Sites that were "more professional looking," and had a "higher-quality look and feel," were deemed more trustworthy
- ❑ Participants didn't trust a site if it was "not very professional looking,"
- ❑ Participants were skeptical of sites that looked inappropriately polished, giving negative comments suggesting that certain sites looked as if they were "designed by a marketing team."
- ❑ Information design and the structure of the sites compromised 28% of the comments

Results of research conducted by B. J. Fogg and colleagues at Stanford University
<http://credibility.stanford.edu/>

participants were shown two websites, and asked to rank their credibility and provide comments about what they based their rankings upon.

together, the visual look of a site — along with the way the information was organized — accounted for nearly 75 percent of all comments about whether participants trusted a site or not. Moreover, the participants' comments were sensitive to design that was inappropriate for the site in question.

It is easy to fail when designing an interactive experience. Designers fail when they do not know the audience, integrate the threads of content and context, welcome the public properly, or make clear what the experience is and what the audience's role in it will be.

- Edwin Schlossberg

This quote gets to the heart of interactivity. It is not about merely being interactive, but must evolve around a core foundation.

Heuristics

- ☐ Task orientation and website functionality
- ☐ Navigation and information architecture
- ☐ Forms and data entry
- ☐ Trust and credibility
- ☐ Quality of writing and content
- ☐ Search
- ☐ Help, feedback and error tolerance
- ☐ Page layout and visual/aesthetic design
- ☐ Accessibility and technical design

<http://uxdesign.smashingmagazine.com/2011/12/16/guide-heuristic-website-reviews/>

People are exposed to more information today than ever before, and there just isn't enough time or attention for us to process all of it. So, we use shortcuts to decide what is deserving of our ever-more-precious attention. In psychology, these shortcuts are called heuristics. Heuristics help us solve complex problems and make complex decisions by using "rules" that are either programmed into us by evolution or learned from our own experiences. We make judgements about trustworthiness, credibility, competency, reliability, design and style within seconds

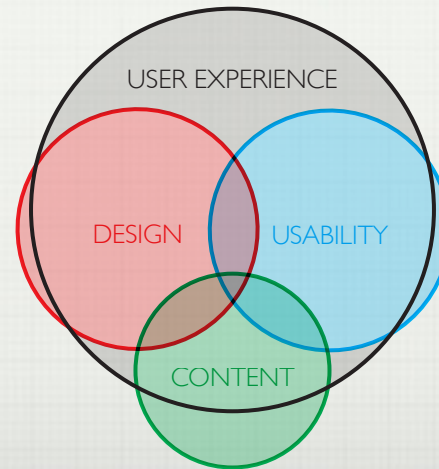
If you see a pair of shoes that you're considering buying, you'll immediately make a judgment on whether this brand of shoes is for you. How does the way it's constructed affect the look of the shoes? Do the colors appeal to you? Is it your style? You use heuristics based upon how similar these shoes are to shoes that you've had past experiences with.

These heuristics are in heavy use as people make decisions on the web. We make split-second judgments about how much we trust a news site to give us accurate information, how much we trust an e-commerce site to process our payments securely, or whether we believe a nonprofit will use our money wisely.

It turns out, in all these cases, design is the single most important heuristic we process when deciding whether a site is credible.

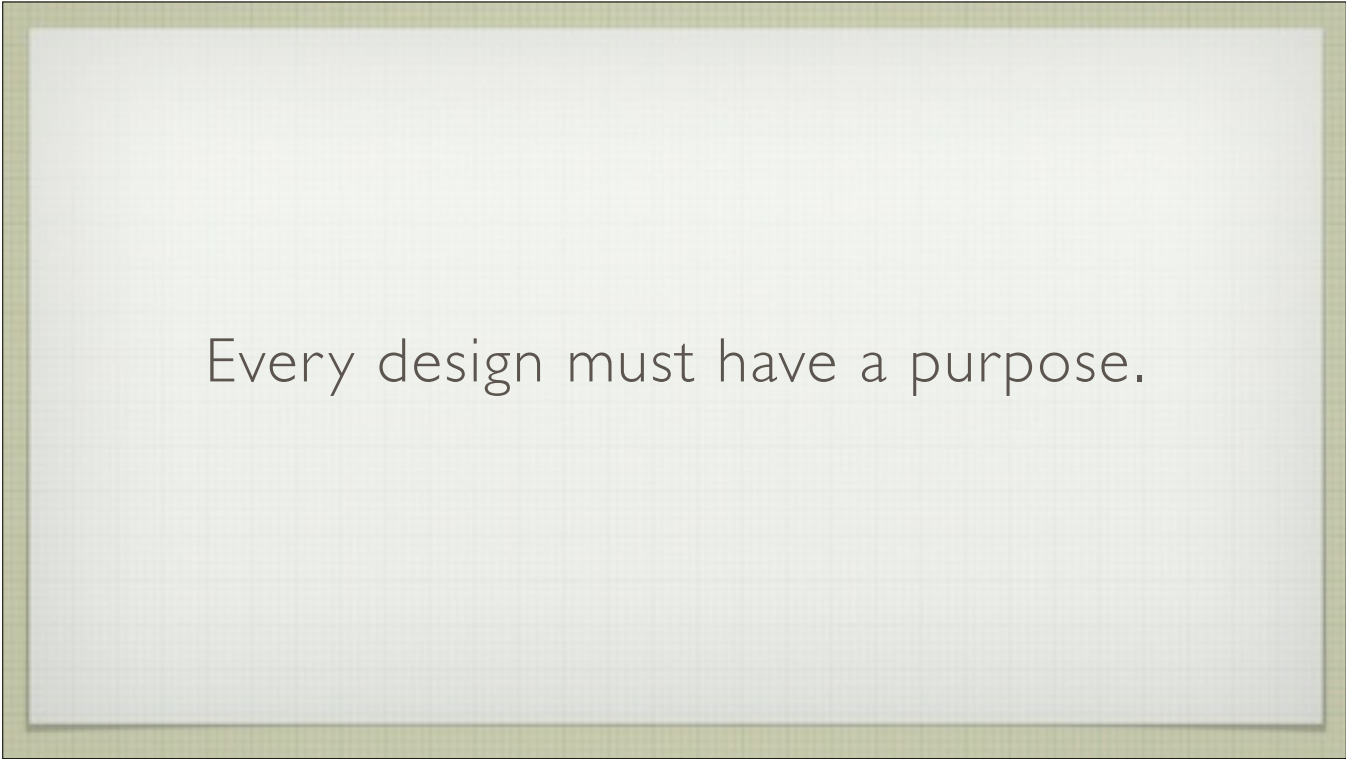
The factors that influence design are countless, with fuzzy boundaries. You could ask a dozen different design experts what factors manifest themselves in a piece of design, and although you'd get a dozen different sets of answers, they would all pretty much cover the same things.

The Layers of Design



To keep yourself creating good design, you need to learn how to understand all the layers that create great design

It's important to understand the layers that make up a design, because getting those layers to work together is the key to creating designs that look good, that solve problems, and that ultimately influence your users.



Every design must have a purpose.

The purposes and intentions of a design interact with the characteristics and needs of a user. Every user needs to be able to access information clearly, and this communication is the very foundation of design.

User Experience Design

Visual design is a component of the discipline of user experience design. User experience design concerns itself with anything relating to a user's interaction with a product. User experience design attempts to make products memorable and easy to use and incorporates a number of different disciplines (such as interaction design, human-computer interaction, information architecture, cognitive psychology, graphic design and more) , including usability.

Great visual design depends upon
great user experience design.

Concept Development

1. Define the problem
2. Spontaneous Trials
3. Research
4. Brainstorming
5. Refine
6. Resolution

There are many different theories on how to come up with creative ideas. The two main ideas are: Either you have it or you don't, and that there is a scientific step-by-step method that anyone can learn. I believe in the latter. I believe that we are all creative at heart, while it comes naturally as a child, somehow a lot of people lose it, and therefore need to learn to redevelop this kind of thinking. There are six steps in the process of developing creative ideas: The more you know about the subject of the matter and the more you do this the easier and quicker the process becomes. For example, if you are working on a project for a client who you've been working with for, say, 10 years. You have probably already done so much research that not much more will be needed. And if the client already knows how to fill out a design brief and is good at defining the problem, there are chances that you can just skip straight to step 4. For the time being I will pretend you have never done this before and go through each step in detail for you.

1. Definition/Recognition of the Problem. This is probably the most important part of the process. Not know what is needed will always lead to certain failure. In this step you need to answer the following questions with as much detail as possible: What are the objectives/requirements of the project? How do these relate to the company positioning? Define of how achievement and goals will be measured. Define budgets and timeframe Define, characterize and prioritize the target audience? (Keep in mind that it is impossible sell to everyone) Are there stylistic preferences? (Pre-existing brand image). Explain internal approval process.

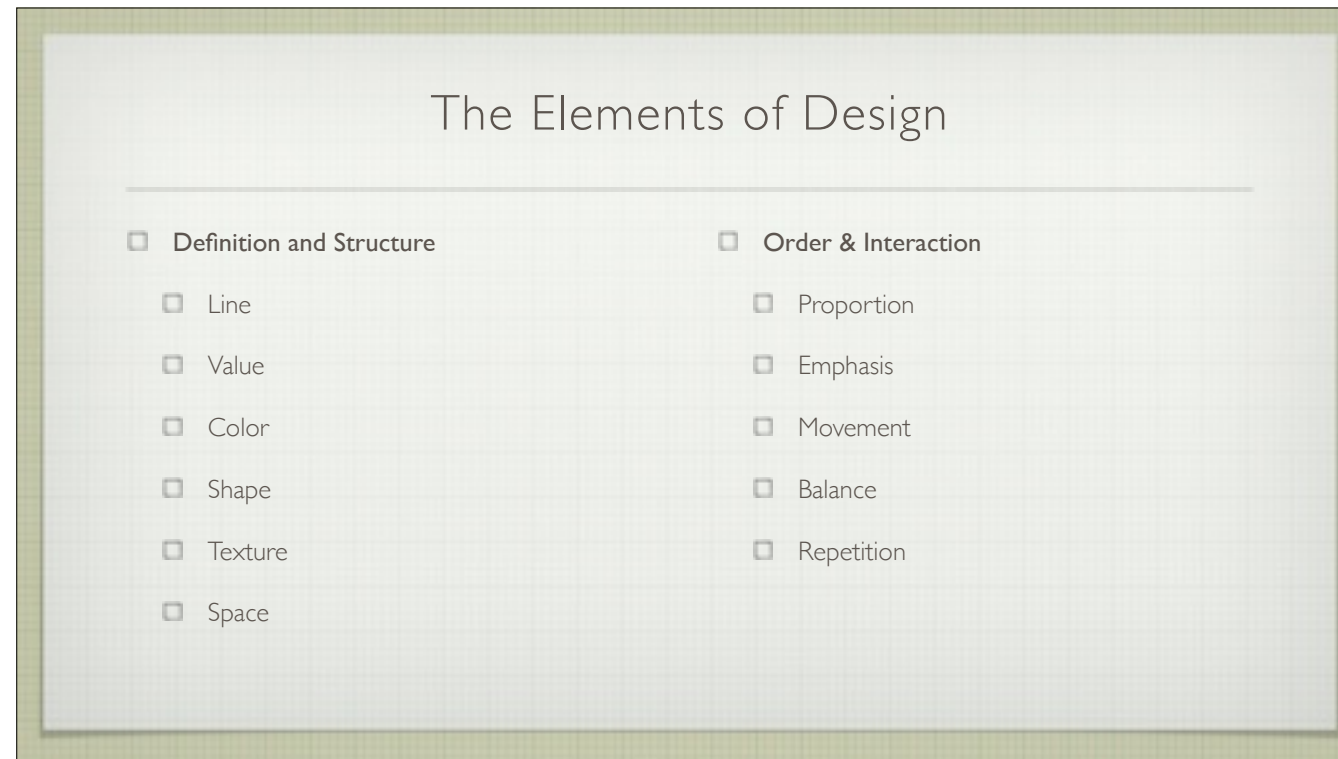
2. Spontaneous Trials - in this step you need to quickly jot down your initial thoughts & impressions based on the answers to the questions above. These should be rapid sketches with a few words to describe your thoughts. This exercise activates the visualization of thoughts rather than detailed concentration on a single concept, which is where most people get stuck when trying to come up with a creative idea.

3. Research (text, image, sound, etc) - Back up your initial ideas with facts. Go to the library, the bookstore, search on the internet, talk to people in the industry that you are researching, create a survey. You are doing all of this to find new information that you didn't previously know. Once you have collected your information go through it again and organize it. Put the information into an outline form, categorizing the information. Write a brief based on the information you collected for your own use.

4. Brainstorming - Now that you have scientific data from your research, combine it with your initial impressions to create new conclusions. Make as many thumbnail sketches (small 2-3 inch drawings with pencil on paper) as you can of a variety of these combinations. Try it larger, Try it smaller, Repeat it, make it the only image, Make it black & white, make it one color, make it two color, make it full color, Screen the type, Screen the background, Shadow it, Crop it, Outline it, Change the type style, Look at it in a mirror, look at it upside down, look at it upside down and in the mirror, Make it elegant, Make it bold, Fill it, Use more white space, Use straight lines, use hand drawn lines, use thin lines, use thick lines, Use borders, Bleed it, Reverse it, Emphasize it, Extend it, Condense it, Use illustrations, Use photos, Use symbols/icons, emphasize the type, cut it up and rearrange it, try it flat, try it three dimensional, try a texture, try a pattern, connect them, overlap them, space them, make them tight, do it freehand, try one you know no one will like, redo the one you know they will, try something far out, be conservative, be formal, be wild, be funny, be serious, be weird, be ugly, be pretty. Analyze your new combinations to see which directions you would like to follow. Sometimes new ideas spawn from a combination of two or more previous ideas. If this happens is more research needed? If so, go back to step three. Don't expect mind blowing creative insight on the first round. Sometimes it is best to back burner the project at this time and go to the movies. Distracting your conscious mind from the task at hand allows your subconscious to work on it for a while. Carry a notebook with you wherever you go. You never know when insight will strike. If you don't have a means to write it down immediately, it may be lost forever. Believe me, this has happened to me many times.

5. Refine - Once you have a few ideas that you really like, tighten them up. Start working on the visual and verbal content. Think about what you really need to show or say and make decisions involving visual relationships, materials, etc.

6. Resolution - When you finally got it narrowed down to the one that both you and the client love it is time to production the final piece.



To become a good designer there are two main areas you need to focus on, one is understanding the physical properties of your materials, the second is understanding how to use your materials effectively.

Definition & Structure

When you build a house there are basic materials that you need in order to complete the project. The basic support structure, fastening materials, roofing materials, paneling, etc. Inside each category there are a multitude of options (ie; your support structure could be aluminum or wood 2×4s, I-beams, bricks, cement and re-bar, etc.).

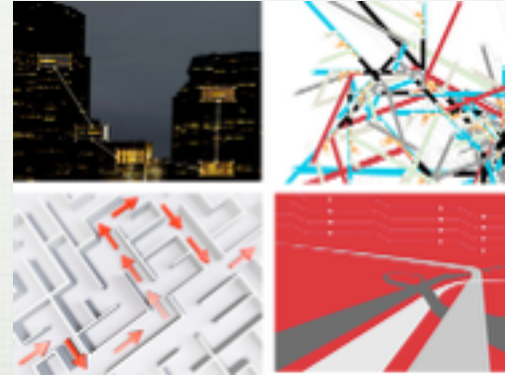
Design is no different. In design we believe that there are 6 major categories of materials that can be used when developing your final piece. These categories are: Line, Value, Color, Shape, Texture, and Space. When you understand the categories you will have an easier time identifying the choices you have within each.

Order & Interaction

The process of designing is the ability to control the interaction of elements within a defined space. Understanding the principles of how to organize elements within this space is the second step to becoming a good designer. A single image within a single defined space exerts a certain amount of independent force. It instantly creates positive and negative space. It defines both; what it is, and what it is not. The designers goal is to achieve an aesthetic order within the space that makes visual sense for the overall goal of the piece. The more elements you introduce the more difficult this task becomes. There are five visual conditions that an artist needs to be aware of when designing, making sure that the proper amount of each (or lack of) is not only appropriate, but also contributes to the meaning of the piece.

Definition & Structure: Line

- ❑ Records movement
- ❑ Creates Space & Shape
- ❑ Direction conveys ideas
 - ❑ Horizontal: calm
 - ❑ Vertical: potential
 - ❑ Diagonal: movement



Line records movement and creates space and shape (width and length), but not depth. A line's direction can convey a mood: Horizontal: calm (sunset), Vertical: potential (skyscrapers), Diagonal: movement & vitality.

Definition & Structure: Value

- Relative lightness / darkness



Value is the overall relative lightness and darkness.

Definition & Structure: Color

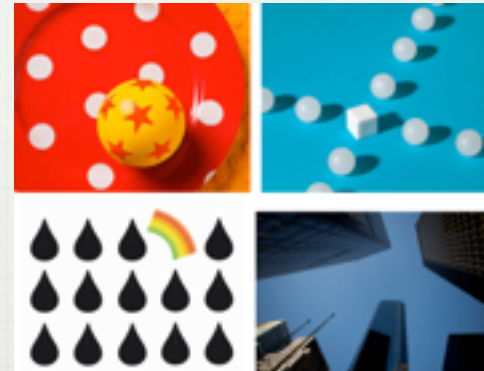
- ❑ Most complex
- ❑ Color Theory
- ❑ Color Schemes
- ❑ Human response to color



Color is the most complex piece of the designer's visual vocabulary. A designer needs to understand the human response to color. Color Theory starts with the three primary colors (red, yellow, blue). By mixing equal amounts of the primary colors our net result is what we call the secondary colors (orange, green, purple). And without getting too much deeper one more stage of mixing (equal amounts a primary and an adjoining secondary color creates the tertiary colors (red-orange, blue-green, etc). While when we select our color palette for our design projects we can choose any number of colors, we quickly learn that not all colors are harmonious.

Definition & Structure: Shape

- ❑ Closed two dimensional image
- ❑ Negative space creates shapes



A shape is a closed two-dimensional figure described by an edge.
Negative Shape: The area not used by the subject or the space between shapes.

Definition & Structure: Texture

- ☐ Surface quality
- ☐ Tactile or visual
- ☐ Simulated
- ☐ Actual
- ☐ Invented



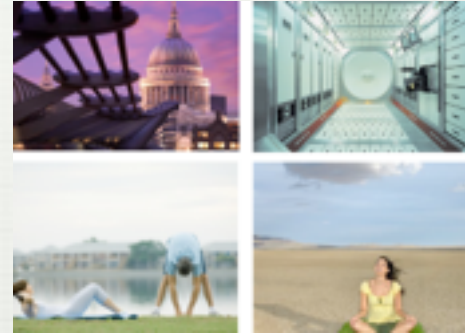
Texture is defined by the surface quality of an object. It can be tactile, visual, or both.

The three main approaches to the creative use of texture:

- Simulated – rendering of real textures (simulated wood grain)
- Actual – the physical piece (a piece of wood)
- Invented – man-made non-representational

Definition & Structure: Space

- ☐ Illusion of depth
- ☐ Size and location of objects
- ☐ Overlapping images
- ☐ Detail
- ☐ Linear perspective

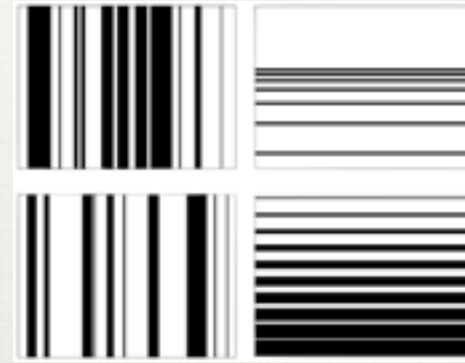


Space is the illusion of depth (3d in a 2d format).

- Size and Vertical Location – smaller objects appear to be farther away than larger objects
- Overlapping – obscured objects appear to be farther back
- Detail – atmospheric objects that are farther away appear to have less contrast, foreground will be clear and distinct
- Linear Perspective – all lines converge on a common horizon point (vanishing point)

Order & Interaction: Proportion

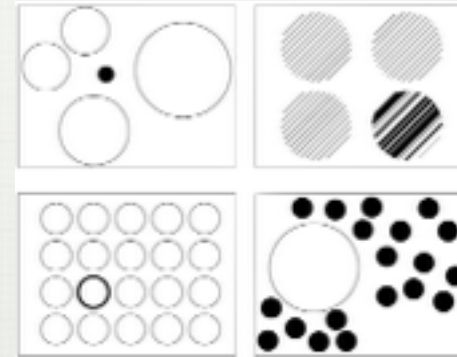
Visual size ratios



Proportion refers to size relationships. The relative visual ratios can be compared within one image or between multiple images through contrasting line, shape, color, and size and the amount of each. Some artists use 'correct' proportions in order to depict realism while others use exaggerated proportions in order to express moods and feelings.

Order & Interaction: Emphasis

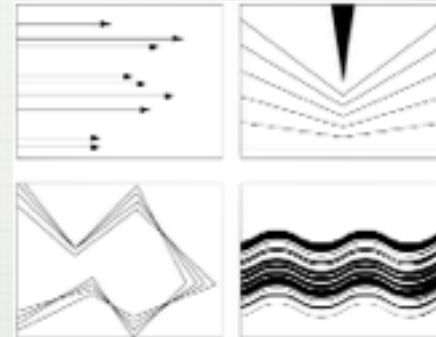
- ☐ Selective Stress
- ☐ Focal Point
- ☐ Contrast
- ☐ Isolation
- ☐ Location
- ☐ Convergence



Emphasis is the creation of visual importance through the use of selective stress. Through the use of emphasis a designer can cause one element or area of a piece to be the most important part of the page. This point is usually called the 'focal point'. By using contrasting color, size, texture, etc., a designer can use emphasis to draw a viewers eye to the focal point of the piece. Contrast, isolation, location, convergence and the unusual can all be used to create emphasis.

Order & Interaction: Movement

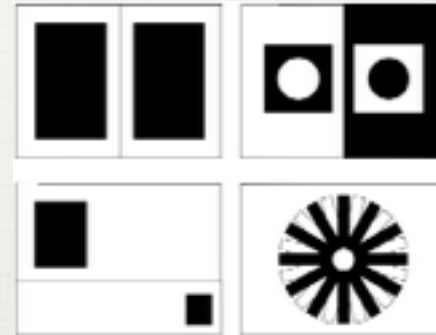
- ▣ The way the eye travels on the piece
- ▣ Fluid
- ▣ Sequential



Movement describes the way the eye travels on a piece. The sequence in which the viewer sees the parts of a work of art and the relative importance of each is controlled by emphasis.

Order & Interaction: Balance

- ☐ Formal / Symmetrical Equilibrium
- ☐ Informal / Asymmetrical
- ☐ Radial

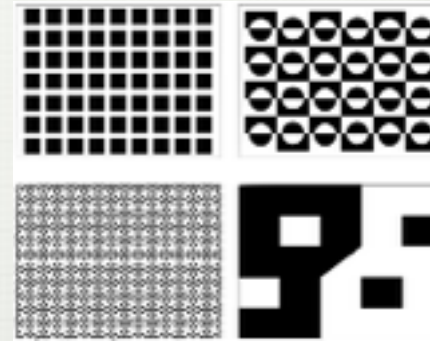


Artists use balance to achieve different expressive qualities. Balance can be affected by placement of objects, use of colour, direction of line, use of pattern, etc. Some artists intentionally create visually unbalanced works to evoke a specific emotion. There are three different types of balance:

- Formal/Symmetrical Equilibrium – one half mirrors the other
- Informal/Asymmetrical – Visual weight is the same on opposing side but they are not identical in layout
- Radial – Parts grow outward from the center (spider webs, flowers, bicycle spokes, snowflakes)

Order & Interaction: Repetition

- Simple Regularity
- Alternation
- Inversion



Repetition develops a rhythm within the piece. Through repetition, similarities in a work are accented to create an uncomplicated, uniform appearance through organization of images, colour (monochromatic or analogous), shape (repetition of related shapes) and space (equal space between objects). Note: Some works are interesting because of the artist's deliberate creation of a chaotic effect.

- Simple Regularity – consistent shapes and intervals (picket fence)
- Alternation – the repetition of two images (circle, square)
- Inversion – repetition where the position of the unit is reversed or turned upside down

Reference

- Review Lupton's *Graphic Design: The New Basics*
<http://site.ebrary.com.ezproxy2.library.drexel.edu/lib/drexel/docDetail.action?docID=10343588>