GRA 202
LECTURE #1

Introduction & The Graphic Design Process

The Design Process is mainly a cycle of these steps:

1. **Planning**
2. **Design**
3. **Development**
4. **Feedback**

- **The GD (Graphic Design) process is how you work to get to some design "solution".**

Design usually solves a problem…problems which can range from

- Must save money
- Must save environment
- Must make you want to buy something...

THE GCM GDP (Graphic Design Process)

• What do you do when you are working?
• What steps do you take
• Is there room for improvement?
• Were you missing steps?

DESIGN BRIEF

- The purpose is to get everyone on the same page and try to give the designer a point of reference.
- A good brief contains:

• Corporate profile
• Background with market position, situation, and communication
• "The message"
• Target market
• Objectives
• Budget
• Schedule

DESIGN AND CROWDSOURCING

Crowdsourcing is when you ask a question of the "crowd".

- Client posts job> designers respond with solution>client picks the winning design
- Sometimes referred to as spec work. (Speculative)
- Getting to see the end result for free

- Good for client because they get ideas/ But designer does not get paid
- Spec Work – is working without pay, so giving the client an option.

Examples of crowd sourcing:
• Designcrowd.com
• 99designs.com
• shopfordesigns.com

Then there are communities like:
Threadless.com
Behance.net
Carbonmade.com

LAB #1

- Illustrator helps create vector artwork
- Art boards are workspaces that contain your artwork and you can have as many as 100 art boards.
- When referring to spacing in Illustrator, when are talking about between art-boards.
- The black line around each art board is called a Trim Size
- The red line “ “ is called a Bleed
- When you click Command + R = Ruler comes out
- You can press the space bar to navigate around the screen

LECTURE #2

The Elements of Graphic Design - Including Point, Line & Plane

ELEMENTS OF GRAPHIC DESIGN:

- Line
- Shape
- Colour
- Size
- Texture
- Value

➢ Graphic designers use type to communicate a message, or line to create movement, or colour to create mood, etc.

- Stuff = elements of design (building blocks)
- Rules = principles of design

Element of graphic design: (DEFINITION)

- The design component or content of the design
- They can be tangible or work to embellish and define the tangible

❖ **Physical elements =** physically defined presence
❖ **Conditional elements =** used to define the physical
❖ **Ex:** That shape is yellow.

Physical	Conditional
• Point	• Value
• Space	• Volume
• Text	• Colour
• Line	• Size
• Plane/Shape	
• Type	

➢ Whitespace is another example of an element of graphic design

LUPTON'S DESIGN ELEMENTS

- **Point:** marks a position in space, everything is made up of points
- **Line:** a connection or path of two points, can hold information (financial graph)
- **Plane:** flat surface with a width and height, shapes are planes with edges
- **& Shape**

➢ Everything is made up of point, line and plane.

PHYSICAL: POINT

- Geometrically a point is a pair of x and y coordinates
- Point has no mass
- Graphically a point is a dot that forms a visible mark Many printing process break images down into dots
- Points can be used to make a statement or just melt into the background matter

FACT BOMB:
The first website of the Internet was "http:// info.cern.ch/" launched in 1992 by Tim Berners- Lee. It is still active.

PHYSICAL: LINE

- Infinite series of points
- Width and length, but no depth Connects points and/or creates path
- The direction of a line can convey mood:
  Horizontal = calm
  Vertical = some movement
  Diagonal = lots of movement
- A line does not have to be a stroke in the strict sense
- Line of type
- An implied line as a result of the shapes around it

Line as Value

- Crosshatching creates areas of value and give an illusion of 3D

- When the line becomes thicker it turns into a **plane**
- A line is complex; it can give a mood and speed. It can have a negative or positive space.
- A plane makes up a shape

PHYSICAL: PLANE & SHAPE

- Plane: flat (2D) surface extending into width and height (line with breadth)
- Shape: enclosed object (3D) created by lines, or by color and value changes which define its edges

PHYSICAL: SPACE

- Positive/negative space
- Positive: foreground, placed by artist
- Negative: background, surrounding the positive, also called space
- Both very important

PHYSICAL: TYPE

- Unique because it consists of other graphic elements (lines, space, etc.) but also carries meaning
- Adding a new treatment to type livens the message

CONDITIONAL: COLOUR

- Science: color occurs when light in different wavelengths strikes our eyes
- Psychology: carries meaning and conveys an attitude

CONDITIONAL: VALUE

- Value refers to the relative lightness or darkness of a certain area
- Creates a 3D illusion of depth

CONDITIONAL: SIZE

- Scale and proportion are usually externally imposed
- Ex. CD package, billboard, magazine, product packaging
- Still requires consideration
- Ex. High quality products in small sizes are “precious”

CONDITIONAL: VOLUME

- The space held by a 3D object
- Less applicable to print design
- 2D: width and height
- 3D: volume and mass

Lab#2:

- **You could bring in text to Illustrator**
- **Glyphs-symbols/**
- **Command+I→ is spelling check**
- **When it is a spot colour there is a triangle at the bottom in the square box**

Lecture 3:

LECTURE #3 - RHYTHM, BALANCE & SCALE

BALANCE

- balance is sought after commodity in our culture
- visual balance occurs when elements are distributed evenly or proportionally in space
- counterpoint is used to anchor big/small or light/dark elements
- there are different types of balance > most common way to describe it is symmetrical or asymmetrical

RHYTHM

- a strong regular repeated pattern
- speech, music, dance use rhythm to express form over time
- graphic designers use it to have duration and sequence
- patter has unbroken repetition
- most designs punctuate with change and variation **> ex. Books have tonal variation but maintain overall structural unity**

RHYTHM & BALANCE

- rhythm and balance work togehter
- repetition and change awaken visual form > repeat the elements for consistency, vary size and intensity to create surprise
- focal points carry a viewers eye across the page
- grid creates progression of pages

SYMMETRY

- white space in a symmetrical design is passive
- three types of symmetrical design: bilateral, rotational, crystallographic
- can sometimes be a combination of types of symmetrical design

FACT BOMB
PANTONE Number for Tiffany's Blue is PMS 1837.
Based on the year the company was founded.

SCALE

-increasingly we are designing for multiple media and multiple scales
- screen is different than poster is different than side of a bus is different than a business card
- sometimes you know this in advance
- other times you have to re-purpose the designs
- Objective: literal dimensions of a physical object and/pr a correlation between a representation and the real thing it depicts
- Subjective: one's impression of an objects size

- Scale can depend on context - scale is relative
- contrast in scale can imply: motion, depth, express a difference in importance
- Varying scale can introduce some tensin and make a design more dynamic
- Small shapes appear to recede
- large shapes appear to move forward
- you can imply scale because it is relative
- to scale is to change the dimension of an object
- scaling can change the meaning and impact of an element
- scaling something disproportionally can break it

Extra Facts:

- Symmetry – Predictable, stable, same on both sides
- Bilateral- Same one side and other
- Rotational – there is a center point that is the core, everything is moving except the core and everything is coming from the core asymmetrical
- Crystallographic – allover pattern evenly distributed on a page.
- Scale can be "dynamic"/ is relative

Lab#3:

- Brushes allow you to stylize appearance of path
- Anything that creates a path can be come a brush
- Scatter brush, creates individual image along a path
- Symbols: A piece of vector art that when applied to a given document can be linked back. → You can make vector changes to a symbol

LECTURE #4
TEXTURE & COLOUR

TEXTURE
- Surface quality of an object
- tactile impressions on a 2D picture
- physical: relating to the substrate
- virtual: optical representations
- textures can be in harmony or in contrast to one another
- in design, texture can be used to add meaning and create interest to draw the viewer in

COLOUR
- from color as science: optics, physics, chemistry
- from colour as an art: emotion, aesthetic, culture

COLOUR THEORY
- the study of colour mixing and colour impact
- colour is different wavelength of visible light
- how it works: red wavelength relflected off red ball, all others absorbed
- visible spectrum: R O Y G B I V

ADDITIVE COLOUR SYSTEM
- system of white light > RGB added together to create white
- the way in which your TV works
- the medium is projected light

SUBTRACTIVE COLOUR SYSTEM
- system of colour pigments > CMYK added together to make black
- mixing 2 colours changes the wavelength to produce a new colour

ADDITIVE & SUBTRACTIVE
- the two systems work together
- any 2 subtractive make an additive and vice versa

GOETHE'S COLOUR WHEEL
- created by Johann Wolfgang von Goethe
- this is the one from grade school
- primary colours are red, blue, yellow > very close to CMYK, but not best for colour mixing
- great for understanding colour relationships > what looks good together

COLOUR MEMORY
- the human brain has a very hard time remembering colours
- this is why we need matching systems, samples etc

COLOUR CHARACTERISTICS

1. Hue: the unique characteristic we use to distinguish colour
2. Saturation: purity of the colour in relation to its grey content
3. Value/ Brightness: lightness or darkness of a colour
4. Tint: addition of white to a pure hue
5. Shade: addition of black to a pure hue
6. Tone: addition of grey to a pure hue

THEORY OF INTERACTION

Two theories which identify how designers see/use colour

1. Colour and Contrast (Itten)
2. Colour Interaction (Albers)

COLOUR & CONTRAST

Seven contrasts that effect colour choices:
Value, Hue, Saturation, Complement, Temperature, Size, Simultaneous contrast

- value = difference in contrast > use of black and white, or black and yellow; great for signs, bad for reading
- hue = the use of various colours to make items look different
- saturation = the use of colours with different levels of saturation, more = appear closer, less = appear further
- complement = vividly opposite colours that bring out each other
- temperature = colours comparative to temp in nature. ex. fire is red vs grass is green, hot vs cool, warm = advance, cold = recede
- size = some colour combinations make elements look bigger
- simultaneous contrast = the eye's search for colour complements, the effect of colour "burning" onto your retinas

COLOUR INTERACTION

- the theory that colours look differently depending on which colours surround them
- ex. placing an element in a lighter background makes it look lighter

COLOUR: PSYCHOLOGY

- affective nature of colour, how it makes us feel
- colour is culturally symbolic

COLOUR: SYMBOLISM

- **RED:** China = goodluck, India = Purity, South Africa = Mourning, Western = excitement, danger love passion
  Red symbolizes the vital force, energy, passion, courage. Associated with leadership, power, wll and the the body.
- **ORANGE** symbolizes the socail force, emotions, attractiveness, joy and independance. Ireland = Religious, Wester = Halloween,creativity, autumn

- **YELLOW:** China = nourishing, Egypt = Mourning, Japan = Courage, Western = Hope, Cowardice.
  Yellow symbolizes the mental force, clarity, perception, understanding, and wisdom.
- The colours **PURPLE** and **VIOLET** often symbolize the creative force, beauty, inspiration and artistry.
- **GREEN** symbolizes the balancing forces, peace, compasson, and calms the energies.
- **BLUE** symbolizes the communicative forces, speech, messages and ideas.
- **BLACK** symbolizes death & evil in western culture, and youth (male) in China.
- WHITE in western culture symbolizes peace marriage purity, and in Eastern it is death and funerals.

COLOUR: EMOTIONAL QUALITIES

- warm colours associated with feeling of warmth, advance visually and are often eye catching
- cool colours associated with feeling coolness, recede visually and often work well as background

COLOUR RELATIONSHIPS

- Momochromatic > shares of any single colour on a colour wheel
- Complementary > opposite on colour wheel, vibrant due to high contrast
- Split Complementary > three colours principle colour and the two colours next to the unselected complementary
- Triad > three colours equidistant on the wheel, primary colours are triads, high contrast and visial tension
- Analogous > two colours on either side of the principle colour, harmonious
- Near Complements > Principle colour and colour adjacent to the complementary colour
- Double Complements > two adjacent colours and their complements
- Pentagram > 5 colours equidistant from each other
- Tetrad > four colours equidistance on the colour wheel

Extra Facts- Lecture #4:

- Ishihara → Colour deficit
- Typeface has texture
- Textured logotypes
- By putting different textures near each other, it brings out the other.
- Concrete texture has been scratched
- Texture can be both physical and virtual
- Cone in eye receives colour
- Metamerism - The concept/illusion of a colour looking different under different light sources

- Primary Colours – Blue, Yellow, Red – Cannot be created by mixing with other colours
- Printing inks are transparent in nature
- Secondary colours – mix of primary colours
- Tertiary colours – mix of secondary colours
- Pleasing colour – has to make sense to our eyes
- Accurate colour- Very specific. Brand colour
- Saturation: the brightness or darkness of the colour
- The more the colours are away from the circle the more they are saturated.
- Blue and Yellow are contrast colours

Lab #4:

- Live trace – turning into vector image

LECTURE #5
FIGURE/GROUND & FRAMING

FIGURE/GROUND
- Figure is always seen in relation to what surrounds it > a black shape on a black background is not visible, disappears with our
separation and contrast
- People are used to treating the background pasisvely
- designers must seek to use figure/ground relationships> stable, reversible, ambiguous

USE OF SPACE
- it must be obvious to the reader that the designer has used the white space
- the white is as interesting as the black
- using white space as only a form of artistic expression undermines the reader and credibility of the message
- there should be an advantage to the use of white space

ACTIVATING THE BACKGROUND
- using partial silhouettes
- putting items in the martins
- changing the symmetry
- the form of an object is not more important than the form of the space surrounding it

FRAMING
- in politics framing is skewing interpretation
- in modern design we try to eliminate frames (full bleed images
- billboards are framed by their landscape
- packages by their retail surrounding
- frames contain the image to make it more visible
- frames are subservient to the content but important for understanding it
- part of the fundamental architecture of graphic design

RULE OF THIRDS
- rules of thirds divides the page into 9 squares
- 4 points of intersection are very powerful

CROPPING
- cropping alters the edges of an illustration / photo
- changing the scale of elements in relation to the picture
- can alter the meaning
- cropping can help you discover new photos within photos

MARGINS & BLEEDS

- wider margins call our attention to the object
- narrow margins make the content seem larger
- margins can contain information such as page numbers and header info
- Bleed: when an image runs off a page

FRAMING IMAGE & TEXT

- placing text over an image make it difficult to read
- text on a photo can also change the images meaning and vice versa

BOARDERS

- a boarder marks the edge of a territory
- naturally appears when an image ends
- can help define low contrast image
- graphic designers decide if the boarder should help the content blend into the background or sharply stand out

Lecture #5:

- Foreground is Figure, Background is ground
- 3 Types of Figure/ground:
    - Stable – distinct foreground and background
    - Reversible – interchangeable
    - Ambiguous – takes a reader a while to find the focus, scattered no focus, no dominance
- Framing – cropping boarders, margins and captions
- Border – when the foreground becomes the background
- Figure is more important than ground
- What can wide margins do for an image: → Call our attention to the object
- Putting items in the margins of a document is a way to activate the background
- The rule of thirds is based on 4 points of intersection

LECTURE #6 - PACKAGING DESIGN

TYPES OF PACKAGES

-Primary Packaging: holds the product directly, usually smallest unity of packaging
- Secondary Packaging: holds groups of primary packages together
- Tertiary Packaging: Bulk handing and warehouse storage
- categorize by what package looks like
- categorize by material used

FUNCTIONS OF A PACKAGE

- protect, contain, identify, transport, storage, printed information
- Protect: product must be safe inside the package, fragile products have more demands, protection against climate
- Contain: keep the product together, prevent spillage
- Identify: the big picture, last chance at advertising, opportunity to link print to digital
- Transport: easy transport/moving/lifting, space between packages should be minimized
- Stacking/Storage: shelving
- Printed Information: the details, include ingredients offers address contact etc , legal regulations to provide certain information

PACKAGING AS MARKETING VEHICLE

- 80 percent of all purchasing decisions are made in store
- Consider: Innovation, Visibility, Content, Appeal

BARCODES

- visible / easy to scan
- Colour contrast matters
- 3/32" of no colour area around the barcode
- bar codes are made by a program as an EPS file
- test before going to press

SUSTAINABILITY

- beneficial, safe, healthy for people through its lifecycle
- meets market criteria for performance and cost
- is sources manufactured transported and recycled using renewable energy
- optimizes use of renewable or recycled source materials
- is manufactured using clean production technologies and best practices
- made from materials healthy in all probable end of life scenarios
- is effective recovered and utilized in biological or industrial closed loop cycles

Lecture #6:

- Touch points → marketing, legal, prepress, plate room, client
- Structural designer, lawyer (legal, Graphic Designer)
- One product not on store shelf - $35 000 dollars when not being sold
- Retail ready packaging, easier
- Blister pack- like gum, prevent contamination, easy, portioned
- Clamshells – strawberries and fruits
- Tictropack – paper foil board, mid-thin plastics, inside aluminum foil
- ^ (Brand name) 1963, to hold milk.
- Corrugate – cardboard box, flute- to keep strong and light
- Fact Bomb: 1856 England, they used corrugate to make tall hat stand
- Aluminum is light, cheap, does not rust, recyclable
- Biomemicry – taking something from nature and using it everyday

GRA 202 - LECTURE #8

Hierarchy, Layers & Transparency

- OLIVER JEFFERS IS A PICTURE BOOK MAKER
- HIERARCHY: Design is the conscious effort to impose a meaningful order - Victor Papanek

CHAIN OF THOUGHT

• Repeated design elements must be findable like light switches in a house
• We need visual consistency through typographic style, horizontal grid use, column structure and margins
• When you design it should include the order in which you would like things to be read
• People can follow a chain, not multiple thoughts at once
• This is why grids and hierarchy are so important

HIERARCHY

• A table of contents is an example of a hierarchical structure
• When it is well organized it allows the reader to see the flow of the book
• When well arranged it gives an impression of the book and is easy to memorize
• Uses alignment, leading, indents and type size to denote order and importance
• Hierarchy does not need to be static
• Changing the angle of text for example, was used by constructivists to infuse life into a design

3D, WEB & DIMENSIONAL HIERARCHY

• 3D packages have the added challenge of interacting with the environment
• In the browser we typically have more than one hierarchy
• Area that stays the same and an area that changes
• Data clouds use type size
• In a dynamic environment we can show the importance of time passing in real-time

DOMINANCE

• Dominance and hierarchy are often interchangeable
• Dominance: influence of one element over another
• Emphasis: importance of one element over another
• Simply they combine to provide a visual hierarchy
• Path of eye movement
• Ways to achieve it…
>Size, Colour, Shape, Value, Position, …
>Emphasis
- Some designs use patters or a repeated motif, but therefore lack emphasis
- Wallpaper, quilts, rugs, etc.
>Layers

LAYERS

• Layers: simultaneous, overlapping components of an image or sequence
• In the final artwork the appearance of layers typically disappears
• In offset printing we split the image into layers
• Sometimes layers are separated for effect
• You can use production layers as a special effect by shifting them out of place

CUT AND PASTE

• The concept of digital "cut" and "paste" stems from collage
• **Cubists popularized collage in the early 20th century**
• Combined bits of printed text and drawings
• Exposing layers in this way creates depth
• Changing the way an image is layered can change the style and meaning

SPATIAL LAYERS

• Layered objects exist in our visual environment
• The bookcase against a wall
• We can combine these spatial environments with flat surfaces to create surprising combinations of depth

DATA LAYERS

• Maps are a great example of using layers to communicate a lot of information visually

TEMPORAL LAYERS

• In animation you use layers to compose multiple moving characters
• In music scores layers are used to indicate various instruments
• News screens use inset panels and text feeds to create multiple surfaces of information
>Typographic layers
>Physical, Digital, Temporal layers

- Windows: Each layer is a window through which other layers visible – Kelly Horigan
- Squares: Complete, uncut squares move in and out of the frame. – Doug Hucker.

TRANSPARENCY

• Surfaces in the physical world are more or less transparent or opaque
• A piece of wood is 100% opaque
• A room full of air is 100% transparent or 0% opaque
• Transparency and layers are linked
• If you place a transparent shape as a background will you be able to tell that you have reduced its opacity? What do we do instead?
• Can be used to build complexity in a file
• You can use different types of transparency to create depth

PHYSICAL TRANSPARENCY

• No material is wholly transparent all of the time
• Ripples in the water or smoke in air

GRAPHIC TRANSPARENCY

• When physical effects of transparency are translated graphically
• Lines, shapes, textures and letterforms can be used
• Eg. As the threads in plaid, fabric intersect they form new colours. The vertical and horizontal lines pass through each other

FACT BOMB

Georgia got its name from the tabloid headline "Alien heads found in Georgia".

DIGITAL TRANSPARENCY

• Altering the opacity of any design element using imaging software
• This is accomplished using a mathematical algorithm that averages the image tonal values
• Images loose intensity when they are transparent
• Transparency can be used to mix elements and/or to fade in and out of image areas

TRANSPARENCY

• It is not only the opacity slider that creates digital transparency
• Some examples of treatments in Illustrator that we consider "transparent" include
• Reducing the opacity of an object
• Applying a drop shadow
• Applying a blending mode
• Feathering

DIGITAL TRANSPARENCY & PRINT OUTPUT

• In order for transparent objects to be printed they must be flattened
• Flattening divides transparent artwork into vector and raster areas
• As artwork becomes more complex (mixing images, vectors, type, spot colors, overprinting, and so on), so does the flattening and its results

FLATTENING

• When a file is rasterized is it more editable or less editable?
• Photoshop, Illustrator, PDF (1.4 and up) and Illustrator EPS files retain transparency
• In an ideal world, we want to keep transparencies in their native format (unflattened)

TRANSPARENCY BEST PRACTICES

- Create transparencies in Photoshop
- Do not apply multiple transparencies to individual objects
- Complexity increases chance of failure
- Try to avoid combining transparencies with overprints
- Avoid using spot colours with transparencies
- They break down into CMYK when flattened

>

- Place your text as the front-most object (top layer in the stacking order)
- This avoids:
- Artifacts or stitching: white hairlines around a text box
- These lines do not print on high-end devices
- Outlining portions of the text
- Sometimes if the text is a problem we can create outlines for all of it

>

- Do not create unnecessary transparencies
- Use tints instead
- In Illustrator select the correct Transparency Flattener Presets (Edit Menu)
- High Resolution
- Use PDF/X-1a file for output but change the PDF version to 1.4 to see if the resulting PDF is more successful

GRA 202 - LECTURE #9
Modularity & Grid

- **2 Legos: 24 possible creations**
- **3 Legos: 1,060 "…"**
- **6 Legos: 102,981,500 "…"**

Module:
- Any series of standardized units for use together.
- Each of a set of standardized parts or independent units that can be used to construct a more complex structure, such as an item of furniture or a building.
- Design of components that can be assembled in a variety of ways to meet individual consumer needs.

Modularity:
Every design problem has a set of constraints:
•Design brief/specifications
•Paper size & type
•Types of elements
•Colours
•Printing process/conditions

•Modularity is a type of constraint
•A module is a fixed element within a system or structure
•A pixel builds a digital image
- Modules in this pictograms: circle, line and triangles

SYMBOL SYSTEMS:
- A symbols stands for or represents objects, functions and processes
- Typically based on geometric modules that come together

A BROADER LOOK AT MODULAR DESIGN:
- Modular products --> (Ikea, cereal and milk, tetarus)
- Modular homes --> add to your home..
- Modularity in the printing industry --> finishing equipments, adding one when needed.

KEY TAKEAWAYS:
- Modular design is the process of taking small, standardized pieces to create a unique work.
- Individual modules can be seemly simple (ie: pixel art) but can come together to create truly innovative design.
- Constraints will always be present as a designer, so embrace these constraints to foster creativity

WHAT IS A GRID?

- A grid breaks space or time into regular units
- *Grids*:
- Too much choice can be too confusing, which is why staring at a blank page is so overwhelming
- Helps designers understand interconnectedness between seemingly random parts
- Grids are another way to approach design choices
    - Breaking down into grids makes it more efficient and effective to the target audience

KEY TAKEAWAYS:

- Grids give designers a starting point, a reference point and a structured f ield within which to work.
- There is often more to a grid than meets the eye.
- Grids can (and should) be applied when designing for all applications (print & web).
- Grids encourage designers to use white space

- Flexibility = modularity & grids
- Constraint=modularity & grids

>>>CONSTRAINTS DRIVE CREATIVITY<<<<

Lecture 10 - Typography

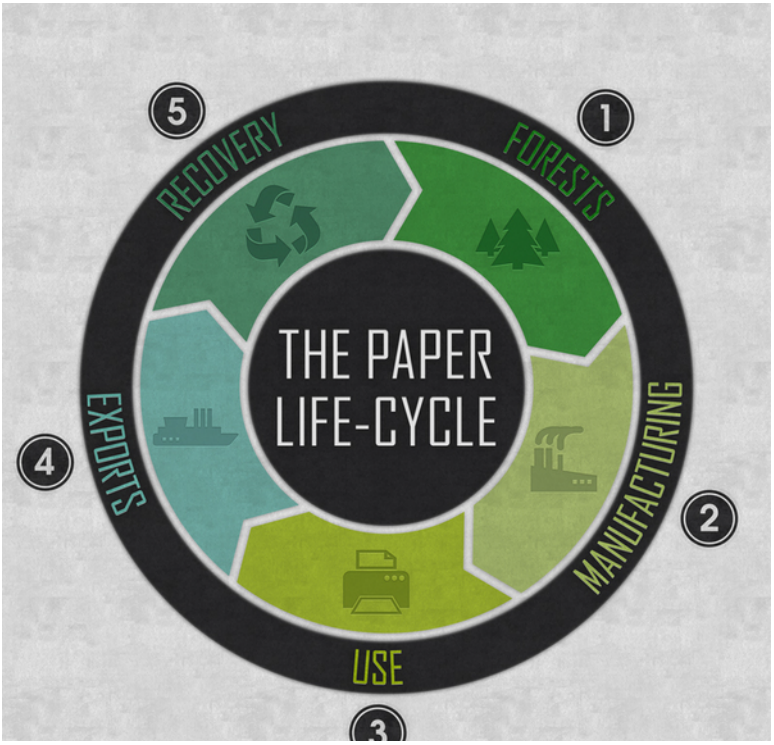
PATTERN
- Patterns are cultural.
- Pattern is al around us and they are cultural. If you break them, they are still simple shapes.

DOTS, STRIPES AND GRIDS
• Nearly all patterns arise from:
• Isolated elements
• Dot or a flower
• Linear elements
• Linear path that links together visually
• Intersection of the two
• The pattern creates a larger texture using these parts
- Dots and stripes and grid make up a pattern

PATTERNS
• Patterns require repetition
• The repetition could be regular or irregular
• The elements can also be randomized

KEY TAKEAWAYS
- Patterns are complex, but are built from dots, stripes and grids (modules).
- Patterns always incorporate repetition.

DIAGRAM
• DEF: A graphic representation of a structure, situation or process
• Human skeleton
• Company hierarchy
• Flow of ideas
• Diagrams allow us to see relationships quickly
• Diagrams add meaning to otherwise typical GD elements
• A line in a graph carries meaning



MAKING CONNECTIONS

• A network: a graph that has a set of connections among nodes or points
• There are various ways to connect the nodes in a network (this changes the resulting organization of data)
• Centralized Network: central point from which others stem
• Decentralized Network: elements radiate from a "spine"
- *Highway with exit ramps*
• Distributed Network: no centre or spine (just node to node connections)
- *Ex: Internet*

DIAGRAM AND EDITORIAL

• Diagrams within a book break up linearity
• There is an added challenge to carrying the stories over a number of pages
• Visual and verbal information is typically combined
• Textbooks and magazines do this really well

DIAGRAM

• Many information designers argue that today's charts are crowded with "extras" that cause readers to be distracted
• Cannot interpret the data
• However infographics make information fun and visually appealing

DATA VISUALIZATION AND INFOGRAPHICS

• Data visualization is the study of the visual representation of data, meaning "information which has been abstracted in some schematic form, including attributes or variables for the units of information"
• Information graphics or infographics are graphic visual representations of information, data or knowledge.
• They are sometimes called BONDS in the business world (back of the napkin diagrams)

GOOD INFOGRAPHICS

What elements make up a great infographic?

GOOD INFOGRAPHICS

1.Design: must be visually appealing and easy to read
•Capture attention and make it easy to interpret
2.Data: new and relevant sources must be used
•They require a lot of research and number finding
3.Visualization: instead of using charts and graphs, preset the information in an innovative way
4. Point of view: take a stance on something and it will have the power to persuade
• This will guide your data collection
5. Location: it should be published in a relevant location
6. Shared: people should connect with it enough that they want to share it

Lecture 11 - Typography

Time & Motion +
Creating Unity via Rules & Randomness

- KINETIC TYPOGRAPHY BEFORE COMPUTER ANIMATION: PRIMITI TOO TAA

- TIME AND MOTION

- Motion is a type of change, and change happens in time
- Can be implied (print) or literal (video/animation)
- Elements can stay still, while environments around them change
- Implied motion:
- Diagonal lines
- Cropped shapes
- Sequential time: images in a row create a story like words

- STORYBOARD

- Summarize the key movements of an animation's events
- Suggest flow and major changes of action
- They can include:
- Character details, camera angles, soundtrack, movement, special effects, timing, transitions, etc.
- Similar to creating a rough draft of GD work

ANIMATION BASICS

- Animation uses sequences of still images to create the illusion of movement
- "Persistence of Vision"
- Smallest unit in animation is a frame (still image)
- Key frames are the fixed states between movement
- Tweens fill the gap (in between)

CHANGE OVER TIME

- Animation is change over time
- Change element position OR
- Colour, size, shape or transparency
- Speed of change indicates qualities of movement
- Stop Motion Animation!

ANIMATING TYPE

- Just like other design elements however you have to pay attention to legibility and reading order
- You can fade text in or out, or create movement using other elements
- Key is not to be too slow (boring) or too fast (impossible to read)

KEY TAKEAWAYS
- Time and motion can be: implied or literal.
- The smallest unit in animation is a frame, which is a still image.
- Readability and legibility are always important (even in an animation context).

U·NI·TY - NOUN
- "…the result of bringing the elements of art into appropriate ratio between harmony and variety to give a sense of cohesiveness and completeness."

WHY IS UNITY IMPORTANT?
• Establishes and maintains consistency throughout your printed piece is essential to the success of your design
• Lack of unity means that your main message might not be evident or miss your targeted audience
• Unites the image and message

UNITY CREATES A SENSE OF ORDER
• Consistency of sizes and shapes
• Harmony of color and pattern
• Repeating the key elements, balancing them throughout the composition, and then adding a little variety so that the design has its own sense of personality
• Creates a sense of completeness
• Viewed as one piece, as a whole, and not as separate elements

GRIDS ESTABLISH RULES
• A grid is a network of lines (horizontally, vertically, angled, irregular, circular)

DIS-UNITY (VARIETY OR RANDOMNESS)

• Can be used effectively to highlight portions of a message
• Can be used as an attention-grabber and to add interest to a design
• Or if done badly, can create a sense of unease through disorder and confusion
- Unity also exists in variety
• It is not necessary for all of the elements to be identical, if they have a common quality of style
• Fashion: shape, fabric and colour identify the era and designer

TO CREATE UNITY:

1. Alignment:

• Arranging shapes so that the line or edge of one shape leads into another.
• An element placed in a composition creates an implied horizontal and vertical axis at the top, bottom, center and sides.
• Aligning other elements to the axis creates a unified visual
• Unity is provided through the use of Grids

2. Direction:

• Mixing perspective can be confusing for the viewer
• You want to watch which direction your "light " is coming from

3. Proximity:

• Group related items together
• Seen as one cohesive group
• Elements that are close together look like they belong together
• Perceived as being related
• Allows us to see a pattern
• Use a grid (the underlying structure of a page) to establish a framework for margins, columns, spacing, and proportions

4. Similarity:

• Repeat colors, shapes, values, textures, & lines to create a visual relationship between the elements
• Unifies the design because it creates consistency and wholeness

5. Continuity:

• Treats elements in the same manner
• Helps to create "family resemblances" between different forms
• Connects the elements

6. Typography:

• Use only 1 or 2 typestyles and vary size or weight for contrast throughout the publication, presentation, or web site
• Be consistent with the type font, sizes, and styles for headings, subheads, captions, headers, and footers
• Fonts: must work together with design elements
• Curvy lines with curvy fonts, rigid line with rigid fonts
• Fonts help convey/support the message

7. Colour:

• Use the same colour palette throughout
• Repeat a colour, shape, or texture in different areas throughout

• Choose visuals that share a similar color, theme, or shape
• Line up photographs and text with the same grid lines
8. Shapes & Lines:
• Are they curved and soft or hard and angular?
9. Size:
• One element is not overwhelming another to the point it's lost
10.Style:
• Overall style creates a united message
• Wedding invitations (bells, rings, brides, flowers, script style fonts)
• Style relates to the targeted audience; hip hop vs. classical music
11.Repetition/Pattern:
• Promotes unity
• Repetition of color, shape, texture or object can be used to tie a work together
12.Continuation:
• A subtle method involves continuing lines, edges or the direction of elements from one place to another
• Often used in books and magazines to tie the elements of a page together with the use of rules, and by lining up edges of copy, headlines and graphics
13.Texture:
• Similar texture (whether it be tactile or not) can establish a sense of unity

WHEN UNITY IS ATTAINED
• The individual elements with in a composition will not be competing for attention.
• The key theme will be communicated more clearly.
• The design will evoke a sense of completeness and organization.
• The viewer will perceive and receive the message clearly and without undue effort

Unity in design is achieved when all of the design principles have been correctly applied.

KEY TAKEAWAYS
- Unity helps maintain consistency throughout a printed piece.
- Disunity (or randomness) can add visual interest to a piece.
- Grids can help promote both unity and disunity depending on the context.