BTO2141 BTO2152 GRAPHICS AND ANIMATION IN EDUCATION

TUBA UGRAS (PhD)

YTU / COMPUTER EDUCATION AND INSTRUCTIONAL TECHNOLOGIES

FALL 2020

- What is Graphic Design?
 - ► Graphic Design is the <u>craft</u> of creating <u>visual content</u> to communicate messages. [ID Foundation]
 - ► Graphic Design is the <u>art</u> of <u>visual communication</u>. «Grafik tasarım, görsel bir iletişim sanatıdır.» [Emre Becer]
 - ► Graphic Design is the <u>process</u> of <u>visual communication</u> and <u>problem-solving</u> through the use of typography, photography, and illustration. [Wikipedia]

- History of Graphic Design
 - ▶ When, the first graphic design •

- History of Graphic Design
 - The term "graphic design" was coined by William Addison Dwiggins in 1922. [Paul Shaw]
 - ► The origins of graphic design can be traced from the origins of human existence...



the caves of Lascaux, around 15,000 BC



Pictographs, from 50,000 BC

Application Areas of Graphic Design

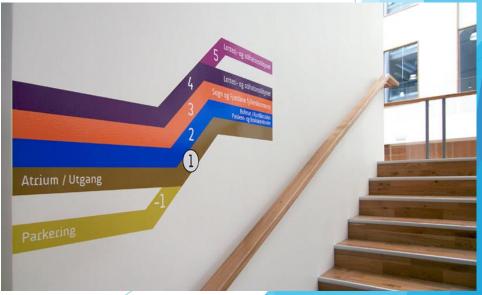
- Application Areas of Graphic Design
 - Corporate design (to design logos and branding, etc.)



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 - ► Environmental design (to design wayfinding, signage, etc.)



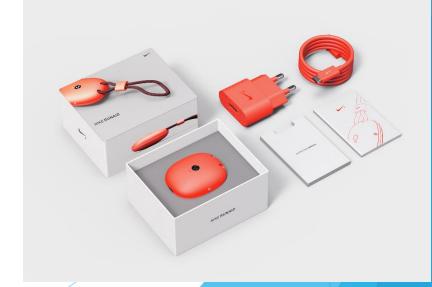
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 - Product design (to design product packaging, Instructions manuals, etc.)



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 - ► Education (to design educational materials)



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 - Advertising
 - Web design
 - Product design (to design product packaging, Instructions manuals, etc.)
 - ► Education (to design educational materials)
 - ► UI design (to design any kind of UIs)
 - etc.

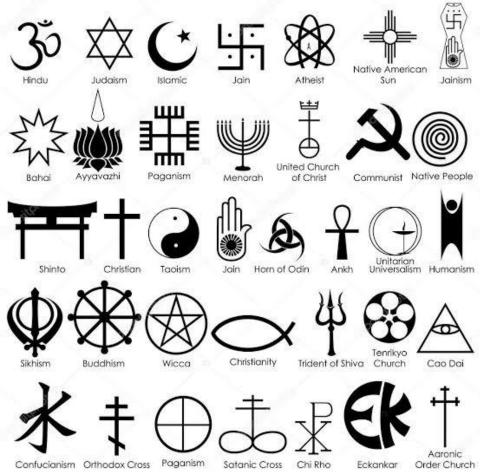


- Concepts Related to Graphic Design
 - ► Illustration



- Concepts Related to Graphic Design
 - ► Illustration
 - Symbol





- Concepts Related to Graphic Design
 - ► Illustration
 - Symbol
 - Icon



- Concepts Related to Graphic Design
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 - Symbol
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 - Logo















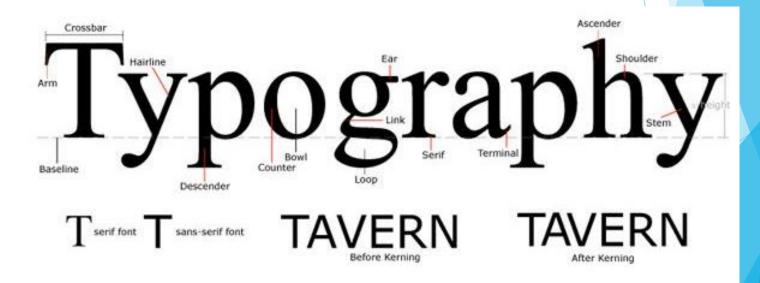




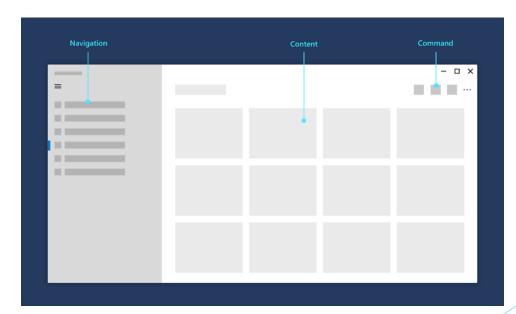
- Concepts Related to Graphic Design
 - ► Illustration
 - Symbol
 - Icon
 - Logo
 - Alphabet

A	В	C	D	E	F	G
Н	I	J	K	L	M	N
O	P	Q	R	S	T	U
V	W	X	Y	Z		

- Concepts Related to Graphic Design
 - ► Illustration
 - Symbol
 - Icon
 - Logo
 - Alphabet
 - Typography



- Concepts Related to Graphic Design
 - ► Illustration
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 - Typography
 - Page layout



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CONGRATULATIONS



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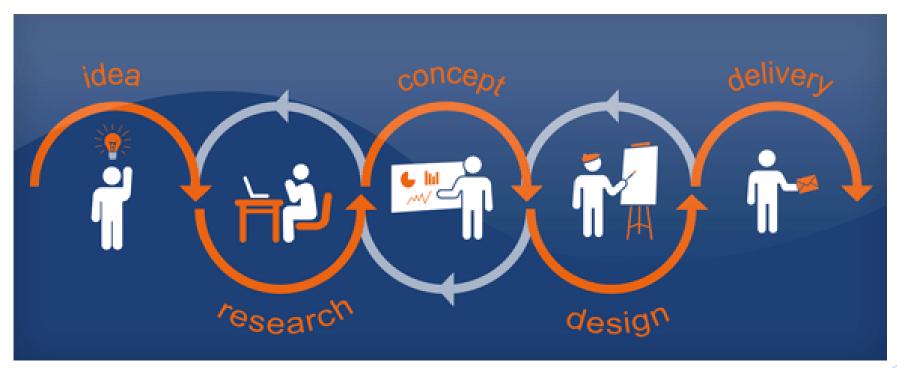
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 - Photography
 - > etc.

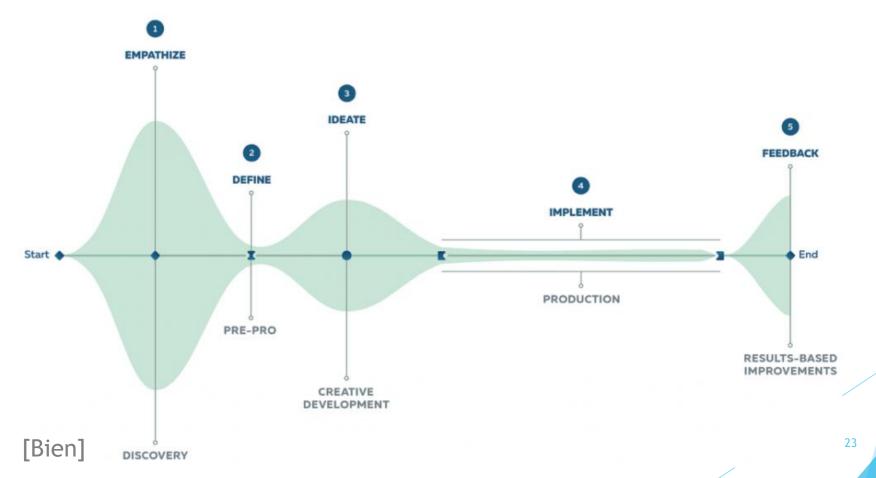


Graphic Design Process

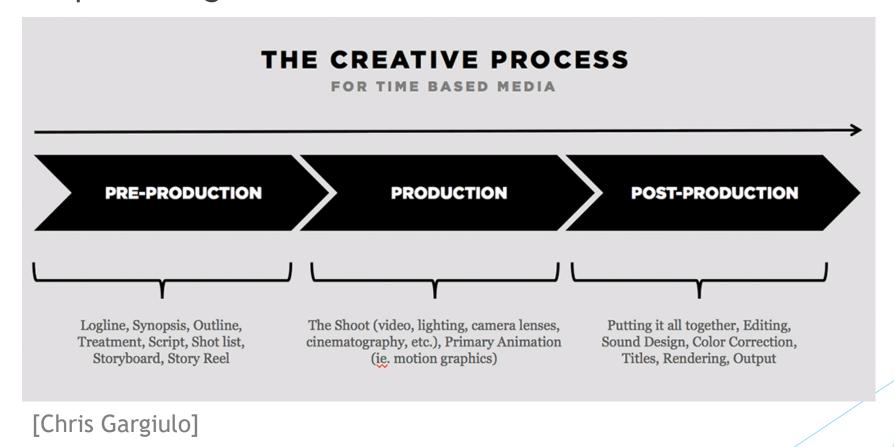


[How Do Design - James Hendriksen]

Graphic Design Process: DESIGN THINKING



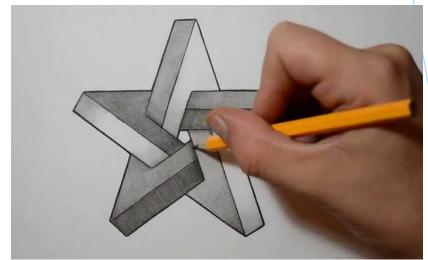
► Graphic Design Process: The Creative Process



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- Graphic Design Tools
 - What are the graphic design tools

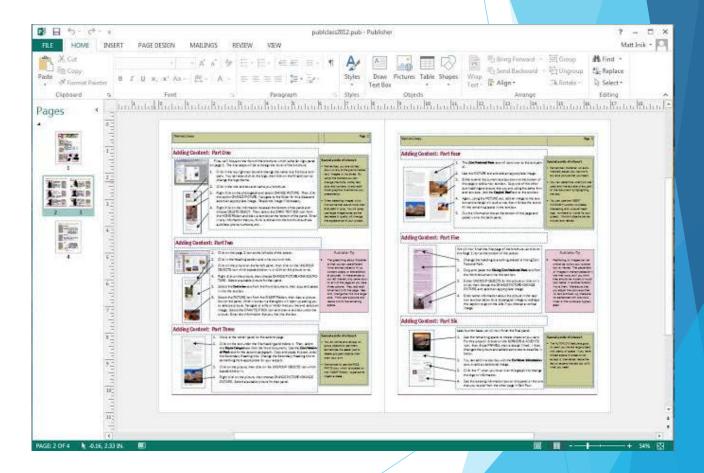
- Graphic Design Tools
 - ➤ Traditional media→ Pen, pencil, ink, crayons, paints, etc.





@tubaugras YTU CEIT Fall 2020 Graphics and Animation in Education

- Graphic Design Tools
 - ➤ Traditional media→ Pen, pencil, ink, crayons, paints, etc.
 - ➤ Traditional press media
 → Printing press,
 desktop publishing tools
 and software

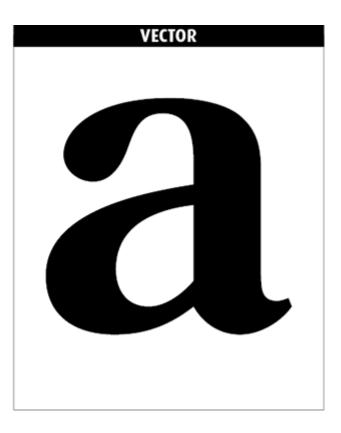


- Graphic Design Tools
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 - ▶ Digital media→ Digital publishing software



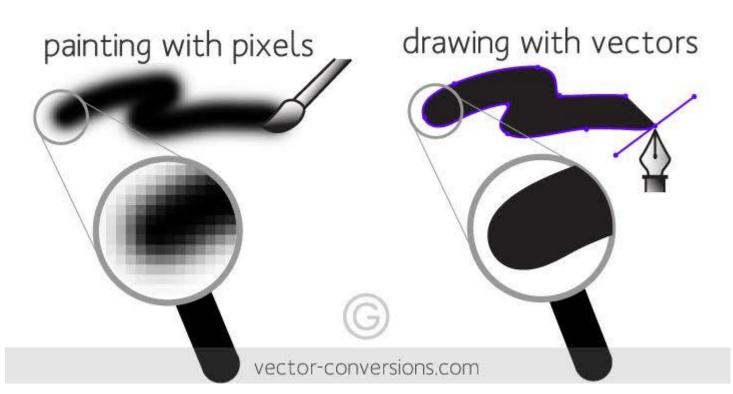
- Visual Formats
 - Pixel vs Vector



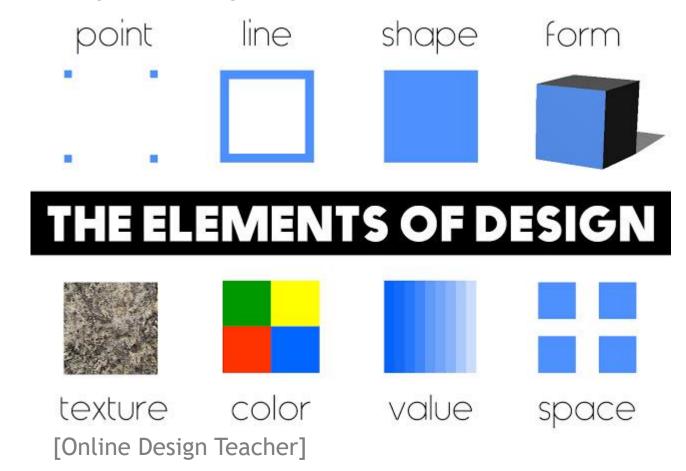


@ Graeme Cookson / Shutha.org

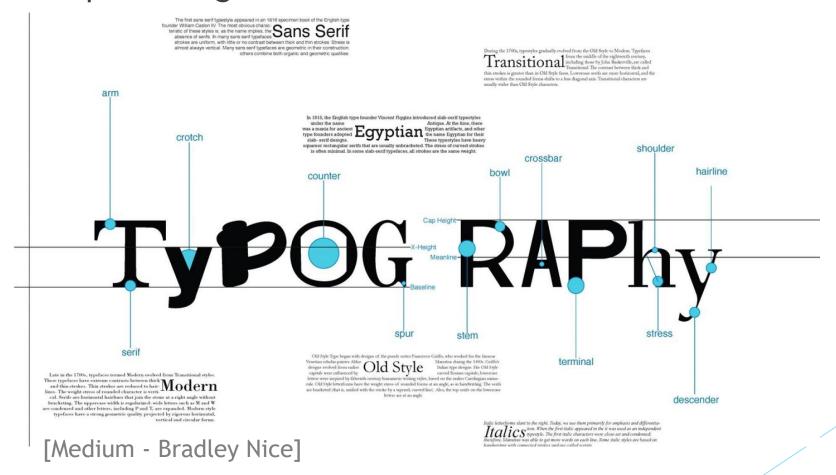
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Graphic Design Elements



Graphic Design Elements

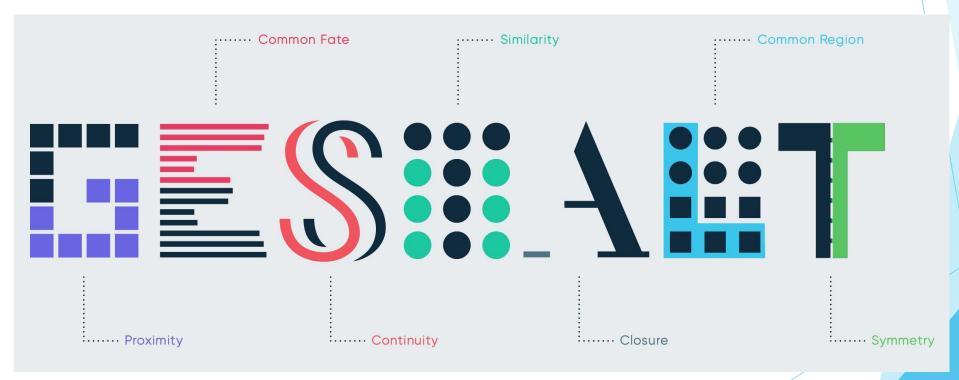


- Graphic Design Principles
 - GESTALT THEORY

"The whole is something else than the sum of its parts."

► When the human mind (perceptual system) forms a percept or "gestalt", the whole has a reality of its own, independent of the parts. [Bing Liu et. al.]

- Graphic Design Principles
 - Based on GESTALT THEORY



[Medium - Eleana Gkogka]

- Graphic Design Principles
 - Based on GESTALT THEORY

[Design Contest - Natalie Antiuk]

DESIGNING WITH GESTALT PRINCIPLES

10 primary principles underpin the practical uses of Gestalt Psychology



Combining simplicity with

How to Master Simplicity:

Know how to balance simple

shapes with visual stimulation.

Give the eye a comfortable form

that helps it interpret what it sees.

creativity can lead to stunning

Figure-Ground

People can immediately identify which element is the figure, and which is the ground. Use these two related principles to make the most

- of the figure-ground effect:
 Area The viewer's mind sees the smallest element as the figure and the larger one as the ground or background.
- Convexity Convex elements are related to figures.





Elements close to each other are perceived as part of the same group. Common Use

Case: Kerning. Proper kerning helps readers snap up each word.



Similarity

Elements that look alike are perceived as part of a group. The principle of similarity applies to:

- · Color · Shape
- Orientation

5



Common Fate

Objects that seem to be moving in the same direction are often seen as a group.



Symmetry

The principle of symmetry applies to

- · Mirrored shapes
- Balanced elements
 Parallel lines



Continuity

Objects that are plotted in a continuous pattern are grouped together by the mind. Smooth lines often make a unified figure.



Closure

The mind wants closure. A shape only needs to be implied for the mind to "fill in the gaps" and see what it wants to see





Common Region

Elements in one region are seen as one group. Badge designs are seen as unified, despite some containing text, banners, and other objects.



Connectedness

When there is a connection between elements, it is easy to see a unified

Achieve connections with:

- ArrowLines
- · llustrations (i.e. a rope)

Gestalt Theory

Humans are bombarded with countless signals day-to-day. To keep from going crazy, we unify these signals into groups. Gestalt designers are obsessed with how people put objects together in their minds.

Good designs leads people to experience the message you want to convey.

Arm yourself with the principles of Gestalt and create designs that have the impact you want.

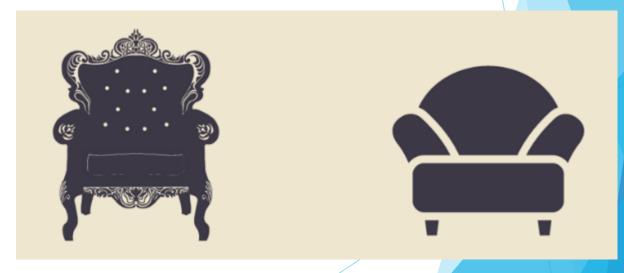
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Combining simplicity with creativity can lead to stunning creations.

How to Master Simplicity:

Know how to balance simple shapes with visual stimulation. Give the eye a comfortable form that helps it interpret what it sees.



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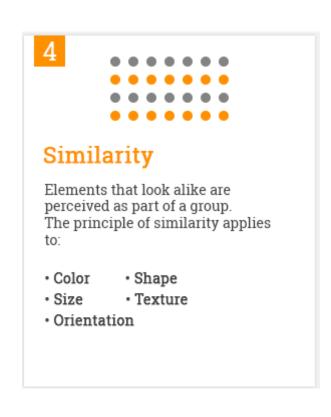
Proximity

Elements close to each other are perceived as part of the same group. Common Use Case: Kerning. Proper kerning helps

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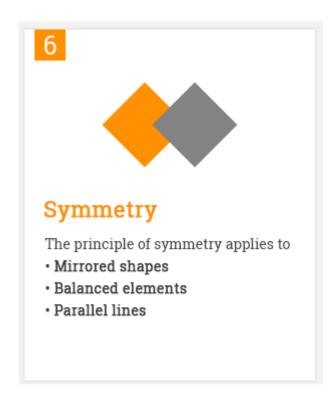
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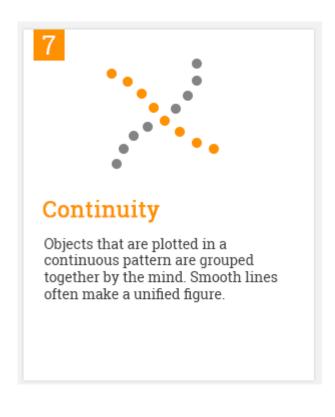


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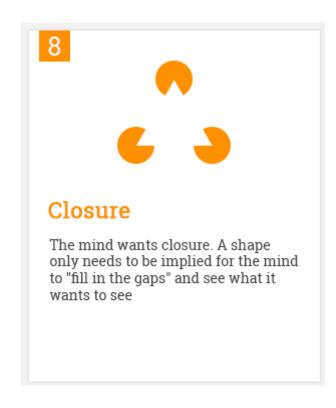


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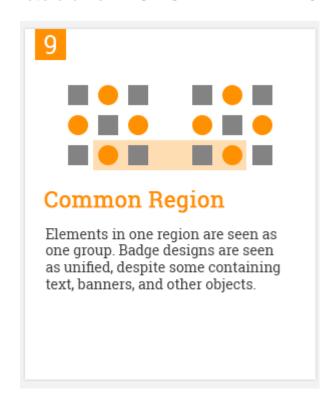


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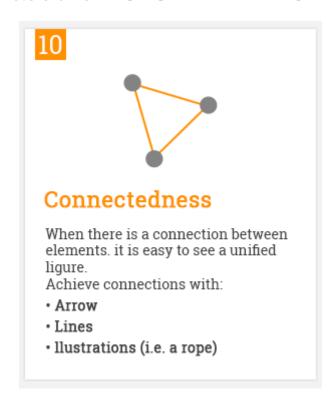


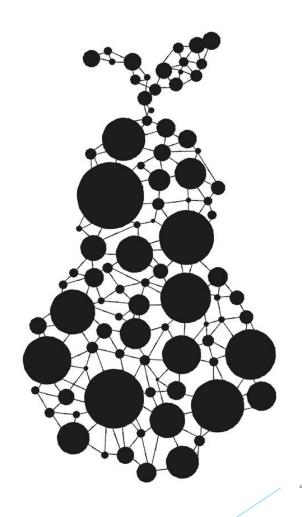
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